

HOW POLITICAL RISK ASSOCIATED WITH CLIMATE CHANGE IS IMPACTING PIPELINE CONSTRUCTION AGREEMENTS

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Synopsis: For those who believe that fossil fuels are an imminent danger to the planet, the merits of natural gas and oil pipelines are outweighed by their contributions to carbon emissions. In their view, new pipelines should be opposed because they perpetuate the Nation’s reliance on fossil fuels. This means that the already complex process of designing, permitting, and constructing pipelines must now also navigate the forces of climate change politics.

The first half of this article describes how the electorate’s evolving views on carbon emissions increasingly threaten pipeline construction. While Americans remain evenly divided about the risk of global warming, about two-thirds of Democrats regard climate change as a serious threat. This bloc of fervent voters is wielding considerable influence in the Democratic Party—making carbon emissions an ever-higher priority for its elected officials. Climate voters also have turned to ballot initiatives. Energy companies may have breathed a sigh of relief when 57% of Colorado voters defeated a 2018 proposition that would have banned pipeline construction across much of the state, but the outcome may be different in future elections.

While pipeline owners cannot control the electorate, they can fast-track projects to minimize the amount of time investments are exposed to such political risks. Fast-tracking usually requires construction contractors to enter into agreements (and even commence building) prior to obtaining full information about critical elements of design, engineering, permitting, and right-of-way. As such, fast-tracking is not conducive to traditional, lump sum contracts—wherein the parties, early on, agree on a fixed price for building the entire pipeline—because no one can accurately estimate what that price will be. Instead, pipeline owners and their contractors enter into agreements that reimburse the contractors’ actual costs plus an agreed upon profit. The second half of this article explores the principal contracting challenges that exist within such cost reimbursable arrangements and how they can be mitigated with specialized terms and conditions.

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I. INTRODUCTION

“We believe America must be running entirely on clean energy by mid-century.”¹ – The 2016 Democratic Platform.

About 45% of Americans believe that “[g]lobal warming will pose a serious threat in their lifetime.”² When respondents are asked about their political party affiliation, the percentages noticeably shift. There is a 49-point gap between Republican and Democratic respondents.³ While 67% of Democrats view global warming as a serious threat, only 18% of Republicans share this sentiment.⁴ Polarization of the two Parties’ views on climate change sets the stage for substantially different energy policies.

The first half of this article describes how pipeline projects are increasingly vulnerable to climate change politics:

1. *Party Platform*, OFFICIAL WEBSITE OF THE DEMOCRATIC PARTY, <https://democrats.org/about/party-platform/> (last visited Oct. 24, 2018) [hereinafter *Democratic Platform*].

2. Megan Brenan & Lydia Saad, *Global Warming Concern Steady Despite Some Partisan Shifts*, GALLUP (Mar. 28, 2018), <https://news.gallup.com/poll/231530/global-warming-concern-steady-despite-partisan-shifts.aspx>.

3. *Id.*

4. *Id.*

“Activists . . . want to keep fossil fuels in the ground where they won’t contribute to climate change. Blocking construction of infrastructure, such as pipelines, is one way of doing that. If gas can’t get to market no one will drill for it.”⁵

President Obama cited this concern when he blocked the Keystone XL pipeline,⁶ and Colorado voters recently defeated a ballot proposition (57%-43%) that would have banned pipeline construction across most of the state.⁷ New pipeline facilities are likely to face similar challenges in the future.

While pipeline owners cannot control the electorate, they can fast-track projects to minimize the amount of time investments are exposed to such political risks. Fast-tracking usually requires construction contractors to enter into agreements, and even commence building, prior to obtaining full information about critical elements of design, engineering, permitting, and right-of-way. As such, fast-tracking is not conducive to traditional, lump sum contracts—wherein the parties, early on, agree on a fixed price for building the entire pipeline. After all, what contractor is going to commit to a price before having an opportunity to thoroughly estimate the costs for exactly what needs to be built?

Instead, pipeline owners and their contractors enter into various types of cost reimbursable construction agreements, which typically can be negotiated more quickly, and enable construction to commence sooner, than lump sum contracts. The second half of this article explores the principal contracting challenges that exist with increased industry use of cost reimbursable arrangements. These include: (i) what types of costs should be reimbursed (and which should appropriately be borne by the contractor); (ii) whether the contractor’s fee or profit should be calculated as a percentage of actual costs (or be a fixed dollar amount); (iii) incentivizing the contractor with adjustments to its fee based on cost or schedule performance; (iv) capping reimbursable costs with an absolute ceiling; (v) the ease with which the owner can replace the contractor; (vi) how prices for underground obstructions should be calculated; and (vii) which party bears the risk for failed bores and drills. This article offers examples of specialized terms and conditions that are being developed by the industry to better manage these risks.

II. THE POLITICALIZATION OF PIPELINE PROJECTS

Climate change has become a major political issue in the United States. Former President Barack Obama spoke often on the issue, once stating: “[c]limate change is no longer some far-off problem; it is happening here, it is happening

5. Jeff Brady, *Activists Have A New Strategy To Block Gas Pipelines: State’s Rights*, NATIONAL PUBLIC RADIO (Aug. 20, 2018), <https://www.npr.org/2018/08/20/639610491/activists-have-a-new-strategy-to-block-gas-pipelines-states-rights>.

6. Coral Davenport, *Citing Climate Change, Obama Rejects Construction of Keystone XL Oil Pipeline*, THE NEW YORK TIMES (Nov. 6, 2015), <https://www.nytimes.com/2015/11/07/us/obama-expected-to-reject-construction-of-keystone-xl-oil-pipeline.html>.

7. Scott Weiser, *Threat of Prop 112 is Already Affecting Oil and Gas Development in Colorado*, THE COMPLETE COLORADO (Nov. 3, 2018), <https://pagetwo.completecolorado.com/2018/11/03/threat-of-prop-112-is-already-affecting-oil-and-gas-development-in-colorado/>.

now,” and “[t]here’s one issue that will define the contours of this century more dramatically than any other . . . the urgent threat of a changing climate.”⁸

Yet a majority of Americans “think that climate change won’t affect them personally” and “perceive climate change as a distant problem.”⁹

Polling data shows a strong correlation between the political party affiliation of respondents and their positions on climate change, with Democrats being increasingly concerned and Republicans remaining skeptical.¹⁰ A Pew poll asked whether the “Earth is warming mostly due to human activity.”¹¹ While only 15% of conservative Republicans agreed with the statement, 79% of liberal Democrats did.¹² A smaller but substantial division of 29 percentage points remained between moderate/liberal Republicans and moderate/conservative Democrats (34% and 63%, respectively).¹³

Even those Republicans who believe climate change to be human-caused are skeptical of government solutions, such as regulations, subsidies, and carbon taxes. “Nearly eight in 10 Republicans believe that, ‘when something is run by the government, it is usually inefficient and wasteful’ . . . while just 41 percent [of Democrats] said the same thing in recent numbers.”¹⁴ Such differences have resulted in vastly different political platforms on climate change policy.

A. *The Political Parties’ Opposing Positions on Climate Change*

1. Democratic Party Platform

The Democratic Platform declares that “[c]limate change is an urgent threat and a defining challenge of our time.”¹⁵ It contains an emotional call for action:

Fifteen of the 16 hottest years on record have occurred this century. While Donald Trump has called climate change a ‘hoax,’ 2016 is on track to break global temperature records once more. Cities from Miami to Baltimore are already threatened by rising seas. California and the West have suffered years of brutal drought. Alaska has been scorched by wildfire. New York has been battered by superstorms, and Texas swamped by flash floods. The best science tells us that without ambitious, immediate action across our economy to cut carbon pollution and other greenhouse

8. José Santiago, *15 Quotes on Climate Change by World Leaders*, WORLD ECONOMIC FORUM (Nov. 27, 2015), <https://www.weforum.org/agenda/2015/11/15-quotes-on-climate-change-by-world-leaders/>.

9. Alessandra Potenza, *About Half of Americans Don’t Think Climate Change Will Affect Them—Here’s Why*, THE VERGE (Mar. 29, 2018), <https://www.theverge.com/2018/3/29/17173166/climate-change-perception-gallup-poll-politics-psychology> (quoting Anthony Leiserowitz, director of the Yale Program on Climate Change Communication).

10. Cary Funk & Brian Kennedy, *The Politics of Climate*, PEW RESEARCH CENTER (Oct. 4, 2016), <http://pewinternet.org/2016/10/04/the-politics-of-climate/>.

11. *Id.*

12. *Id.*

13. *Id.*

14. Chris Cillizza & Aaron Blake, *Do Republicans Hate Government? Kind of*, THE WASHINGTON POST (June 7, 2012), https://www.washingtonpost.com/blogs/the-fix/post/do-republicans-hate-government-kind-of/2012/06/07/g1QAqCNpKV_blog.html?noredirect=on&utm_term=.f8774e199878.

15. *Democratic Platform*, *supra* note 1.

gases, all of these impacts will be far worse in the future. We cannot leave our children a planet that has been profoundly damaged.¹⁶

The ultimate outcome sought by the Democratic Platform is that “America must be running entirely on clean energy by mid-century.”¹⁷ To achieve that end, the Democratic Platform advocates a wide range of energy policies that make fossil fuels more expensive to produce and consume—relative to renewable energy sources—including:

- (i) installation of “half a billion solar panels within four years”;
- (ii) “energy efficiency improvements”;
- (iii) “vehicle electrification”;
- (iv) “eliminating special tax breaks and subsidies for fossil fuel companies”;
- (v) “defending and extending tax incentives for energy efficiency and clean energy”;
- (vi) increasing the pricing of “carbon dioxide, methane, and other greenhouse gases . . . to reflect their negative externalities”;
- (vii) a “Clean Power Plan”;
- (viii) “fuel economy standards”;
- (ix) allowing the Environmental Protection Agency to “regulate hydraulic fracturing”; and
- (x) “reject[ing] the Keystone XL pipeline.”

All of these, the Democratic Platform argues, reflect a “comprehensive approach that ensures all federal decisions going forward contribute to solving, not significantly exacerbating, climate change.”¹⁸ This means that “the climate challenge must also be reflected in the infrastructure investments we make.”¹⁹

2. Republican Party Platform

The Republican Party’s 2016 platform (the “Republican Platform”) offers a market-based energy policy.²⁰ It describes the Democratic Party’s position on climate change as “the triumph of extremism over common sense.”²¹ In contrast, Republicans “support the development of all forms of energy that are marketable in a free economy without subsidies, including coal, oil, natural gas, nuclear power, and hydropower.”²² Consistent with Republicans’ skepticism of government, the Republican Platform “encourage[s] the cost-effective development of renewable energy sources—wind, solar, biomass, biofuel, geothermal, and tidal

16. *Id.*

17. *Id.*

18. *Id.*

19. *Id.*

20. GOP, REPUBLICAN PLATFORM 2016 20 (2016), https://prod-cdn-static.gop.com/media/documents/DRAFT_12_FINAL%5B1%5D-ben_1468872234.pdf.

21. *Id.*

22. *Id.*

energy—by private capital.”²³ It “oppose[s] any carbon tax,” which “would increase energy prices across the board.”²⁴

Renewable forms of energy must compete in the open market with fossil fuels. Americans who are concerned about climate change can choose, as individuals, to pay more for clean energy. The Republican Party is not going to enact energy policies that seek to reduce the consumption of fossil fuels.

3. Where Do Independents Stand?

Independents are generally split on their views of global warming.

Question	Party Affiliation	2017 Percentage	2018 Percentage
Think the seriousness of global warming is generally exaggerated	Republican	66%	69%
	Independent	32%	34%
	Democrat	10%	4%
Worry a great deal/fair amount about global warming	Republican	36%	33%
	Independent	67%	62%
	Democrat	90%	91%

Figure 1. Comparison of responses of independents to those of Democrats and Republicans.²⁵

While the above data indicates that independents are more likely to identify with Democratic views on climate change, the trend between 2017 and 2018 shows some movement in the direction of Republicans.

B. How Climate Change Political Risk Impacts Pipeline Construction

For many climate change activists, oil and gas pipelines are unacceptable because their merits are outweighed by expected contributions to carbon emissions. As President Obama explained when rejecting the Keystone XL pipeline, “America is now a global leader when it comes to taking serious action to fight climate change. And frankly, approving this project would have undercut that global leadership.”²⁶ Viewed through this lens, the approval of new pipeline construction

23. *Id.*

24. *Id.*

25. Megan Brenan & Lydia Saad, *Global Warming Concern Steady Despite Some Partisan Shifts*, GALLUP (Mar. 28, 2018), <https://news.gallup.com/poll/231530/global-warming-concern-steady-despite-partisan-shifts.aspx>.

26. Barack Obama, *Statement by the President on the Keystone XL Pipeline*, THE WHITE HOUSE OFFICE OF THE PRESS SECRETARY (Nov. 6, 2015), <https://obamawhitehouse.archives.gov/the-press-office/2015/11/06/statement-president-keystone-xl-pipeline>.

projects becomes increasingly dependent on the approver's views regarding climate change. Activists also are increasingly targeting state and local governments in their efforts to limit fossil fuels and the pipelines that transport them.²⁷

1. Impact of Climate Change Politics on Federal Regulation of Pipeline Construction

A critical battleground in the approval of infrastructure projects is the Federal Energy Regulatory Commission (FERC). FERC “regulates the interstate transmission of electricity, natural gas, and oil.”²⁸ The agency is led by five commissioners appointed by the President of the United States and confirmed by the United States Senate—however, not more than three commissioners can belong to the same political party.²⁹ That being said, there is nothing to prevent a Democratic President from appointing a Republican who advocates climate change regulations, or a Republican President from selecting a Democrat who is skeptical of climate change.

While FERC's authority over pipeline construction only extends to natural gas pipelines—not oil pipelines³⁰—there are about 3 million miles of American natural gas pipelines³¹ versus only about 200,000 miles of petroleum pipelines.³² New natural gas pipelines (including replacements and upgrades of existing systems) must apply for and obtain a certificate of public convenience and necessity under Section 7 of the Natural Gas Act.³³ While FERC has routinely granted Section 7 certificates and “has rejected only two out of the approximately 400 pipeline applications received since 1999,”³⁴ FERC's approval of Section 7 permits has become a focal point for climate activists.³⁵

27. Justin Worland, *The Dakota Access Pipeline Fight is the Future of Environmental Activism*, TIME (Dec. 1, 2016), <http://time.com/4586218/dakota-access-pipeline-keystone-2017/>.

28. FED. ENERGY REGULATORY COMM'N, ABOUT FERC (Aug. 10, 2018), <https://www.ferc.gov/about/ferc-does.asp?cst=8440443661759368005>.

29. Lawrence R. Greenfield, *An Overview of the Federal Energy Regulatory Commission and Federal Regulation of Public Utilities*, FEDERAL ENERGY REGULATORY COMMISSION (May 2017), <https://www.ferc.gov/about/ferc-does/ferc101.pdf>.

30. The construction of oil pipelines is regulated primarily by state governments, and “no federal law establishes a specific approval process for the siting of pipelines that would transport crude oil within the borders of the United States.” Brandon J. Murrill, *Pipeline Transportation of Natural Gas and Crude Oil: Federal and State Regulatory Authority*, CONGRESSIONAL RESEARCH SERVICE 7 (Mar. 28, 2016), <https://fas.org/sgp/crs/misc/R44432.pdf>.

31. U.S. ENERGY INFO. ADMIN., NATURAL GAS EXPLAINED (Nov. 21, 2017), http://www.eia.gov/energyexplained/index.php?page=natural_gas_pipelines.

32. ASS'N OF OIL PIPELINES, U.S. LIQUIDS PIPELINE USAGE & MILEAGE REPORT (Oct. 2014), <https://www.api.org/~media/files/oil-and-natural-gas/pipeline/whats-new/us-liquids-pipeline-usage-mileage-report-oct-2014.pdf>.

33. Natural Gas Act, 15 U.S.C. § 717f(c)(1)(A) (1988).

34. Steve Horn, *FERC, Which Rejected 2 Gas Pipelines Out of 400 Since 1999, to Review Approval Policy*, ECOWATCH (Dec. 26, 2017), <https://www.ecowatch.com/ferc-approval-process-2520084281.html>.

35. Ellen M. Gilmer, *PIPELINES: FERC and climate change: Where are we now?*, EENews (June 5, 2018), <https://www.eenews.net/stories/1060083465>.

As part of the Section 7 process, FERC must prepare an environmental impact statement (EIS) pursuant to the National Environmental Policy Act of 1969 (NEPA).³⁶ NEPA requires that the EIS address each “major action[] significantly affecting the quality of the human environment.”³⁷ In *Sierra Club v. FERC*, the U.S. Court of Appeals for the D.C. Circuit reversed and remanded a FERC decision for failing to adequately address the extent to which a natural gas pipeline would contribute to carbon emissions:

It’s not just the journey, though, it’s also the destination. All the natural gas that will travel through these pipelines will be going somewhere: specifically, to power plants in Florida, some of which already exist, others of which are in the planning stages. Those power plants will burn the gas, generating both electricity and carbon dioxide. And once in the atmosphere, that carbon dioxide will add to the greenhouse effect, which the EIS describes as ‘the primary contributing factor’ in global climate change. . . . The next question before us is whether, and to what extent, the EIS for this pipeline project needed to discuss these ‘downstream’ effects of the pipelines and their cargo. We conclude that at a minimum, FERC should have estimated the amount of power-plant carbon emissions that the pipelines will make possible.³⁸

The *Sierra Club* case raises questions about whether future gas pipelines will be approved as easily as in the past.³⁹ The plaintiff described the decision as “a significant victory for pipeline opponents, with far-reaching consequences for gas pipelines and other fossil fuel projects that require federal approval.”⁴⁰ The *Fourth National Climate Assessment (Volume II: Impacts, Risks, and Adaptation in the United States)* further complicates Section 7 applications in the wake of *Sierra Club*, with its prognosis that “[c]limate change creates new risks and exacerbates existing vulnerabilities across the United States, presenting growing challenges to human health and safety, quality of life and the rate of economic growth.”⁴¹

If a majority of FERC’s commissioners share the beliefs of the Democratic Platform, then FERC could deny more Section 7 applications on the basis of climate change. Whether or not an application succeeds may depend on whether its emissions impact can be viewed as insignificant—or the extent that it displaces higher emission fossil fuels. Obama-appointed FERC Commissioner Cheryl LaFleur indicated in a recent concurring opinion:

Using a methodology developed by the Environmental Protection Agency (EPA) to estimate the downstream GHG emissions from the project, and assuming all of the gas to be transported is eventually combusted, 200,000 Dth/d of natural gas service would result in the emission of approximately 3.7 million metric tpy of CO₂e. This is an upper bound estimate because some of the gas may displace fuels (i.e., fuel oil

36. National Environmental Policy Act of 1969, 42 U.S.C. § 4332(1)(C) (1970).

37. *Id.*

38. *Sierra Club v. FERC*, 867 F.3d 1357, 1371 (D.C. Cir. 2017).

39. *Id.*

40. Elly Benson, *In Major Climate Decision, D.C. Circuit Rejects Federal Approval of Sabal Trail Pipeline*, SIERRA CLUB (Aug. 28, 2017), <https://www.sierraclub.org/planet/2017/08/sabal-trail-pipeline-FERC-fracked-gas-pipeline>.

41. U.S. GLOB. CHANGE RESEARCH PROGRAM, *FOURTH NATIONAL CLIMATE ASSESSMENT: IMPACTS, RISKS, AND ADAPTATION IN THE UNITED STATES* (2018), <https://nca2018.globalchange.gov/>.

and coal) meaning that the combustion of gas could result in lower total CO₂e emissions. The 3.7 million tons of GHG emissions from downstream use would result in at most a 5.7% increase in GHG emissions from fossil fuel combustion in Mississippi, and less than 0.1% increase nationally.⁴²

2. Impact of Climate Change Politics on State and Local Regulation of Pipeline Construction

Pipeline owners also face the prospect of challenges at the state and local levels.

More concerning . . . are the actual regulatory and legal mechanisms that can be used to bog down, and even ultimately stop, even those proposed pipelines already under construction. Pipeline opponents have perfected regulatory and legal strategies in recent years, challenging every state and federal permit, often flooding dockets with thousands of extraneous comments, saddling licenses and permits with potentially unachievable conditions, stressing ‘potential’ climate-related impacts, and generally utilizing any and all means and methods to fight against new infrastructure projects.⁴³

In August 2017, the New York State Department of Environmental Conservation denied an application from Millennium Pipeline Company, L.L.C. “on the grounds that FERC’s environmental review of the project was ‘inadequate and deficient’ because the FERC’s EA failed to consider downstream greenhouse gas (GHG) emissions from Millennium’s electric generator shipper.”⁴⁴ In doing so, the Department cited and relied upon the reasoning set forth in *Sierra Club v. FERC*.⁴⁵ How state agencies and courts incorporate carbon into their evaluation of pipeline challenges also may depend on whether the decision-makers are Democrats or Republicans.

Then there is the threat of ballot initiatives. In 2018, climate activists succeeded in placing an initiative before Colorado voters that would have enacted a widespread ban on pipeline construction.⁴⁶

[T]he proposition could make it functionally impossible to produce any oil or gas at all because the definition of ‘oil and gas development’ explicitly includes ‘flowlines,’ which by industry definition are what are used to move oil and gas from the well head to the midstream processing facilities. It’s impossible to build pipelines from many well heads to a few processing plants that can avoid every possible ‘sensitive area’ as defined in the Proposition by 2,500 feet. If you can’t route pipelines across rivers, under irrigation canals or past reservoirs, lakes, or even intermittent streams, there’s no point in drilling wells.⁴⁷

42. Concurring Opinion of Commissioner LaFleur, *Tennessee Gas Pipeline Company, reh’g denied*, 163 F.E.R.C. ¶ 61,190 (2018).

43. Brigham A. McCown, *Are New Pipeline Infrastructure Projects Doomed?*, FORBES (Apr. 4, 2018), <https://www.forbes.com/sites/brighamccown/2018/04/04/are-new-pipeline-infrastructure-projects-doomed/#6ddd2d6a52b0>.

44. THOMAS BERKMAN, N.Y. STATE DEP’T OF ENVTL. CONSERVATION, VALLEY LATERAL PROJECT NOTICE OF DECISION (2017).

45. *Id.*

46. Greg Avery, *Voters Reject Oil Well Setbacks as Colorado’s Proposition 112 Defeated*, DENV. BUS. J. (Nov. 16, 2018), <https://bizjournals.com/denver/news/2018/11/06/colorado-prop-112-defeated.html>.

47. Weiser, *supra* note 7.

While Colorado voters defeated Proposition 112 by a comfortable 57%-43% vote,⁴⁸ similar measures may appear in other communities and states.

III. CONTRACTING STRATEGIES FOR FAST-TRACK PIPELINE PROJECTS

Based on the reasoning in the Democratic Platform and *Sierra Club*, pipeline projects are likely to meet increasing resistance on the basis that they contribute to climate change. Even when a permit is granted, court challenges may result in the permit being reversed—or at least returned to the regulatory agency for further consideration.⁴⁹ These risks, along with state and local legislation, ordinances, and initiatives, have the potential to create limited windows of time for pipeline construction, which can open or close based on the results of elections and regulatory or judicial challenges.

Accordingly, pipeline owners should be prepared to fast-track construction as soon as they receive the required permits. Doing so may require a shift in the owner's contracting strategy that treats all pipeline projects as "fast-track."⁵⁰

With the traditional design-bid-build process, a complete set of construction documents and specifications describes what the builder agrees to build and serves as the heart of the contract. On Fast-Track projects, the design, construction documents and specifications are incomplete, so setting the final cost presents problems. To deal with this difficulty, owners typically use a cost-reimbursable contract with the builder (a construction manager or a general contractor).⁵¹

In addition to cost reimbursable agreements, owners and their construction contractors also may enter into unit price agreements, pursuant to which they fix the prices for various types of work without knowing the quantity of work (how many units) will be needed. While these alternative contracting structures can speed a pipeline's completion, they carry their own set of risks.

A. Cost Reimbursable Construction Agreements

A cost reimbursable agreement requires the pipeline owner to pay for the cost of labor (time) and materials incurred by the contractor, plus an amount for the contractor's overhead and profit.⁵² The practical effect of this approach—compared to lump sum arrangements—is that it shifts the risk of cost overruns to the pipeline owner. There are several ways that the owner can mitigate the risk of cost overruns, including:

- (i) carefully drafting the definition of reimbursable cost;
- (ii) fixing the contractor's profit;
- (iii) creating formulaic adjustments to profit based on targets;
- (iv) price ceilings, beyond which the contractor is at risk; and

48. Avery, *supra* note 46.

49. See generally *Sierra Club v. U.S. Dep't of the Interior*, 899 F.3d 260 (4th Cir. 2018).

50. Note that the use of cost reimbursable agreements to fast-track projects is common across all forms of construction.

51. *Fast-track Construction*, WIKIPEDIA, https://en.wikipedia.org/wiki/Fast-track_construction (last visited Feb. 18, 2018).

52. DON PHILPOTT & SCOTT P. COOK, GOV'T TRAINING, INC., *MANAGING COST REIMBURSABLE CONTRACTS* 4 (2010).

(v) flexible termination provisions.

Each of the preceding approaches/suggestions can help the pipeline owner advance the project on a faster track than a fixed price, lump sum agreement—while controlling cost overruns.

1. Definition of Reimbursable Costs

The contractor should not be reimbursed for any and all costs that it incurs. There are some costs that are not a consequence of the project's uncertainty—but rather, were of the contractor's own making. For example, when the contractor makes a mistake and has to demolish and rebuild part of its work, the cost of doing so should not be reimbursed by the owner.

As such, one of the most important terms in a cost reimbursable agreement is the definition of “Reimbursable Costs,” which establishes a clear standard for reimbursement.⁵³ An example follows:

‘Reimbursable Costs’ means all of Contractor’s direct costs incurred for Work that is undertaken in accordance with the Scope of Work, the Specifications, Industry Standards, and the other requirements of this Agreement, and without any markup whatsoever. For purposes of clarity, Reimbursable Costs do not include the following items: (a) corporate or office overhead, including rent, utilities, office equipment, and supplies; (b) salaries for executive, legal, accounting, and administrative employees; (c) executive management, safety director, and corporate officer costs; (d) travel expenses, accommodations, vehicles, and per diems for the personnel referenced in (b) and (c) above; (e) insurance premiums, deductibles, and health care and retirement accounts for any salaried employees (except to the extent such items are included in Contractor’s all-inclusive hourly labor rates); (f) bonuses of any kind; (g) financing costs and costs of debt; (h) legal and accounting expenses of any kind; (i) costs of Internet, phone, desk, chair, office equipment, or copier purchase or usage; (j) income taxes; (k) Contractor’s profits; (l) any loss of productivity or loss of efficiency; (m) costs of administering and managing Subcontracts and Subcontractors; (n) Contractor’s contingencies; (o) costs arising from or associated with rejected equipment or materials; (p) costs of rework or repairs to Work when the Company or an inspection determines that the Work was not in accordance with Industry Standards or the other requirements of this Agreement; or (q) amounts paid by Contractor to a Subcontractor in excess of those required by any Subcontract provided to the Company.

First, the definition makes clear that the contractor is not reimbursed for breaches of the agreement or of industry practices. If the work fails an inspection or otherwise has to be redone due to fault of the contractor, then those costs are not reimbursed. Of course, no project is perfect, and even the best contractors will have a small percentage of rework. But rather than allow the contractor to recover rework expenses as part of its Reimbursable Costs, the owner instead should require the contractor to include an estimate of the rework cost (based on industry standards) as part of its profit or fee. This incentivizes the contractor to get its work right the first time.

53. KEITH MOLENAAR ET AL., NEXT-GENERATION TRANSP. CONSTR. MGMT., GUIDEBOOK FOR SELECTING ALTERNATIVE CONTRACTING METHODS FOR ROADWAY PROJECTS: PROJECT DELIVERY METHODS, PROCUREMENT PROCEDURES, AND PAYMENT PROVISIONS app. C.3 (2014).

Second, the definition of Reimbursable Costs seeks to limit the contractor's ability to allocate its overhead and indirect costs to the project. The contractor is only reimbursed for costs incurred for the "work"—not, for example, for training sessions required for its employees' trades. The long list of exclusions also makes clear that there will be no allocations of certain categories of expenses, such as financing costs or annual employee bonuses. All of these costs are instead to be borne by the contractor as part of its fee or profit.

2. Fixing the Contractor's Fee or Profit

The total compensation received by the contractor is the sum of the Reimbursable Cost of the work *plus* a percentage of that cost for its profit and overhead (which we refer to here as the "Fee").⁵⁴ The contractor's Fee is usually either denominated as:

- (i) a percentage of Reimbursable Costs; or
- (ii) a fixed dollar amount.⁵⁵

While a percentage-denominated Fee increases as Reimbursable Costs do, a fixed Fee stays the same.⁵⁶ For example, if the fixed Fee is set at \$10 million, then the contractor receives that same amount whether Reimbursable Costs are \$50 million, \$100 million, or \$200 million—in contrast, a percentage-based Fee of 10% of Reimbursable Costs would range from \$5 to \$20 million in the preceding example. Under a percentage-based Fee, the contractor may have an incentive to run up Reimbursable Costs so that the absolute amount of its Fee is higher. In contrast, under a fixed dollar Fee, the contractor generally is incentivized to get the work done as efficiently as possible—thereby maximizing the value of its Fee.

Whether or not a contractor will agree to a fixed Fee depends on how much uncertainty exists regarding the project. Nonetheless, the consequences of contractors getting a fixed Fee wrong are less severe than underbidding the costs in a lump sum arrangement. Bidding a low Fee just means that one's profit margin is less—whereas underbidding a lump sum can be a recipe for a contractor's bankruptcy.

3. Creating Formulaic Adjustments to Contractor's Profit

Pipeline owners also can tie the amount of the contractor's Fee to performance metrics. The simplest version of this mechanism is to agree on a target price for the cost of the work, such that the contractor's Fee increases to the extent its Reimbursable Costs are less than the target—and decreases to the extent they are more. Formulaic adjustments also can be pegged to any number of other metrics, including completing the work on schedule, the amount of rework that needs to be done, and the number of safety/environmental incidents during construction. Such mechanisms can further align the owners' and contractors' incentives during construction.

54. CHRIS HENDRICKSON ET AL., PROJECT MANAGEMENT FOR CONSTRUCTION: FUNDAMENTAL CONCEPTS FOR OWNERS, ENGINEERS, ARCHITECTS AND BUILDERS 8 (1998).

55. *Id.*

56. *Id.*



Figure 2. Representation of how a formulaic adjustment might work, based on the contractor's Reimbursable Costs being above or below a target cost of \$100,000,000.

For example, if the Reimbursable Costs end up being \$70,000,000, then the Fee receives a multiplier of 1.5X, which increases the Fee from \$15,000,000 to \$22,500,000; if the Reimbursable Costs end up being \$130,000,000, then the Fee receives a multiplier of 0.5X, which decreases the Fee from \$15,000,000 to \$7,500,000. Performance at intermediate points results in greater or lesser multipliers to the Fee. Thus, while even a poor performer gets paid all of its Reimbursable Costs, its profit may be considerably less than one with superior performance.

4. Ceilings on Reimbursable Costs

When material aspects of a project remain uncertain, it is difficult for an owner to impose an absolute ceiling on the reimbursement of Reimbursable Costs. Nonetheless, the owner may need certainty for budgetary reasons that it will never pay more than X dollars for the project. In such cases, it may be possible for the owner and contractor to agree on an absolute ceiling (well above what either expects the project to actually cost—based on the worst estimates of the remaining uncertainties). This is often referred to as a guaranteed maximum price (“GMP”).⁵⁷ Any costs exceeding the GMP become the sole responsibility of the contractor.⁵⁸ The *quid pro quo* for the contractor accepting a GMP is usually a generous bonus, to the extent that Reimbursable Costs are less than the GMP. For example, the contractor may be paid as much as 50% of the difference between the GMP and Reimbursable Costs.

5. Flexible Termination Provisions

Cost reimbursable agreements require the pipeline owner to place a greater level of trust in the contractor. In fact, it is not unusual to see clauses that impose quasi-fiduciary duties on the contractor, such as: “Contractor shall proceed with

57. 3D/INTERNATIONAL, CM AT RISK (2002), <https://triumphmodular.com/wp-content/uploads/2015/10/Construction%20Managers%20at%20Risk.pdf>.

58. *Id.*

the work and invoicing thereof with the trust and confidence of owner that contractor is acting solely for owner's benefit."⁵⁹ Should the contractor—for any reason—lose the owner's trust, then the owner needs to be able to quickly and easily terminate the agreement and bring in an alternative contractor. As such, an unrestricted termination provision should provide that the agreement can be terminated in whole (or in part), for any reason (without cause), and at any time. Upon such occurrence, the contractor should only be paid the Reimbursable Costs (and its *pro rata* Fee) for work completed to date (and its costs to demobilize). Such provisions also incentivize the contractor to control costs, as it knows the owner can easily replace the contractor if costs trend upward.

B. Unit Price Construction Agreements

Pursuant to a unit price agreement, the contractor is paid fixed amounts for each unit of work completed (*e.g.*, each mile of pipeline constructed), making the total cost a function of how many units are incurred.⁶⁰ Each unit price includes both the costs the contractor expects to incur and its profit for completing the unit.⁶¹ Under this arrangement, the pipeline owner assumes the risk of *how many units will be needed* to complete the project, and the contractor is at risk for *how much it has to spend to complete each unit*.⁶²

Even in the absence of fast-tracking, pipeline construction agreements often use unit pricing.⁶³ For example, unit prices can be established for different types of pipeline installation, including open cut, stovepipe, boring, and horizontal directional drills, in each case at a dollar rate per linear foot. While unit price arrangements generally entail less risk to the owner than cost reimbursable approaches, two types of unit prices require special consideration: (i) underground obstructions and (ii) no hole, no pay.⁶⁴

1. Underground Obstructions

One of the principal uncertainties for fast-track projects is how many underground obstructions a pipeline's route will pass over or "cross." New pipeline trenches encounter many preexisting utilities, including other oil and gas pipelines; water, irrigation, and sewage pipes; television cables; and fiber optic telecommunication lines. A foreign line may create additional costs for the contractor if the depth of the new pipeline must be lowered—so that it safely passes beneath the existing line.

59. *Termination-For-Convenience Clause*, BLACK'S LAW DICTIONARY (10th ed. 2010).

60. HENDRICKSON ET AL., *supra* note 54.

61. *Id.*

62. *Id.*

63. Scott Gaille, *Pipeline Crossings of Underground Obstructions*, GAILLE ENERGY BLOG (Sept. 10, 2018), <https://gaillelaw.com/2018/09/10/pipeline-crossings-of-underground-obstructions-gaille-energy-blog-issue-74/>; *see also* MOLENAAR ET AL., *supra* note 53.

64. *Id.*

Contractors may propose a unit price for the “crossing” of each underground obstruction (for example, \$30,000 per crossing).⁶⁵ Such provisions contain three potential ambiguities:

- *What is a crossing?* The answer depends on whether the word *crossing* is used in its ordinary meaning (*crossing* the street) or in its specialized, industry meaning (a *crossing* installation).⁶⁶ In the absence of an interpretative clause in the construction contract, such as “words having well-known technical or natural gas or petroleum pipeline industry meanings are used in this agreement in accordance with such recognized meanings,” the contractor might argue that it should be paid \$30,000 for every foreign line that intersects the new pipeline’s right of way—whether or not it costs the contractor anything to avoid it.⁶⁷
- *How do you count obstructions?* If the contractor encounters a cluster of ten small telecommunication lines running parallel to each other, is the contractor paid \$30,000 for the entire group—or \$300,000 (10 individual lines multiplied by \$30,000). In such cases, even if the contractor has to lower the depth of the new pipeline, only one lowering is required to pass beneath all 10 lines.⁶⁸
- *Do obstructions that are bypassed by bores/drills count?* When pipelines approach roadways, railways, and waterways, they may undertake a bore or directional drill that allows the new pipeline to pass beneath them. What happens if there are several telecommunication lines running parallel to the roadway, which the contractor’s drill happens to pass beneath in the process of avoiding the road? Some contractors have sought to be paid *both* for the directional drill and also the unit price for each foreign line above it—even though the cost of the drill was the same whether or not the foreign lines were present.⁶⁹

To avoid such issues, a clear definition of Underground Obstruction should be included in the construction agreement, such as:

‘Underground Obstruction’ means one or more submerged or buried structure(s) in the ROW that require(s) the use of tie-ins to lower the pipeline below the obstruction(s) to obtain the separation required by the Specifications. For purposes of clarity, (i) if multiple obstructions are bypassed through a lowering of the pipeline, then the group of obstructions shall constitute only one (1) Underground Obstruction; and (ii) if a road, railroad, waterway, canal, or other surface feature needs to be crossed

65. *Id.*

66. *Guidance Documents for Construction—Natural Gas Pipeline Crossing Guidelines*, THE INGAA FOUNDATION (June 28, 2013), <https://www.ingaa.org/File.aspx?id=20405&v=1aed587b>. The term “crossing” as used in the pipeline industry is meant to refer to a type of constructed installation that must be built to lower the depth of a new pipeline so that it can pass below one or more foreign lines.

67. Gaille, *supra* note 63.

68. *Id.*

69. *Id.*

through a lowering of the pipeline or via a drill or bore, then any submerged or buried structures bypassed in the process shall not constitute an Underground Obstruction.⁷⁰

The unit price in the construction agreement for crossings can then be specified, for example, as \$30,000 per Underground Obstruction.

2. No Hole, No Pay

When pipelines are traversing open countryside, they are usually laid according to the conventional method, by digging a trench and then burying the pipeline. However, when pipelines encounter roads, railroads, and waterways, the contractor may be required to bore or drill underneath the obstacle. Bores and drills are often the subject of cost overruns.

Whether the contractor is being compensated on a cost reimbursable basis or unit price basis, the pipeline owner may want to include a no hole, no pay clause that conditions the contractor's payment on the successful completion of the bore hole. Doing so places the risk on the contractor to get it right the first time—although this will mean that the unit price will be higher to reflect the probability that some of the drills will fail.

Issues with no hole, no pay clauses include:

- *No hole, no pay versus pay-for-one-hole.* A no hole, no pay clause provides that the contractor is not paid unless (and until) it completes a successful hole. A pay-for-one-hole clause provides that the contractor is only paid for its first attempt and must continue to carry on with additional attempts (without further compensation) until it succeeds. In the second case, the contractor has much of the owner's money for the work before it is known whether the pipeline can be successfully pulled through the hole. What does the owner do if the contractor runs out of money and lacks funds to undertake additional attempts? What if the owner loses confidence in the contractor and wants to hire another one? A conditional, "no hole, no pay" clause puts the owner in a better position should the contractor encounter problems.⁷¹
- *Underground conditions risk.* The agreement also needs to make clear which party is bearing the risk for underground conditions. A contractor may seek to lay the blame for a failed drill on underground conditions that were unexpected or otherwise beyond its control. The parties should establish standards for determining when an underground condition gives rise to more compensation, and when it does not. For example, the construction agreement could provide:

Contractor shall not be entitled to seek compensation for encountering a surface or underground site condition unless con-

70. *Id.*

71. Scott Gaille, *Comparison of Pipeline Drilling Methods: Bores, HDDs & Direct Pipes*, GAILLE ENERGY BLOG (Sept. 24, 2018), <https://gaillelaw.com/2018/09/24/comparison-of-pipeline-drilling-methods-bores-hdds-direct-pipes-gaille-energy-blog-issue-75/>.

tractor can establish that: (a) none of contractor group's actions or inactions caused or contributed to the existence of the site condition; (b) force majeure did not cause or contribute to the existence of the site condition; (c) the existence of (or risk of encountering) the site condition was not identified in (i) the agreement, (ii) any reports (including geotechnical reports) received by the contractor prior to the effective date, or (iii) any other written document or communication received by the contractor group prior to the effective date; (d) a contractor exercising good industry practices would not have been aware of (prior to the effective date) the existence of (or risk of encountering) the site condition; (e) a contractor exercising good industry practices could not have discovered the site condition prior to the effective date; and (f) none of contractor group otherwise had knowledge (prior to the effective date) of the existence of (or risk of encountering) the site condition.⁷²

C. Model Agreements, Handbooks, and Training Can Increase the Efficiency of Reimbursable Construction Agreements

In a fast-track situation, the less drafting an attorney needs to do, the better. This means that the owner should develop model agreements for use in cost reimbursable and unit price situations that include the owner's preferred set of controls and protections. Additionally, the following techniques can further compress the time required to negotiate construction agreements:

- *Annotated Model Agreements.* Annotated model agreements anticipate the contractor's likely comments. They include prepared responses and approved fallback positions and language for the owner's negotiator. Rather than waiting on lawyers to draft the compromise, the negotiator can propose the pre-approved language set forth in the annotated model agreement. Annotated model agreements also help to ensure consistency of terms across fast-track negotiations (since they contain an approved roadmap for making compromises).⁷³
- *Agreement Handbooks.* How quickly an agreement can be negotiated also is a product of how well its terms and conditions are understood by the owner's negotiators. An agreement handbook is an encyclopedia-like summary of the principal provisions of the model agreement in alphabetical order, including flow charts for important procedures. These help a negotiator learn the model and then quickly prepare for the negotiation. They also can be adapted to train the project team after execution. The better the project team

72. *Id.*

73. Scott Gaille, *Representative Matters: United States Upstream Oil & Gas*, GAILLE ENERGY BLOG (Nov. 16, 2018), <https://gaillelaw.com/global-energy-practice/representative-matters-united-states-upstream-oil-gas/>.

understands the agreement, the smoother the implementation of its terms and conditions during construction.⁷⁴

- *Training on Alternative Structures.* Negotiators should be periodically trained on the principal provisions of the model agreements—and fallback provisions. After signing, the project team and inspectors similarly should be trained on relevant aspects of the agreement to ensure smoother implementation during construction.⁷⁵

All of the preceding practices tend to speed the pace of negotiations and pave the way for a smoother implementation of the agreement's terms and conditions during the construction itself.

IV. CONCLUSION

Climate change has become a divisive political issue in the United States, and it appears likely to remain so for the foreseeable future. Pipeline construction—however necessary it may be to American infrastructure—will be under increasing political pressure from voters and elected officials because pipelines are viewed as contributing to the nation's continued reliance on fossil fuels. One response of pipeline owners is likely fast-tracking of construction, which necessitates more reliance on cost reimbursable agreements. These arrangements create a variety of contracting challenges, as pipeline owners seek to control (potentially runaway) costs with specialized terms and conditions. Negotiators more familiar with lump sum contracts will need to better acquaint themselves with the nuances of reimbursable structures, as climate change politics means they will almost certainly see more of them in the next decade.

74. *Id.*

75. *Id.*