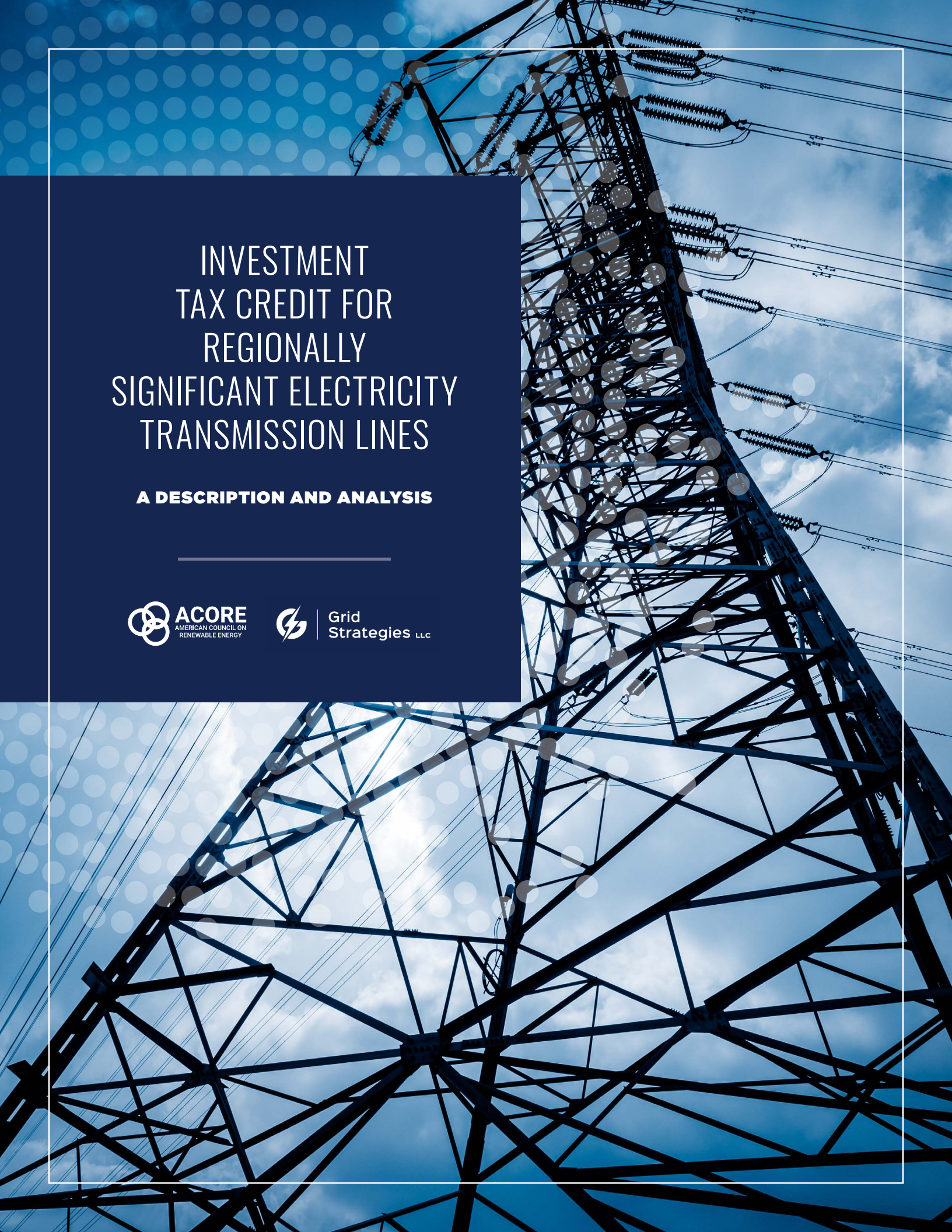

INVESTMENT TAX CREDIT FOR REGIONALLY SIGNIFICANT ELECTRICITY TRANSMISSION LINES

A DESCRIPTION AND ANALYSIS

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I INTRODUCTION

In recent months, a tax credit for investment in regionally significant high-voltage transmission has been proposed in the Biden-Harris American Jobs Plan and in the U.S. Senate and House of Representatives. These proposals reflect growing recognition that transmission is essential for providing consumers with low-cost, clean, and reliable electricity, yet needed expansion is not occurring due to obstacles in how transmission is planned and funded. The purpose of this paper is to explain, assess the impacts and benefits, and provide a public policy basis of a tax credit for transmission investment.

A transmission Investment Tax Credit (ITC) bill was first introduced by U.S. Senator Martin Heinrich (D-NM) in December 2019.[1] Upon release of his bill, Senator Heinrich said, "Despite all the progress we have made in the last decade in clean energy generation and changes in consumer demand, we are simply not doing enough to incentivize investments for the required transmission capacity… Tax incentives have proven to be a major signal to investors to put their capital behind wind and solar. We should encourage the same type of growth for the infrastructure that will deliver the power from these resources to market."[2] He continued, "This is absolutely about meeting our moral obligation to address the climate crisis, but modernizing our electric transmission infrastructure is also a smart investment in creating high-quality jobs, which we've seen firsthand in New Mexico."[3] He

1 Electric Power Infrastructure Improvement Act, S. 3019, December 2019.
2 Carol A. Clark, "U.S. Sen. Martin Heinrich Introduces Bill to Promote Transmission Infrastructure Growth Across Nation," December 23, 2019.
3 *Ibid.*

noted "There is a disconnect right now between transmission access and the best large-scale clean energy resources."[4]

The tax credit was later endorsed in the Senate Democrats' Special Committee on the Climate Crisis report issued during the last Congress, which called for "creating a new investment tax credit for regionally significant transmission projects."[5]

The House Select Committee on the Climate Crisis majority staff report issued last year also endorsed the need for expanding large scale regional and interregional transmission, and specifically recommended "financial support for priority [High Voltage Direct Current (HVDC)] transmission lines, such as through an ITC."[6]

In June 2020 Rep. Steven Horsford (D-NV) introduced H.R. 7172 as companion legislation to Senator Heinrich's bill.

In March 2021, Senator Heinrich introduced an updated version of his Transmission ITC bill.

The Biden-Harris Administration's March 2021 American Jobs Plan proposed a Transmission ITC:

> **Build a more resilient electric transmission system.** Through investments in the grid, we can move cheaper, cleaner electricity to where it is needed most. This starts with the creation of a targeted investment tax credit that incentivizes the buildout of at least 20 gigawatts of high-voltage capacity power lines and mobilizes tens of billions in private capital off the sidelines — right away.[7]

In April 2021 Representatives Steven Horsford (D-NV) and Susie Lee (D-NV) introduced a companion bill to Senator Heinrich's in the House of Representatives.[8] In April 2021, Senator Ron Wyden (D-OR) and 24 Senate cosponsors introduced the Clean Energy for America Act, which includes a similar transmission ITC.[9]

In April 2021, in announcing new lending programs for certain categories of transmission projects, Energy Secretary Jennifer Granholm noted "This is a down payment on our efforts to modernize our transmission nationwide—but we need the American Jobs Plan to complete them. These investments will make our power system more resilient against threats and more reliable as we increase our clean energy capacity, creating thousands of jobs in the process." She added, "After what happened in Texas, can anybody really doubt that electricity and the electric grid is part of the foundation of who we are as a nation? And we need to invest in it if

4 John Fitzgerald Weaver, "Big Gas to Blow, Powerline Tax Credit, Trump Dumps Paris, and More: pvMB 11/6/19," November 26, 2019.

5 Senate Democrats' Special Committee on the Climate Crisis, *The Case for Climate Action*, at 197, August 25, 2020.

6 House Select Committee on the Climate Crisis, *Solving the Climate Crisis: The Congressional Action Plan for a Clean Energy Economy and a Healthy Resilient, and Just America*, at 56, June 2020.

7 The White House, "Fact Sheet: The American Jobs Plan," March 31, 2021 (emphasis in original).

8 *See* Electric Power Infrastructure Improvement Act, S.1016, March 25, 2021, Steven Horsford, "Horsford, Heinrich, Lee Introduce Bicameral Bill to Build A More Resilient, Reliable 21st Century Electric Grid," April 8, 2021, and Martin Heinrich, "Heinrich, Horsford, Lee Introduce Bicameral Bill To Build A More Resilient, Reliable 21st Century Electric Grid," April 8, 2021.

9 United States Senate Committee on Finance, "Wyden, Colleagues Introduce Legislation to Overhaul Energy Tax Code, Create Jobs, Combat Climate Crisis," April 21, 2021

we want to make sure power keeps coming to our homes."[10]

In the same White House release, National Climate Advisor Gina McCarthy explained: "After the Texas transmission debacle this winter, no one can doubt the need to invest in our electric grid. The steps that the Departments of Energy and Transportation are taking today, when combined with the grid investments outlined in the American Jobs Plan, will turbocharge the building of major new electricity transmission lines that will generate new jobs and power our economy for years to come."[11] The White House Fact Sheet noted the release of the Americans for a Clean Energy Grid report, "Transmission Projects Ready to Go: Plugging Into America's Untapped Renewable Resources."[12] Transportation Secretary Buttigieg noted, ""We saw what happened in Texas, and that's an example of a resiliency problem."[13]

As President Biden explained in his address to the Joint Session of Congress in April 2021, "Our grids are vulnerable to storms, hacks, and catastrophic failures, with tragic results as we saw in Texas and elsewhere during winter storms. The American Jobs Plan will create jobs to lay thousands of miles of transmission lines needed to build a resilient and fully clean grid."

This paper discusses the benefits of the tax credit, why a tax credit is needed, the tax credit design, and interaction with other transmission policies.

10 Todd J. Gillman, "Biden Pitches $2.3T Infrastructure Plan as Cure for Texas Grid Failure, but It's Not in the Fine Print," April 13, 2021.

11 The White House, "Fact Sheet: Biden Administration Advances Expansion & Modernization of the Electric Grid," April 27, 2021.

12 Michael Goggin, Rob Gramlich, and Michael Skelly, *Transmission Projects Ready to Go: Plugging Into America's Untapped Renewable Resources*, April 2021.

13 Todd J. Gillman, "Biden Pitches $2.3T Infrastructure Plan as Cure for Texas Grid Failure, but It's Not in the Fine Print," April 13, 2021.

II BENEFITS OF THE TAX CREDIT

Impact on Transmission Development

Our recent survey of all proposed transmission projects around the country finds 22 projects that would likely be eligible for a targeted tax credit, comprising a total possible investment of $33.3 billion.[14] Of these 22 eligible projects, we expect a little less than one half to start construction and qualify for the tax credit, mostly due to remaining permitting risks and the challenge of finding buyers and sellers to purchase capacity on the transmission lines. There may also be some that do not qualify depending on whether they have cost recovery approvals that are eligible based on the final credit design. We expect the success rate of Alternating Current (AC) projects will be higher than that for Direct Current (DC) projects, based on past experience with market challenges and permitting obstacles for longer-distance lines, which tend to be DC. The following table summarizes the expected investment, capacity, renewable development, and job creation under two scenarios:

1. All 22 projects are completed; or
2. A weighted average of 80 percent of AC projects, 20 percent of DC projects, and 100 percent of offshore wind interconnection lines are successfully completed.

These benefits are discussed in more detail in the following sections.

14 Michael Goggin, Rob Gramlich, and Michael Skelly, *Transmission Projects Ready to Go: Plugging Into America's Untapped Renewable Resources*, April 2021.

TABLE 1. *Benefits of Proposed Transmission Projects*

	All 22 projects completed	Projects weighted by odds of success
Investment (billions)	$33.3	$15.3
Transfer capacity (MW)	42,000	20,600
Additional renewable capacity enabled (MW)	60,000	30,000
Miles of high-capacity lines[15]	8,000	4,000
Transmission jobs	600,000	330,000
Renewable jobs	640,000	320,000
Total jobs	**1,240,000**	**650,000**

The roughly 20,600 MW of additional transmission capacity expected in the scenario that weighs a project's odds of success is consistent with the Biden Administration's call for "the creation of a targeted investment tax credit that incentivizes the buildout of at least 20 gigawatts of high-voltage capacity power lines and mobilizes tens of billions in private capital off the sidelines."[16]

Only "regionally significant" high-voltage lines are eligible for the tax credit under the bills mentioned above. This targeted approach incentivizes only the high-capacity projects that face significant challenges under current policy, and avoids incentivizing the many smaller local transmission projects and routine asset replacements for which utilities already have a regulatory means of cost recovery. Most of the roughly $20 billion per year of current spending on transmission would not be eligible for the tax credit because it is lower voltage and doesn't create new delivery capacity. The tax credit is specifically targeted to provide maximum "additionality" (an outcome that would not occur but for the policy) by only incentivizing types of transmission that are not being built today. Moreover, these high-capacity lines with regional benefits are more important than smaller local lines for providing consumers with more affordable and reliable electricity, facilitating renewable integration, and reducing pollution.

15 Some regionally significant lines are very short given the operations of power networks, so it is not a very good measure of the ability to move a lot of power, but is one metric among many.

16 The White House, "Fact Sheet: The American Jobs Plan," March 31, 2021.

Weighting projects by the odds of success brings the total expected near-term transmission investment to around $15 billion, down from $33 billion if all 22 projects were to proceed. The total federal budget impact of a 30 percent tax credit for these $15 billion in projects that are likely to proceed to construction in the next 3-4 years would be under $5 billion. While more of the 22 projects could move forward with a suite of policies addressing other roadblocks to transmission, including challenges to permitting, planning, and paying for transmission, that is unlikely to happen in the near term. However, some of the projects that are assumed not to move forward in the near term may overcome those obstacles and qualify by starting construction by the end of the tax credit's eligibility period.

It is also unlikely that many new projects that are not included in the list because they have not yet been publicly proposed could be completed quickly enough to qualify in the near term. This is due to the long lead time required to plan and permit transmission before construction can begin, particularly the high-voltage regionally beneficial lines targeted by the tax credit. Beyond the next few years, more projects would likely be able to qualify, assuming the credit applies to projects that can be completed within ten years. However, it often takes ten years to move a project from concept through permitting, finding customers, land acquisition, engineering, and construction. That said, the goal of the credit is to both move proposed projects forward and stimulate new high-capacity transmission, and some of that would surely occur. We do not specifically estimate the impact of the tax credit on newly proposed projects over this longer period, since the focus here is on the known universe of projects for the near term.

A map of the 22 projects ready to go in the near term is shown below in Figure 1.

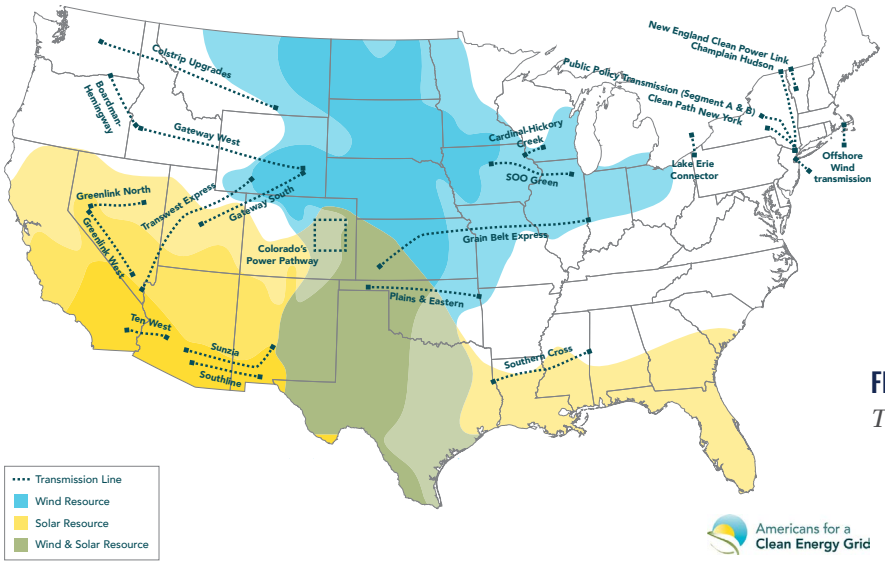

FIGURE 1. *Regionally Significant Transmission Projects Ready to Go*[17]

17 Michael Goggin, Rob Gramlich, and Michael Skelly, Transmission Projects Ready to Go: Plugging Into America's Untapped Renewable Resources, April 2021.

The tax credit would stimulate both of the main types of transmission projects—regulated rate-based projects and "merchant" lines whose costs are recovered through negotiated or market-based capacity reservations. In the case of regulated lines, a utility or Regional Transmission Organization (RTO) would allocate the costs through a state or federal (FERC) regulatory process across a set of wholesale or retail customers. In that case, the tax credit would reduce the costs paid by those customers and make the cost allocation and approval process easier so more projects can move forward. In the latter case of merchant projects, the transmission capacity reservation costs that developers need to recover from wholesale customers would be reduced by the tax credit. This would allow the transmission developer to offer a more attractive price to customers, increasing the odds of success.

Benefits to Consumers

Numerous studies have documented that transmission provides large net benefits to electricity consumers. Transmission provides consumers access to lower-cost forms of electricity generation, including high-quality renewable energy resources. Dozens of studies from grid operators, national laboratories, and others have found that transmission investment provides consumers with benefits several times greater than its cost. The Southwest Power Pool (SPP) has found significant net benefits have already been realized from its recent transmission investments, with benefits expected to exceed costs by a factor of 3.5 over the lines' first 40 years.[18] The Midcontinent Independent System Operator (MISO) has also found that its Multi-Value Projects offer a benefit-to-cost ratio of between 2.2 and 3.4.[19] Similarly, the National Renewable Energy Laboratory Interconnections Seam study found benefit-to-cost ratios of between 1.8 to 2.9 for various transmission configurations.[20]

By reducing the cost of electricity, a transmission tax credit can significantly reduce the burden of electricity costs on lower-income Americans. Electricity costs are regressive in that they hit the lowest income Americans disproportionately hard. Electricity accounts for 3.7 percent of total household expenditures for lower-income Americans, versus only 1.4 percent for the highest-income Americans.[21] This is because electricity is a necessity for many aspects of modern life, so the poorest Americans can only reduce their electricity consumption to a limited extent. Unlike other products, it is not possible to use a lower-cost substitute, as a kiloWatt-hour used by a lower-income family is the same and costs the same as one used by a higher-income family. In addition, lower-income Americans have less ability to invest in cost-saving energy efficiency upgrades. As a result, those in the highest 10 percent income bracket only spend twice as much on electricity as those in the lowest 10 percent bracket; for other goods, those in the top 10 percent spend nearly six times as much.[22]

In contrast, the federal taxes used to offset the cost of a transmission tax credit are much more progressive, with the top 10 percent of earners paying 60 percent of total federal taxes, and

18 SPP, *The Value of Transmission*, January 26, 2016.
19 MISO, *MTEP17 MVP Triennial Review*, September 2017.
20 Gregory Brinkman, Joshua Novacheck, Aaron Bloom, and James McCalley, *Interconnections Seam Study: Overview*, at 32, October 2020.
21 U.S. Bureau of Labor Statistics, "Table 1110. Deciles of Income Before Taxes: Annual Expenditure Means, Shares, Standard Errors, and Coefficients of Variation, Consumer Expenditure Survey," 2019.
22 *Ibid.*

the bottom 30 percent paying negative tax rates due to policies like the earned income tax credit. As a result, a transmission tax credit that moves costs from utility bills to tax bills is very progressive.

Consumers directly benefit from a transmission tax credit under both major types of transmission development: rate-based regulated investments and merchant projects, as explained in the preceding section. In the rate-based context, a utility's customers are allocated around 30 percent less cost. For merchant projects, the cost of electricity delivered via the line is reduced by around 30 percent. These benefits are even larger if one accounts for transmission's high benefit-to-cost ratio for reducing total electricity costs.

As noted above, we expect around $15 billion of transmission investment that could move forward in the near term to qualify for the tax credit. Building around $15 billion worth of transmission with a tax credit versus without a tax credit provides $2.3 billion in savings to those in the lower 80 percent of income brackets, with 90 percent of that incremental $2.3 billion cost borne by the top 10 percent of earners. If one assumes that transmission provides a 2.5 benefit-cost ratio for consumers, the top 10 percent still benefit from transmission spending on net, even with a tax credit. Those with higher income tend to see more of the electricity cost reduction benefits of transmission investment, given that they use more electricity than those in lower income brackets. A 30 percent transmission tax credit ensures that the benefits of transmission are much more widely shared, as shown below. Comparing the orange bars to the blue bars shows that around 80 percent of Americans see larger benefits with a transmission tax credit, with the top 10 percent of earners bearing most of the incremental cost.

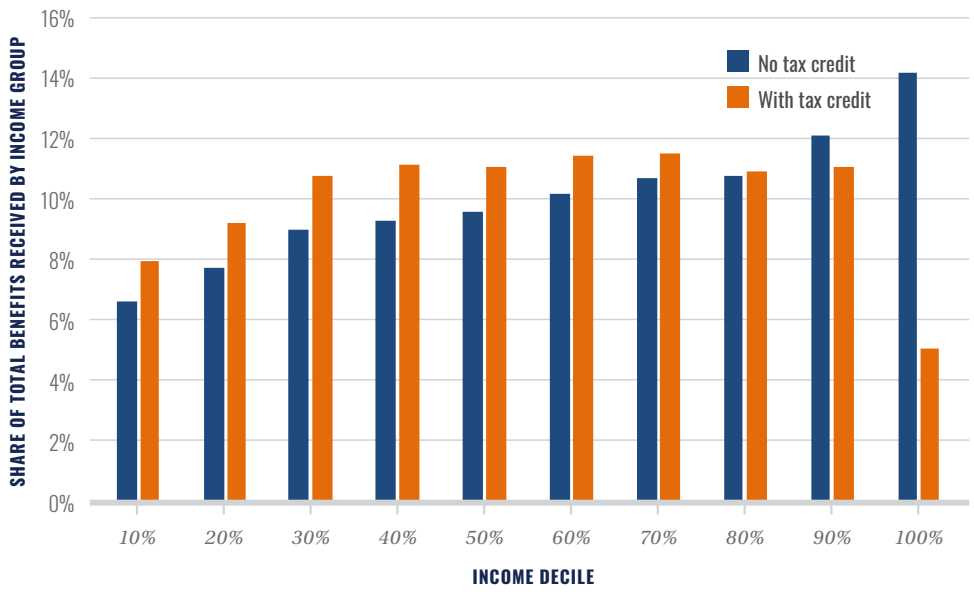

FIGURE 2. *Share of Transmission Benefits Received by Income Group, With and Without Tax Credit*

Impacts on Clean Energy Deployment

High capacity regional and interregional transmission investment is essential for the continued growth of renewable energy. Transmission provides consumers with access to high-quality renewable energy resources, significantly reducing their cost. At high renewable penetrations, transmission is also essential for accessing a diverse portfolio of wind and solar resources that is better able to help reliably meet electricity demand at all times. Geographically diverse wind and solar resources have a more constant output profile because variability driven by local weather events is mostly canceled out across a large region.

As noted above, the 22 proposed transmission projects have the ability to deliver around 42,000 MW of power. We conservatively estimate that the 42,000 MW of additional transfer capacity enabled by all 22 transmission projects could enable the interconnection of around 60,000 MW of additional renewable capacity in the U.S.

Based on the estimated weighted average success rate for AC and DC projects, we expect projects delivering about half that amount of capacity to move forward in the near term. In that more likely case in which about half of the proposed transmission projects proceed to construction and most but not all qualify for the tax credit, about 30,000 MW of additional renewable capacity could be interconnected.

The nameplate renewable capacity interconnected to these transmission lines can exceed the transfer capacity of the lines by about 50 percent. This is possible because geographically diverse wind plants are typically at their maximum output at different times, as are solar plants, so these complementary output patterns provide a more constant delivery of energy across a line with fewer peaks and valleys. With fewer peaks when the combined output of wind and solar plants exceeds the capacity of the line, more wind and solar capacity can be economically connected to the line. The output of the renewable generators delivered by these transmission lines would also be high, as they access some of the highest quality wind and solar resources in the country.

As a result, we estimate that around 220 million MegaWatt-hours of additional domestic wind and solar generation will be enabled by all 22 transmission projects. This would drive a nearly 50 percent increase in wind and solar generation from current levels, allowing wind and solar to grow from 11.6 percent to 17 percent of total U.S. electricity supply. If, as expected, around half of the transmission projects proceed to construction, the numbers discussed above would be reduced by around half.

Benefits for Job Creation

If all are completed, the 22 proposed transmission projects identified above could create around 600,000 new jobs, including roughly 240,000 direct jobs and 360,000 indirect and induced jobs. That estimate is based on the results of five studies that used economic input-output models to evaluate the direct and indirect job creation benefits of transmission construction. These results indicate DC projects create around 4 direct jobs per $1 million of expenditure and 11.3 direct, indirect, and induced jobs, while AC projects create around 11.5 direct jobs per $1 million of expenditure and 27 direct, indirect, and induced jobs.[23] Because we expect the success rate for AC transmission to be higher than that for DC transmission, and the studies below generally show higher job creation for AC transmission, we expect around 330,000 total transmission jobs to be created in the scenario in which projects are weighted by the likelihood of their completion, with roughly 135,000 direct jobs and 195,000 indirect and induced jobs.

23 NREL's Jobs and Economic Development Impacts (JEDI) Transmission Line Model (available at https://www.nrel.gov/analysis/jedi/transmission-line.html) can also be used to estimate job creation from transmission investment. Depending on assumptions about domestic content, as well as assumptions about terrain and other factors that affect the cost of transmission, the JEDI model may produce estimates that are higher or lower than those found in these studies.

TABLE 2. *Studies of Job Creation From Transmission Investment*

AC or DC	Construction direct job-years/$1 million	Construction direct, indirect, and induced job-years/$1 million
AC[24]	9 to 14	19 to 35
AC + DC[25]	11.72	NA
AC + DC[26]	4.25	12.5
DC[27]	3 to 4	NA
DC[28]	5.05	11.30

The above estimates do not account for the job creation from the wind and solar deployment enabled by the transmission investment. At a rate of 4 direct jobs per renewable MW and 10.64 direct and indirect jobs per renewable MW,[29] the 60 GW renewable capacity enabled by all 22 transmission projects would yield around 240,000 direct jobs and around 640,000 total direct and indirect jobs, bringing total job creation from the transmission and renewable investment to over 1.2 million jobs. If about half of these transmission projects proceed to construction, around 320,000 renewable jobs would be created along with the 330,000 transmission jobs discussed above, for a total of around 650,000 jobs.

The 60 GW of renewable energy enabled by all 22 projects would constitute an investment of around

24 MISO, *Economic Impact of MTEP In-Service Projects From 2002-2015*, July 2015.

25 Dave Swenson, *Economic Impact & Job Creation Relative to Large-Scale, High Voltage Transmission Infrastructure*, July 2018.

26 WIRES and The Brattle Group, *Employment and Economic Benefits of Transmission Infrastructure Investment in the U.S. and Canada*, May 2011.

27 Jinglin Duan and Julia Frayer, *Estimating Macroeconomic Benefits of Transmission Investment with the REMI PI+ Model*, May 2, 2018.

28 Eric Lantz and Suzanne Tegen, *Jobs and Economic Development From New Transmission and Generation in Wyoming*, March 2011.

29 Luigi Aldieri, Jonas Grafström, Kristoffer Sundström, and Concetto Paolo Vinci, "Wind Power and Job Creation," Sustainability, at 16, December 19, 2019, showing 4.03 direct and 10.64 direct and indirect jobs per MW of wind capacity; and The Solar Foundation, *National Solar Jobs Census 2018*, at 30, 2018, showing 3.3 installation and development jobs/MW for utility-scale solar, rounded up to 4 jobs/MW to account for manufacturing and other supply chain jobs.

$70 billion,[30] which combined with the $33 billion in transmission would total an investment of more than $100 billion. If half of these transmission projects proceed, the total investment would be roughly half that amount.

Nearly all wind and solar projects are located in rural areas, many of which are economically challenged. The investment in wind, solar, and transmission creates jobs in those areas, provides large landowner payments, and often provides critical tax revenue for local communities. Transmission investment also creates jobs by providing American industries and businesses with access to low-cost, reliable electricity.

Impact on Domestic Manufacturing Jobs

The Brattle Group has found that domestic content accounted for 82 percent of the total value of transmission investment, with 61 percent of materials sourced domestically.[31] All transmission construction and O&M work is inherently domestic, and transmission planning, engineering, and logistics work would also typically be performed domestically. Brattle estimated that 65 percent of transmission wires and towers were sourced domestically, while transformers and circuit breakers were 35 percent domestic. Federal policy supporting transmission investment would likely spur the supply chain to increase domestic manufacturing, particularly for large components like high-voltage transformers and DC converters that are costly to ship and account for a significant share of total transmission investment dollars. The wind capacity enabled by this transmission investment would also be mostly manufactured domestically.[32]

Impact on Job Quality

The Biden-Harris American Jobs Plan, which includes a transmission ITC, calls for infrastructure investment to "meet robust and rigorous standards for worker, public and environmental safety as well as environmental justice." Nearly all transmission jobs are union jobs and pay prevailing wages. Many of the transmission projects discussed above have already signed Project Labor Agreements, while others are likely to but have not yet reached that stage of development.

Impact on Public Health and Environmental Justice

Remote clean energy reduces harmful local air emissions only if it can be delivered to urban areas where older, higher-emitting power plants operate, so those plants can either be retired or operated less frequently. A recent study of significant transmission expansion in the Eastern half of the country found, "investing in transmission and renewable energy can improve public health by greatly reducing or eliminating a range of harmful air pollutants over the next decade. These localized air pollutants increase the risk of illness or death from a range of health problems and have even been linked to increased risk of death from COVID-19.[33] By delivering

30 Recent wind and solar projects have cost $1,440/kW and $1,400/kW, respectively. *See* Lawrence Berkeley National Laboratory, "Utility-Scale Solar," (n.d.), and Lawrence Berkeley National Laboratory, "Wind Technologies Market Report," (n.d.). We assume costs will have fallen to around $1,200/kW by the time these transmission lines are placed in service.

31 WIRES and The Brattle Group, Employment and Economic Benefits of Transmission Infrastructure Investment in the U.S. and Canada, at 20, May 2011.

32 Ryan Wiser et al., Wind Energy Technology Data Update: 2020 Edition, at 31, August 2020.

33 Lisa Friedman, "New Research Links Air Pollution to Higher Coronavirus Death Rates," April 7, 2020, updated April 17, 2020.

clean energy to densely populated areas to replace polluting sources of energy, transmission plays a particularly important role in displacing harmful emissions. Many of the most polluting power plants are located in economically disadvantaged communities."[34] This study's findings for air pollution reductions over time due to transmission and renewable energy expansion are shown below:

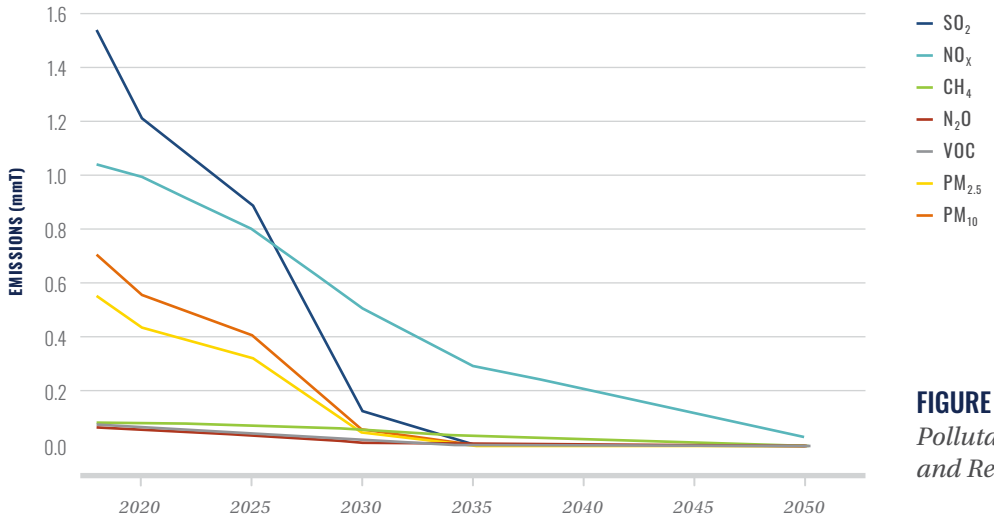

FIGURE 3. *Reduction in Air Pollutants From Transmission and Renewable Investment*

Impact on Electric Reliability and Resilience

When severe weather causes a spike in electricity demand or takes local generation offline, one of the best ways to keep the lights and heat on is to use transmission to bring in power supplies from neighboring regions that are less affected by the extreme weather. The tragic events in Texas in February 2021 illustrate what can happen when those grid connections are weak (among a number of other contributing factors). Due to its limited interconnection capacity, the Electric Reliability Council of Texas (ERCOT) power system was only able to import about 800 MW when it experienced natural gas supply interruptions, generator outages, and high demand due to extreme cold. In contrast, stronger transmission ties to neighboring regions allowed SPP and MISO to weather the storm with much less severe power outages, as they were able to import more than 15 times as much power as ERCOT.[35]

A recent report by national security experts noted: "Our electricity grid's resilience—its ability to withstand shocks, attacks and damages from natural events, systemic failures, cyber-attack or extreme electromagnetic events, both natural and man-made—has emerged as a major concern for U.S. national security and a stable civilian society."[36] The report described large scale transmission as a solution: "Transmission buildout is critical to resilience as it can relieve

34 Christopher T.M. Clack, Michael Goggin, Aditya Choukulkar, Brianna Cote, and Sarah KcKee, Consumer Employment, and Environmental Benefits of Electricity Transmission Expansion in the Eastern U.S., at 17, October 2020.

35 Michael Goggin, Rob Gramlich, and Michael Skelly, *Transmission Projects Ready to Go: Plugging Into America's Untapped Renewable Resources*, at 14, April 2021.

36 NCGR, *Grid Resilience: Priorities for the Next Administration*, at 1, 2020.

line overloading—or "congestion" in industry jargon—on the existing system, lessening the compounding risks that come with a strained grid that could then be tested by an extreme weather event or an attack incident. Moreover, by enabling further development of renewable energy resources over wider geographic areas, well-planned transmission expansion can make targeted attacks on the grid more difficult to plan and carry out."[37]

In a recent FERC proceeding on grid resilience, grid operators and experts emphasized the importance of robust regional and interregional transmission for protecting against a range of threats. The New York grid operator NYISO stated, "[R]esiliency is closely linked to the importance of maintaining and expanding interregional interconnections, [and] the building out of a robust transmission system."[38] The New England grid operator ISO-NE added, "The system's ability to withstand various transmission facility and generator contingencies and move power around without dependence on local resources under many operating conditions… results in a grid that is, as defined by the Commission, resilient."[39]

Similarly, Brattle Group analysts have explained, "The power system can be vulnerable to disruptions originating at multiple levels, including events where a significant number of generating units experience unexpected outages. The transmission system provides an effective bulwark against threats to the generation fleet through the diversification of resources and multiple pathways for power to flow to distribution systems and ultimately customers. By providing customers access to generation resources with diverse geography, technology, and fuel sources, the transmission network buffers customers against extreme weather events that affect a specific geographic location or some external phenomenon (unavailability of fuel and physical or cyber-attacks) that affect only a portion of the generating units."[40]

Transmission within and between regions has played a critical role in keeping the lights on during other recent severe weather events, including the 2019 Polar Vortex and 2018 Bomb Cyclone cold snaps.[41] Weather events are typically only at their most extreme in areas much smaller than the size of either our Eastern or Western interconnection, so transmission allows surplus electricity supplies to be delivered from neighboring regions that are not experiencing extreme electricity demand or loss of generating supply. A stronger transmission network also provides valuable redundancy in case other lines or power sources are unexpectedly taken offline. This provides national security benefits as well, as electricity is essential for powering a range of emergency services, and a stronger grid is less vulnerable to intentional attacks. The reliability value of a stronger grid is high, as power outages are estimated to cost each U.S. household between $28 and $169 annually.[42]

37 *Ibid.*, at 42.

38 *Response of the New York Independent System Operator, Inc.*, Docket No. AD18-7, at 4, March 9, 2018.

39 *Response of ISO New England Inc.*, Docket No. AD18-7, at 15, March 9, 2018.

40 Mark Chupka and Pearl Donohoo-Vallett, *Recognizing the Role of Transmission in Electric System Resilience*, at 3, May 9, 2018.

41 American Clean Power, "How Transmission Helped Keep the Lights on During the Polar Vortex," February 14, 2019.

42 Infrastructure Report Card, "Overview," (n.d.)

Impact on Carbon Reduction

The U.S. power sector accounts for about 31 percent of energy-related carbon dioxide emissions.[43] Decarbonizing other sectors of the economy through the electrification of transportation, heating, and industrial processes will require significant expansion of non-emitting electricity generation. A clean electricity generation portfolio relying on wind, solar, storage, existing non-emitting resources, and existing natural gas plants (for infrequent use as a stand-by source) is thus essential for any decarbonization pathway.[44] That kind of clean portfolio only works with a large increase in transmission delivery capacity for two reasons: 1) low-cost and high-output renewable sources tend to be located far from demand centers; and 2) a geographically diverse portfolio of wind and solar resources greatly reduces their variability and provides more dependable output during periods of peak need.

Due to the factors above, numerous studies of decarbonization show a need to expand U.S. electricity transmission on the order of two or three times our current installed capacity.[45] These studies tend to show more transmission is needed with higher carbon prices, meaning transmission is a means to achieving the greatest carbon reductions.

A large amount of transmission expansion is needed regardless of how much renewable energy is small Distributed Energy Resources (DERs) versus large utility-scale projects. Detailed models that incorporate full variability and co-optimization of both utility-scale and DER sources find that "the total transmission built in the scenarios with and without DER co-optimization is roughly similar."[46] This result is to be expected because distributed and utility-scale wind and solar are equally dependent on transmission to achieve the geographic diversity in output profiles that makes high penetrations feasible, as discussed above.

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43 U.S. Energy Information Administration, "How Much of U.S. Carbon Dioxide Emissions Are Associated With Electricity Generation?" last updated May 3, 2021.

44 Molly Seltzer, "Big but Affordable Effort Needed for America to Reach Net-Zero Emissions by 2050, Princeton Study Shows," December 15, 2020.

45 Eric Larson et al., *Net-Zero America: Potential Pathways, Infrastructure, and Impacts*, Princeton University, December 15, 2020, and James H. Williams et al., "Carbon-Neutral Pathways for the United States," AGU Advances, 2, e2020AV000284, November 12, 2020.

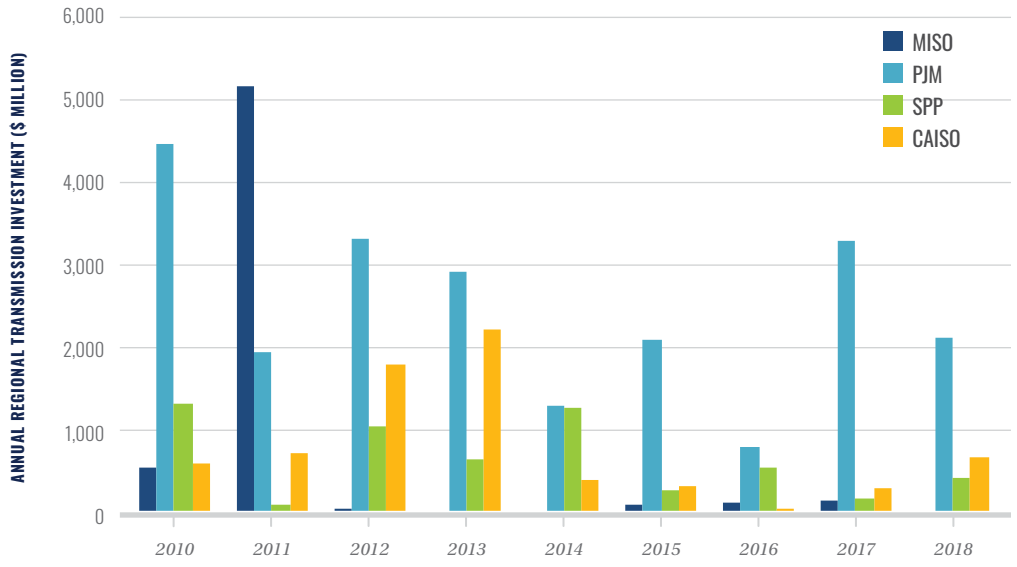
46 Christopher T.M. Clack, Aditya Choukulkar, Brianna Cote, and Sarah A McKee, *Why Local Solar For All Costs Less: A New Roadmap for the Lowest Cost Grid*, at 53, 2020.

III WHY A TAX CREDIT IS NEEDED TO STIMULATE REGIONALLY SIGNIFICANT TRANSMISSION

With very few exceptions, the United States has not developed large-scale interregional transmission since the DC Pacific Intertie between California and the Pacific Northwest was completed 50 years ago. While FERC tried to encourage interregional transmission in Order No. 1000 ten years ago, that has resulted in no large-scale projects. FERC's previous major Orders No. 888 in 1996, No. 2000 in 1999, and No. 890 in 2007 all attempted to promote large scale regional and interregional planning, but with limited success.

In the case of regional transmission within the boundaries of RTOs, there were some large-scale projects approved in the 2007-2009 time frame, but very few in the last decade. The figure below shows the drop in approvals for regional transmission investment over the past decade.

FIGURE 4. *Regional Transmission Investment in RTOs/ISOs ($ million)*[47]



47 Not all RTOs/ISOs provide regional transmission investment information. See Coalition of MISO Transmission Customers, Industrial Energy Consumers of America, and LS Power Midcontinent, LLC, *Section 206 Complaint and Request for Fast Track Processing*, at 31-32, January 21, 2020; PJM, *Project Statistics*, at 6, January 10, 2019; Lanny Nickell, *Transmission Investment in SPP*, at 5, July 15, 2019; CAISO, *ISO Board Approved Transmission Plans*, years 2012-2021 available under "Transmission planning and studies" section of webpage; CAISO, *2011-2012 Transmission Plan*, March 14, 2012; and CAISO, *Briefing on 2010 Transmission Plan*, 2010.

Many of the recent approvals have been for small-scale, local transmission projects to replace aging infrastructure or meet local reliability criteria.[48] Utilities have ways to recover costs of local transmission investments through rates with support and approval from their regulators. Because these lower-voltage routine local projects can be built in the status quo, the proposed transmission investment tax credit would only be available to transmission projects that operate at or above 275 kiloVolts.

There are 330 transmission owners around the country[49] with the responsibility and means to serve local demand with local supply. Historically they built connections to neighboring utilities primarily only for reliability reasons, to share supply when one or the other was in need. While many utilities have joined large regional wholesale electricity markets in recent decades, much of our current transmission system was not built with regional power exchange in mind.

A major barrier to regional and interregional transmission is allocating the costs. Transmission is what economists describe as a "public good," in that many of the benefits of transmission cannot be realized by the party making the investment, so policy is needed to correct for the resulting underinvestment in transmission. Because grid users benefit from a stronger grid even if they do not pay for it, there is an incentive to not invest and "free ride" on transmission investments made by others. Similar to other public good networks, like roads and sewer systems, the solution is for government to create a framework for assigning costs to all users of the network. Cost allocation policies that broadly spread transmission costs to all consumers

48 Johannes P. Pfeifenberger et al., *Cost Savings Offered by Competition in Electric Transmission: Experience to Date and the Potential for Additional Customer Value*, at 4, April 2019 ("Significant investments have been made, but relatively little has been built to meet the broader regional and interregional economic and public policy needs envisioned when FERC issued Order No. 1000. Instead, most of these transmission investments addressed reliability and local needs.")

49 NERC, "Compliance Registry Matrix," last updated April 2, 2021.

in a region have worked, like those that led to the ERCOT Competitive Renewable Energy Zone, MISO Multi-Value Projects, and SPP Priority Projects. However, for the last decade, essentially no new large-scale transmission has been planned. RTOs are voluntary membership organizations, and the threat of utilities leaving makes it difficult for them to force their members to accept cost allocation agreements.

The economics of transmission are challenging in the near term, even though they are very strong in the long term. Low natural gas prices tend to set power market prices most of the time in most regional power systems. That leads to little difference in prices between areas. The lack of carbon policy also causes power prices among regions with zero-, low-, and high-carbon electricity mixes to be similar, even though they have very different societal costs. In addition, most regions have not yet reached wind and solar penetrations at which transmission expansion becomes essential for enabling inter-regional power flows.

Private developers of transmission currently see little price signal to invest in large-scale regionally beneficial lines, as many of the economic, reliability, resilience, and carbon reduction benefits of transmission do not accrue to them. In other words, there is a market failure in that market signals alone undervalue the need for transmission. Since transmission can take ten years to build, policy makers need to put the policies in place now to get transmission started so it will be available when it is even more critically needed. Ten to twenty years from now the value of transmission likely will be much higher due to the essential need to access remote renewables and move tens of GigaWatts of wind and solar back and forth among regions on a daily basis to access their complementary output profiles.

Why a Tax Credit?

Tax policy is a primary tool that Congress uses to provide federal incentives for investments in energy development, particularly renewable technologies.[50] Tax incentives can reduce the cost of a technology and stimulate development of new or under-utilized resources. Tax policy was instrumental in promoting fossil fuels and in driving the development of hydraulic fracturing (fracking) and the shale gas revolution, and are currently available to incentivize carbon capture and storage and new nuclear generation.[51] Tax credits have driven large growth in wind and solar energy over the last decade.

Through tax credit-driven deployment, the cost of various resources has fallen. Electric vehicle tax credits have helped drive down the cost of lithium-ion batteries that can now also be cost-effectively used at large scales in bulk electricity systems. Wind and solar tax credits have helped drive down costs by 70 and 90 percent, respectively, over the last decade.[52]

Energy tax provisions have been enacted for a variety of non-tax reasons, including to enhance national security, encourage domestic economic activity, and address certain other externalities

50 *See* Congressional Research Service, *The Value of Energy Tax Incentives for Different Types of Energy Resources*, updated March 19, 2019, Congressional Research Service, "Energy Tax Policy: History and Current Issues, updated June 10, 2008, Donald B. Marron, *Energy Policy and Tax Reform*, Testimony before the Subcommittee on Select Revenue Measures and the Subcommittee on Oversight of the Committee on Ways and Means, United States House of Representatives, September 22, 2011, and Tax Policy Center, "Key Elements of the U.S. Tax System," (n.d.).

51 Alex Trembath, Jesse Jenkins, Ted Nordhaus, and Michael Shellenberger, Breakthrough Institute, *Where the Shale Gas Revolution Came From*, May 2012, and Paul Dvorak, "Wind Energy Less than 3% Of All Federal Energy Incentives Says New Analysis," August 15, 2016.

52 Lazard, "Levelized Cost of Energy and Levelized Cost of Storage – 2020," October 19, 2020.

not reflected in market prices. Tax incentives for non-emitting energy production are defended on the grounds that the market does not reward the investor for the social benefits provided by such energy resources (i.e., the lack of environmentally harmful emissions) relative to emitting energy resources. These benefits are enjoyed by society as a whole, but without a tax credit the investor is not compensated for those benefits. Congress enacts tax policy to provide the missing reward and level the playing field between less costly but socially harmful energy production, and more expensive but socially beneficially production.[53]

There is no functioning regulatory structure for cost recovery for large-scale regional and interregional transmission. Large-scale regional and interregional investments must rely on either voluntary commitments or dysfunctional market and regional processes. Since cost allocation policies do not capture many of the benefits of interregional transmission, a tax credit is the simplest way to capture these benefits and spread the cost as widely as possible. An investment tax credit for transmission would incentivize approval and construction of large-scale lines needed to integrate renewable resources and enhance the resilience of the system.

53 *See*, Joint Committee on Taxation, *Present Law and Analysis of Energy-Related Tax Expenditures*, at 27, JCX-46-16, June 9, 2016.

IV TRANSMISSION INVESTMENT TAX CREDIT DESCRIPTION AND DESIGN

The transmission investment tax credit proposals introduced by Senator Heinrich and Representatives Horsford and Lee, as well as the transmission investment tax credit provision in Senator Wyden's Finance Committee bill, would provide an ITC equal to 30 percent of the qualified transmission property of the taxpayer. The qualified investment for any taxable year is the basis of any qualified transmission property placed in service by the taxpayer during such taxable year.

Qualified Property

The legislative proposals of Senator Heinrich, Representative Horsford, and Chairman Wyden all have similar definitions of transmission property that qualifies for the ITC. In Chairman Wyden's Clean Energy for America Act, "qualified transmission property" means:

> ...any overhead, submarine, or underground transmission property which is capable of transmitting electricity at a voltage of not less than 275 kilovolts, and ''(ii) any other equipment necessary 12 for the operation of a new circuit, including equipment listed as 'transmission plant' in the Uniform System of Accounts for the Federal Energy Regulatory Commission under part 101 of subchapter C of chapter I of title 18, Code of Federal Regulations.[54]

Effective tax provisions must be self-executing and have very bright lines in order for companies to invest with confidence that the IRS will allow them to receive the tax credit when an audit potentially occurs years after the investment is made. In contrast to grant and loan programs administered by various federal agencies, generally there is no process for pre-approval based on defined criteria.

To provide a clear bright line, while also limiting the credit to regionally significant lines, the bills require capacities of at least 275 kiloVolts. The details of that threshold may change as the process unfolds in the Senate Finance Committee and House Ways and Means Committee. The stated intent of the proponents of the tax credit is to make it apply only to those regionally significant regional and interregional types of transmission lines which do not presently have a workable cost allocation and recovery mechanism. The exact language to define what

54 Clean Energy for America Act, 117th Congress, April 21, 2021.

qualifies and what is excluded will likely evolve with input of tax law experts and power system engineers. A size cutoff will be important to include only those transmission facilities that enable large-scale movements of power, generally over wider regions. A voltage threshold is effective as longer transmission lines typically operate at higher voltages, as the higher voltage is necessary to efficiently move power across greater distances (voltage is analogous to pressure in a municipal water system). These are the types of projects that are not moving forward today, yet are needed to provide the economic, resilience, and environmental benefits described above.

As noted above, the focus of the proposal is on new "regionally significant" lines and is not intended to apply to the types of routine local investments that can be recovered readily in rates through state or federal tariffs. The 275 kiloVolt floor generally supports transmission over longer distances, which will help transmit electricity from areas flush with renewable resources (generally rural) to regions with high electricity demand (typically more densely populated areas).

If additional clarity is needed, legislative history or Treasury guidance could reference use of transmission capacity rating methodologies that are well-established by the North American Electric Reliability Corporation (NERC), Institute of Electrical and Electronics Engineers (IEEE), and other standards organizations. The legislation could simply specify that the transmission owner use the same capacity rating methodology they use for compliance with NERC standard FAC-008.[55] That standard does not require a specific rating method but does require the use of an industry standard like IEEE 738 (which applies to overhead lines) or engineering analysis.

In addition, the various legislative proposals, including the Clean Energy for America Act, would also allow the ITC for the cost of ancillary property related to the operation of the new transmission line, including equipment listed as "transmission plant" in the Uniform System of Accounts for the Federal Energy Regulatory Commission under part 101 of subchapter C of chapter I of title 18, Code of Federal Regulations. This includes transformers and other substation equipment necessary for the operation of the new line. Referencing a well-understood FERC definition will facilitate implementation of the ITC.

The new credit would be part of the existing ITC, which provides the investor community with more certainty regarding its implementation. The existing ITC has several well-understood limitations. These include an adjustment to the depreciable basis of the property to reflect the ITC; a recapture provision if the credit facility is not held, or does not operate, for five years after it is placed in service; a requirement that the property must be used in the United States; and a restriction that the property generally cannot be used by a governmental unit, a foreign person or entity, or other tax-exempt organization. In addition, the ITC cannot be used to fully offset the tax liability of the taxpayer.[56] Any credit not absorbed in the current year can be carried back one year and forward 20 years to offset tax liability in such years, subject to the same limitations.[57]

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55 NERC, "FAC-008-04 – Facility Ratings," (n.d.).

56 *See*, Internal Revenue Code, § 38(c). The combination of the taxpayer's general business tax credits can roughly offset 75% of the taxpayer's tax liability for the year.

57 *See*, Internal Revenue Code, § 39. Newly-enacted tax credits generally cannot be carried back to a taxable year that the credit did not exist.

ITC legislation will need to specify the dates of eligibility, which could be based on when the property is placed in service, after some date such as December 31, 2022 as in the Clean Energy for America Act and before some expiration date.[58]

Credit Monetization

The ITC generally provides an up-front tax benefit in the year the property is placed in service, providing developers with sufficient tax liability with an immediate recoupment of their investment. The majority of developers do not have sufficient tax liability to absorb energy tax credits and must transfer the benefits to tax equity investors with sufficient liability (generally, large financial institutions). Having an up-front tax benefit, like the ITC, facilitates the ability for a tax-equity investor to forecast that it will use the benefit (as contrasted with accelerated depreciation and Production Tax Credits, the benefits of which are realized over time and require longer-ranged forecasts of future tax liabilities). In addition, an ITC can be transferred in a variety of ways, including traditional leases, sale-leasebacks, inverted leases, and partnerships. Each of these types of transactions has different benefits, providing flexibility in the tax equity monetization of an ITC.[59] The techniques normally used in tax benefit transfers (leases, inverted leases and partnerships) would be fully available to monetize the transmission ITC.

Some recent legislative proposals, including the Clean Energy for America Act, would provide a direct-pay mechanism to allow a renewable project developer to receive a cash payment from the Treasury in lieu of receiving tax credits.[60] This mechanism would serve several purposes, including ensuring that projects continue to get built on the margins as economic conditions strain the tax equity markets, and to ensure that a wider spectrum of developers, who generally do not have taxable income for many years after a project has been completed due to depreciation deductions, can monetize the value of the credits without having to carry them forward to future years. In theory, monetization allows the developers to build additional projects by allowing them to realize the full value of the tax incentive. A direct pay mechanism would reduce the need for developers to enter into complex tax equity transactions and thus would enhance the value of the ITC, simplify and reduce the cost of project financing, and provide flexibility for developers.

Administration and Implementation

One advantage of tax policy is that it is a proven and familiar mechanism for electricity infrastructure developers and investors. Most transmission developers have also built renewable energy generation projects using tax credits. Developers and investors can quickly put tax credits to work deploying new infrastructure.

The potential for rapid deployment is particularly true for ITCs. These credits have been part of

58 The Clean Energy for America Act would require the Department of Energy and the Environmental Protection Agency to determine when greenhouse gas emissions from electricity production were reduced by 75% relative to a 2021 baseline. A full, 30% ITC would be available for transmission facilities the construction of which began in the year of the determination and the subsequent. The credit would be reduced to 22.5% and 15% for transmission facilities the construction of which began in the following two years, respectively.

59 *See*, Keith Martin, "Inverted Leases," June 1, 2017.

60 *See*, also, the direct pay mechanism in H.R. 848, Growing Renewable Energy and Efficiency Now (GREEN) Act of 2021, Sec. 104, Rep. Mike Thompson (D-CA), Introduced February 4, 2021.

the Internal Revenue Code for decades and are simple relative to production-based and other tax incentives. Thus, they are well-understood by developers, investors and their tax advisors.

The transmission bill does not provide any obvious obstacles to rapid implementation. As with other ITCs, the credit generally would be claimed by the taxpayer that places the property in service. A special rule would allow the credit to be claimed for qualified progress expenditures (i.e., allow credits to be claimed as construction commences). However, qualified progress expenditures are valuable only if the taxpayer constructing the property has sufficient tax liability to claim the ITC or the ITC is made refundable. If, as in most cases, the developer plans to utilize tax equity to monetize the credit, the election to claim the ITC based on qualified progress expenditures is not made.

The calculation of the transmission credit is straightforward; it is 30 percent of the costs properly allocable to the project. Determining allocable costs should be relatively easy. Taxpayers have been allocating project costs to transmission lines and related property for depreciation purpose for several years.

Perhaps the only impediment to utilization of the transmission ITC worth mentioning would be the relative newness of the provision. Developers, investors and their advisors may need time to become comfortable that any particular project qualifies for the benefit and that costs are properly allocable to qualified investment. For this reason, it is important that the factors that qualify a transmission line for the ITC (capacity, location, etc.) be as clear as possible in the statute or legislative history. Otherwise, taxpayers may need to wait for administrative guidance before they can make investments with a degree of certainty. Wage and other labor requirements with respect to the construction, repair, or alteration of the property in order to qualify for the ITC will require processes, and perhaps certifications, to provide investors certainty with respect to compliance with these requirements.

Once the tax credit is signed into law, companies that build and place into service regionally significant transmission lines may proceed to claim the credit on their tax returns. As noted above, tax credits are relatively simple and well-understood by the finance community, so project development can quickly proceed. We expect the tax credit will drive the completion of a number of projects that would not have otherwise been pursued.

V OTHER TRANSMISSION POLICIES FOR OTHER TRANSMISSION BARRIERS

Large-scale transmission development is currently constrained by multiple policy roadblocks related to how we plan, pay for, and permit transmission. These are often called the "3 Ps" of large-scale transmission and no single policy addresses all of them. A transmission tax credit can very effectively address the problem of paying for transmission, but other policies are needed to address the other problems. The projects ready to go described above are largely through the siting and permitting processes and depend mainly on an incentive like the tax credit to move forward.

One promising approach is to use new or existing loan authority to break out of the so-called chicken-and-egg transmission problem. Large-scale transmission is always hindered by the issue of whether generation or transmission should come first. The successful models of transmission development were based on the *Field of Dreams* mantra of "build it and they will come." In all cases to date, pro-active transmission developments have filled up quickly with transmission users. With the cost allocation difficulty and limited jurisdiction of any one regulator to compel a "build it and they will come" approach, the government could fill the void with loan authority.

Legislation could also create an "anchor tenant loan" program wherein the government reserves up to 50 percent of the capacity on large-scale transmission lines. Over time, as transmission customers use the line, they would pay taxpayers back. Using a government guarantee to reduce the risk of transmission development reduces the cost of capital, benefiting consumers. Based on the success of all pro-active transmission development to date, there is little risk of a transmission line not being fully subscribed.

In April 2021 the Department of Energy (DOE) announced up to $8.25 billion in loan guarantees for certain categories of transmission projects.[61] This is a limited pot of funding and its use for transmission is as yet untested. A challenge with loan programs is that the government action triggers the National Environmental Policy Act (NEPA).

Another policy option is for FERC to overhaul transmission planning and cost allocation in order to move regionally significant transmission forward. Americans for a Clean Energy Grid and others have recommended such an action.[62] However, compared to a tax credit, an overhaul

61 The White House, "Fact Sheet: Biden Administration Advances Expansion & Modernization of the Electric Grid," April 27, 2021.
62 Rob Gramlich and Jay Caspary, *Planning for the Future: FERC's Opportunity to Spur More Cost-Effective Transmission Infrastructure*, January 2021.

of federal regulations takes years to be developed, enacted, and implemented. The policy will need to meet cost allocation requirements established by courts to demonstrate that every entity that pays also receives benefits. As the U.S. Court of Appeals for the Seventh Circuit articulated in *Illinois Commerce Commission v. FERC*, to approve a cost allocation methodology, the Commission must have "an articulable and plausible reason to believe that the benefits are at least roughly commensurate" with how the costs are allocated.[63] Such showings are hard to quantify and open up the potential for litigation that can take years to resolve.

Another approach is to use government appropriations and spending. An existing policy vehicle is Smart Grid Investment Grants. Congress could enable DOE to fund regionally significant transmission directly through this program that was authorized by the Energy Independence and Security Act of 2007, Section 1306. Any level of funding could be provided. Bulk power transmission was a small part of this program when it was used largely for retail meters in the American Reinvestment and Recovery Act of 2009, but the bulk power component could be increased dramatically. Spending through this program would also trigger NEPA and an EIS process.

63 *Illinois Commerce Commission v. FERC*, 576 F.3d 470, 477 (7th Cir. 2009).

VI CONCLUSION

One of the best policy options to advance new transmission projects in the near-term is an Investment Tax Credit. A 30 percent credit for investments in regionally significant transmission would put people to work in both transmission and renewable generation development and construction jobs, while providing consumers with access to more affordable, reliable, and cleaner electricity.