ENERGY LAW JOURNAL

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ARTICLES

NOTES

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The *Energy Law Journal* publishes legal, policy, and economic articles and other materials of lasting interest with significant research value on subjects dealing with the energy industries. The *Energy Law Journal* also welcomes articles and other materials on emerging issues and significant developments affecting the energy industries. Articles by members and non-members of the Energy Bar Association are welcomed. The *Journal* publishes articles and other materials of varying length that provide a full consideration of the issues and opposing viewpoints. All submissions must contain a synopsis, table of contents, and a brief biographical statement about the author(s). Style and form of citations must be in conformity with the "Blue Book," as well as the *Energy Law Journal* Style Manual posted on the Energy Bar Association website. All submissions should be sent to Harvey L. Reiter, Editor-in-Chief, *Energy Law Journal*, by mail to Stinson LLP, 1775 Pennsylvania Ave., N.W., Suite 800, Washington, D.C. 20006 or electronically to harvey.reiter@stinson.com. By submitting materials for publication in the *Energy Law Journal*, authors agree that any such materials, including articles, notes, book reviews, and committee reports, published in the *Journal* are considered "works made for hire," and authors assign all rights in and to those written works to the Energy Bar Association. The Energy Bar Association hereby grants permission for reproduction and distribution of copies of written works herein for non-commercial use, provided that: (1) copies are distributed at or below cost; (2) the notice of copyright is included on each copy (Copyright © 2020 by the Energy Bar Association); and (3) the *Energy Law Journal* and the author are clearly identified on each copy. The *Journal* is free to all members of the Energy Bar Association. Subscriptions for non-members are $35.00 per year for domestic subscriptions, $41.00 per year for Canadian subscriptions, and $47.00 per year for foreign subscriptions. Back issues are available by contacting the William S. Hein & Co. at (800) 828-7571.

The Energy Bar Association Website

The Energy Bar Association (EBA) Website is on-line on the Internet at www.eba-net.org. The Website contains a potpourri of useful information about the EBA, the Charitable Foundation of the Energy Bar Association (CFEBA), and the Foundation of the Energy Law Journal (FELJ). The latest issue and all back issues of the quarterly newsletter *EBA Update* are available for viewing or download. Videos of recent interviews with Federal Energy Regulatory Commission members are also available on the Website. The site contains summaries of recent court decisions of interest to members, under the "Court Opinion Summaries" link, as well as all issues of the ELJ.

Looking to hire someone? Looking for a new job? If so, you will want to look at the Job Bank. All you need to do is e-mail a description of your "job announcement" to admin@eba-net.org. At this time, only legal positions are posted on the Website.

Finally, the Website contains usual and customary items that an association would have. For example, there is information about membership and benefits, various directories, meetings and conference information, and a list of frequently-called numbers. Dues and conference fees may be paid online, and a constantly updated, full membership directory is available to EBA members.

Please visit www.eba-net.org.

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COMMITTEE REPORTS

Neither the reports of the Energy Bar Association Committees nor the annual review of the Canadian energy law developments are included in the print version of the Journal. Rather they are published online on the EBA's website at www.felj.org. Persons citing to the reports should use the following format: [Title of Report], 41 Energy L.J. [page number] Online (2020), [link to report]. Included in the full electronic version of the Energy Law Journal, Volume 41, No. 1, are the review of Canadian energy law developments for 2019 as well as the following reports:

Compliance and Enforcement Committee

Finance and Transactions Committee

Legislative Practice Committee

Renewable Energy Subcommittee

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ENERGY BAR ASSOCIATION
President's Award

This Award is given occasionally to an individual that has made an extraordinary contribution to the profession or the development of energy law over a long career.

2019	Robert S. Fleishman
2017	Robert R. Nordhaus
2010	Richard D. Cudahy (Judge)
2008	Richard J. Pierce, Jr.
2006	Senator Pete V. Domenici
2004	Charles B. Curtis
2002	Stephen F. Williams (Judge)
2001	Congressman John D. Dingell

ENERGY BAR ASSOCIATION
Paul E. Nordstrom Service Award

This Award was created in memory of Paul Nordstrom, a past President of the Energy Bar Association (EBA) and motivating force in the organization of the Charitable Foundation of the EBA (CFEBA). The first award was given to Paul posthumously. It is an award to honor and to recognize exemplary long-term service or a particularly significant example of public service by a current or past member to the community through the EBA, the CFEBA, or the Foundation of the Energy Law Journal. Exemplary community service outside of these organizations may also be considered as a criterion for the Award.

2019	James Curtis "Curt" Moffatt	2013	William Mogel
2018	Susan N. Kelly	2012	Freddi L. Greenberg
2017	Michael Stosser	2011	Richard Meyer
2016	Robert S. Fleishman	2010	Shelia S. Hollis
2015	A. Karen Hill	2009	Paul E. Nordstrom
2014	Paul B. Mohler		

ENERGY BAR ASSOCIATION
State Regulatory Practitioner Award

This Award recognizes innovation and superior advocacy by members of the state utility regulatory bar. The award is consistent with the State Commission Practice Committee's goal to be a resource to lawyers who focus their practice on state energy regulatory matters.

2019	H. Russell Frisby
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2010	James Van Nostrand

ENERGY BAR ASSOCIATION
Jason F. Leif Chapter Service Award

This Award was created in memory of Jason F. Leif, a past President of the Energy Bar Association (EBA), a past President of the Houston Chapter of the EBA, and a motivating force in the revitalization of the Houston Chapter. This award honors and recognizes exemplary long-term service, or one or more particularly significant examples of service, by an EBA member to one or more of the EBA Chapters, enhancing the role of the EBA Chapters in representing EBA's values and character at the regional level. Exemplary service to the community in connection with EBA Chapter activities may also be considered. The EBA Board created this award in 2018, and voted unanimously to honor Jason as the first recipient of the Award.

2020	Crystal McDonough
2019	Daniel T. Pancamo
2018	Jason F. Leif

ENERGY BAR ASSOCIATION
Champion for Diversity and Inclusion Award

The Champion for Diversity and Inclusion Award, is given to a Member who has embodied the principles of the Diversity and Inclusion Policy through their actions in the Associations and/or their professional career. The award is granted as deemed warranted by the EBA Board and may, or may not, be granted annually. Emma Hand was named as the first recipient of this award.

2020 Chief Judge Carmen A. Cintron
2019 Emma Hand

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And we gratefully acknowledge those EBA members and others who have so generously contributed in the past.

ENERGY LAW JOURNAL

The Energy Bar Association is an international, non-profit association. Founded in 1946 as the Federal Power Bar Association, the Association currently has approximately 2000 members. The Association's voluntary membership is comprised of government, corporate, and private attorneys, as well as energy professionals from across the globe, and includes law students interested in energy law. The mission of the Association is to promote the professional excellence and ethical integrity of its members in the practice, administration, and development of energy laws, regulations, and policies. In addition to publishing the *Energy Law Journal*, the Association organizes and sponsors a number of activities, including two national conferences a year, and numerous continuing legal education (CLE) programs each year. The Association also sponsors eight formal chapters in the United States and Canada and committees that monitor and report to the membership on developments of interest. Complete membership and subscription information can be obtained from the Association at 2000 M Street, NW, Suite 715, Washington, DC 20036, or by contacting us at (202) 223-5625 or by visiting EBA-Net.org.

Twice a year, the *Energy Law Journal* publishes legal, policy, and economic articles and other materials of lasting interest with significant research value on subjects dealing with the energy industries. The Journal also welcomes articles and other materials on emerging issues and significant developments affecting the energy industries. Articles by members and non-members of the Association are welcomed. The Journal publishes articles and other materials of varying length that provide a full consideration of the issues and opposing viewpoints. All submissions must contain a synopsis, table of contents, and brief biographical statement about the author(s). Style and form of citations must be in conformity with the "Bluebook," as well as the *Energy Law Journal* Style Manual posted on the Energy Bar Association website. All submissions should be sent to Harvey L. Reiter, Editor-in-Chief, *Energy Law Journal*, by mail to Stinson LLP, 1775 Pennsylvania Ave., N.W., Suite 800, Washington, D.C. 20006 or electronically to harvey.reiter@stinson.com. The opinions expressed in the published materials are those of the writers and are not intended as expressions of the views of the Energy Bar Association. Inquires about advertising in the Journal should be addressed to Jason Gray at (202) 289-8400 and electronically at jtg@duncanallen.com. The Journal is indexed in the INDEX TO LEGAL PERIODICALS, the CURRENT LAW INDEX, WESTLAW, and LEXIS SERVICES.

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DIVERSITY AND INCLUSION POLICY

The Energy Bar Association (EBA), the Charitable Foundation of the Energy Bar Association (CFEBA), and the Foundation of the Energy Law Journal (FELJ) are committed to the goals of fostering an inclusive and diverse membership and increasing diversity across all levels of the Associations. Attorneys, energy professionals and students with varied and diverse characteristics practicing in the energy field are welcome to join our ranks, regardless of race, creed, color, gender (including gender identity or expression), sexual orientation, family and marital status (including pregnancy), family responsibilities, religion, national origin, age, personal appearance, political affiliation, veterans status, disability, source of income (government, solo, corporate, firm practice), or place of residence or business (geographic diversity) and are encouraged to become active participants in the Associations' activities.

PRESIDENT'S MESSAGE

Welcome to a new decade and the 41st volume of the *Energy Law Journal*! As I write this from my home dining room table, the global battle against the COVID-19 pandemic is raging and many of us are required to work entirely from home. We do not know when these restrictions will be lifted, nor do we know what our world will look like after they are (or what our places will be in it). The energy industry has not been spared: oil prices have fallen into negative territory, and electric demand is greatly reduced, stressing the electric markets. We are in an unprecedented time of change, and many aspects of our day-to-day lives have been upended. We are all trying to manage new problems we've never seen in our lifetimes, and we are trying to manage old problems in new ways from our homes.

In these times, it is comforting to know that there are constants on which we can depend. One of these is the *Journal*, which has long been recognized as the premier legal publication dedicated to energy law. This issue of the *Journal* does not disappoint: included in these pages are fascinating articles on a wide array of topics such as the changing role of the consumer advocate from former state consumer advocates Elin Katz and Tim Schneider; the statute of limitations on FPA enforcement actions by Michael Spafford, Daren Stanaway, and Brian Wilmot; and a survey of programs that support carbon capture and utilization by Edward Hirsch and Thomas Foust. This issue also provides energy sector reports from EBA committees memorializing key developments in Finance & Transactions, Compliance & Enforcement, Legislative Practice, and Renewable Energy. In addition, this issue offers a first-ever contribution from EBA's new Canadian Chapter, providing a survey of 2019 Canadian energy law and policy developments.

The *Journal* would not be possible without the significant contributions of many people. Chief among them are the Editor-in-Chief Harvey Reiter, Executive Editor Caileen Gamache, and Administrative Editor Nicholas Cicale. They are supported by the tireless efforts of numerous volunteer editors and student editors from the University of Tulsa College of Law. Finally, the *Journal* is sustained by the financial stewardship of the Foundation of the Energy Law Journal, this year led by President Molly Suda. I thank everyone for all their hard work!

As Michelle Obama said, "you should never view your challenges as a disadvantage. . . . [Y]our experience facing and overcoming adversity is actually one of your biggest advantages."[1] This principle applies equally to EBA in 2020. I look forward to this year of challenges and the personal and professional growth we will achieve because of it.

And now, settle into your couch and get ready for some thought-provoking material as you turn these pages!

Thank you,

/s/ *Jane E. Rueger*
Jane E. Rueger
President, Energy Bar Association

1. First Lady Michelle Obama, Remarks by the First Lady at City College of New York Commencement (June 3, 2016) (transcript available at https://obamawhitehouse.archives.gov/the-press-office/2016/06/03/remarks-first-lady-city-college-new-york-commencement).

EDITOR-IN-CHIEF'S PAGE

"It's been quite an autumn" I wrote in last fall's message. But the California wildfires, the third Presidential impeachment in our nation's history, even the first-ever World Series title for the Washington Nationals that captured our attention so very recently seem like distant memories in the face of the COVID-19 pandemic that has engulfed the entire globe.

None of us has been untouched by the novel coronavirus. Some of us have lost loved ones. All of us, I'm sure, know of persons who have contracted the disease, and know of still others who have lost their jobs. And as we heard only last month from the leaders of the major energy trade associations, shortages of personal protective equipment – the PPEs we read about in the daily news – can mean the difference between life and death not only for first responders, health care workers, and nursing home caregivers, but for those critical system operators who keep the lights on and natural gas flowing. Every one of our lives have been upended in one fashion or another.

Beyond the staggering death toll, saddest to me is that we've had to alter so drastically the ways in which we mark life's events – the mourning of a friend or loved one who has passed away, the birth of a child or grandchild, a wedding, a birthday, a graduation. One of those events of significance to those of us who work on the Journal is the annual banquet held in Tulsa each spring to honor the hard work and dedication of the students and faculty who help put the Journal together.

When classes were suspended on campuses nationwide, including classes at the University of Tulsa College of Law, plans for the banquet were cancelled. The student Editor-in-Chief, Carly Kidner, urged the faculty to schedule a virtual banquet that would allow students, now taking classes from home, to celebrate. Professor Robert Butkin, the Journal's faculty advisor, readily agreed and the school arranged a full program. While the presentation of the student awards by video was not the in-person ceremony the students deserved, it provided the students at least a form of the recognition they had earned.

I would venture to say that most of us who practice energy law consider ourselves relatively lucky. We have the ability to work from home. And fretting about Instacart not delivering all the items on our grocery list is indeed a trivial concern compared to the bona fide hardships others are facing.

Fortunately, the same technological advances that allow us to work from home have allowed the authors, peer review editors, and students who produce the Journal to continue our work as well. The products of that work have taken several forms.

Over the last several years we have asked the author of the lead article in each edition of the Journal to give an author talk. Like the student banquet, we had to postpone the author talk/workshop on LMP pricing by David Savitski, author of *LMPs for (Technically-Inclined) Dummies*. As we go to press, our plans are to schedule David's talk using an online platform.

EBA Brief, the brainchild of EBA's immediate past president, Jonathan Schneider, became a reality. The new quarterly electronic publication is a product of the efforts and coordination of the EBA Board, the Foundation of the Energy Law Journal, the Energy Law Journal's editorial staff, the George Washington University Law School, and the EBA Brief Task Force. *EBA Brief* will serve as a complement to the Journal. Unlike the Journal and its more in-depth treatment of issues, *EBA Brief* will focus on shorter, topical pieces in an on-line magazine-style format. The first co-Editors-in-Chief of *EBA Brief* have roots with the Journal. Nicholas Pascale is the outgoing President of the Foundation of the Energy Law Journal and John McCaffrey has written for the Journal. My friend and predecessor, Bob Fleishman and I are serving as EBA Brief's ELJ liaisons.

We have also begun plans to commemorate the 40th anniversary of the Journal this fall in a fashion similar to the way we acknowledged the Journal's 25th anniversary. We devoted that anniversary edition to republishing some of the most influential articles of the Journal's first quarter century of existence. This time we will be republishing Journal articles from the last fifteen years that have also had a significant impact on energy law and policy. Kat Gamache, our Executive Editor, Nick Cicale, our Administrative Editor, and I have begun canvassing past and present peer review editors for their recommendations. The selection will be an inherently subjective process, since we'll be selecting only three articles and still intend the fall edition to include new pieces as well. If you have some favorites that you believe merit inclusion, please share your thoughts with us.

A new Canadian Chapter has come into existence. As Jane Rueger notes in her President's message, members of that Chapter have co-authored a comprehensive survey of Canadian energy law developments during 2019. We know you will find their work useful.

Finally, our authors, editors, and the student members of the Journal have continued to work through the crisis to produce the high quality articles, notes, and committee reports you have come to expect. An edition of this magnitude – five articles, two student notes, four committee reports, and more – would have been a tall order under conventional circumstances. So let me give a special shout out to the graduating student Editor-in-Chief and her hard-working staff for their remarkable dedication.

When the pandemic ends – and it will – the new normal almost certainly will look different than the world in which we lived such a short time ago. But we are confident that you can continue to rely on the Journal as a source of practical and timely scholarship.

Stay safe and well,
Harvey L. Reiter
May 2020

IN MEMORIAM: JUDGE JOSEPH R. NACY

The Honorable Joseph Robert Nacy passed away at age 94 after suffering a stroke on March 8, 2020. Judge Nacy served as an Administrative Law Judge at FERC for 32 years, from 1980 to 2013. Judge Nacy had served as an ALJ at the Interstate Commerce Commission from 1970 to 1980. Previously, Judge Nacy practiced transportation law in Jefferson City, Missouri from 1951 to 1970, when he relocated to Washington, DC to serve at the ICC. Judge Nacy graduated from Saint Louis University School of Law (J.D.) in June 1951 and was admitted to the Missouri Bar in September 1951.

In December 1972, Judge Nacy was a member of the first class of Administrative Law Judges to graduate from the National Judicial College in Reno, Nevada. Judge Nacy's service to the organized Bar included a term as President of the Cole County (Mo.) Bar Association; three terms as Vice Chairman of the Missouri Bar Unauthorized Practice Committee; and four terms as Vice Chairman and two terms as Chairman of the Missouri Bar Administrative Law Committee. He was a member of the latter committee as well as the Missouri Bar Alternative Dispute Resolution Committee and the Government Attorneys Committee. On September 21, 2000, the Missouri Bar conferred the title of Senior Counselor on Judge Nacy.

Judge Nacy was a proud Army Veteran, devoted Catholic, and loving family man who enjoyed running and competing in local races. He served in the 2nd Platoon Company C, 1268th Engineer Combat Battalion in WWII in the European Theatre of Operations and at Luzon, Philippine Islands. He was honorably discharged as a Sergeant in 1946.

Judge Nacy loved to tell jokes and was a wealth of information on history and classical music. Many fondly recall that he was an avid Civil War and WWII buff.

Judge Nacy leaves behind a daughter, two sons, five grandchildren, and four great grandchildren. He was preceded in death by his wife of 63 years, Mary Jane Nacy.

IN MEMORIAM: JUDGE RAYMOND ZIMMET

Raymond (Ray) Zimmet, a long-serving Administrative Law Judge at the Federal Energy Regulatory Commission, passed away on February 27, 2020, at Casey House in Rockville, Maryland. He was eighty-three.

Born in Brooklyn, New York, Ray moved to Washington, D.C. with his family in the early 1940s after his father accepted a position as a lawyer with the United States Maritime Commission. Ray graduated from Coolidge High School and then the University of Maryland. Ray received his L.L.B. in 1961 from the University of Virginia School of Law, where he was a member of the Virginia Law Review and the Order of the Coif.

After serving on active duty in the U.S. Army, Ray started his career in private practice in Washington, D.C. in 1962. In 1965, he moved to the Interstate Commerce Commission, where his primary work involved defending the agency in court. He loved his work from that period – "arguing cases" he called it – and he became an expert in the fields of economic regulation and administrative law. In 1973, he moved to the then-Atomic Energy Commission, where he ultimately served as the Acting Solicitor before his appointment as an Administrative Law Judge at the then-Federal Power Commission in 1975.

For thirty years, Ray served as a fiercely independent member of the FERC bench, and brought his formidable analytical skills and wry sense of humor to bear on a wide range of cases. Ray had a rigorous and unwavering focus on clear writing and careful analysis, and held himself to a high standard as he performed the work of untangling and resolving the legal issues presented to him. Although Ray tried to avoid taking himself too seriously, he was utterly serious about the obligation to "get it right," and to produce well-reasoned decisions that would stand up to both Commission and appellate scrutiny. Ray also sought to mentor the many law clerks who passed through his office, and took great pride in their accomplishments as they moved on to positions of prominence in the Energy Bar, as well as other, non-energy-related endeavors.

Apart from the law, Ray was a loving husband, father, and grandfather, and a devotee of Stephen Sondheim musicals, the Brooklyn Dodgers, and, in his later years, the Washington Nationals. Ray will be deeply missed for his humanity, his wisdom and ability, and his wit.

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THE INCREASINGLY COMPLEX ROLE OF THE UTILITY CONSUMER ADVOCATE

Elin Swanson Katz and Tim Schneider[*]

Synopsis: The authors, both former state utility consumer advocates, explore the ways in which the role of the utility consumer developed and has evolved in response to transformational changes in the energy field. Most state utility consumer advocate offices were established in the 1970s in response to the Energy Crisis of that time period, and a public sentiment that the average utility consumer did not have an adequate voice in the process of setting utility rates and developing utility policy. This article, which focuses primarily on the electricity sector, details the rise of regulation in that sector, and details the jurisdiction and features of most utility consumer advocates. In other words, what is a state utility consumer advocate? Most advocates offices have a consumer-focused mandate, are structurally separated from the regulator – usually a state public utilities commission – and have the ability to appeal decisions from that regulator. This structure is intended to give a state utility consumer advocate independence from the regulator so that the advocate can challenge the decisions of the regulator that do not serve the interests of the consumer. It is also intended to insulate the advocate from political influence or reprisals for taking positions that may be unpopular or adverse to a powerful special interest. Of course, as discussed, that independence and political insulation is at times more theoretical than actual, as most state utility consumer advocates have found themselves in political hot water at least occasionally.

The authors interviewed ten current and former state utility consumer advocates and added their own reflections to illuminate the increasingly complex role of an advocate in today's electric sector. The electric sector no longer involves a rather straightforward grid that generates electricity at large central station power facilities and delivers it through the grid to the end user. Now, electricity can flow both out of and into the grid from the consumer, if the consumer is also generating electricity. There are also new and developing technologies involving electric vehicles, charging stations, renewable resources, net metering, demand response, storage, and solar interconnections. This increasing complexity challenges the state utility consumer advocate to understand the issues and participate in the policy formulation around these issues, often with a thinly staffed office.

With the rise of renewable power and distributed energy resources including "behind the meter" solar installations for residential consumers, state utility consumer advocates also face growing fractures within classes of consumers. For example, many advocates find themselves caught between residential consumers

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who want increasing financial support such behind the meter resources and those residential consumers that cannot participate in programs supporting behind the meter resources for financial or other reasons. In many cases, state utility consumer advocates will work to understand both sides but focus more on low-income consumers who do not have other means of advocacy.

Advocates are also facing a host of new forums in which they must advocate. While the traditional utility rate case before a state public utility commission remains the foundation for setting electric rates, other proceedings inform and impact consumers with respect to electric rates and policy. In the jurisdictions survey, advocates described working groups, public meetings, interagency task forces, legislative hearings, and press conferences as being essential to their effectiveness as advocates. This transition away from litigated proceedings has further increased the scope of a state utility consumer advocate's duties and responsibilities.

Despite the changing landscape of the electric sector – or rather, because of it – the work of the state utility consumer advocate remains more important than ever. In a sector with near constant evolution and change, and an increasing multiplicity of issues, voices, and forums affecting consumers, a voice dedicated solely to the consumer perspective is an essential voice in the wilderness.

I. INTRODUCTION

The work of the utility consumer advocate has traditionally had an inherently David vs. Goliath feel: sparsely funded and thinly staffed public agencies or nonprofits charged with representing consumers in adversarial proceedings are pitted against deep-pocketed utility companies that include some of the largest corporations in the world.[1] The bulk of a consumer advocate's work historically focused on litigated proceedings before state public service commissions.[2] In these pro-

1. Michael Murphy & Francine Sevel, *The Role of Utility Consumer Advocates in a Restructured Regulatory Environment*, THE NAT'L REGULATORY RESEARCH INST. (Sept. 2004), https://pubs.naruc.org/pub/FA8626E1-0000-871D-4660-18F3E7238C8A.

2. *Id.*

ceedings, utilities hold most of the cards: they can afford teams of lawyers, analysts, and experts to present and defend their case, and parsimoniously dole out the information that advocates need to make theirs.[3] Despite these odds, the presence of dedicated consumer advocates has consistently delivered meaningful wins for their clients, utility customers, in the form of lower rates or greater consumer protections.[4] And though the work is inherently challenging, the advocates' statutory charge to represent consumers gave the work a certain moral clarity.[5] David, faced with Goliath, knew where to direct the sling.

The nature of the work of utility consumer advocates has changed over the past decade.[6] As former utility advocates, we the authors experienced these changes firsthand. We both felt increased demands on our time, our staff, and our skills to perform our jobs adequately, and that to do our jobs well, we would need to approach it differently. In this article, we have attempted to describe these changes, and how we and our former colleagues have responded. To do this, we interviewed ten utility consumer advocates, past and present. Some have retired from long and distinguished careers in advocacy, some have been serving in their positions for years, and some are relatively recent arrivals to utility consumer advocacy. Their thoughts, ideas, and musings are captured here, sometimes in general ways and sometimes with specific attribution. These interviews reinforced – and challenged – our assumptions, but we were struck over and over by the great forethought, deliberation, and passion they brought to their work.

Today, the litigated commission proceeding is no longer the primary focus of many advocates' work, nor are rates the single main concern.[7] While rate cases and setting fair and equitable rates for utility services remains a central component of the work, other forums have risen in importance for consumer advocates.[8] Public policy debates around renewable energy, changing generation fuel mixes, retail competition, and demands for financial support of nuclear facilities rage in state legislatures and agencies. Public demand for – and opposition to – solar panels, wind turbines, hydropower projects, and electric vehicles is vetted in town halls, public hearings, and social media. Regional, national, and global trends push the

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3. *Id.*

4. *Id.*

5. While many state consumer advocates are statutorily authorized to represent commercial, industrial, and small business consumers, others are not; the common jurisdiction of virtually every consumer advocate is residential consumers. *Id.* Some consumer advocates, e.g., DC People's Counsel and the Vermont Department of Public Service, are funded by the utilities through "bill back" mechanisms that allow the advocates to hire witnesses, etc., bill their costs to the utility, and the utility gets to include the costs in its rates. VERMONT PUB. SERV. DEP'T, SUSTAINABLE FUNDING FOR THE PUBLIC UTILITY COMMISSION AND THE DEPARTMENT OF PUBLIC SERVICE 4, 24, 29 (Sept. 26, 2018), https://ljfo.vermont.gov/assets/Meetings/Joint-Fiscal-Committee/2018-11-08/aa7a13d868/Sustainable-Funding-for-the-Public-Service-Department-and-the-PUC-_Sept-26-2018_-v4.pdf.

6. Murphy & Sevel, *supra* note 1.

7. *Id.*

8. Although utility consumer advocates are statutorily authorized in jurisdictions to cover a variety of services from ferries, taxi, garbage collection, natural gas distribution and telecommunications, this article will focus primarily on the utility consumer advocate in the context of the electric sector. *See, e.g.*, ME. STAT. tit. 35-A, § 5101 (1991) (Maine's PUC has the authority to regulate the ferries in Casco Bay).

importance of dialogue and collaboration above the state level. Regional transmission organizations (RTOs) and Independent System Operators (ISOs) create complex bureaucracies which advocates must navigate and staff. This increasing diversity of matters and splintering of arenas for a consumer advocate's work requires monitoring, focus, and participation in far more spaces on far more issues.

In addition, a consumer is no longer just a consumer. The proliferation of distributed generation has blurred the lines between electricity consumer and producer. Advanced metering infrastructure[9] has enabled new rate structures and models for consumer-utility infrastructure and more opportunities for active consumer engagement in their energy consumption. These changes, paired with retail and wholesale competition, have introduced new and often largely unregulated actors to utility consumers. Rising income inequality and energy affordability issues for many residential consumers create emotionally charged debates about participants and nonparticipants, haves and the have nots, those who can and those who cannot. More than ever, consumer advocates confront fractures and even hostilities within customer classes.

The skill set for advocates has also changed. Consumer advocates can no longer afford to maintain the us-versus-them sensibility implicit in the David and Goliath approach. Vigorous advocacy before state commissions remains important, but it is not enough. Advocates must now collaborate, convene, debate, educate, opine, and lobby in entirely new ways to adequately represent consumer interests. It is this last change that is perhaps the greatest shift in the role of the consumer advocate: David now must frequently drop the sling and rely instead on his (or her) negotiation skills and powers of persuasion to influence, rather than defeat, an entire army of Goliaths.

Through all this change, the need for a dedicated advocate on behalf of consumers remains. The core observation that sparked the creation of utility consumer advocate offices remains true—that absent a voice for consumers, the regulatory process is less likely to produce outcomes that incorporate their interests.

II. THE ORIGINS OF STATE UTILITY CONSUMER ADVOCATES

While consumer advocates have a long history in many domains, dedicated consumer advocates were not a feature of utility regulation for most of its history. Public utilities have been subject to regulation by state utility commissions for most of the 20th century, and the concept of regulating services that are essential for the public welfare is much older.[10] The underlying concept behind this public regulation is that certain essential services tend toward monopoly (or operate more efficiently as monopolies), and that we cannot rely on the market alone to ensure adequate and reasonable services at affordable prices.[11]

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9. Office of Electricity Delivery and Energy Reliability, U.S. Dept. of Energy, *Advanced Metering and Customer Systems*, SMARTGRID.GOV (Sept. 2016), https://www.energy.gov/sites/prod/files/2016/12/f34/AMI%20Summary%20Report_09-26-16.pdf.

10. CHARLES F. PHILLIPS, JR., THE REGULATION OF PUBLIC UTILITIES 91 (Public Utilities Reports Inc., 1993).

11. *Id.* at 4.

In the United States, widespread state government regulation of common carrier services began following the Civil War, however, with the advent of the populist movement and a revived doctrine of public interest, and the expansion of rail service.[12] Because there were typically only one or two rail companies servicing small and remote areas, rail companies were able to exploit those customers and charge higher rates, sparking a consumer backlash.[13] In response, many states created commissions to regulate railroad rates and protect consumers.[14]

Regulation of electric utilities started at the municipal level, as states typically gave municipalities jurisdiction over streets.[15] Franchises from the municipality were required.[16] Many cities found themselves with multiple electric franchises to stimulate competition, often with competing providers of AC and DC current.[17] By the beginning of the twentieth century, however, it was generally concluded that regulation, rather than competition, was the preferred approach for the future of the burgeoning electric industry.[18] In particular, it was recognized that it made little sense to build forests of competing electric distribution poles and lines in some districts of the city, while others went totally unserved.[19] Electric utilities were deemed to be "natural monopolies" – that is, it was more economical and beneficial to society to have a single electric utility serving a particular geographic area, rather than to let multiple utilities compete against each other to serve the same customers.[20]

States began to exert control over public utilities in the early 1900s, superseding municipal authority and establishing the concept of a certificate of public convenience and necessity.[21] By 1940, all states had established utility regulatory commissions.[22] The landmark case of *Federal Power Commission v. Hope Natural Gas Company* established that rates must be "just and reasonable," a standard that persists to this day.[23]

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12. *Id.*; *see also* Darryl G. Stein, *Perilous Proxies: Issues of Scale for Consumer Representation in Agency Proceedings*, 67 N.Y.U. ANN. SURV. AM. L. 513, 520 (2012).

13. PHILLIPS, *supra* note 10, at 92; *see also* Stein, *supra* note 12 at 520-21.

14. PHILLIPS, *supra* note 10, at 93; *see also* Stein, *supra* note 12, at 521.

15. David P. Tuttle et al., *The History and Evolution of the U.S. Electricity Industry*, THE UNIV. OF TEX. AT AUSTIN: ENERGY INST. (July 2016), http://sites.utexas.edu/energyinstitute/files/2016/09/UTAustin_FCe_History_2016.pdf.

16. Lisa M. Vedder, *Electric Utility Financial Basics: An Introductory Primer*, ELEC. UTIL. CONSULTANTS INC. 17 (Feb. 2018).

17. *Id.*

18. Tuttle, *supra* note 15, at 5.

19. *Id.*

20. Sonny Popowsky, *Electricity Service Advocacy, in* WATCHDOGS AND WHISTLEBLOWERS : A REFERENCE GUIDE TO CONSUMER ACTIVISM 186 (Stephen Brobeck & Robert N. Mayer ed., 2017).

21. Vedder, *supra* note 16, at 21.

22. Robert J. Michaels, *Electricity and Its Regulation*, THE LIBRARY OF ECON. & LIBERTY, https://www.econlib.org/library/Enc/ElectricityandItsRegulation.html.

23. Vedder, *supra* note 16, at 35; Federal Power Comm'n v. Hope Nat. Gas Co., 320 U.S. 591 (1944).

Public utilities commissions (PUCs) were tasked with regulation of public utilities, which are privately owned businesses that provide public services, generally focused on communication, transportation, energy, and waste collection.[24] In exchange for exclusive franchises between these private utility companies and a state or municipality to serve a given geographic area, these businesses were subject to regulation of the rates, terms and conditions by commissions charged with maintaining reasonable and fair prices as well as sufficient quality of service.[25] Much of this work was conducted in ratemaking proceedings, in which commissioners acted in a quasi-judicial role conducting hearings and rendering findings of fact and conclusions of law.[26] While there are many factors and considerations which inform the act of ratemaking, at its most basic, public utilities commissions must balance the interest between the utilities and the consumers: "[i]t is not theory but the impact of the rate order which counts."[27]

There are many different considerations that go into a commission's decision on potential rate changes, many of which are identified in Bonbright's work.[28] He recognized eight areas rate makers should consider and noted that not one of these factors outweighs the other, but rather they must be balanced and "do not readily yield to scientific principles."[29] In rate cases, commissioners act in their quasi-judicial role during proceedings, with Commissioners as an iteration of administrative law judges, where they "conduct hearings [and] render findings of fact and conclusions of law."[30]

Utility consumer advocates trace their origin to the 1970s when a confluence of efforts to increase competition, costs related to nuclear generation, and the Energy Crisis of the early 1970s caused sharp and more frequent utility retail rate increases.[31] Between 1974 and 1975, the rates of utilities increased by a record $22.2 billion dollars, which was more than twice as much as it had increased in previous years.[32] These increases heightened consumer interest in energy prices and prompted calls for utility regulation in the public interest from an organized utility consumer movement. [33]

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24. Jonathan Armiger, *Judicial Review of Public Utility Commissions*, 86 IND. L.J. 1163, 1165 (2011).

25. *Id.*

26. *Id*. (quoting Simpson Cnty. Water Dist. v. City of Franklin, 872 S.W.2d 460, 465 (Ky. 1994)).

27. *Hope Nat. Gas Co.*, 320 U.S. at 602.

28. James C. Bonbright, Principles of Public Utility Rates 287-95 (Columbia University Press, 1961).

29. *Id.* at 291.

30. Armiger, *supra* note 24, at 1166 (alteration in original).

31. Guy L.F. Holburn & Richard G. Vanden Bergh, *Consumer Capture of Regulatory Institutions: The Creation of Public Utility Consumer Advocates in the United States*, 126 PUB. CHOICE 45, 47 (2006) ("Beginning in the 1970s, state public utility commissions (PUCs) came under pressure from the utilities to rapidly authorize rate increase requests as continuously rising fuel and other costs eroded profits on a quarterly basis. Over a four-year period the number of rate reviews doubled, and by 1980 electric utility rate increase requests had risen to a level of approximately $11 billion, more than 10 times the level in 1970.").

32. Richard L. Goodman, *The Role of Consumer Advocacy before the Public Utilities*, 8 Cap. U. L. Rev. 213, 213 (1978); *see also* ELECTRIC AND GAS UTILITY RATE AND FUEL ADJUSTMENT CLAUSE INCREASE, 94th Cong., 2d Sess., at vii (1976) (prepared for the Senate Committee on Governmental Operations).

33. Murphy & Sevel, *supra* note 1, at 3; *see also* J. Jonathan Schraub, *Office of Public Counsel: Institutionalizing Public Interest Representation in State Government*, 64 GEO. L. J. 895 (1976); Stein, *supra* note 12.

From the 1970s through the 1990s, state legislatures reacted to this consumer pressure by enacting legislation which, in a majority of states, created independent utility consumer advocacy offices and gave the consumer advocate standing in utility proceedings.[34] These state offices, which now exist in more than 40 states and the District of Columbia, were created in order to remedy the perceived unfairness of a regulatory system in which utilities were well-represented by lawyers, experts, and utility personnel in matters such as rate increase requests before state public utility commissions, but the consumers who paid the utility bills were not.[35] The addition of a consumer advocate reflected a concern that the structure of a Commission proceeding was not well suited to balance the interests of the utility and its customers in proceedings in which customers were un- or underrepresented.[36]

Proponents of these offices highlighted the significant obstacles to effective consumer participation before utility commissions. Effective participation in complex regulatory proceedings required expertise in administrative law, engineering, and economic and financial theory that were not widely available. Even assuming that consumers possessed the technical expertise, actually participating in a regulatory proceeding required a commitment of time both in and out of the hearing room that consumers likewise lacked.[37] While spiraling utility costs had a major impact on the household budgets of many consumers, the costs to individual consumers were generally not enough to justify investing the time and energy to participate in a utility rate proceeding, or hire counsel and experts to do so on their behalf, even though the impact for residential consumers as a class might be quite large.[38] And even with time and expertise, for an individual residential customer, the dollar amounts at issue would not justify the effort. Finally, an individual consumer's concerns may not reflect the concerns of consumers as a whole, or may struggle to make a larger claim to represent the interests of all consumers even if their concerns were broadly shared.[39] In short, effective consumer advocacy before PUCs created a classic collective action problem.[40]

State consumer advocate offices were created in order to level the playing field and give consumers a chance to have their voices heard in an effective manner.[41] The position varies from state to state in both implementation and title: across the country, utility consumer advocate offices are structured as independent

34. Holburn & Vanden Bergh, *supra* note 31, at 47.

35. Murphy & Sevel, *supra* note 1, at 8.

36. Stein, *supra* note 12, at 513, 532.

37. *Id.* at 536.

38. Popowsky, *supra* note 20.

39. *See* Stein, *supra* note 12, at 515.

40. Keith Dowding, *Collective Action Problem*, ENCYCLOPEDIA BRITANNICA, INC. (Mar. 7, 2013), https://www.britannica.com/topic/collective-action-problem-1917157/Incentives-and-disincentives-of-collective-action.

41. Murphy & Sevel, *supra* note 1, at 3.

state agencies, divisions of state attorneys general, or as non-profit consumer utility boards (CUBs). [42]

This history is important in understanding the structure and mandate of utility consumer advocate offices, and the challenges posed by changing conditions. Utility consumer advocates were designed to effectively advocate in the types of proceedings used to establish utility rates in the late 1970s and early 1980s: quasi-judicial process with commission acting as adjudicator; a common, broadly defined consumer interest; an adversarial framework; and an opportunity for judicial appeal if things go wrong. These typical commission proceedings at that time included rate cases, affiliate proceedings, and merger approvals.

The modern consumer advocate was created as a fix to an administrative process, the utility rate case,[43] that was perceived as broken. The addition of consumer advocate actively and vigorously advocating for the consumer interest ensured that this interest would be appropriately accounted for in the commission's decision which would balance consumer and utility interest. Many consumer advocates still believe this oppositional role in a rate case is still their most essential responsibility.

The specific procedures vary from state to state, but in the typical utility rate case, the utility makes an application for a rate increase before the state's public utility commission.[44] The state commissions serve as decisionmaker, usually after a hearing on the evidence held by an administrative law judge.[45] That hearing on the application is akin to a civil court case and delves into the application in great detail.[46] All parties, including commission staff, have an opportunity to question the utility's witnesses (usually key utility personnel and outside experts retained by the utility) as to various aspects of the application.[47] Though these proceedings were structured like a court case, until the late 1970s, there was no party dedicated to representing consumers for most of their early history.[48] This vision of the rate case framework, with the utility presenting its case, the commission serving as the judicial decisionmaker, and the consumer advocate vigorously cross-examining the utility supported by other interested parties, would achieve optimum—or at least improved—results for the public. The addition of the utility consumer advocate brought utility proceedings in line with the American legal system's civil and criminal courts, which also rely on adversarial processes to render justice.

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42. *Id.* at 11, fig. 4. (Sept. 2004). Six states do not have any independent representation through any of these means. Fifteen states are represented by attorney generals, twenty-seven states are represented by independent consumer advocates, and three states are represented by nonprofit public corporations. While their purposes are similar as noted above, consumer advocates that are located within the attorney general's office often enforce more general consumer protection laws. *Id.* at 9-10.

43. James H. Cawley & Norman J. Kennard, *A Guide to Utility Ratemaking*, PENN. PUB. UTIL. COMM'N (2018), http://www.puc.pa.gov/General/publications_reports/pdf/Ratemaking_Guide2018.pdf.

44. PHILLIPS, *supra* note 10, at 196.

45. *Id.*

46. *Id.*

47. *Id.*

48. *Id.*

Utility consumer advocates in the United States have three attributes in common: 1) an explicit "constitutional" charge to represent consumers, 2) structural separation from the regulator, and 3) standing and the ability to appeal decisions.[49] These core attributes are captured in the Constitution of the National Association of State Utility Consumer Advocates (NASUCA), as the core requirements necessary for state offices to become a member.[50] Taken together, they are the essential attributes for effective representation of consumers before utility commissions.

A. Consumer Mandate

A consumer advocate's primary charge is to advocate for reasonably priced utility service that is adequate and reliable.[51] In most states that employ a consumer advocate, the advocate represents all utility consumers in the state, though in a minority of states the consumer advocate is limited to representing residential, agricultural, and small business interests.[52] State consumer advocate offices[53] have enacting legislations generally with similar purposes.[54] For example, the authority for Maine consumer advocate office stems from Chapter 17, titled "Public Advocate."[55] This statute states that the public advocate's purpose is to review, investigate, and make appropriate recommendations to the PUC in respect to reasonableness of rates, services, terms and conditions, mergers, and more.[56] Massachusetts, where the office is within the attorney general's office, has a nearly identical purpose for their consumer advocate, which states that advocate may intervene, appear, and participate on behalf of any group of consumers of utility companies regarding rates.[57]

A well-defined mission is helpful in guiding the work of any organization, but these missions reflect an underlying assumption of how the regulatory process is expected to work. Most such missions assume the existence of and the ability to define a general consumer interest, at minimum, for a broad class of customers. Utilities present their own case, consumers present theirs, and it is a commission's task to balance these competing interests in setting just and reasonable rates. For example, in New Jersey, the public advocate is explicitly intended to represent

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49. Save for nonprofit public corporations which are funded through independent and member donations. *See* CITIZENS UTIL. BD., WHAT DONATIONS SUPPORT, https://cubwi.org/give/what-donations-support/.

50. *See generally* NAT'L ASS'N OF STATE UTIL. CONSUMER ADVOCATES, CONSTITUTION OF THE NATIONAL ASSOCIATION OF STATE UTILITY CONSUMER ADVOCATES (Nov. 2016), https://www.nasuca.org/nwp/wp-content/uploads/2016/11/NASUCA-Constitution-11-2016.pdf.

51. Murphy & Sevel, *supra* note 1, at 12.

52. *Id.* at 14.

53. Either within the attorney general's office, as independent counsel, or as a nonprofit corporation.

54. *See* Holburn & Vanden Bergh, *supra* note 31, at 48, Table 1 (2006) (containing a list of enacting legislation).

55. The names of these offices vary from state to state, but this article will address them as consumer advocates. Me. Rev. Stat. Ann. tit. 35-A § 1702 (2019).

56. *Id.* § 1702(1).

57. Mas. Gen. Laws Ann. ch.12 §11E (West 2012).

those consumers who would otherwise be underrepresented in utility proceedings.[58]

Every consumer advocate with whom we spoke noted the way in which their mission provides a continual touchstone for their work. There are frequently times when a consumer advocate must decide what position to take on a proposed action that is politically popular. For example, in 2013, top administration officials in Connecticut proposed legislation that would auction off the rights to more than 800,000 residential electricity accounts to independent electric suppliers.[59] The auction was expected to bring as much as $100 million in new revenue to the state budget at a time when the state was facing a severe deficit.[60] Author Elin Katz was Connecticut's Consumer Counsel at the time and vigorously opposed the auction because consumer protection concerns and the forced switching of residential accounts to unregulated actors.[61]

"When I publicly opposed the auction, I was definitely going out on a limb," Katz said.[62] "I was opposing our governor's signature proposal to fill a $100 million gap in the budget. However, I had extensive discussions with my staff about what was best for consumers and in the end, it wasn't a close call because of the potential consumer harm. I knew I would draw the ire of the Governor's Office and legislators because of the amount of money at stake. So I swallowed hard, as I knew it was risky for my office, but my first responsibility is to the consumers I represented."[63]

Other consumer advocates speak of the same tension between doing what is best for consumers and what is less risky for their office and their staffs. "We have to put the mission first in lieu of the organizational interest," said Mark Toney, Executive Director of California's The Utility Reform Network. "If it's not true to the mission, then no point in having it."[64]

B. Structural Separation from the Regulator

The NASUCA Constitution describes this structural separation as "operat[ion] independently of state utility regulatory commission(s) with respect to

58. *See* N.J. REV. STAT. § 52:27EE-49 (2013) ("It is the intent of the Legislature that the resources of the Division of Rate Counsel be devoted to the maximum extent possible to ensuring adequate representation of the interests of those consumers whose interests would otherwise be inadequately represented in matters within the jurisdiction of the Division of Rate Counsel.").

59. Robert Miller, *State considers an energy auction*, CT POST (Mar. 18, 2013), https://www.ctpost.com/local/article/State-considers-an-energy-auction-4364776.php.

60. *Id.*

61. Brian Dowling, *State's Top Consumer Advocates Step Out Against $100M Electricity Auction*, HARTFORD COURANT (May 20, 2013), https://www.courant.com/business/hc-xpm-2013-05-30-hc-electricity-auction-katz-jepsen-20130529-story.html.

62. Interview with Elin Katz, Managing Director of Utilities and Associate General Counsel at Tilson (Mar. 3, 2020).

63. *Id.*

64. Interview with Mark Toney, Executive Director of California's The Utility Reform Network (Feb. 18, 2020).

policy determination, hiring and firing of personnel and fiscal control."[65] Forty-five states have consumer advocate offices that are independent from the PUC.[66] States vary in where they vest this power, if not with the commission, many advocates are appointed by the governor, some by the legislature, some by lower-level executives.[67] Some states further limit abuse of the appointment power through requirement of industry expertise, a bar on *ex parte* communications, and mandated plans to solicit public input.[68] In Connecticut, for example, the Consumer Counsel "shall be an elector of this state and shall have demonstrated strong commitment and involvement in efforts to safeguard the rights of the public."[69] In other states, the consumer advocates serve at the pleasure of the appointing power, whereas others further insulate the office from interference by limiting the circumstances under which an advocate may be removed.[70] There is no known research on the relative efficacy of a consumer advocate based on their degree of independence or statutory experience requirements, although there is general consensus among the advocates we spoke with that having some kind of structural protection from termination without cause provides more freedom to take unpopular or contentious positions.

The requirement of structural separation is a legacy of the forum in which the work of consumer advocates was expected to be performed: litigated administrative proceedings. There is no inherent reason that the work of representing consumers must be outside of the PUC. Indeed, in the experience of the authors, many commission staff, and even commissioners themselves look out for the interests of consumers in the performance of their work. Many state commissions have dedicated consumer affairs divisions that serve exactly this function for individual consumer concerns.[71] In many states, commissions have substantially greater resources than the advocates' offices which absent such separation, could be brought to bear on behalf of consumers.

But in litigated proceedings, this structural separation serves a number of purposes. Unlike regulators, independent consumer advocates have no legal obligation to balance the interests of consumers.[72] This purity of purpose provides a robust counterbalance to the utilities' own self-interest, that allows regulators to make fully informed decisions. For the consuming public, it provides a sense that someone is looking out for their interests. Finally, an independent advocate can exercise its ability to appeal a Commission's decision to a higher authority without fear of reprisal.

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65. NAT'L ASS'N OF STATE UTIL. CONSUMER ADVOCATES, *supra* note 50.

66. Murphy & Sevel, *supra* note 1, at 9.

67. Stein, *supra* note 12, at 554-55.

68. *Id.* at 553-54.

69. Conn. Gen. Stat. § 16-2a(d) (2012).

70. INST. OF PUB. UTIL., MICHIGAN STATE UNIV., IPU-MSU DATABASE ON CONSUMER ADVOCATES IN THE U.S. (2020), http://ipu.msu.edu/research.

71. Murphy & Sevel, *supra* note 1, at 24.

72. Stein, *supra* note 12, at 522.

C. Ability to Appeal Decisions

The ability to appeal decisions is another element vital to the function of consumer advocates.[73] The statutes from which consumer advocates derive their authority usually allow the advocates to not only intervene and have standing in administrative proceedings of the PUCs, but also grant authority to appeal decisions of the commissions.[74] The only exceptions to the ability to appeal are in Alaska and Mississippi.[75] This right to appeal commission decisions is significant because this ensures that a commission's decision could be scrutinized under the judicial review of the state court under the state's administrative procedures.[76] This power supercharges the consumer advocates work in a litigated administrative proceeding. It is not over when the commission renders its decision: independent consumer advocates may continue their advocacy in the state court on the record they built in the agency proceeding.[77]

Advocates have used this power to great effect, such as Pennsylvania's former Consumer Advocate Sonny Popowski, who appealed the Pennsylvania's PUC decision, which had denied the Consumer Advocate's argument that a recently enacted law[78] prohibited construction and expansion of public utility facilities to be included in rates charged to consumers.[79] Mr. Popowski appealed the decision to the Pennsylvania Supreme Court, who reversed the PUC's decision.[80] After subsequent appeals by the utility companies, Mr. Popowski successfully defended his argument and Pennsylvania consumers at the United States Supreme Court, demonstrating just how vital it is for the consumer advocate to have the right to appeal commission decisions.[81]

III. HOW THE WORK OF A CONSUMER ADVOCATE HAS CHANGED: REFLECTIONS FROM THE FIELD

In preparing this article, we spoke with current and former consumers advocates from across the country, in a variety of office structures.[82] We spoke with

73. Murphy & Sevel, *supra* note 1, at 2.

74. *Id.* at Table 1, Column 6.

75. *Id.* at 14.

76. *Id.*

77. *See, e.g.*, Duquesne Light Co. v. Barasch, 488 U.S. 299 (1989).

78. 66 PA. CONS. STAT. § 1315 (1988).

79. *Duquesne Light Co*., 488 U.S. 299.

80. Barasch v. Penn. Pub. Util. Comm'n, 532 A.2d 325 (Pa. 1987).

81. *Duquesne Light Co*., 488 U.S. 299.

82. In preparing this article, we spoke with the following current and former consumers advocates: Richard Berkley, Executive Director, New York Public Utility Law Project; Stefanie Brand, Director of New Jersey Division of Rate Counsel; Paula Carmody, People's Counsel for the State of Maryland; Bryce Freeman, Administrator, Wyoming Office of Consumer Advocate; Jorge Fuentes, Director, Residential Utility Consumer Office; David Kolata, Executive Director, Illinois Citizens Utility Board; Sonny Popowsky, former Consumer Advocate; David Springe, Executive Director, National Association of State Utility Consumer Advocates, and former Consumer Counsel, Kansas Citizens' Utility Ratepayer Board; Rebecca Tepper, Chief of Energy and Telecommunications Division, Massachusetts Attorney General's Office; and Mark Toney, Executive Director, The Utility Reform Network of California. From these conversations, we have heard echoed the same sentiments

them off the record,[83] although there are instances in which we quote a particular consumer advocate, always with their permission. All of the utility consumer advocates surveyed, but particularly those with the longest tenures, agreed that the nature of their work had fundamentally changed over the last decade. We have grouped these obligations into three main categories: increasing complexity, fracturing of consumer interest, and the transition away from litigated proceedings.

A. Increasing Complexity

First, the work of a consumer advocate had become far more complex than ever before. The advocates we spoke to cited in the sheer number of dockets and proceedings that their offices needed to track, and the diversity of the subject matter expertise they needed to do their job effectively. Each could name issues that now required intense staff time and specialized consultants that simply were not part of their book in prior decades, including utility bankruptcy proceedings, rates for electric vehicle charging, utility billing software, offshore wind, and the rules and theory governing wholesale electricity markets.

This growing complexity has made the core work of a consumer advocate, bringing specialized expertise to bear on behalf of consumers in litigated proceedings, more challenging as the breadth of specialized expertise required has grown. This expansion has strained offices with limited staff and limited budgets for outside consultants. Advocates have responded by cultivating a new array of external consultants on issues. NASUCA has hosted specialized briefings on issues such as Reliability Metrics and Reliability Value-Based Planning, Electrification and Electric Vehicle Public Charging Infrastructure, and Utility Distribution Planning,[84] and where possible, worked to develop common positions and resources that are relevant across its member offices. These efforts mirror similar efforts by the National Association of Regulatory Utility Commissioners to educate their members on emerging issues through forums and creation of reference handbooks.[85]

"I keep this 'Topics of Interest' form to keep track of who's doing what and all of the issues we are working on. There are 37 items currently on the list," said Rebecca Tepper, Chief of Energy and Telecommunications Division, Massachusetts Attorney General's Office, "and about 22 of them are 'new' issues in the last

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as reflected in our own experience: that effective consumer advocacy now requires far more than participation in utility rate cases.

83. These interviews were conducted on February 18, February 19, February 25, February 27, February 28, March 2, and March 3, 2020. These were personal phone interviews of the advocates listed in fn. 82, conducted by the authors on the dates noted. Because the authors asked the advocates to speak freely and off the record, information from these interviews will be cited simply as "Interviews" to protect the confidentiality of the source. The only exception are the quotes attributed to specific advocates contained herein that are cited with the speaker's express consent.

84. *See* NAT'L ASSOC. OF STATE UTIL. CONSUMER ADVOCATES, NASUCA RESOURCES; WEBINARS, https://www.nasuca.org/resources/webinars/.

85. *See* NAT'L ASSOC. OF REGULATORY UTIL. COMM'RS, OUR PROGRAMS, https://www.naruc.org/our-programs/overview/.

15, 20 years; issues we would not have even thought about 15 or 20 years ago. Issues like net metering, demand response, storage, and solar interconnections."[86]

In some cases, offices sought additional funding or brought on additional staff to meet these new demands. For example, the Illinois Citizens Utility Board (CUB) relies on grants and foundation funding to address the broad swath of issues before it.[87] "The biggest change is that we do a lot more consumer outreach," said the CUB's Executive Director David Kolata. "We do 500 events a year."[88] His office has eleven staff members whose full-time job is conducting events.[89] For example, during the COVID-19 Crisis of 2020, the CUB office launched "Virtual Utility Bill Clinics" so consumers could email, mail, or fax their utility bills to CUB staffers, and they analyzed them for potential ways to save and give people clean energy tips.[90] Surely these type of consumer advocacy activities are beyond the scope of the imagination of the early consumer advocates.

B. Fracturing of Consumer Interests

Second, the advocates we spoke to generally agreed that recent years have brought a greater diversity of consumer interests, even among residential customers, though they were split on whether that has complicated the task of representing the interests of utility customers generally. This fracturing of the consumer interest showed up in several types of policy matters. The first were in policies intended to incentivize deployment of new technologies, which can create winners and losers by shifting costs between customers within a rate class.

Several of the advocates we spoke to specifically cited net metering[91] as a policy that provided benefits to one class of residential customers—those who were able to install distributed generation—at the expense of those who did not. Net metering in most states is structured as compensation to electric customers with solar panels who provide excess energy to the grid.[92] When a customer's generation exceeds their usage, electricity from the customer flows back to the grid. The customer essentially sells their excess back to the grid and the customer's bill is reduced in a one-to-one ratio for that amount offsetting electricity consumed by the customer at a different time during the same billing cycle.[93] There is controversy around net metering because the customer uses excess generation to offset electricity that the customer otherwise would have to purchase at

86. Interview with Rebecca Tepper, Chief of Energy and Telecommunications Division, Mass. Att'y General's Off. (Feb. 25, 2020).

87. CITIZENS UTIL. BOARD, FUNDING, https://www.citizensutilityboard.org/funding/.

88. Interview with David Kolata, Executive Director of Citizens Util. Board (Feb. 19, 2020).

89. *Id.*

90. David Kolata, CUB Executive Director, *A message from CUB's Executive Director: Responding to COVID-19*, CITIZENS UTIL. BOARD (Mar. 13, 2020), https://www.citizensutilityboard.org/blog/2020/03/13/cubs-response-to-the-coronavirus/.

91. Chandra Shah, NREL, *Net Metering*, ENERGY.GOV (May 8, 2014), https://www.energy.gov/sites/prod/files/2014/05/f15/fupwg_may2014_net_metering.pdf. (citing DATABASE OF STATE INCENTIVES FOR RENEWABLES & EFFICIENCY, GLOSSARY, http://www.dsireusa.org/glossary/).

92. *Id.*

93. *Id.*

the utility's full retail rate.[94] Most states require net metering by statute, but state policies vary widely.[95] Many consumer advocates feel that reimbursing solar consumers at the full retail rate, without any discount to cover the cost of operating the electric grid that enables this two-way flow of electricity, results in a shifting of those operating costs from solar consumers to non-solar consumers. This potentially pits residential consumers with solar panels against those without. One very experienced consumer advocate noted that this dynamic brings new voices to any stakeholder process on net metering, including solar developers, environmental groups, representatives of other renewable technologies seeking similar compensation strategies, and special interest groups representing solar consumers.[96] "We never saw used to see that many stakeholders in a proceeding before," he said.[97] Another consumer advocate noted that rooftop solar policies like net metering took up 90% of his office's last rate case.[98] He saw communities pitted against one another.[99] The utility sided with one group of communities and his office sided with another.[100] "The atmosphere made it very difficult to work on the relationships" with the various constituencies, one of the core competencies in a rate case.[101]

Proceedings involving rate designs to incentivize electric vehicles or allow customers (so-called "pro-sumers") to take advantage of time shifting raised similar concerns about protecting non-participants from costs created by those who choose to or are able to participate in the particular program.[102] As more and more residential consumers are segmented off into special interest groups, the remaining pools of non-participants continues to shrink.[103] This raises particular concern for low-income consumers who typically do not have the resources or the ability participate in such programs.[104] "For people who are not interested in or can't afford to participate in the grid of the future, do they get left with the detritus of the system, get stuck paying for the parts of the grid that everyone else has abandoned?" mused David Springe, Executive Director, National Association of State Utility Consumer Advocates, and former Consumer Counsel, Kansas Citizens' Utility Ratepayer Board.[105] "There's increasing pressure to add capital to the system but also an expectation that there will be fewer and fewer people to pay for it."[106]

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94. *Id*.
95. Shah, *supra* note 91.
96. Interviews, *supra* note 83.
97. *Id.*
98. *Id.*
99. *Id.*
100. *Id.*
101. Interviews, *supra* note 83.
102. Interview with David Springe, Executive Director, National Association of State Utility Consumer Advocates (Mar. 3, 2020).
103. *Id.*
104. *Id.*
105. *Id.*
106. *Id.*

More broadly, several advocates noted that policies enacted to reflect policy preferences on matters not directly related to electricity rates often had the effect of increasing electricity rates. For example, state policies intended to favor certain types of generation, either to achieve carbon reduction goals, or to maintain the economic and employment benefits offered by large scale nuclear and coal facilities. For example, a recently passed Wyoming bill[107] requires utilities to make a good faith effort to sell coal plants before retiring them, otherwise they will not get decommissioning funds when they do retire the plants. "Under this bill, if a retiring coal fired power plant is sold, and the purchaser enters an agreement to provide one or more industrial customers energy that would otherwise have been provided by a public utility, the total gross intrastate revenue available for assessment to fund the [Public Service Commission] would be reduced by the amount of those sales," the Wyoming Legislative Service Office reported.[108]

Moreover, in these scenarios while rates went up for all customers, many advocates felt this burden would fall disproportionately by low income customers, who would need to devote a relatively larger portion of their income to meet their energy burden. "I tell people that I live at the intersection of climate change and income inequality."[109] These poignant words from Stefanie Brand, the Director of the Division of Rate Counsel for New Jersey, capture perfectly one of the central tensions faced by every consumer advocate with who we spoke: how to balance energy affordability with necessary actions to address climate change.[110] Most consumer advocates hear on almost a daily basis from consumers who struggle to pay their bills – low-income consumers, the elderly, those with medically dependent needs, and those who may work full-time but still find themselves unable to pay their electric bills. Often in these proceedings, parties—including customers—whose positions differed from that of an advocate on a specific issue would question whether the consumer advocate was really representing consumers. "I've been accused of being a climate change denier!" said Brand.[111]

While all the advocates acknowledged this fracturing of the consumer interest, they responded in different ways. Some felt strongly that they did not have difficulty identifying the consumer interest they were charged with representing. In some cases, their office's governing statute or mission provided guidance about what to do when customer interests diverged. In Maine, the Public Advocate statute provides a hierarchy of interests the office should represent, should the interests of various consumer constituencies differ: first, low income customers, then residential, then small business, and finally any "[o]ther consumers whose interests the Public Advocate finds to be inadequately represented."[112] Another prime

107. S.B. 21, 65 Leg. (Wyo. 2020) (enacted March 10, 2020, effective July 1, 2021).

108. Brendan LaChance, *Wyoming to Require Utilities to Attempt to Sell Coal-Fired Power Plans Prior to Retiring*, OIL CITY NEWS (Mar. 11, 2020), https://oilcity.news/wyoming/legislature/2020/03/11/wyoming-to-require-utilities-to-attempt-to-sell-coal-fired-power-plants-prior-to-retiring/.

109. Interview with Stefanie Brand, the Director of the Division of Rate Counsel for New Jersey (Feb. 19, 2020).

110. *Id.*

111. *Id.*

112. ME. Rev. Stat. Ann. Tit. 35-A, § 1702-A(3) (2020).

example of this is The Public Utility Law Project (PULP).[113] This organization works to represent those consumers who may often be overlooked, such as low-income and rural consumers.[114] PULP provides not only legal representation to these consumers in electric, natural gas, telephone, and other utility related matters, but also educational material.[115] Some advocates looked to see who else was represented in a given matter, and then crafted their position to reflect the interests of those who were not otherwise represented. Several felt that consumers generally wanted low, stable rates, and that supporting policies that resulted in those outcomes would always be in the interest of most consumers. Stephanie Brand commented that her office "advocate[s] for the have nots," and that their statute dictates "where the interests diverge, we represent those who are not otherwise represented."[116]

C. Transitioning Away from Litigated Proceedings

Third, all the advocates noted the work of setting energy policy, and by extension rates, was increasingly happening outside of the traditional forum of the litigated PUC proceeding. More and more often, the decisions that would have the biggest impacts on customers' rates were happening not in formal rate cases or adversarial proceedings, but in Commission-lead working groups, formal inquiries, and stakeholder groups, or often state legislatures themselves. Advocates who waited until the traditional rate case or other litigated proceeding to fight would find the battle had already been lost.

In states with wholesale electricity markets,[117] advocating on issues that affected energy prices meant active participation in the stakeholder processes administered by the regional transmission organizations. Some advocates had joined as members and dedicated staff, some hired consultants to keep them informed. The most robust example of this being the Consumer Advocates of the PJM States (CAPS).[118] "CAPS is a non-profit organization [that] represent[s] . . . 13 PJM States and the District of Columbia."[119] "In each [of the PJM states], the electricity costs paid by consumers is at least partly determined by the tariff and rules under

113. NEW YORK'S UTIL. PROJECT, ABOUT US, https://utilityproject.org/about/.

114. *Id.*

115. *Id.*; *see also* Murphy & Sevel, *supra* note 1, at 18 (quoting Nora Mead Brownell, *Unplugged: Pennsylvania's Experience*, THE SAN DIEGO UNION TRIBUNE (Jan. 28, 2001) ("One of the keys to Pennsylvania's success was a strong consumer education program. Not only did we run an effective mass media campaign at the statewide level, but we also used surrogates to help us in our local education efforts. The results were and remain impressive, a 95 percent awareness and understanding about how to shop for electricity. Of more than a half-million customers who shopped for a new supplier, Pennsylvania's program was able to meet unique customer demands for those with environmental concerns. More than 80,000 customers have selected "green" power, bringing new investment to the state in the form of wind farms.").

116. Interview with Stefanie Brand, the Director of the Division of Rate Counsel for New Jersey (Feb. 19, 2020).

117. FED. ENERGY REG. COMM'N, ELECTRIC POWER MARKETS (Feb. 25, 2020), https://www.ferc.gov/market-assessments/mkt-electric/overview.asp.

118. CONSUMER ADVOCATES OF THE PJM STATES, WHO WE ARE (2017), http://pjm-advocates.org/.

119. *Id.*

which PJM operates."[120] Their mission is to "actively engage in the PJM stakeholder process and at the Federal Energy Regulatory Commission to ensure that the prices we pay for reliable, wholesale electric service are reasonable."[121]

The move out of litigated proceedings into stakeholder processes posed a variety of challenges to advocates. Not least was the time and resources required to participate and place consumers at parity with all other stakeholder voices. As Paula Carmody, People's Counsel for the State of Maryland, observed, "We used to just deal with rate cases. Now we are dealing with working groups on net energy metering, pre-paid pilots, electric vehicles, community solar, etc., etc. Now there's just this pancaking of the work. We're dealing with ten to twelve working groups within a year."[122]

Stakeholder processes also had the effect of placing consumers at parity with a variety of other interests, surrendering the historical privilege of representing consumers in a proceeding intended to balance consumer interests with those of the utility. In these processes, a consumer advocate is just one voice among many. For example, in New England, consumer advocates representing consumers in 4 of the 6 New England states are members of the End User stakeholder class, which includes Connecticut, Maine, Massachusetts, and New Hampshire.[123] Legislatures, administrative agencies, local governments, third-party retailers of energy-related services, special interest advocacy groups, Wall Street investors, and activist consumers all have increasingly active and frequently powerful voices within the industry.[124] More broadly, the core competencies and structures of litigation around which utility consumer advocates were built are not necessarily adapted to these less structured proceedings.

Advocates have responded by, where possible, staffing up to meet the growing time demands. But as much of energy policy has moved out of the traditional rate case framework and into a political sphere, so too many advocates have worked to increase their influence outside the hearing rooms. This approach requires an entirely different approach and skill set for consumer advocates.

In these new forums, the ability to build coalitions is a crucial skill. Some advocates have found that their broad consumer mandate makes them attractive partners for other groups with more narrow agendas. By convening coalitions, advocates are able to have more influence than they would alone. "One of our

120. *Id.*

121. *Id.*

122. Interview with Paula Carmody, People's Counsel for the State of Maryland (Mar. 2, 2020).

123. Interview with Tim Schneider, General Counsel of Tilson (Mar. 3, 2020).

124. *See, e.g.*, Hil Anderson, *EEI rallies Wall Street with sunny prospects for electric utilities*, DAILYENERGYINSIDER (Feb. 5, 2020), https://dailyenergyinsider.com/reports/24122-eei-rallies-wall-street-with-sunny-prospects-for-electric-utilities/; Dick Davies & John Farrell, *Maine Voices: Consumer utility takeover will break CMP/Iberdrola stranglehold*, PRESSHERALD.COM (May 21, 2019), https://www.pressherald.com/2019/05/21/maine-voices-consumer-utility-takeover-will-break-cmp-iberdrola-stranglehold/; Morten Springborg, *Solar Photovoltaic Power System and Disruption in Energy Markets*, WHITE PAPER 2015 Q 4, WORLDWIDE ASSET MGMT, https://cworldwide.com/media/PDF/WP_Solar_PV_Energy_market_C.pdf.

core competencies is the ability to build coalitions," said one consumer advocate.[125] "On top of what else we do. Even with the utilities. Some people think we should oppose the utility no matter what."[126]

Similarly, several advocates described partnering with grassroots organizations who could generate phone calls to policy makers or attendance at public meetings. AARP is a regular ally of consumer advocates in many states and regularly attends NASUCA conferences.[127] "AARP is able to turn out dozens of senior citizens in red t-shirts for legislative hearings," said one consumer advocate.[128] Another consumer advocate created a roundtable with low income advocates and environmental advocates to create dialogue and create a bridge between the two communities.[129] Others, including the authors when they were consumer advocates, worked with local citizen actions groups.

Other advocates have become more adept at using the media to affect outcomes. "I use the press. I have relationships with most regional and local papers. I talk with investigative reporters, utility reporters. I'll call them once a month, just to say hello. I advocate before the commission, but I also talk to the media and to the public to create public pressure. I think of it as multi-tiered advocacy."[130] This is how one consumer advocate described his approach to representing consumers.[131]

"As more decisions at the PUC are being made less on the merits, and more and more on political considerations, there is no room to fight this within the confines of a rate case," said one consumer advocate.[132] "Being right is not sufficient to prevail. In order to prevail, you need power. We don't want to win on the legal points but lose on the power."[133]

However, garnering influence and exercising political power outside the realm of a rate case is not without risk, however necessary it may be. Consumer advocates can risk their budgets, their staffs, their jobs, and even the existence of the office itself if they end up on the wrong side of a political issue. "The office is assailed by the state legislature at least every other session, including this year," said another consumer advocate.[134] "Commissions and advocate offices are increasingly subject to policy activities outside the utility realm."[135]

In Maine, author Tim Schneider recalled being accosted by a legislative leader who objected to his meeting with some of his members on a bill, who

125. Interviews, *supra* note 83.

126. *Id.*

127. *See, e.g.*, NAT. ASS'N OF STATE UTIL. CONSUMER ADVOCATES, 2019 ANNUAL MEETING: ATTENDEE LIST (Nov. 17-20, 2019), https://www.nasuca.org/nwp/wp-content/uploads/2019/11/2019-Annual-Meeting-Attendee-List-v3.pdf.

128. Interviews, *supra* note 83.

129. *Id.*

130. *Id.*

131. *Id.*

132. *Id.*

133. Interviews, *supra* note 83.

134. *Id.*

135. *Id.*

shouted "You're not being the Public Advocate, you're . . . advocating!"[136] The Governor's opposition to this work led to restrictions on his office's access to funds, and ultimately his departure when the Governor declined to re-appoint him.[137]

Ohio is another cautionary tale. In 2011, Consumer Counsel Janine Migden-Ostrander resigned in protest after Ohio lawmakers chopped the agency's two-year operating budget from $8.5 million to $5.6 million, with an additional $1.5 million to be taken away the next year.[138] She was forced to cut thirty staff and close a consumer call center.[139] There was also a bizarre legislative "gag order" proposal to prevent the Consumer Counsel from "advocating or promoting positions contrary to the development of competitive markets in Ohio, including state policies pertaining to natural gas."[140] Migden-Ostrander felt that the oddly restrictive language is a reaction to her office's insistence that the gas utilities hold annual wholesale auctions to set a benchmark price for natural gas.[141] She ended up resigning in protest after the budget cuts were passed.[142]

To be effective, the consumer advocate is thus forced to navigate increasingly political processes without seeming overtly political. "My best advice would be that maintaining your independence and being nonpartisan are absolutely essential for getting your message out," said another consumer advocate.[143] "I consider it a badge of honor that I have worked for both Democratic and Republican administrations."[144]

IV. CONCLUSION

Effective state utility consumer advocacy does not always mean pitched battle, despite the David versus Goliath sensibilities that infused the origins of the office. Modern advocacy is rather often a choice to engage and compromise, sometimes in uncomfortable ways, to achieve a better result for consumers. It is the authors' belief that consumer advocates have always faced this dilemma of whether to go down swinging in noble defeat or to work with stakeholders with disparate interests in hopes of obtaining a better or sometimes "less worse" result for consumers. Given the complexities of the utility field described above, however, those dilemmas are more common, more multi-faceted, and more difficult to navigate. The modern consumer advocate must navigate more issues, in more

136. Interview with Tim Schneider, General Counsel of Tilson (Mar. 3, 2020).

137. *Id.*

138. Brandon C. Baker, *Ohio Consumers' Counsel resigns post*, THE NEWS-HERALD (Sept. 21, 2011), https://www.news-herald.com/news/ohio-consumers-counsel-resigns-post/article_20341a8e-b87a-53c2-8f80-749fd7e4b966.html.

139. *Id.*

140. John Funk, *Some state lawmakers want to gag the Ohio Consumers' Counsel and slash her budget*, THE PLAIN DEALER (May 16, 2011), https://www.cleveland.com/business/2011/05/some_state_lawmakers_want_to_g.html.

141. *Id.*

142. Allison Grant, *Ohio Consumers' Counsel Janine Migden-Ostrander resigns*, THE PLAIN DEALER, (Sept. 21, 2011), https://www.cleveland.com/business/2011/09/ohio_consumers_counsel_janine.html.

143. Interviews, *supra* note 83.

144. *Id.*

forums, with more disparate consumer segment to represent. This makes the consumer advocate's job more difficult, but also, more necessary than ever to continually center the consumers' interest in the rapidly evolving utility field. With so disparate stakeholders, forums, and issues competing for influence in the utility sector, the state utility consumer advocate remains a steadfast voice in the relative tumult, the voice in the wilderness for consumers.

INNOVATIONS IN FERC HEARING PROCEDURES

Stephen C. Pearson[*]

Synopsis: The existing litigation process at the Federal Energy Regulatory Commission (FERC) is complex, can take years, and can be extremely expensive. But not every dispute requires the full regulatory process that is available at FERC today. Moreover, parties to disputes may be willing to concede some of the full procedural protections that the extant FERC process entails in order to be heard and to obtain certainty with respect to the dispute in a timelier manner. Assuming parties are so willing, however, FERC's procedural rules should be improved with additional structure to support an accelerated and more focused procedure to resolve disputes. This paper describes both a focused quasi-litigation mechanism, the Simplified Track I procedure, and a settlement tool, the Harmonic Auction, which could be implemented by parties to resolve their disputes.

The Simplified Track I procedure could be applied to small disputes, for these purposes, defined as disputes valued at less than $1 million. This Simplified Track I procedure would limit discovery and testimony. Therefore, the dispute must be able to be resolved with limited witnesses, preferably just one witness, and limited discovery. The issue must also be non-precedential. Finally, consistent with the goal of providing an accelerated timely resolution of the dispute, the parties must agree that the decision of the appointed judge will be final with no appeal to FERC or to an appellate court.

Other cases may be settled without a quasi-litigation process. In many cases, discussions reduce down to a dispute between two numbers, for example, the value of an item, damages, a stated rate, or the just and reasonable return on equity. In appropriate cases, where parties have conducted full discovery of the other side's position, each side may have identified respective settlement numbers the gap between which has, despite the best efforts of a mediator, ceased to close. When each party recognizes that the other party's settlement position is a lawful possible outcome in litigation, the full expense and delay of litigation may be less desirable than a settlement result somewhere between the two positions. In such cases, the Harmonic Auction is a novel settlement tool that can be used to bridge the gap between the respective positions. The Harmonic Auction offers a turn-based opportunity for each side to accept a bid. By starting at the midpoint between Terminal Positions, the harmonic nature of the auction renders each rejected bid more consequential to encourage a party to accept a smaller, but certain, gain over a greater loss.

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The Simplified Track I procedure and the Harmonic Auction are not replacements for the existing FERC processes. These are two possible additional tools that can promote more timely resolution of disputes, while still providing the opportunity to be heard without the expense and delay inherent in the existing FERC processes.

I. INTRODUCTION

Practitioners who frequently appear before FERC are familiar with the length of time necessary to resolve important and complicated matters that are regulated by the agency. To illustrate the point, consider the ongoing litigation to establish the return on equity (ROE) used in the rates of transmission owners in ISO New England.[1] The first ROE complaint case, in FERC Docket No. EL11-66, was filed on September 30, 2011.[2] Nearly nine years later, following a full administrative hearing, multiple substantive Commission orders, an appeal and remand by the U.S. Court of Appeals for the DC Circuit, and further briefing by participants, there is no final resolution of this docket.[3] As a result, an issue that is at the core of nearly, if not all, Commission rate proceedings is unresolved. Of course, there can be no argument that litigation of such fundamental issues should be careful, thorough, and deliberate.

1. *Coakley Mass. Attorney Gen. v. Bangor Hydro-Elec. Co.*, 165 F.E.R.C. ¶ 61,030 at P 1 (2018).
2. *Id.* at P 2.
3. *Id.* at PP 1-5, 9-14 (summarizing the proceedings in Docket No. EL11-66).

But not all matters that come before FERC have the importance and the far-reaching impact such as a decision on ROE. However, even a simple case, using the most expedited Track I litigation process currently available under FERC's Rules, is likely to take over a year from the date of filing through a FERC decision.[4] Following FERC's decision on the Administrative Law Judge's (ALJ) Initial Decision, if an aggrieved party exercises her right to seek rehearing and then, after an unfavorable order on rehearing, takes an appeal, the process will take far longer.[5]

FERC's Rules should be updated and revised to provide alternative paths that will provide litigants with a more efficient means of resolving disputes. This paper describes a new Simplified Track I procedure and includes proposed changes to FERC's regulations to implement it.[6] While the Simplified Track I procedure requires formal adoption of regulations, a second novel, alternative mechanism described below, the Harmonic Auction, could be used by participants now to resolve disputes in appropriate cases.

II. EXISTING FERC LITIGATION METHODS ARE EXCESSIVELY TIME- AND MONEY-CONSUMING FOR SMALL CASES AND MAY BE A BARRIER TO JUSTICE

The administrative litigation process does not lend itself to quick decisions. Under section 205 of the Federal Power Act (FPA), unless it otherwise orders, FERC must act on a utility rate filing in 60 days.[7] FERC must process a natural gas company filing under section 4 of the Natural Gas Act (NGA) in 30 days.[8] In contrast, complaints under both the FPA and NGA can take substantially longer than 60 days before FERC issues its first order on the complaint because neither the FPA nor the NGA require a FERC action on a complaint by a fixed deadline.[9] While section 206 of the FPA does mandate that FERC "act as speedily as possible"[10] in complaint cases—no such mandate is in NGA section 5—in the absence of a statutory deadline by which FERC must issue a decision, it will inevitably take longer for the Commission to issue an order on a complaint. Moreover, parties seek leave to file multiple rounds of answers to prior pleadings, regardless of the fact that FERC's Rules prohibit answers to answers,[11] contributing to the delay. Not unreasonably, even if FERC decides to reject impermissible answers, FERC appears to wait for parties to finish ventilating their

4. *See infra* Part II.

5. *See generally* 18 C.F.R. §§ 385.708-13 (1995) (discussing the Initial Decision, rehearing, and appeals processes).

6. *See infra* Appendix.

7. 16 U.S.C. § 824d(d) (2018).

8. 15 U.S.C. § 717c(d) (2005).

9. 16 U.S.C. § 824d(d); 15 U.S.C. § 717c(d).

10. 16 U.S.C. § 824e(b) (2005).

11. 18 C.F.R. § 385.213(a)(2) (2012).

positions before issuing an order. Once FERC does issue an order on the initial complaint, FERC frequently sets the matter for settlement, hearing, or both.[12]

The simplest litigation mechanism currently in place at FERC is the Track I process, a 29.5-week process from the date of the order establishing a hearing.[13] That means, participants in a Track I case frequently will not have an Initial Decision until a minimum of 38 weeks after an FPA case was initiated, or 34 weeks after an NGA case was initiated.[14] Of course, the 38 weeks to Initial Decision is likely to be a low estimate because parties will frequently engage in settlement discussions after FERC's initial order on the pleadings. But assuming the litigants proceed straight to hearing and receive an Initial Decision 38 or 34 weeks from the filing date, the litigation effort is not complete. Following the Initial Decision, participants have 30 days (about 7 weeks) to file briefs on exceptions[15] and an additional 20 days (about 3 weeks) to file a brief opposing exceptions.[16] Thus, standard practice for even the simplest cases requires, from the date of the initial filing, 48 weeks (44 weeks under the NGA) before FERC has a complete record on which to decide.[17] FERC will likely need more than 4 weeks to issue a decision on that record. Even 8 weeks for an NGA case poses a challenge. In other words, existing procedures render it very unlikely that a litigant will obtain an order from FERC, following a hearing, in less than a year.

The expense of a year's worth of litigation will be substantial. While a Track I proceeding may have fewer rounds of pre-filed written testimony, substantial attorney, consultant, and witness time will go into the preparation of that testimony. In addition, more attorney, consultant, and witness time will be required to prepare, respond to, and analyze discovery requests during the 19.5-week period from the order establishing hearing until the hearing. Pre- and post-hearing briefs, as well as other required filings, will require still more time. All of this professional time inevitably translates into substantial bills for services. Meanwhile, as the participants spend these quantifiable dollars, substantial unquantifiable dollars are lost due to uncertainty about the outcome of the case and from lost opportunities because time, attention, and dollars were devoted to litigation.

The substantial time and expense required to litigate a case at FERC may be a barrier to justice. That is, a potential litigant may simply tolerate a circumstance that, if litigated, would be found to be unjust, unreasonable, or unduly discriminatory, *i.e.*, illegal,[18] because the cost is too high.

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12. *See generally* 18 C.F.R. §§ 385.502, 385.601 (discussing FERC's ability to set a matter for hearing or settlement).

13. FED. ENERGY REG. COMM'N, FERC: SUMMARY OF PROCEDURAL TIME STANDARDS FOR HEARING CASES (2017), https://www.ferc.gov/legal/admin-lit/time-sum.asp.

14. *Id.*

15. 18 C.F.R. § 385.711(a)(1)(i) (1995).

16. *Id*. § 385.711(a)(1)(ii).

17. *Id.*

18. 16 U.S.C. § 824d(a)-(b).

The allocation of the burden of proof to the complainant under the FPA and the NGA also raises the cost of a complaint and increases the risk that an illegal rate may continue in effect.[19] Whereas a utility seeking to change its own rate must simply prove that the new rate is just and reasonable,[20] a complainant must show that the existing rate is unjust and unreasonable.[21] Moreover, while a utility proposing a rate or tariff change has full knowledge of the facts, the complainant must make her case based upon the information she is able to obtain from the utility in discovery or other public documents. Thus, the FPA and NGA place the complainant at a significant informational disadvantage. On top of the procedural burdens, an FPA complainant is limited to 15 months of refunds if the Commission takes longer than 15 months from the refund effective date, generally the date the complaint was filed,[22] to issue its determination. Complainants under the NGA are in a still worse position because, under the NGA section 5, there is no refund effective date.[23] That is, rates are not lowered until FERC issues an order granting the complaint and establishing new rates.[24] Simply put, for some complainants, the cure is worse than the disease.

FERC has recognized that a high cost of litigation poses a significant concern. In Order No. 602,[25] FERC stated that "[a] lack of financial resources should not be an impediment to injured parties seeking relief before this Commission."[26] Nonetheless, litigation at FERC remains a daunting and expensive process.

III. EXISTING ALTERNATIVES THAT COULD ACCELERATE DISPUTE RESOLUTION AND MINIMIZE COSTS

A potential litigant is not completely without tools to pursue a case in a more expeditious and less expensive manner than full litigation. FERC's Rules provide several mechanisms to abbreviate the litigation process or facilitate settlement.[27] As explained below, however, the mechanisms require updating and expansion.

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19. 16 U.S.C. § 824d(e); 15 U.S.C. § 717c(e).

20. *Id.*

21. 16 U.S.C. § 824e(b); 15 U.S.C. § 717d(a); Sea Robin Pipeline Co. v. FERC, 795 F.2d 182, 187 (D.C. Cir. 1986); Florida Gas Transmission Co. v. FERC, 604 F.3d 636, 640 (D.C. Cir. 2010) ("A finding that the existing tariff provisions are unjust or unreasonable is a prerequisite for exercising authority under § 5 of the NGA."); Maine v. FERC, 854 F.3d 9, 21 (D.C. Cir. 2017).

22. 16 U.S.C. § 824e(b).

23. AM. PUB. GAS ASS'N, MODERNIZING THE NATURAL GAS ACT TO ENSURE IT WORKS FOR EVERYONE, TESTIMONY BEFORE THE ENERGY SUBCOMMITTEE OF THE HOUSE ENERGY AND COMMERCE COMMITTEE (Feb. 5, 2020), https://docs.house.gov/meetings/IF/IF03/20200205/110468/HHRG-116-IF03-Wstate-WorsingerR-20200205.pdf.

24. *Id.*

25. *Complaint Procedures*, 86 F.E.R.C. ¶ 61,324 (1999).

26. *Id.*

27. *See generally* 18 C.F.R. §§ 385.217-18, 385.604-05, 385.710.

A. Rule 217—Summary Disposition

Assuming a litigant has determined to bring an action notwithstanding the potential commitment of time and money, the litigant may seek summary disposition under Commission Rule 217.[28] Summary disposition is available from FERC[29] or the appropriate ALJ[30] if FERC has set the matter for hearing.[31] Even if FERC has set the matter for hearing, however, the ALJ's decision on summary disposition is not the end of the matter; rather, the ALJ's decision is an initial decision under FERC's Rules.[32] Thus, participants will still need to file briefs on exceptions with FERC, and a reply to exceptions. And participants will need to wait for FERC to issue its decision. Thus, procedurally, summary disposition will not necessarily yield a quick decision that will actually alter rates or tariff provisions.

There are substantive barriers as well. Summary disposition is only available when "there is no genuine issue of fact material to the decision of a proceeding or part of a proceeding."[33] There are certainly occasions when parties to a dispute agree on the facts and the disputed issue is purely an issue of law or policy. From the author's experience, such occasions are the exception, not the rule. When the legal standard is whether a rate is just, or reasonable, or unduly discriminatory, facts are critical to the determination.

As a practical matter, a litigant should consider whether FERC or an ALJ can be deemed to be in error for denying summary disposition. As just noted, the questions FERC must address are generally dependent upon the facts. How can it be error for the decisional authority to require further development of the record when at least one party contends there is a dispute as to the facts? Consider also the incongruity of an ALJ granting summary disposition and finding that there are no issues of material fact when, most probably, FERC, the ultimate decisional authority, has already found that there were issues of material fact that required resolution in a hearing. Conceivably, the ALJ would have the benefit of additional briefing as well as prefiled testimony that was unavailable to FERC when it issued its order establishing a hearing. Nonetheless, an ALJ's grant of summary disposition, in a sense, second guesses a published finding of the Commission. Recognizing these concerns with granting a motion for summary disposition, a now-retired ALJ told the author that he virtually never granted summary disposition because that decision is very unlikely to be reversed.[34]

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28. 18 C.F.R. § 385.217.

29. *Id.* § 385.217(a)(1).

30. If the Chief Judge has appointed a presiding ALJ for the hearing, the appropriate ALJ is the presiding ALJ. If FERC has established a hearing and the Chief Judge has not appointed a presiding ALJ, the appropriate ALJ is the Chief Judge.

31. 18 C.F.R. § 385.217(a)(2).

32. *Id.* § 385.217(d).

33. *Id.* § 385.217(b).

34. A litigant could take an interlocutory appeal of the denial of summary judgment to the Motions Commissioner. 18 C.F.R. § 385.715. But when FERC has ordered the development of a record because of disputes over material facts, such an appeal would have little chance of success given the limited further development of the record. Then, once an Initial Decision is issued on the merits, it seems highly unlikely that a liti-

Moreover, if he granted summary disposition, and that decision was subsequently reversed, more time would elapse, potentially prejudicing litigants, and, especially if the summary disposition did not address all issues in the case, the orderly processing of the case could be seriously disrupted.

The bottom line is that summary disposition offers the potential for an expedited resolution in a very narrow set of cases. For most disputes, however, summary disposition is not an option.

B. Rule 218 - Simplified Procedure for Complaints Involving Small Controversies

FERC has an expedited procedure built into its rules for "small controversies": Rule 218.[35] Rule 218 provides that "if the amount in controversy is less than $100,000 and the impact on other entities is *de minimis*,"[36] then a complaint may be brought using the expedited procedures in the rule. Rule 218 requires that answers be made in 10 days, or 20 days if information in the complaint is privileged.[37] Thus, there is an expedited pleading process. However, there is no deadline for FERC to act on the expedited complaint.[38] Moreover, FERC's response may be a hearing order.[39] As a result, the litigants' effort to expedite the resolution of the dispute may be for naught.

Rule 218 has several obvious problems. First, the $100,000 amount in controversy limitation has not been updated since 1999 when FERC promulgated Order No. 602.[40] Because rates can be in place for years, few disputes over FERC-regulated rates will have less than $100,000 at issue. Thus, Rule 218 excludes all but the smallest disputes.

Rule 218 is also flawed because there is no deadline for a FERC decision.[41] Nor is there any certainty that FERC will not determine that a full hearing is necessary.[42] Thus, only the initial pleading process may be simplified. A hearing process, where the bulk of litigation dollars are spent, may still lie ahead.

Finally, the pleading process in Rule 218 is not very streamlined. Comparing the required pleading elements in a standard complaint under Rule 206(b)[43] to Rule 218(b), the only elements Rule 218(b) omits are Rule 206(b)(8)-(11), which are documents supporting the party's position, a statement about alternative dispute resolution, form of notice, and, for "Fast Track" processing, an ex-

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gant would waste further time and money urging FERC to find that the Presiding Judge wrongly denied summary judgment.

35. 18 C.F.R. § 385.218.
36. *Id.* § 385.218(a).
37. *Id.* § 385.218(e)(2).
38. *See generally* 18 C.F.R. § 385.218.
39. 18 C.F.R. § 385.206(g)(3).
40. *See generally* 86 F.E.R.C. ¶ 61,324.
41. *See generally* 18 C.F.R. § 385.218.
42. *Id.*
43. 18 C.F.R. § 385.206(b).

planation as to why standard processing is insufficient.[44] Perversely, the omission of supporting documents could create uncertainty as to facts and result in FERC ordering a hearing.

In light of the narrow set of disputes eligible for resolution under Rule 218 and the drawbacks of using Rule 218, it is hardly surprising that a review of FERC's eLibrary system[45] does not show any instance in which Rule 218 has been used.

C. Rule 710 – Waiver of the Initial Decision

In the event a hearing is necessary, litigants can still take steps to accelerate the process without sacrificing the opportunity to conduct discovery or cross-examination at hearing. That is, Rule 710[46] enables the participants to waive the Initial Decision. However, few litigants have actually sought to waive an Initial Decision. In a search of eLibrary issuances and submissions, the author identified only two dockets in electric and natural gas proceedings in which a participant sought a waiver of the Initial Decision or establishment of a process that the Commission treated similarly to the waiver of an Initial Decision.[47] In its recent proceedings in Docket No. ER18-1639, FERC did invoke Rule 710 to establish an accelerated hearing procedure without the issuance of an Initial Decision.[48] In this proceeding, just over seven months after the filing of the agreement, the Commission did issue a (mostly) dispositive order.[49] Of course, FERC required a compliance filing and did not decide the ROE issue.[50] As to the ROE issue, FERC ordered a further briefing process slated to take an additional seven months.[51] More than a year after FERC's order on the accelerated hearing, and closing on the second anniversary of the original filing, there has been no dispositive action on either the compliance filing or on the ROE issue. The experience in this proceeding illustrates that Rule 710 is not a guarantee of either an easy or smooth path to a final decision.

That litigants seldom seek to waive an Initial Decision is not surprising. Having structured testimony and cross-examination at hearing to inform an ALJ, it is generally to a litigant's advantage to have the ALJ provide the first assessment of the record. While a request for waiver of an Initial Decision need not be uncontested—although an uncontested motion will be deemed granted unless FERC specifically denies it[52]—if even one litigating party desires an Initial De-

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44. 18 C.F.R. § 385.218(b).

45. FED. ENERGY REG. COMM'N, ONLINE ELIBRARY, https://elibrary.ferc.gov/IDMWS/search/fercgen search.asp.

46. 18 C.F.R. § 385.710.

47. *See Southwest Power Pool, Inc.*, 155 F.E.R.C. ¶ 61,316 at P 6 & n.12 (2016); *Alliance Pipeline L.P.*, 156 F.E.R.C. ¶ 63,038 (2016).

48. *Constellation Mystic Power, L.L.C.*, 164 F.E.R.C. ¶ 61,022 at P 12 & n.16 (2018).

49. *Constellation Mystic Power, L.L.C.*, 165 F.E.R.C. ¶ 61,267 (2018).

50. *Id.*

51. *Id.* at P 2.

52. 18 C.F.R. § 385.710(a).

cision, the safe choice is to require an Initial Decision because the administrative process is intended to build a record.[53] Finally, waiving an Initial Decision does not necessarily eliminate briefing.[54] The extensive, and still pending briefing process in ER18-1699, as just discussed, bears out the potential need for briefing. Nor does a waiver place a timeline on FERC's decision.[55] In fact, without the benefit of an ALJ's effort to sift through the material in an Initial Decision, it may take longer for FERC to issue its decision. As a result, any opportunity that Rule 710 provides to accelerate the process and limit litigant costs appears to be illusory.

D. Settlement process

The Commission's rules create at least two settlement paths that proceed outside the context of FERC litigation. Rather than file a case which can be set for a hearing that is held in abeyance to permit settlement discussions under the auspices of an ALJ, litigants may invoke Rule 604-Alternative Means of Dispute Resolution (ADR)[56] and Rule 605-Arbitration.[57] As discussed below, each process provides an opportunity to avoid costs and accelerate a decision. But each process has flaws that could be addressed through the Simplified Track I procedure.

1. Rule 604 – Alternative Means of Dispute Resolution

Rule 604 provides a broad framework for resolving disputes that are fact specific and involve few parties;[58] these are the kinds of disputes that may be good candidates for disposition under the Simplified Track I procedure. ADR can be successful when parties to a dispute need limited assistance to resolve the dispute.[59] But when parties dispute facts, the application of law, or both, the open structure of Rule 604 ADR may no longer be advantageous and flexibility may actually become a hindrance. Oftentimes in these circumstances, parties engage in arguments about "the shape of the table" rather than resolution of the dispute. For example, will there be discovery? If so, how much? How or who will resolve disputes over facts or over law? Will there be briefs or oral presentations? Witness testimony? Cross-examination? In sum, mediation can lead to settlement in some cases, but other disputes may require a more formal structure that provides a process similar to the traditional opportunity to be heard.

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53. *See supra* Part III.A (discussing the limited use of summary disposition).

54. 18 C.F.R. § 385.710(b)(4).

55. *See generally* 18 C.F.R. § 385.710.

56. 18 C.F.R. § 385.604(a)(1).

57. *Id.*

58. 18 C.F.R. § 385.604(a)(2).

59. Todd B. Carver & Albert A. Vondra, *Alternative Dispute Resolution: Why it Doesn't Work and Why it Does*, HARV. BUS. REV. (1994), https://hbr.org/1994/05/alternative-dispute-resolution-why-it-doesnt-work-and-why-it-does.

2. Rule 605 – Arbitration

If litigating parties seek more structure than Rule 604 ADR, Rule 605 Arbitration may enable the parties to resolve the dispute.[60] But while ADR may have too little structure, Rule 605 Arbitration may have too much structure that may result in costs nearly as great as a FERC litigation without the procedural protections of a FERC litigation.

After reaching agreement to use arbitration, subject to approval by the decisional authority,[61] and after selecting the arbitrator, Rule 605 requires many of the same formalities of a FERC hearing and provides the option to observe other formalities.[62] For example, discovery can be compelled; the arbitrator has the same authority as FERC.[63] That means, discovery can be broad and detailed. The only limits on discovery are the same limits available at a FERC hearing,[64] *e.g.*, the discovery request seeks materials that are not relevant or likely to lead to the discovery of admissible evidence, that are privileged, that are unduly burdensome to provide, *etc.* Similar to a hearing, there is an *entitlement* to be heard, present evidence, and cross-examine witnesses.[65] While not required, the parties may choose to have the arbitration proceeding be on the record.[66] Thus, an arbitration may have many of the hallmarks of a FERC hearing, along with the associated expense. There may also be more process than what is needed or desired for a smaller case.

Arbitrations are unlike FERC hearings in a critical respect: the arbitrator's award is binding,[67] unlike the Initial Decision of an ALJ.[68] While the arbitrator's award is filed with FERC,[69] the rules contain no provision for FERC to rule on the award. Rather the arbitrator's award is final 30 days after it is served on all participants.[70] Thus, there is no opportunity to request a rehearing or for an aggrieved party to appeal under the FPA or NGA. This lack of review may be undesirable in complex matters for many litigants. Even for simpler matters, however, after having invested in a substantial arbitration process, the absence of judicial review may similarly be more "bug" than "feature."

60. 18 C.F.R. § 385.605.
61. *Id.* § 385.605(a).
62. *See generally* 18 C.F.R. § 385.605.
63. *Id.* § 385.605(c)(3).
64. *Id.*
65. *Id.* § 385.605(d)(3).
66. *Id.* § 385.605(d)(2).
67. *Id.* § 385.605(e)(3).
68. *See generally* 18 C.F.R. § 385.712 (discussing FERC's ability to review Initial Decisions made by an ALJ).
69. 18 C.F.R. § 385.605(e)(1)(ii).
70. *Id.* § 385.605(e)(2).

IV. THE SIMPLIFIED TRACK I PROCEDURE

Part III summarizes existing FERC mechanisms that accelerate the resolution of cases and reduce the cost of litigation.[71] It also identifies several of the deficiencies in those mechanisms that need to be addressed under FERC's Rules in order to provide another option for simplified litigation, which would occur through approval of the Simplified Track I procedure.[72] Attached to the end of this Article is an appendix containing draft revisions to Rule 604 to implement the Simplified Track I procedure and which will be referenced hereafter as the Proposed Regulations.[73]

The Simplified Track I procedure is best viewed as a "mini-trial," and the Proposed Regulations refer to it as such. However, the Simplified Track I procedure is clearly not a full FERC hearing procedure because it omits such procedural protections as a FERC decision, a request for rehearing, and judicial review.[74] Litigants that desire or require those procedural protections should proceed with a full FERC hearing. Assuming litigants are comfortable with the waiver of such procedural protections, the Simplified Track I procedure provides a litigation-type structure more formal than Rule 604 but that is more limited than the quasi-hearing structure of a Rule 605 Arbitration. Of course, because the limitations of a Simplified Track I procedure are real, agreement to use the procedure must be consensual among all parties. Moreover, the outcome of the decision must not prejudice other litigants at FERC. Accordingly, the proposed Simplified Track I regulations best fit under Rule 604 ADR with the protections identified at Rule 604(a)(1)-(3).[75]

One of the most significant burdens on parties in litigation is discovery. Perhaps the biggest flaw in the use of Rule 605 Arbitration in small cases is that there is no limitation on discovery.[76] Recognizing the importance of discovery, but balancing the potential for abuse of discovery in a limited case, the Simplified Track I regulations propose to limit discovery to 25 questions per side.[77] Further, that cap is a "soft cap" that has the flexibility to be modified by the judge in appropriate circumstances which recognizes that any cap on discovery is arbitrary and subject to potential abuse.[78] That is, upon a sufficient showing, additional discovery could be allowed.[79] Consistent with the spirit of a limited proceeding, however, the proposed rule prohibits depositions.[80]

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71. *See supra* Part III; *see also* 18 C.F.R. § 385.604.

72. *Id.*

73. *See infra* Appendix. The draft revisions were first presented in the materials for the 2019 EBA Annual Meeting & Conference presentation, "Innovation in the FERC Hearing Process."

74. *See infra* Appendix.

75. 18 C.F.R. § 385.604(a)(1)-(3).

76. *See generally* 18 C.F.R. § 385.605.

77. *See infra* Appendix, at Part (g)(2).

78. *Id.* at Part (g)(3).

79. *Id.*

80. *Id.* at Part (g)(2).

Appropriate to cases with limited dispute as to facts or law, proposed Rule 604(g)(1) imposes a limit on witnesses and their testimony.[81] But a key reason for the Simplified Track I procedure is the "opportunity to be heard" that is fundamental to the American system of jurisprudence.[82] Balancing these interests, the rule allows 50 pages each for one round of testimony from the proponent, the respondent, and trial staff.[83] In addition, the proposed rule permits the proponent an additional 25 pages for rebuttal.[84] Disputes in which presentation of the facts and the law requires more than 50 pages are, thus, by definition, too complicated for the Simplified Track I procedure.[85] But if the parties agree, or if the presiding judge determines that the foregoing limits should be adjusted, as with discovery, the Rule authorizes adjustments to be made.[86]

In recognition that the issues to be resolved in a Simplified Track I proceeding are less complex, proposed Rule 604(g)(4) eliminates the hearing unless a hearing is requested by the parties.[87] The presumption of the rule is that the issues to be resolved using the Simplified Track I procedure are sufficiently clear that live testimony and cross-examination will not substantially add to the presiding judge's understanding of the issues. However, if the parties desire a hearing, the proposed rule does not preclude it.[88]

To further streamline the procedure for a Simplified Track I proceeding, proposed Rule 604(g)(5) limits briefs to a single round of simultaneously filed briefs limited to 25 pages.[89] Again, should the parties agree, or should the presiding judge determine otherwise, the presiding judge may alter this limit.[90]

In order to engage in a Simplified Track I procedure, the parties must be in agreement that the presiding judge's determination will be final.[91] The presiding judge's determination is not an Initial Decision.[92] There will be no future order from FERC, no opportunity to seek rehearing, and no opportunity for judicial review.[93] The assumption of this provision is that litigants are better off when the decisional authority that has had the most direct contact with the parties and the issues has the final word. Especially in a limited, fact-specific case that does not involve or is not setting major policy issues, the presiding judge will likely be much more focused on the case as compared to FERC, which must focus on larger national issues. Similarly, with respect to judicial review, in contrast to an arbitration proceeding in which parties will have invested substantial time, effort,

81. *Id.* at Part (g)(1).
82. *See infra* Appendix.
83. *Id.* at Part (g)(1).
84. *Id.*
85. *Id.*
86. *Id.* at Part (g)(6).
87. *See infra* Appendix, at Part (g)(4).
88. *Id.*
89. *Id.* at Part (g)(5).
90. *Id.*
91. *Id.* at Part (g)(9).
92. *See infra* Appendix, at Part (g)(9).
93. *Id.*

and dollars in the process and there will have been multiple opportunities for an alleged error to have been made, the streamlined process of a Simplified Track I proceeding is less likely to benefit from judicial review.

V. HALLMARKS OF CASES SUITABLE FOR SIMPLIFIED TRACK I

The Simplified Track I procedure is not appropriate for all cases any more than summary disposition, small controversies, waiver of initial decision, ADR, or arbitration is appropriate for all cases. The Simplified Track I procedure is simply another tool in the toolbox. Litigants should carefully consider whether the procedures in Simplified Track I are sufficient for their circumstances and whether the litigants can accept an outcome with no right to appeal.

The key factor in a Simplified Track I proceeding is that the parties are focused on the resolution of a narrow issue that affects only the parties to the case (or effects on other parties are limited).[94] This limitation is critical partly because Rule 604 precludes the use of ADR if there are significant policy questions.[95] Similarly, Rule 604 precludes the use of ADR if the case could be precedential such that a full and public record is necessary.[96] The Simplified Track I procedures are limited on the assumption that the issues are narrow. The procedures preclude broader discussions of policy or the development of a record that could provide meaningful precedent.

The limited discovery available in the Simplified Track I procedure also presumes that the parties are familiar with the other side's position. A party that knows nothing of the other side's position could not be satisfied with a limitation to 25 discovery questions.[97] Accordingly, before parties begin a Simplified Track I proceeding, the parties should have had substantial settlement discussions. Those discussions would need to have included sufficient exchange of information to inform both sides of the other's position. What is "sufficient" will be subjective and need to be mutually agreed upon by the parties. In addition, both sides must be convinced that the other side has clear and reasonable goals. Toward that end, prior to the commencement of a Simplified Track I mini-trial, an exchange of multiple offers and counteroffers would be extremely helpful.

Finally, the case should be appropriately "small." As discussed above, the $100,000 cap of Rule 218[98] is too small. The author proposes here that an appropriate cap for a Simplified Track I proceeding may be $1 million. Of course, as with other limitations in the proposed procedure, the cap should be a "soft cap" that allows flexibility, upon mutual agreement, on a case-by-case basis. Especially when the issue involves a rate that is charged year-after-year until changed or until a contract expires, additional flexibility is required. One way for litigants to approximate the dollar value of a rate would be to consider the net present value over five years. If that result is less than $1 million, the dispute

94. *See infra* Appendix.
95. 18 C.F.R. § 385.604(a)(2)(ii)-(iii).
96. *Id.* § 385.604(a)(2)(v).
97. *See infra* Appendix, at Part (g)(2).
98. 18 C.F.R. § 385.218(a).

may be suitable for resolution by the Simplified Track I procedure. Recognizing the difficulty of establishing a cap and recognizing that a cap can become obsolete when not updated as is the case with Rule 218,[99] the proposed modifications to Rule 604 do not include a cap.[100]

VI. EXAMPLES OF CASES WHICH COULD BENEFIT FROM THE SIMPLIFIED TRACK I PROCEDURE

There are a wide variety of cases that could be resolved using the Simplified Track I procedure. One such category of cases arises from transmission formula rate annual updates. In 1998, FERC accepted a formula rate to be used by transmission owners participating in (what was then known as) the Midwest Independent Transmission System Operator (and which is now known as the Midcontinent Independent System Operator, or MISO).[101] Thereafter, transmission owners throughout the U.S. have filed formula rates to replace the stated transmission rates and stated transmission revenue requirements, updated in periodic rate cases, that historically had been in effect.[102] At this time, most transmission rates under FERC's jurisdiction are set by a formula, updated with FERC Form 1 cost data every year.[103] Protocols that describe and proscribe the implementation of the rate formula, as well as provide interested parties a means to review the implementation of the rate formula are a fundamental part of formula rates approved by FERC.[104] FERC has observed that "[m]odern formula rate protocols also typically provide procedures by which stakeholders can challenge the transmission owner's implementation of the formula rate."[105] Typically these procedures provide an initial informal information exchange process, followed by informal dispute resolution, and, if necessary, a "formal" challenge filed with FERC.[106] The Simplified Track I procedure could provide an efficient means of resolving disputes that rise to a formal challenge.

The theory behind adoption of transmission formula rates was that by making a significant upfront investment in a robust formula that heavily relied on cost data from the FERC Form 1, utility cost recovery would remain current, rates would be transparent, and utilities and customers would be spared frequent rate cases.[107] Over the course of many annual update processes with several transmission owners, this practitioner has concluded that the theory has faltered when applied to the complexities of utility accounting and ratemaking. In many cases, utilities and their customers have engaged in a process that can last a year

99. *Id.*
100. *See infra* Appendix.
101. *Midwest Independent Transmission System Operator, Inc.*, 84 F.E.R.C. ¶ 61,231, at p. 6 (1998).
102. *Id.* at p. 60-61.
103. *Midwest Independent Transmission System Operator, Inc.*, 143 F.E.R.C. ¶ 61,149 at P 39 (2012).
104. *Id.* at PP 39, 42.
105. *Id.* at P 16.
106. *Id.* at P 18.
107. *Id.* at PP 16-17.

or longer and included extensive discovery throughout the entire process.[108] This process is prolonged, notwithstanding deadlines in the protocols, because the alternative is a formal challenge at FERC which could involve a much longer process and even more discovery.[109] Worse, in many cases, issues are not resolved when they are raised in an annual update. While settlements are reached allowing the parties to move forward, there is no final resolution of the issue.[110] Instead, in the next annual update, and in subsequent annual updates, the same issue is challenged again and again because such limited aspects of formula rates are too small to seek a resolution at FERC.[111] This process is frustrating and expensive for both transmission owners and their wholesale customers.

The Simplified Track I procedure could provide a mechanism for a transmission owner and its customers to resolve their disputes. As an initial matter, the parties would be focused on resolving the dispute. Because the rate is only in effect for a single year;[112] a lengthy litigation makes no sense. While different companies' formula rates do have many similarities, each formula is unique, limiting the impact of a decision on a particular formula rate. In addition, while utilities' accounting methodologies are similar and follow the same Generally Accepted Accounting Principles,[113] there are many nuances that render each utility's accounting different. Thus, the application of one utility's accounting to that utility's specific formula rate is unlikely to establish broad precedent or affect other entities not party to the dispute. Because the formula rate protocols provide a substantial informal information exchange and dispute resolution process, the parties will also be very familiar with the respective positions. Limited discovery, limited testimony, and an abbreviated hearing process before an experienced ALJ familiar with FERC ratemaking policies could[114] thus provide parties the opportunity to avoid the same disputes year after year after year.

Similar to transmission formula rate disputes, utilities face instances in which the economic benefit of a proposed change filed under FPA section 205 or NGA section 4 is small and outweighed by the potential litigation cost.[115] Under current practice, following the utility's filing, if FERC concludes that there are issues of material fact or that the proposed change has not been shown to be just and reasonable, FERC will set the matter for hearing, frequently holding that hearing in abeyance to permit settlement discussions under the direction of an ALJ to occur.[116] Regardless of the economic impact of the proposed change, the

108. 143 F.E.R.C. ¶ 61,149 at P 18.

109. *Id.*

110. *Id.* at P 122.

111. *Id.* at P 53.

112. *Id.* at PP 28-29.

113. 143 F.E.R.C. ¶ 61,149 at P 89.

114. *Id.* at PP 96-97 (A principle of Simplified Track 1 proceedings is that the resolution is not precedential. Thus, having used such procedures to resolve an issue in an annual update, that outcome would not necessarily control in the next annual update. But having had their "day in court," the author presumes the parties would be reluctant to litigate the issue again in a subsequent annual update).

115. *Id.* at P 18.

116. *Id.* at P 122.

settlement and hearing process may include extensive discovery requests, negotiations, testimony, hearings, and briefings. There is no certainty as to when the process will end. Moreover, the longer the process extends, because the utility is collecting its rate, the utility has unknown and growing refund exposure with interest rate risk. Conceivably, a utility may not pursue a rate change because the transaction costs are too high. And even if the utility is totally vindicated and FERC approves the rate change as filed, the utility will likely have poisoned its relationship with customers and state regulators. While the Simplified Track I process cannot prevent all such damage, by minimizing the costs and shortening the fight, there is a better chance for relationships to be preserved.

In the electric industry, there are likely going to be many FPA section 205 filings with limited dollars at stake. Reactive power cases are a good example of such filings: in 2014, for instance, FERC ordered PJM to make several tariff changes to ensure that its Schedule 2 rate for reactive power accurately reflected the costs of the units providing reactive power.[117] As a result of that order, FERC all but eliminated fleet-based, black box rates, many of which had been in place from the start of the open access era.[118] In addition, FERC all but required that new reactive power rates be unit-specific to ensure that the costs of a transferred or retired unit can be excluded.[119] Additionally, in conjunction with NERC requirements for testing the capability of generators and verifying their capability, FERC now requires that applicants submit test data to support a filing for a reactive revenue requirement.[120] In other words, FERC has set the stage for fact-specific inquiries as to the just and reasonable rate for every single generating unit providing reactive power.

In the wake of the PJM order, as well as other similar orders, a number of utilities have filed with FERC to lower their respective reactive revenue requirement.[121] However, FERC has been clear that such action is no safe harbor if the filing utility has been recovering costs for units found to be incapable of providing service.[122] For example, Constellation Power Source Generation filed with FERC in 2016 to lower its revenue requirement by a total of $220,000. FERC set the matter for hearing, initiated an FPA section 206 investigation and referred Constellation to the Office of Enforcement to determine if Constellation recovered costs for units not capable of providing reactive power.[123] Similarly, Dayton Power & Light filed in 2016 to lower its revenue requirement by about $1 million. As with Constellation, FERC set Dayton's filing for hearing, established an FPA section 206 investigation, and referred Dayton to the Office of En-

117. *PJM Interconnection, LLC*, 149 F.E.R.C. ¶ 61,132 (2014) (initiating an investigation of PJM's Schedule 2 rate for reactive power and noting that the PJM tariff did not clearly provide for the reduction of revenue requirements when generating units retired or were transferred).

118. *Id.* at PP 6-9.

119. *Id.*

120. *Wabash Valley Power Association, Inc.*, 154 F.E.R.C. ¶ 61,246 at P 28 (2016).

121. *See Constellation Power Source Generation, LLC*, 155 F.E.R.C. ¶ 61,181 (2016).

122. *Id.*

123. *Id.* at PP 5-6.

forcement.[124] While the Constellation and Dayton proceedings illustrate that reactive power revenue requirements are not *de minimis*, they obviously exceed the Rule 218 $100,000 threshold.[125] On the other hand, FERC regularly addresses cases with economic values that are multiple orders of magnitude larger than these two cases.[126] Moreover, the litigation expense could easily outweigh revenue to be gained from a single unit providing reactive power. In sum, with respect to reactive power generation, as a generator ages and becomes less capable, a utility faces the triple whammy of lower revenues, substantial litigation expense, and substantial penalty exposure if it does not act quickly enough. By reducing litigation expense and streamlining the process, the Simplified Track I procedure reduces disincentive to file a reactive power rate update and would provide an efficient means for utilities to maintain accurate rates while providing FERC and customers a forum to examine those rates.

Another potential source of extensive litigation at FERC relates to the establishment of interconnections with, and the provision of wholesale distribution service to, distributed resources and storage providers. In Order No. 841, FERC ordered, among other reforms, that operators of organized markets ensure tariff mechanisms exist to enable storage resources to buy power, and get paid for power returned to the grid, at the applicable locational marginal price (LMP).[127] In so ruling, FERC was clear that it intended to facilitate the interconnection of storage resources to distribution systems as well as the transmission system.[128] Given the limited power transfer capability of distribution systems relative to transmission systems, such storage resources would necessarily be small. But FERC was clear that such small resources should participate in markets.[129] Order No. 841 could ultimately be expanded when FERC addresses the issue of aggregation of storage resources, an issue Order No. 841 expressly reserved for future consideration.[130] One possible consequence of Order No. 841, together with technological improvements and economic efficiencies of batteries, is that a utility could be faced with hundreds, if not thousands of small-scale interconnections to its distribution system. Moreover, each interconnecting resource may seek its own wholesale distribution service rate based on the specific facts of the customer's service. While a utility may propose a one-size-fits-all rate, *e.g.*, a formula rate,[131] it is not clear that such a rate would be just and reasonable. Rather, for each of the potentially thousands of interconnections, a utility could face a

124. *Dayton Power and Light Co.*, 157 F.E.R.C. ¶ 61,231 (2016).

125. *Id.*; 155 F.E.R.C. ¶ 61,181 at PP 5-6.

126. *See e.g.*, *Calpine Corp. v. PJM Interconnection, L.L.C.,* 169 F.E.R.C. ¶ 61,239 (2019) (Glick, Comm'r, dissenting at P 3) (Commissioner Glick quantified the impact of the Commission's order as "amount[ing] to a multi-billion-dollar-per-year rate hike for PJM customers, which will grow with each passing year.") *reh'g pending.*

127. *Electric Storage Participation in Markets Operated by Regional Transmission Organizations and Independent System Operators*, 162 F.E.R.C. ¶ 61,127 at P 289 (2018).

128. *Id.* at P 29.

129. *Id.* at P 35.

130. *Id.* at P 5.

131. *Id.* at P 41.

unique case at FERC. If even a fraction of such cases were to be litigated in hearings at FERC, the litigation log jam would take years to clear. A Simplified Track I procedure that would enable litigants to address their specific concerns could ease the burden.

In contrast to the FPA, the NGA has structural limitations that could prevent a broad use of the Simplified Track I procedure.[132] NGA section 5 has no refund effective date provision.[133] Due to the expense of litigation, while a natural gas company may choose not to litigate with its customers for years, the structure of the statute incents such delay. The longer it takes for FERC to issue a substantive order in a section 5 case, the longer the natural gas company keeps its existing rate. Thus, it seems unlikely that a natural gas company would agree to a streamlined resolution of a dispute with customers in a section 5 context. But certain NGA section 4 cases could benefit from a Simplified Track 1. For example, as with electric utilities, natural gas companies have disputes over interconnections.[134] Such cases are fact specific and can be sufficiently small that a Simplified Track I procedure could provide an effective means to resolve the dispute. Other NGA section 4 filings by natural gas companies are unlikely to be suitable for resolution by the Simplified Track I procedure because either the dollars at issue are too high or the tariff terms and conditions will involve important FERC policy considerations.

VII. HARMONIC AUCTION AS A SETTLEMENT TOOL

While litigation is necessary to distill facts and law into a resolution, many disputes boil down to a single number. Frequently, the parties find a way to meet at some middle ground. However, on occasion, despite intensive negotiation and good faith efforts on both sides, movement towards the center stops. In those instances in which each party's position has been reduced to a number and the numbers are close—"close" is, of course, case-specific and subjective—and all that remains is to bridge the gap, the parties should settle. The Harmonic Auction is a novel[135] tool that can be used to bridge that gap.

The Harmonic Auction requires two sides and is limited to those two sides.[136] Of course, each side may be composed of multiple parties so long as the parties act as one.[137] For example, one side might be an electric or natural gas

132. Natural Gas Act, 15 U.S.C. §717 (1977).

133. *Id.*

134. 15 U.S.C. § 717f(a) (authorizing FERC to order a pipeline to interconnect to a local distribution utility); *see, e.g.*, NAT. GAS INTELLIGENCE, FERC RESOLVES DISPUTE BETWEEN TENNESSEE, COLUMBIA GULF OVER INTERCONNECT (Aug. 1, 2005), https://www.naturalgasintel.com/articles/13270-ferc-resolves-dispute-between-tennessee-columbia-gulf-over-interconnect.

135. *Innovation in the FERC Hearing Process*, ENERGY BAR ASS'N, (May 7, 2019, 11:00 AM), https://docplayer.net/164490061-Session-a-innovation-in-the-ferc-hearing-process.html. The term "Harmonic Auction," as well as the concept, originated with the May 7, 2019 panel presentation at the annual meeting of the Energy Bar Association. The author is unaware of any other academic literature discussing or applying this tool.

136. *Id.*

137. *Id.*

utility, while the other side might be comprised of customers and the FERC Office of Administrative Litigation Staff. Therein lies the first challenge to a successful Harmonic Auction: the more parties with more diverse interests, the harder it will be to integrate those parties into the two sides.

Another precondition to a successful Harmonic Auction is that the dispute must be mature; the Harmonic Auction is not the first step.[138] Before engaging in the Harmonic Auction, each side must have a fully developed position.[139] In addition, each side must have a full understanding of the other side's position.[140] The position espoused by each side must be intellectually, economically and legally supportable by all participants to the proceeding as well as the appointed Settlement Judge.[141] If one side's position does not meet that test, it will be impossible for the Settlement Judge to certify the settlement result and for FERC to accept the settlement as fair and reasonable. But assuming that the two sides' respective positions are fully supportable, those positions define a range of reasonable settlement outcomes, any of which could be approved by FERC. Then, for a successful Harmonic Auction, both sides must be willing to accept any result within that range of settlement outcomes.[142]

Prior to beginning the Harmonic Auction, each side's Terminal Position must be established.[143] Each side's respective Terminal Position is the outcome that the side considers optimal.[144] Of course, as noted above, that Terminal Position must be intellectually, economically and legally supportable by all participants and the Settlement Judge to yield a valid outcome.[145] In addition, the participants to the Harmonic Auction must determine an Interval Amount.[146] With each round of the Harmonic Auction, the bid moves one Interval Amount towards a Terminal Position.[147] The Interval Amount must be small enough to allow the loser of the coin toss ("Bidder 2") that starts the Harmonic Auction not to feel cheated or abused if the coin-toss winner ("Bidder 1") accepts the first bid iteration.[148] But the Interval Amount must be large enough for the Auction to progress at a reasonable rate.[149] Too small of an Interval Amount will burden the sides with endless iterations of the Harmonic Auction process.

The Harmonic Auction begins at the midpoint of the two Terminal Positions.[150] On the assumption that the parties have rejected the "split the difference compromise," Bidder 1 has the first opportunity to accept a bid that is one Inter-

138. *Id.*
139. *Innovation in the FERC Hearing Process*, *supra* note 135, at 8.
140. *Id.*
141. *Id.*
142. *Id.*
143. *Id.* at 4.
144. *Innovation in the FERC Hearing Process*, *supra* note 135, at 8.
145. *Id.* at 5.
146. *Id.*
147. *Id.*
148. *Id.*
149. *Innovation in the FERC Hearing Process*, *supra* note 135, at 5.
150. *Id.*

val Amount closer to Bidder 1's Terminal Position from the midpoint.[151] Only Bidder 1 can accept that bid.[152] If Bidder 1, does not accept, Bidder 2 has the opportunity to accept a bid that is one Interval Amount closer to Bidder 2's Terminal Position from the midpoint.[153] Only Bidder 2 can accept that bid.[154] If Bidder 2, does not accept, Bidder 1 has the opportunity to accept a bid that is two Interval Amounts closer to Bidder 1's Terminal Position from the midpoint.[155] And so the auction continues until a bid is accepted.[156]

As an example, consider a case in which the Terminal Position of Bidder 1 is payment to it of $1.2M and the Terminal Position of Bidder 2 is payment to Bidder 1 of $800,000. The midpoint of these two Terminal Positions is $1M. In this case, the parties determine the Interval Amount should be $40,000. Bidder 1 gets the first opportunity with a chance to accept a settlement number of $1,040,000, the midpoint plus one Interval Amount. Assuming Bidder 1 rejects that number, Bidder 2 gets the opportunity to accept $960,000, the midpoint minus one Interval Amount. If Bidder 2 rejects that, Bidder 1 may accept $1,080,000, the midpoint plus two times the Interval Amount. If Bidder 1 rejects that, Bidder 2 may accept $920,000, the midpoint minus two times the Interval Amount. The next round is the midpoint plus, and then minus, three times the interval amount. And the auction continues, with the settlement number progressively moving further from the midpoint until either bidder accepts the number or a Terminal Position is reached.

The Harmonic Auction could also be applied in the context of an ROE negotiation. Suppose Bidder 1's Terminal Position is 9.5%, Bidder 2's Terminal Position is 10.5%, the midpoint is 10.0%, and the agreed upon Interval Amount is 0.05%. In this auction, Bidder 1 could accept 9.95%. In this case, because Bidder 1's Terminal Position is less than the midpoint, the first bid is a subtraction of one Interval Amount from the midpoint. If Bidder 1 does not accept, the next offer goes to Bidder 2 at 10.05%. Then Bidder 1 gets a chance at 9.9%, Bidder 2 at 10.1%, Bidder 1 at 9.85%, Bidder 2 at 10.15%, Bidder 1 at 9.8 %, Bidder 2 at 10.2%, and so forth until an offer is accepted or the Bidder 1 Terminal Position is reached.

While it may appear that the coin toss winner always wins, even if the Interval Amount has been properly set, that should not be the case. To illustrate that the coin toss winner will not always win, consider a situation in which Bidder 1 believes she has a very strong case. Bidder 1 may be tempted to reject all bids until her Terminal Position is reached. But Bidder 1's strategy could backfire. Bidder 2 may agree that Bidder 1 has a very strong case. Bidder 2 may accurately perceive that Bidder 1 will hold out to obtain a result as close as possible to her Terminal Position. Thus, Bidder 2 may accept a bid several Interval

151. *Id.*
152. *Id.*
153. *Id.* at 8.
154. *Innovation in the FERC Hearing Process*, supra note 135, at 8.
155. *Id.* at 3.
156. *See* discussion *supra* Part II; *see, e.g.*, 16 U.S.C. § 824e; 15 U.S.C. § 717d.

Amounts before her Terminal Position, preventing Bidder 1 from approaching her Terminal Position. In other words, in this hypothetical, Bidder 2's decision to accept a bid is not only driven by her belief in her case and desire to reach her Terminal Position, but also her assessment of Bidder 1's case and Bidder 1's desire to reach her Terminal Position. Thus, while it is true that Bidder 2, as the coin toss loser, cannot achieve her Terminal Position, she can still "win" the Harmonic Auction through accurately assessing Bidder 1's position and strategy and accepting a bid on her side of the midpoint.

Recall the ROE Harmonic Auction illustration above. It would be very shortsighted of Bidder 1 to think she would achieve her Terminal Position. Working backward in the Harmonic Auction process, would Bidder 2—recall Bidder 2 seeks the highest possible ROE—reject 10.45% knowing that rejection of 10.45% would allow Bidder 1 to accept 9.5%? Of course not. Similarly, would Bidder 1—recall Bidder 1 seeks the lowest possible ROE—reject 9.55% knowing that rejection would result in the all but certain acceptance by Bidder 2 of 10.45%? That is similarly improbable. This example reveals that a key factor in deciding to accept an offer is a participant's perception of when the other side is most likely to accept the next bid. Thus, a participant wins by accepting the offer just before the other side, if given the opportunity, would accept.

It is clear that a bidder's actions in the Harmonic Auction are dependent upon an understanding of the other side's case and goal. Thus, full information exchange is critical. To run a Harmonic Auction requires the settlement discussions to be mature.[157] In addition, it should be clear that the Terminal Positions cannot be extreme positions.[158] Rather, the Terminal Positions must represent two positions in the range of fair and reasonable settlement outcomes.[159] Then, by means of the Harmonic Auction, two sides that were otherwise unable to close the gap in their positions, may successfully reach settlement.[160]

VIII. CONCLUSION

Under FERC Rules, there are a variety of options to expedite resolution of cases and minimize the expense to litigants. For a variety of reasons, chiefly the absence of a deadline for final FERC decision,[161] those options do not expedite cases in fact. In addition, the current FERC Rules do not offer a streamlined, but still structured, process that provides an opportunity to be heard when the issues to be resolved are narrow and the dollars at issue are limited.[162] Because of the time and expense of litigation, important issues may not be litigated. Simply put, for some cases, the FERC process is a worse option than the status quo. Similarly, when facing a litigant with larger litigation resources, a party may be compelled to accept an unfavorable settlement to avoid a worse litigation result.

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157. *See* discussion *supra* Part II.

158. *See* discussion *supra* Part VI.

159. *Innovation in the FERC Hearing Process*, *supra* note 135, at 1.

160. *Id.* at 8.

161. *Id.*

162. *Id.* at 3.

Additional procedures should be added to FERC's Rules in order to provide a simplified mini-trial mechanism to resolve small, that is, less than about $1 million, cases. A Simplified Track I mechanism as has been proposed here offers limited discovery, limited testimony, and the option of limited hearing procedures before an informed neutral party. The Simplified Track I procedure also provides the opportunity to achieve a final binding result much quicker than could be obtained in standard litigation.[163] The net result is certainty achieved at much lower cost while providing litigants an opportunity to be heard.

As an alternative to litigation, when a dispute can be reduced to two sides, each with a single Terminal Position, the Harmonic Auction provides a novel tool to bridge the gap between Terminal Positions.[164] However, a successful Harmonic Auction requires substantial effort by the two sides, both to understand their own case and the other side's case.[165] The Harmonic Auction requires that the two Terminal Positions each be fully supportable settlement end points making clear that the Terminal Positions define a range of fair and reasonable settlement outcomes.[166] Then, the Harmonic Auction can be used to produce a settlement when parties have closed the gap between their positions but have been unable to reach a settlement.[167]

IX. APPENDIX

Draft Proposed Revisions to Rule 604, 18 C.F.R. § 385.604

1. Revise section 385.604(d)(3) to read as follows:

   For all other matters:

   (i) a proposal to use alternative means of dispute resolution may be filed with the Secretary for consideration by the appropriate decisional authority; or

   (ii) a request for a minitrial may be filed with the chief judge as described in (g) below.

2. In section 385.604, paragraph (g) is added to read as follows:

   (g) The minitrial will follow then-current FERC discovery and hearing rules, except for as follows:

   (1) The complainant's Direct Testimony, respondent's Answering Testimony, and FERC Trial Staff Answering Testimony will be

163. *See infra* Appendix.
164. *See generally Innovation in the FERC Hearing Process*, *supra* note 135.
165. *Id.*
166. *Id.*
167. *Id.*

limited to 50 pages (not including exhibits). Complainant's Rebuttal Testimony will be limited to 25 pages (not including exhibits).

(2) Absent approval from the ALJ, a party may direct no more than a total of a combination of 25 data requests and interrogatories to the other party; no depositions will be permitted.

(3) The ALJ may allow for additional data requests and interrogatories only upon a motion showing that such additional discovery is necessary. The party making the motion will include with the request the proposed additional discovery.

(4) There will be no trial-type hearing unless one party requests it, in which case a brief hearing (*e.g.*, one witness per side) will be held.

(5) Simultaneous Initial Briefs will be limited to 25 pages each and simultaneous Reply Briefs will be limited to 10 pages each. These page limits may be increased upon agreement of the parties.

(6) Upon mutual written agreement of the parties, any of the limits described above may be adjusted. Also, for good cause shown, at the request of either party the ALJ presiding over the minitrial may agree to alter any of these limits for either or both parties.

(7) Exhibits will be presumptively admitted upon their filing with the ALJ. Parties may, however, move to strike evidence that is irrelevant, immaterial, unfairly prejudicial, or unduly repetitious.

(8) In the course of a minitrial, the parties agree to abide by the Commission's then-current rules and procedures for electronic submission of documentary evidence.

(9) The decision of the ALJ presiding over the minitrial will be binding, final and not subject to rehearing, appeal or further legal review.

PIPELINE PROJECTS—THE EVOLVING ROLE OF GREENHOUSE GAS EMISSIONS ANALYSES UNDER NEPA

Steven M. Siros, Alexander J. Bandza, Matthew Lawson, and Jonathan Vruwink[*]

Synopsis: Under the National Environmental Policy Act (NEPA), federal agencies are generally required to evaluate the impact of greenhouse gas (GHG) emissions that directly result from the construction or operation of major federal projects. However, the degree to which NEPA also requires agencies to consider a federal project's indirect GHG emissions—*i.e.*, those emissions resulting from a project's construction or operation, but that occur at a later date or different location—remains deeply contentious. This dispute has been especially contentious in the context of proposed oil and gas pipeline projects, where the indirect GHG emissions from drilling, fracking, and burning oil and gas transported by the pipelines often exceed by several magnitudes the direct emissions from the pipelines' construction and operation.

An inter-branch give-and-take has developed in response to this conundrum, with the Federal Energy Regulatory Commission (FERC, or the Commission) finding itself at odds with federal courts reviewing the pipeline approval process. Prior to 2017, FERC took the position that indirect GHG emissions associated with oil and gas pipeline projects were too speculative to be considered under NEPA. However, in its 2017 *Sabal Trail* decision, the D.C. Circuit clarified that, at minimum, FERC had to take into account certain indirect GHG emissions resulting from a proposed interstate pipeline where the proposed pipeline would transmit oil and/or natural gas to one or more specific power plants, or else explain specifically why the Commission was unable to do so. In subsequent decisions, the D.C. Circuit has criticized FERC for not seeking emissions information needed to evaluate a project's indirect GHG emissions. Following the 2017 *Sabal Trail* decision, FERC, divided along political lines, has taken the position that the D.C. Circuit's ruling is limited to the type of specific indirect GHG emissions contemplated in *Sabal Trail*, and has resisted calls from environmental proponents to consider indirect GHG emissions during other types of pipeline NEPA reviews.

Amidst this back and forth, a number of new events have transpired with the potential to shift the future balance of FERC's obligation to consider GHG in pipeline reviews. In April 2018, FERC announced that it was considering an update to its written policies for reviewing potential pipeline projects and issued a Notice of Inquiry (NOI) to collect public comments on whether and how the Commission should evaluate indirect GHG emissions. However, in the midst of this reevaluation process, the Commission has undergone a dramatic change in composition following the passing of FERC Commissioner Kevin McIntyre on January 2,

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2019; Commissioner Cheryl LaFleur's decision to step down from the Commission in August 2019; and Commissioner Bernard McNamee's announcement that he intends to step down from the Commission at the end of his term on June 30, 2020. At present, the Senate has confirmed the Trump Administration's nominee of FERC General Counsel James Danly to fill the seat of deceased Commissioner McIntyre. However, nominations have not been made to fill the remaining open seats on the Commission. Finally, on January 10, 2020, the Trump Administration published a Notice of Proposed Rulemaking seeking to update the Council on Environmental Quality's (CEQ) regulations for implementing the procedural provisions of NEPA. The CEQ regulations apply generally to all federal agency NEPA reviews, and the proposed modifications to these regulations would be expected to have a direct impact on FERC's decision-making process. Of course, the potential impact of these recent events must be considered within the context of a growing willingness by federal courts to scrutinize federal agencies for failing to consider indirect GHGs in the context of NEPA reviews. Consequently, the collection of recent events and court decisions have created an uncertain future regarding the scope of indirect emissions that must be considered during proposed pipeline reviews.

I. INTRODUCTION

Whether and how the National Environmental Protection Act (NEPA) requires federal agencies to evaluate greenhouse gas (GHG) impacts of federal projects have long been the subject of significant debate and litigation.[1] This debate has largely been settled for GHG emissions directly attributable to the construction or operation of a federal project, with courts uniformly requiring that federal agencies consider such direct GHG emissions as part of a NEPA review.[2] Less resolved is whether federal agencies must also consider GHG emissions that result from the existence of the project but that occur at a later date or location other than the site of the project. This issue—i.e., whether the "indirect" emissions of a federal project fall within the scope of an agency's required NEPA review—is particularly acute in the context of proposed oil and gas pipeline projects.[3] The potential indirect GHG emissions associated with oil and gas pipelines (e.g., GHG emissions from drilling, fracking, or combusting the oil and natural gases carried through these pipelines) are often several magnitudes greater than the emissions directly attributable to the pipelines' construction or operation.[4] Tension exists between federal courts and FERC—the agency charged with reviewing and approving interstate pipeline projects[5]—as to whether, and to what extent, FERC must consider indirect GHG emissions associated with potential pipeline projects.[6] In response, FERC issued a Notice of Inquiry (NOI) in April 2018 seeking comments from

1. We note that the *Energy Law Journal* has recently published pieces that touch on these issues, too, although with different overall focuses than this Article. For example, Commissioner Glick and Matthew Christiansen recently published on the effect of FERC's actions on climate change, which touches on *Sabal Trail* discussed herein. Richard Glick & Matthew Christensen, *FERC and Climate Change*, 40 ENERGY L.J. 1 (2019). Another article dives deep into the political changes and litigation risks that bear upon natural gas pipelines, which, too, touches on *Sabal Trail*. Christine Tezak, *A Policy Analyst's View on Litigation Risk Facing Natural Gas Pipelines*, 40 ENERGY L.J. 209 (2019). We encourage readers of this Article to also review each of these Articles for additional insights on these issues.

2. Draft Guidance; Request for Comment, *Draft National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions*, 80 Fed. Reg. 30,097 (2019).

3. *Id*.

4. U.S. ENERGY INFO. ADMIN., EMISSIONS OF GREENHOUSE GASES IN THE U.S. (Mar. 2011), https://www.eia.gov/environment/emissions/ghg_report/ghg_overview.php.

5. FED. ENERGY REG. COMM'N, WHAT FERC DOES (Aug. 2018), https://www.ferc.gov/about/ferc-does.asp.

6. Jayni Hein, *Pipeline Approvals and Greenhouse Gas Emissions*, INST. FOR POLICY INTEGRITY (April 2019), https://policyintegrity.org/files/publications/Pipeline_Approvals_and_GHG_Emissions.pdf.

stakeholders as to whether FERC should modify its approach for considering indirect GHG emissions.[7] While FERC's NOI remains pending (some might say it has stalled),[8] ongoing FERC decisions and reviewing federal circuit court opinions struggle to establish if and when NEPA requires that these indirect GHG emissions be assessed.[9]

We will discuss how FERC's position on indirect GHG emissions has evolved over time, starting with a brief overview of the requirements of NEPA in the context of oil and natural gas pipelines, and how FERC and reviewing federal courts currently view FERC's obligation to consider indirect GHG emissions in its NEPA reviews. Next, we address FERC's pending rulemaking initiative, and how recent changes to the composition of the Commission as well as newly proposed Council on Environmental Quality (CEQ) regulations may potentially impact the outcome of FERC's initiative. Finally, this Article offers a prognostication as to the expected outcome of FERC's rulemaking and whether FERC's final rule is likely to be upheld by reviewing courts in the D.C. Circuit.

II. BACKGROUND

Through the Natural Gas Act (NGA), Congress granted FERC the authority and responsibility to regulate interstate transportation of natural gas within the United States.[10] FERC is charged with approving the construction or expansion of proposed pipeline projects and associated infrastructure.[11] When FERC determines there is sufficient need for a particular project, the agency will issue a "certificate[] of public convenience and necessity" that allows the construction of a new pipeline.[12] Because FERC must issue this certificate before construction of a pipeline project can commence, the certificate's issuance triggers the requirements of NEPA.[13] The size and potential environmental impact of most interstate pipeline projects result in these projects being "Major Federal Actions" under NEPA that require an Environmental Assessment (EA) and Environmental Impact Statement (EIS) before a certificate can be issued.[14]

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7. Notice of Inquiry, *Certification of New Interstate Natural Gas Facilities*, 163 F.E.R.C. ¶ 61,042 at P 1 (2018).

8. Scott Grover, *Friction Shadows FERC Pipeline Process Review*, AM. BAR ASS'N (Mar. 15, 2019), https://www.americanbar.org/groups/environment_energy_resources/publications/natural_resources_environment/2018-19/winter/friction-shadows-ferc-pipeline-process-review/.

9. Hein, *supra* note 6.

10. 15 U.S.C. § 717(a) (2005); *see also* 15 U.S.C. §§ 717f(c)(e) (2019).

11. FED. ENERGY REG. COMM'N, *supra* note 5.

12. *See generally* 15 U.S.C. § 717f(a), (c) (1988) (Applicants are required to obtain a certificate of public convenience and necessity prior to beginning a new pipeline project under section 7(c) of the Natural Gas Act).

13. ENVTL. PROT. AGENCY, *National Environmental Policy Act Review Process*, https://www.epa.gov/nepa/national-environmental-policy-act-review-process (last visited Feb. 4, 2020).

14. *Id.*; *see also* 40 C.F.R. § 1508.18 (for definitions of "major federal actions").

A. NEPA's General Requirements

NEPA is considered "our basic national charter for protection of the environment,"[15] and its enactment "express[ed] a Congressional determination that procrastination on environmental concerns is no longer acceptable."[16] The statute mandates that the federal government act as a "trustee of the environment" and assure that the nation's citizens are provided a "safe, healthful, productive, and esthetically and culturally pleasing" environment.[17]

To achieve these ambitious objectives, NEPA requires federal agencies to quantify and consider the environmental impacts of any actions "with effects that may be major and which are potentially subject to Federal control and responsibility."[18] The agency must consider these impacts before "any irreversible and irretrievable commitments of resources" occur.[19] To properly consider the environmental impacts of proposed actions, federal agencies are required "to the fullest extent possible" to prepare "a detailed statement on . . . the environmental impact" of "Major Federal Actions significantly affecting the quality of the human environment."[20]

B. EA and EIS Requirements

The first step in the NEPA process is preparation of the EA.[21] An EA consists of a "concise public document" that "[b]riefly provide[s] sufficient evidence and analysis for determining whether to prepare an [EIS] or a finding of no significant impact."[22] If the agency determines that the action will not have any significant impact on the environment, a Finding of No Significant Impact (FONSI) is issued, which, absent litigation challenging the same, effectively concludes the NEPA process.[23] Alternatively, if the EA concludes that a Federal Action could have a significant impact, the federal agency is obligated to take the next step under NEPA and prepare a detailed EIS that describes and quantifies the action's environmental impacts.[24]

In drafting an EIS, an agency is required to evaluate the environmental impacts of the proposed action, any unavoidable adverse environmental effects of the proposed action, the resource commitments involved in the proposed action, and

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15. 40 C.F.R. § 1500.1(a) (2019).

16. Foundation for N. Am. Wild Sheep v. United States Dep't of Agric., 681 F.2d 1172, 1181 (9th Cir. 1982).

17. 42 U.S.C. § 4331(b) (2019).

18. 40 C.F.R. § 1508.18 (2019).

19. 42 U.S.C. § 4332(C)(v) (2019); 40 C.F.R. § 1500.1(b); *see also Foundation for N. Am. Wild Sheep*, 681 F.2d at 1181 (federal agency decisions "to act now and deal with the environmental consequences later . . . [are] plainly inconsistent with the broad mandate of NEPA.").

20. 42 U.S.C. § 4332(2)(C)(i) (2007); *see also* 40 C.F.R. § 1500.2 (2014).

21. 40 C.F.R. § 1501.4(b) (2019).

22. *Id*. § 1508.9(a)(1).

23. *Id*. § 1501.4(e).

24. 42 U.S.C. § 4332(2)(C)(i). Given the expansive scope of most pipeline projects, an EIS must often be completed prior to the FERC's issuance of a "certificate of public convenience and necessity."

alternatives to the proposed action.[25] The time and resources required to prepare these documents are significant.[26]

C. Judicial Review of EIS

While NEPA requires that federal agencies consider and quantify environmental impacts associated with the proposed project, it does not require that agencies modify their behavior based on the findings of their review.[27] For this reason, a court's review of an EIS is limited to ensuring that an agency complied with the procedural requirements of NEPA, and "[c]ourts may not use their review of an agency's environmental analysis to second-guess substantive decisions committed to the discretion of the agency."[28] Instead, the court's review is limited to "insur[ing] that the agency has taken a 'hard look' at the environmental consequences" of proposed federal actions.[29] So long as an agency properly quantifies the environmental impacts of a proposed federal action, courts will not overturn an agency's decision to carry out a proposed action based on the results of an EA or EIS.[30]

D. Environmental Impacts That Must Be Considered Under NEPA

CEQ promulgates regulations and guidance for federal agencies' NEPA reviews of proposed federal actions.[31] Under CEQ's regulations, federal agencies must quantify and consider all of the foreseeable environmental impacts resulting from a federal action.[32] This review includes not only the immediate, direct impacts stemming from a proposed project, but also any foreseeable indirect impacts from the same.[33]

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25. 40 C.F.R. § 1502.14 (2019); *see also* Kleppe v. Sierra Club, 427 U.S. 390, 401-02 (1976).

26. U.S. DEP'T OF ENERGY, NATIONAL ENVIRONMENTAL POLICY ACT: LESSONS LEARNED, QUARTERLY REPORT (Sept. 2017), https://www.energy.gov/sites/prod/files/2017/09/f37/LLQR%20Sep_2017.pdf. According to the Department of Energy (DOE), in 2016, the median completion time for EAs and EISs were 21 months and 49 months, respectively. Moreover, the estimated cost of a completed EIS has been estimated at approximately $4.2 million dollars. These estimates do not include the potential costs of citizen challenges to completed EISs, or the additional costs if further edits to a completed EIS are ordered by a court. Given the large, often highly public nature of Federal Actions that require an EIS, significant public scrutiny and potential challenges to a completed EIS can often be expected.

27. *See, e.g.*, Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 351 (1989) ("NEPA merely prohibits uninformed-rather than unwise-agency action.").

28. Sierra Club v. United States Dep't of Energy, 867 F.3d 189, 196 (D.C. Cir. 2017) (quoting Marsh v. Oregon Natural Resources Council, 490 U.S. 360, 377 (1989)).

29. *Kleppe,* 427 U.S. at 410 n.21.

30. *Id*. at 413-15, n.26.

31. 40 C.F.R. §§ 1501.1-1501.8.

32. 40 C.F.R. § 1501.1.

33. Federal agencies must additionally consider the environmental impacts of any other "connected" federal actions as well as the "cumulative" effects of other ongoing projects or events. 40 C.F.R. § 1508.25(a)(1)(i)-(iii). Connected federal actions are separately proposed federal actions which are interlinked to such a degree that NEPA requires their combined environmental impacts be evaluated under a single EIS. *See, e.g*., Sierra Club v. Penfold, 664 F. Supp. 1299 (D. Alaska 1987), *aff'd*, 857 F.2d 1307 (9th Cir. 1988) (BLM required to consider the cumulative impacts of several individual, small-operation gold placer mines located in a single region). While cumulative impacts are "impacts on the environment which results from the incremental impact of the action

1. Review of Environmental Impacts Generally

In conducting a NEPA review, the types of impacts that a federal agency must consider can be divided into roughly two categories: (1) direct impacts associated with the construction and operation of a federal action; and (2) any reasonably foreseeable indirect impacts occurring as a result of the federal action.[34] The first category—direct impacts—are environmental consequences caused by a proposed action which "occur at the same time and place" as the proposed action.[35] In contrast, indirect effects are environmental impacts "caused by the [project] and are later in time or farther removed in distance."[36] The scope of indirect effects that must be considered by an agency are not unlimited, however, as NEPA only requires that an agency consider the indirect environmental impacts of a federal action that are a "reasonably foreseeable" result of the project.[37]

The U.S. Court of Appeals for the First Circuit has explained that "reasonably foreseeable" environmental impacts are those that are "sufficiently likely to occur that a person of ordinary prudence would take it into account in reaching a decision."[38]

In contrast, future environmental impacts of a federal action are not considered "reasonably foreseeable" if the impacts will only occur as a result of another agency's or third parties' actions outside of the direct control of the reviewing agency.[39]

2. Review of GHG Emissions Generally

With respect to GHG emissions, many reviewing courts have found that agencies must not only consider GHG emissions directly resulting from a federal action, but also any future "indirect" GHG emissions which will foreseeably result from the action.[40] For instance, in *High Country Conservation Advocates,* the

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when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions." *See* 40 C.F.R. § 1508.7.

34. Gulf Restoration Network v. Jewell, 161 F. Supp. 3d 1119, 1131 (S.D. Ala. 2016) ("An environmental impact statement must consider not only the direct effects of a proposed action but also cumulative impacts and indirect effects of past, present, and reasonably foreseeable future actions.").

35. 40 C.F.R. § 1508.8(a).

36. *Id.* § 1508.8(b).

37. EarthReports, Inc. v. FERC, 828 F.3d 949, 955 (D.C. Cir. 2016).

38. Sierra Club v. Marsh, 976 F.2d 763, 767 (1st Cir. 1992); *see also* Delaware Riverkeeper Network v. FERC, 753 F.3d 1304, 1310 (D.C. Cir. 2016) ("The agency need not foresee the unforeseeable, but by the same token neither can it avoid drafting an impact statement simply because describing the environmental effects of and alternatives to particular agency action involves some degree of forecasting.") (quoting Scientists' Institute for Public Information, Inc. v. Atomic Energy Commission, 481 F.2d 1079, 1092 (D.C. Cir. 1973)).

39. *See, e.g.*, Department Transp. v. Pub. Citizen, 541 U.S. 752, 767 (2004) (finding that the Federal Motor Carrier Safety Administration's EIS was not required to consider the additional environmental impacts of a forthcoming executive order lifting the embargo on international truckers from Mexico).

40. *See, e.g.*, High Country Conserv. Advocates v. United States Forest Serv., 52 F. Supp. 3d 1174, 1190 (D. Colo. 2014) (Bureau of Land Management and U.S. Forest Service required to analyze the impacts from the likely release of methane gas from the expanded mining operations associated with a lease modification); Center for Biological Diversity v. Nat'l Highway Traffic Safety Admin., 538 F.3d 1172, 1224 (9th Cir. 2008) (National Highway Traffic Safety Administration must consider future GHG emissions resulting from its enactment of a final rule setting vehicle fuel efficiency standards); Mid States Coalition for Progress v. Surface Transp. Board,

court rejected an EA drafted by the United States Forest Service (USFS) in conjunction with its approval of new coal mining leases on federal lands because the EA failed to take a "hard look" at GHG emissions resulting from the leases.[41] According to the court, the USFS was not only required to quantify direct methane releases resulting from the coal mining operations, but also future CO_2 emissions that necessarily would occur as a result of power plants burning the mined coal.[42]

In 2016, CEQ modified its guidance to expressly endorse the view that NEPA requires federal agencies to consider both direct and indirect GHG emissions when evaluating the environmental impacts of a proposed action.[43] This guidance was subsequently withdrawn by the Trump Administration in 2017,[44] and in June 2019, CEQ issued a draft guidance that, predictably, lessens agencies' obligations under NEPA.[45] In particular, the 2019 CEQ draft guidance counsels agencies to quantify direct and indirect GHG emissions only when the "emissions are 'substantial enough to warrant quantification'" and "it is practicable to quantify them"; agencies should also consider "whether quantification . . . 'would be overly speculative.'"[46] Most recently, on January 10, 2020, the Trump Administration released proposed changes to CEQ's NEPA regulations.[47] As further discussed in Section IV, as proposed, the updated CEQ regulations would appear to eliminate the requirement that federal agencies account for GHG emissions to the extent they incrementally contribute to the impacts of climate change. If adopted, the proposed regulations would appear to depart significantly from recent federal court decisions that the cumulative impact on GHG emissions on the global process of climate change must be accounted for in a federal agency's NEPA review.[48] As explained further in Section III, the June 2019 draft guidance would perhaps be considered more in line with the position taken by FERC that in most situations,

345 F.3d 520 (8th Cir. 2003) (prior to approving construction of new rail lines, NEPA requires the Surface Transportation Board to consider future GHG emissions from burning coal that will be carried by the rail lines).

41. *High Country Conserv. Advocates,* 52 F. Supp. 3d at 1190.

42. *Id.*

43. COUNCIL ON ENVTL. EQUAL., EXEC. OFF. PRESIDENT, MEMORANDUM FOR HEADS OF FEDERAL DEPARTMENTS AND AGENCIES, FINAL GUIDANCE FOR FEDERAL DEPARTMENTS AND AGENCIES ON CONSIDERATION OF GREENHOUSE GAS EMISSIONS AND THE EFFECTS OF CLIMATE CHANGE IN NEPA REVIEW, 13–14, 16 (2016), https://perma.cc/QP7E-7PUM.

44. Executive Order No. 13,783, *Promoting Energy Independence and Economic Growth,* 82 Fed. Reg. 16,093 (2017); Notice, *Withdrawal of Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews*, 82 Fed. Reg. 16,576 (2017).

45. *See generally* 80 Fed. Reg. 30,097.

46. Randy Brogdon et al., *A Clear Shift in Policy: CEQ Issues Draft Guidance for Consideration of Greenhouse Gas Emissions under NEPA*, ENVTL. LAW AND POLICY MONITOR (July 3, 2019), https://www.environmentallawandpolicy.com/2019/07/a-clear-shift-in-policy-ceq-issues-draft-guidance-for-consideration-of-greenhouse-gas-emissions-under-nepa/.

47. Notice of Proposed Rulemaking, *Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act*, 85 Fed. Reg. 1,684 (2020) (to be codified at 40 C.F.R. pts. 1500-05, 1507-08).

48. *See e.g.*, San Juan Citizens Alliance v. United States BLM, 326 F. Supp. 3d 1227 (D.N.M. 2018) (holding that the Bureau of Land Management failed to sufficiently consider the incremental environmental impacts of issuing leases for oil and gas production where increased GHG emissions would incrementally contribute to ongoing effects of climate change).

indirect GHG emissions are too remote or speculative to warrant consideration under NEPA.[49]

3. The Environmental Impacts of Pipeline Projects

There are a number of "direct impacts" that FERC must consider when preparing an EIS during its NEPA review of natural gas and oil pipeline projects. Common direct impacts of pipeline projects include the following issues: potential damage to wildlife in the area surrounding the pipeline, including degradation of wildlife habitat;[50] potential damages to wetlands or other water resources in the pathway of the pipeline;[51] risks of environmental contamination from pipeline leaks or spills;[52] adverse impacts to lower socioeconomic populations;[53] localized air pollution generated by operation of equipment during construction of the project facilities;[54] and long-term air pollutant emissions from stationary equipment at pipeline associated facilities.[55]

With respect to GHG emissions specifically, methane gas is directly emitted when pipelines leak and during safety tests, and carbon dioxide is emitted when natural gas is combusted in order to operate compressor stations and other enabling infrastructure.[56] Because of the localized nature of most environmental impacts from pipelines, these impacts, including effects from GHG emissions or other air pollutants, can generally be quantified and associated with a specific pipeline.[57]

4. The Indirect Impacts of Pipeline Projects

In contrast, the scope of "reasonably foreseeable" indirect impacts of pipeline projects, including effects from GHG emissions, has been subject to greater disagreement. The issue of indirect GHG emissions has particular significance for pipeline projects because of the large volume of GHGs and other air pollutants that will be emitted by the "downstream" combustion of fossil fuels that are conveyed through such pipelines.[58] As articulated by the D.C. Circuit, "all [of] the natural gas that will travel through [] pipelines will be going somewhere: specifically, to power plants . . . some of which already exist, others of which are in the

49. Brogdon et al., *supra* note 46.

50. *See, e.g.*, FED. ENERGY REG. COMM'N, *FEIS for Northeast Supply Enhancement Project 4-79 to 4-80* (Jan. 2019), https://www.ferc.gov/industries/gas/enviro/eis/2019/01-25-19-FEIS/part-1.pdf.

51. *See e.g.*, FED. ENERGY REG. COMM'N, *FEIS for NEXUS Gas Transmission Project and Texas Eastern Appalachian Lease Project* 4-63 (Nov. 2016), https://www.ferc.gov/industries/gas/enviro/eis/2016/11-30-16-eis/FEIS.pdf.

52. *Id.* at 4-41.

53. *Id.* at 4-180; 4-181.

54. *See e.g.*, FED. ENERGY REG. COMM'N., *FEIS for Venture Global Calcasieu Pass, LLC and TransCameron Pipeline, LLC Calcasieu Pass Project* 4-151; 4-154 (Oct. 2018), https://www.energy.gov/sites/prod/files/2018/10/f57/final-eis-0510-calcasieu-pass-project-v1-2018-10.pdf.

55. *Id.*

56. Hein, *supra* note 6.

57. *Id.*

58. South Coast Air Quality Mgmt. Dist. v. FERC, 621 F.3d 1085, 1093 (9th Cir. 2010) (considering the increased emittance of nitrogen oxides (NOx) from natural gas power plants in analyzing the indirect environmental impacts of a natural gas pipeline).

planning stages."[59] Likewise, the construction and operation of a pipeline may arguably result in new indirect "upstream" emissions because they will enable increased gas or oil extraction and hydraulic fracturing.[60] Because the emissions from these upstream and downstream sources often far exceed the direct emissions from construction or operation of a pipeline, the manner in which FERC considers these indirect emissions is often a critical question in its NEPA reviews.

FERC's historic position has been that NEPA does not require the agency to consider upstream and downstream emissions of GHGs when reviewing potential pipeline projects. This position stemmed from the agency's view that "upstream" oil and gas extraction operations and "downstream" power plants would continue to operate regardless of whether the Commission approved a specific pipeline project, and thus future emissions from these operations or power plants need not be considered during the pipeline's approval.[61] However, recent court opinions have uniformly denounced this "perfect substitution" argument. Specifically, courts have found that FERC must consider increased GHG emissions from downstream power plants only if those emissions are sufficiently connected to the construction and operation of a specific pipeline.[62]

III. CURRENT STATUS OF THE OBLIGATION TO ANALYZE GHG EMISSIONS UNDER NEPA

In 2017, the D.C. Circuit in *Sabal Trail* clarified for the first time that, at minimum, FERC must account for increased downstream GHG emissions resulting from a proposed interstate pipeline where the proposed pipeline would transmit oil or natural gas to one or more specific power plants.[63] However, the applicability of the D.C. Circuit's opinion to future pipeline reviews has been subject to extensive debate, as the Commission has sought to limit its consideration of downstream GHG's emissions to situations where a proposed pipeline will serve only a discrete list of power plants.[64] Furthermore, the Commission has thus far rejected the notion that *Sabal Trail* also requires the Commission to consider "upstream GHG emissions" (i.e. emissions caused by increased drilling or natural gas extraction in areas that will be served by the pipeline). Finally, FERC has rejected calls for the Commission to attempt to quantify the impact of indirect GHG emissions in real dollars.[65]

A. Sabal Trail

The manner in which FERC is required to consider indirect GHG emissions was clarified in *Sabal Trail.*[66] The D.C. Circuit ruled that a pipeline's transport of natural gas to power plants in Florida had the indirect but reasonably foreseeable

59. Sierra Club v. FERC, 867 F.3d 1357, 1371 (D.C. Cir. 2017) [hereinafter *Sabal Trail*].
60. *Dominion Transmission, Inc*., 163 F.E.R.C. ¶ 61,128 at P 30 (2018).
61. WildEarth Guardians v. U.S. Forest Service, 120 F. Supp. 3d 1237, 1276 (D. Wyo. 2015).
62. *Sabal Trail*, 867 F.3d at 1371.
63. *Id.*
64. 163 F.E.R.C. ¶ 61,128 at P 34.
65. *Florida Southeast Connection, LLC,* 162 F.E.R.C. ¶ 61,233 at P 10 (2018).
66. *Sabal Trail,* 867 F.3d at 1371.

effect of releasing downstream GHG emissions from the combustion of the transported natural gas, and that these emissions needed to be quantified and considered as part of the pipeline's NEPA assessment.[67] In a 2-1 decision, the D.C. Circuit rejected FERC's EIS for the proposed Southeast Market Pipelines Project, a 500-mile natural gas pipeline that would stretch through Alabama, Georgia, and Florida.[68] The D.C. Circuit disagreed with FERC's conclusion that the pipeline's EIS did not need to consider the downstream GHG emissions emitted by the power plants that were to receive the natural gas transported by the proposed pipeline.[69] These emissions were, the court said, reasonably foreseeable, given that the entire purpose of authorizing the pipeline was to deliver natural gas to the specified power plants, which would, in turn, burn the natural gas and emit GHGs into the atmosphere.[70]

FERC argued that it was impossible to accurately quantify the GHG emissions resulting from the pipeline's approval because this calculation depended on a number of variables that FERC could not control or accurately predict, including operating decisions made by the individual plants and the region's demand for electricity.[71] However, the court reasoned that because FERC had, in fact, already estimated the quantity of gas that would be sent to the individual power plants, the Commission could "make educated assumptions" about the resulting downstream GHG emissions.[72]

Given these facts, the D.C. Circuit concluded that FERC "should have either given a quantitative estimate of the downstream [GHG] emissions that will result from burning the natural gas that the pipelines will transport or explain more specifically why it could not have done so."[73] The D.C. Circuit clarified, however, that "quantification of [GHG] emissions is not required *every* time those emissions are an indirect effect of an agency action" as "in some cases quantification may not be feasible."[74]

In addition to holding that FERC must quantify downstream emissions from pipeline projects when "feasible," the *Sabal Trail* court questioned, but did not determine, whether the Commission was also required to estimate the economic harm caused by the project's increased GHG emissions through use of the Social Cost of Carbon analysis tool (SC-CO_2).[75] The SC-$CO_2$is an analytical tool that attempts to "value in dollars the long-term harm done by each ton of carbon emitted."[76] In other words, if one has an estimate of the downstream GHG emissions that will result from a project, one can use the SC-CO_2 to estimate the economic harm from the same. To accomplish this goal, the tool estimates the potential

67. *Id*. at 1370-71.
68. *Id*. at 1363, 1375.
69. *Id*. at 1371.
70. *Id.* at 1371-72.
71. *Sabal Trail*, 867 F.3d at 1373-74.
72. *Id*. at 1374.
73. *Id*.
74. *Id*. at 1375.
75. *Id.*
76. *Sabal Trail*, 867 F.3d at 1375.

effects of the GHGs' contribution to climate change such as "changes in net agricultural productivity, human health, property damages from increased flood risk, and changes in energy system costs."[77] While the D.C. Circuit did not hold that FERC was required to utilize the SC-CO_2, the court did find that NEPA obligated FERC to either use the tool or provide an explanation as to why the Commission did not believe the tool was useful for decision-making purposes.[78]

B. Post-Sabal Trail—FERC's Treatment of Upstream and Downstream GHG Emissions

In response to *Sabal Trail*, the Commission elected to narrowly interpret the court's directive. For example, in *Dominion Transmission, Inc*., 163 F.E.R.C. ¶ 61,128 (2018) (*Otsego 2000*), a divided FERC concluded that *Sabal Trail* only required the Commission to quantify downstream GHG emissions in situations where a pipeline project would transmit gas or oil to one or more identifiable downstream power plants.[79] Because *Otsego 2000* involved the construction of support facilities for a segment of the pipeline that did not connect to specific power plants, FERC concluded that it need not evaluate downstream GHG emissions as "the Commission lack[ed] meaningful information about potential future natural gas production."[80]

Just one month later, FERC reaffirmed its narrow interpretation of *Sabal Trail* in *Tennessee Gas Pipeline Co., L.L.C.,* 163 F.E.R.C ¶ 61,190 (2018) (*Birckhead*).[81] In *Birckhead*, the Commission refused to consider either upstream or downstream GHG emissions during the NEPA review of a pipeline project that was set to deliver natural gas to an existing pipeline grid in the southeast U.S.[82] With respect to downstream GHG emissions, FERC noted that because the gas transported by the proposed pipeline would be delivered into an existing interstate natural pipeline grid and not to specific end users, the increased downstream emissions associated with the combustion of the natural gas were not quantifiable indirect impacts under NEPA.[83] Specifically, FERC noted that there is nothing in the record that identifies any specific end use or new incremental load downstream of the Project, and that "knowledge of these and other facts would [indeed] be necessary in order for the Commission to fully analyze the related effects . . . [to the] consumption of natural gas."[84]

The unique facts of *Birckhead* may have actually provided a stronger argument that FERC should have considered future increases in upstream—as opposed to downstream—emissions resulting from completion of the pipeline. As noted by the petitioners, the proposed pipeline segment would only serve a single natural

77. EPA, FACT SHEET: SOCIAL COST OF CARBON, 1 (Dec. 2016), https://www.epa.gov/sites/production/files/2016-12/documents/social_cost_of_carbon_fact_sheet.pdf.

78. *Sabal Trail*, 867 F.3d at 1375.

79. 163 F.E.R.C. ¶ 61,128 at P 34.

80. *Id*.

81. *Tennessee Gas Pipeline Co.,* 163 F.E.R.C. ¶ 61,190 at PP 58-59 (2018).

82. *Id*. at P 58.

83. *Id*. at PP 61-62.

84. *Id.* at PP 60-62.

gas producer that sought to transport its extracted gas to the southeast U.S. energy market.[85] Thus, any increased upstream GHG emissions associated with the company's gas extraction operations were arguably foreseeable and quantifiable.

However, FERC rejected the proposition that any upstream GHG emissions resulting from the project fell within the scope of the Commission's required NEPA review.[86] FERC concluded that there was "no record evidence" that the pipeline would "induce incremental production of natural gas and, even if additional gas [was] induced, the amount, timing, and location of such development activity [would be] speculative."[87] FERC's majority position was heavily criticized by Commissioners Cheryl LaFleur and Richard Glick, who pointed out that the reason FERC lacked adequate information to estimate the potential incremental increases in natural gas production resulting from the pipeline was because FERC declined to exercise its authority to ask for this information from the natural gas producer served by the pipeline.[88]

Following *Otsego 2000* and *Birckhead*, FERC issued perhaps its strongest language on the topic of indirect GHG emissions in *PennEast Pipeline Company, LLC*, 164 FERC ¶ 61,098 (2018) (*PennEast*).[89] In *PennEast*, certain petitioners argued that FERC needed to consider the upstream and downstream GHG emissions that were likely to result from the Commission's approval of a new pipeline that would transport natural gas produced from the Marcellus Shale to northeastern Pennsylvania.[90] In contrast to earlier FERC decisions, the *PennEast* pipeline's EIS provided a rough "upper-bound" calculation of the pipeline's potential upstream and downstream GHG emissions based on an assumption that the pipeline would carry the maximum quantity of natural gas every day and that all gas transported through the pipeline would be used for additional consumption.[91]

However, FERC characterized these estimates as "beyond that which is required by NEPA."[92] The Commission held that it was not required to consider the estimated upstream or downstream GHG emissions in its approval of the pipeline because "the record [did] not show a specific end use of the gas transported by the project" and did not contain "information regarding the number, location, and timing of [production] wells" served by the pipeline.[93]

C. FERC's Use of the SC-CO_2 After Sabal Trail

Following the D.C. Circuit's remand in *Sabal Trail*, FERC drafted a supplemental EIS that quantified the incremental downstream GHG emissions that would result from the pipeline's completion.[94] However, FERC declined to utilize SC-

85. *Id.* at P 58.
86. 163 F.E.R.C. ¶ 61,190 at P 58.
87. *Id.*
88. *Id.* (LaFleur, Comm'r, concurring); (Glick, Comm'r, dissenting).
89. *PennEast Pipeline Company, LLC*, 164 F.E.R.C. ¶ 61,098 (2018).
90. *Id.* at P 104.
91. *Id.* at P 111 n.252.
92. *Id.* at P 111.
93. *Id.* at PP 109, 111.
94. 162 F.E.R.C. ¶ 61,233 at P 2.

CO_2 to estimate the economic damages associated with the incremental increases.[95] To justify this position, FERC maintained that the SC-CO_2 was not a useful tool for the Commission's NEPA evaluation "because several of the components of its methodology are contested and because not every harm it accounts for is necessarily significant within the meaning of NEPA."[96] FERC went on to question the validity of SC-CO_2 by noting that there was no consensus among federal agencies or commentators as to the appropriate discount rate that should be integrated into the tool when measuring potential damages "spanning multiple generations."[97] The Commission noted that the application of different discount factors could result in inconsistent measurements of environmental effects across agencies.[98]

IV. FUTURE PROGNOSTICATION—THE FATE OF FERC'S REVIEW OF INDIRECT GHG EMISSIONS UNDER NEPA

A. FERC Continues to Refine its Position on Indirect GHG Emissions

In the wake of *Sabal Trail* and the midst of legal battles over the scope of its obligation to consider indirect GHG emissions, FERC elected to solicit public comments on if and how it should update its process for conducting reviews of proposed pipelines under the NGA and NEPA.[99] However, before FERC could take the additional step of presenting draft updates to its processes, a dramatic change to the Commission's composition and the release of proposed modifications to the CEQ regulations from the Trump Administration have likely fundamentally altered FERC's update process.[100] As such, it is unclear when (if ever) FERC will release its proposed findings from the NOI and how the agency will frame its obligation to consider indirect GHG emissions in future pipeline reviews.

1. FERC's Notice of Inquiry

On April, 19, 2018, FERC issued a Notice of Inquiry asking for "information and stakeholder perspectives to help the Commission explore whether, and if so how, it should revise its approach" to approving pipeline projects under the NGA.[101] Specifically, FERC sought comments on: "(1) [t]he reliance on precedent agreements to demonstrate need for a proposed project; (2) the potential exercise of eminent domain and landowner interests; (3) the Commission's evaluation of alternatives and environmental effects under NEPA and the NGA; and (4) the efficiency and effectiveness of the Commission's certificate processes."[102]

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95. *Id.* at P 31.

96. *Id.*

97. *Id.* at P 35.

98. *Id.*

99. 162 F.E.R.C. ¶ 61,233 at P 4.

100. *See generally* Press Release, What They Are Saying: CEQ Issues Proposed Rule to Modernize its NEPA Regulations, U.S. Dep't of Interior (Jan. 13, 2020) (on file with author).

101. Notice of Inquiry, *Certification of New Interstate Natural Gas Facilities*, 163 F.E.R.C. ¶ 61,042 at P 1 (2018).

102. *Id.* at P 51 (emphasis added).

FERC issued this NOI in recognition that 19 years had passed since the Commission last released a Policy Statement describing the criteria and analytical steps the Commission uses to assess a pipeline project's benefits and adverse consequences.[103] In that time, the energy landscape had changed drastically thanks to a "revolution in natural gas production," sparking a heightened interest in how FERC assesses the impact that project-related GHG emissions have on global climate change.[104] Accordingly, FERC's NOI posed a host of climate-related questions to help FERC assess how GHG emissions should be incorporated into the Commission's analysis when weighing whether a proposed pipeline is in the public interest.[105]

The questions that FERC posed included:

> In conducting an analysis of a project, should the Commission consider calculating the potential GHG emissions from upstream activities (*e.g.,* the drilling of natural gas wells)? What information would be necessary for the Commission to reliably and accurately conduct this calculation? Should the Commission also evaluate the significance of these upstream impacts? If so, what criteria would be used to determine the significance of these impacts?
>
> In conducting an analysis of a project, should the Commission consider calculating the potential GHG emissions from the downstream consumption of the gas? If so, should the Commission base this calculation on total consumption, or some other amount? What information would be necessary for the Commission to reliably and accurately conduct this calculation? Should the Commission also evaluate the significance of these downstream impacts? If so, what criteria would be used to determine the significance of these impacts?
>
> How would additional information related to the GHG impacts upstream or downstream of a proposed project inform the Commission's decision on an application? What topics or criteria should be included in this additional information?
>
> Should the Commission reconsider how it uses the Social Cost of Carbon tool in its environmental review of a proposed project? How could the Commission use the Social Cost of Carbon tool in its weighing of the costs versus benefits of a proposed project? How could the Commission acquire complete information to appropriately quantify all of the monetized costs/negative impacts and monetized benefits of a proposed project?[106]

2. Expected Timeline of FERC's Rulemaking

The public comment period on the NOI closed July 25, 2018.[107] At present, FERC has not provided a timeline for concluding its rulemaking proceeding. However, two recent events at FERC have likely delayed any imminent action on the rulemaking.

First, a number of unanticipated changes to the FERC Commissioners makeup has altered the political composition within the Commission. These unexpected changes began with the passing of FERC Commissioner Kevin McIntyre

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103. *Id.* at P 2.

104. *Id.*

105. *Id.*

106. 163 F.E.R.C. ¶ 61,042 at P 58 (emphasis added).

107. Order Extending Time for Comments, *Certification of New Interstate Natural Gas Facilities*, 163 F.E.R.C. ¶ 61,138 at P 2 (2018).

on January 2, 2019.[108] Prior to his passing, Commissioner McIntyre, along with Commissioner Bernard McNamee and Chairman Neil Chatterjee, formed the majority block within the Commission.[109] These Commissioners generally pushed for a narrow application of *Sabal Trail* over the dissenting views of Commissioners LaFleur and Glick.[110] Commissioner McIntyre's passing therefore appeared to create a brief opportunity during which the dissenting Commissioners could force a deadlock in future NEPA reviews.[111] However, this opportunity turned out to be short-lived because in late January 2019, Commissioner LaFleur announced she would not seek a third term on the Commission,[112] officially vacating her seat at the end of August, 2019.[113] President Trump, in turn, nominated FERC General Counsel James Danly to fill Commissioner McIntyre's open seat in September 2019.[114] Notably, the President chose not to nominate a Democrat to fill Commissioner LaFleur's former seat, as is customary.[115] After some delay, the Senate confirmed Commissioner Danly on March 12, 2020.[116] On January 23, 2020, another member of the majority block, Commissioner McNamee, announced that he intends to step down from FERC at the expiration of his term, on June 30, 2020.[117] Mr. McNamee's exit would leave the traditionally five-member FERC with only three commissioners – Chairman Chatterjee, Commissioner Glick and the recently confirmed Chairman Danly.[118] In the wake of several Commissioners retiring and at least two likely vacant seats, FERC may elect to delay implementation of any

108. Steven Mufson, *Former FERC Chairman Dies at 58*, THE ROANOKE TIMES (Jan. 4, 2019), https://www.roanoke.com/business/former-ferc-chairman-dies-at/article_be7bead3-b797-5a21-ad9e-bd759346f59f.html.

109. *Id.*

110. *See, e.g.*, 163 F.E.R.C. ¶ 61,128.

111. It is also worth noting that the FERC's actions, including issuance of certificates of necessity, require a majority vote. A 2-2 split decision is the equivalent of a deadlock that would preclude the issuance of a certificate of necessity. Lawrence R. Greenfield, *An Overview of the Federal Energy Regulatory Commission and Federal Regulations of Public Utilities,* FED. ENERGY REG. COMM'N (June 2018), https://www.ferc.gov/about/ferc-does/ferc101.pdf.

112. Gavin Bade, *FERC's LaFleur to down after push from Senate Democrats,* UTILITY DIVE (Jan. 31, 2019), https://www.utilitydive.com/news/breaking-fercs-lafleur-to-step-down/547341/.

113. *Id.*

114. Eric Beech & Darren Schuettler, *Trump nominates FERC general counsel for commission seat -White House,* CNBC (Sept. 30, 2019), https://www.cnbc.com/2019/09/30/reuters-america-trump-nominates-ferc-general-counsel-for-commission-seat-white-house.html.

115. However, it should be noted that officials from the Trump Administration have reportedly met with Allison Clements, a former senior attorney at the Natural Resources Defense Council, who democrats have lobbied to be nominated for FERC. David Bradley, *Process to Fill Empty FERC Seats Reverts Back to Square One*, NAT. Gas Intelligence (Jan. 9, 2020), https://www.naturalgasintel.com/articles/120706-process-to-fill-empty-ferc-seats-reverts-back-to-square-one.

116. FED. ENERGY REG. COMM'N, SENATE VOTES TO CONFIRM DANLY AS FERC COMMISSIONER (Mar. 12, 2020), https://www.ferc.gov/media/news-releases/2020/2020-1/03-12-20.asp#.XnrKVi2ZPzU.

117. More specifically, he "plans to stay through the end of the year or until another commissioner is appointed, whichever comes first." Iulia Gheorghiu, *FERC's McNamee not seeking 2nd term as commissioner,* UTILITY DIVE (Jan. 24, 2020), https://www.utilitydive.com/news/fercs-mcnamee-not-seeking-2nd-term-as-commissioner/571009//.

118. David Bradley, *Short-Handed FERC to Lose Commissioner McNamee in June*, NAT. GAS INTELLIGENCE (Jan. 25, 2020), https://www.naturalgasintel.com/articles/120846-short-handed-ferc-to-lose-commissioner-mcnamee-in-june.

substantive policy updates until the vacant seats have been filed with confirmed nominees.

The timeline for FERC's policy update may be further delayed if the Commission elects to wait for the final outcome of the Trump Administration's proposed update to the CEQ regulations. If enacted, the proposed regulations would mark the first comprehensive update to NEPA's review process in over forty years and bring substantial changes to the requirements imposed on federal agencies.[119] Among other changes, the proposed regulations would eliminate the requirement that federal agencies consider "cumulative" environmental consequences when accounting for the environmental impacts of a specific action.[120] Thus, where a proposed federal project only has the potential to incrementally contribute to climate impacts due to an increase in GHG emissions, the proposed regulations would arguably not require the federal agency to consider or account for these global effects.[121]

Given the likelihood that the proposed regulations will be challenged by environmental groups, it is unlikely that the Trump Administration will be able to publish the final CEQ regulations prior to the November 2020 presidential election.[122] In light of the potential impact of the proposed CEQ regulations, it is possible that FERC will elect to wait and see whether the Trump Administration succeeds in issuing the final regulations and whether the language of the final regulations remain similar to the current proposal before attempting to update the Commission's own policies.

3. Predicted Outcome of FERC's Rulemaking

Despite the turnover of FERC Commissioners, it is anticipated that the replacement commissioners nominated by the Trump Administration should provide a political landscape largely similar to the makeup of the Commission during the 2017 *Sabal Trail* decision and 2018 NOI.[123] That is, a Commission that consists of a 3-2 Republic majority that will continue to advance a narrower interpretation of *Sabal Trail*.[124] In other words, unless a specific end-user can be clearly identified, FERC is likely to continue to conclude that downstream GHG emissions are not reasonably foreseeable indirect effects that fall within the ambit of its NEPA review.[125] To the extent that the Trump Administration is able to finalize its pro-

119. Press Release, What They Are Saying: CEQ Issues Proposed Rule to Mod. its NEPA Reg., U.S. Dep't of Interior (Jan. 13, 2020) (on file with author).

120. *See* 85 Fed. Reg. 1,684, at 1,707-08.

121. *Id.*

122. Niina Farah, *NEPA Overhaul Won't Be 'Overnight Game Changer'*, E&E NEWS (Jan. 10, 2020), https://www.eenews.net/stories/1062039335.

123. *See generally* 163 F.E.R.C. ¶ 61,042; Sierra Club v. FERC, 867 F.3d 1357, 1363 (D.C. Cir. 2017); Keith Goldberg, *Churn of Commissioners May Hobble FERC's Work*, LAW 360 (Jan. 24, 2020), https://www.law360.com/articles/1237301/churn-of-commissioners-may-hobble-ferc-s-work.

124. Federal regulations prevent more than three sitting members of FERC to be from the same political party at a given time. *See* Sierra Club v. FERC, 867 F.3d at 1363 (D.C. Cir. 2017); Commission Members, FED. ENERGY REG. COMM'N, https://www.ferc.gov/about/com-mem.asp (last updated Aug. 30, 2019).

125. 163 F.E.R.C. ¶ 61,128 at P 41.

posed CEQ regulations, it would be expected that any subsequent FERC rulemaking would find that the Commission's obligation to consider GHG emissions is even further reduced.

The likely outcome of FERC's rulemaking is perhaps presaged by the Commission's evolving language on the issue in *Otsego 2000*, *Birckhead* and *PennEast*.[126] In *Otsego 2000*, not only did FERC rebuff the notion that it was required to consider indirect GHG emissions during the approval of a pipeline transfer station, the Commission took the opportunity to announce its broader understanding of FERC's obligation to quantify indirect GHG emissions under NEPA generally.[127] In order to "avoid confusion as to the scope of [the] FERC's obligations," the Commission announced that it would no longer prepare upper-bound estimates of upstream or downstream effects "where, as here, the upstream production and downstream use of natural gas are not cumulative or indirect impacts of the proposed pipeline project, and consequently are outside the scope of our NEPA analysis."[128] FERC characterized these estimates as "generic" and "inherently speculative" information which was not useful to FERC's decision-making process.[129] The decision to announce this "new policy" in an otherwise relatively minor decision is a likely signal that the Commission intended to push back against calls from environmental groups that the Commission adopt a more expansive scope of its obligation to consider GHG emissions during NEPA reviews.[130]

Just one month after *Otsego 2000*, FERC reasserted its position in *Birckhead* by refusing to consider upstream GHG emissions even though the emissions all originated from a single source.[131] By refusing to quantify or consider the upstream emissions under the unique facts of *Birckhead*, the Commission likely signaled its intent to limit the applicability of *Sabal Trail* to downstream GHG emissions only.[132]

Finally, FERC took the opportunity to reaffirm its *Otsego 2000* and *Birckhead* decisions by refusing to consider upstream or downstream GHG emissions in *PennEast*.[133] Despite the fact that the EIS in *PennEast* actually provided upper-bound estimates of the pipeline's potential downstream and upstream emissions, FERC reapplied its finding from *Otsego 2000* that the GHG emission estimates

126. *See generally* 163 F.E.R.C. ¶ 61,190; 164 F.E.R.C. ¶ 61,098.

127. 163 F.E.R.C. ¶ 61,128 at P 41.

128. *Id.* at P 44.

129. *Id.* at P 41.

130. *Id.* (Glick, Comm'r, dissenting). As an administrative agency, FERC enjoys the latitude to provide policy or rulemaking pronouncements in adjudicative proceedings. It is well settled that an agency may announce "new principles in an adjudicative proceeding and that the choice between rulemaking and adjudication lies in the first instance within the [agency's] discretion." NLRB v. Bell Aerospace Co., 416 U.S. 267, 294 (1974) ; *see also* Shalala v. Guernsey Mem'l Hosp., 514 U.S. 87, 96 (1995) ("The Secretary's mode of determining benefits by both rulemaking and adjudication is, in our view, a proper exercise of her statutory mandate."); Puerto Rico Aqueduct & Sewer Auth. v. United States EPA, 35 F.3d 600, 607 (1st Cir. 1994) ("It is well established that agencies are free to announce and develop rules in an adjudicatory setting."); Ka Fung Chan v. INS, 634 F.2d 248, 257 (5th Cir. 1981) ("An agency is not precluded from announcing new principles in an adjudicative proceeding.") (citations omitted).

131. 163 F.E.R.C. ¶ 61,190 at PP 57-58.

132. *Compare* 163 F.E.R.C. ¶ 61,190 *with Sabal Trail*, 867 F.3d 1357.

133. 164 F.E.R.C. ¶ 61,098 at P 118.

were speculative and not required by NEPA.[134] Moreover, FERC applied the rationales from its *Otsego 2000* and *Birckhead* holdings to a complete "end-to-end" pipeline project.[135] By doing so, FERC signaled that it would not only limit its review of indirect GHG emissions in smaller cases involving pipeline segments or support structures, but that the Commission also planned to limit its review of indirect GHG emissions for larger-scale pipeline projects as well.[136]

FERC is similarly unlikely to revisit its view that SC-CO_2 is not a useful tool to assess the monetary costs of increased GHG emissions.[137] The reasons for FERC's view that the SC-CO_2 tool is not helpful or required include the lack of consensus on the proper discount rate to use to analyze the cost across multiple generations, the lack of complete information needed to fully analyze all of the project's costs and benefits, and the lack of established criteria on what SC-CO_2 figure would count as significant for the purposes of NEPA review.[138] In addition, the Commission believes that the SC-CO_2 tool has more relevance for regulators who deal with production or consumption of fossil fuels in contrast to FERC's oversight of fossil fuel transportation.[139] The D.C. Circuit has allowed FERC to decline using the SC-CO_2 tool because NEPA only requires FERC to give reasons why the Commission does not find the tool useful, as it has done.[140] In light of the D.C. Circuit's acceptance of FERC's rationale for refusing to utilize the SC-CO_2, it seems safe to say that FERC will not willingly rely on this tool in NEPA analysis for the foreseeable future.

B. Will Future Courts Accept the Outcome of FERC's Rulemaking?

Following the Commission's attempt to limit its obligation to consider upstream and downstream GHG emissions in *Otsego 2000* and *Birckhead*, both were appealed to the D.C. Circuit.[141] While the court ultimately elected not to overturn either FERC decision, language from the court transcripts and final opinions indicates that the D.C. Circuit does not agree with the Commission's interpretation of *Sabal Trail*, and the court will likely continue to scrutinize the Commission's resistance to quantifying indirect GHG emissions.[142]

We make three predictions below.

134. *Id.* at P 108; 163 F.E.R.C. ¶ 61,128 at P 31.

135. 164 F.E.R.C. ¶ 61,098 at P 111.

136. *Id.* at P 118.

137. 162 F.E.R.C. ¶ 61,233 at P 41.

138. *Id.* at PP 35, 40, 49.

139. *Id.* at PP 36-37.

140. Appalachian Voices v. FERC, No. 17-1271, 2019 WL 847199, at *2 (D.C. Cir. Feb. 19, 2019).

141. Birckhead v. FERC, 925 F.3d 510 (D.C. Cir. 2019); Old Dominion Electric Coop. v. FERC, 892 F.3d 1223 (D.C. Cir. 2018).

142. *Birckhead,* 925 F.3d at 518.

1. Based on the D.C. Circuit's Recent Decisions and Oral Arguments Before It, We Expect that the D.C. Circuit Will Require that FERC Request Information Regarding Indirect GHG Emissions

In the *Birckhead* appeal, FERC continued to minimize the applicability of *Sabal Trail* by asserting that the decision only compelled the Commission to consider downstream emissions in the limited instances where a proposed pipeline would deliver gas or oil to "specifically-identified" power plants.[143] The D.C. Circuit rejected FERC's narrow interpretation of its prior decision and instead held that a case-by-case examination of the facts was needed to determine whether upstream or downstream GHG emissions are "reasonably foreseeable."[144] The D.C. Circuit ultimately did not vacate the Commission's order because in its view the record did not contain enough information to declare that the pipeline caused reasonably foreseeable upstream or downstream GHG emissions.[145]

Despite upholding FERC's decision to not consider upstream or downstream emissions, the court expressed in dicta its "misgivings regarding the Commission's decidedly less-than-dogged efforts to obtain the information it says it would need to determine that downstream [GHG] emissions."[146] In short, the court seems to have hinted that in future cases FERC will not be able to avoid its obligation to quantify reasonably foreseeable upstream or downstream GHGs simply because the Commission failed to collect otherwise available information.[147]

Looking forward, the D.C. Circuit's review of *Birckhead* signals it will require that FERC at least attempt to collect more emissions information from applicants to comply with NEPA.[148] If such data exists, the Commission may also have to make some sort of emissions estimate to satisfy NEPA, given the court's dicta on the need for reasonable forecasting based on educated assumptions.[149] While the court rebuffed FERC's broader attempt to limit *Sabal Trail* to its facts, future decisions should clarify what types of emissions estimates, if any, are required if FERC is able to acquire data from the applicant.

Further evidence of the D.C. Circuit's disagreement with FERC's interpretation of its duties to quantify indirect GHG emission can be found in the oral argument from *Otsego 2000.*[150] Though the case was ultimately dismissed for lack of standing, the oral argument took place on the same day as that for the *Birckhead* case, and the *Otsego 2000* D.C. Circuit panel took an equally skeptical view of FERC's handling of project-related emissions.[151]

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143. *Id.* at 519.

144. *Id.* at 518-19.

145. *Id.* at 520.

146. *Id.*

147. *Birckhead,* 925 F.3d at 520.

148. *Id.*

149. *See* Delaware Riverkeeper Network, 753 F.3d 1304 at 1310.

150. Oral Argument*,* Otsego 2000 v. FERC, 767 Fed. Appx. 19 (2019) (No. 18-1188), https://www.cadc.uscourts.gov/recordings/recordings2018.nsf/8FD7B49A0D3AC0E1852583D900578F02/$file/18-1188.mp3 [hereinafter Otsego Oral Argument].

151. *Compare* Otsego Oral Argument, *supra* note 150 *with* Oral Argument, Birckhead v. FERC, 925 F.3d 510 (D.C. Cir. 2019) (No. 18-1218), https://www.cadc.uscourts.gov/recordings/recordings2018.nsf/567E4BCD682293EB852583D90057BC51/ $file/18-1218.mp3.

Again, FERC was asked several times why they did not and could not ask the pipeline's customers for information to help the Commission calculate potential emissions.[152] Judge Tatel alone asked seven times a variation of "whether it's really futile to ask (the applicant) to produce as much information as possible about where and how this gas will be consumed."[153] Judge Wilkins expressed agreement, asking "why isn't Judge Tatel completely right that there should be at least an obligation to make the record?" given the assumption in the NEPA regulations that the Commission "would make every attempt to get complete information that is available."[154] In addition, Judge Tatel asked why FERC could not estimate emissions given that all of the natural gas contracted "is going to be burned" and "they wouldn't be buying the gas if they weren't going to burn it."[155] The court's questioning suggests its indulgence of FERC's decision to stop providing upper-bound emissions estimates in *Otsego 2000* and *Birckhead* could be temporary as the D.C. Circuit looks to push back against FERC's preferred standard for limited environmental review under NEPA.

The D.C. Circuit's recent decisions evidence a strong skepticism of FERC's claims that upstream and downstream indirect GHG impacts are "unforeseeable" where FERC has "turned a blind eye" and not made any effort to collect the necessary information. With respect to downstream emissions, FERC will likely have to make some attempt to obtain data in order to estimate these emissions or make some affirmative showing that it is unable to do so, even where a proposed pipeline project does not deliver gas or oil directly to power plants. With respect to upstream GHG emissions, again, courts are likely to at least require FERC to inquire as to whether the proposed pipeline project would lead to increased natural gas production, especially when a known upstream supplier has contracted for a known quantity of supply to a pipeline.

2. Based on Recent Court Decisions Reviewing other Agencies' NEPA Analyses, We Expect that the D.C. Circuit May Soon Require that FERC Expand its Consideration of Upstream and Downstream Emissions

Another potential predictor of how the D.C. Circuit may interpret FERC's obligation to consider upstream and downstream GHG emissions is to examine how courts have treated other agencies' review of upstream and downstream GHG emissions. One such line of cases are recent court reviews of oil and gas leases on federal lands granted by the Bureau of Land Management (BLM) Office of Surface Mining Reclamation and Enforcement (OSMRE).[156] In a manner similar to FERC's approval of a pipeline, many environmental groups have argued that NEPA requires the BLM to not only consider the direct GHG effects of drilling

152. Otsego Oral Argument, *supra* note 150, at 26:50.

153. *Id.* at 26:50, 27:26, 28:30, 30:30, 36:20, 37:37, 38:51.

154. *Id.* at 42:13, 42:26.

155. *Id.* at 29:29, 29:54.

156. *See generally San Juan Citizens Alliance*, 326 F. Supp. 3d at 1227; Western Org. of Res. Councils v. U.S. Bureau of Land Mgmt., 2018 WL 1475470 (D. Mont. 2018).

and extracting these natural resources, but also any additional indirect GHG emissions resulting from transport and eventual combustion of these resources.[157] Recent court opinions in this context show that courts are increasingly calling for the BLM to quantify these indirect GHG emissions when approving leases and Resource Management Plans.[158]

For example,[159] in *WildEarth Guardians v. Zinke*, the court analyzed whether BLM was required to consider downstream GHG emissions in approving oil and gas mining leases.[160] Drawing a parallel to *Sabal Trail*, the court held that BLM was obligated to consider and report estimates for downstream GHG emissions resulting from the transport and combustion of the mined coal and gas.[161] The court did not, however, require BLM to calculate these emissions utilizing SC-CO_2, finding that the BLM had provided reasoned explanations for why the protocol would not result in a reasonably accurate or useful calculation.[162]

3. FERC is Likely to Continue to Be Able to Avoid Calculating the Social Cost of Indirect GHG Emissions (SC-CO_2)

Although some courts have taken the additional step of requiring federal agencies not only to quantify upstream and downstream GHG emissions, but also to provide some calculation of the social costs of these emissions,[163] this trend does not yet appear to have caught on at FERC. For example, in *Montana Environmental Information Center v. U.S. Office of Surface Mining*, a Montana district court examined whether the OSMRE should have considered the downstream GHG emissions and other environmental impacts of transporting and combusting coal when the agency approved modifications to a federal mining plan that would have largely expanded an already operating mining site.[164] The court held that not only did the OSMRE have to estimate the downstream GHG effects of the proposal, but that the agency also had to "tie[] its [GHG] emissions calculations to the effects of those emissions."[165] In order to complete this second step, the court

157. *See generally San Juan Citizens Alliance*, 326 F. Supp. 3d at 1227; *Western Org. of Res. Councils*, 2018 WL 1475470.

158. *See e.g.*, *San Juan Citizens Alliance*, 326 F. Supp. 3d at 1244 (Rejecting BLM's EIS for failure to quantify downstream GHG emissions because "it is erroneous to fail to consider, at the earliest feasible stage, the environmental consequences of the downstream combustion of the coal, oil and gas resources potentially open to development under the proposed agency action."); *Western Org. of Res. Councils*, 2018 WL 1475470, at *13; Wilderness Workshop v. United States Bureau of Land Mgmt., 342 F.Supp 3d 1145, 1156 (D. Colo. 2018); Citizens for a Healthy Community v. United States Bureau of Land Mgmt., 377 F.Supp.3d 1223, 1237 (D. Colo. 2019).

159. *See* WildEarth Guardians v. Zinke, 368 F. Supp. 3d 41, 51 (D.D.C. 2019).

160. *Id*. at 57.

161. *Id*. at 78.

162. *Id*. at 51.

163. *Id.*

164. Montana Envtl. Info. Ctr. v. U.S. Off. of Surface Mining, 274 F.Supp. 3d 1074, 1081 (D. Mont. 2017), *amended in part, adhered to in part sub nom*; Montana Envtl. Info. Ctr. v. U.S. Off. of Surface Mining, No. CV 15-106-M-DWM, 2017 WL 5047901 (D. Mont. Nov. 3, 2017).

165. *Id*. at 1094.

highlighted the SC-CO_2 to estimate the potential climate impact and monetary cost of GHG emissions.[166]

However, as noted in *Sabal Trail* and reaffirmed in *Appalachian Voices v. Federal Energy Regulatory Commission*, courts in the D.C. Circuit currently take the position that FERC is not required to use SC-CO_2 so long as the Commission provides an explanation for why it has elected not to do so.[167] While the D.C. Circuit may change its position regarding the use of SC-CO_2, it is unlikely that this change will occur soon in light of the current composition of FERC.

V. CONCLUSION

At a time when many federal agencies have accepted the growing mandate to consider indirect GHG impacts of proposed federal projects under NEPA,[168] FERC's recent decisions and rulemaking efforts make clear that the Commission views its obligation to consider upstream and downstream GHG emissions narrowly.[169] While the replacement of three Commissioners may again change the balance of power in the Commission, it is more likely that the new Commissioners will continue to support FERC's interpretation that *Sabal Trail* only requires the Commission to calculate downstream emissions in limited situations where a proposed pipeline or pipeline segment would transport gas or oil directly to power plants for combustion.[170] Although FERC has been decidedly less clear on what circumstances could obligate the Commission to consider upstream GHG emissions, the Commission will likely continue to resist calls to consider these emissions in cases where it has not been provided detailed information demonstrating the potential impact a pipeline project will have on specific extractions operations.

We believe that the likely outcome of FERC's rulemaking will be to reaffirm the positions taken by the Commission in recent decisions and in litigation before the D.C. Circuit. However, we doubt the D.C. Circuit will continue to uphold FERC's efforts to avoid consideration of indirect GHG emissions. In its review of both *Birckhead* and *Otsego 2000*, the D.C. Circuit openly criticized FERC's litigation positions and appeared to hint that future Commission orders based on NEPA reviews that failed to account for indirect GHG emissions would be vacated and remanded.[171] These recent decisions combined with rulings from other federal circuits indicate that FERC's NEPA review process may ultimately expand to include the potential indirect GHG emissions of pipeline projects.

166. *Id*. at 1099.

167. *See generally Sabal Trail*, 867 F.3d 1357.

168. *See e.g.*, San Juan Citizens Alliance, 326 F. Supp. 3d at 1244.

169. *See generally Sabal Trail*, 867 F.3d 1357.

170. *Id.*

171. *See generally Birckhead*, 925 F.3d 510; *Otsego 2000*, 767 Fed. Appx. 19 (No. 18-1188).

PROSECUTORIAL DEFERENCE VERSUS DUE PROCESS: THE FEDERAL POWER ACT AND PERPETUAL STATUTES OF LIMITATIONS

Michael L. Spafford, Daren F. Stanaway, and Brian Wilmot[*]

Synopsis: Although the anti-manipulation provisions of the Federal Power Act and the Federal Energy Regulatory Commission's adoption of additional administrative processes further complicate an already complex penalty assessment, the applicable statute of limitations does not. The basic legal standard for when a claim accrues for purposes of the statute of limitations, pursuant to 28 U.S.C. § 2462, has remained unchanged. As the Commission acknowledged when it adopted the anti-manipulation rule, the penalty action must "be commenced within five years of the date of the [underlying] fraudulent or deceptive conduct."

In *Gabelli v. SEC*, the Supreme Court held that claims subject to the five-year statute of limitations under 28 U.S.C § 2462 accrue at the time of the fraudulent or manipulative conduct giving rise to the penalty, because statutes of limitations should not persist in perpetuity subject to the whims of law enforcement. Nonetheless, FERC continues to advocate an interpretation of the statute of limitations under the Federal Power Act's anti-manipulation provision (to which § 2462 applies) that would grant virtually limitless authority to the government to extend the limitations period by delaying its internal investigative penalty assessment process.

Three federal district courts, and now a federal appellate court, have confronted these issues and adopted differing interpretations of the applicable statute. Two district courts and an appellate court would grant significant deference to FERC, either suspending the statute of limitations until FERC assesses a penalty or restarting the clock *after* the penalty assessment is issued. This article outlines a different approach, embraced by another federal district court in *FERC v. Barclays Bank PLC* and more consistent with Supreme Court precedent, applying the strong statutory and policy bases underlying *Gabelli* to proceedings under the anti-manipulation provisions of the Federal Power Act.

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I. INTRODUCTION

Two federal district courts in different circuits (one affirmed by a federal appellate court) have allowed the Federal Energy Regulatory Commission (FERC or the Commission) to pursue penalties under the Federal Power Act (FPA)[1] for violations of the FPA's anti-manipulation provision more than five years after the underlying conduct occurred, notwithstanding the applicable five-year statute of limitations. Those rulings in *FERC v. Silkman*[2] and *FERC v. Powhatan Energy Fund, LLC*[3] contradict both the Supreme Court's ruling in *Gabelli v. SEC*[4] and FERC's own guidance regarding the statute of limitations. Both also stand in contrast to another recent decision dismissing FERC penalty claims as barred by the five-year statute of limitations, *FERC v. Barclays Bank PLC*.[5] The *Silkman* and *Powhatan* litigations remain ongoing, and in February 2020, the Fourth Circuit affirmed the *Powhatan* district court's ruling (which the district court certified for interlocutory appeal), holding that the "statutory prerequisites to filing suit" under the FPA are unique and distinguish it from every other federal statute, thereby warranting a different application of the statute of limitations.[6]

Notwithstanding FERC's differing interpretation, which some courts have adopted, an analysis of the relevant statute and case law shows that penalty claims brought more than five years after the underlying statutory violation are barred by the statute of limitations. Not only do the relevant statute and case law require this result, any other interpretation would effectively eviscerate the stat-

1. 16 U.S.C. § 823b(d) (1986). This article does not address the statutes of limitations under the Natural Gas Act (NGA), the Natural Gas Policy Act (NGPA), or the FPA's reliability provisions, which each set forth different procedures for determining violations and penalties, including for fraud and manipulation. *See* 15 U.S.C. § 717 (2005); 15 U.S.C. § 3414 (2005); 16 U.S.C. § 824o (2005). The NGPA provides for de novo review by a district court of the penalty assessment, while the NGA and FPA reliability provisions provide for exclusive FERC administrative proceedings before an administrative law judge (ALJ) or the Commission and appeal to a federal circuit court. *See* 15 U.S.C. § 3414(b)(6)(F); 15 U.S.C. § 717t-1; 16 U.S.C. § 824o(e). Arguments for requiring de novo review in district court of an NGA anti-manipulation penalty have been advanced, *inter alia*, on due process grounds, but not yet adopted by a court. *See, e.g.*, Total Gas & Power N. Am., Inc. v. FERC, No. 4:16-1250, 2016 WL 3855865 (S.D. Tex. July 15, 2016), *aff'd*, 859 F.3d 325 (5th Cir. 2017).

2. FERC v. Silkman, 359 F. Supp. 3d 66, 122 (D. Me. 2019).

3. FERC v. Powhatan Energy Fund, LLC, 345 F. Supp. 3d 682, 711 (E.D. Va. 2018), *aff'd*, 949 F.3d 891 (4th Cir. Feb. 11, 2020), *petition for reh'g or reh'g en banc filed*, No. 18-2326 (4th Cir. Mar. 27, 2020).

4. Gabelli v. SEC, 568 U.S. 442, 454 (2013).

5. The authors of this article represented two of the individual defendants in the *Barclays* case. FERC v. Barclays Bank PLC, No. 2:13-cv-02093, 2017 U.S. Dist. LEXIS 161414 (E.D. Cal. Sept. 29, 2017).

6. *Powhatan*, 949 F.3d at 897.

ute of limitations and afford FERC authority to pursue endless investigations, exposing market participants to the risk of charges years after the alleged conduct occurred, thereby stripping respondents of their ability to defend themselves as litigation costs explode, memories fade, witnesses disappear, documents are lost, and reputations are irreparably damaged with the passage of time. Fairness and justice demand a more balanced approach.

II. SECTION 2462 PROVIDES THE RELEVANT STATUTE OF LIMITATIONS FOR FEDERAL POWER ACT ANTI-MANIPULATION VIOLATIONS

Congress patterned the FPA's anti-manipulation provision[7] and FERC's accompanying anti-manipulation rule[8] after the SEC's antifraud authority.[9] Like with respect to the securities laws, Congress chose not to adopt a separate statute of limitations for FPA manipulation and fraud claims, and instead determined that the general federal statute of limitations under 28 U.S.C. § 2462 should govern.[10] Section 2462 requires commencement of "an action, suit or proceeding" for the "enforcement" of a civil money penalty within five years after the claim "accrued."[11] Critical to its application is the determination of when a claim "accrues."[12]

"In common parlance a right accrues when it comes into existence. . . ."[13] The Supreme Court in *Gabelli v. SEC* held that a § 2462 claim accrues when the underlying fraudulent or manipulative conduct giving rise to the statutory violations occurred.[14] The Court based its holding on the longstanding premise that "a claim accrues [under § 2462] 'when the plaintiff has a complete and present cause of action.'"[15] In a penalty action, the claim is complete when the relevant

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7. 16 U.S.C. § 824v(a) (2005).

8. 18 C.F.R. § 1c.2 (2006).

9. *See Prohibition of Energy Market Manipulation*, 114 F.E.R.C. ¶ 61,047 at PP 2, 6-7 (2006), *reh'g denied*, 114 F.E.R.C. ¶ 61,300 (2006) ("[T]he proposed regulations were patterned after the Securities and Exchange Commission's (SEC) Rule 10b-5, and were 'intended to be interpreted consistent with analogous SEC precedent that is appropriate under the circumstances.'").

10. Section 2462 applies unless a statute provides an alternative state of limitations, and the FPA contains no limitations period. 28 U.S.C. § 2462 (1948) ("Except as otherwise provided by Act of Congress, an action, suit or proceeding for the enforcement of any civil fine, penalty, or forfeiture, pecuniary or otherwise, shall not be entertained unless commenced within five years from the date when the claim first accrued. . . ."); *see also Powhatan*, 949 F.3d at 895.

11. 28 U.S.C. § 2462.

12. *See Powhatan*, 949 F.3d at 897.

13. United States v. Lindsay, 346 U.S. 568, 569 (1954).

14. *Gabelli*, 568 U.S. at 447-48. In *Gabelli*, the SEC sought civil penalties for investment adviser fraud under the Investment Advisers Act. Gabelli argued that the relevant statute of limitations had expired under 28 U.S.C. § 2462, because the SEC filed its complaint more than five years after the underlying fraudulent conduct occurred. *Id.* at 446-47. The district court dismissed on this basis, and the Second Circuit reversed, applying the discovery rule (which provides that claims do not "accrue" until the claim is discovered), because the alleged violations involved fraud. *Id.* at 447. The Supreme Court reversed, rejecting application of the discovery rule in favor of the "standard rule" that a claim accrues "when the plaintiff has a complete and present cause of action." *Id.* at 448 (citation and internal quotation marks omitted).

15. *Id*. at 448 (citation and internal quotation marks omitted).

statute was violated, not when the injury was discovered, because neither reliance nor proof of damages is an element of a penalty claim.[16] In *Kokesh v. SEC*, the Supreme Court reaffirmed *Gabelli* and held that the five-year statute of limitations applied to all penalties imposed and enforced by the government to punish or "to deter others from offending in like manner" for an "offen[s]e against its laws."[17]

The *Gabelli* Court rejected application of the discovery rule to lengthen the limitations period.[18] It also highlighted the important principles underlying the setting of "a fixed date when exposure to the specified Government enforcement efforts ends."[19] Such limits are "'vital to the welfare of society,'"[20] because "[s]tatutes of limitations are intended to 'promote justice by preventing surprises through the revival of claims that have been allowed to slumber until evidence has been lost, memories have faded, and witnesses have disappeared.'"[21] As the Court noted, "'even wrongdoers are entitled to assume that their sins may be forgotten,'"[22] especially in enforcement actions brought by government agencies, which "go beyond compensation, are intended to punish, and label defendants wrongdoers."[23] Importantly, *Gabelli* did not consider the various procedures the agency adopted in order to decide whether to file an action seeking penalties.[24] For example, the Supreme Court did not consider relevant the Wells regulatory process adopted by the SEC for providing respondents notice and opportunity to be heard on the question of whether penalties should be imposed.[25]

Gabelli resolved conflicting approaches taken by courts considering accrual under § 2462, as exemplified by the First Circuit's prior decision in *United States v. Meyer* and the Fifth Circuit's prior decision in *United States v. Core Laboratories, Inc*.[26] *Meyer* has been mischaracterized and used to justify extending the relevant statutory period beyond five years, thereby causing significant confusion. In *Meyer*, the First Circuit held that "any administrative action aimed at imposing a civil penalty must be brought within five years of the alleged violation."[27] The court also held that, with respect to the government's action to judicially enforce the "final assessment of an administrative penalty," the five-year

16. *See* 114 F.E.R.C. ¶ 61,047 at PP 48-49 & n.102 ("[R]eliance, loss causation and damages are not necessary for a violation.").

17. Kokesh v. SEC, 137 S. Ct. 1635, 1642 (2017) (citations and internal quotation marks omitted).

18. *See generally Gabelli*, 568 U.S. 442.

19. *Id*. at 448.

20. *Id*. at 449 (citation omitted).

21. *Id*. at 448 (citation omitted).

22. *Id*. at 449 (citation omitted).

23. *Gabelli*, 568 U.S. at 451-52.

24. *See generally id.*

25. *Id*.

26. United States v. Meyer, 808 F.2d 912 (1st Cir. 1987); United States v. Core Labs., Inc., 759 F.2d 480 (5th Cir. 1985).

27. *Meyer*, 808 F.2d at 914. *Meyer* examined whether the statute of limitations under 28 U.S.C. § 2462, as applied to the Export Administration Act, was "triggered on the date the predicate violation occurs or on the date the penalty is subsequently imposed," adopting the date the penalty was imposed. *Id.* at 913.

statute of limitations does not begin to "accrue" until the government issues a final administrative judgment assessing the penalty.[28] Thus, *Meyer* arguably established two independent five-year limitations periods: one for commencement of the "administrative proceeding" culminating in the "final" administrative decision assessing the penalty, and another for the commencement of the federal district court action to enforce the penalty assessed.[29] For its part, although its position has evolved over the years, FERC recently embraced this construction of *Meyer* in its oral argument before the Fourth Circuit in the *Powhatan* case,[30] which the Fourth Circuit in large part adopted, albeit without express reliance on *Meyer*.[31]

In so holding, however, the *Meyer* court distinguished between an administrative evidentiary adjudication controlled by the Administrative Procedure Act (APA), where the respondent is afforded certain procedural rights (including discovery), and an agency process to assess a penalty, in which the agency controls the timing of the investigation and filing of the lawsuit to enforce the penalty and the respondent is denied discovery.[32] As the court noted:

> In a situation like that at bar, when the Department issues a charging letter, the imperatives of the Administrative Procedure Act (APA) come into play. From that point on, the timing of the case is largely beyond the Department's control. Additionally, regulations which implement the APA's adjudicatory rules, designed to ensure procedural fairness, afford the private litigant a wide range of protections during the administrative processing of his case. By way of illustration, these rules provide a full panoply of discovery devices. *See* 15 CFR § 388.9(b) (interrogatories, requests for admission, and production of documents), § 388.9(c) (depositions), § 388.10 (subpoenas), § 388.11 (protective orders) (1986) . . . Moreover, even after the ALJ [Administrative Law Judge] has issued an initial decision, the Department cannot necessarily sue to enforce the resultant penalty; the respondent enjoys a right of appeal to the Assistant Secretary of Commerce for Trade Administration. *See* 15 CFR § 388.22. These kinds of procedures necessarily take time; indeed, in the instant case, administrative activity consumed over three years.[33]

The *Meyer* court thus distinguished the statute at issue in that case, the Export Administration Act, which required full "adjudicatory administrative proceedings" pursuant to the APA, from those more akin to "prosecutorial determinations"—where the government controls "decisions to bring suit."[34] In the latter case, the government—not the respondent—retains discretion over the timing of the assessment, such that if the statute of limitations expired before suit, the government "would have only its own indecision to blame."[35] While it

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28. *Id.* at 922.

29. *Id*.

30. *See generally* Oral Argument, *Powhatan*, 949 F.3d 891 (No. 18-2326), https://www.ca4.uscourts.gov/OAarchive/mp3/18-2326-20191211.mp3.

31. *Powhatan*, 949 F.3d at 901 ("[I]t is plain that FERC's claim did not accrue under § 2462, for purposes of filing the district court action, until it had issued the [penalty assessment order] and appellants refused to pay the assessed penalties for 60 days.").

32. *See Meyer*, 808 F.2d at 919.

33. *Id*. at 919-20.

34. *Id*. at 920.

35. *Id.*

seems apparent that *Gabelli* and *Kokesh* overruled *Meyer*, an analysis of *Meyer*'s facts and reasoning also reveals its limited holding—one that does *not* apply to agency penalties imposed where the agency (not an ALJ) controls the process and assumes a more prosecutorial role, and the respondent is not afforded basic procedural rights (such as discovery).[36]

In contrast, the Fifth Circuit took a different approach in *Core Labs*.[37] Relying on the origins of and predecessors to the modern statute (§ 2462), the *Core Labs* court embraced the notion that claims accrue at the time of the statutory violation, regardless of the procedure or process followed.[38] "[T]he date of the underlying violation has been accepted without question as the date when the claim first accrued, and, therefore, as the date on which the [limitations period] began to run."[39] Contrary to *Meyer*, the Fifth Circuit found that the "progress of administrative proceedings" is irrelevant because it is "largely within the control of the Government" to determine the starting point and thus the length of the process.[40] "A limitations period that began to run only after the government concluded its administrative proceedings would thus amount in practice to little or none."[41]

The subsequent *Gabelli* decision endorsed the rationale underlying *Core Labs*, noting that, unlike private litigants, the "central 'mission' of the [SEC] is to 'investigat[e] potential violations'" of its laws.[42] Indeed, the government "has many legal tools at hand to aid in that pursuit," including regulatory rights to inspect books and records or request other detailed information or action, and the power to subpoena documents and witnesses, pay whistleblowers, or offer cooperation agreements to alleged violators or co-conspirators—all of which gives the agency paramount control over the investigative process and the timing of any penalty claims.[43]

Gabelli is particularly relevant here, not just because it interpreted § 2462, but also because it interpreted § 2462's application in the context of the securities fraud statute upon which the FPA's anti-manipulation authority was patterned.[44] The 2005 Energy Policy Act's (EPAct 2005) anti-manipulation provisions adopted by Congress "closely track the prohibited conduct language in section 10(b) of the Securities Exchange Act of 1934" and specifically provide that "the terms 'manipulative or deceptive device or contrivance' are to be used

36. *See id.* at 919.

37. *Core Labs.*, 759 F.2d at 481, 483. In *Core Labs*, the Commerce Department initiated an action to enforce a penalty for alleged violations of the Export Administration Act's anti-boycott provisions more than five years after the last alleged violation occurred. *Id.* at 481. The defendant moved for judgment on the pleadings, contending that the government's action was time-barred under 28 U.S.C. § 2462. *Id.* The trial court agreed with the defendant, and the Fifth Circuit affirmed, holding the claim first accrued when the underlying conduct giving rise to the Export Administration Act violation occurred. *Id*. at 481, 483.

38. *Id*. at 483.

39. *Core Labs.*, 759 F.2d at 482.

40. *Id*.

41. *Id*. at 483.

42. *Gabelli*, 568 U.S. at 451 (citation omitted).

43. *Id*. at 451-52.

44. *Id*. at 452-54.

'as those terms are used in section 10(b) of the Securities Exchange Act of 1934.'"[45] EPAct 2005 is the statutory basis for the FPA and its anti-manipulation authority.[46] In sum, the conduct prohibited by the securities laws, and the standard used to assess it, are the same under the FPA.

III. *GABELLI* GOVERNS VIOLATIONS OF THE FEDERAL POWER ACT'S ANTI-MANIPULATION PROVISION

Although the Supreme Court's decision in *Gabelli* appeared to settle the matter, courts have struggled with § 2462's application under the unique FPA penalty assessment procedure, as exemplified by *Silkman* and *Powhatan*.[47] The *Silkman* district court applied *Meyer*, concluding it had no choice in light of what it viewed as still-controlling authority in the First Circuit.[48] In contrast, the *Powhatan* district court rejected *Meyer*[49] but concluded that a claim does not accrue under § 2462 until the statutory prerequisites for filing the district court action are met: namely, the FERC penalty assessment and the respondent's failure to pay it within 60 days.[50] The Fourth Circuit subsequently affirmed the *Powhatan* district court's decision.[51] A third decision, *Barclays*, relied upon *Gabelli* and, applying its rationale, found that the FPA penalty claim accrued at the time of the statutory violation, not at some later point in time.[52]

A. Federal Power Act Section 31(d) Violations Procedure

To understand these decisions, a closer look at the FERC penalty assessment process is required. FPA Section 31(d) governs the "assessment" of civil money penalties for violations of the FPA's anti-manipulation provisions.[53] The statute requires notice of the proposed penalty, but is silent on the method of notice.[54] The statute instead describes in some detail the respondent's right to de-

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45. 114 F.E.R.C. ¶ 61,047 at P 6.

46. *Id*. at P 1.

47. *See generally Silkman*, 359 F. Supp. 3d 66; *Powhatan*, 949 F.3d 891.

48. *Silkman*, 359 F. Supp. 3d at 68 ("Based on *Meyer*, which the Court views as binding, the Court concludes that the FERC enforcement action is not time-barred."); *see also id.* at 120-21.

49. *Powhatan*, 949 F.3d at 901 (showing that the Fourth Circuit did not expressly reject *Meyer* but ultimately reached the same conclusion as the *Powhatan* district court).

50. *Id*.

51. *Powhatan*, 949 F.3d 891. The FPA provides that if the civil penalty is not paid within 60 calendar days after the assessment order, the Commission "shall institute an action in the appropriate district court . . . for an order affirming the assessment of the civil penalty." 16 U.S.C. § 823b(d)(3)(B).

52. *Barclays*, 2017 U.S. Dist. LEXIS 161414, at *25-27, *41-44. The *Barclays* court's decision rendered the bulk of FERC's case time-barred, precipitating a settlement and dismissal of the FERC action with prejudice. *See generally* Joint Stipulation of Dismissal with Prejudice, *Barclays*, No. 2:13-cv-02093, Docket No. 243 (E.D. Cal. Dec. 11, 2017); *Barclays Bank PLC*, 161 F.E.R.C. ¶ 61,147 (2017).

53. *See* 16 U.S.C. § 823b(d).

54. *Id.* §§ 823b(a), (c), (d)(1) ("Before issuing an order assessing a civil penalty against any person under this section, the Commission shall provide to such person notice of the proposed penalty. Such notice shall, except in the case of a violation of a final order issued under subsection (a), inform such person of his opportunity to elect in writing within 30 days after the date of receipt of such notice to have the procedures of paragraph (3) (in lieu of those of paragraph (2)) apply with respect to such assessment.").

termine the venue where the facts and law will be adjudicated.[55] Specifically, the statute provides for two adjudicatory options and grants the respondent the right to choose the trier of fact to adjudicate the facts and law.[56] Under the first option, also known as the "ALJ Option" or "Default Option," the determination of a violation and penalty assessment are made "on the record" after an agency hearing before an ALJ pursuant to section 554 of title 5 of the APA, where the ALJ makes "findings" of fact and sets forth the basis for the assessment decision, and respondents are granted certain procedural rights.[57] The violation and penalty decision then may be appealed to the appropriate circuit court of appeals for judicial review in accordance with the APA.[58] The other option, the "Federal Court Option," results in an adjudication of the facts and law in federal district court, where the respondent is afforded similar procedural rights under the federal rules of civil procedure.[59] The Federal Court Option provides that, following 60 days after a "prompt" penalty assessment, FERC may "institute an action in the appropriate" federal district court, where the court shall be empowered to "review de novo the law and the facts involved," and to enforce, modify, enforce as modified, or set aside in whole or in part, any penalty assessed.[60] Thus, the statute affords respondents the right to elect the venue in which the penalty violation and assessment will be adjudicated—either before an ALJ or in federal court—pursuant to similar due process procedures.[61]

Prior to the assessment, FERC controls the process and timing of the investigation.[62] The "investigatory process the Commission conducts [is] as an *en-*

55. *Id.* §§ 823b(a), (c).

56. *Id.* § 823b(d).

57. *Id.* § 823b(d)(2)(A).

58. *Id.* § 823b(d)(2) ("In the case of the violation of a final order issued under subsection (a), or unless an election is made within 30 calendar days after receipt of notice under paragraph (1) to have paragraph (3) apply with respect to such penalty, the Commission shall assess the penalty, by order, after a determination of violation has been made on the record after an opportunity for an agency hearing pursuant to section 554 of title 5 before an administrative law judge appointed under section 3105 of such title 5. Such assessment order shall include the administrative law judge's findings and the basis for such assessment," and "Any person against whom a penalty is assessed under this paragraph may, within 60 calendar days after the date of the order of the Commission assessing such penalty, institute an action in the United States court of appeals for the appropriate judicial circuit for judicial review of such order in accordance with chapter 7 of title 5. The court shall have jurisdiction to enter a judgment affirming, modifying, or setting aside in whole or in Part, the order of the Commission, or the court may remand the proceeding to the Commission for such further action as the court may direct.").

59. *Id.* § 823b(d)(3).

60. *Id.* ("In the case of any civil penalty with respect to which the procedures of this paragraph have been elected, the Commission shall promptly assess such penalty, by order, after the date of the receipt of the notice under paragraph (1) of the proposed penalty," and "If the civil penalty has not been paid within 60 calendar days after the assessment order has been made under subparagraph (A), the Commission shall institute an action in the appropriate district court of the United States for an order affirming the assessment of the civil penalty. The court shall have authority to review de novo the law and the facts involved, and shall have jurisdiction to enter a judgment enforcing, modifying, and enforcing as so modified, or setting aside in whole or in Part,1 such assessment.").

61. *Id.* § 823b(d).

62. *See id.* § 823b(a).

forcer, not a neutral arbiter."[63] Respondents have no discovery rights, and no ability (or usually incentive) to delay the process because they have no procedural rights that could be used to cause delay—every procedure and process is controlled by FERC. In most instances, respondents wish to have investigations completed as quickly as possible to avoid reputational damage, or at least put the investigation behind them and start anew. To the extent FERC Enforcement Staff believes respondents are delaying unnecessarily, there are remedies—both before the Commission and in court.[64] Moreover, FERC may (and routinely does) seek tolling agreements with respondents if it has concerns about a looming limitations period.[65] Respondents have no such remedies when FERC procrastinates, and instead must wait until the Commission acts.

The nature, timing, and scope of the process is dictated by the Enforcement Staff, in consultation with the Commission.[66] The Staff issues a preliminary findings and conclusions letter (which sets forth in detail the results of the Staff investigation), after which the Staff may obtain settlement authority.[67] The next step is the 1b.19 notice and briefing (which discuss further the legal and factual basis of the proposed penalty).[68] The Commission is involved at each step. While the preliminary findings and 1b.19 papers are issued by the Enforcement Staff, they are issued only after consultation with and approval of the Commission.[69] In our experience, these typically occur well over a year prior to any Order to Show Cause in order to facilitate and promote settlement discussions. Any settlement authority also must be authorized by the Commission.[70]

If the parties do not settle, the assessment process is initiated by the Commission's issuance of an Order to Show Cause.[71] The Order to Show Cause process is not required by the statute, but instead is adopted by regulation as the process for providing notice of the proposed penalty and the respondent's right to choose where the public hearing will be held. The Order to Show Cause attaches and adopts an Enforcement Staff Report setting forth the results of the Staff's investigation and a proposed penalty.[72] In practice, the Staff Report largely mirrors the prior preliminary findings letter and the Staff's 1b.19 submission.

FERC controls the timing and substance of the Order to Show Cause and accompanying Staff Report, which it can initiate or issue at any time of its own choosing. The Commission generally accepts and uniformly adopts the Staff

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63. FERC v. Powhatan Energy Fund LLC, 286 F. Supp. 3d 751, 766 (E.D. Va. 2017) (emphasis in original); *see also id.* at 766 n.25.

64. *See generally* 18 C.F.R. §§ 1b.13-1b.15; *J.P. Morgan Ventures Energy Corp.*, 141 F.E.R.C. ¶ 61,131 (2012).

65. 141 F.E.R.C. ¶ 61,131 at P 64.

66. *See* 16 U.S.C. § 823b(d)(6)(A).

67. *Revised Policy Statement on Enforcement*, 123 F.E.R.C. ¶ 61,156 at PP 32-34 (2008).

68. 18 C.F.R. § 1b.19 (2008).

69. 141 F.E.R.C. ¶ 61,131 at PP 32-34 & n.24.

70. *Id*.

71. *Id*. at P 35.

72. *Id*.

Report as the basis for its Order to Show Cause. The Order to Show Cause thus provides notice of the proposed penalty and the respondent's right to elect the adjudication venue, after which the respondent has 30 days to choose between the two procedural options.[73]

The procedures required under the two options differ substantially and provide the rules pursuant to which an adjudication of the penalty will occur—either before an ALJ or in federal court.[74] Under the Default Option, the Staff Report provides the basis for the Commission's complaint in the administrative proceeding initiated before the ALJ. Under this option, respondents have the right to a public hearing "on the record" before an ALJ, at which testimony may be heard, witnesses may be cross-examined, and evidence may be offered and admitted into the record.[75] The ALJ (not FERC Enforcement Staff) controls the record and determines what may be admitted.[76] Respondents thus have equal procedural rights under the Default Option, similar to the co-extensive rights afforded the *Meyer* respondents, including, among other things, discovery, depositions, and third party subpoenas.[77]

In contrast, the FERC penalty assessment under the Federal Court Option is a paper process, during which no additional fact-finding occurs. "[N]o procedural requirements apply to the order assessing penalties except that it be 'promptly assessed.'"[78] No public hearing of the evidence or testimony occurs prior to the subsequent federal court action.[79] Only after FERC issues the penalty assessment order is the respondent afforded any procedural rights, including discovery rights, which occur during the subsequent proceedings in federal court. The penalty assessment process under the Federal Court Option thus is not an adjudication. The statute provides for only one "adjudication" of the evidence—either in federal court (after FERC issues the penalty assessment) or before an ALJ.[80]

The Commission has described the "prompt assessment" under the Federal Court Option as one in which the burden is on the respondent to disprove the Staff Report: "We find that the [Enforcement] Staff Report [attached to the Order to Show Cause] establishe[d] a prima facie case that Respondents effectuated a manipulative scheme," and the "burden, therefore, falls upon Respondents to rebut the prima facie case established in the Staff Report."[81] Not surprisingly, in

73. 16 U.S.C. § 823b(d)(1).

74. *Id.* §§ 823b(d)(2)-(3).

75. *Id.* § 823b(d)(2)(a); 5 U.S.C. § 554(a), (c) (1978).

76. 16 U.S.C. § 823b(d)(2)(a).

77. *Id.* § 823b(d)(2); 5 U.S.C. § 554(c).

78. *Powhatan*, 286 F. Supp. 3d at 760 (quoting 16 U.S.C. § 823b(d)(3)(A)).

79. 16 U.S.C. § 823b(d)(3)(A).

80. *See id.*

81. *In re Barclays Bank PLC*, 144 F.E.R.C. ¶ 61,041 at P 17 (2013). This paper process, with the burden imposed on the respondents to convince FERC not to assess penalties, is very similar to the SEC Wells (or white paper) process described in *Gabelli*. *See Gabelli* 568 U.S. at 451; *see also* SECURITIES AND EXCHANGE COMM'N, ENFORCEMENT MANUAL, § 2.4 (Nov. 28, 2017), https://www.sec.gov/divisions/enforce/enforcementmanual.pdf.

every penalty assessment under the Federal Court Option, FERC has determined "that Respondents' *answers fail[ed] to rebut* the case for the appropriateness of the civil penalties,"[82] and FERC's resulting penalty assessments have substantially adopted the Staff Report recommendations.[83] In sum, "nothing in the statute, regulation, or policy statement" (or in practice) compels FERC "to act as a neutral decision-maker when making its penalty assessment" under the Federal Court Option.[84]

The Federal Court Option penalty assessment, which occurs before FERC files the federal action, is very different from that in *Meyer*: until FERC assesses the penalty and seeks to enforce it in federal court, respondents have no rights to take depositions, subpoena third parties or appear at third party depositions taken by FERC staff, issue document subpoenas or receive document productions produced in response to FERC subpoenas, cross-examine witnesses, or participate in any hearing of the evidence before an independent trier of fact (such as an ALJ).[85] It is not a two-sided process, and there is no evidentiary standard imposed on FERC. Any public hearing and adjudication of the evidence must await the federal court action subsequently brought by FERC.[86]

The final step under the Federal Court Option before the matter proceeds to federal court for adjudication is nonpayment of the penalty, which is the only mechanism by which the respondent may express disagreement with the penalty assessment.[87] After the expiration of sixty days from the assessment order,

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82. 144 F.E.R.C. ¶ 61,041 at P 16 (emphasis added).

83. Of the approximately nine penalty assessments under the Federal Court Option, only three involved significant changes from the Staff Report recommendations; in one instance, the Commission dropped the Staff's recommended charges against an individual; and in two instances, the Commission modified the Staff's recommended penalty amounts (increasing the proposed penalty in one instance, and in the other increasing the proposed penalty against the individual but decreasing the proposed penalty against the company charged). *See generally* FED. ENERGY REG. COMM'N, ORDERS TO SHOW CAUSE PROCEEDINGS, https://ferc.gov/enforcement/civil-penalties/show-cause-orders.asp (last updated Feb. 14, 2020); Brief for Edison Elec. Inst. et al. as Amici Curiae Supporting Respondents at 8-10 & Table 1, FERC v. Powhatan Energy Fund, LLC (4th Cir. Jan. 22, 2019) (No. 18-2326), 2019 WL 324524.

84. *Powhatan*, 286 F. Supp. 3d at 767 (citation and internal quotation marks omitted). The Fourth Circuit somewhat disagreed with this characterization, finding that the "Show Cause Process is . . . not simply a unilateral prosecutorial decision," because it is governed by FERC's Rules of Practice and Procedure and requires FERC Commissioners to "act as neutral decisionmakers," thereby rendering it "difficult to characterize this adjudicatory process as merely a discretionary decision to prosecute." *Powhatan*, 949 F.3d at 902. The Fourth Circuit did not consider the Commission's intimate involvement with the investigatory process prior to the Order to Show Cause, when it does not act as a neutral decision-maker, however. *See generally Powhatan*, 949 F.3d 891.

85. *See* 16 U.S.C. § 823b(d)(3). Some have argued that discovery is unnecessary because all the evidence of manipulation and fraud is in the possession of the accused. But this ignores the fundamental elements of the alleged claims—manipulation requires proof of artificial price effects on the market, and fraud requires proof that someone was deceived. Thus, both require discovery of facts uniquely held by third parties. While FERC has subpoena power, respondents do not prior to an adjudication before an ALJ or in federal district court. Moreover, the Enforcement Staff is not required to provide (and rarely provides) respondents with notice of or access to any third-party productions or testimony. Third parties rarely agree to voluntarily produce information without a subpoena, due to concerns over confidentiality and potentially angering Enforcement Staff.

86. *See id.*

87. *See id.* § 823b(d)(3)(B).

FERC may file an action in federal court.[88] Thus, subject to a few regulatory requirements, which the Commission imposed on itself, the timing of the Federal Court Option remains almost exclusively in the Commission's control.

Section 31(d) further provides that if any respondent fails to pay "an assessment of a civil penalty after it has become a final and unappealable order" pursuant to the Default Option, or "after the appropriate district court has entered final judgment in favor of the Commission" pursuant to the Federal Court Option (that is, after a federal court adjudication of the penalty assessment has occurred, following appropriate motions practice, discovery, and other characteristics of a normal civil action, and the federal court has entered a judgment "enforcing, modifying, and enforcing as so modified, or setting aside in whole or in part," the penalty assessment),[89] FERC may "institute an action to recover the amount of such penalty in any appropriate" federal court.[90] Thus, the Commission is authorized to institute an action to recover the penalty only after the matter has been fully and fairly litigated, and a final penalty judgment has been entered. The two procedural options therefore provide two different routes for achieving the same result: an adjudication of the proposed penalty—one before an ALJ, and one in federal district court.[91]

B. Applying Section 2462 to the Federal Court Option

The respondents in both *Powhatan* and *Silkman*, as well as *Barclays*, chose the Federal Court Option.[92] The *Silkman* court concluded that *Gabelli*'s application of § 2462 should be limited to circumstances in which the agency does not engage in an adjudication (affording respondents certain basic rights) before commencing an action in court, but in so concluding emphasized that it was required to follow *Meyer* in deciding the issue.[93] Constrained by *Meyer*, the *Silkman* court focused on certain briefing opportunities afforded the respondent under the Order to Show Cause procedure, finding that the briefing was uncharacteristic of a prosecutorial determination, and thus fell outside *Meyer*'s own exception language.[94] But the administrative processes that precede a federal court action under the FPA are very similar to the briefing opportunities afforded a respondent in a securities investigation, such as those afforded the defendants in *Gabelli*, and are far more analogous to a prosecutorial determination than an adversarial administrative adjudication.[95] In both instances, the administrative processes prior to the penalty assessment fall almost exclusively within

88. *Id.*

89. *Id.*

90. 16 U.S.C. § 823b(d)(5).

91. *Id.*

92. *Powhatan*, 286 F. Supp. 3d at 756-57; *Silkman*, 359 F. Supp. 3d at 69-70.

93. *Silkman*, 359 F. Supp. 3d at 118-21. *Silkman* involved allegations of fraudulent conduct relating to respondents' participation in the ISO-New England Day Ahead Load Response Program ("DALRP"), a demand response tool that helps to reduce energy prices and compensates entities offering load reductions. *Id.* at 71.

94. *Id.* at 120-22.

95. *Gabelli*, 568 U.S. at 454.

the government's discretion, and section 554 of title 5 does not apply.[96] The respondent has few, if any, procedural rights and is afforded no discovery or hearing of the evidence; a respondent's only right is to respond to the allegations asserted. Moreover, nothing under the FPA or Order to Show Cause process interferes with the government's ability to investigate, initiate, and assess a penalty as quickly as it desires. As the court in *Barclays* aptly concluded, "[t]he Administrative Penalty Assessment Process [under the Federal Court Option] is tantamount to a decision to prosecute rather than a 'prosecution'"—because respondents have no discovery rights and no ability to cross-examine adverse witnesses at a trial—and as such, "does not constitute a 'proceeding' within the meaning of § 2462."[97]

This procedural distinction should be of little consequence, however, given *Gabelli*'s clear directive and the legislative history of the FPA's anti-manipulation rule. In *Gabelli*, the Supreme Court rejected application of the discovery rule,[98] because

> [t]he SEC, for example, is not like an individual victim who relies on apparent injury to learn of a wrong. Rather, a central 'mission' of the [SEC] is to 'investigat[e] potential violations' . . . Unlike the private party who has no reason to suspect fraud, the SEC's very purpose is to root it out, and it has many legal tools at hand to aid in that pursuit . . . even without filing suit, [because] it can subpoena any documents and witnesses it deems relevant or material to an investigation.[99]

The same is true of FERC. Importantly, FERC endorsed the *Gabelli* approach when it adopted its anti-manipulation rule, stating: "The five-year limitation runs 'from the date the claim first accrued' . . . We intend that any . . . *action* for violation of the Final Rule be commenced *within five years of the date of the fraudulent or deceptive conduct*."[100]

The *Gabelli* Court was particularly concerned that extending the statute of limitations beyond five years would "leave defendants exposed to Government enforcement action not only for five years after their misdeeds, but for an additional uncertain period into the future,"[101] effectively mooting the statute of limitations.[102] In assessing the statute of limitations applicable under the Federal Court Option, the *Barclays* court deemed *Gabelli* a "plain directive . . . that the clock starts to tick when the underlying violations occurred."[103] *Gabelli*, *Meyer*,

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96. Indeed, section 554(a) provides that it does not apply to an adjudication of a "matter subject to a subsequent trial of the law and the facts de novo in a court." 5 U.S.C. § 554(a)(1).

97. *Barclays*, 2017 U.S. Dist. LEXIS 161414, at *35-41.

98. Under the discovery rule, usually applied in situations involving fraud, the statute of limitations is tolled until the plaintiff discovers the violation. *See Gabelli*, 568 U.S. at 451.

99. *Id.* (citations omitted).

100. 114 F.E.R.C. ¶ 61,047 at P 62 n.124 (quoting 28 U.S.C. § 2462) (emphases added).

101. *Gabelli*, 568 U.S. at 452.

102. *Id.* at 447 (citation and internal quotation marks omitted); *see id.* at 449-54.

103. FERC v. Barclays Bank PLC, 105 F. Supp. 3d 1121, 1131 (E.D. Cal. 2015). *Barclays* involved alleged manipulation of the electricity markets in and around California, pursuant to which respondents allegedly "engaged in a coordinated scheme . . . to take the physical positions they had built and liquidate them in the cash markets—generally at a loss—to impact the ICE daily index settlement" to benefit related financial posi-

and FERC's interpretation of its own rule thus afford no room for *Silkman*'s application of *Meyer* in cases involving the Federal Court Option.[104]

The *Powhatan* district court, in turn, rightly rejected *Meyer*'s application, acknowledging that "cases following *Meyer* contain important procedural safeguards absent from those in [the Federal Court Option],"[105] but deemed the period between the penalty assessment and the commencement of the federal court action the only period of relevance for statute of limitations purposes.[106] While acknowledging that unlike the Default Option, the Federal Court Option mandates an "adversarial adjudication" in a "judicial context"[107]—thus acknowledging that no "adjudication" occurs prior to the penalty assessment—the court nonetheless found that the cause of action under § 2462 does not accrue until certain statutory prerequisites are met.[108]

The *Powhatan* district court did not reach this decision without equivocation, however, stating that § 2462 "fits imperfectly with" the Federal Court Option.[109] While acknowledging that defendants' arguments (that the claim accrues when the conduct occurred) "seem more consistent with the overall statutory scheme of [the FPA's anti-manipulation provision] and the purposes of the statute of limitations,"[110] the court nevertheless found that FERC "lack[ed] the authority to institute an action" (and thus the claim could not accrue) under the Federal Court Option unless and until two statutorily mandated events occurred first: the penalty was assessed, and respondents did not pay the penalty within 60 days.[111] In sum, the court found that FERC "could not 'have brought suit without first resorting to administrative remedies,'" which included the "extended timeframe of non-adversarial agency actions that preceded the filing of a Complaint here."[112] Given this "imperfect fit" and the importance of the issue, the court certified its decision for interlocutory appeal.[113]

For its part, the Fourth Circuit affirmed the *Powhatan* district court, but in even less equivocal terms, finding that "[o]n balance, the procedures mandated by FERC's Show Cause Process more closely resemble an adjudicative 'pro-

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tions settling against those indexes. FERC v. Barclays Bank PLC, 247 F. Supp. 3d 1118, 1122 (E.D. Cal. 2017) (citation omitted).

104. *See generally Gabelli*, 568 U.S. 442; *Silkman*, 359 F. Supp. 3d 66.

105. *Powhatan*, 345 F. Supp. 3d at 705. In *Powhatan*, respondents "conducted financial trades through the wholesale electricity market administered by PJM Interconnection, LLC ('PJM'), an organization that operates various electricity markets throughout the Mid-Atlantic . . . Certain energy trades qualified market participants to receive a payment, known as a 'Marginal Loss Surplus Allocation,' or MLSA, which PJM distributed to customers making certain trades," and respondents allegedly "'designed and implemented a fraudulent . . . trading scheme to receive excessive amounts of MLSA payments,' by manipulating 'day-ahead' and 'real-time' energy trades to engage in wash trades." *Id.* at 686 (citation omitted).

106. *Id.* at 711.

107. *Id.* at 703.

108. *Id.* at 711.

109. *Powhatan*, 345 F. Supp. 3d. at 695.

110. *Id.* at 711.

111. *Id.* at 695 (citation and internal quotation marks omitted).

112. *Id.* at 711 (citations omitted).

113. *Id.* at 695; *see Powhatan*, No. 3:15-cv-00452, Docket No. 108 (E.D. Va. Sept. 24, 2018).

ceeding' than a prosecutor's charging decision."[114] The Fourth Circuit also stated that the claim to collect the penalty (as opposed to the assessment) did not accrue until after the penalty had been assessed and the respondent failed to pay the fine, finding that a cause of action could not be brought before the legal prerequisites for the claim had been satisfied.[115] Unlike the district court, the Fourth Circuit did not reject *Meyer* and instead suggested that two limitations periods apply, albeit without express reliance upon *Meyer*: first, "FERC must issue the OSC [Order to Show Cause] and commence its administrative process within five years" of the underlying conduct, thus commencing a "proceeding" under § 2462, and second, if a respondent elects the Federal Court Option, FERC must file suit in federal court to enforce the penalty assessment within five years and 60 days after the issuance of the penalty assessment (thus allowing the respondent the requisite 60 days to pay the penalty before filing suit).[116]

The Fourth Circuit based its reasoning on other decisions where "administrative proceedings . . . seek[ing] to impose civil [money] penalties" were deemed to be "proceedings for the enforcement of penalties and § 2462 thus applie[d]."[117] The principal cited decision, *3M Co*.,[118] however, involved very different circumstances than the Federal Court Option. In *3M Co*., the penalty assessment occurred after a public hearing before an ALJ pursuant to the same procedures required by the FPA under the Default Option (5 U.S.C. § 554),[119] where discovery occurred, evidence was admitted on the record, and testimony (together with cross-examination) of witnesses took place. Thus, *3M Co.* equated the administrative imposition of a penalty with an adjudication in which the respondent is accorded procedural rights akin to a trial.[120] More importantly, none of the cases cited by the Fourth Circuit (other than *Silkman*) involved statutes similar to the FPA, which establishes a right to an adjudication of the evidence in one of two venues (before an ALJ or in federal district court).[121] Where the respondent elects the Federal Court Option, the proceeding where evidence is taken, findings of fact are made, and liability is determined occurs in the federal district court, not before or during the Order to Show Cause briefing.

The Fourth Circuit also was concerned about the prospect for delay, stating that to conclude otherwise would "put a suspected violator in control of the enforcement timeline and give it 'considerable incentive to employ the available procedures to work delay.'"[122] But again, this finding does not comport with the procedure before FERC, where the respondent has no procedural rights other

114. *Powhatan*, 949 F.3d at 902.

115. *Id.* at 899-900.

116. *Id*. at 901.

117. *Id.* at 902 (citation and internal quotation marks omitted).

118. *See* 3M Co. v. Browner, 17 F.3d 1453 (D.C. Cir. 1994); *see also* Arch Mineral Corp. v. Babbitt, 104 F.3d 660, 669-70 (4th Cir. 1997) (adopting the reasoning of *3M Co*.); Crown Coat Front Co. v. United States, 386 U.S. 503 (1967) (interpreting another statute of limitations, not § 2462).

119. *See 3M Co.*, 17 F.3d at 1456.

120. *Id.*

121. *Powhatan*, 949 F.3d 891.

122. *Id.* at 900 (quoting *Meyer*, 808 F.2d at 919).

than the opportunity to respond in writing pursuant to a schedule set by FERC. In these circumstances, there are no procedural rights available to respondents to delay any judgment or decision of the Commission. Under the Federal Court Option, the procedural mechanisms for delay that concerned the Fourth Circuit—the public hearing of evidence on the record, discovery, testimony, and other basic due process rights—are reserved for the federal district court action.[123] Thus, FERC has full control over the timing and substance of its decision to impose penalties at all times prior to the filing of the federal action.

More importantly, the *Powhatan* decision cannot be reconciled with *Gabelli* and is inconsistent with FPA section 31(d). As an initial matter, *Powhatan* essentially contemplates a statute of limitations period spanning more than ten years—five years from the time of the conduct to the issuance of the Order to Show Cause, another five years and 60 days after the penalty assessment to file suit in court, and an undetermined—and potentially unlimited—amount of time between the issuance of the Order to Show cause and the penalty assessment, cabined only by the statutory admonition that any penalty assessment must occur "promptly."[124] Nothing in the FPA contemplates a limitations period spanning more than a decade.

Further, the underlying claims in both *Powhatan* and *Gabelli* sought to impose penalties on defendants for violations of law: in *Gabelli*, for violations of the antifraud provisions of the securities laws; in *Powhatan*, for violations of FERC's fraud and anti-manipulation law (which was modeled after the securities laws).[125] "Because liability for the penalty attaches at the moment of the violation, one would expect this to be the time when the claim for the penalty 'first accrued.'"[126] Damages or the timing of any delayed penalty action are irrelevant because it is the violation that gives rise to the penalty:

> An agency may experience problems in detecting statutory violations because its enforcement effort is not sufficiently funded; or because the agency has not devoted an adequate number of trained personnel to the task; or because the agency's enforcement program is ill-designed or inefficient; or because the nature of the statute makes it difficult to uncover violations; or because of some combination of these factors and others . . . [N]othing in the language of § 2462 even arguably makes the running of the limitations period turn on the degree of difficulty an agency experiences in detecting violations.[127]

This approach also is in accord with harmonizing the statute of limitations under both options; if the cause of action accrues when the violation occurs, then it necessarily accrues at the same time regardless of which procedural option a respondent chooses. Indeed, it would make little sense for the limitations period to turn upon a respondent's procedural election. Rather, once a respondent elects the Default Option, an administrative adjudication before an ALJ commences with the filing of an administrative complaint. So long as the ALJ proceeding is

123. *Id.*

124. 16 U.S.C. § 823b(d)(3)(A).

125. *See* 114 F.E.R.C. ¶ 61,047 at PP 2, 6-7.

126. *3M Co.*, 17 F.3d at 1461 (citation omitted).

127. *Id.*

commenced within five years of the alleged violation, the proceeding falls within the five-year limitations period—just as FERC must file its complaint in federal court within five years of the alleged violation under the Federal Court Option.[128]

Nothing in the language of § 2462 makes the determination of when the limitations period begins contingent on the agency's predicate steps and process for authorizing and filing a penalty action.[129] Indeed, *Gabelli* did not refer to or analyze the SEC procedures (including its Wells briefing process) for bringing a penalty action, making it clear that accrual was based on the unlawful acts giving rise to the penalty violation—not any procedural acts undertaken by the SEC prior to filing the action.[130] Similarly, the SEC has the authority to bring its claim administratively or in federal court, at its discretion (whereas under the FPA, the respondent chooses the venue).[131] *Gabelli* also assumes the respondent did not pay the penalty when notified of it; otherwise, there would have been no lawsuit and no need for the court to review it.[132] Nothing in the FPA or § 2462 requires a different approach for an FPA anti-manipulation violation.[133] The district and appellate courts in *Powhatan* appear to draw a distinction between the factual and legal predicates for filing suit, finding that while the factual predicates were complete, the legal predicates were not until after the respondents refused to pay the proposed penalty.[134] Indeed, the Fourth Circuit endeavored to distinguish *Gabelli* on this point, finding that the "FPA's statutory prerequisites to filing suit set this case apart from *Gabelli*," and unlike the SEC in *Gabelli*, "here, FERC could not proceed to district court until it had issued a PAO [penalty assessment order] and 60 days had passed."[135] But, as *Gabelli* makes clear, the agency's delay in pursuing its investigation and assessment does not delay the limitations period, because the only factual and legal predicates to be analyzed are whether the conduct at issue violated the law.[136] Whether the statutory period begins when "'either . . . the defendant commits his [or her] wrong or when the substantial harm matures'" is a question for civil damages claims, not penalty actions.[137] Damages, investigations to discover the facts, and any other acts subsequent to the violation are not elements of a penalty claim, and the harm matures when the conduct violates the law.[138] The amount of time it takes the government agency to uncover it is irrelevant.

Further, as the district court in *Powhatan* acknowledged, regardless of the "onesided [sic] nature of investigations the Commission undertakes" and the

128. *See generally* Oral Argument at 5:50-7:20, *Barclays*, No. 2:13-cv-02093, Docket No. 228 (E.D. Cal. Aug. 24, 2017).

129. *See* 28 U.S.C. § 2462.

130. *Gabelli*, 568 U.S. at 445.

131. *See Powhatan*, 949 F.3d at 899.

132. *See Gabelli*, 568 U.S. at 451-52.

133. *See generally* 28 U.S.C. § 2462; 16 U.S.C. § 824v.

134. *See Powhatan*, 949 F.3d at 898.

135. *Id.* at 899.

136. *Gabelli*, 568 U.S. at 449-50.

137. *Powhatan*, 345 F. Supp. 3d at 702 (citation omitted).

138. *Id.*

"unusual procedural pathway" under the Federal Court Option,[139] the timing of the Federal Court Option "remains almost exclusively in the [government's] control."[140] If a significant passage of time occurs between the alleged violation and the penalty assessment, any delays are attributable to FERC. The fact that FERC's identification of the alleged violation may have been delayed, or that FERC had to jump through self-imposed procedural hoops to bring the penalty action, does not change the fact that the underlying violation of law giving rise to the penalty is not the failure to pay the penalty within the prescribed 60 days, but rather the unlawful conduct on which the penalty is based. To the extent that a defendant causes significant delays in the process, other means of relief are available to the government; it is free to enter into a tolling agreement with respondents or subsequently ask the court for equitable tolling of the limitations period, for example.[141]

Under *Powhatan*'s rubric, FERC theoretically could wait to file a federal court action to enforce a civil penalty for well more than five years from the date of the alleged underlying violation without violating § 2462, so long as it filed the federal court action within five years and 60 days of the issuance of its order assessing penalties. Meanwhile, during the potentially lengthy interim period between the violation and the penalty assessment, evidence could spoil and witnesses could die or have their memories impaired, leaving defendants defenseless against a potential enforcement action in perpetuity.[142]

The alternate argument that FERC need only issue its Order to Show Cause within the five-year period is equally unavailing. FERC controls the timing and can bring the Order to Show Cause at any time; it does not have to wait five years. More fundamentally, this proposed construct would delay the adjudication of the proposed penalty for more than five years and deprive respondents of the ability to conduct timely discovery and seek the preservation of evidence—precisely the concerns raised by the *Gabelli* decision.[143] Five years is not a brief time period, and it provides adequate time for FERC to discover and investigate potential misconduct.

Such a result is inconsistent with Supreme Court precedent and has the potential to create significant injustices—particularly with respect to individuals, whose names, reputations, and livelihoods hang in the balance and remain subject to public ridicule and speculation pending the resolution of FERC's case—as the *Barclays* court correctly observed. Indeed, the *Barclays* court recognized that, under the Federal Court Option, defendants "never had the power to compel any witness to give an affidavit (or a deposition or to submit to cross-examination)," and thus could not compel witnesses "to submit to a deposition or

139. *Id.*

140. *Id.* at 707.

141. *See Core Labs., Inc.*, 759 F.2d at 484 ("[t]he government may, however, be entitled to invoke the equitable powers of the Court to toll the . . . limitations period . . . [i]f it were shown, for example, that the government's failure . . . was caused by improperly dilatory tactics [of the defendant].").

142. *Gabelli*, 568 U.S. at 452.

143. *See id.* at 448.

to produce the evidence that would convince FERC that the charges had no merit."[144] Instead, defendants "were forced to rely upon [FERC] Enforcement's investigation, and whatever evidence they could obtain on their own from volunteers, in their efforts to convince FERC not to file this lawsuit."[145] In our experience, volunteers often wait until after the statute of limitations expires, fearing the unwanted attention or assumed retribution of FERC Enforcement Staff. An unlimited statute of limitations effectively would preempt any such volunteers.

Further, FERC, not defendants, compiles the so-called "administrative record" under the Federal Court Option, which in our experience includes only those materials hand-selected by FERC; it does not consist of the entire investigative record and, in the *Barclays* case, for example, "omitted documents, data, and transcripts," with no explanation (many of which were helpful to respondents),[146] thus underscoring the one-sidedness and unfairness of FERC's proffered interpretation of the Federal Court Option.

The *Barclays* court followed *Gabelli* in applying § 2462 and took into account the problematic, and in some instances nonsensical, implications that a contrary application would carry,[147] whereas the approaches in *Silkman* and *Powhatan* stretch the statute of limitations under § 2462 well beyond what Congress intended. The *Gabelli* Court cautioned against suspensions of the statute of limitations for which a statute does not explicitly provide:

> As we held long ago, the cases in which a statute of limitation may be suspended by causes not mentioned in the statute itself . . . are very limited in character, and are to be admitted with great caution; otherwise the court would make the law instead of administering it.[148]

At the same time, the *Gabelli* Court provided a straightforward interpretation of § 2462 that fits well with the FPA statutory framework and the underlying congressional purpose.[149] Indeed, the FPA anti-manipulation law, and its corollary regulation, were patterned after their securities law counterparts—the same provisions interpreted by the *Gabelli* court.[150] Moreover, the Federal Court Option contemplates the filing of a federal district court action, which entails full discovery and other procedural rights inherent to a normal civil action in federal court, after an agency decision to pursue civil money penalties—precisely the circumstance presented in *Gabelli*.[151] It is only in federal court—after FERC has decided on the penalty—that the parties will fully and fairly adjudicate the facts and law of the alleged penalties. Similarly, the Default Option provides full pro-

144. *Barclays*, 247 F. Supp. 3d at 1129. In most cases, those volunteers refuse to volunteer until after the limitations period has expired, out of fear of potential retribution, and thus well after it is of any use to respondents.

145. *Id.*

146. *Id.* at 1130-31.

147. *Id.*

148. *Gabelli*, 568 U.S. at 454 (citation and internal quotation marks omitted).

149. *Id.*

150. *See id.*; *see generally* 114 F.E.R.C. ¶ 61,047 at P 6.

151. *See Barclays*, 247 F. Supp. 3d at 1131.

cedural rights to the respondent and a full adjudication of the facts and law only after a formal administrative proceeding is commenced before an ALJ.[152] Thus, the clear congressional purpose was to accord full adjudication of the facts and law underlying the penalty in one of two venues (at the respondent's discretion) before a neutral trier of fact (either an ALJ or a federal district court judge). Whatever procedures an agency follows before filing the administrative or legal action does not change the analysis or the result. Accrual occurs at the time of the allegedly fraudulent or manipulative violation. There is no reason to treat the legal and administrative adjudications provided by either option differently or to diverge from the Supreme Court's approach and interpretation of § 2462. As FERC stated when it adopted and patterned its anti-manipulation rule after the securities laws, any penalty action shall "be commenced within five years of the date of the fraudulent or deceptive conduct."[153]

IV. CONCLUSION

It is not surprising that government agencies advocate for more time in which to balance the myriad number of interests and pressures they face when pursing their investigative and oversight roles, which is why many enter into tolling agreements to extend the limitations period. By the same token, however, fairness dictates that agencies should not be able to investigate forever, inflict limitless reputational harm, and impose enormous litigation costs without any end in sight. Endless investigations should not be used as a bludgeon to force settlements and intimidate individuals; rather, every investigation must reach a tipping point at which prosecutorial decisions are made and penalty claims are brought. Congress has mandated that the tipping point must be reached within five years of the violation.[154] Nothing in § 2462 or the FPA countenances a delay beyond five years, and courts should not read one into the statute.[155] Indeed, section 31(d) embodies this balance by allowing the respondent, after Enforcement Staff has proposed penalties for statutory violations, to choose the forum and the neutral trier of fact (ALJ or federal judge) to adjudicate the matter.[156] In either forum, the respondent is afforded equal procedural rights, evidence will be admitted pursuant to established evidentiary rules, a trial will occur, and a fair judgment will be rendered—so long as the penalty action is commenced before an ALJ or federal judge within five years of the violation.

152. *Id.* at 1125.

153. 114 F.E.R.C. ¶ 61,047 at P 62 n.124 (quoting 28 U.S.C. § 2462).

154. *See generally* 28 U.S.C. § 2462.

155. *Id.*

156. 16 U.S.C. § 823(b)(d).

POLICIES AND PROGRAMS AVAILABLE IN THE UNITED STATES IN SUPPORT OF CARBON CAPTURE AND UTILIZATION

Edward Hirsch and Thomas Foust[*]

Synopsis: The article seeks to compile policies and programs that provide revenue and financing support for carbon capture and utilizations projects, which are available in the United States. Often technically minded entrepreneurs and investors new to this space are unware of available support, which could help successful development of carbon capture and utilization projects. Covered in this article are the 45Q tax credit, green bonds, loan guarantee programs, the regional greenhouse gas initiative, and low carbon fuel standards.[1] This article covers the eligibility and effect of each policy and program. The article also briefly reviews the current state of technology and summarizes how each technology pathway pairs with the policies covered in the article. The goal of the article is to serve as a primer for lawyers, corporate development professionals, and practitioners, who seek to learn about policies and programs available to support carbon capture and utilization (CCU) projects.

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1. These terms will be defined and discussed later in this article.

I. INTRODUCTION

Meeting the two-degree Paris accords climate target[2] may not be possible through emissions reductions alone, which is why many believe that carbon capture will be a required part of the solution that avoids significant climate change.[3] This piece of the climate solution has already been shown to be technologically feasible through research from laboratories and universities around the globe, as well as pilot and startup scale facilities already in operation worldwide.[4] But just because we can do something, does not mean we will. It will take an investment of around $36-$44 trillion in climate change related projects by 2050 to reach two-degree targets, according to the International Energy Agency.[5] An investment pool of this size is not likely to come solely from the pockets of the good-hearted looking to make a difference. Attracting investors will require climate-related projects and businesses to offer competitive and stable returns on investment. This article seeks to compile in one place policy initiatives that will help boost and

2. UNITED NATIONS CLIMATE CHANGE, THE PARIS AGREEMENT, https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement (last visited Mar. 16, 2020).

3. CARBON CAPTURE & STORAGE ASSOC., TACKLING CLIMATE CHANGE, http://www.ccsassociation.org/why-ccs/tackling-climate-change/ (last visited Mar. 16, 2020).

4. Editorial Board-Earth.org, *Large-Scale Carbon Capture is Finally Underway*, IMPAKTER (July 3, 2019), https://impakter.com/large-scale-carbon-capture-is-finally-underway/.

5. Marc Gunther, *Can Green Bonds Bankroll A Clean Energy Revolution*?, YALE ENV'T 360 (Nov. 24, 2014), https://e360.yale.edu/features/can_green_bonds_bankroll_a_clean_energy_revolution.

support the returns of carbon capture and utilization (CCU) technologies in the United States. Finally, this article reviews which CCU ventures pair well with current policies, and additionally, how existing policies could be improved, through specific tailoring, tiered support and targeted subsidy increase.

CCU is a particularly attractive area of climate technology because it can offer an additional revenue stream above carbon capture and sequestration (CCS).[6] Unless a CCS project is selling the captured carbon dioxide (CO_2) to another process, such as enhanced oil recovery or beverage bottling, a CCS project is not creating a revenue stream from its captured product.[7] CCU, on the other hand, has the potential to transform CO_2 into a plethora of useable products including, formic acid, carbon monoxide, methane, and others.[8] The moonshot goal of CCU should be to produce a product that not only generated a substantial profit, but also displaced the need for other carbon-intensive manufacturing operations (e.g. methane production). However, since most CCU projects currently produce very little if any profit,[9] this article will focus on policy initiatives which support the cashflow of CCU projects and companies through direct revenue support, tax credits, and access to low-cost capital.

This article is intended for an audience of entrepreneurs with startups focused on carbon capture, as well as lawyers, corporate development professionals, and practitioners interested in taking on carbon capture projects at their existing companies. For business development professionals running financial models around carbon capture projects and companies, the assumptions made need to include support from the policy initiatives discussed in this article, because these policies can make the marginal difference needed to attract venture capital investment for entrepreneurs or beat a required hurdle rate for development projects.

For quick reference, the table in the appendix of this article summarizes the policies covered within this article, which is a comprehensive list of policies affecting CCU within the United States of America. For each policy, an overview, eligibility requirement, and effect of the policy on the financial bottom line is covered. Not every CCU project will qualify for the benefits under all of these policies. Some policies will depend on the source of CO_2 captured, for example the Regional Greenhouse Gas Initiative (RGGI) that applies to CCU projects attached to power generating stations.[10] Other policies will depend on the product made, for example the Low Carbon Fuel Standard that applies to production of chemicals

6. CARBON CAPTURE COALITION, CARBON CAPTURE FACTS: OCTOBER 2018 (Oct. 31, 2018), https://carboncapturecoalition.org/carbon-capture-facts-october-2018/.

7. WORLD COAL ASSOC., CARBON CAPTURE, USE & STORAGE, https://www.worldcoal.org/reducing-co2-emissions/carbon-capture-use-storage.

8. David Miller et al., *Toward Transformational Carbon Capture Systems,* 62 ALCHE JOURNAL no. 1, 2015.

9. GLOBAL CCS INSTIT., CAN WE MAKE CO_2 CAPTURE PROFITABLE? (June 10, 2019), https://www.globalccsinstitute.com/news-media/insights/can-we-make-co2-capture-profitable.

10. THE REG'L GREENHOUSE GAS INITIATIVE, ELEMENTS OF RGGI, https://www.rggi.org/program-overview-and-design/elements (last visited Mar. 16, 2020).

to be used as fuels.[11] The table provides a brief overview of each policy for the reader to understand which policies are most relevant to them.

II. FEASIBILITY

Policy alone will not commercialize CCU. It will take a combination of well-structured policy, advantaged economics, and technology innovation. So, what is the current state of technology and how does it pair with the available policies for revenue support?

Below, the feasibility of CCU is reviewed in three key areas: Capture, Process, and Product. Though some technologies are currently more advanced than others, predicting which technologies will be the first to successfully commercialize is beyond the scope of this article.

Other key features that will not be covered are compression and transportation, because these areas are well-proven commercially. This part of the process is already deployed commercially, both in CO_2 lines used for Enhanced Oil Recovery (EOR) and other processes, and in the natural gas industry.

A. Capture

Point source capture is furthest along in its technical viability. Purer CO_2 streams makes carbon capture easier and less expensive.[12] Reviewing the point source opportunities in approximate order of the quality of their CO_2 stream, biorefineries produce a nearly pure stream of CO_2 that requires very little separation.[13] Carbon capture is currently occurring at a commercial scale biorefinery facility located in Decatur, Illinois, resulting from a partnership between Arthur Daniels Midland and the U.S. Department of Energy (DOE).[14] That facility is currently capturing and sequestering 1 million tons of CO_2/y,[15] which is double the maximum allowed by the 45Q.[16] Another facility operated by Red Tail Energy is set to sequester 180,000 tCO_2/y in Richardton, North Dakota in 2020.[17]

11. CALIFORNIA AIR RES. BD., LOW CARBON FUEL STANDARD, https://ww2.arb.ca.gov/our-work/programs/low-carbon-fuel-standard (last visited Mar. 16, 2020).

12. Adele Peters, *We have the tech to suck CO2 from the air – but can it suck enough to make a difference?*, FAST CO., https://www.fastcompany.com/90356326/we-have-the-tech-to-suck-co2-from-the-air-but-can-it-suck-enough-to-make-a-difference (last visited Mar. 16, 2019).

13. Daniel L. Sanchez et al., *Near-term deployment of carbon capture and sequestration from biorefineries in the United States*, 115 PNAS no. 42, 2018.

14. Scott McDonald, *Eliminating CO2 Emissions from the Production of Vio Fuels – A 'Green' Carbon Process*, ILL. INDUS. CARBON CAPTURE & STORAGE PROJECT (July 11, 2017), https://www.energy.gov/sites/prod/files/2017/10/f38/mcdonald_bioeconomy_2017.pdf.

15. Sanchez et al., *supra* note 13.

16. 26 U.S.C. § 45Q(a) (2012) (offering a tax credit to taxpayers who own and operate qualifying carbon capture equipment).

17. Sanchez et al., *supra* note 13.

Natural gas processing facilities also produce a nearly pure stream of CO_2.[18] When processing raw natural gas, CO_2 is separated to bring the natural gas within specification for transportation and end-use.[19] Carbon capture from natural gas processing plants has already proven successful at industrial scale.[20] There is a processing plant in Louisiana that separates CO_2 and pipes it to West Texas for EOR.[21] Exxon currently captures 4 million tons of CO_2/y from a processing plant in La Barge, Wyoming for use in EOR projects.[22] In North Dakota, Encana is capturing gas from a gasification plant to send to Saskatchewan, Canada for EOR.[23] Though this project is not eligible for the 45Q because the CO_2 is not stored within the borders of the United States.[24] For Occidental's ambitious EOR projects, CO_2 will be sourced from a Sandridge Energy gas processing plant where they plan to capture 13.5 million ton of CO_2/y for EOR.[25] The scale of these projects shows that there is plenty of CO_2 available from natural gas processing for use in CCU projects.

Carbon capture from electric generating facilities is also commonly discussed, but the contaminants in the flue gas present technical and economic barriers that make this process more difficult.[26] Though it is not currently done in the United States, capturing the flue gas from natural gas fired generating stations is less technically challenging than capturing CO_2 from coal or oil fired generating stations.[27] Currently, carbon capture from natural gas fired generating stations has proven successful at industrial scale in Norway, at Sargas & Technology Centre Mongstad.[28] In the United States, carbon capture from so called "clean coal" has been covered in the media, but there are only two plants running this process.[29]

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18. James Conca, *Net Zero Natural Gas Plant—The Game Changer*, FORBES (July 31, 2019), https://www.forbes.com/sites/jamesconca/2019/07/31/net-zero-natural-gas-plant-the-game-changer/#3610c59d1de2.

19. U.S. ENERGY INFO. ADMIN., NATURAL GAS EXPLAINED - DELIVERY AND STORAGE OF NATURAL GAS, https://www.eia.gov/energyexplained/natural-gas/delivery-and-storage.php (last visited Mar. 16, 2019).

20. DEP'T OF ENERGY, CARBON CAPTURE OPPORTUNITIES FOR NATURAL GAS FIRED POWER SYSTEMS, https://www.energy.gov/sites/prod/files/2017/01/f34/Carbon%20Capture%20Opportunities%20for%20Natural%20Gas%20Fired%20Power%20Systems_0.pdf (last visited Mar. 17, 2020).

21. NAT'L ENERGY TECH. LAB., CARBON DIOXIDE ENHANCED OIL RECOVERY, www.netl.doe.gov/sites/default/files/netl-file/CO2_EOR_Primer.pdf (last visited Mar. 17, 2020).

22. *Id.*

23. NAT'L ENERGY TECH. LAB., 7.5.2. WEYBURN PROJECT, https://www.netl.doe.gov/research/Coal/energy-systems/gasification/gasifipedia/weyburn.

24. 26 U.S.C.§ 45 Q.

25. NAT'L ENERGY TECH. LAB., CARBON DIOXIDE ENHANCED OIL RECOVERY, www.netl.doe.gov/sites/default/files/netl-file/CO2_EOR_Primer.pdf.

26. Maura Vaccarelli et al., *Energy and Economic Analysis of the CO2 Capture from Flue Gas of Combined Cycle Power Plants,* SCI. DIRECT (2014), https://www.sciencedirect.com/science/article/pii/S1876610214001234.

27. *Id.*

28. CLEANAIR TASK FORCE, NATURAL GAS WITH CARBON CAPTURE, http://www.fossiltransition.org/pages/_copy_of__natural_gas_w_ccs/182.php.

29. Chris Mooney, *America's First 'clean coal' plant is now operational – and another is on the way*, WASH. POST (Jan. 10, 2017), https://www.washingtonpost.com/news/energy-environment/wp/2017/01/10/americas-first-clean-coal-plant-is-now-operational-and-another-is-on-the-way/.

NRG's Petra Nova facility in Thompsons, Texas is supported by the DOE. Another commercial facility is on the Boundary Dam 3 generating station in Canada.[30] Additionally, a company called Net Power has created a pilot scale natural gas fired power plant that integrated carbon capture directly into the plant's design.[31] In doing so, Net Power's generating station produces a nearly pure stream of CO_2 making carbon capture from this facility much easier and cheaper.[32] The carbon captured from Net Power's pilot scale facility will be used for EOR.[33]

Direct Air Capture maybe the capture method most think of when considering carbon capture, but it is likely the furthest from commercial viability. This technology is still in the pilot stage and because the operating cost of capture is inversely proportional to the concentration of CO_2 in the source stream, the economics are strained by the fact that the concentration of CO_2 is very low in the atmosphere.[34] With that said, Carbon Engineering has developed a pilot scale plant in Squamish, Canada that is capturing 1 million tons of CO_2/y,[35] which doubles the maximum allowable capture credit for the 45Q.[36] The fact that a scale pilot plant can double this amount evidences why the high-end cap on the 45Q credit must be increased to help commercialize these processes.

B. Process & Product

There is a myriad of products that can be created from CO_2.[37] Some products can be produced through multiple pathways, and are in a wide range of stages of commercial readiness.[38] This article will not cover all of these pathways, but it will look at a few that are closest to commercial viability.

The first pathway is reductive processes for creating products from CO_2.[39] A reductive process is a chemical reaction where one atom gains electrons, requiring electrons and energy.[40] Note that for these processes to be carbon negative, they will require renewable energy for the electron and energy source.[41] The National

30. Catherine Morehouse, *Can carbon capture save the San Juan coal plant?*, UTILITY DIVE (Nov. 21, 2019), www.utilitydive.com/news/can-carbon-capture-save-the-san-juan-coal-plant/567678/.

31. NET POWER, WE CAN ACHIEVE NET ZERO CO_2, https://netpower.com.

32. Conca, *supra* note 18.

33. *Id.*

34. Rory Jacobson, *The Case for Investigating in Direct Air Capture Just Got Clearer*, GREENBIZ 2 (May 28, 2019), https://www.greenbiz.com/article/case-investing-direct-air-capture-just-got-clearer.

35. David Keith, et. al., *A Process for Capturing CO_2 from the Atmosphere*., 2 JOULE, no. 8, 2018.

36. *Id.* at 3.

37. Conca, *supra* note 18.

38. *Id.*

39. Ricardo A. Wolosiuk, et al., *The Reductive Pentose Phosphate Cycle For Photosynethic CO_2 Assimilation: Enzyme Modulation*, 7 FASEB J. 622 (1993) ("The reductive pentose phosphate cycle is the main biochemical pathway for the conversion of atmospheric CO_2 to organic compounds.").

40. *Id.*

41. Richard Eisenberg et al., *Adressing the Challenge of Carbon Free Energy*, PROCEEDINGS OF THE NAT'L ACADEMY OF SCI. OF THE U.S., 2, 5 (Aug. 19, 2019), https://www.pnas.org/content/pnas/early/2019/10/01/1821674116.full.pdf.

Renewable Energy Lab (NREL) has published a comprehensive article on reductive processes in great technical detail.[42]

NREL shows Indirect Thermochemical Utilization (ITU) is the most technologically advanced method due to years of research in the area by the fossil fuel industry.[43] The chemical reaction in an indirect process requires breaking the carbon-oxygen double bond in CO_2 before the final product is formed.[44] Thermochemical reactions require heat. ITU is feasibly two to four years away from commercialization.[45] Essentially, these processes are already commercialized utilizing non-anthropogenic CO_2.[46] ITU is also advantaged in that many high value products can be created from this process, such as MeOH, olefins, and fuels.[47] Demand for these products is substantial, giving this process a substantial upside once commercialized. Additionally, the production of fuels would qualify these processes under the Low Carbon Fuel Standard (LCFS), meaning more revenue support as commercialization gets underway. Much of the literature around ITU indicates that CO_2, Formic Acid, Fischer-Tropez, and MeOH are the closest to commercialization from a product price and production cost standpoint.

Indirect Bioelectrical Reduction (IBR) also shows near-term promise.[48] Bioelectrical reactions involve electrons produced by organisms.[49] Currently, these processes are commercial and pre-commercial.[50] A company called microbEnergy has been upgrading CO_2 back to methane in Germany since 2015, and Electrochaea has done so in Denmark since 2014.[51] Feasibly in four to six years we could see IBR at full commercial scale with Anthropogenic CO_2. IBR is also advantaged in that it pairs well with renewable energy because it can be easily cycled with minimal start-up and shut-down costs.[52] This trait also makes it possible to use IBR processes as a chemical battery, which could add another revenue stream to the process.

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42. *See generally* Dutta Talmadge et al., *Process Design and Economics for Conversion of Lignocellulosic Biomass to Ethano*l, NAT'L RENEWABLE ENERGY LAB. (May 2011), https://www.nrel.gov/docs/fy11osti/51400.pdf.

43. *See generally* S. Phillips et al., *Thermochemical Ethanol Via Indirect Gasification and Mixed Alcohol Synthesis of Lignocellulosic Biomass*, NAT'L RENEWABLE ENERGY LAB (April 2007) https://www.nrel.gov/docs/fy07osti/41168.pdf.

44. Gary Grim et al., *Feasibility Study for the Utilization of CO2 and Electrons: Pathways, Technical Challenges, and Products*, NAT'L RENEWABLE ENERGY LAB (May 4, 2018).

45. *Id.*

46. *See generally* Lee Beck, *Carbon Capture and storage in the USA: the role of US innovation leadership in climate-technology commercialization*, OXFORD ACAD. (Dec. 24, 2019), https://academic.oup.com/ce/advance-article/doi/10.1093/ce/zkz031/5686277.

47. Robert Grim et al., *Transforming the carbon economy: challenges and opportunities in the convergence of low-cost electricity and reductive CO 2 utilization*, 13 ENERGY & ENVTL. SCI. 472 (2020).

48. *Id.*

49. *Id.*

50. *Id.*

51. Grim et al., *supra* note 44. *See also* MICROBENERGY, VISION DER GANZHEITLICHEN ENERGIEWENDE, https://www.microbenergy.de/unternehmen; ELECTROCHAEA, ABOUT ELECTROCHAEA, http://www.electrochaea.com/about/.

52. Grim et al., *supra* note 47.

In addition to reductive processes, there are non-reductive processes that utilize CO_2. Cement production using CO_2 as an additive is one such process, which has already been shown to be technically feasible.[53]

The exciting thing about CCU is that it is likely closer to commercialization than many realize. It is likely many CCU processes will become commercial over time and the green products that are created will continue to improve the economy and the environment.

III. 45Q

A. Overview

As noted earlier, 45Q refers to section 45Q of the 2008 U.S. tax code, which offers a tax credit to taxpayers who own and operate qualifying carbon capture equipment.[54] The program was adjusted and expanded under the Budget Bill, approved by the U.S. Congress in February 2018.[55] The program covers carbon capture and sequestration through dedicated geological storage, storage via EOR, and storage via utilization processes.[56] For the purposes of this article, we will focus on how the current program applies to carbon capture and utilization processes.

B. Eligibility

CCU processes are eligible to receive a tax credit based on the amount of CO_2 captured and disposed of that would have otherwise been released.[57] For example, CO_2 sourced from a bioethanol plant is of biogenic origin and therefore is considered CO_2 that would have otherwise been released.[58] CO_2 from natural sources, such as naturally occurring underground reservoirs, is not eligible for credit under this program.[59] By this definition, emitting facilities cannot scale back on other means of reducing CO_2 emissions in order to capture the credit.[60] The credit value will be adjusted for the portion of utilized CO_2 shown to reduce overall emissions, using the same criteria as the life cycle analysis, per section 211 (o)(1)(H) of the Clean Air Act.[61]

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53. CO_2CONCRETE, LLC, CARBON CAPTURE PROCESS, https://www.co2concrete.com/carbon-capture-process/.

54. INTERNAL REVENUE SERV., CREDIT FOR CARBON DIOXIDE SEQUESTRATION UNDER SECTION 45Q, https://www.irs.gov/pub/irs-drop/n-09-83.pdf.

55. *Id.*

56. *Id.*

57. 26 U.S.C. § 45Q; Simon Bennett & Tristan Stanley, *US Budget Bill May Help Carbon Capture Get Back on Track*, INT'L ENERGY AGENCY (Mar. 12, 2018), www.iea.org/newsroom/news/2018/march/commentary-us-budget-bill-may-help-carbon-capture-get-back-on-track.html; Keith Martin, *Tax Equity and Carbon Sequestration Credits*, NORTON ROSE FULBRIGHT (Apr. 10, 2018), www.nortonrosefulbright.com/knowledge/publications/165331/tax-equity-and-carbon-sequestration-credits.

58. Bennett & Stanley, *supra* note 57.

59. *Id.*

60. Martin, *supra* note 57.

61. *Id.*

Tax credit is provided to the tax payer who owns the capture equipment and disposes of, or contracts for the disposal of, the CO_2.[62] CO_2 must be captured and disposed of in the United States or a possession (territory) of the United States.[63] Criteria of satisfactory disposal will fall on the Environmental Protection Agency (EPA), Secretary of Energy, and Secretary of the Interior.[64] The IRS has the final say about permitted commercial utilization.[65]

For carbon capture and utilization equipment to be eligible, the process must capture greater than 25,000 tCO_2/yr,[66] the volume cap on the credit was removed as part of the Bipartisan Budget Act of 2018.[67] CO_2 must be metered at the source and again at the point of disposal, to be eligible for the credit.[68]

To be eligible for the tax credit adjusted under the 2018 Budget Bill, equipment must be installed on or after February 9, 2018, and before January 1, 2024.[69] In February 2020, the IRS released guidance clarifying that for projects to be considered as under construction before the start of 2024, the operator must begin physical work or prove 5% of the project's costs had been paid by that date.[70]

62. 26 U.S.C. § 45Q.

63. *Id.*

64. *Id.*

65. Martin, *supra* note 57.

66. Bennett & Stanley, *supra* note 57.

67. Scott Pollock et al., *Treasury Issues Long-Awaited Carbon Sequestration Tax Guidance*, SIDLEY (Feb. 25, 2020), https://www.sidley.com/en/insights/newsupdates/2020/02/treasury-issues-long-awaited-carbon-sequestration-tax-guidance.

68. 26 U.S.C. § 45 Q.

69. Bennett & Stanley, *supra* note 57; Martin, *supra* note 57.

70. Pollock et al., *supra* note 67.

C. Effect on Bottom Line

The adjusted tax credit under the 2018 Budget Bill, provides a credit in the amount of $12.66/tCO$_2$ in 2017, linearly interpolated to $35/tCO$_2$ in 2026, and afterwards adjusted for inflation.[71] Credits can be claimed for up to twelve years.[72]

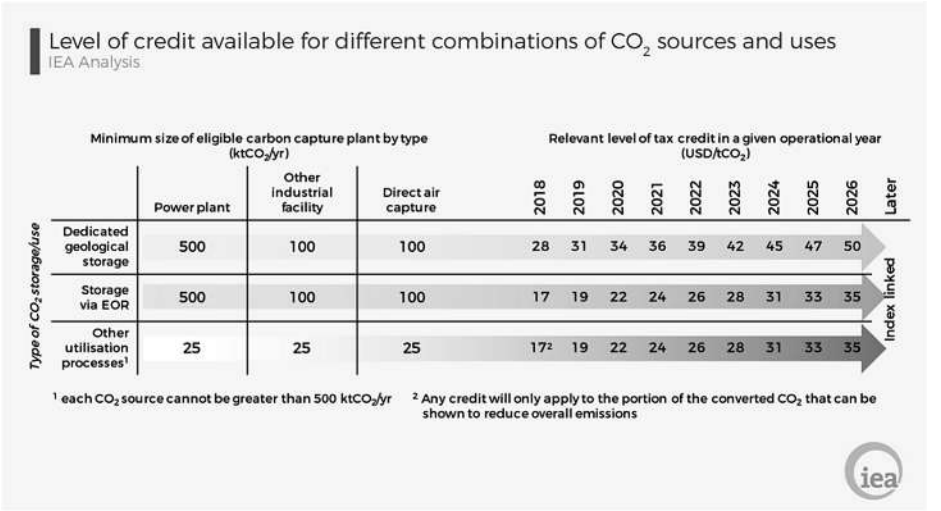

Figure 1. Level of Credit Available for Different Combinations of CO_2 Sources and Uses.[73]

Credit amount will be adjusted for the portion of utilized CO_2 shown to reduce overall emissions, using the same criteria as the life cycle analysis, per section 211 (o)(1)(H) of the Clean Air Act.[74] It is estimated that for CO_2 used to create hydrocarbon fuels, only around half of the credit will be granted.[75] However, the 45Q will likely increase the uptake of low carbon fuel standards, because the revenue support from the 45Q can be stacked with the revenue support from the low carbon fuel standards.[76] Processes utilizing CO_2 to create durable products will be eligible for a larger portion of the credit.[77]

71. Edward Hirsch, *Policies and Programs Available in the United States in Support of Carbon Capture and Utilization*, KENAN FLAGER BUS. SCH. MBA CLASS OF 2019 (Mar. 2019), https://energyatkenanflagler.unc.edu/wp-content/uploads/2019/06/Policies-and-Programs-Available-in-the-United-States-in-Support-of-Carbon-Capture-and-Utilization.pdf; Martin, *supra* note 57.

72. Martin, *supra* note 67.

73. Hirsch, *supra* note 71, at 4; *see also* Bennett & Stanley, *supra* note 57.

74. Martin, *supra* note 57.

75. Bennett & Stanley, *supra* note 57.

76. *Id.*

77. *Id.*

Entrepreneurs should keep in mind that relatively small policy incentives can tip the scales towards investment.[78] Experts estimate the adjusted 45Q tax credit could lead to $1 billion in capital investment in the United States over the next six years.[79] Because the credit increases faster than inflation through 2026, the majority of investment will likely come in the mid-2020's as the credit becomes more valuable.[80]

The 45Q credit reduces the levelized cost of CO_2 from carbon capture to cost parity with carbon dioxide from natural sources.[81] Choosing a low-cost feedstock of carbon dioxide is important for reducing operating expense and increasing the margins of the project. Possible feedstock options for facilities in the United States are provided in the chart below. The purer the CO_2 stream, the less expensive it is to capture.[82]

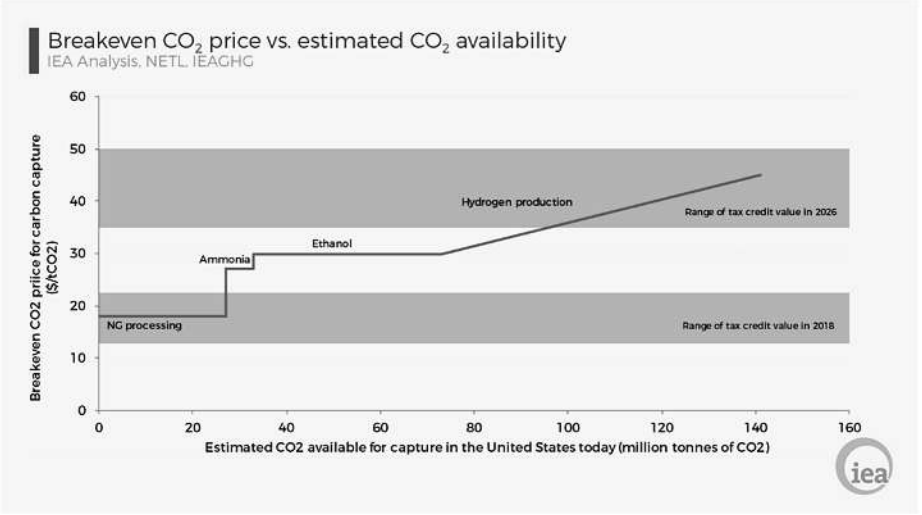

Figure 2. Breakeven CO_2 Price vs. Estimated CO_2 Availability.[83]

Any carbon capture and utilization process will have to create a value proposition greater than the difference between the dedicated geological storage credit and the life cycle analysis adjusted credit, minus the cost of transportation and storage for dedicated geological storage.[84] Otherwise, CCU will not be a good

78. *Id.*
79. *Id.*
80. Bennett & Stanley, *supra* note 57.
81. *Id.*
82. *Id.*
83. Hirsch, *supra* note 71; *see also* Bennett & Stanley, *supra* note 57.
84. Martin, *supra* note 57.

value proposition for qualified facilities, where dedicated geological storage is an alternative.

It will be possible to sell the tax credit on the tax equity markets, which was confirmed in the IRS guidance for the 45Q, from February 2020.[85] Those companies without track records of good financial metrics will have a hard time in the tax equity markets,[86] so a good joint venture partner may be important for companies looking to play in the tax equity market. The financial stability provided by loan guarantees may help higher risk companies find tax-equity partners. Startup companies that are looking for a partner should therefore consider the potential partner's experience in the tax equity market.[87] As the IRS's guidance on tax equity partnerships is similar to other credit-driven industries, specifically renewable wind energy and building rehabilitation,[88] potential partners with experience in those other industries should be well positioned to efficiently take advantage of the 45Q tax equity market.

This strategy is not without risk. The credits are subject to recapture by the IRS, if the product is later found to release carbon into the atmosphere that had been considered already disposed.[89] For example, this is a theoretical risk for CCU projects producing ethylene – tax credits associated with ethylene used in plastic that is later incinerated at the end of its useful life could be subject to recapture.

IV. GREEN BONDS

A. Overview

Green bonds are a category of bonds that are expressly issued to finance environmentally friendly projects.[90] These bonds can be self-labeled by the issuer or verified by third parties.[91] Theming bonds in this way can attract investors who are investing for more than solely financial reasons[92] (e.g. World War II bonds issued by the U.S. Government to attract investors in support of the war effort). Attracting investors to a common purpose can allow the issuer access to more investors, thus driving demand and reducing the issuer's cost of capital.[93] This section will discuss both self-labeled and verified green bonds.

85. Pollock et al., *supra* note 67.

86. Martin, *supra* note 57.

87. *Id.*

88. Pollock et al., *supra* note 67.

89. Martin, *supra* note 57.

90. Gunther, *supra* note 5.

91. GLOB. GREEN BOND P'SHIP, GREEN BOND FRAMEWORK, LABELING, VERIFICATION, CERTIFICATION, AND NATIONAL/REGIONAL STANDARDS, https://www.globalgreenbondpartnership.org/verification (last visited Mar. 8, 2020).

92. MAINSTREET PARTNERS, UNDERSTANDING THE GROWING THEMATIC BOND MARKET (Mar. 15, 2018), https://www.mspartners.org/understanding-the-growing-thematic-bond-market/.

93. Gunther, *supra* note 5.

B. Eligibility

Currently, any bond issuer can label their bonds as "green bonds" without verification.[94] Though this self-labeling can provide benefits for the issuer, it is a problem for the green bond market as a whole because skepticism exists around the validity of green bonds, thus dampening their demand.[95] Increasing demand for green bonds from environmentally conscious investors is crucial to lowering the cost of capital for the issuer, as explained below.

The Climate Bond Initiative (CBI) certifies a number of financial instruments, classified as bonds, any of which could be used for CCU projects and described by the institute as follows:[96]

> **Use of Proceeds Bond**: a standard recourse-to-the-issuer debt obligation for which the proceeds shall be credited to a sub-account, moved to a sub-portfolio or otherwise tracked by the issuer and attested to by a formal internal process that will be linked to the issuer's lending and investment operations for Eligible Projects & Assets.
> **Use of Proceeds Revenue Bond**: a non-recourse debt obligation in which the credit exposure in the bond is to the pledged cash flows of the revenue streams, fees, taxes etc., and the use of proceeds of the bond goes to related or unrelated Eligible Projects & Assets. The proceeds shall be credited to a sub-account, moved to a sub-portfolio or otherwise tracked by the issuer and attested to by a formal internal process that will be linked to the issuer's lending and investment operations for Eligible Projects and Assets.
> **Project Bond**: a project bond for a single or multiple Eligible Projects & Assets for which the investor has direct exposure to the risk of the project(s) with or without potential recourse to the issuer.
> **Securitized Bond**: a bond collateralized by one or more specific Eligible Projects & Assets, including but not limited to covered bonds, Asset Backed Securities (ABS), Mortgage Backed Securities (MBS), and other structures. The first source of repayment is generally the cash flows of the assets.[97]

The goal of the program is to ensure that the green bond label is assigned to bonds used for financing projects that avoid climate change by reducing greenhouse gases (GHG) or develop low-carbon industries.[98] CCU projects adhere to these goals, and bonds issued to finance CCU projects are therefore eligible for green bond verification under the Climate Bond Standard.[99]

In an effort to combat skepticism regarding the validity of green bonds, investment bankers introduced the so-called Green Bond Principles to "encourage transparency, disclosure, and integrity."[100] In addition, the CBI was promulgated

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94. GLOB. GREEN BOND P'SHIP, *supra* note 91.

95. Gunther, *supra* note 5.

96. CLIMATE BONDS INITIATIVE, ASSURANCE/INTEGRITY/TRANSPARENCY, https://www.climatebonds.net/files/files/standards/Standards_24Nov11.pdf; CLIMATE BONDS INITIATIVE, CLIMATE BONDS STANDARD V2.1 (2017), https://www.climatebonds.net/files/files/Climate%20Bonds%20Standard%20v2_1%20-%20January_2017%281%29.pdf; Caroline Flammer, *Green Bonds Benefit Companies, Investors, and the Planet*, HARVARD BUS. REV. (Nov. 22, 2018), https://hbr.org/2018/11/green-bonds-benefit-companies-investors-and-the-planet.

97. CLIMATE BONDS STANDARD, *supra* note 96, at 5.

98. *Id.*

99. *Id.*

100. Gunther, *supra* note 5.

establishing the Climate Bond Standard used by approved third-party certification firms, such as First Environment & Sustainalytics in the United States, to verify that green bonds are truly green.[101]

The Green Bond Principles are used by approved certification firms to verify green bonds are as follows:

> **Use of proceeds**: the issuer should declare the eligible green project categories it intends to support. It should also provide a clear definition of the environmental benefits connected to the project(s) financed by the proceeds.
> **Process for project evaluation and selection**: the issuer should outline the investment decision-making process it follows to determine the eligibility of individual investments using the green bond's proceeds.
> **Management of proceeds**: the proceeds should be moved to a sub-portfolio or otherwise attested to by a formal internal process that should be disclosed.
> **Reporting**: the issuer should report at least annually on the investments made from the proceeds, detailing wherever possible the environmental benefits accrued with quantitative/qualitative indicators.[102]

The Climate Bond certification process operates alongside the normal bond issuance process and is separated into pre-issuance and post-issuance processes, both officiated by the CBI.[103] The pre-issuance process verifies that the green bond will meet the requirements of the Green Bond Principles before the bond is priced and issued.[104] The pre-issuance certification allows the issuer to market the bond as a verified green bond on their investor roadshow, in marketing materials used to attract investors.[105] The post-issuance process verifies that the green bond has been properly allocated beginning twelve months after issuance and continues with annual self-reporting by the issuer until the bond matures.[106]

Meeting the CBI's requirements under the Green Bond Principles means going through a two-step process for verification.[107] First, the verifying firm determines if the project meets the basic requirements of the Green Bond Principles and the application goes through the Climate Bond Taxonomy, which categorizes the project for which the bond will be issued.[108] The application is then verified against sector-specific criteria for final approval based on that categorization.[109] As of March 2020, a handful of sector-specific criteria was available, but the CBI is working on more, as shown in the figure below.[110]

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101. CLIMATE BONDS INITIATIVE, APPROVED VERIFIERS UNDER THE CLIMATE BONDS STANDARD, https://www.climatebonds.net/certification/approved-verifiers.

102. UNITED NATIONS DEV. PROGRAMME, GREEN BONDS (Feb. 26, 2016.), https://www.undp.org/content/dam/sdfinance/doc/green-bonds.

103. *See* CLIMATE BONDS STANDARD, *supra* note 96.

104. *Id.* at 11.

105. *Id.*

106. *Id.*

107. *Id.* at 9.

108. *See* CLIMATE BONDS STANDARD, *supra* note 96, at 9.

109. *Id.*

110. *Id.* at Annex A.

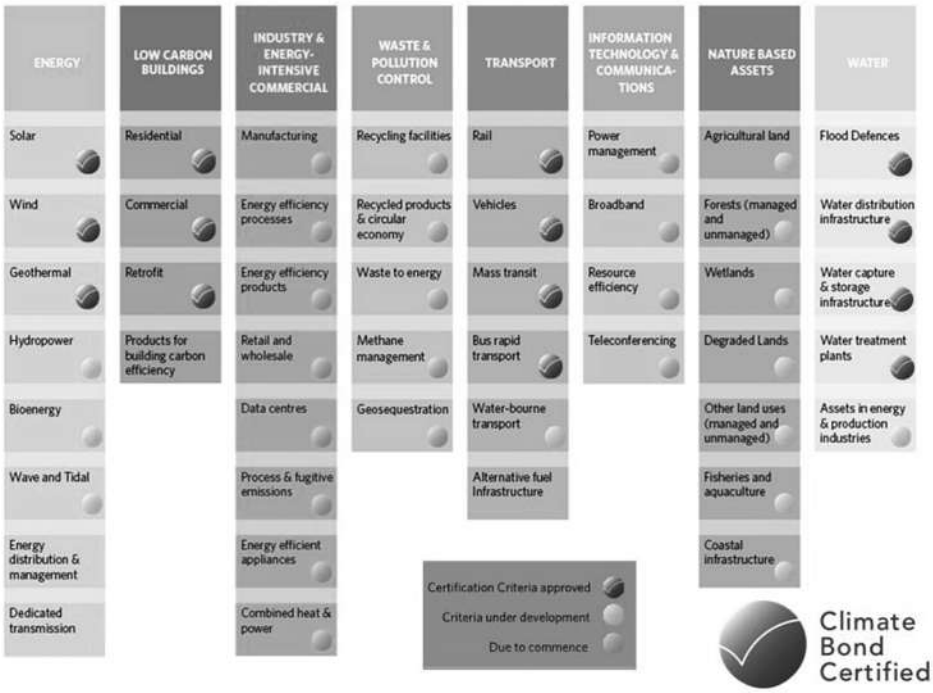

Figure 3. Climate Bonds Taxonomy and Technical Criteria.[111]

Unfortunately, CCU falls under the pollution control sector and does not yet have a sector-specific requirement through CBI.[112] However, green bonds have been issued for pollution control projects.[113] The small percentage for this category is likely due to the relatively small size of the pollution control sector and limited exposure to the benefits of green bond issuance from companies in the sector, which is a problem this article strives to fix.

111. CLIMATE BONDS INITIATIVE, LOW CARBON TRANSPORT BONDS (Sept. 2016), https://www.climatebonds.net/files/files/CBI%20Webinar%20Slides-%20Green%20Transport%20Bonds%208-9-16.pdf.

112. ASSURANCE/INTEGRITY/TRANSPARENCY, *supra* note 96.

113. Finn Schuele & David Wessel, *Municipalities Could Benefit from Issuing More Green Bonds*, THE BROOKINGS INSTIT. (July 16, 2018), www.brookings.edu/blog/up-front/2018/07/16/municipalities-could-benefit-from-issuing-more-green-bonds/.

Volume of issuance of green and ordinary bonds by use of proceeds, 2010-2016

Use of proceeds	Green ($ M)	Ordinary ($ M)
Mass/Rapid Transit	1,480	27,100
Pollution Control	19	10,200
Land Preservation	0	505
Water and Sewer	5,210	170,000
Other	5,928	1,618,355
Total	12,637	1,826,160

Figure 4. Volume of Issuance of Green and Ordinary Bonds by Use of Proceeds, 2010-2016.[114]

From the bond investor's perspective, the ongoing disclosure requirement has been an issue that presents a risk to the green bond market. Some investors are concerned that they may buy a green bond that–during the ongoing disclosure process–is found not to comply with green bond standards and principles, thus losing its green bond label and reducing the value of the bond.[115] This fear does not seem to have stifled the market, but it should be considered before issuing a green bond. Given the GHG mitigating benefits of CCU, it is unlikely bonds associated with these projects would be found out of compliance as long as ongoing disclosure procedures are properly followed.

Bond markets rely heavily on standards and easy comparability.[116] The strict standards of the CBI seem to be giving investor more confidence, as evidenced by the rising popularity of green bonds, which we discuss in more detail below.[117]

C. Effect on Bottom Line

The direct benefit of issuing green bonds is two-fold: access to capital that may not have otherwise been available and reduction in project cost because the overall cost of capital drops due to the lower yields of these high-demand bonds.[118]

114. *Id.*

115. ENV'T FIN., HUGE POTENTIAL FOR US GREEN MUNI BONDS AS MARKET EVOLVES (Jan. 9, 2018), www.environmental-finance.com/content/the-green-bond-hub/huge-potential-for-us-green-muni-bonds-as-market-evolves.html.

116. ASSURANCE/INTEGRITY/TRANSPARENCY, *supra* note 96.

117. *See* UNITED NATIONS DEV. PROGRAMME, *supra* note 102.

118. GOGREENBONDS, WHY GREEN BONDS, http://www.gogreenbonds.org/why-green-bonds/ (last visited Mar. 17, 2020).

1. Access to Capital

The bond market is the largest capital market at $102.8 trillion USD[119] and the green bond market portion has been steadily growing since 2013.[120] In 2017, the total green bond issuance reached $155.5 billion USD.[121] The United States has led the way in green bond investment, but China has been increasing its investment recently as evidenced by the chart below.[122]

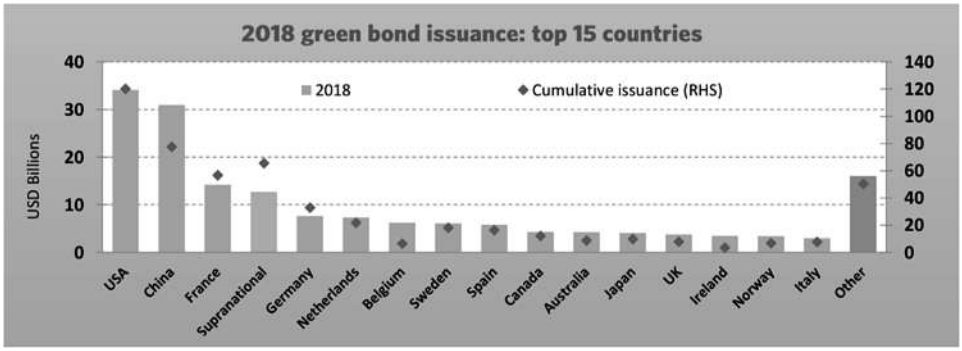

Figure 5. 2018 Green Bond Issuance: Top 15 Countries.[123]

Investors with $60 trillion USD in assets under management have committed to making responsible investments and the growing popularity of green bonds is evidence that green bonds are seeing opportunities beyond just the most environmentally-responsible investors.[124]

In the United States, green bonds offer tax exemptions and tax credits for investors, making them attractive even to investors who are not in the market for the environmental benefit of the bond.[125] Much of the U.S.-based bond investment does come from pension funds and endowments, which are tax-exempt entities. Therefore, the tax-exempt benefit is most attractive to individual investors.[126]

119. ASSURANCE/INTEGRITY/TRANSPARENCY, *supra* note 96.

120. CLIMATE BONDS INITIATIVE, 2018 GREEN BOND MARKET HIGHLIGHTS (Jan. 18, 2019), https://www.climatebonds.net/files/files/2018%20green%20bond%20market%20highlights.pdf.

121. CLIMATE BONDS INITIATIVE, GREEN BOND MARKET HIGHLIGHTS 2017 (Jan. 2018), https://www.climatebonds.net/files/reports/cbi-green-bonds-highlights-2017.pdf.

122. *See* CLIMATE BONDS INITIATIVE, *supra* note 120.

123. *Id.*

124. UNITED NATIONS DEV. PROGRAMME, *supra* note 102.

125. CLIMATE BONDS INITIATIVE, *supra* note 120.

126. Malcolm Baker et al., *Financing the Response to Climate Change*: *The Pricing and Ownership of U.S. Green Bonds*, THE BROOKINGS INSTIT. (Apr. 27, 2018), https://www.brookings.edu/wp-content/uploads/2018/07/Wurgler-J.-et-al..pdf.

Capital formation around green bonds has reached a tipping point in the last couple of years, with some investor pools raised exclusively for green investment.[127] All this has led to the pricing benefits of green bonds being realized, as had been promised for years previous.[128]

2. Cost of Capital

The high demand for green bonds has recently been shown to reduce the yield of these bonds[129]— a promise that the market has been waiting to realize since its inception. The reduction in yield will make green projects—like CCU—cheaper to build and may allow projects which otherwise would have been uneconomic to beat their hurdle rate.[130] Issuance of green bonds also affords the issuer more flexibility in the use of capital as compared to capital obtained from traditional debt.[131]

Realizing this reduction in yield is also key in offsetting the costs and fees associated with verifying the green bond. Registering with the CBI costs one-tenth of a basis point value of the bond.[132] A recent paper out of the Brookings Institution's Municipal Finance Conference shows that controlling for other factors, green bonds issue six basis points below yields of comparable conventional bonds and this factor "doubles or triples" for third-party verified green bonds.[133] Over a ten-year bond life, a six basis point difference in yield equates to 0.6% difference in value for the bond,[134] which more than covers the cost of verifying the green bond.

It is thought that this difference reflects willingness of investors to give up some returns in order to hold green bonds.[135] This trend will likely continue with the amount of commitment to responsible investment, further reducing the relative yields of green bonds.

3. Tangential Benefit – Equity Value

Analysis shows public companies issuing green bonds received a cumulative adjusted return of +0.67% in their stock price within two days of the issuance.[136] This increase is doubled if the green bonds are verified by an independent third party.[137] The increase is also larger for companies whose operations are directly impacted by the natural environment, such as utilities and agriculture.[138] It is

127. Gerald Hayes, *Build It Green and They Will Come*, GLOBALCAPITAL (Sept. 30, 2013), https://www.globalcapital.com/article/jbxq41knz2t1/build-it-green-and-they-will-come.

128. ENVTL. FIN., *supra* note 115, at 1.

129. Baker et al., *supra* note 126, at 16.

130. Gunther, *supra* note 5, at 3.

131. UNITED NATIONS DEV. PROGRAMME, *supra* note 98, at 3.

132. ASSURANCE/INTEGRITY/TRANSPARENCY, *supra* note 96.

133. Baker et al., *supra* note 126, at 2-3; Schuele & Wessel, *supra* note 113, at 1.

134. Baker et al., *supra* note 126, at 3.

135. *Id.*

136. Flammer, *supra* note 96, at 2.

137. *Id.*

138. *Id.* at 3.

thought that the positive bump is the market reacting to the companies' perceived commitment towards positive environmental impacts.[139] Altogether, this finding is another incentive for CCU projects developed by utilities, biorefineries, agricultural process, and other heavy industries to be funded with green bonds.

V. LOAN GUARANTEES

A. Overview

The DOE created the Innovative Technology Loan Guarantee Program under Title 17 of the Energy Policy Act of 2005.[140] The purpose of the program is to provide innovative projects access to funding they would not otherwise have in the private sector by backing loans made to these projects.[141] The focus of this section is on the CCU part of this loan program with a brief discussion of other relevant programs.

B. Eligibility

CCU projects and companies that source CO_2 from fossil-burning electric generating stations or industrial facilities are eligible for the Innovative Technology Loan Guarantee Program.[142] It is a common misconception that the Title 17 program is only open to renewable technologies, when in actuality, the program has set aside over $30 billion in loan guarantee funds, $8.5 billion of which can be accessed for advanced fossil energy projects.[143] A loan guarantee from the advanced fossil energy projects pool was granted to the only carbon capture project in the program thus far, which is further discussed below.[144] An additional $4.5 billion has been set aside for renewable energy and energy efficiency programs.[145] This is relevant because CCU projects can also qualify for funds from the renewable energy and energy efficiency pool if renewable energy provides the energy inputs to the system, or if the process produces a fuel that is shown to tangibly increase energy efficiency through a life cycle analysis.[146] Life cycle analyses are explained in more detail in the Low Carbon Fuel Standard section of the article.[147]

The DOE Loan Program Office (LPO) has already granted $30 billion in loan guarantees into over thirty projects and has an additional $40 billion committed to

139. *Id.*

140. Nikki Springer, *Loan-Guarantee Program Fuels Innovative Energy Technology*, CLEAN ENERGY FIN. FORUM (June 12, 2018), https://cleanenergyfinanceforum.com/2018/06/12/loan-guarantee-program-fuels-innovative-energy-technology.

141. *Id.*

142. *Id.*

143. *Id.*; *Risky Business: The Doe Loan Guarantee Program: Joint Hearing Before the S. Comm. on Energy & S. Comm. On Oversight*, 115th Cong. 1 (2017) (statement of Rep. LaHood).

144. Springer, *supra* note 140.

145. *Id.*

146. Martin, *supra* note 57.

147. *See* discussion *infra* Section VII.

the program.[148] John Sneed, Executive Director of the LPO has said, "I think the program will be financing high-impact energy-infrastructure projects that will create a truly all-of-the-above energy portfolio. And we want to let stakeholders know that this office is an energy-infrastructure-lending group."[149] His statement indicates that innovative projects like CCU should apply for the program, consistent with the language of the Energy Policy Act of 2005 authorizing "the Secretary of Energy (Secretary) to make loan guarantees for projects that avoid, reduce, or sequester air pollutants or anthropogenic emissions of greenhouse gases."[150] Interestingly, this direction leaves the door open for agriculturally sourced or direct air capture CCU to apply.

To qualify, a project must show substantial improvement of technologies versus commercial technology.[151] The project must be located in the United States at a single location, unless the project is "comprised of installations or facilities employing a single New or Significantly Improved Technology that is deployed pursuant to an integrated and comprehensive business plan."[152] Thus, startup companies deploying a new technology exclusively within the United States are eligible for the program.

To be eligible for the program a project must adhere to the Cargo Preference Act, which requires the use of U.S. flagged ships for moving cargo in international waters, and the Davis-Bacon Act, which requires that laborers be paid at rates equal or above rates paid for labor on similar projects, as determined by the Secretary of Labor.[153]

As of March 2020, only one carbon capture project has been approved under the program, and the funds were sourced from the advanced fossil energy pool. It is a methanol production facility in Louisiana, with CCS equipment attached. The CO_2 produced by the plant is captured and piped to Texas for use in EOR.[154]

C. Effect on Bottom Line

A loan guarantee transfers the credit risk from the borrower to the entity assuming the debt obligation, which is the federal government under the Energy Policy Act of 2005.[155] Innovative projects, like CCU, are inherently high risk and

148. Loan Programs Office, *Advanced Fossil Energy Loan Guarantees*, DEP'T OF ENERGY (2019), https://www.energy.gov/sites/prod/files/2019/01/f58/LPO-advanced-fossil-energy.pdf.

149. Springer, *supra* note 140.

150. Final Rulemaking, *Loan Guarantees for Projects That Employ Innovative Technologies*, 81 Fed. Reg. 90,699, at 90,700 (2016) (to be codified at 10 C.F.R. pt. 609).

151. *Id.*

152. *Id.* (explaining that new technologies are "expected to help sustain and promote economic growth, produce a more stable and secure energy supply and economy for the United States, and improve the environment," "as compared to commercial technologies in service in the United States at the time the guarantee is issued" in order to qualify as significantly improved).

153. *Id.*

154. Matthew Daly, *Energy Dept. Offers $2B Loan to Carbon-Storage Project*, PUB. BROADCASTING CO. (Dec. 21, 2016), https://www.pbs.org/newshour/nation/energy-dept-loan-carbon-storage; Springer, *supra* note 139.

155. Springer, *supra* note 140.

seen as unproven technologies by lending institutions. Often, innovative projects and startup companies can only secure loans with very high interest rates and unfavorable terms, if they are able to access the debt market at all.

With a loan guarantee, the entity assuming the debt (e.g. the federal government) agrees to repay the loan in the event of a default.[156] Therefore, the lending institution will apply the credit rating of the entity assuming the debt obligation to the portion of the loan covered under the loan guarantee, which is 80% of the loan for this program.[157]

The Title 17 program will guarantee up to 80% of the project's cost that is the subject of the loan.[158] The interest rate for the loan must be approved by the office of U.S. Secretary of Energy and the term will be the "lesser of 30 years or 90% of the projected useful life of the physical asset financed by the [loan]."[159]

The eligible costs of the project include costs to engineer, build, and insure the project, as well as the cost of legal, financial, and other professional services related to the project.[160] The costs of operation, research and development, proof of concept or branding are not covered under the program.[161]

A loan guarantee may allow the project access to debt financing from traditional banks. However, because 20% of the loan money is not guaranteed,[162] the project or company sponsoring the project will need to show proven cashflows to be able to take advantage of the programs, because a traditional bank will avoid companies at the earliest stages of maturity.[163] This is likely the reason that most projects guaranteed so far under the advanced fossil energy program have been plant expansion or innovative projects from well-established firms.[164]

With that said, the purpose of the program is to ensure that innovative technologies secure adequate funding.[165] So, startup companies that have found a venture capital sponsor and have made it through series funding or have gained access to specialty finance companies should look to this program for further capital needs.

It should be noted that once the technology is proven at commercial scale and the perceived risks are thought to be low, the department will stop providing financing, as has been the case with utility scale photo-voltaic solar industry.[30]

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156. *Id.*

157. 10 C.F.R. § 609.7(b)(7).

158. 42 U.S.C. § 16512(c) (2017).

159. *Id.* § 16512(f).

160. 24 C.F.R. § 93.201(d) (2016).

161. 42 U.S.C. § 16512(c).

162. *Id.* § 16512(f).

163. For example, seed stage or angle stage companies with negative cash flow. Katie Jensen, *Valuing a Company with No Cash Flow*, CHRON, https://smallbusiness.chron.com/valuing-company-cash-flow-38538.html.

164. Loan Programs Office, *supra* note 148.

165. 13 C.F.R. § 311.11 (2016).

D. Other Loan Guarantee Programs

A loan guarantee program that included eligibility for carbon capture technologies using agriculturally sourced CO_2, called the Carbon Utilization Act, was proposed in the U.S. Senate in 2018.[166] Sponsored by Sen. Michael Bennett (D-CO) and Sen. Sheldon Whitehouse (D-RI), the proposal would allow carbon capture projects access to USDA loan guarantees, among other benefits.[167]

VI. REGIONAL GREENHOUSE GAS INITIATIVE

A. Overview

The RGGI is the first mandatory GHG cap and trade program implemented in the United States.[168] The program regulates GHG emissions from the power sector in the nine participating states: Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, Rhode Island, and Vermont.[169] New Jersey and Virginia are currently in the process of joining the program.[170]

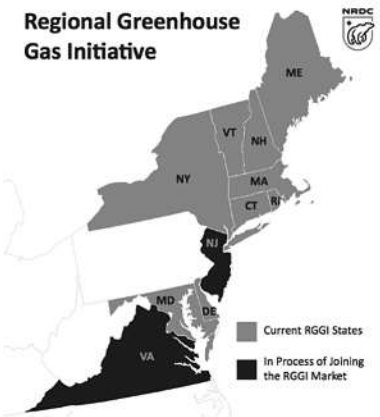

Figure 6. Regional Greenhouse Gas Initiative Participating States.[171]

166. Peter Folger, *Carbon Capture and Sequestration (CCS) in the United States*, CONG. RES. SERV., https://fas.org/sgp/crs/misc/R44902.pdf.

167. Tim Albrecht, *Carbon utilization bill could create value for CO2 emissions*, BIOMASS MAGAZINE (June 8, 2018), biomassmagazine.com/articles/15356/carbon-utilization-bill-could-create-value-for-co2-emissions.

168. THE REG'L GREENHOUSE GAS INITIATIVE, WELCOME, https://www.rggi.org/.

169. *Id.*

170. Bruce Ho, *The Regional Greenhouse Gas Initiative Is a Model for the Nation*, NAT. RES. DEF. COUNCIL (July 3, 2018), https://www.nrdc.org/resources/regional-greenhouse-gas-initiative-model-nation.

171. *Id.*

The program requires fossil-fuel burning generating stations, with a capacity of 25 MW or above, to purchase allowances to emit CO_2.[172] A set number of allowances are available for the operators of the generating stations to purchase and that allowance cap then declines by 2.5% annually from 2015-2020[173] and then by 3% annually from 2021-2030.[174] The allowances are sold at quarterly auctions and traded in a secondary market.[175] The states invest the proceeds from the allowance auctions into energy efficiency, renewable energy, and other consumer benefit programs.[176]

The cost of the allowances acts like a carbon tax on the companies operating generating stations in these states.[177] CCU projects built on the generating stations within the RGGI participating states will reduce their emissions and thus avoid this additional cost of carbon. Only CCU projects with CO_2 sourced from the power sector within the RGGI participating states will see a benefit from the program and will therefore be the focus of this section.

B. Eligibility

The RGGI applies to all generating stations with a capacity of 25 MW or above within participating states.[178] Therefore only CCU projects sourcing CO_2 from generating stations larger than 25 MW capacity and regulated under the RGGI will see a benefit from the emissions reduction, but each ton of CO_2 captured is one allowance the station operator will have to purchase.[179]

1. Offsets

In addition to reducing the amount of CO_2 emitted, CCU projects may qualify as an offset under the program.[180] Some of the states participating in the RGGI have a provision that allows companies to offset up to 3.3% of their required emissions allowances from projects outside the electricity sector.[181] However, offset projects are currently limited to five project categories: landfill methane capture, sulfur hexafluoride, forestry & afforestation, end-use efficiency, and avoided agricultural methane.[182]

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172. MARYLAND DEPT. OF THE ENV'T., TECHNICAL SUPPORT DOCUMENT FOR AMENDMENTS TO COMAR 26.09 MD CO2 BUDGET TRADING PROGRAM 4 (July 26, 2013), https://mde.maryland.gov/programs/regulations/air/Documents/TSD_Amendments_for_072613_to_COMAR_2609.pdf.

173. Ho, *supra* note 169.

174. *Id.*

175. THE REG'L GREENHOUSE GAS INITIATIVE, *supra* note 168.

176. THE REG'L GREENHOUSE GAS INITIATIVE, INVESTMENTS OF PROCEEDS, https://www.rggi.org/investments/proceeds-investments.

177. David Stevenson, *A Review of the Regional Greenhouse Gas Initiative*, CATO INST. (Feb. 7, 2018), www.cato.org/cato-journal/winter-2018/review-regional-greenhouse-gas-initiative.

178. MARYLAND DEPT. OF THE ENV'T., *supra* note 172.

179. THE REG'L GREENHOUSE GAS INITIATIVE, ELEMENTS OF RGGI, https://www.rggi.org/program-overview-and-design/elements.

180. THE REG'L GREENHOUSE GAS INITIATIVE, OFFSETS, https://www.rggi.org/allowance-tracking/offsets.

181. *Id.*

182. *Id.*

Carbon capture does not currently apply to these categories, though it does fit the stated requirement for "CO_2 emissions reductions or carbon sequestration that is real, additional, verifiable, enforceable, and permanent."[183] It is possible, therefore, that CCU projects could qualify as offsets in the future. If CCU projects are granted offset status under the provisions, they would have to be built within the same participating state as the generating station, to qualify as an offset.[184]

2. Investment

Participating states can invest the proceeds from allowance auctions at the state's discretion, though the majority of investment falls under four categories: energy efficiency, renewable energy, greenhouse gas abatement, and direct bill assistance.[185] Though it appears CCU qualifies as GHG abatement, no carbon capture projects have received investment to date. Typically, clean transportation and electric vehicle programs have fallen under this category.[186] With that said, there is also no restriction against carbon capture projects qualifying for investment under the program, though projects receiving RGGI funded investment cannot also qualify as offset projects.[187]

C. Effect on Bottom Line

For companies operating generating stations above 25MW in RGGI participating states, adding CCU projects to new or existing fossil-burning generating stations offers a savings on the value of emissions allowances required to operate those facilities.

Allowances are priced on a dollar per short ton of CO_2 basis.[188] The price for allowances purchased at the quarterly state-run auctions is a single clearing price. The price on the secondary markets is market based.[189]

The auction implements two mechanisms to control the allowance prices.[190] The first is the Cost Containment Reserve (CCR), which serves as an artificial price cap.[191] The CCR holds in reserve 10% of the allowances, which are only

183. *Id.*

184. *Id.*

185. THE REG'L GREENHOUSE GAS INITIATIVE, INVESTMENTS OF PROCEEDS, https://www.rggi.org/investments/proceeds-investments.

186. THE REG'L GREENHOUSE GAS, THE INVESTMENT OF RGGI PROCEEDS IN 2017 (Oct. 2019), https://www.rggi.org/sites/default/files/Uploads/Proceeds/RGGI_Proceeds_Report_2017.pdf.

187. THE REG'L GREENHOUSE GAS INITIATIVE, *supra* note 180.

188. ELEMENTS OF RGGI, *supra* note 179.

189. *Id.*

190. *Id.*

191. *Id.*

made available in the event that the allowance bidding price exceeds a preset trigger price.[192] Trigger prices for the CCR are provided in the table below.[193] Once the trigger is hit the CCR increases the supply of credits and drives down prices.[194]

The second mechanism is the Emissions Containment Reserve (ECR), which serves as an artificial price floor and will be implemented starting in 2021.[195] In the event that allowance prices fall below the trigger point for the ECR, allowances will be withheld from the auction, thus reducing the allowance supply.[196] This reduces the supply and drives up prices. Seven of the participating states plan to implement the ECR: Connecticut, Delaware, Maryland, Massachusetts, New York, Rhodes Island, and Vermont.[197]

Trigger Prices for CO2 Allowance Cost-Bounding Mechanisms

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
CCR (Price Cap)	$10.25	$10.51	$10.77	$13.00	$13.91	$14.88	$15.92	$17.03	$18.22	$19.50	$20.87	$22.33	$23.89
ECR (Price Floor)	-	-	-	$6.00	$6.42	$6.87	$7.35	$7.86	$8.41	$9.00	$9.63	$10.30	$11.02

Figure 7. Trigger Prices for CO_2 Allowance Cost-Bounding Mechanisms.[198]

With these two mechanisms in place it is likely that the allowance prices will be within the bounds of the CCR and ECR trigger prices within a given year. However, this is not guaranteed. This range can be used for sensitivity analysis for allowance savings in CCU financial modeling and forecasting.

Prices in the secondary market did run below the ECR trigger in 2018.[199] The table below provides prices from the secondary market for 2018, which is the most recently published annual data.[200]

192. *Id.*; CTR. FOR CLIMATE AND ENERGY SOLUTIONS, REG'L GREENHOUSE GAS INITIATIVE (RGGI) (Aug. 23, 2018), www.c2es.org/content/regional-greenhouse-gas-initiative-rggi.

193. *See infra* Figure 7.

194. ELEMENTS OF RGGI, *supra* note 179.

195. *Id.*

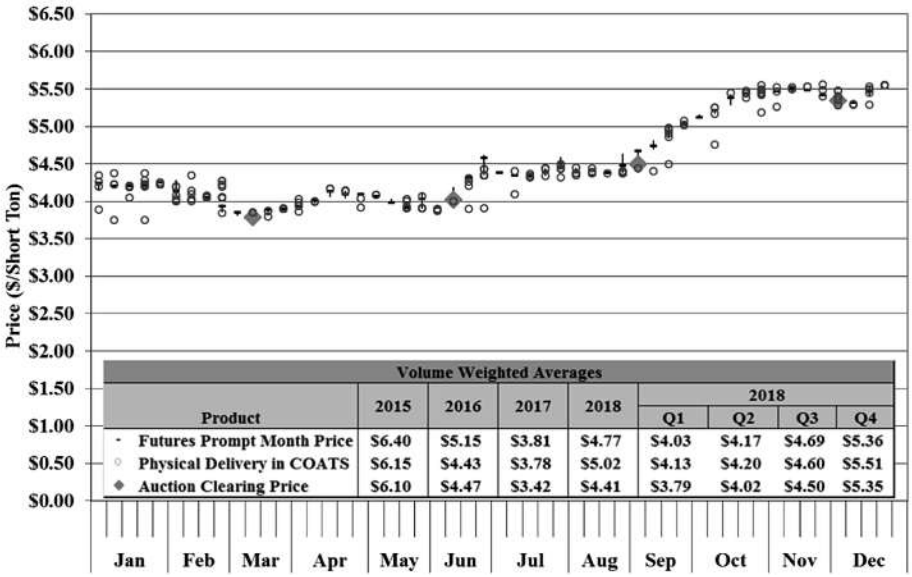
196. *Id.*; THE REG'L GREENHOUSE GAS INITIATIVE, *supra* note 168.

197. *Id.*

198. *Id.*

199. *See supra* Figure 7.

200. *See infra* Figure 8.



Volume Weighted Averages

Product	2015	2016	2017	2018	2018 Q1	2018 Q2	2018 Q3	2018 Q4
Futures Prompt Month Price	$6.40	$5.15	$3.81	$4.77	$4.03	$4.17	$4.69	$5.36
Physical Delivery in COATS	$6.15	$4.43	$3.78	$5.02	$4.13	$4.20	$4.60	$5.51
Auction Clearing Price	$6.10	$4.47	$3.42	$4.41	$3.79	$4.02	$4.50	$5.35

Figure 8. Observations Regarding Prices in Auctions and the Secondary Market.[201]

Prices are affected by supply-and-demand forces as well as speculation around regulations and changes to the program. Since the RGGI released the Model Rule in 2014, the price has increased significantly due to increased demand.[202] In 2015, after the Clean Power Plan (CPP) was announced, prices hit a peak of $7.50 per ton and the CCR fully sold out.[203] Since the CPP has been put on the shelf, prices steadily decreased, to a low of $2.53 per ton in 2017.[204]

For CCU projects with CO_2 sourced from power stations, the revenue support from the 45Q and the cost saving against RGGI allowances offer significant positive economic support.

201. *See* ISO NEW ENGLAND, INC., 2018 ANNUAL MARKETS REPORT (May 23, 2019), https://www.iso-ne.com/static-assets/documents/2019/05/2018-annual-markets-report.pdf.

202. CTR. FOR CLIMATE AND ENERGY SOLUTIONS, *supra* note 192.

203. *Id.*

204. *Id.*

VII. LOW CARBON FUEL STANDARD

A. Overview

The LCFS, a state policy initiative passed in California in 2007, is a market-based cap and trade program for transportation fuels.[205] The policy is designed to curb GHG emissions by 10% in 2020, as compared to the 2007 baseline.[206] The program, which is administered by the California Air Resources Board (CARB), sets a target Carbon Intensity (CI) score, which is reduced year-over-year for California's transportation fuel pool.[207] All regulated transportation fuels, be they petroleum-based fuels, biofuels, or alternative fuels, are assigned a CI score based on a complete Life Cycle Assessment (LCA) of the fuel, similar to the LCA from the national Renewable Fuel Standard (RFS) program.[208] The LCA for the LCFS includes direct emission from using the fuel, as well as emissions from producing and transporting the fuel.[209]

Fuels with a CI score below the benchmark are granted LCFS credits, while fuels with a CI score higher than the benchmark produce a LCFS deficit.[210] In order to comply with the program, producers who run a deficit must acquire enough LCFS credits each year to offset their deficit. The credits are traded between fuel producers on an open market at market-based prices.[211]

Similar programs to the one in place in California have been adopted in Oregon and British Columbia, together called the Pacific Coast Collaborative, showing the expanding popularity of the program.[212] Because California is the trend-setting legacy program of this type, it will be the focus of this section.

B. Eligibility

As of yet, no CCU pathway is approved under the program, but they are eligible.[213] Only CCU processes that produce a fuel are eligible to participate in the program.[214] The LCFS applies to any number of transportation fuels, including gasoline, diesel, natural gas, ethanol, propane, and electricity.[215] Therefore, CCU processes producing methane, ethane, propane, or ethanol are good candidates to participate.

Fuels that receive a CI score lower than the benchmark are not required to participate in the program, but they must opt-in to the program in order to sell

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205. CALIFORNIA AIR RES. BD., LOW CARBON FUEL STANDARD – ABOUT, https://ww2.arb.ca.gov/our-work/programs/low-carbon-fuel-standard/about.

206. *Id.*

207. *Id.*

208. *Id.*

209. *Id.*

210. CALIFORNIA AIR RES. BD., *supra* note 205.

211. CAL. CODE REGS. tit. 17 § 95490 (2019); CALIFORNIA AIR RES. BD., *supra* note 205.

212. CALIFORNIA AIR RES. BD., *supra* note 205.

213. *Id.*

214. CAL. CODE REGS. tit. 17 § 95482 (2019).

215. *Id.*

LCFS credits in the market.[216] Alternative fuel suppliers who supply less than 3.6 million gallons of gasoline equivalent per year are exempt from the program and would participate only if they opt-in.[217] Typically, reformulated gasoline and diesel run a deficit while alternative fuels produce credits.[218]

Any regulated fuel producer, called a Regulated Party (RP), must register their fuel production pathway with CARB, in order to receive a CI score.[219] Production pathways fall under two categories called Tiers. Tier 1 covers conventional pathways and Tier 2 covers so-called next-generation pathways.[220]

Renewable fuels, such as those that fall under the RFS, are classified as Tier 1 pathways.[221] Given that CCU fuel production is in its infancy, CCU fuels would be classified as Tier 2 pathways.[222] Tier 1 pathways are well known to CARB and a Tier 1 fuel producer will receive a CI score based on a predetermined analysis for that fuel pathway.[223] Tier 2 pathways will undergo a CI score analysis as part of the application, and the application will therefore go through a few extra steps before approval and may be at risk of denial.[224] For full approval, the RP must produce two years of steady state commercial data, though a provisional certification may by be granted with a minimum of one quarter of steady state commercial data.[225] To qualify, the RP must also be able to prove active fuel production in and/or transport to the California market.[226]

The program has a carbon capture provision that allows a RP to claim up to 20% reduction in their CI score from carbon capture at the fuel refinery, called project-based CCS.[227] This would apply to CCU projects with CO_2 sourced from both petroleum refineries and biorefineries if the product produced was not a fuel and was found to prevent emission of CO_2 based on the product's LCA. If the CCU process produced a fuel, it would not be eligible for the project-based CCS credit, but it would be eligible to apply under the Tier 2 pathway certification.[228]

Because the RFS has been discussed here, it should be noted CCU-produced fuel does not qualify under the RFS, even if the CO_2 is sourced from a biorefinery. The RFS program is specifically for fuels refined from biomass.[229]

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216. CAL. CODE REGS. tit. 17 § 95484.
217. CAL. CODE REGS. tit. 17 § 95482.
218. CAL. CODE REGS. tit. 17 § 95486.
219. CAL. CODE REGS. tit. 17 § 95488.1.
220. *Id.*
221. *Id.*
222. *Id.*
223. *Id.*
224. CAL. CODE REGS. tit. 17 § 95488.7.
225. CAL. CODE REGS. tit. 17 §§ 95488.6, 95488.7.
226. CAL. CODE REGS. tit. 17 § 95482.
227. CAL. CODE REGS. tit. 17 § 95490.
228. *Id.*
229. CAL. CODE REGS. tit. 17 § 95482.

C. Effect on Bottom Line

As stated above, typically reformulated gasoline and diesel run a deficit while alternative fuels produce credits. This means traditional petroleum refiners and gasoline blenders produce a deficit and must purchase credits on the LCFS exchanges in order to maintain compliance and sell fuel in the California and Pacific Coast Collaborative markets. Historical average prices can be found in the chart below and ranged from $100-$190 in 2018.

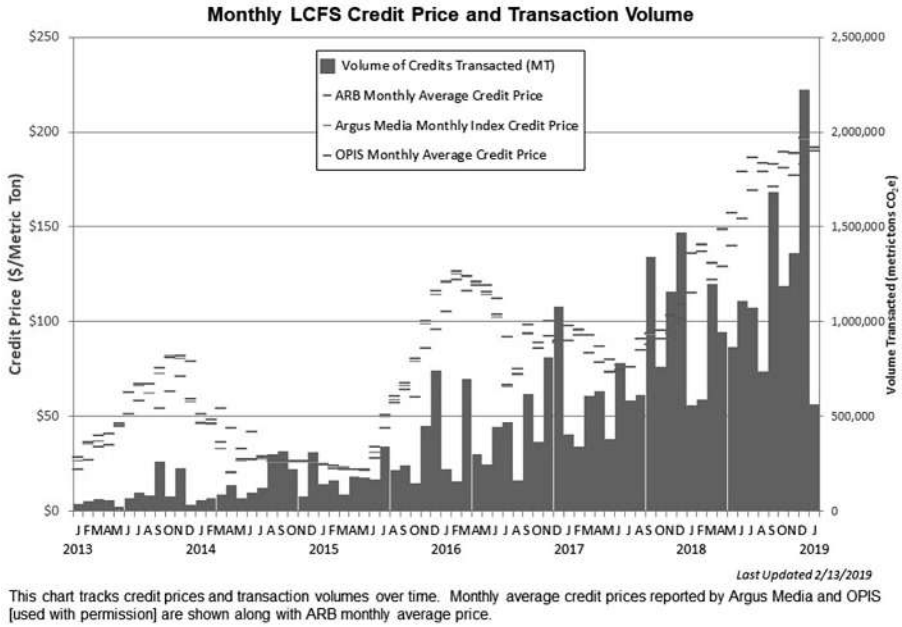

Figure 9. Monthly LCFS Credit Price and Transaction Volume.[230]

The value of LCFS credits created by a fuel pathway is directly proportional to the CI score of that process, as shown in the chart below for gasoline.[231] A pathway with a CI score of zero will receive the full value of the LCFS credit price.[232] While a pathway, with a CI score half of the compliance benchmark score will receive double the value of the LCFS credit price.[233]

230. CALIFORNIA AIR RES. BD., DATA DASHBOARD (last updated Mar. 11, 2020), https://ww3.arb.ca.gov/fuels/lcfs/dashboard/dashboard.htm.

231. *See infra* Figure 10.

232. *Id.*

233. *Id.*

Credit Value Calculator: Estimated LCFS Premium at Sample LCFS Credit Prices

Alternative Fuel Premiums at Sample LCFS Credit Prices
($/gal gasoline-equivalent for fuels used as gasoline substitutes)

CI Score (gCO2e/MJ)	Credit Price $190	$80	$100	$120	$160	$200
-273	$8.06	$3.39	$4.24	$5.09	$6.79	$8.48
10	$1.83	$0.77	$0.96	$1.16	$1.54	$1.93
20	$1.61	$0.68	$0.85	$1.02	$1.36	$1.70
30	$1.39	$0.59	$0.73	$0.88	$1.17	$1.46
40	$1.17	$0.49	$0.62	$0.74	$0.99	$1.23
50	$0.95	$0.40	$0.50	$0.60	$0.80	$1.00
60	$0.73	$0.31	$0.38	$0.46	$0.62	$0.77
70	$0.51	$0.22	$0.27	$0.32	$0.43	$0.54
80	$0.29	$0.12	$0.15	$0.18	$0.25	$0.31
90	$0.07	$0.03	$0.04	$0.04	$0.06	$0.07
100	-$0.15	-$0.06	-$0.08	-$0.09	-$0.13	-$0.16
110	-$0.37	-$0.16	-$0.19	-$0.23	-$0.31	-$0.39
120	-$0.59	-$0.25	-$0.31	-$0.37	-$0.50	-$0.62
130	-$0.81	-$0.34	-$0.43	-$0.51	-$0.68	-$0.85
140	-$1.03	-$0.43	-$0.54	-$0.65	-$0.87	-$1.08
150	-$1.25	-$0.53	-$0.66	-$0.79	-$1.05	-$1.32
CaRFG* ($/gallon) 100.82	-$0.135	-$0.057	-$0.071	-$0.085	-$0.113	-$0.142

* Maximum pass-through cost for gasoline. Assumes a blend of CARBOB with 10 volume percent ethanol at a CI of 79.9 g/MJ. Ethanol at 79.9 g/MJ is assumed to receive no LCFS premium.

The value of a bundled credit is shown per gallon-equivalent as revenue for alternative fuel producers at a range of sample CI values and credit prices. Using the calculator, the credit value of any fuel can be determined; for example, at Q1 2016 credit prices of approximately $120/MT, a renewable diesel fuel with a CI score of 30 gCO_2e/MJ generates LCFS credits worth $1.13 per diesel-gallon equivalent (DGE). Each kilowatt-hour of grid electricity used in an electric vehicle will earn an additional $0.10 ($3.10 per gasoline-gallon equivalent GGE) through the LCFS credits generated.

Figure 10. Credit Value Calculator: Estimated LCFS Premium at Sample LCFS Credit Prices.[234]

Below is a chart of the benchmark compliance score for gasoline and diesel.[235] The benchmark level is reduced each year as part of the program to achieve the desired reduction in GHG emissions.[236]

234. CALIFORNIA AIR RES. BD., *supra* note 230.

235. See *infra* Figure 11.

236. *Id.*

Compliance Schedule for Gasoline and Diesel Fuel and their Substitutes

Year	Gasoline Average CI (gCO_2e/MJ)	Diesel Average CI (gCO_2e/MJ)
2016	96.50	99.97
2017	95.02	98.44
2018	93.55	96.91
2019	91.08	94.36
2020 onwards	88.62	91.81

Figure 11. Compliance Schedule for Gasoline and Diesel Fuel and their Substitutes.[237]

CARB uses Argonne National Lab's GREET model (Greenhouse Gases, Regulated Emissions, and Energy Use in Transportation) to calculate the CI score.[238] The CI score will be different based on the LCA of the CCU process, depending on factors such as the energy input source, the CO_2 source, or the efficiency of the process. However, there are many useful benchmarks available.

Grid electricity for electric vehicle charging has a CI score of 105.61. Hydrogen produced via electrolysis using solar electricity had a CI score of 0.00, while hydrogen produced via electrolysis using grid electricity had a CI score of 164.46.[239] The clear takeaway here is that CCU with electrical input from the grid would receive far fewer LCFS credits than CCU using renewable sourced electricity, if grid sourced CCU produced any LCFS credits at all.

LCFS credits never expire and a pool of excess credits has been accumulating since inception of the program.[240] Despite this bank of excess credits, the trading price of the credits has trended upwards. In 2017, LCFS deficits produced for the year were higher than LCFS credits, leading to a drawdown in the credit bank which pushed prices even higher.[241] This trend was designed by the program's creators, who hoped the accumulation of credit early in the program would give the market time to innovate for cleaner fuels.[242] Therefore it is likely the credit bank will be further reduced in coming years, driving prices for LCFS credits higher through market forces.

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237. Marshall Frank, *California Leads the Way in Reducing Carbon Emissions*, INT'L HUMAN RES. DEV. CORP. (Oct. 12, 2016), https://blog.ihrdc.com/marshall-frank/california-leads-way-reducing-carbon-emissions/.

238. CAL. CODE REGS. tit. 17 § 95490.

239. Cal. Code Regs. tit. 17 § 95488.5.

240. CAL. CODE REGS. tit. 17 § 95490.

241. CALIFORNIA AIR RES. BD., *supra* note 230.

242. CAL. CODE REGS. tit. 17 § 95490.

For those sellers in the California's transportation fuel pool who fail to meet the requirements of the LCFS face fines. Now that the program is more than a decade old, CARB has been cracking down on and fining violators for violations such as: failing to meet the CI target, misreporting fuel transactions, and misreporting the type of low carbon fuel sold.[243]

VIII. RECOMMENDATION

Having compiled this list of policies and programs available to CCU projects, two recommendations can be drawn from the research. First, how these policies can be improved to encourage more investment in this space. Second, what CCU projects would receive the most support from existing programs.

A. Program Improvements

To improve these programs, CCU should be considered and mentioned explicitly and separately from CCS. Of the policies and programs for which CCU projects are eligible, only the 45Q mentions CCU directly.[244] Programs, such as the RGGI and Green Bond certifications initiatives, should state explicitly that CCU and other carbon capture projects qualify. The RGGI specifically, should also clarify that CCU projects can qualify as offset projects under the program. Ambiguity about whether or not CCU projects qualify for a given program leaves the applicants at risk of not taking advantage of all available policy support, which is a problem this article seeks to remedy.

The 45Q could be improved in a number of ways to encourage the initial CCU commercial builds. First, the amount of credit given should be raised. As stated above, the 45Q seeks to give emitted CO_2 cost parity with naturally sourced CO_2.[245] However, this may not account for the perceived risk associated with receiving a tax credit that could be eliminated by an unsupportive Congress. The program also does not consider that the first carbon capture projects will cost significantly more than projects undertaken after the industry matures. The policy could be adjusted so that credits are bucketed, giving the first projects to come online a higher value credit than later projects, which would encourage companies and entrepreneurs to move forward with projects sooner.

B. Support Maximizing Ventures

Utilities are likely to receive the most benefit from carbon capture projects or joint ventures with startups in the space. Many utilities have a tax appetite large enough to take advantage of the credits without needing to enter the tax equity markets. Or, if the utility does need to sell into the tax equity market, they likely have employees able to handle this complex task. Utilities are also familiar with the bond market and some may already be issuing green bonds. Many utilities

243. Dave Clegern, *CARB Cracks Down on Low Carbon Fuel Standard Violators*, CALIFORNIA AIR RES. BD. (Apr. 25, 2018), https://ww2.arb.ca.gov/news/carb-cracks-down-low-carbon-fuel-standard-violators.

244. 26 U.S.C. § 45Q.

245. *Id.*

will also have the size and creditworthiness needed to back the 20% of loans not covered under the Loan Guarantee Program.[246] Additionally, northeastern utilities in RGGI states will benefit from avoided costs for carbon allowances.

Finally, where we see interest from the oil and gas industry in CCS used for EOR, it is unlikely CCU will receive the same support. CCU does not complement oil production, and some of the products produced by CCU are in competition with petroleum products.[247] In contrast, CCU would not compete with a utility's core business. However, midstream is one sector of the oil and gas business that could benefit from CCU. The pure CO_2 stream from natural gas processing facilities has the lowest breakeven cost for carbon capture. Converting this CO_2 into methane and injecting it into the processed natural gas stream would help these companies offset product losses.

IX. CONCLUSION

As this article demonstrates, the policies and initiatives that are available to support CCU are varied. It is of critical importance for entrepreneurs and project developers to know what support is available and how to gain access throughout all phases of development.

Knowing where the support lies can help in the planning phase for CCU projects by guiding time and effort to ventures that source CO_2 and create products eligible for support. In the development and growth phase, access to lower-cost capital from loan guarantees and green bonds can expedite growth and attract other investors who need a lower investment risk, which is particularly critical for unproven technologies. Tax credits from the 45Q can be used as a negotiating tool for strategic partnerships between CCU projects or companies and investors with large tax appetites such as banks or utilities. Approval for a LCFS certification can be set as an achievable milestone for CCU entrepreneurs and startup companies to improve their negotiating position with venture capitalists investing in those companies.

Having great technology may not be enough to get CCU projects or companies past the many hurdles in the way of their goal. Entrepreneurs and investors evaluating these projects should understand how policy and regulation can be a benefit instead of hurdle for a project's development. As we've seen, policies can provide direct financial benefits, management flexibility, and market access. Applied to the right project, this support could be enough to tip the scales toward securing financing, successful development, and competitive returns for CCU projects.

Finally, this article has only focused on those policies that are available today in the United States. As we see the effects of climate change worsen, the result will only be more policy implementation in support of climate technology like

246. Loan Programs Office, *supra* note 148.

247. Renee Cho, *Capturing Carbon's Potential: These Companies are Turning CO2 into Profits*, STATE OF THE PLANET, EARTH INST., COLUMBIA U. (May 29, 2019), https://blogs.ei.columbia.edu/2019/05/29/co2-utilization-profits/.

CCU. The reader should be on the lookout for new polices and expansion of the policies, especially the loan guarantee program, relating to their companies and projects. Resources such as North Carolina State University's Database for State Incentives for Renewables & Efficiency (DSIRE)[248] is a great place to start.

Achieving the two-degree climate target will not come from one solution alone. CCU offers an important piece to the solution, with the potential for excellent returns from the products created from CO_2 emissions. Policy support will help bring this technology to economic maturity.

X. APPENDIX

Reference table for CCU Polices and Programs

Policy	Incentive Type	Eligibility	Effect on Bottom Line
45Q	Tax Credit	• Processes capturing and disposing >25,000 tCO_2/yr that otherwise would be released. • CO_2 must be metered at the source and disposal location. • CO_2 must be captured and disposed within the US or US territories. • Equipment must be installed before 2024.	• Tax credit for $12.66/t in 2017 interpolated to $35/t in 2026, afterwards, inflation adjusted. • Up to 500,000 tCO_2/yr • Credit amount will be adjusted for the portion of utilized CO_2 shown to reduce overall emissions, using the same criteria as the life cycle analysis.

248. NC CLEAN ENERGY TECH. CTR., DATABASE OF STATE INCENTIVES FOR RENEWABLES & EFFICIENCY, https://www.dsireusa.org/.

Green Bond	Themed Bond Program	• Currently green bonds have the option of self-identified as having positive environmental benefit • Green bonds can be verified against the Green Bond Principles by third-party firms, accredited by the Climate Bond Initiative.	• Access to the bond market, the world's largest capital market • 12-18 basis point reduction for verified green bond yield versus comparable conventional bonds • 6 basis point reduction in green bond yield for self-identified green bonds
Title 17 of the Energy Policy Act (EPA 2005)	Loan Guarantee Program	• Applicants are selected through the D.O.E.'s Loan Program Office • CO_2 must be sourced from fossil-burning energy generating facilities qualify under the Advanced Fossil Energy Projects solicitation • Recipients must be in the U.S. and adhere to the Cargo Preference Act & the Davis-Bacon Act	• Access to debt financing, for high-risk unproven projects and companies • Lower cost of debt, though transfer of credit risk to the entity assuming the debt obligation of the borrower • Guarantees 80% of project cost to be repaid within 30 year or 90% of the project's life

Regional Greenhouse Gas Initiative	Cap and Trade	• CCU projects with CO_2 sourced from +25MW power plants • The power plant must be located in a state participating in RGGI	• Cost savings through reductions in the number of allowances required for CO_2 emissions
Low Carbon Fuel Standard	Cap & Trade Policy	• Transportation fuel producing entities in California, Oregon and British Columbia • CCU projects must prove produced fuel is being used in participating states	• Fuel producers who produce fuels with low carbon intensity, based on a life cycle analysis for the production process, can generate credits to sell to fuel producers with high carbon intensity.

UTILITY SOLID WASTE ACTIVITIES GROUP V. EPA AND THE EPA'S PATH TOWARD REGULATING COAL COMBUSTION RESIDUALS

I. INTRODUCTION

In the aftermath of numerous coal ash disasters,[1] the Environmental Protection Agency (EPA) issued its Final Rule governing the Disposal of Coal Combustion Residuals From Electric Utilities in April 2015, reinforcing coal combustion residuals (CCR) regulations at the state level.[2] Environmental groups and the utility industry both sought judicial review of the EPA's Final Rule in the District of Columbia Circuit of the United States Court of Appeals.[3] Realizing that the Final Rule needed more work, the EPA petitioned the court to hold the proceedings in abeyance and sought a voluntary remand to reconsider the Final Rule.[4] In *Utility Solid Waste Activities Group v. EPA*, the court denied the abeyance motion but because of the vital issues raised by the petitioners, the court decided to weigh in, vacating portions of the Final Rule and reproving the EPA for failing to address key facets.[5] This case note will examine the background that prompted the EPA rulemaking. It will then review the arguments raised by the various groups seeking judicial review as well as the EPA at the court. Next, it will provide an analysis of the court's order. Lastly, this note will set forth some potential implications of the court's order as EPA moves forward on remand.[6]

II. BACKGROUND

A. The Resource Conservation and Recovery Act

In 1976, Congress passed the Resource Conservation and Recovery Act (RCRA) to implement storage and containment procedures and protocols for hazardous and non-hazardous solid waste.[7] RCRA provides for a two-prong approach to determine if a solid waste is hazardous.[8] Subtitle C of RCRA regulations provide that if wastes are hazardous there is to be a federal "cradle to grave" regulatory scheme governing storage, treatment, and disposal.[9] To be considered hazardous, a waste must first be known to be harmful to human health and the

1. "There have already been at least 13 damage cases caused by the disposal of coal ash in sand and gravel pits or former quarries that led to contamination of water sources and/or ecological damages." Final Rule, *Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities*, 80 Fed. Reg. 21,302, at 21,354 (2015) [hereinafter Final Rule].

2. Final Rule, *supra* note 1, at 21,303.

3. Utility Solid Waste Activities Grp. v. EPA, 901 F.3d 414, 418 (D.C. Cir. 2018).

4. *Id.* at 420.

5. *Id.* at 420, 430.

6. Proposed Rule, *Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals from Electric Utilities; A Holistic Approach to Closure Part A: Deadline to Initiate Closure*, 84 Fed. Reg. 65,941 (Dec. 2, 2019) (to be codified at 40 C.F.R. pt. 257).

7. *RCRA in Focus: Construction, Demolition, and Renovation*, HAZARDOUS WASTE & HAZARDOUS SUBSTANCES COMPLIANCE P 1982 (C.C.H.) 2015 WL 7378399, at 4 (2018).

8. Appalachian Voices v. McCarthy, 989 F.Supp.2d 30, 38 (D.C. Cir. 2013).

9. *Id.*

environment and subject to Subtitle C if it exhibits at least one of four characteristics: ignitability, corrosivity, reactivity, or toxicity.[10] Further, solid waste disposal is regulated via Subtitle D of the Act.[11]

A central question for the EPA has always been whether to regulate CCR as hazardous waste under RCRA Subtitle C's "cradle to grave" federal hazardous waste management authority, or to "treat it as nonhazardous solid waste subject to national guidelines" per Subtitle D.[12] RCRA defines solid waste as "any garbage, refuse, sludge . . . and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities."[13] The statutory language of RCRA which governs waste under Subtitle D is less prescriptive than the language which governs hazardous waste under Subtitle C.[14]

Hazardous waste is defined as a solid waste which because of its "physical, chemical, or infectious characteristics may cause . . . an increase in mortality or . . . incapacitating reversible, illness; or pose a . . . hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed."[15] RCRA's intent is to safely manage hazardous waste from its inception to its ultimate disposal, "to protect human health and the environment" from the inherent dangers, all while encouraging conservation.[16] Coal combustion produces a solid waste that is regulated under RCRA because it is a solid waste which presents a significant human and environmental threat.[17]

Furthermore, RCRA directs the EPA to establish "criteria for determining which facilities shall be classified as sanitary landfills and which shall be classified as open dumps. . . ."[18] The criteria should contemplate that a particular facility be classified as a sanitary landfill, as opposed to an open dump, "only if there is no

10. Final Rule, *Identification and Listing of Hazardous Waste*, 79 Fed. Reg. 35,290 (2014) (codified at 40 C.F.R. pt. 261).

11. *Appalachian Voices*, 989 F.Supp.2d at 38.

12. *Utility Solid Waste Activities Grp.*, 901 F.3d at 423.

13. 42 U.S.C. § 6903(27) (2014).

14. Jonathan Adler, *Reforming our Wasteful Hazardous Waste Policy*, N.Y.U. ENVTL. L.J. 724, n.16 (2008); EPA, RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) AND FEDERAL FACILITIES, https://www.epa.gov/enforcement/resource-conservation-and-recovery-act-rcra-and-federal-facilities (referring to RCRA Subtitle C, 42 U.S.C. §§ 6921–6939g, which sets compliance standards for transport, record keeping, treatment, storage, and disposal including provisions for permitting, inspections, and federal enforcement via monitoring and testing; juxtaposing to RCRA Subtitle D, *Id.* §§ 6941–6949a, which covers waste that is "recoverable" in order to "encourage resource conservation," utilizing the development of individual state plans with federal assistance to handle environmentally sound solid waste).

15. 42 U.S.C. § 6903(5) (2014).

16. United States v. Southern Union Co., 643 F. Supp. 2d 201, 207 (D.R.I. 2009) (summarizing the objectives of RCRA found in 42 U.S.C.A. § 6902).

17. Citizens Coal Council v. Matt Canestrale Contracting, Inc., 51 F. Supp. 3d 593, 595-96 (W.D. Pa. 2014).

18. 42 U.S.C. § 6944(a).

reasonable probability of adverse effects on health or the environment from disposal of solid waste at such facility."[19] States, which are given the task of implementing the regulations via EPA approved state solid waste management plans (SWMP), are prohibited to establish open dumps for hazardous waste.[20] Additionally, states are commanded to require that all solid waste disposal be confined to sanitary landfills or disposed of in an environmentally sound manner.[21]

B. Coal Combustion Residuals

According to the United States Energy Information Administration, as of 2017, coal provides in excess of 1.2 trillion kilowatts of energy, accounting for greater than 30% of electricity generation in the United States.[22] In 2012 alone, coal-burning utilities in the United States burned in excess of 800 million tons of coal and produced nearly 110 million tons of coal combustion residuals.[23] The CCR, also known as coal ash, are the byproducts when utilities and power plants burn coal to produce electricity.[24] CCR, which includes "fly ash, bottom ash, boiler slag, and flue gas desulfurization materials," is generated from the combustion of coal in order to generate steam to power generators to produce electricity by independent power producers and electric utilities.[25] Coal-firing utilities produce millions of tons of CCR making coal ash a leading source of industrial waste in the United States.[26] The EPA published a summary from a May 2000 Regulatory Determination of documented cases confirming the danger to humans and the environment from CCR including cases of damage to ground water, surface water, and ecological ruin.[27]

The EPA recognized that coal ash contains "carcinogens and neurotoxins, including arsenic, boron, cadmium, hexavalent chromium, lead, lithium, mercury, molybdenum, selenium, and thallium."[28] Human risks when exposed to CCR include increased chances of "cancer in the skin, liver, bladder, and lungs," and further include elevated neurologic, psychiatric, and cardiovascular risks non-cancer risks, such as "damage to blood vessels, and anemia."[29] Ecological systems are also at risk with elevated toxicity to plant life as well as fish kills and amphibian deformities in areas where CCR are found.[30]

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19. *Id.*

20. 42 U.S.C. §§ 6942, 6944(b).

21. 42 U.S.C. § 6943.

22. INDEP. STAT. & ANALYSIS U.S. ENERGY INFO. ADMIN., WHAT IS U.S. ELECTRICITY GENERATION BY ENERGY SOURCE? https://www.eia.gov/tools/faqs/faq.php?id=427&t=3.

23. Final Rule, *supra* note 1, at 21,303.

24. EPA, COAL ASH (COAL COMBUSTION RESIDUALS, OR CCR), https://www.epa.gov/coalash.

25. Final Rule, *supra* note 1, at 21,303.

26. *Id*.

27. Proposed Rule, *Hazardous and Solid Waste Management System; Identification and Listing of Special Wastes; Disposal of Coal Combustion Residuals from Electric Utilities*, 75 Fed. Reg. 35,128, at 35,137 (2010) [hereinafter Proposed Rule].

28. *Utility Solid Waste Activities Grp.*, 901 F.3d at 421 (citing Final Rule, *supra* note 1, at 21,449).

29. *Id.* (citing Final Rule, *supra* note 1, at 21,451).

30. *Id.* (citing Proposed Rule, *supra* note 27, at 35,172).

C. Timeline and Procedural History

Congress enacted RCRA in 1976 as an amendment to the Solid Waste Disposal Act (SWDA).[31] RCRA gave the EPA the authority to research and study the means to best manage hazardous wastes, including coal ash.[32] By 1978, the EPA began classifying CCRs as "special wastes" and required that further study would need to be conducted in order to "determine [CCR's] risk to human health and the environment."[33] Congress agreed more research was necessary, but in 1980 Congress exempted CCRs from being classified under Subtitle C as a hazardous waste by passing the Bevill Amendment.[34]

The Bevill Amendment provided a temporary exemption which stated that "[f]ly ash waste, bottom ash waste, slag waste, and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels [are not] . . . hazardous waste."[35] The Bevill Amendment freed coal firing electric generation plants from the onerous regulations and costs associated with coal ash being classified as hazardous waste via RCRA's Subtitle C so further study and reporting to Congress could take place.[36]

Subsequently, the EPA issued a 1993 report placing CCRs into two categories: (1) low volume "fly ash, bottom ash, boiler slag, and flue gas emission control waste," and (2) large volume coal combustion wastes (which were covered by the Bevill Amendment).[37] The EPA recommended neither of these two categories be subject to the hazardous waste requirements mandated by RCRA Subtitle C pending further study which was to be completed by 1998.[38]

Further, in 2000, with Bevill wastes still exempted from Subtitle C, the EPA recommended that CCRs should be subjected to the minimum national standards under RCRA Subtitle D.[39] The EPA concluded in its May 2000 Regulatory Determination that "the utility industry had made significant improvements in its waste management practices for new landfills and surface impoundments. . . ."[40] Yet, driven by the catastrophic CCR impoundment failure in Kingston, Tennessee in 2008, the EPA published a notice for proposed rulemaking about coal ash in the Federal Register on June 21, 2010.[41]

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31. Solid Waste Disposal Act, 42 U.S.C.A. §§ 6901-6992(k).

32. EPA, SPECIAL WASTES, https://www.epa.gov/hw/special-wastes.

33. *Id.*

34. *Id.*

35. 40 C.F.R. § 261.4(b)(4) (2018).

36. Yvette R. Hurt, *EDF v. EPA: The Dispute Surrounding the Mining Waste Regulation Under the Bevill Amendment,* 6 J. MIN. L. & POL'Y 103, 112-113 (1990).

37. Brittany L. Daniels, *Caution: Hazards Ahead! How the EPA's Refusal to Classify Coal Ash as Hazardous Waste Fuels Environmental and Public Health Concerns*, 27 VILL. ENVTL. L.J. 93, 100 (2016) (citing Final Regulatory Determination on Four Large-Volume Wastes from the Combustion of Coal by Electric Utility Power Plants, 58 Fed. Reg. 42,466, 42,469-70 (1993)).

38. 58 Fed. Reg 42,466, at 42,467.

39. Proposed Rule, *supra* note 27, at 35,137.

40. *Id.* at 35,143.

41. Proposed Rule, *supra* note 27, at 35,132; Final Rule, *supra* note 1, at 21,313.

Subsequent to the notice of proposed rulemaking in 2010, the EPA conducted eight formal hearings, where the EPA heard from over 1,300 individual speakers and received over 450,000 comments on the Proposed Rule.[42] Under the 2010 Proposed Rule, which was an attempt to regulate the disposal of coal ash for the first time, the EPA offered two possible courses of action: (1) reverse the 1993 and 2000 Regulatory Determinations and list CCR wastes under RCRA Subtitle C, or (2) leave the Bevill wastes exemption in place and regulate the wastes under Subtitle D by issuing national minimum criteria and allowing individual states to "use federal financial and technical assistance to develop solid waste management plans in accordance with [the] federal guidelines."[43] In 2015, with the issuance of the Final Rule, the EPA adopted the latter, postponing its "final decision on the Bevill Regulatory Determination because of regulatory and technical uncertainties that [could not] be resolved at [that] time."[44]

D. The EPA Final Rule

The EPA's Final Rule mandates that CCR disposal generated by utilities be governed as a solid waste by RCRA's Subtitle D.[45]

> Subtitle D of RCRA establishes a framework for federal, state, and local government cooperation in controlling the management of non-hazardous solid waste. The federal role is to establish the overall regulatory direction, by providing minimum nationwide standards that will protect human health and the environment, and to provide technical assistance to states for planning and developing their own environmentally sound waste management practices. The actual planning and any direct implementation of solid waste programs under RCRA Subtitle D, however, remains a state and local function ". . . . EPA has no role in the planning and direct implementation of the minimum national criteria or solid waste programs under RCRA Subtitle D, and has no authority to enforce the criteria. . . . [S]tates are not required to adopt solid waste management programs. . . .[46]

While states are not required to, many states have solid waste programs already.[47] The EPA found that if states do not manage exposure to CCR, there will

42. Final Rule, *supra* note 1, at 21,312.

43. Proposed Rule, *supra* note 27, at 35,128; Environmental Def. Fund v. EPA, 852 F.2d 1309, 1310 (D.C. Cir. 1988).

44. Final Rule, *supra* note 1, at 21,302.

45. *Id.*

46. *Id.* at 21,310. Oklahoma and Georgia have applied for EPA approval for their CCR permit programs pursuant to WIIN. Oklahoma's program. approved in 2018, has been challenged in court. Waterkeeper All., Inc. v. Wheeler, 330 F.R.D. 1 (D.D.C. 2019). Virginia and Illinois have enacted coal ash legislation in 2019. Va. Code Ann. § 10.1-1402.03 (2019); 415 Ill. Comp. Stat. Ann. 5/3.140 (2019). North Carolina enacted the Coal Ash Management Act (CAMA) in September 2014 following the Dan River spill, amending it in July 2016 to incorporate the Final Rule national minimum criteria and performance standards. N.C. Gen. Stat. § 130A-309.200 (2019). CAMA provided an aggressive schedule for closing all the surface impoundments in North Carolina by 2029 depending on their hazardous classification. *Id.*; 2014 N.C. Ch. 122, 2013 N.C. SB 729.

47. Final Rule, *supra* note 1, at 21,358.

be significant risks to both humans and the environment.[48] Further the EPA cautioned that if CCR is classified under Subtitle C, all CCR surface impoundments would have to close.[49]

Coal-burning utilities predominantly dump CCR in one of two ways.[50] Either they utilize dry landfills, or they create a slurry by mixing it with water to be disposed of in surface impoundments.[51] Some CCR is beneficially used, *e.g.*, to pave roads, and the market for the beneficial use of CCR is growing and may be helpful to ultimately close impoundments.[52] But presently, most CCR is disposed of in enormous landfills and impoundments, which average 120 acres in size with an average depth of 40 feet, at over 1,145 different locations.[53] These landfills and impoundments, by sheer volume, risk contamination not only to undersoil and groundwater sources, but also to lakes, rivers, and streams.[54] Furthermore, impoundments are at risk for structural failure.[55]

The EPA differentiates between *active impoundments* which are currently receiving CCR, and *inactive impoundments* which are not receiving any more waste.[56] The Final Rule defines an "inactive CCR surface impoundment" as an impoundment that does not receive coal ash after October 19, 2015, but which still contains coal ash and liquids.[57] A particular subgrouping of inactive impoundments which are located at defunct powerplants are referred to as legacy ponds.[58] The EPA exempted legacy ponds under the Final Rule.[59] The EPA imposes regulatory requirements on active CCR impoundments at active facilities, inactive impoundments at active facilities, but not inactive impoundments at inactive facilities.[60] One of the EPA's concerns was that the current owner of the land where the inactive impoundment is located might not be connected with the prior disposal activities.[61]

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48. *Id.* at 21,359.
49. *Id.*
50. *Id.* at 21,303.
51. *Id.*
52. Final Rule, *supra* note 1, at 21,469.
53. *Id.*
54. *Utility Solid Waste Activities Grp.*, 901 F.3d at 422 (citing Final Rule, *supra* note 1, at 21,304-21,305, and Proposed Rule, *supra* note 27, at 35,131). Contamination of groundwater sources is more likely at impoundments that are either "unlined or lack adequate lining between the coal ash and the soil beneath [them]." 901 F.3d at 422. The Final Rule requires that landfills and impoundments, both new and existing, implement groundwater protection and monitoring, including new and improved lining of surface impoundments. Final Rule, *supra* note 1, at 21,302. Unlined impoundments, and any impoundments which have been implicated as contaminating, must stop receiving CCR wastes, adopt corrective action, and "either retrofit or close." *Id.*
55. Final Rule, *supra* note 1, at 21,304.
56. *Id.* at 21,359.
57. 40 C.F.R § 257.53.
58. *Utility Solid Waste Activities Grp.*, 901 F.3d at 432.
59. Final Rule, *supra* note 1, at 21,468 (citing 40 C.F.R. § 257.50(e)).
60. *Id.* at 21,344.
61. *Id.*

The Final Rule, dated April, 17, 2015, went into effect on October 19 of that same year.[62] The Final Rule was challenged directly in the United States Court of Appeals for the District of Columbia Circuit by Industry Petitioners[63] and Environmental Petitioners[64] on May 18, 2016, and the case was consolidated in *Utility Solid Waste Activities Group v. EPA*.[65] Oral arguments were held on November 20, 2017, and the United States Court of Appeals for the District of Columbia issued its decision on August 21, 2018.[66]

E. The Water Infrastructure Improvements for the Nation Act

In 2016, after the issuance of the Final Rule, Congress enacted the Water Infrastructure Improvements for the Nation Act (WIIN Act) establishing a federal and state cooperative framework for the enforcement of federal coal ash regulations.[67]

Because the WIIN Act was enacted after the CCR Final Rule was issued, a petition for reconsideration was filed on May 12, 2017, requesting that the EPA be allowed to reconsider those provisions of the rule that could be affected by the

62. Citizens' Suit Petition at 6, Roanoke River Basin Assoc. v. Duke Energy Progress, (No. 1:17-cv-707), 2017 WL 3319303, at *18.

63. Industry petitioners included the Utility Solid Waste Activities Group, AES Puerto Rico, LP, the Edison Electric Institute, the National Rural Electric Cooperative Association, and the American Public Power Association. *Utility Solid Waste Activities Grp.*, 901 F.3d at 425.

64. Environmental petitioners included the Environmental Integrity Project, Sierra Club, and Hoosier Environmental Council. *Utility Solid Waste Activities Grp.*, 901 F.3d at 425.

65. Brief of Industry Intervenor-Respondents at 1, Utility Solid Waste Activities Group v. EPA (May 18, 2016) (No. 15-1219); Proof Brief for Environmental Intervenor-Respondents at 3, Utility Solid Waste Activities Group v. EPA at 2 (May 18, 2016) (No. 15-1219).

66. *Utility Solid Waste Activities Grp.*, 901 F.3d at 414; Although not addressed by the court, the EPA issued orders subsequent to the Final Rule revising alternative performance standards that states may adopt in place of the standards adopted by the minimum criteria where there is evidence that hazardous constituents could not migrate to the uppermost aquifer. Final Rule, *Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals from Electric Utilities; Amendments to the National Minimum Criteria (Phase One, Part One)*, 83 Fed. Reg. 36,435 (2018). Initial criteria required for compliance by a CCR unit with certain performance standards must be certified by a professional engineer. 80 Fed. Reg. at 21,304. The amended criteria would now allow a technical certification in lieu of certification by a professional engineer. 83 Fed. Reg. at 36,436. Further, the EPA established groundwater protection standards for particular contaminants for which no Maximum Contaminant Levels (MCL) had previously been established. *Id.* at 36,435.

67. *Utility Solid Waste Activities Grp.*, 901 F.3d at 426 (citing Water Infrastructure Improvements for the Nation Act, 114 P.L. 322, 130 Stat. 1628 (2016) (codified at 42 U.S.C.A. § 6945)). As an alternative to amending its SWMP, a state can establish its own permit program, or other system that would require prior approval under state law, which would then be submitted to the EPA for approval. *Id.* The EPA Administrator will approve the program if it complies with the minimum criteria set forth in EPA's regulations or with other criteria that is at least as protective. *Id.* Once a state permit program is approved, it operates in lieu of EPA's regulations for CCR disposal. *Id.*; *Waterkeeper All., Inc.*, 330 F.R.D. at 5. Until a CCR unit has obtained a permit, however, it would continue to be subject to EPA's regulations for CCR disposal criteria. *Waterkeeper All., Inc.*, 330 F.R.D. at 5. The WIIN Act goes beyond the SWMP process used for nonhazardous waste. *Utility Solid Waste Activities Grp.*, 901 F.3d at 901 F.3d at 426. A state is identified as a nonparticipating state, if it does not file a permit program for CCR disposal or if the EPA does not approve of the submitted permit program. WIIN Act, 130 Stat. 1628. The EPA will implement its own permit program for the nonparticipating state, but only where Congress provides funding for EPA's permit program. *Id.* Otherwise, the Final Rule would continue to be self-implementing under RCRA and enforceable through citizen lawsuits. *Id.*

WIIN Act.[68] The EPA also requested that the Court hold the entire proceeding in abeyance, but the court declined to exercise its discretion to do so without giving specific reasons.[69]

III. ANALYSIS

A. Arguments

1. Industry Intervenor's Argument: The EPA Does Not Have the Authority to Regulate Legacy Ponds Under RCRA Subtitle D.

According to Industry Petitioners, the EPA did not have the authority to regulate the inactive impoundments known as legacy ponds under RCRA Subtitle D.[70] The Industry Petitioners argued that the EPA's authority under Subtitle D is only applicable to impoundments where "solid waste is disposed as of the effective date of the [Final] Rule."[71] Thus, since legacy ponds were not used for coal ash disposal before the effective date of the Final Rule – "in some case, decades before the Final Rule was promulgated" – legacy ponds should not be "subject to retroactive regulation," according to Industry Petitioners.[72] Petitioners assert that the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)[73] is the vehicle that Congress intended to correct *past* disposal issues at legacy impoundments because RCRA is not the tool of choice for the government to address hazardous waste clean-up of CCR.[74] Through CERCLA, Congress has imposed a tax on industrial polluters in order to fund a trust through which money will be available for the government to "respond directly to releases, or threatened releases, of hazardous substances that may endanger public health or the environment."[75] While the EPA, via CERCLA, has cleaned up hazardous waste from over 1,300 abandoned inactive Superfund sites, the EPA has made a policy choice to use RCRA, not CERCLA, to address clean up in the CCR Final Rule.[76]

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68. Utility Solid Waste Activities Group Petition for Rulemaking to Reconsider Provisions of the Coal Combustion Residuals Rule, 80 Fed. Reg. 21,302 (Apr. 17, 2015), and Request to Hold in Abeyance Challenge to Coal Combustion Residual Rule, No. 15-1219 (D.C. Cir.).

69. *Utility Solid Waste Activities Grp.*, 901 F.3d at 426.

70. Brief of Industry Intervenor-Respondents, *supra* note 65, at 3.

71. *Id.*

72. *Id.*

73. Comprehensive Environmental Response, Compensation, and Liability Act §§ 101-175, 42 U.S.C. §§ 9601-75. Enacted by Congress in 1980, CERCLA is sometimes also informally known as the Superfund statute. EPA, SUPERFUND: CERCLA OVERVIEW, https://www.epa.gov/superfund/superfund-cercla-overview.

74. Brief of Industry Intervenor-Respondents, *supra* note 65, at 3-4.

75. SUPERFUND: CERCLA OVERVIEW, *supra* note 73.

76. EPA, SUPERFUND: NATIONAL PRIORITIES LIST (NPL), https://www.epa.gov/superfund/superfund-national-priorities-list-npl; Final Rule, *supra* note 1, at 21,344.

2. Environmental Intervenor's Argument: RCRA Subtitle D Obligates the EPA to Regulate Legacy Ponds to Prevent Harm to Humans and the Environment.

The Environmental Intervenors argued that the crux of their concern was that the Final Rule did not adequately consider the language from RCRA Subtitle D, which "mandates that [the] EPA promulgate criteria for solid waste disposal sites to ensure that there is 'no reasonable probability of adverse effects' to health or the environment."[77] Environmental Petitioners decry the Final Rule's determination on inactive surface impoundments because they still contain "coal ash and liquids," even though they are not currently receiving any new deposits.[78] Without a liner to prevent coal ash from leaking and contaminating groundwater sources, these legacy ponds are a risk to both humans and the environment.[79] Additionally, the Environmental Petitioners assert that the EPA is obligated at a minimum, under RCRA, to supervise legacy ponds.[80]

Congress mandated in RCRA: "Not later than one year after October 21, 1976, . . . the [EPA] shall promulgate regulations containing criteria for determining which facilities shall be classified as sanitary landfills and which shall be classified as open dumps. . . ."[81] The statute further states, "[s]uch criteria shall provide that a facility may be classified as a sanitary landfill and not an open dump only if there is no reasonable probability of adverse effects on health or the environment from disposal of solid waste at such facility."[82] The statute does not allow the EPA to wait until CCR impoundments fail or until contamination *is occurring*.[83] Environmental Intervenors asserted that the EPA is waiting to regulate impoundments until the contamination *is occurring*, instead of taking a proactive role to prevent sure harm.[84]

3. EPA's Argument: The EPA Acted with Full Statutory Authority with Regard to Coal Ash in Inactive Impoundments.

The EPA's argument relied on the Congressional authorization in RCRA for the EPA to establish solid waste management guidelines with the "authority to regulate inactive impoundments."[85] The EPA has authority to apply rules to inactive impoundments and to define a legacy pond as either a "sanitary landfill" or an

77. Proof Brief for Environmental Intervenor-Respondents, *supra* note 65, at 2 (citing 42 U.S.C. § 6944(a)).

78. *Id.* at 2-3.

79. *Id.* at 3.

80. *Id.* (citing 42 U.S.C. § 6944(a)).

81. 42 U.S.C. § 6944(a).

82. *Id.*

83. Proof Brief for Environmental Intervenor-Respondents, *supra* note 65, at 4 (citing 42 U.S.C. § 6944(a)).

84. *Id.*

85. Brief of Respondent Environmental Protection Agency at 3, Utility Solid Waste Activities Group v. EPA at 19 (Sept. 6, 2016) (No. 15-1219) (relying on authority found at 42 U.S.C. § 6907).

"open dump."[86] The essence of the EPA argument is that industrial and environmental parties are quibbling about the Final Rule as being "overly restrictive or not restrictive enough, and/or providing too little or too much time for compliance," but that the "EPA made well-reasoned judgments based on the data available."[87]

The Final Rule provides for a comprehensive record keeping and public notice regime.[88] The enforcement of the Final Rule rests with the states.[89] The EPA calls for the Final Rule to be upheld, noting that the Final Rule "represent[s] a rational application of [the] EPA's authority and responsibility to regulate CCR in a manner that will protect public health and the environment."[90] In short, the EPA asked the United States Court of Appeals for the District of Columbia for deference.[91]

B. Industry Petitioners' Argument That the EPA Only Has Authority Over Active Impoundments Fails

In the *per curiam* decision, the United States Court of Appeals for the District of Columbia addressed the key question of whether the EPA's Final Rule exceeded EPA authority under RCRA in regulating inactive impoundments.[92] RCRA authorizes the EPA to define "which facilities shall be classified as sanitary landfills and which shall be classified as open dumps[.]"[93] Additionally, RCRA classifies sanitary landfills as permissible, and open dumps as impermissible.[94] The court determined that the EPA is authorized under RCRA to regulate both.[95]

Given the broad authority of the EPA, the Industry Petitioners focused their argument on the particular phrase *is disposed of*, located in the "open dump" definition of RCRA.[96] The Industry Petitioners contended "that the site must actively receive new waste to come within the statutory definition of a regulable waste disposal dump . . . [arguing] that the words used to define 'disposal'—'discharge, deposit, injection, dumping, spilling, leaking, or placing'—all require present and ongoing activity."[97]

Relying on the plain text of RCRA, the court put a spotlight on the definition of "open dump," which is "any facility where solid waste *is disposed of*."[98] The court commented, "[w]hile 'is' retains its active present tense, the 'disposal' takes

86. *Id.* at 21.
87. *Id.* at 14.
88. Final Rule, *supra* note 1, at 21,308.
89. Brief of Respondent Environmental Protection Agency, *supra* note 85, at 14.
90. *Id.* at 14.
91. *Id.*
92. *Utility Solid Waste Activities Grp.*, 901 F.3d at 450.
93. *Id.* at 439 (quoting 42 U.S.C. § 6944).
94. *Id*.
95. *Id.*
96. *Id.*; 42 U.S.C. § 6903(14).
97. *Utility Solid Waste Activities Grp.*, 901 F.3d at 439.
98. *Id.* at 440 (quoting 42 U.S.C. § 6903(14)) (emphasis in original).

the form of the past participle ('disposed') . . . [and in] this way, the disposal itself can exist (it 'is'), even if the act of disposal took place at some prior time."[99] Even if this definition was ambiguous, which the court found that it was not,[100] Chevron deference would control because the interpretation of the statute is rational and fair with regard to the EPA's reasonable interpretation of the phrase *is disposed of*.[101] Waste at inactive impoundments *is disposed of* in exactly the same way that it *is disposed of* at active sites.[102] Furthermore, "waste previously dumped is still currently 'placed' or 'deposited' there," and a coal ash impoundment maintains its "regulated status whether or not anyone adds to the pile."[103] Coal ash disposal "is not a discrete act."[104] If it were a discrete act then when a power facility deposits CCR into an impoundment "the *disposal* would end."[105]

The court read the words *is disposed of* as a whole adjectival phrase, not to be broken up into individual parts.[106] Analogizing to garbage disposals, the court commented that the place where trash *is disposed of* is the place where trash is left.[107] The site's status is not dependent on whether or not more rubbish is later placed there, because a rubbish heap is a rubbish heap until the rubbish is gone.[108] All parties acknowledged that inactive impoundments present the possibility of serious "adverse environmental and health effects."[109] In fact, the EPA, in the Final Rule, presents a compelling argument "that inactive sites often pose even greater health risks given their age and accompanying deterioration."[110] Further, the EPA explained in the Final Rule that older inactive impoundments, like the one that failed and resulted in the Dan River disaster, provided the impetus to pursue the Final Rule from its inception.[111]

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99. *Id.* at 440.

100. One of the judges on the panel, while agreeing with the Court's ultimate decision, disagreed with the notion that the statutory text is clear on its face. Instead, Judge Henderson drafted a concurring opinion, explaining that the statute is ambiguous, but deferring to EPA's "reasonable" interpretation that it can regulate inactive units. *Utility Solid Waste Activities Grp.*, 901 F.3d at 450-53 (Henderson, J., concurring) (citing Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc., 467 U.S. 837 (1984) which held, "[w]ith regard to judicial review of an agency's construction of the statute which it administers, if Congress has not directly spoken to the precise question at issue, the question for the court is whether the agency's answer is based on a permissible construction of the statute.").

101. *Utility Solid Waste Activities Grp.*, 901 F.3d at 439-40, 442, 450.

102. *Id.* at 454.

103. *Id.* at 440.

104. *Id.* at 441.

105. *Id.*

106. *Utility Solid Waste Activities Grp.*, 901 F.3d at 441.

107. *Id.*

108. *Id.*

109. *Id.* at 442.

110. *Id.* (citing Final Rule, *supra* note 1, at 21,343).

111. *Utility Solid Waste Activities Grp.*, 901 F.3d at 433 (citing Final Rule, *supra* note 1, at 21,393-94).

C. The Court Agrees with Environmental Petitioners That Portions of the Final Rule Are Unreasoned, Arbitrary, and Capricious

1. Unlined Impoundments Were Not Addressed in the Final Rule in Accordance with RCRA.

Given that the EPA found that putting CCR "in unlined surface impoundments and landfills presents the greatest risks to human health and the environment," the Environmental Petitioners challenged the EPA's Final Rule where the EPA allowed unlined surface impoundments to continue operation until such time as groundwater contamination resulted.[112] According to the Final Rule, new surface impoundments are to be lined, but existing impoundments are allowed to operate until leakage is detected.[113] Only after a leak is detected will the operator of an unlined impoundment be forced to retrofit with a liner or close the impoundment, a process that the EPA allows to take from five to up to fifteen years.[114] The Environmental Petitioners asserted that permission to continue to operate is not only arbitrary and capricious but also contrary to RCRA.[115]

The EPA, along with Industry Intervenors, espoused the idea that unlined impoundments that are not leaking are not dangerous.[116] Yet, a majority of impoundments are unlined, and nearly a third of unlined impoundments do leak.[117] The court found unconvincing the EPA's argument that impoundments are not a problem simply because they are not currently leaking, because the EPA's internal data belie that conclusion.[118]

The court found that the "Final Rule's approach of relying on leak detection followed by closure is arbitrary and contrary to RCRA" because the Final Rule fails to address the environmental and health concerns that are documented in the administrative record.[119] Monitoring for leakages is only required semiannually, thus leakages can conceivably go undetected for several months.[120] Thus, the court found that "the EPA has not shown that harmful leaks will be promptly detected;

112. *Id.* at 426-27 (citing Final Rule, *supra* note 1, at 21,451).

113. *Id.* at 427 (citing 40 C.F.R. § 257.101(a)).

114. *Id.* (citing 40 C.F.R. § 257.102(f)).

115. *Id.*

116. *Utility Solid Waste Activities Grp.*, 901 F.3d at 426-27.

117. *Id.* at 427.

118. *Id.* (citing Final Rule, *supra* note 1, at 21,449-50). According to EPA statistics, 504 of the 735 existing active impoundments, roughly 65%, are completely unlined. *Id.* at 427-28. Unlined units show significantly higher risks of harmful leakage including the 157 units "where the EPA confirmed that coal residuals have already caused damage to human health and the environment." *Id.* at 428. The EPA has reported that unlined impoundments have a "36.2 to 57 percent chance of leakage at a harmfully contaminating level" throughout their use, and, further, "the threat of contamination from unlined units exceeds the EPA's [own] cancer risk criteria and thus 'generally will be considered to pose a substantial present or potential hazard to human health and the environment.'" *Id.* at 427.

119. *Utility Solid Waste Activities Grp.*, 901 F.3d at 429.

120. *Id.*

that, once detected, they will be promptly stopped; or that contamination, once it occurs, can be remedied."[121]

Unlined impoundments which leak prove to be worse in terms of damage caused than lined impoundments, because they allow sludge to "flow through the unit and into the environment unrestrained."[122] The D.C. Circuit Court found:

> The Rule addresses neither the risks to public health and to the environment before leakage is detected, nor the harms from continued leakage during the years before leakage is ultimately halted by retrofit or closure. In defending the Rule as compliant with RCRA, the EPA did not even consider harms during the retrofit or closure process. . . . An agency's failure to consider an important aspect of the problem is one of the hallmarks of arbitrary and capricious reasoning.[123]

Further, the court observed that the Final Rule provided only for groundwater monitoring even though the EPA determined that surface water contamination was principally responsible for environmental and ecological damage.[124] CCR contamination to surface water has shown risks of "'[e]levated selenium levels in migratory birds, wetland vegetative damage, fish kills, amphibian deformities, . . . [and] plant toxicity,' and to humans through the possible consumption of contaminated fish."[125] Since RCRA requires "the EPA to set minimum criteria for sanitary landfills that prevent harm to either 'health *or* the environment,'" the court found that the EPA addressed only the "first half of the statutory requirement" when the EPA provided for only groundwater monitoring for levels of contamination "keyed to human health," and thus acted arbitrarily.[126]

2. Clay-Lined Impoundments Were Not Addressed in the Final Rule in Accordance with RCRA.

Additionally, the EPA treated "clay-lined units as if they were lined," and the court likewise rejected those portions of the Final Rule due to the same lack of support.[127] Clay-lined units are to be monitored for groundwater leakage with monitoring indexed to human risks only, and not surface water monitoring for environmental concerns.[128] If leaking, the operator is given the option of repair, retrofit, or closure of the unit.[129] Furthermore, if a clay-lined impoundment is located one mile from a groundwater, drinking water source, per EPA statistics it will contaminate the source 9.1% of the time and would increase in percentage with nearer

121. *Id.*

122. *Id.* (citing Final Rule, *supra* note 1, at 21,371).

123. *Id.* at 429-30 (citing Final Rule, *supra* note 1, at 21,403-06 and Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 44 (1983)).

124. *Utility Solid Waste Activities Grp.*, 901 F.3d at 430.

125. *Id.* (citing Proposed Rule, *supra* note 27, at 35,172 and Final Rule, *supra* note 1, at 21,444).

126. *Id.* (citing 42 U.S.C. § 6944(a)) (emphasis in original).

127. *Id.* at 430-32.

128. *Id.* at 431-32.

129. *Utility Solid Waste Activities Grp.*, 901 F.3d at 432.

proximity.[130] The EPA found that leakages "from clay-lined units . . . present cancer and non-cancer risks that exceed the EPA's risk criteria."[131] Here, too, the Final Rule allows the operator months to contemplate and explore a repair option "even before the five-to-fifteen year retrofit-or-close clock starts to run."[132] The court rejected and found arbitrary the EPA's rationale for clay-lined impoundments for the identical reasons that the court vacated the Final Rule for unlined surface impoundments.[133]

3. Legacy Ponds Are a Unique Danger, and the Way the EPA Addressed Them in the Final Rule is Arbitrary and Capricious.

Exempting "inactive impoundments at inactive facilities" in the Final Rule, the EPA spared legacy ponds from preventative regulation applied to other inactive impoundments.[134] The EPA decided to wait until an imminent harm was detected to try to stop or stem the damage.[135] Environmental Petitioners contend that since legacy ponds possess the same shortcomings as every other inactive impoundment, the EPA has not clearly provided a rational reason for the disparate treatment, and the court agreed.[136]

While not disputing the dangers of legacy ponds, the EPA attempted to claim that finding and identifying responsible parties for legacy ponds justified its reactive approach.[137] The court rejected the EPA's claim finding it contradictory to the agency's prior record and noting the Final Rule did not place enough attention on substantial risks to human health or the environmental dangers presented by legacy ponds.[138] The court continued:

> . . . legacy ponds present a unique confluence of risks: They pose the same substantial threats to human health and the environment as the riskiest Coal Residuals disposal methods, compounded by diminished preventative and remediation oversight due to the absence of an onsite owner and daily monitoring. Notably, this very Rule was prompted by a catastrophic legacy pond failure that resulted in a "massive" spill of 39,000 tons of coal ash and 27 million gallons of wastewater into North Carolina's Dan River.[139]

The EPA decided to take a hands-off approach, choosing to wait to respond until after an *imminent* leak is detected or reported, or otherwise to attempt a post-leak clean-up under the superfund statute, CERCLA.[140]

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130. *Id.* at 431.

131. *Id.*

132. *Id.*

133. *Id.* at 432.

134. *Utility Solid Waste Activities Grp.*, 901 F.3d at 432 (citing 40 C.F.R. § 257.50(e)).

135. *Id.* (citing 42 U.S.C. § 6973).

136. *Id.*

137. *Id.*

138. *Id.* at 432.

139. *Utility Solid Waste Activities Grp.*, 901 F.3d at 432-33 (citing Final Rule, *supra* note 1, at 21,343-44, 21,39-94).

140. *Id.* at 433 (citing Final Rule, *supra* note 1, at 21,312 n.2).

Specifically, the court objected to "EPA's rationale for allowing legacy ponds, in effect, one free leak" coupled with the EPA's "supposed inability to identify the owners of legacy ponds."[141] The court reiterated that there is "no gainsaying the dangers" of legacy ponds; finding they are a significant menace to human health as well as the environment because of the threat of "catastrophic failure for many years to come."[142]

The Final Rule outlines many legacy pond failures in the years leading up to the Rule's promulgation, including "a pipe break at a legacy pond at the Widows Creek plant in Alabama [which] caused 6.1 million gallons of toxic slurry to deluge local waterways," a failure at a legacy pond in Gambrills, Maryland, which caused "heavy metal contamination of local drinking water," plus "the preamble to the Rule itself [which] specifically point[ed] to the catastrophic spill at the Dan River legacy pond in North Carolina."[143] The court declared that simply hoping there will be warnings of imminent dangers at unmonitored legacy pond sites or waiting to clean up spills after the fact does not address the problem, nor does it fulfill the EPA's mandate to ensure "no reasonable probability of adverse effects" will befall human well-being or the environment.[144]

The court further found that the EPA's "difficulty in locating the owners . . . [of] legacy ponds does not hold water."[145] The EPA has been collecting data for years, maintaining a database to identify "legacy ponds and their owners with specificity."[146] In fact, "the owners and operators of the Dan River, Widows Creek, and Gambrills, Maryland disasters were all known."[147] The Regulatory Impact Analysis for EPA's proposed RCRA regulation of coal combustion residuals states "more than thirty . . . owners and operators of recently, or soon to be, retired power plants where more than 100 legacy ponds are located" with a State-by-State list detailing legacy ponds with "the utility responsible for each one."[148]

The court stated that the EPA "has the authority to regulate inactive units, . . . is regulating inactive units at active facilities, [acknowledges that] the risks posed by legacy ponds are at least as severe as the other inactive impoundment dangers . . . " and, finally that "there is no logical basis for distinguishing between units that present the same risks."[149] The administrative record "belies the EPA's stated reason for its reactive, rather than preventative approach," therefore the

141. *Id.*

142. *Id.*

143. *Id.* at 433. (citing Proposed Rule, *supra* note 27, at 35,147; Final Rule, *supra* note 1, at 21,393-94).

144. *Utility Solid Waste Activities Grp.*, 901 F.3d at 433 (citing 42 U.S.C. § 6944(a)).

145. *Id.*

146. *Id.* at 434.

147. *Id.* at 433.

148. *Id.* at 434 (citing EPA, REGULATORY IMPACT ANALYSIS FOR EPA'S PROPOSED RCRA REGULATION OF COAL COMBUSTION RESIDUES, INFORMATION REQUEST RESPONSES FROM ELECTRIC UTILITIES (Apr. 30, 2010), https://archive.epa.gov/epawaste/nonhaz/industrial/special/fossil/web/xlsx/survey_database_041212.xlsx).

149. *Utility Solid Waste Activities Grp.*, 901 F.3d at 434 (citing Final Rule, *supra* note 1, at 21,343).

court was clear in its finding that the Final Rule's "legacy ponds exemption is unreasoned, arbitrary, and capricious."[150]

4. The EPA Requested a Voluntary Remand for the Final Rule.

In addition to the EPA's request to hold the case in abeyance as a result of further developments in Congress and at the EPA with respect to the WIIN Act (which request was denied),[151] the EPA also requested remand to address related issues. The Court granted the motion to remand in part.[152] Specifically, the Court granted remand of (1) the regulation of CCR that is stored in piles on-site and destined for beneficial use; and (2) the 12,400 ton threshold in the fourth beneficial use criterion.[153] In doing so, the Court noted that EPA explained it is reconsidering these provisions and submitted a timeline to the Court, and that the WIIN Act changes support the EPA's request to reconsider these provisions.[154] Notably, the Court stated that, under the WIIN Act, "more precise risk-based standards are both feasible and enforceable under individualized permitting programs and [EPA's] directing monitoring provisions."[155] The Court also acknowledged that EPA had been allocated funds in the Appropriations Act of 2018 to implement a CCR permit program under the WIIN Act, and accordingly, "with its recently acquired funding, the EPA is to 'implement a permit program' in non-participating states."[156]

D. Future Rulemaking

Because the court denied EPA's motion to remand those provisions of the Final Rule which pertained to inactive surface impoundments, landfills at active plants, and legacy ponds, the EPA is currently reissuing Notices of Proposed Rulemaking to address these issues, and revisiting the problems of unlined and clay-lined impoundments.[157] In November 2018, the EPA announced their intent to modify the Final Rule on CCR disposal as remanded by the court.[158] The EPA proposes the amendment of "performance standards in the CCR rule through several rulemaking efforts to offer additional flexibility to state permitting authorities with an approved program."[159] Moreover, the EPA's Office of Land and Emergency Management announced that they would be submitting a proposed rule to

150. *Id.* at 434.

151. *Id.* at 449.

152. *Id*.

153. *Id.* at 449.

154. *Utility Solid Waste Activities Grp.*, 901 F.3d at 437.

155. *Id.*

156. *Id.* at 454 n.7.

157. Elizabeth H. Temkin, *CERCLA Enforcement Recent Key Developments and Perspectives*, 6 ROCKY MT. MIN. L. FOUND.,*5-22 (Dec. 6-7, 2018).

158. Proposed Rule, *Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residues from Electric Utilities: Amendments to the National Minimum Criteria (Phase 2*), 83 Fed. Reg. 57,941 (2018).

159. Introduction to the Unified Agenda of Federal Regulatory and Deregulatory Actions—Fall 2018, 83 Fed. Reg. 57,934 (2018).

amend the CCR Disposal Rule as a "Phase Two" revision.[160] The EPA is reviewing all of the matters brought up in litigation and introducing regulations for a federally approved nationwide CCR permit program.[161]

In partial response to the *Utility Solid Waste Activities Group v. EPA* decision, in August 2019, the EPA proposed a rule to address stakeholder input.[162] The EPA's proposal includes a revision to the beneficial use criteria from a mass-based threshold of amounts of CCR in excess of 12,400 tons to a location-based criteria accounting for factors such as distance from aquifers, wetlands, flood plains, or seismic zones.[163] The proposal also includes a revision to groundwater monitoring with new corrective action requirements to allow "members of the public, as well as the states and EPA, to easily see and understand the groundwater monitoring data."[164] Further, the August 2019 Proposed Rule sets out to redefine a *storage pile* as "a temporary accumulation of unencapsulated CCR on land," whether it is on- or off-site.[165] Additionally, the EPA is seeking to distinguish between activities that are truly disposal of unencapsulated CCR and those which are not, plus set a uniform set of requirements for CCR destined for disposal or beneficial use.[166]

In December 2019, the EPA proposed another rule which specifically addresses the 2018 D.C. Circuit Court decision on remand.[167] It includes a change in classification of clay-lined impoundments from "lined" to "unlined." Additionally, the EPA is seeking to establish August 31, 2020, as the expedited closure date for non-compliant sites to replace the previous deadline of October 31, 2020.[168] In February 2020, the EPA issued a proposed rule for the establishment of federal permitting to regulate CCR in both Indian country and nonparticipating states in conjunction with the WIIN Act.[169] The public comment period closes on April 20,

160. *Id.* at 57,941.

161. *Id.*

162. Proposed Rule, *Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals from Electric Utilities; Enhancing Public Access to Information; Reconsideration of Beneficial Use Criteria and Piles*, 84 Fed. Reg. 40,353 (2019) (to be codified at 40 C.F.R. pt. 257).

163. *Id.* at 40,356; 40,358-59.

164. *Id.* at 40,365-366.

165. *Id.* at 40,362.

166. *Id.*

167. 84 Fed. Reg. at 65,941.

168. *Id.* at 65,941-42. Some 67,216 comments were received by the end of the comment period in January 2020. Industry actors' comments focus on timing to initiate closure, while environmentalists advocate for strengthening safeguards and pollution limits. Envtl. Prot. Agency, *Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals from Electric Utilities; A Holistic Approach to Closure Part A: Deadline to Initiate Closure*, REGULATIONS.GOV, https://www.regulations.gov/docket?D=EPA-HQ-OLEM-2019-0172 (last visited Mar. 12, 2020). At this time, the EPA has made no formal pronouncement about the timing of its' next steps regarding the proposed rule. *Id.*

169. Proposed Rule, *Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals from Electric Utilities; Federal CCR Permit Program*, 85 Fed. Reg. 9,940 (2020) (to be codified at 40 C.F.R. pts. 22, 124, & 257).

2020.[170] The EPA is also pursuing a streamlined Federal CCR Permit Program with a virtual public hearing scheduled for April 15, 2020.[171]

E. Beneficial Use.

RCRA provisions contain a priority of conservation and resource recovery as an objective, which is based on the congressional observation that "millions of tons of recoverable material which could be used are needlessly buried each year."[172] However, activities that are deemed disposal are regulated while those waste management activities that relate to recycling and resource use are not regulated.[173] Consequently, EPA has also developed criteria to distinguish exempt beneficial uses from disposal.[174]

The Final Rule adopts a definition of beneficial use that consists of a four-prong qualifying test that incorporates RCRA's conservation objective while imposing checks on unencapsulated uses to protect against disguised disposal.[175] It maximizes opportunities for CCR uses as an alternative to disposal by allowing unencapsulated uses with some environmental protections.[176]

> The beneficial use of CCR . . . when performed correctly, can offer significant environmental benefits, including greenhouse gas (GHG) reduction, energy conservation, reduction in land disposal (along with the corresponding avoidance of potential CCR disposal impacts), and reduction in the need to mine and process virgin materials and the associated environmental impacts.[177]

To qualify as a beneficial use and thus be exempt from subtitle D regulation, unencapsulated CCR uses must meet all of definition's four conditions, while encapsulated uses must meet only the first three:[178]

> (1) The CCR must provide a functional benefit; (2) The CCR must substitute for the use of a virgin material, conserving natural resources that would otherwise need to be obtained through practices, such as extraction; (3) The use of the CCR must meet relevant product specifications, regulatory standards or design standards when available, and when such standards are not available, the CCR is not used in excess quantities; and (4) When unencapsulated use of CCR involving placement on the land of 12,400 tons or more in non-roadway applications, the user must demonstrate and keep records, and provide such documentation upon request, that environmental releases

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170. *Id.*

171. ENVTL. PROT. AGENCY, VIRTUAL PUBLIC HEARING ON THE PROPOSAL: FEDERAL CCR PERMIT PROGRAM, https://www.epa.gov/coalash/forms/virtual-public-hearing-proposal-federal-ccr-permit-program.

172. 42 U.S.C. § 6901(c)(1), (c)(3).

173. While EPA had postponed answering the question of whether CCR should be regulated under subtitle C or D in its 2000 Regulatory Determination, it did determine that CCR used for beneficial purposes would be exempt from regulation as hazardous waste under §3001(b)(3)(A) of RCRA; In electing subtitle D in the Final Rule, EPA affirmed its decision to exempt CCR uses that meets the Final Rule's definition of beneficial use from any disposal requirements.

174. 84 Fed. Reg. at 40,355-56; John Ward, *What Lies Ahead for Beneficial Use of Coal Combustion Products,* ASH AT WORK, Issue 2 at 27 (2018), https://www.acaa-usa.org/Portals/9/Files/PDFs/ASH02-2018.pdf.

175. Final Rule, *supra* note 1, at 21,349-51.

176. *Id.* at 21,351-54.

177. *Id.* at 21,329.

178. *Id.* at 21,349.

> to groundwater, surface water, soil and air are comparable to or lower than those from analogous products made without CCR, or that environmental releases to groundwater, surface water, soil and air will be at or below relevant regulatory and health-based benchmarks for human and ecological receptors during use.[179]

In the August 2019 proposed rule, the EPA revised this fourth prong of CCR beneficial use definition by replacing the mass-based numerical threshold of 12,400 tons that triggers the environmental demonstration that an unencapsulated use is required to conduct, with specific location-based criteria based on the location restrictions EPA imposed on CCR landfills and impoundments in its Final Rule.[180] A location-based criteria would include placement within (i) a specified distance from the uppermost aquifer, (ii) a wetland, (iii) an unstable area, (iv) a flood plain, (iv) a specified distance from a fault area, and (v) a seismic zone.[181] EPA invited comments on a trigger that would be a combination of land-based and mass-based numerical criteria.[182]

Some states have existing beneficial use programs which incorporate similar criteria as the EPA, but after the Final Rule issued, Virginia effectively outlawed unencapsulated uses of CCR generated within the State.[183] In March 2019, its General Assembly enacted SB1355, which mandated removal of all CCR from CCR units within the Chesapeake Bay watershed.[184] The excavated CCR must be either beneficially reused in a recycling process for an *encapsulated beneficial use* or disposed in a permitted landfill with a composite liner and leachate collection system. It defines "encapsulated beneficial use" consistent with the Final Rule's definition where CCR is bound "into a solid matrix and minimizes its mobilization into the surrounding environment." Consequently, CCR excavated from a CCR unit in Virginia can no longer be used as unencapsulated structural fill.

IX. CONCLUSION

The United States Court of Appeals for the D.C. Circuit issued a ruling finding that the EPA's Final Rule for coal ash does not protect communities or the environment enough to comport with RCRA.[185] To comply with the court's ruling, the EPA must increase protections with regard to CCR which may lead to most, if not all, coal ash impoundments' closure.[186] The EPA is ordered to fulfill their statutory mandate to protect "the public and the environment."[187] Legacy ponds, also, must be addressed.[188] The recent Proposed Rules set out to meet these

179. 40 C.F.R. § 257.53.

180. 84 Fed. Reg. at 40,353; *See also* 40 C.F.R. §257.60.

181. 84 Fed. Reg. at 40,358-59.

182. *Id.* at 40,353.

183. 2019 Va. Acts 650.

184. *Id.*

185. Lisa Evans, *Huge Win for Communities Threatened by Toxic Coal Pollution*, EARTHJUSTICE (Aug. 29, 2018), https://earthjustice.org/from-the-experts/2018-august/coal-ash-victory.

186. *Id.*

187. Temkin, s*upra* note 157, at *5-22.

188. Evans, *supra* note 185.

challenges, but it remains to be seen whether the EPA will be vindicated with its next CCR Final Rule.

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JURISDICTIONAL QUESTIONS CONCERNING NATURAL GAS PIPELINES: *BIG BEND CONSERVATION ALLIANCE V. FEDERAL ENERGY REGULATORY COMMISSION*

I. INTRODUCTION

On July 17, 2018, the Court of Appeals for the D.C. Circuit held that a 148-mile long pipeline, the Trans-Pecos Pipeline, transporting natural gas to an export facility near the border of Mexico was not subject to federal regulation in *Big Bend Conservation Alliance v. Federal Energy Regulatory Commission* (*Big Bend*).[1] The court noted that the intrastate pipeline, running through Texas and transporting only natural gas produced in Texas, was not an interstate pipeline, and was thus under the jurisdiction of the Railroad Commission of Texas (RRCT) and not the Federal Energy Regulatory Commission (FERC).[2] Additionally, the court concluded that FERC was not required to apply the connected-actions doctrine to consider the Trans-Pecos Pipeline while conducting its review of the export facility under the National Environmental Policy Act of 1969 (NEPA).[3] Finally, the court found that the Trans-Pecos Pipeline did not become "federalized" due to FERC's involvement in authorizing the export facility.[4]

Part II provides a background on the regulation of the natural gas industry in the United States, discussing the Natural Gas Act of 1938 (NGA), NEPA, and the Natural Gas Policy Act of 1978 (NGPA), as well as the procedural and factu-

1. Big Bend Conserv. All. v. FERC, 896 F.3d 418 (D.C. Cir. 2018).
2. *Id*. at 423.
3. *Id*. at 424.
4. *Id*. at 423.

al background of *Big Bend*. The federal government first became involved in the regulation of natural gas with the passage of the NGA, which granted the Federal Power Commission, and later FERC, the authority "to regulate natural gas prices and sales and establish a federal process . . . for the approval and siting of interstate natural gas pipelines."[5] The natural gas industry was further regulated through the passage of the NEPA, which requires federal agencies to "carefully weigh environmental considerations and consider potential alternatives to the proposed action before the government launches any major federal action."[6] Finally, the most recent major federal regulation of the natural gas transportation industry came with the passage of the NGPA, which gave FERC authorization to regulate natural gas production and transmission in intrastate commerce, through section 311 of the NGPA, in addition to interstate commerce, through section 7 of the NGA.[7]

Part III analyzes the D.C. Circuit's reasoning in *Big Bend* and the uncertainty created as to when natural gas pipeline projects, though intrastate in nature, might be subject to federal jurisdiction.[8] Additionally, it provides a discussion of the potential future implications of *Big Bend* on the natural gas industry. While the court's decision will not give pipeline developers the opportunity to avoid federal jurisdiction by building an intrastate pipeline with the intent of exclusively engaging in section 311 transportation, it does incentivize developers in large natural gas-producing states to avoid federal jurisdiction by building intrastate pipelines that meet up with export facilities at the states border. This is significant considering the geographic locations of many of the top natural gas-producing states.[9]

II. BACKGROUND

A. The Natural Gas Act of 1938

On June 21, 1938, Congress passed the NGA out of concerns of monopoly power in the natural gas industry.[10] The NGA granted federal authority to the Federal Power Commission (FPC) "to regulate natural gas prices and sales and establish[] a federal process—the federal certificate of public convenience and

5. Alexandra B. Klass & Jim Rossi, *Reconstituting the Federalism Battle in Energy Transportation*, 41 HARV. ENVTL. L. REV. 423, 430 (2017); *see also* 15 U.S.C. §§ 717c, 717f(c)-(h) (2012).

6. League of Wilderness Defenders-Blue Mountains Biodiversity Project v. U.S. Forest Service, 689 F.3d 1060, 1068 (9th Cir. 2012) (citing Barnes v. U.S. Dep't of Transp., 655 F.3d 1124, 1131 (9th Cir. 2011) (internal quotation marks omitted)); Although the NEPA was not directed at the natural gas industry specifically, it has major effects on the industry by requiring additional procedures for the development and construction of natural gas pipelines under federal jurisdiction.

7. Natural Gas Policy Act of 1978, Pub. L. 95-621, 92 Stat. 3350 (1978).

8. *Big Bend*, 896 F.3d at 424 (D.C. Cir. 2018).

9. The top natural gas-producing states are Texas, Pennsylvania, Louisiana, Oklahoma, and Ohio. ENERGY INFORMATION ADMINISTRATION, FREQUENTLY ASKED QUESTIONS https://www.eia.gov/tools/faqs/faq.php?id=46&t=8.

10. 15 U.S.C. § 717; Klass & Rossi, *supra* note 5.

necessity (certificate)—for the approval and siting of natural gas pipelines."[11] Congress later transferred this grant of authority to FERC.[12] The NGA regulates "the transportation of natural gas in interstate commerce," and the "importation or exportation of natural gas in foreign commerce."[13] Additionally, the Act does not "apply to any other transportation or sale of natural gas . . . to the local distribution of natural gas or to the facilities used for such distribution."[14] Section 3 of the NGA prohibits the "export" or "import" of any natural gas to or from a foreign country "without first having secured an order" from FERC.[15] Unless FERC finds that the proposed importation or exportation is inconsistent with the public interest, it "shall issue such order upon application."[16]

Section 3 of the NGA also provides that natural gas imported or exported between the United States and "a nation with which there is in effect a free trade agreement requiring national treatment for trade in natural gas, shall be deemed to be consistent with the public interest, and applications for such importation and exportation shall be granted without modification or delay."[17] Additionally, the D.C. Circuit has "construed section 3 also to require prior authorization to construct export and import facilities."[18] Section 7 of the NGA prohibits any natural gas company from constructing, acquiring, or operating any facility to transport or sell natural gas within the jurisdiction of FERC, without "a certificate of public convenience and necessity issued by the Commission authorizing such acts or operations."[19]

B. The National Environmental Policy Act of 1969

In 1969, Congress passed NEPA "to protect the environment by requiring that federal agencies carefully weigh environmental considerations and consider potential alternatives to the proposed action before the government launches any

11. Klass & Rossi, *supra* note 5; *see also* 15 U.S.C. §§ 717c, 717f(c)-(h).

12. This authority was transferred from the Federal Power Commission to the Secretary of Energy, and the Secretary of Energy then delegated this authority to FERC to "[a]pprove or disapprove the construction and operation of particular facilities, the site at which such facilities shall be located, and with respect to natural gas that involves the construction of new domestic facilities, the place of entry for import or exit for exports." 42 U.S.C. § 7151(b); U.S. Dep't of Energy, Delegation Order No. 00-004.00A, § 1.21.A (May 16, 2006).

13. 15 U.S.C. § 717(b).

14. *Id*. § 717(b).

15. *Id.* § 717b(a). The grant of authority was delegated in part to FERC, U.S. Dep't of Energy, Delegation Order No. 00-004.00A, § 1.21.A (May 16, 2006); *see also* Executive Order No. 10485, 18 Fed. Reg. 5397 (Sept. 3, 1953) (requiring the agency to obtain "the favorable recommendations of the Secretary of State and the Secretary of Defense" before issuing a Presidential Permit for the construction of natural gas import or export facilities at the US border).

16. 15 U.S.C. § 717b(a).

17. *Id.* § 717b(c).

18. *Big Bend*, 896 F.3d at 420; *see also* District Gas Corp. v. Fed. Power Comm'n, 495 F.2d 1057, 1064 (D.C. Cir. 1974).

19. 15 U.S.C. § 717f(c)(1)(A); 42 U.S.C. § 7172(a)(1)(C)-(D) (2019).

major federal action."[20] NEPA, in turn, establishes decision making procedures by the federal government regarding the environmental impacts of proposed energy projects, and requires agencies, such as FERC, to evaluate potential environmental impacts of proposed actions by preparing an environmental impact statement (EIS) for "major federal actions significantly affecting the quality of the human environment."[21] In conducting NEPA reviews, the Council on Environmental Quality (CEQ) regulations require federal agencies to consider "connected actions" in determining whether a proposed project will have an environmental impact.[22] Connected actions are "interdependent parts of a larger action and depend on the larger action for their justification."[23] The connected-actions doctrine, in theory, prevents the government from "segmenting" its own federal actions into distinct projects so that it avoids addressing the full environmental implications of the project as a whole.[24]

C. The Natural Gas Policy Act of 1978

In 1978, Congress passed NGPA, which gave FERC authorization to regulate natural gas production and transmission in intrastate commerce, in addition to interstate commerce.[25] Section 311 of the NGPA permits FERC to "authorize any intrastate pipeline to transport natural gas on behalf of . . . any interstate pipeline."[26] FERC's authorization of an intrastate pipeline to transport gas on behalf of an interstate pipeline does not trigger section 7 of the NGA.[27] The NGPA provides that FERC jurisdiction under the NGA "shall not apply" to transportation authorized under section 311.[28] However, FERC jurisdiction over interstate pipelines is fact-specific and depends on whether the pipeline receives the proper authorizations and how the pipeline is being utilized.[29] While FERC has recognized the ability of intrastate pipelines to provide section 311 service even after being placed into service, FERC has also exercised section 7 jurisdic-

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20. League of Wilderness Defenders-Blue Mountains Biodiversity Project v. U.S. Forest Service, 689 F.3d 1060, 1068 (9th Cir. 2012) (citing Barnes v. U.S. Dep't of Transp., 655 F.3d 1124, 1131 (9th Cir. 2011) (internal quotation marks omitted)).

21. 42 U.S.C. § 4332(2)(C) (2019); National Environmental Policy Act, 20A1 Minn. Prac., Business Law Deskbook § 23:7. Sometimes, the Council on Environmental Quality (CEQ), requires "agencies to prepare an environmental assessment – a document used to determine whether to prepare an EIS." *See* 40 C.F.R. § 1508.13; *see also Big Bend*, 896 F.3d at 420. When an agency determines that no EIS is required, "it must issue a finding of no significant impact – a document explaining why the proposed action 'will not have a significant effect on the human environment.'" *Id*.

22. 40 C.F.R. § 1508.25(a)(1) (2019).

23. *Id*. § 1508.25(a)(1)(iii).

24. Sierra Club v. U.S. Army Corps of Eng'rs, 803 F.3d 31, 49-50 (D.C. Cir. 2015) (brackets omitted) (quoting Del. Riverkeeper Network v. FERC, 753 F.3d 1304, 1313 (D.C. Cir. 2014)).

25. *See* Natural Gas Policy Act, 92 Stat. 3350.

26. 15 U.S.C. § 3371(a)(2) (2019).

27. 15 U.S.C. § 3431(a)(2)(A) (2019).

28. *Id.* § 3431(a)(2)(A)(ii).

29. FED. ENERGY REG. COMM'N, BLANK CERTIFICATES, https://www.ferc.gov/industries/gas/indus-act/blank-cert.asp.

tion over facilities that were seemingly intrastate but that were constructed with the purpose of providing section 311 service.[30]

D. The Presidio Border Crossing Project

On May 28, 2015, FERC received an application from Trans-Pecos Pipeline, LLC (Trans-Pecos) seeking "a Presidential Permit and authorization under section 3 of the [NGA] to site, construct, and operate a border crossing facility (the Presidio Border Crossing Project)" in Presidio County, Texas, to export natural gas across the border between the United States and Mexico.[31] Trans-Pecos included in the plans of the Presidio Border Crossing Project a proposal to construct and operate a Texas intrastate pipeline, the Trans-Pecos Pipeline, subject to the jurisdiction of the RRCT.[32] The Trans-Pecos Pipeline would transport natural gas to the proposed border crossing facility from a hub in Pecos County, Texas, and would "interconnect with other Texas intrastate pipelines, as well as processing plants," and "may later interconnect with interstate pipelines."[33] Trans-Pecos asserted that while the Trans-Pecos Pipeline would initially only provide intrastate service, it may, at some later point, transport natural gas through interstate services under section 311 of the NGPA.[34]

On June 16, 2015, Trans-Pecos's application was published in the *Federal Register*, and Big Bend Conservation Alliance (BBCA) filed a timely, unopposed motion to intervene.[35] On June 26, 2015, FERC "sent copies of the application and a draft Presidential Permit to the Secretaries of State and Defense for their recommendations."[36] Replies, dated October 7, 2015, on behalf of the Secretary of State, and September 28, 2015, on behalf of the Secretary of Defense, "indicate[d] no objection to the issuance of the requested Presidential Permit."[37]

On July 23, 2015, FERC "issued a Notice of Intent to Prepare an Environmental Assessment (NOI) and mailed it to interested parties."[38] One of the purposes of an environmental assessment (EA), as explained by FERC, "is to assist agencies in determining whether to prepare an EIS or a finding of no significant impact."[39] Prior and in response to the NOI, 653 concerned individuals filed

30. *See, e.g.*, *Roadrunner Gas Transmission*, LLC, 153 F.E.R.C. ¶ 61041, at P 5 (2015) ("new intrastate pipeline . . . initially . . . will provide only intrastate service," but "may later provide service under section 311"); *See, e.g.*, *Egan Hub Partners, L.P.*, 73 F.E.R.C. ¶ 61,334, at 61,930 (1995).

31. *Trans-Pecos Pipeline, LLC*, 155 F.E.R.C. ¶ 61,140 at P 1 (2016).

32. *Id*. at P 4.

33. *Id*. at P 5.

34. *Id*. at P 5. The Trans-Pecos Pipeline will transport natural gas volumes only in intrastate commerce unless the pipeline begins providing service under section 311 of the NGPA.

35. Notice of Application, *Trans-Pecos Pipeline, LLC,* 80 Fed. Reg. 34,402 (2015); *see also* 155 F.E.R.C. ¶ 61,140 at P 7.

36. 155 F.E.R.C. ¶ 61,140 at P 10.

37. *Id*.; *see also* 18 Fed. Reg. 5397 (requiring the agency to obtain "the favorable recommendations of the Secretary of State and the Secretary of Defense" before issuing a Presidential Permit for the construction of natural gas import or export facilities at the US border).

38. 155 F.E.R.C. ¶ 61,140 at P 19.

39. 40 C.F.R. § 1508.9 (2012); 155 F.E.R.C. ¶ 61,140 at P 29.

comments on the issue.[40] A majority of the comments concerned Tran-Pecos's planned intrastate pipeline through Texas.[41]

On January 4, 2016, FERC issued a sixty-one page EA of the Presidio Border Crossing Project, addressing geology, soils, groundwater, surface waters, wetlands, vegetation, wildlife and aquatic resources, special status species, land use, recreation, special interest areas and visual resources, cultural resources, air quality and noise, safety and reliability, and alternatives.[42] Additionally, the EA addressed the cumulative impacts of the border crossing project related to the Trans-Pecos Pipeline.[43] The EA also examined the Trans-Pecos Pipeline's impacts on "geology and soils; water resources; vegetation and wildlife; land use; cultural resources; air quality and noise;" and safety.[44] FERC placed the EA in the public record and provided a thirty-day comment period.[45] In response, FERC received over 500 comments, with a majority of them from individuals opposing the project.[46]

On May 5, 2016, FERC released an order issuing Trans-Pecos a Presidential Permit for construction of the Presidio Border Crossing Project, and authorizing the import and export of natural gas under section 3 of the NGA.[47] In its Order, FERC recognized that section 3 of the NGA applies to the proposed Presidio Border Crossing Project because the United States and Mexico are both members of the North American Free Trade Agreement (NAFTA).[48] Based on its analysis in the EA, FERC concluded that "if constructed and operated in accordance with Trans-Pecos's application and supplements, and in compliance with the environmental conditions in Appendix B to [the May 2016] order, our approval of this proposal would not constitute a major federal action significantly affecting the quality of the human environment"[49] and therefore an EIS was not required.[50] Moreover, FERC concluded that since "Trans-Pecos's 148-mile upstream pipeline initially will only transport Texas gas production received from other Texas intrastate pipelines or processing plants and none of the gas will enter jurisdictional interstate commerce," when service begins, "it will qual-

40. 155 F.E.R.C. ¶ 61,140 at P 20.
41. *Id*. at P 21.
42. *Id.* at P 25-26.
43. *Id*. at P 25.
44. *Id*. at 42.
45. 155 F.E.R.C. ¶ 61,140 at P 26.
46. *Id*.
47. *Id.*
48. *Id*. at P 13.
49. *Id*. at P 76.
50. 155 F.E.R.C. ¶ 61,140 at P 30; *see also* 40 C.F.R. § 1508.9. Under 40 C.F.R. § 1508.18 (2015) of CEQ's regulations, a "[m]ajor federal action includes actions which effects that may be major and which are potentially subject to federal control and responsibility. Major reinforces but does not have a meaning independent of significantly." "'Significantly' requires consideration of both the context and intensity" of the project. *See* 40 C.F.R. § 1508.27 (2015); CEQ regulations state that, where an EA concludes in a finding of no significant impact, an agency may proceed without preparing an EIS. *See* 40 C.F.R. §§ 1501.4(e), 1508.13 (2015).

ify as a non-jurisdictional intrastate pipeline" that is not subject to FERC's jurisdiction "under either section 311 of the NGPA or section 7 of the NGA."[51]

BBCA, who intervened due to its interest in the environmental impacts of the Presidio Boarder Crossing Project, filed requests for rehearing of the May 2016 FERC Order, arguing that FERC "too narrowly defined its jurisdiction over the Presidio Border Crossing Project and related facilities, which resulted in a truncated environmental review that failed to comply with" NEPA.[52] On November 1, 2016, FERC issued an Order Dismissing and Denying Rehearing.[53]

III. ANALYSIS

Petitioner, BBCA, filed a petition for review of the two FERC orders that authorized the construction of facilities to transport gas from the United States to Mexico in the United States Court of Appeals for the District of Columbia.[54] While FERC exercised jurisdiction over the export facilities at the United States and Mexico border, BBCA argued that FERC should have also exercised jurisdiction over the intrastate pipeline.[55] Additionally, BBCA argued that "an expanded review was required" under NEPA, even if the intrastate pipeline was not within FERC's jurisdiction under the NGA.[56] The D.C. Circuit denied the petition, holding that (1) it could not consider BBCA's argument that the pipeline was an export facility because it lacked jurisdiction; (2) FERC's conclusion that the pipeline was subject to the RRCT's regulatory control was supported by substantial evidence; and (3) FERC correctly declined to include the Trans-Pecos Pipeline in its NEPA review because it was not a connected-action and did not become "federalized" due to FERC's involvement in authorizing the Export Facility.[57]

A. The Court Lacked Jurisdiction to Hear BBCA's First Argument

While BBCA argued that the Trans-Pecos Pipeline was an export facility, the court lacked jurisdiction to consider the argument because BBCA did not present the argument to FERC on rehearing.[58] According to section 19(a) of the NGA, a court is unable to review a FERC order "unless the person seeking review has first 'made application to the Commission for a rehearing thereon.'"[59] Additionally, section 19(b) of the NGA establishes that "[n]o objection to the order of the Commission shall be considered by the court unless such objection shall have been urged before the Commission in the application for rehearing un-

51. 155 F.E.R.C. ¶ 61,140 at P 31.
52. *Trans-Pecos Pipeline, LLC*, 157 F.E.R.C. ¶ 61,081 at P 1 (2016).
53. *Id.*
54. *Big Bend*, 896 F.3d at 418.
55. *Id*. at 421.
56. *Id*. at 419.
57. *Id.* at 418.
58. *Id*. at 421.
59. ASARCO, Inc. v. FERC, 777 F.2d 764, 771 (D.C. Cir. 1985) (quoting 15 U.S.C. §717r(a)).

less there is reasonable ground for failure so to do."[60] Because BBCA failed to raise its first argument on rehearing, the D.C. Circuit lack jurisdiction to consider this aspect of BBCA's appeal.

B. The Trans-Pecos Pipeline is not Subject to FERC Jurisdiction

The NGA gives FERC the authority "to regulate natural gas prices and sales and establish a federal process . . . for the approval and citing of natural gas pipelines."[61] Section 7 of the NGA applies to pipelines that transport natural gas in interstate commerce.[62] The facts demonstrate that the Trans-Pecos Pipeline would not be interstate and thus subject to FERC jurisdiction.[63] Trans-Pecos proposed that the Trans-Pecos Pipeline would transport only natural gas that has been produced in Texas, or natural gas received from intrastate pipelines or processing plants that also transport only Texas produced natural gas.[64]

Upon review of these facts, FERC determined that the Trans-Pecos Pipeline was located entirely within Texas, was connected with only other intrastate pipelines, there was enough "Texas-sourced natural gas to supply the Trans-Pecos Pipeline without relying on interstate volumes," and the pipeline would only carry gas produced in Texas.[65] FERC also found that the Trans-Pecos Pipeline was an intrastate pipeline subject to the jurisdiction of the RRCT and not subject to FERC jurisdiction under section 7.[66] Additionally, possible future transportation of interstate gas by the Trans-Pecos Pipeline does not provide a loophole for subjecting the pipeline to NGA section 7 because the FERC orders do not specifically authorize the pipeline to transport natural gas under section 311.[67] Indeed, FERC orders state that even if the pipeline does provide services under NGA section 311, it will not trigger NGA section 7.[68] Moreover, FERC precedent allows intrastate pipelines to provide section 311 services after construction without triggering FERC jurisdiction under NGA section 7.[69] FERC's precedent is

60. 15 U.S.C. § 717r(b).

61. Klass & Rossi, *supra* note 5, at 430; 15 U.S.C. §§ 717c(e), 717f(c)-(h).

62. 15 U.S.C. § 717f(c)(1)(A); *see* 42 U.S.C. § 7172(a)(1)(C)-(D).

63. *See generally Big Bend*, 896 F.3d. 418.

64. 157 F.E.R.C. ¶ 61081 at P 9.

65. *Id*. at P 11.

66. *Id.* Although section 3 of the NGA prohibits the export or import of any natural gas to or from a foreign country "without first having secured an order" from FERC, it is not applicable to the Trans-Pecos pipeline itself because it will only be transporting natural gas to the export facility. 15 U.S.C. § 717b(a); The D.C. Circuit previously interpreted section 3 of the NGA to require prior authorization to construct import and export facilities. Distrigas Corp. v. Fed. Power Comm'n, 495 F.2d 1057, 1064 (D.C. Cir. 1974).

67. 155 F.E.R.C. ¶ 61,140 at P 31; 157 F.E.R.C. ¶ 61,081 at PP 10-11.

68. 155 F.E.R.C. ¶ 61,140 at P 31; 157 F.E.R.C. ¶ 61,081 at PP 10-11.

69. *See, e.g.*, *Roadrunner Gas Transmission, LLC*, 153 F.E.R.C. ¶ 61,041 at P 5 (2015) ("new intrastate pipeline . . . initially . . . will provide only intrastate service," but "may later provide service under Section 311"); *NET Mex. Pipeline Partners, LLC*, 145 F.E.R.C. ¶ 61,112, at 61,598 (2013).

supported by NGPA, which states that FERC will not have jurisdiction over the transportation of natural gas that has been authorized under section 311.[70]

C. FERC Correctly Declined to Include the Trans-Pecos Pipeline in its NEPA Review

BBCA asserted two arguments for FERC to include the Trans-Pecos Pipeline in its NEPA review: (1) "the projects at issue were impermissibly segmented;" and (2) "the pipeline should be 'federalized' for NEPA purposes."[71] According to CEQ regulations, federal agencies must consider "[c]onnected actions" in conducting NEPA reviews.[72] Neither of these arguments applied to the facts surrounding the Trans-Pecos Pipeline.

As discussed above, the connected-actions doctrine requires that the government provide a NEPA review for connected projects that could have a larger environmental impact.[73] Actions are considered "connected" if they are "interdependent parts of a larger action and depend on the larger action for their justification."[74] The intent of the connected-actions doctrine is to prevent the government from "segmenting" its own "federal actions into separate projects and thereby failing to address the true scope and impact of the activities that should be under consideration."[75] However, the D.C. Circuit found that the connected-actions doctrine did not apply here.

The circumstances in *Big Bend* are similar to those in *Sierra Club v. U.S. Army Corps of Engineers*.[76] In *Sierra Club*, the D.C. Circuit held that federal jurisdiction over segments of an oil pipeline did not subject the entire pipeline to NEPA review.[77] While the oil pipeline was "undoubtedly a single 'physically,

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70. 15 U.S.C. § 3431(a)(2)(A)(ii). In addition to the strong statutory and precedential basis for the court to find that FERC lacked jurisdiction, the facts surrounding Trans-Pecos Pipeline do not support an equitable argument for jurisdiction. FERC has asserted jurisdiction where it is clear that a pipeline operator is blatantly and in bad faith attempting to avoid federal regulatory jurisdiction. *See, e.g.*, *Egan Hub Partners, L.P.,* 73 F.E.R.C. ¶ 61,334, at 61,930 (1995). However, this case does not represent a situation where a pipeline developer submitted that only intrastate gas would be transported in an attempt to evade federal regulations, and FERC found "no evidence" in its rehearing order that construction of the Trans-Pecos Pipeline would "frustrate the purposes" of the NGA or NGPA. *Rehearing Order*, 157 F.E.R.C. ¶ 61,081 at P 9; *see also Big Bend*, 896 F.3d at 423. Additionally, FERC has, in the past, asserted Section 7 jurisdiction in cases where it was clear that the pipeline was constructed solely to provide Section 311 service. *See, e.g.*, *Egan Hub Partners, L.P.,* 73 F.E.R.C. ¶ 61,334, at 61,930 (1995). There was no evidence of duplicity on Trans-Pecos' part. FERC indicated in this case that it would have taken different action, and would have asserted jurisdiction over construction of the pipeline, if it "detected an effort to evade" the NGA. *Rehearing* Order, 157 F.E.R.C. ¶ 61,081 at P 11; *see also Big Bend*, 896 F.3d at 423. However, there was no such evidence in this case.

71. *Big Bend*, 896 F.3d at 423; *see also* 155 F.E.R.C. ¶ 61,140 at PP 32-36; 157 F.E.R.C. ¶ 61,081 at PP 7-16.

72. 40 C.F.R. § 1508.25(a)(1).

73. *See* discussion *supra* Section II.B.

74. 40 C.F.R. § 1508.25(a)(1)(iii).

75. Sierra Club v. U.S. Army Corps of Eng'rs, 803 F.3d 31, 49-50 (D.C. Cir. 2015) (quoting Del. Riverkeeper Network v. FERC, 753 F.3d 1304, 1313 (D.C. Cir. 2014)).

76. *See generally Sierra Club,* 803 F.3d 31.

77. *Sierra Club*, 803 F.3d at 49-50. *Sierra Club* concerned the jurisdiction over segments of the Flanagan South oil pipeline, a 593-mile pipeline from Illinois to Oklahoma. Constructing portions of the Flanagan

functionally, and financially connected' project," the majority of the pipeline was not subject to federal jurisdiction.[78] The D.C. Circuit in *Sierra Club* explained that "[t]he connected actions regulation . . . does not dictate that NEPA review encompass private activity outside the scope of the sum of the geographically limited federal actions."[79] Private activities are those activities which are undertaken by a private party, without the involvement of the federal government.[80] In *Sierra Club*, the court recognized that the oil pipeline at issue was a private activity because it was constructed by a private company, on predominately private land, and was not in itself subject to regulation by the federal government.[81] While the export facility in *Big Bend* was subject to federal jurisdiction, the Trans-Pecos Pipeline did not require any federal action to begin construction.[82] The Trans-Pecos Pipeline was constructed by a private company, and did not require any federal authorization for its construction.[83] Therefore, in *Big Bend*, there was not a connected federal action that would require the connected actions doctrine to apply.[84]

BBCA also argued that FERC's involvement in authorizing construction and jurisdiction over the export facility, should "federalize" the Trans-Pecos Pipeline.[85] The federalization theory was first discussed in *Macht v. Skinner* and involved a challenge against the Secretary of Transportation and other state and federal officials for the failure to conduct a NEPA review in the construction of a railroad, despite its development requiring a federal wetlands permit.[86] The court disagreed with the plaintiff's argument that the requirement of the wetlands permit "federalized" the project, and did not adopt the federalization theory.[87] While the court expressed the soundness of the federalization theory, it did not apply it to the construction of the railroad because the Army Corps of Engineers' control of the project was over "only a negligible portion."[88]

The federalization theory was questioned, however, in *Karst Environmental Education & Protection, Inc. v. EPA*.[89] In *Karst*, the D.C. Circuit explained that it "had not yet held . . . that NEPA claims must be brought pursuant to the APA" when it decided *Macht*.[90] Once the court held that NEPA claims must be

South pipeline required approvals from government agencies, and the Sierra Club claimed that this should make the entire pipeline subject NEPA environmental scrutiny.

78. *Id*. at 50 (quoting *Del. Riverkeeper*, 753 F.3d at 1308).
79. *Id*. at 49.
80. *Id.* at 50.
81. *Id*.
82. *Big Bend*, 896 F.3d at 424.
83. *Id*.
84. *Id*.
85. *Id.* at 423.
86. *See* Macht v. Skinner, 916 F.2d 13 (D.C. Cir. 1990).
87. *Id*. at 19-20.
88. *Big Bend*, 896 F.3d at 424 (quoting *Macht*, 916 F.2d at 19-20).
89. *See* Karst Envtl. Educ. & Prot., Inc. v. EPA, 475 F.3d 1291 (D.C. Cir. 2007).
90. *Id*. at 1297.

brought pursuant to the APA, it revisited the federalization theory from *Macht*.[91] In these later federalization cases,[92] the D.C. Circuit found that, since APA review requires final agency action by an agency of the United States Government, "judicial review of NEPA claims must address actions by the *federal* government."[93] This represented a change from the prior interpretation of the federalization theory which was decided when "then-existing case law suggested that NEPA itself created a private right of action."[94] This interpretation of the federalization theory was cleared up from *Macht*, and strengthened in later cases.[95]

In *Sierra Club*, the court found that while there was federal regulatory control over segments of an oil pipeline, this limited control did not change the jurisdiction, and thus federalize, all other segments of the pipeline project.[96] Additionally, in *Coalition for Underground Expansion v. Mineta*, the court concluded that federal funding towards portions of the rail transit system, along with the potential for federal funding in the future, was not enough to "federalize" the rail line extension project.[97] As the court in *Karst* held, "although the federalization theory may have had merit when we decided *Macht*, it lacks validity today." [98] The same holds true in *Big Bend.*[99]

The project in *Big Bend* is similar to the oil pipeline at issue in *Sierra Club*.[100] In *Sierra Club*, although segments of the pipeline project were subject to federal regulatory control, this federal control did not in turn "federalize" all other segments of the project.[101] Similarly, in *Big Bend*, while the export facility is subject to federal regulatory control, it does not federalize the intrastate Trans-Pecos Pipeline.[102] The reasoning in *Mineta*, that federal funding towards portions of a rail transit system does not federalize the entire project, is consistent with the reasoning in *Big Bend* that just because the export facility—only a portion of the overall project—is subject to federal regulation, does not subject the entire project, including the Trans-Pecos Pipeline, to federal regulation.[103]

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91. *Id*. at 1297-98.

92. *Karst*, 475 F.3d 1291; *see also* Pub. Citizen v. Office of U.S. Trade Representatives, 970 F.2d 916 (D.C. Cir. 1992); Pub. Citizen v. U.S. Trade Representative, 5 F.3d 549 (D.C. Cir. 1993).

93. *Big Bend*, 896 F.3d at 424; *see also* 5 U.S.C. § 704; 5 U.S.C. § 701(b)(1).

94. *Karst*, 475 F.3d at 1297; *see also* Public Citizen v. U.S. Trade Representative, 5 F.3d 549, 551 (D.C. Cir. 1993); Public Citizen v. Office of U.S. Trade Representatives, 970 F.2d 916, 918 (D.C. Cir. 1992) (recognizing that NEPA claims must allege "final agency action.").

95. *See generally Karst*, 475 F.3d 1291 (D.C. Cir. 2007); *Sierra Club*, 803 F.3d 31; Coal. For Underground Expansion v. Mineta, 333 F.3d 193 (D.C. Cir. 2003).

96. *Sierra Club*, 803 F.3d at 50-51.

97. *Mineta*, 333 F.3d at 197-98.

98. *Karst*, 475 F.3d at 1297; *see also* Pub. Citizen v. Office of U.S. Trade Representatives, 970 F.2d 916 (D.C. Cir. 1992); Pub. Citizen v. U.S. Trade Representative, 5 F.3d 549 (D.C. Cir. 1993).

99. *Big Bend*, 896 F.3d at 424-25.

100. *See generally Sierra Club*, 803 F. 3d 31.

101. *Id.* at 50-51.

102. *Big Bend*, 896 F. 3d. at 425.

103. *Mineta*, 333 F.3d at 197-98.

In addition to finding FERC lacked jurisdiction under the federalization theory, the D.C. Circuit reviewed FERC's application of the four factor balancing test governing jurisdiction laid out in *Algonquin Gas*, finding that FERC correctly applied this test and concluded that it lacked jurisdiction.[104] In response, BBCA contended that FERC instead should have applied a "but-for" test to evaluate whether the Trans-Pecos Pipeline would have still been built "but for the agency's approval of the Export Facility."[105] However, the court held that it had already considered and rejected the use of a "but for" test for determining jurisdiction.[106] The D.C. Circuit noted that it rejected the "but for" test in *National Committee for the New River, Inc.*, because it would allow FERC "to extend its jurisdiction over non-jurisdictional activities simply on the basis that they were connected to a jurisdictional pipeline."[107] FERC previously abandoned the "but-for" test in *Algonquin Gas*, and has not used it since that time.[108]

D. Potential Future Implications

The holding of the D.C. Circuit in *Big Bend* may have a number of future implications. As of March 13, 2020, FERC has cited *Big Bend* in six of its orders.[109] It is likely that FERC will continue applying this current interpretation of the connected actions doctrine and will not take non-federalized actions into consideration while conducting its NEPA review.

While FERC indicated that it would have taken different action in asserting federal jurisdiction over the Trans-Pecos Pipeline if it "detected an effort to evade"[110] the NGA, pipeline developers might view *Big Bend* as an opportunity to evade federal jurisdiction by building an intrastate pipeline with the intent of exclusively engaging in section 311 transportation. These developers, however, would be mistaken.[111] FERC merely recognized that if, at some point in the future, the Pipeline were to qualify for section 311 transportation, the Pipeline

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104. 155 F.E.R.C. ¶ 61,140 at P 32; *Algonquin Gas Transmission Co.*, 59 F.E.R.C. ¶ 61,255, at p. 61,934 (1992). The four factors laid out in *Algonquin Gas* include: "(i) Whether or not the regulated activity comprises 'merely a link' in a corridor type project (e.g., a transportation or utility transmission project). (ii) Whether there are aspects of the upland facility in the immediate vicinity of the regulated activity which affect the location and configuration of the regulated activity. (iii) The extent to which the entire project will be within Corps jurisdiction. (iv) The extent of cumulative federal control and responsibility." 155 F.E.R.C. ¶ 61,140 at P 32.

105. *Big Bend*, 896 F.3d at 425.

106. *Id.*

107. *National Committee for the New River, Inc. v. FERC*, 373 F.3d 1323 (D.C. Cir. 2004); *Big Bend*, 896 F.3d at 425.

108. 59 F.E.R.C. ¶ 61,255, at p. 61,934-35; *Big Bend*, 896 F.3d at 425.

109. *See Annova LNG Common Infastructure, LLC, Annova Lng Brownsville a, LLC, Annova Lng Brownsville B, LLC, Annova Lng Brownsville C*, LLC, 169 F.E.R.C. ¶ 61,132 (2019); *Tennessee Gas Pipeline Co., LLC*, 164 F.E.R.C. ¶ 61,062 (2018); *Penneast Pipeline Co., LLC*, 164 F.E.R.C. ¶ 61,098 (2018); *Atl. Coast Pipeline, LLC, Dominion Transmission, Inc., Atl. Coast Pipeline, LLC, Piedmont Nat. Gas Co., Inc.*, 164 F.E.R.C. ¶ 61,100 (2018); *Columbia Gas Transmission, LLC*, 164 F.E.R.C. ¶ 61,036 (2018); *Millennium Pipeline Co., LLC*, 164 F.E.R.C. ¶ 61,039 (2018).

110. *Big Bend*, 896 F.3d at 423.

111. 157 F.E.R.C. ¶ 61,081 at P 11; *Big Bend*, 896 F.3d; *See, e.g.*, *Egan Hub Partners, L.P.,* 73 F.E.R.C. ¶ 61,334, at p. 61,930 (1995).

would not be subject to section 7.[112] This is a reiteration of existing law and FERC precedent.[113] In making its decision, FERC took all relevant factors into consideration, and found, after a complete evaluation, that there was "no evidence" of any intent to evade the NGA or NGPA.[114] Furthermore, FERC has, in the past, asserted jurisdiction under NGA section 7 over developers who attempted to avoid federal jurisdiction in this manner.[115]

In addition to effecting future determinations by FERC, the D.C. Circuit's holding could lead to an increased number of purely intrastate pipelines being built that connect to separate export facilities on state and national boarders, thus avoiding federal regulations. While the export facility would still be subject to federal jurisdiction, large natural gas producing states could have incentives for constructing intrastate natural gas pipelines to transport natural gas produced within that particular state for transportation to export facilities. According to the U.S. Energy Information Administration (EIA), the United States' "marketed production" of natural gas in 2018 was 32.82 trillion cubic feet (Tcf).[116] The top ten natural gas producing states consist of (1) Texas, (2) Pennsylvania, (3) Oklahoma, (4) Louisiana, (5) Ohio, (6) Colorado, (7) West Virginia, (8) Wyoming, (9) New Mexico, and (10) North Dakota.[117] Of these states, only four of them are landlocked so as to make the holding in *Big Bend* inapplicable to them for international transportation. The other six, however, present the possibility of international transportation by pipeline, as was the case in *Big Bend*, or by Liquefied Natural Gas (LNG) export facilities on waterways.

Last year, in Texas alone, there were 98 applications filed with the RRCT for natural gas related projects, the longest of which stretches 446 miles, and that number is only expected to increase.[118] In addition to purely intrastate pipelines transporting natural gas to export facilities on the boarder of Texas and Mexico,

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112. 155 F.E.R.C. ¶ 61,140 at P 31; 157 F.E.R.C. ¶ 61,081 at PP 10-11.

113. *See* 15 U.S.C. § 3431(a)(2)(A)(ii); *Roadrunner Gas Transmission, LLC*, 153 F.E.R.C. ¶ 61,041 at P 5 (2015); *NET Mex. Pipeline Partners, LLC*, 145 F.E.R.C. ¶ 61,112, at 61,598 (2013).

114. 157 F.E.R.C. ¶ 61,081 at P 11.

115. *See Egan Hub Partners, L.P.,* 73 F.E.R.C. ¶ 61,334, at p. 61,930 (1995).

116. U.S. ENERGY INFO. ADMIN., NATURAL GAS GROSS WITHDRAWALS AND PRODUCTION (Nov. 29, 2019), https://www.eia.gov/dnav/ng/ng_prod_sum_a_EPG0_VGM_mmcf_a.htm. "Marketed Production" is defined by the EIA as: "Gross withdrawals less gas used for repressuring, quantities vented and flared, and nonhydrocarbon gases removed in treating or processing operations. Includes all quantities of gas used in field and processing plant operations." U.S. ENERGY INFO. ADMIN., GLOSSARY: NATURAL GAS, https://www.eia.gov/tools/glossary/?id=natural%20gas.

117. U.S. ENERGY INFO. ADMIN., NATURAL GAS GROSS WITHDRAWALS AND PRODUCTION (Nov. 29, 2019), https://www.eia.gov/dnav/ng/ng_prod_sum_a_EPG0_VGM_mmcf_a.htm. Marketed production in 2018 for the top ten producing states is as follows: (1) Texas: 7,865,591 mcf; (2) Pennsylvania: 6,207,874 mcf; (3) Oklahoma: 2,946,117 mcf; (4) Louisiana: 2,818,422 mcf; (5) Ohio: 2,385,112 mcf; (6) Colorado: 1,825,932 mcf; (7) West Virginia: 1,799,097 mcf; (8) Wyoming: 1,511,808 mcf; (9) New Mexico: 1,487,685 mcf; (10) North Dakota: 738,723 mcf. *Id*.

118. RRCT, 2018 NEW CONSTRUCTION REPORTS (Dec. 31, 2018), https://www.rrc.state.tx.us/media/49790/ncr_calendar_2018_january-11-2019.pdf. As of February 13, 2019 there have been 16 applications filed with the Rail Road Commission of Texas for the construction of natural gas related projects, https://www.rrc.state.tx.us/media/50372/ncr_calendar_2019.pdf.

high natural gas producing states such as New Mexico and North Dakota have the potential to develop similar intrastate pipelines, not subject to federal jurisdiction, that meet up with export facilities on the boarders with their international neighbors.

Moreover, as the United States' involvement in LNG liquefaction and exportation continues to grow, the D.C. Circuits' holding in *Big Bend* becomes even more relevant in addressing jurisdictional questions associated with the pipelines transporting natural gas to those liquefaction and export facilities.[119] Of course when the pipeline is transporting natural gas interstate, it is subject to NGA section 7,[120] but when an intrastate pipeline transporting natural gas produced in that state leads to a liquefaction and export terminal, the holding in *Big Bend* could apply.[121] Of the ten states with the highest marketed production of natural gas in 2018, FERC has identified three existing LNG export terminals with a combined export capacity of 5.65 Bcf/d.[122] Additionally, FERC has approved twelve projects in these states with a combined export capacity of 21.74 Bcf/d.[123] Furthermore, an additional eleven projects have been proposed to FERC.[124]

IV. CONCLUSION

In *Big Bend*, the D.C. Circuit resolved a number of jurisdictional questions relating to interstate and intrastate natural gas pipelines and export facilities.[125] The Trans-Pecos Pipeline is not subject to FERC jurisdiction because it is a purely intrastate pipeline that "initially will only transport natural gas produced in Texas and received from other Texas intrastate pipelines or Texas processing plants."[126] Additionally, if the pipeline provides services under section 311 of the NGPA in the future, it will not trigger section 7.[127] Furthermore, FERC appropriately excluded the Trans-Pecos Pipeline from its NEPA review. First, the pipeline and export facility were not "connected actions," as to subject the entire pipeline to NEPA review.[128] Second, FERC's involvement in authorizing the export facility did not "federalize" the Trans-Pecos Pipeline for jurisdictional purposes because "judicial review of NEPA claims must address actions by the

119. U.S. ENERGY INFO. ADMIN., U.S. LIQUEFIED NATURAL GAS EXPORT CAPACITY TO MORE THAN DOUBLE BY END OF 2019 (Dec. 10, 2018), https://www.eia.gov/todayinenergy/detail.php?id=37732.

120. 15 U.S.C. § 717f(a).

121. *Big Bend*, 896 F.3d 418.

122. U.S. ENERGY INFO. ADMIN., RANKINGS: NATURAL GAS MARKETED PRODUCTION, 2018 (Jan. 31, 2020), https://www.eia.gov/dnav/ng/ng_prod_sum_a_EPG0_VGM_mmcf_a.htm; FED. ENERGY REG. COMM'N, NORTH AMERICAN LNG EXPORT TERMINALS EXISTING (Feb. 5, 2020), https://www.ferc.gov/industries/gas/indus-act/lng/lng-existing-export.pdf.

123. U.S. ENERGY INFO. ADMIN., *supra* note 121.

124. FED. ENERGY REG. COMM'N, NORTH AMERICAN LNG EXPORT TERMINALS PROPOSED (Feb. 5, 2020), https://www.ferc.gov/industries/gas/indus-act/lng/lng-proposed-export.pdf.

125. *See generally Big Bend*, 896 F.3d 418.

126. 157 F.E.R.C. ¶ 61,081 at P 9.

127. 155 F.E.R.C. ¶ 61,140; 157 F.E.R.C. ¶ 61,081.

128. 155 F.E.R.C. ¶ 61,140; 157 F.E.R.C. ¶ 61,081; *see also Sierra Club*, 803 F.3d at 49-50.

federal government."[129] The Trans-Pecos Pipeline, as a purely intrastate pipeline, transporting natural gas produced only within Texas, and subject to the control of the RRCT, is not subject to federal jurisdiction solely because it connects to a federally controlled export terminal. While BBCA declined to file an appeal to the Supreme Court, it can be expected that jurisdictional questions regarding natural gas pipelines will only increase as the industry continues to grow.

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129. *Big Bend*, 896 F.3d 418; *see also* 5 U.S.C. § 704; *see also* 5 U.S.C. § 701(b)(1).

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