New NEPA Reforms and Duplicative State Environmental Reviews Could Delay Renewables and Clean Electric Transmission

Thomas N. Russo

On July 16, 2020, the President's Council on Environmental Quality (CEQ) finalized an overhaul of the guidelines for implementing the National Environmental Policy Act (NEPA) regulations. Supporters of the new regulations applauded the changes. However, states and numerous national environmental groups have vowed to challenge the new rule in the courts. The timing of the final rule just prior to the presidential election in November will likely create uncertainty for projects undergoing NEPA review, and might possibly delay any final ruling.

This author believes the biggest losers under this scenario may be renewable energy projects, and especially large infrastructure projects such as high-voltage transmission lines. These projects are not exempt from NEPA, which is triggered when projects are located on federal lands or cross international boundaries. Project developers must also obtain federal special use permits from land management agencies, Clean Water Act (CWA) Section 401 and 404 permits, Coastal Zone Management Act determinations, and permits under Section 10 of the Rivers and Harbors Act of 1899. In some instances, these projects may also be subject to state environmental reviews.

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To be clear, the NEPA process under the old regulations was nothing to brag about. For example, consider the 730-mile-long TransWest Express electric transmission project that will pass through three western states and bring wind power to California and Arizona. It could take between 14 and 17 years to complete the NEPA and other federal, state, and county approvals. TransWest Express LLC hopes to begin construction in 2021 and deliver power by 2024. Such a timeframe is unacceptable if renewables and clean energy transmission are to play a

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significant role in meeting state greenhouse gas (GHG) emission goals and decarbonizing the electric power sector.

This author will discuss the following throughout this column:

- The most significant changes of the new NEPA regulations
- How duplicative environmental reviews at the federal, state, and local level plague energy infrastructure development
- What federal and state agencies must do to expedite development of renewables and clean electric transmission
- What may happen if environmental reviews at the federal and state level continue with a "business as usual" approach

NEW NEPA REGULATIONS

The CEQ's new regulations are the first comprehensive update to the NEPA regulations in more than 40 years. While most of the original regulations were retained, the CEQ made some substantial changes, which are somewhat controversial, along with procedural changes that appear to be appropriate (**Table 1**).

The new regulations become final on September 14, 2020. However, the rule and effective date is subject to congressional review and may change or be repealed. If so, the CEQ will publish a new effective date or terminate the rule.

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FEDERAL AGENCIES, DEVELOPERS, AND STAKEHOLDERS CAUGHT IN THE MIDDLE

An important consideration in the new regulations is the deadlock between energy developers and state and national environmental groups who oppose projects, especially oil and natural gas pipelines. These project opponents often support renewable and related electric transmission projects. However, the final NEPA rules did not create an exemption for wind and solar projects or the electric transmission lines that may cross several states, federal land, or international boundaries, and deliver the renewable energy to load areas (**Figure 1**). Nor would the states or national environmental groups approve of such a change. Further, local environmental groups, landowners, and environmental justice communities would want to scrutinize these clean energy projects just as they do other infrastructure projects. The real issue is not so much the analysis, but duplication of

Table 1. Major Substantial and Procedural Changes to the NEPA Regulations

Substantive Changes	Procedural Changes
• Eliminates indirect and cumulative effects analyses • Revises analysis to determine "Significant Effects" to direct project effects and project nexus • Limits consideration of alternatives to the proposed project • Simplifies "Effects" analysis especially when the project is controversial • Codifies previous judicial decisions showing that a NEPA compliance violation alone is insufficient to be considered "irreparable harm" or to award relief to a plaintiff • Recognizes Mitigative Finding of No Significance in the regulations	• Time and page limits • Required schedules • Approval of applicant-prepared Environmental Impact Statements • Expanded use of Tiering and Adoption • Elevates consultation with Tribal organizations by adding "Tribal" to the phrase "State and local regulations"

Source: CEQ NEPA Regulations, https://ceq.doe.gov/laws-regulations/regulations.html.

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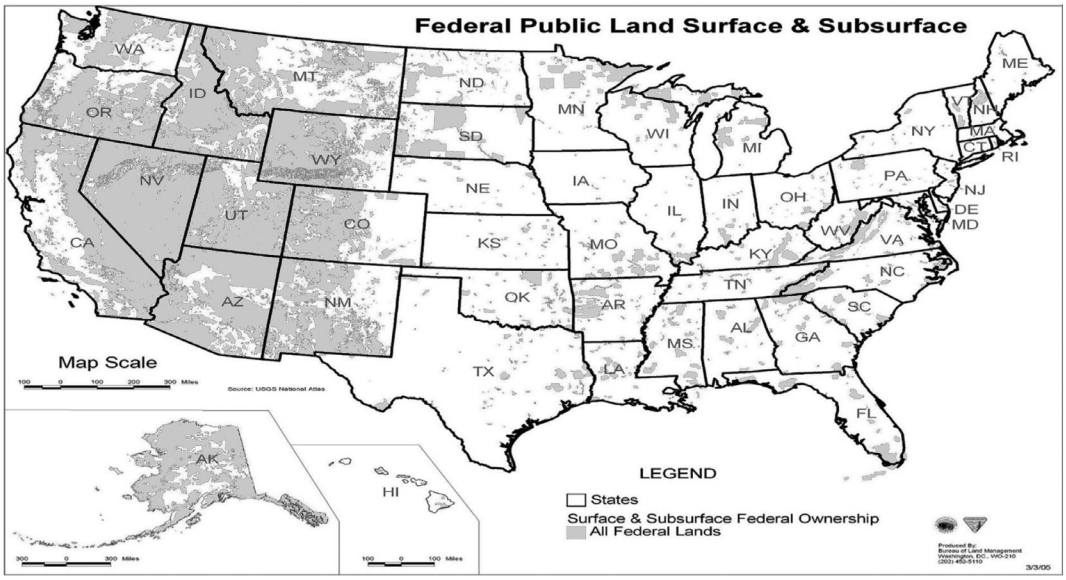
Figure 1. Federal Land Ownership Is Significant in the Western United States



Source: US Bureau of Land Management and US Forest Service.

environmental review at the federal, state, and local level.

WHAT LIES AHEAD

Despite the COVID-19 pandemic's adverse effects on the US economy, the interest in and growth of renewable energy, electric storage, and clean electric transmission lines will continue. If there is a change in the administration in Washington in November, the growth rate may be accelerated, according to a report released by the Biden-Sanders Climate Change Panel. The Biden-Sanders Plan recommended eliminating carbon pollution from power plants by 2035 by installing 500 million solar panels and 60,000 wind turbines onshore and offshore.[1] The plan would also create a battery storage and clean energy transmission line moonshot program, as well as promoting environmental justice. Therefore, the input from tribal and indigenous communities will be given greater consideration, as many solar, wind, and electric transmission projects would affect their interests.[2]

Large projects such as the clean electric transmission lines envisioned by the Biden-Sanders Plan could potentially be problematic. Unlike interstate natural gas pipelines that are evaluated by the Federal Energy Regulatory Commission (FERC), Congress has not passed legislation authorizing a single federal agency to review and approve the construction and operation of new interstate or cross-border high-voltage electric transmission lines. Nevertheless, Congress understands the role electric transmission can play in decarbonizing the electric power sector, reducing GHG emissions, and building the clean energy economy through the creation of thousands of jobs. A FERC staff report[3] recently submitted

[1] Whieldon, E. (2020, July 9). Biden-Sanders task force's climate plan excludes fracking ban, sees FERC role. *S&P Global Intelligence-Platts*. Retrieved from https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/biden-sanders-task-force-s-climate-plan-excludes-fracking-ban-sees-ferc-role-59376934.

[2] Russo, T. N., & Martin, E. (2020). Environmental justice and the energy transition: How the energy industry can do better. *Climate and Energy, 37*(2), 17–28.

[3] FERC Staff. (2020, June). *Report on barriers and opportunities for high voltage transmission*. Retrieved from https://cleanenergygrid.org/wp-content/uploads/2020/08/Report-to-Congress-on-High-Voltage-Transmission_17June2020-002.pdf.

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to Congress identifies the opportunities and obstacles of high-voltage transmission.[4]

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APPROVAL OF CLEAN ENERGY TRANSMISSION PROJECTS LENGTHY PROCESS

FERC's staff report highlighted several aspects of the TransWest Express transmission project worth noting. When completed, TransWest Express will provide 3,000 megawatts (MW) of transmission capacity to deliver wind energy from southern Wyoming to Nevada. The project will consist of 730 miles of high-voltage transmission consisting of a 500-kilovolt (kV) high-voltage direct-current (HVDC) system with terminals in Wyoming and Utah and a 500-kV high-voltage alternating-current (HVAC) system from the Utah terminal to southern Nevada (**Figure 2**).

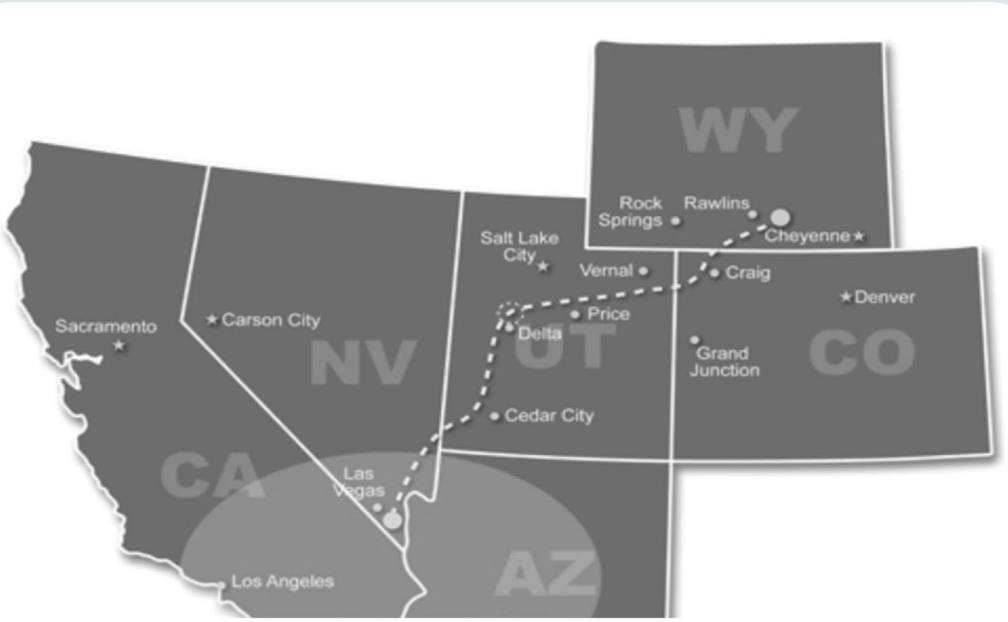
The TransWest Express project is an example of the hurdles a clean energy transmission line had to navigate under the old NEPA process to obtain special use permits on federal land, as well as state and local construction permits. The project did use existing and designated utility corridors,[5] which were designated after the US Bureau of Land Management (USBLM) prepared a Programmatic EIS on the corridors years ago.

During the NEPA process and to obtain special use permits for transmission rights of way, TransWest Express LLC needed to navigate five federal agencies: the Washington Area Power

[4] FERC defines high-voltage transmission as AC transmission lines greater than 345 kV as HVAC and DC lines greater than 100 kV as HVDC above or underground.

[5] West-wide Energy Corridor PEIS Frequently Asked Questions (FAQs), https://corridoreis.anl.gov/eis/faq/index.cfm#whypropose.

Figure 2. Proposed TransWest Express Project Route—Wyoming to Nevada



Source: *FERC Report to Congress on High-Voltage Transmission 2020.*

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Administration (WAPA), USBLM, US Forest Service (USFS), and Bureau of Reclamation (BoR). It took the project 10 years to complete the NEPA process; the project was proposed in late 2007, and the aforementioned agencies made a decision that relied on a joint WAPA-USBLM EIS in late 2017. The USBLM, USFS, and BOR issued the special use permits a year later. Then state and county reviews and permits were approved separately after the NEPA process between 2017 and 2020.

Extensive timeframes of a decade or more appear to be the norm for high-voltage transmission projects in the eastern United States.

Extensive timeframes of a decade or more appear to be the norm for high-voltage transmission projects in the eastern United States as well. Transmission Developers Inc. (TDI) began planning the Champlain Hudson Power Express (CHPE) project in 2008 and initiated the regulatory review in 2010. The project is a 331-mile transmission project that will deliver 24,000 MWh of Canadian hydropower daily to New York City. Two five-inch-diameter cables will be placed underwater or underground and run from the US-Canadian border, south through Lake Champlain, along and under the Hudson River, and eventually ending at a converter station that will be built in Astoria, Queens. Approximately 60 percent of the transmission line will be buried under waterways, and the remainder will be buried underground. The impacted waterways include the Mohawk River, the Harlem River, the East River, and various unnamed wetlands and streams in the Hudson River Basin (**Figure 3**).

The Department of Energy (DoE) issued a Presidential Permit for the CPHE project after preparing an EIS with six other federal and state agencies.[6] That was followed by reviews and approvals by the US State Department, International Joint Commission, and the Department of Defense, as the electric transmission facilities connect at the international border. The Army Corps of Engineers and New York state also issued permits for activities to bury the pipeline in navigable waters of the United States.

NEED FOR BUSINESS AS UNUSUAL AND INTERREGIONAL COOPERATION

Fortunately, neither the TransWest Express nor the Champlain Hudson Power Express transmission projects will be affected by the new NEPA regulations. However, the project suffered additional delays in securing customers for the power and opposition by in-state generators. Nevertheless, the projects have taken 11–14 years from conception to construction, if the latter begins in 2021. This is a significant lead time and could be very problematic for future clean energy projects. Solar, wind, and energy storage developers might be hesitant to undertake projects until they have reasonable assurance of when the related electric transmission projects will be approved, constructed, and operational. This will be the case with or without the Biden-Sanders Plan. The growth of renewable energy and electric storage projects will be constrained by the delays in complying with NEPA, the CWA, the Rivers and Harbors Act, and other federal statutes and state and local environmental review laws. Twenty states have little NEPAs that are similar to the federal NEPA (**Table 2**), and delays could be even more extensive for projects sited there.

The environmental reviews for renewable and electric transmission projects could be shortened by at least three years. This simply requires the states to align their environmental reviews with the federal NEPA process and to cooperate regionally with the lead federal agency.

This author has serious doubts as to whether the new NEPA regulations and streamlined scope

[6] The Army Corps of Engineers, US Fish & Wildlife Service, US Environmental Protection Agency, US Coast Guard, New York State Department of Environmental Conservation, and New York State Department of Public Service were cooperating agencies in the preparation of the EIS.

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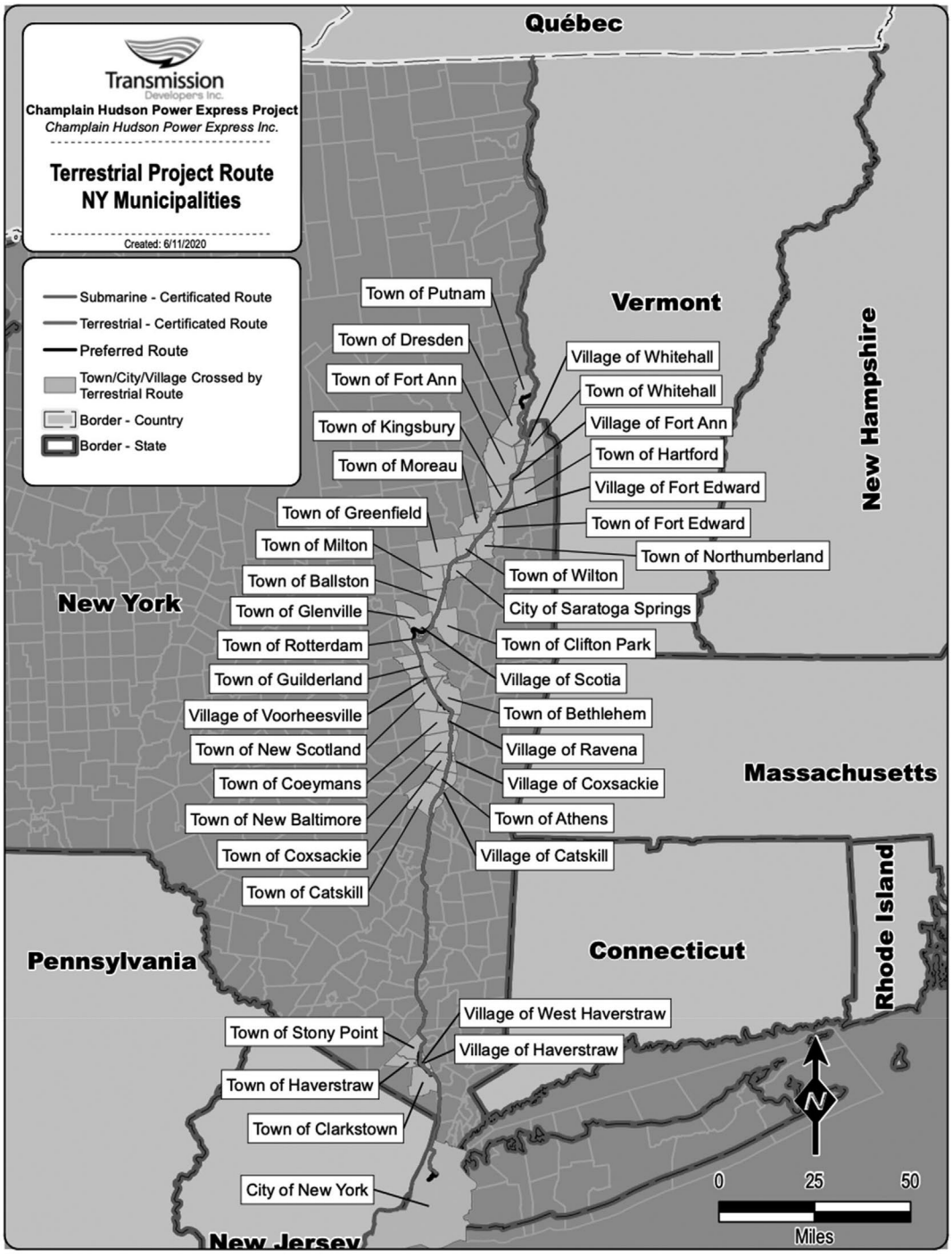
Figure 3. Champlain Hudson Power Express Project Route—Canada to New York



Source: Champlain Hudson Power Express transmission project, https://chpexpress.com/project-overview/route-maps/.

of analysis will significantly improve these timeframes in the near term. All federal agencies will be required to develop specific NEPA guidance for their agencies within two years of the effective date of the new regulations. This requirement is likely to cause uncertainty among energy developers and more delays and litigation in the short run for projects undergoing the process under

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Table 2. States with Little NEPAs or Environmental Quality Act Laws

1. California Environmental Policy Act (CEQA): NEPA-CEQA Handbook	11. New Jersey Executive Order 215 (EO 215)
2. Connecticut Environmental Policy Act (CEPA)	12. New York State Environmental Quality Review Act (SEQRA)
3. District of Columbia Environmental Policy Act of 1989 (DCEPA)	13. New York City Environmental Quality Review (CEQR)
4. Georgia Environmental Policy Act (GEPA)	14. North Carolina State Environmental Policy Act (SEPA)
5. Hawaii Environmental Policy Act (HEPA)	15. Puerto Rico Environmental Public Policy Act (EPPA)
6. Indiana Environmental Policy Act (IEPA)	16. South Dakota Environmental Policy Act (SDEPA)
7. Maryland Environmental Policy Act (MEPA)	17. Tahoe Regional Planning Compact (TRPC)
8. Massachusetts Environmental Policy Act (MEPA)	18. Virginia Environmental Impact Report Procedure (VAEIR)
9. Minnesota Environmental Policy Act (MEPA)	19. Washington State Environmental Policy Act (SEPA)
10. Montana Environmental Policy Act (MEPA)	20. Wisconsin Environmental Policy Act (WEPA)

Source: Council on Environmental Quality.

the old NEPA regulations. Even if the CEQ was successful in the courts, agencies such as the USBLM, BoR, USFS, DoE, State Department, Army Corps, FERC, and others would face additional legal challenges later when issuing construction permits for the permits and transmission rights-of-way.

The environmental reviews for renewable and electric transmission projects could be shortened by at least three years. This simply requires the states to align their environmental reviews with the federal NEPA process and to cooperate regionally with the lead federal agency. This occurs in regional transmission organizations (RTOs) and independent system organizations (ISOs) that plan transmission projects but has not caught on at state and federal environmental agencies. In fact, it is with few exceptions "business as usual," which is a prescription for delays, cost overruns, and litigation. The inability or refusal of states to rely on and cooperate with federal agencies is a chronic problem for energy projects, but especially renewable energy projects that need high-voltage electric transmission to be viable. One of the most documented problems was the extensive delays (greater than 10 years) by some states in issuing CWA Section 401 permits for FERC hydropower projects. This has only been resolved by a court decision and subsequent decision by the US Environmental Protection Agency to issue new regulations clarifying when the one-year review period for issuing a CWA Section 401 permit begins.[7]

Executive Order 13807 established a One Federal Decision policy, which sets a goal of completing environmental reviews for major infrastructure projects within an agency average of two years.

In the past, even federal agencies were reluctant to cooperate with one another. However, Executive Order 13807 established a One Federal Decision policy, which sets a goal of completing environmental reviews for major infrastructure projects within an agency average of two years. The new NEPA regulations require federal agencies to coordinate and rely on a single EIS and issue a joint Record of Decision, where possible.

[7] The new US Environmental Protection Agency regulations define the one-year period to begin when the state agency receives the request for certification, and not when the agency believes it has an adequate administrative record. See https://www.epa.gov/cwa-401/final-rule-clean-water-act-section-401-certification-rule.

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As seen in the case of the Champlain Hudson Power Express project, this is already occurring. The fact that New York's state agencies cooperated with the DoE in the preparation of the EIS is an excellent development.

New York state's creation of a new Office of Renewable Energy Siting (ORES) to specifically coordinate and expedite the environmental reviews of renewable energy projects is also an excellent development.[8] Eligible projects 2,000 MW or larger that have already begun to navigate the current permitting process in New York will be able to opt-in to the new expedited process. The new office would act on a complete application within one year, with some projects sited on state-sponsored former commercial and industrial sites being reviewed within six months. The NYS Energy Research and Development Authority (NYSERDA) and other agencies have also launched a "Build Ready" program looking at numerous underutilized sites listed in law. NYSERDA will "package" these sites (certain pre-construction, permitting, community benefit projects, etc.) and make available to developers through a competitive solicitation, de-risking the process.

States often require more detailed information than their federal counterparts in conducting environmental review before approval permits.

While the goals of the new renewable energy office are admirable, it's worth noting that the one-year review period starts when the state agency has a "complete application." There are major differences between federal agencies and the states on what constitutes a complete application or administrative record. In fact, this is a systemic cause of project delays. States often require more detailed information than their federal counterparts in conducting environmental review before approval permits. This results in two sequential or parallel processes with the energy developer in the middle trying to meet the requirements of each so that applications can be reviewed and acted upon. From the perspective of an energy developer, and in the case of New York, the extent to which state and federal agencies can agree on what constitutes a "complete application" will determine the success of the new office and program. Nevertheless, other states and especially the 20 states with little NEPAs (Table 2), as well as federal agencies, should develop one set of application requirements that each can use to meet their statutory requirements. Only by aligning their environmental reviews and business practices will federal and state agencies be able to enable renewable energy and electric transmission projects to meet NEPA, State Renewable Portfolio Standards, and Clean Energy Plans by 2040.

NEPA HAS SOME OBVIOUS SHORTCOMINGS

NEPA is a procedural statute that doesn't result in a predefined outcome. It is fine when dealing with a project issue but is not equipped to deal with many out-of-scope issues that arise during the process (**Figure 4**). The NEPA process guarantees transparency and public participation. However, it is usually the first time the general public becomes aware of a long-standing energy industry practice, government law, and federal agency involvement. The general public often wonders when Congress passed such a law or policy and why they were never consulted. Also, they become frustrated about the limited role of the federal government to regulate oil and gas drilling and hydraulic fracking, the construction of electric transmission and oil pipelines unless it occurs on federal lands or Congress authorizes an agency to regulate it, as it does with FERC for nonfederal hydropower projects.

Despite the importance of NEPA reviews, many EISs have a poor record of anticipating environmental impacts. Most EIS forecasts are general and imprecise. A post-project audit of 239 impacts forecasted in a cross-section of 29 US EISs found that only 30 percent of the impacts were unqualifiedly close to their forecasts.[9] Many

[8] Office of the Governor. (2020, February 21). Governor Cuomo announces 30-day amendment to accelerate renewable energy projects and drive economic growth as part of nation-leading climate agenda. Retrieved from https://www.governor.ny.gov/news/governor-cuomo-announces-30-day-amendment-accelerate-renewable-energy-projects-and-drive.

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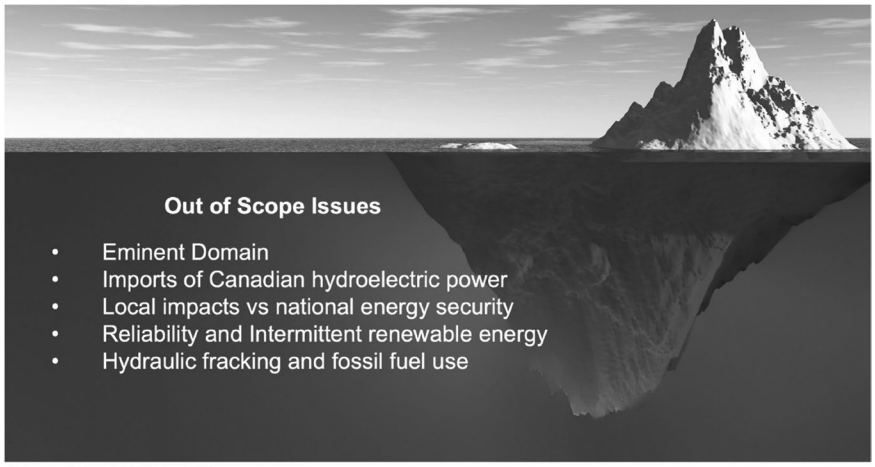
Figure 4. Out-of-Scope Issues That NEPA Does Not Address



Source: Russo on Energy LLC.

of the forecasts were rated accurate principally by virtue of the vagueness of the forecasts. This shouldn't be taken as a criticism of NEPA assessments. Instead, we should recognize the limitations and abilities of analysts to predict impacts on the environment precisely.[10]

POST-PROJECT MONITORING AND ADAPTIVE MANAGEMENT

If NEPA reviews can't anticipate impacts with accuracy, then the only recourse is to monitor the environment during the construction and operation. That really means "forever" monitoring a project's impacts and ongoing policy and project assessment, and using adaptive management to reduce impacts.[11] This approach accomplishes several objectives: (1) it takes pressure off the EIS; (2) it assures the public they will not be stuck with a project that has unanticipated impacts; (3) problems will be identified, studied, and addressed; and (4) the federal agencies making the decisions will enforce compliance to ensure the developer monitors and implements mitigation. FERC's hydropower compliance program is an example of such a program that covers over 1,700 nonfederal hydropower projects.

CONCLUSIONS

The new final NEPA regulations in the short term will provide uncertainty and greater litigation risks for energy developers proposing clean energy projects and those currently pursuing federal and state construction permits under the old NEPA and CWA Section 401 processes. High-voltage electric transmission projects in some cases are taking 11–14 years to obtain federal, state, and local construction permits. They may also suffer additional delays in finding customers for the power and opposition from generators in RTOs and ISOs. These extensive delays affect the delivery of renewable energy needed to meet the goals of state Clean Energy Plans. The establishment of New York state's renewable energy office is promising but depends largely on federal and state agencies agreeing on what constitutes a "complete application." However, the degree that they can agree on this issue and are willing to collapse the federal and state NEPA processes will ultimately determine how quickly and efficiently projects are approved and can be built.

[9] Culhane, P. J. (1987). The precision and accuracy of U.S. environmental impact statements. *Environmental Monitoring and Assessment, 8*, 217–238.

[10] Hall, N. D. (2008). Political externalities, Federalism, and a proposal for an interstate environmental impact assessment policy. *Harvard Environmental Law Review, 32*, 49–94.

[11] Ibid.

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