

EDITOR-IN-CHIEF'S PAGE

For many decades concerns over the rate treatment of long-lived investments have been governed by FERC's policies on intergenerational equity. "Intergenerational equity," FERC has stated, "is the fair distribution of the costs and benefits of a long-lived project when those costs and benefits are borne by different generations' project users."¹ But its focus generally has been on the potential inequity of requiring the current generation of ratepayers to fund investments that will primarily benefit future customers.² Today we face a far different intergenerational inequity – the extent to which this generation's failure to invest in facilities that could mitigate the effects of climate change could force future ratepayers to bear the costs of the current generation's underinvestment.

What prompts this concern? Just consider what we've seen since the last edition of the Journal was released.

On August 7, 2021, the UN's Intergovernmental Panel on Climate Change released a report that produced an unnerving two-fold conclusion: The world has already passed the tipping point – no matter what we do we will face unavoidable and serious climate change impacts that we -- humans – have already caused. Only if we act now, the report adds, will we have the hope to avoid a complete climate catastrophe. Here are its key findings:

- It is unequivocal that human influence has warmed the atmosphere, ocean and land. Widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred.
- Many changes due to past and future greenhouse gas emissions are irreversible for centuries to millennia, especially changes in the ocean, ice sheets and global sea level.
- Global surface temperature will continue to increase until at least the mid-century under all emissions scenarios considered. Global warming of 1.5°C and 2°C will be exceeded during the 21st century unless deep reductions in carbon dioxide (CO₂) and other greenhouse gas emissions occur in the coming decades.³

An article in the September 26, 2021 edition of the journal *Science*, *Intergenerational inequities in exposure to climate extremes*, further highlights these problems. The work of twenty-eight scientists, the article finds that children born in this decade will live through three times as many climate disasters as their grandparents -- including twice as many wildfires, more than three times as

1. *BP Pipelines (Alaska) Inc.*, 125 FERC ¶ 61,215 at P 18 n.16 (2008), *aff'd sub nom.* Flint Hills Res. Alaska, LLC v. FERC, 627 F.3d 881 (D.C. Cir. 2010).

2. *Syst. Energy Res., Inc.*, 96 FERC ¶ 61,165 at p. 61742 (2001).

3. IPCC, 2021: Summary for Policymakers. In: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Masson-Delmotte, V., P. Zhai, A. Pirani, S. L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M. I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T. K. Maycock, T. Waterfield, O. Yelekçi, R. Yu and B. Zhou (eds.)]. Cambridge University Press. In Press.

many river floods and two and a half times as many crop failures. And, their study finds, the inequities are themselves spread disproportionately. Over half of the greenhouse gases now in the atmosphere have been added in the last thirty years, mostly by developed countries. Yet the impact will be felt most by those living in the poorest nations. Compared to their pre-industrial ancestors, the youngest sub-Saharan Africans can expect a fifty-fold increase in the frequency of heat waves.

Finally, an October 12th story in the Washington Post recounts the sobering conclusion of a study appearing in the journal *Nature Climate Change*⁴: “at least 85 percent of the global population has experienced weather events made worse by climate change.” The study, an analysis of over 100,000 climate change studies, concludes that climate change has affected “80 percent of the world’s land area.”⁵ We’ve seen this with our own eyes in just the last few months.

- On June 29th the temperature in Lytton, British Columbia – a small town located eighty miles *north* of Vancouver -- reached 121 degrees Fahrenheit, hotter than the highest temperature ever recorded in Las Vegas. Days later, Lytton was virtually destroyed by wildfires, the cause of which is still under investigation.
- In August -- for the first time in recorded history – rain fell at the highest point on the Greenland ice sheet. As a CNN report pointed out, in the prior month Greenland had already lost 8.5 billion tons of ice in one day – “enough to submerge Florida in two inches of water.”⁶
- A monitoring station in Sicily reported a temperature of 120 degrees Fahrenheit on August 11th - the hottest day ever recorded in Europe. That same day Russia was fighting over 190 wildfires across Siberia, covering an area larger than the fires in Greece, Turkey, Italy, the United States and Canada combined.
- Seventeen inches of rain fell in Waverly, Tennessee on a single day - Saturday, August 21st, resulting in flash flooding. As Washington Post reporter Sarah Kaplan described it, “Tennessee’s flash floods underscore the peril climate change poses even in inland areas.”⁷ Citing data from FEMA, she noted that “[i]nland flooding is the leading cause of death associated with tropical cyclones in the past 50 years” and that “damage from inland floods costs more than any other severe weather event.”⁸

4. Max Callaghan et al., *Machine-learning-based evidence and attribution mapping of 100,000 climate impact studies*, NATURE CLIMATE CHANGE (Oct. 2021), https://www.nature.com/articles/s41558-021-01168-6.epdf?sharing_token=_9H48QapWMno-nt2WwqvzNRgN0jAjWl9jnR3ZoTv0PwAcRfhcouplk0A95eY8_-lUvstnryl-SR9UalsiFOg-w-sDdhuWJHxx39U7Z_9mOCeWTIgnk-7LkNTsLYd2qZ5_zt5YhTDE6WOUkRO83z-tYhnnXusDZChTwM43UoaaP2vnzuE0TkzLjU_36EGQiaq6onKy0zkeCSA5ajVBVtsoQXMvdJqn3K64hiK30ois%3D&tracking_referrer=www.washingtonpost.com.

5. Annabelle Timsit & Sarah Kaplan, *At least 85 percent of the world’s population has been affected by human-induced climate change, new study shows*, WASH. POST, (Oct 12, 2021), <https://www.washingtonpost.com/climate-environment/2021/10/11/85-percent-population-climate-impacts/>.

6. Rachel Ramirez, *Rain fell at the normally snowy summit of Greenland for the first time on record*, CNN (Aug 19, 2021), <https://www.cnn.com/2021/08/19/weather/greenland-summit-rain-climate-change/index.html>.

7. Sarah Kaplan, *Tennessee floods show a pressing climate danger across America: ‘Walls of water’*, WASH. POST (Aug. 23, 2021), <https://www.washingtonpost.com/climate-environment/2021/08/23/tennessee-floods-show-pressing-climate-danger-across-america-wall-water/>.

8. *Id.*

- Late that same month, Ida, a category 4 hurricane, made landfall in the Caribbean, causing enormous destruction from Venezuela to Nova Scotia well into October. On the 16th anniversary of Hurricane Katrina, Ida hit Louisiana again. Residents of New Orleans lost power for nearly a month, and, in addition to the billions in property damages, ninety-five persons in the U.S. lost their lives, some, in New York and in Rockville, Maryland (only miles from the ELJ's offices), were drowned to death in their basements.
- On Tuesday, September 7th, "Death Valley reached 122 degrees, the hottest temperature ever recorded this late in the calendar year anywhere in the world."⁹

These events and others like them have real world implications for utility regulatory policy. The Energy Information Administration reports that the average duration of power outages has doubled in the last few years, "largely as a result of higher numbers of hurricanes, wildfires, and severe storms."¹⁰ What regulators, legislators and other policymakers can do to mitigate the magnitude of these changes on utility ratepayers will be important to reduce the potential intergenerational inequities I mentioned at the outset of these remarks. This is a topic that will be explored in future editions of this Journal. In the meantime, the Journal is planning its first ever symposium to discuss the topic. It will feature a panel of experts – scientists, engineers and those involved in policy, to discuss these issues. The symposium, to be held in January, will be transcribed and included in the next edition of the Journal.

I would be remiss not to mention another defining feature of this young decade. The COVID pandemic is still an unfortunate fact in our lives. I had hoped that by now, at least in the U.S. where we have enough vaccines to inoculate the entire population twice over, we'd have largely emerged from the COVID-19 pandemic. But that is not the case. We've now lost over three quarters of a million persons to COVID in the U.S. -- substantially more than the entire population of Wyoming – in the manmade crisis that the President has called an epidemic of the unvaccinated. In Montgomery County Maryland, where I reside, the CDC reports that over 99% of all residents 12 years and older have received at least one COVID shot. But our experience is unfortunately not typical. Beyond all logic, and after the worldwide virtually incident-free administration of more than a billion vaccine doses, millions of Americans have shunned COVID vaccines as somehow inadequately tested. Yet some – at the bare suggestion of wholly unqualified pundits and against all medical advice – are nonetheless willing to resort instead to the use of ivermectin to prevent COVID. Ivermectin is a medication used primarily to treat parasites in livestock – and it is being taken by human beings in doses only intended for animals. For members of the bar association this insanity and broader reflexive opposition to the vaccine have meant that we have once again had to conduct our mid-year and annual meetings virtually. And for the Journal, it means that nearly all of the work of the authors, peer review editors, student editors and EBA staff has been done remotely. But, as I think you'll agree, it has not stopped us from reaching our semi-annual goal -- producing a volume of practical scholarship. Many thanks go to Michael Campbell, the student Editor-in-Chief and EBA CEO Lisa Levine, and their respective staff members for pulling off this difficult feat. Here's hop-

9. Jason Samenow & Diana Keonard, *Summer Heat not felt since Dust Bowl wilts West*, WASH. POST, September 10, 2021, at A2.

¹⁰ Anodyne Lindstrom & Sara Hoff, *U.S. customers experienced an average of nearly six hours of power interruptions in 2018*, U.S. ENERGY INFO. AGENCY (June 1, 2020), <https://www.eia.gov/todayinenergy/detail.php?id=49556>. <https://www.eia.gov/todayinenergy/detail.php?id=43915>.

ing that in producing future editions we will not face the same challenges. And here's also wishing a fulfilling retirement to Lisa Levine, who has given the EBA a decade of dedicated and outstanding service.

Let me close on a personal note. I'm reminded that some inequities are not intergenerational, but traverse generations. While the ravages of climate change and the pandemic are wreaking havoc with so many lives at least one thing has remained constant: the ineptitude of the Detroit Lions. Winners of but one playoff game in the last sixty-four years – that one win now thirty years ago – the Lions have somehow made rare ways to lose commonplace. More than fifty years ago (when I was a much younger Lions fan) the Lions lost a game to the New Orleans Saints on what was then a record-breaking 63-yard field goal as time expired. In the first five games of this season the Lions accomplished what no other team in NFL history has done over an entire season: lost two games on 50+ yard game-ending field goals. The first of these was on a new record-breaking 66-yard field goal by the Baltimore Ravens kicker, the second a mere 54-yarder. Rest assured, however, that this long-suffering fan will not let these events affect the work of the Journal.

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