UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY
OFFICE OF ELECTRICITY DELIVERY AND RELIABILITY

APPLICATION FOR A PRESIDENTIAL PERMIT FOR THE NEW ENGLAND CLEAN POWER LINK PROJECT	))))	Docket No. PP-400

To: Office of Electricity Delivery and Energy Reliability (OE-20)
U.S. Department of Energy
1000 Independence Ave. SW
Washington, DC 20585

Attention of Brian Mills, Senior Planning Advisor

COMMENTS AND MOTION TO INTERVENE OUT OF TIME OF ALLCO RENEWABLE ENERGY LIMITED

Pursuant to Rules 212 and 214 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission ("FERC") and in accordance with the Notice of Application issued in the above-captioned proceeding, Allco Renewable Energy Limited ("Allco") submits comments and a motion to intervene out of time.. As discussed below, the final Environmental Impact Statement ("EIS") issued by the Department of Energy in October 2015, for the New England Clean Power Link (the "Project") is fundamentally flawed because it fails to properly analyze the "no-action" alternative under NEPA.

I. COMMUNICATIONS.

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II. MOVANT DESCRIPTION.

Allco is the owner and developer of various small power production facilities within the meaning of Section 210(l) of the Public Utility Regulatory Policies Act, 16 U.S.C. § 824a-3 ("PURPA"), which facilities are located in the New England States, including Connecticut, Vermont and Massachusetts. Allco is a "qualifying small power producer" within the meaning of Section 210(h)(2)(B) of PURPA.

III. MOTION TO INTERVENE OUT-OF-TIME.

Allco moves to intervene out of time. The Presidential Permit for the project has not yet been issued. As a result, no party would be prejudiced by Allco's intervention. Good cause exists for Allco's intervention because as discussed *infra*, the DOE has utterly failed to properly analyze the "no-action" alternative. Allco is willing to accept the record as it stands. Allco's interests are not adequately represented by another party to this proceeding; therefore, this intervention is in the public interest and meets the threshold requirements for intervention under the FERC's procedural rules.

IV. COMMENTS ON THE CLEAN POWER LINK PROJECT.

The EIS for the Clean Power Link Project (the "Clean Power Link" or the "Project") does not conform to NEPA because it does not properly and adequately analyze the "No-Action" alternative. Under NEPA regulations, agencies must

consider all reasonable alternatives, *including those not specifically under their authority to implement*. *See* https://ceq.doe.gov/nepa/regs/40/1-10.HTM. *See also NRDC v. Morton*, 458 F.2d 827 (D.C. Cir 1972). The EIS fails to do that.

More strikingly, the EIS fails use basic market and economic principles in analyzing the No-Action. The Clean Power Link might be able to be analyzed solely as an additive project as far as economic and climate change impacts if it existed in a vacuum, but it does not. Hydro-electric electricity from the Clean Power Link would displace renewable energy projects (and the American jobs related to those projects) that would otherwise be built in the New England states and on the ISO-New England electricity grid. The results of New England's multi-state RFP establishes that beyond dispute. *See*, Exhibit A for the summary list. For the complete list of bids, see http://cleanenergyrfp.com/.

For the DOE to issue a Presidential Permit, the DOE must find that the project is "consistent with the public interest." The DOE's determination of whether a project is "consistent with the public interest" depends on:

- The potential environmental impacts of the project, as documented and evaluated during National Environmental Policy Act (NEPA) review;
- The impacts of the project on electric system reliability; and
- Any other factors DOE views as relevant to the public interest.

NEPA requires all federal agencies to consider the potential environmental impacts of their actions and to identify and evaluate reasonable alternatives to proposed actions and those alternatives' environmental impacts. Specifically, for

"major Federal actions significantly affecting the quality of the human environment," the agency must prepare "a detailed statement" regarding "(i) the environmental impact of the proposed action, (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented, (iii) alternatives to the proposed action, (iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and (v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented."

DOE has not adequately analyzed the No-Action alternative. The stated need of the DOE's action is "to decide whether to issue a Presidential permit for the Project." *See*, EIS S.2. The EIS states that the objective of the Project, and implicitly the need for the Project, is to bring Canadian hydro-power to the New England states. *See*, EIS S.3 ("the proposed NECPL Project would be a merchant transmission facility that would deliver clean, renewable hydroelectric power from the Canadian province of Quebec into Vermont and ISO-New England through the 1,000-MW transmission line (TDI-NE 2014a).")

That mischaracterizes the need. The real need, if there is a need at all, would be to bring renewable energy to New England states. But even if DOE's implicitly stated need were correct, a proper analysis of a No-Action alternative would need to account for the renewable energy generation resources in New England that would fill the need if the transmission line were not built.

The EIS fails to consider alternative generation resources that would fill the void under a no-action scenario. *See*, S.8 ("no specific alternative power generation sources have been identified under the No Action Alternative"). The DOE's approach defeats the entire purpose of analyzing viable replacements when the No-Action alternative is selected. It is also an approach that has been rejected by the courts.

Under NEPA regulations, agencies must consider all reasonable alternatives, *including those not specifically under their authority to implement*. *See* https://ceq.doe.gov/nepa/regs/40/1-10.HTM. *See also NRDC v. Morton*, 458 F.2d 827 (D.C. Cir 1972) (explaining that it is the essence and thrust of NEPA that impact statement serve to gather in one place discussion of relative environmental impact of alternatives, and although alternatives required for discussion are those reasonably available, they should not be limited to measures which particular agency or official can adopt; when proposed action is integral part of coordinated plan to deal with broad problem, range of alternatives which must be evaluated is broadened). Thus the failure to consider other generation resources because they would not require a Presidential Permit within DOE's jurisdiction is clear error.

The results from the Multi-State clean energy RFP of the states of Connecticut, Massachusetts and Rhode Island clearly establish that the Clean Power Link line is not needed. *See*, http://cleanenergyrfp.com/. Proposals for multiples of the renewable energy requirements of the New England States were received without the need for the Clean Power Link. Those results prove beyond

doubt that the Clean Power Link is simply not needed. The attached list (Exhibit A) shows the proposals received, one of which was the Clean Power Link.

The reality shown by those RFP results is that the Clean Power Link would *displace* other domestic renewable energy projects. The New England States that are part of the ISO-New England electricity grid will only select a limited amount of renewable energy, and the Clean Power Link would displace US-based generation. The Multi-State RFP bids proves that. If the Clean Power Link were selected that means that renewable energy projects located in the United States would not be selected, resulting in, among other things, the loss of American jobs and revenue.

Thus the "Socioeconomic" impacts of the No-Action alternative are wrong. The No-Action alternative would result in different renewable energy projects filling its place. And because those alternative projects would be located entirely in the United States, they would far surpass the Clean Power Link in economic benefits *to the United States*.

The Clean Power Link will result in Canadian hydropower finding its way to the United States. *Canadian hydropower means more Canadian jobs and less American jobs.* The bulk of the economic benefits from such generation will be realized in Canada, not the United States. In sharp contrast, if the Clean Power Link were not built, then as the Multi-State RFP results indisputably show, renewable energy projects *in the United States* would take its place.

Similarly, the analysis of the No-Action alternative in Air Quality is incorrect. As the Multi-State RFP bids prove, the Clean Power Link would be

replaced with renewable energy projects located closer to the actual electrical load. Those projects would have the higher air quality benefits, and GHG benefits compared to the Clean Power Link because they would be more efficient. The farther generation is from actual load, the more electrical losses incurred.

The No-Action alternative must also take into account the fact that American jobs and tax revenues to the United States would be lost if Clean Power Link were built. To be sure there would be construction jobs from the construction of the Clean Power Link but all the generation facility jobs and economic benefits will be in Canada.

As the Multi-State RFP bids prove, the Clean Power Link will displace American jobs related to construction and operation of renewable energy projects in the United States that would fill any void if the Clean Power Link were not built. DOE has not analyzed those economic impacts and the loss of American jobs and tax revenues if the Clean Power Link were built.

A. The EIS Fails to Adequately Compare the Impacts of Approval versus the No-Action Alternative.[1]

By relying on an incorrect assumption about the market impacts of the failure to approve the Clean Power Link project, the EIS violates NEPA's mandate to rigorously and objectively evaluate all reasonable alternatives to proposed

[1] Allco would like to acknowledge the work of the Institute for Policy Integrity at New York University School of Law as *amicus curiae* in *WILDEARTH GUARDIANS v. BLM*, No. 15-8109 currently before the United States Court of Appeals for the 10th Circuit. Allco's positions herein draw heavily on the *BRIEF OF THE INSTITUTE FOR POLICY INTEGRITY AT NEW YORK UNIVERSITY SCHOOL OF LAW AS AMICUS CURIAE IN SUPPORT OF PETITIONERS-APPELLANTS* (February 5, 2016) submitted in that case.

actions, including the "no action" alternative. *See* 42 U.S.C. § 4332(C)(iii); 40 C.F.R. § 1502.14.

The U.S Supreme Court has held that agencies must "consider and disclose the actual environmental effects" of proposed projects in a way that "brings those effects to bear on [their] decisions." *Balt. Gas & Elec. Co. v. Natural Res. Def. Council, Inc.,* 462 U.S. 87, 97 (1983). Analysis of alternatives is the "heart of the environmental impact statement." 40 C.F.R. § 1502.14. NEPA requires federal agencies to "[r]igorously explore and objectively evaluate all reasonable alternatives," including the "no action" alternative. *Id.* Agencies must "present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public." *Id.* Agencies must also analyze the "[e]nergy requirements and conservation potential of various alternatives." 40 C.F.R. § 1502.16(e). Compliance with NEPA is required "to the fullest extent possible," 42 U.S.C. § 4332, a command which the U.S. Supreme Court has affirmed is "neither accidental nor hyperbolic." *Flint Ridge Dev. Co. v. Scenic Rivers Ass'n*, 426 U.S. 776, 787 (1976).

As detailed below, DOE's assumption that the failure to approve the Clean Power Link would have no effect on ISO-New England demand for renewable energy, or greenhouse gas emissions is flawed as a matter of economic theory, and disproven by the renewable energy market in ISO-NE as evidenced by, *inter alia*, the Multi-State RFP bids.

The Multi-State ISO-New England RFP bids establish that building Clean Power Link will have *no positive impact* on the actual renewable energy generation contracted for in ISO-New England because there are plenty of generation projects ready to take its place—none of which involve the multitude of adverse environmental impacts created by the Clean Power Link that are described in the EIS.

The EIS simply fails to rigorously evaluate the No-Action Alternative or to provide a clear basis for choice among the options. The EIS must be revised to do so.

B. DOE's Assumption That, Compared to No Action, Approving the Clean Power Link Would Have Positive Impact on Total Greenhouse Gas Emissions Departs from Basic Economic Principles and Vastly Overstates the Clean Power Link' Relative Climate Impacts.

The EIS states:

> Under the No Action Alternative, the DOE would not issue a Presidential permit for the proposed NECPL Project to cross the United States border; therefore, no environmental effects associated with the construction and operation of the proposed NECPL Project transmission line, converter, and substation interconnection would occur on the 18 environmental resource areas (see detailed analyses in Section 5). Some environmental effects may result from taking no action, as follows.
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> Foregoing the proposed NECPL Project, the state of Vermont's forecasted energy demand would remain unmet, and energy and transmission development actions would be expected to continue. Purchases of power from other generating sources probably would be required to address the area's electricity needs.

The clincher, however, is the DOE's baseless assumption regarding alternative generating resources, and its admission that it simply did not undertake any effort to examine alternative resources:

> Without knowing the generation sources and locations within Vermont, neither the effects on particular resources nor the level of effect associated with operation and maintenance can be identified. It is reasonable to assume that environmental effects would be similar to those currently resulting from each power generation method and its associated use of fuel (EPA 2012g as cited in CHPE FEIS 2014).

DOE's assumption that its absence would result in the same percentage of fossil fuel generation replacing it is absurd and defies reality. DOE's assumption that the No-Action will have no net effect on renewable energy generation, economic benefits or climate benefits contradicts fundamental economic principles. Significant changes in renewable energy supply will affect renewable energy's price and, therefore, consumption and emission levels. The Clean Power Link will bring approximately 8.5 GWhs of electricity per year to ISO-New England. It is a serious error to assume that, under the No-Action Alternative, all 8.5 GWhs would not be completely replaced by renewable energy generation from other sources, with no effect on overall consumption or emissions.

The EIS also fails to analyze how electricity from the Clean Power Link directly competes with other renewable energy resources in electricity generation, such that *increasing the supply of Canadian hydro-electricity results in less American renewable energy generation* in ISO-New England. DOE also ignored how overall greenhouse gas emissions will vary among substitute sources of renewable

energy generation. DOE should have—and easily could have—evaluated the No-Action Alternative's climate effects.

1. **Basic Economic Principles Provide That Any Significant Change in Supply Will Change Price and Demand and, Therefore, Total Generation and Emissions.**

The basic economic principles of supply and demand provide that significant changes in renewable energy supply will affect renewable energy's price and, therefore, consumption levels. Increasing the supply of any normal good (including renewable energy) puts downward pressure on that good's market price; this is a basic tenant of the law of supply and demand. N. Gregory Mankiw, *Principles of Economics* 74–78, 80–81 (5th ed. 2008). Lower renewable energy prices can result in lower electricity costs, which in turn encourages higher levels of electricity consumption, while higher renewable energy and electricity prices discourage consumption. *See id.* at 67–68.[2]

Approving the Clean Power Link would increase the supply of Canadian hydro-electricity, lowering demand for U.S.-based renewable energy generation. *Alternatively, in the No-Action Alternative, the demand for U.S.-based renewable energy generation would be higher, which U.S-based generation would reduce*

[2] DOE may take notice of basic economic principles of supply and demand, as well as classic economic textbooks and peer reviewed articles. *See Citizens for Alternatives to Radioactive Dumping v. U.S. Dep't of Energy*, 485 F.3d 1091, 1096 (10th Cir. 2007) ("In dealing with scientific and technical evidence, extra-record evidence 'may illuminate whether an [environmental impact statement] has neglected to mention a serious environmental consequence, failed adequately to discuss some reasonable alternative, or otherwise swept stubborn problems or serious criticism . . . under the rug.'") (alterations in original).

greenhouse gas emissions, as compared to the Clean Power Link' climate impacts. Similarly, *in the No-Action Alternative*, the higher demand for U.S.-based renewable energy generation would result *in increased economic benefits for the United States*, as compared to the Clean Power Link' economic benefits which are largely in Canada.

Canadian hydro-electricity directly competes with other forms of renewable energy resources in the generation of electricity. That is plainly evident from the bids received in the New England States' Clean Energy RFP. Economists measure how coal, natural gas, and other fuels act as substitutes in the electricity market by analyzing "cross-price elasticity" (that is, how responsive producers are in swapping inputs when relative prices change). *See* Mankiw, *supra* at 99. For example, the U.S. Energy Information Administration ("EIA") found that for the U.S. market, a 10-percent increase in the ratio of the price of coal to the price of natural gas leads to a 1.4-percent increase in the use of natural gas over coal. EIA, *Fuel Competition in Power Generation and Elasticities of Substitution* 1 (2012). In other words, in that example, the cross-price elasticity of demand for natural gas is 0.14 with respect to coal's price. *Id.* Other economists reach similar conclusions. James Ko & Carol Dahl, *Interfuel Substitution in U.S. Electricity Generation*, 33 APPLIED ECONOMICS 1833, 1835 (2001) (analyzing "average" cross-price elasticity). *See also* Nate Blair et al., *Long-Term National Impacts of State-Level Policies* (Nat'l Renewable Energy Lab. Conf. Paper 620-40105, June 2006) (discussing how "higher coal prices would dramatically increase" use of renewable wind energy). These

estimates represent short-run elasticities; over time, substitution effects become more pronounced as power plants make technological changes that facilitate fuel-switching, and as long-term investments favor renewable energy. *See* Mankiw, *supra* at 105–106.

Changes in the relative amounts of coal, natural gas, renewable sources, and nuclear energy used to generate electricity—as well as changes in total energy demand—would, in turn, change total greenhouse gases emissions. In short, the EIS' unexamined and unsupported assumption that the No-Action Alternative would have no effect on greenhouse gas emissions is contradicted by fundamental economics and market analyses. The environmental impact statement fails to meet NEPA's requirements, and should be revised.

2. Considering the Size and Nature of the Clean Power Link It Is a Fallacy to Assume that Under the No-Action Alternative There Would be No Substitution With No Effect on Price, Consumption, or Emissions.

Moving beyond theory to the specific project at issue, given the size and characteristics of the Clean Power Link and the ISO-New England market, it is clear error to not analyze the substitutions that would occur if the Clean Power Link were not built. A list of candidates are included in Exhibit A. Moreover, the list in Exhibit A does not include the most beneficial renewable energy projects in ISO-New England—locally based projects under 20MWs, including small distributed projects and net-meter projects.

The EIS' assumption that there would be no substitution simply bears no relationship to reality. The Clean Power Link represents an enormous amount of

renewable energy that affects hundreds of miles of forest and other resources. In fact, as the Multi-State Clean Energy RFP shows, it would provide double the renewable energy that those States are seeking for the next many years, thus virtually eliminating the demand for other forms of renewable energy.

If the Clean Power Link is not approved, utilities in ISO-New England will acquire other renewable energy production to satisfy their respective renewable energy goals and standards, and therefore, lower greenhouse gas emissions. In the No-Action Alternative, any renewable energy substituting for the Clean Power Link may provide a more positive impact on emissions and climate change. Yet, the EIS does not analyze this environmental impact in its alternatives analysis.

In short, the EIS' flawed economic assumptions renders its alternatives analysis ineffective and misleading, and the EIS must be revised.

C. Other Federal Agencies—during Previous NEPA Reviews—Properly Analyze the Supply and Demand of Resources and Resulting Climate Effects.

For over 35 years, in NEPA reviews, the Department of the Interior has consistently understood that a decision not to take action related to energy production will affect that energy resource's supply and price and thus trigger other actions. Interior has further analyzed how such triggered actions generate different consequences for air pollution, climate change, and overall environmental quality. The U.S. Court of Appeals for the D.C. Circuit has praised Interior's analysis of these substitution effects. As far back as 1979, Interior has assessed the different environmental effects of energy substitutes under a No-Action Alternative—including different levels of carbon dioxide emissions.

Other agencies, such as the Surface Transportation Board, the Forest Service, the State Department, the Office of Surface Mining Reclamation and Enforcement (another Interior sub-agency), the FERC, and the Nuclear Regulatory Commission, have also properly analyzed the effects of their energy management decisions in NEPA reviews, consistent with the advice of the U.S. Court of Appeals for the Eighth Circuit and the U.S. District Courts of Colorado and Minnesota. DOE's mistaken assumption that taking no action on the Clean Power Link would have, compared to approving it, no net effects on greenhouse gas emissions represents a substantial break with a 35-year history of proper analysis by DOE's sister agencies.

1. **Other Federal Agencies Analyze the Connections between Supply, Price, Substitutes, Conservation, and Emissions.**

Before the 1982 creation of a sub-agency within Interior responsible for offshore resources, the Office of the Secretary of the Interior developed the federal offshore oil and gas leasing program, and the Bureau of Land Management ("BLM") prepared environmental impact statements on leasing actions (then called simply "environmental statements"). In BLM's 1979 Final Environmental Statement on a proposed lease sale off the coast of Southern California, the agency analyzed the No-Action Alternative of withdrawing the sale:

> [I]f the subject sale were cancelled, the following energy actions or sources might be used as substitutes: Energy Conservation; Conventional oil and gas supplies; Coal; Nuclear power; Oil shale; Hydroelectric power; Solar energy; Energy imports; . . . . Vigorous energy conservation is an alternative that warrants serious consideration. The Project Independence Report of the Federal Energy Administration claims that energy conservation alone can

> reduce energy demand growth by 0.7 to 1.2 percent depending on the world price of oil. . . . The environmental impacts of a vigorous energy conservation program will be primarily beneficial.

Final Environmental Statement, OCS Sale No. 48, Proposed 1979 Outer Continental Shelf Oil and Gas Lease Sale Offshore Southern California, 1508–09 (1979). *See also* BLM, *Draft Environmental Statement, Proposed Five-Year OCS Oil and Gas Lease Sale Schedule* 63 (1980) ("An alternative . . . to cease leasing . . . would result in the need to meet national energy needs through other sources, or to reduce energy consumption . . . .").

Thus, as early as 1979, DOE's sister agency recognized that canceling even a single oil and gas lease would cause the market to respond by substituting not just oil and gas from other sources, but alternative fuel types as well as increased energy conservation. BLM further recognized that the extent of energy conservation as a response depended on the price of the resource being replaced. BLM explained in 1979 to decisionmakers and the public, over the course of 25 pages of analysis, how each possible substitute for the foregone offshore leasing carried its own environmental effects: net beneficial to the extent increased energy conservation or renewable energy offset the lost offshore oil and gas; a more mixed or net negative effect on environmental quality with switches to other types and sources of fossil fuels. BLM, *Final Envtl. Stmt. on Sale No. 48*, *supra* at 1508– 1532. BLM even noted in this 1979 analysis that different energy substitutes generated different carbon dioxide emissions: "A number of gases are associated with geothermal systems and may pose health and pollution problems. These gases include . . .

carbon dioxide . . . . However, adverse air quality impacts are generally less than those associated with fossil-fuel plants." *Id.* at 1525.

2. Interior Uses Sophisticated Tools to Assess the Environmental Consequences of Substitutes, and the D.C. Circuit Has Praised Its Modeling.

Interior develops Five-Year Programs to manage the leasing of offshore (or "Outer Continental Shelf" ("OCS")) oil and gas resources. Its current Program covers the years 2012–2017; development of that Program and the related Environmental Impact Statement first began in 2009. *See* BOEM, *Outer Continental Shelf Oil and Gas Leasing Program: 2012–2017—Final Programmatic Environmental Impact Statement*, 8-1 (2012). In the decision document for the current offshore Program, Interior's Bureau of Ocean Energy Management ("BOEM") explained:

> In an environment of strong worldwide demand for oil and natural gas, a domestic supply cut equivalent to the production anticipated to result from a new Five Year Program would lead to a slight increase in world oil prices and a relatively larger increase in U.S. natural gas prices. All other things being equal, this would lead to a market response providing . . . a slight reduction in oil and natural gas consumed, a substantial increase in oil imports, and added supplies
> provided by onshore hydrocarbon resources.

BOEM uses its *Market Simulation Model* (*MarketSim*) to estimate the amount and percentage of substitutes the economy would adopt should a particular program area not be offered to lease. *MarketSim* is based on authoritative and publicly available estimates of price elasticities of supply and demand and substitution effects. . . .

> [I]n the event the NAA [No-Action Alternative] were implemented. . . . 68 percent of the oil and natural gas production foregone from this program would be replaced by greater imports, 16 percent by increased onshore production, [10 percent by other energy sources] . . . and 6 percent by a reduction in consumption.

BOEM, *Proposed Final Outer Continental Shelf Oil & Gas Leasing Program 2012–2017*, 110 (2012)13; *see also* BOEM, *2012–2017 Final Programmatic Environmental Impact Statement*, *supra* at 4-643 ("With less oil and gas available from the OCS under the No Action Alternative, consumers could obtain oil and gas from other sources, substitute to other types of energy, or consume less energy overall.").

BOEM explained in its Final Environmental Impact Statement that, compared to leasing offshore oil and gas, the energy substitutes anticipated under a No-Action Alternative will have different environmental consequences, including for climate change. For example, BOEM detailed how "Coal consumed in place of gas under the No Action Alternative will result in environmental costs . . . . The combustion of coal in power plants or industrial boilers produces higher emissions . . . than the combustion of natural gas and results in greater CO2 [carbon dioxide] emissions." *Id.* at 4-647. Similarly, BOEM's Economic Analysis Methodology calculates:

> [T]he emissions for carbon dioxide and nitrous oxide [another greenhouse gas] are greater under the NSOs [No-Sale Options] than from the program. However, there is more methane from the program than the NSOs. Though these impacts are not monetized, *they are not identical between having an OCS program and having the impacts of the NSOs.*

BOEM, *Economic Analysis Methodology for the Five Year OCS Oil and Gas*

Leasing Program for 2012–2017, 29–30 (2012) (emphasis added).

In a recent case challenging Interior's 2012-2017 offshore oil and gas leasing program, the D.C. Circuit favorably reviewed Interior's modeling of how "forgoing additional leasing on the OCS would cause an increase in the use of substitute fuels . . . and a reduction in overall domestic energy consumption from greater efforts to conserve in the face of higher prices." *Ctr. for Sustainable Economy v. Jewell*, 779 F.3d 588, 609 (D.C. Cir. 2015). Importantly, nothing in BOEM's modeling is unique to the offshore oil and gas context. According to BOEM, "MarketSim's economics-based model representation of U.S. energy markets . . . simulates end-use domestic consumption of oil, natural gas, coal and electricity in four sectors (residential, commercial, industrial and transportation); primary energy production; and the transformation of primary energy into electricity." BOEM, *The Revised Market Simulation Model (MarketSim): Model Description* 2 (2012).

Interior's sophisticated modeling of the environmental effects of energy substitutes under No-Action Alternatives is the culmination of 35 years of analysis. Interior has used the MarketSim model since at least its 2002–2007 Program for offshore leasing. *See* Minerals Mgmt. Serv. ("MMS"), *Energy Alternatives and the Environment*, 10 (2001)16 ("MMS employs the MktSim2000 model to evaluate the impact of decreased OCS production resulting from no action."). Since at least the 1990s, Interior's Environmental Impact Statements have calculated the percentage of offshore production expected to be substituted by various energy alternatives under a No-Action scenario. MMS *Energy Alternatives and the Environment*, 13

(1996)17 ("[F]or each unit of OCS gas not produced because of no action . . . conservation will account for about 0.14 units . . . ."); *see also id.* at 15 ("Significant environmental impacts associated with expanded importation of oil include: the generation of greenhouse gases . . . ."). And going back to the first Five-Year Program in 1980 (when BLM prepared the Environmental Statements), Interior has recognized that not all sources of the same fuel type present the same environmental effects—for example, offshore oil drilling presents lower spill risks than imported oil substituted under the no-action alternative. Interior, *5-Year OCS Leasing Program* 13b (1980).

Similarly, in a 2001 report on its offshore oil leasing program, Interior declared in no uncertain terms that "Examining other energy sources is an important aspect of the No Action Alternative" under NEPA reviews. MMS, *Energy Alternatives and the Environment* 1 (2001).

So how could it be that the DOE does not understand market dynamics and the principles of substitution, particularly when it comes to energy decisions?

3. Other Agencies Analyze Supply and Demand in NEPA Reviews of Energy Management Decisions.

Two other federal agencies—the Surface Transportation Board and the Forest Service—began, upon remand from federal courts, conducting the proper analysis of supply and demand in NEPA reviews of their energy management decisions. The U.S. Court of Appeals for the Eighth Circuit sharply criticized the Surface Transportation Board for "illogical[ly]" concluding that approving new railroad lines to Powder River Basin coal mines would not affect the demand for and

consumption of coal, and for ignoring "widely used" models capable of forecasting such effects. *Mid States Coal. for Progress v. Surface Transp. Bd.*, 345 F.3d 520, 549–550 (8th Cir. 2003). "On remand, the Board undertook just such a study using the Energy Information Administration's (EIA) National Energy Modeling System (NEMS) . . . '[which] not only forecasts coal supply and demand but also quantifies environmental impacts.'" *Mayo Found. v. Surface Transp. Bd.,* 472 F.3d 545, 555 (8th Cir. 2006). *See also* Surface Transp. Bd., *Draft Environmental Impact Statement for the Tongue River Railroad*, Appendix C.1-13 to 1-14 (2015) (analyzing how approving a new coal railroad would only increase annual U.S. coal production by 0.13 percent, which "would not be significant enough to noticeably lower delivered coal prices (which includes transportation), and thus, would not increase total demand for coal").

Similarly, the U.S. District Court of Colorado "[could] not make sense" of the Forest Service's assumption that approving road construction through national forests to reach Colorado coal mines would not increase coal production and consumption. *High Country Conservation Advocates v. Forest Service*, 52 F. Supp. 3d 1174, 1197 (D. Colo. 2014). On remand, the Forest Service's draft environmental impact statement details that while the no-action alternative "has no impact on climate change," under the leasing option "coal mining, transportation, and combustion would increase the atmospheric concentrations of GHGs [greenhouse gases]." Forest Service, *Rulemaking for Colorado Roadless Areas—Supplemental Draft Environmental Impact Statement* 48–49 (2015).

The State Department provides another example. In its environmental impact statements, the agency has estimated how, at different oil prices, approving international oil pipelines could affect production and greenhouse gas emissions. *See* State Dep't, *Final Supplemental Environmental Impact Statement for the Keystone XL Project*, ES-16 (2014)23 ("The 2013 Draft Supplemental EIS estimated how oil sands production would be affected by long-term constraints on pipeline capacity . . . if long-term . . . oil prices were less than $100 per barrel. The Draft Supplemental EIS also estimated a change in GHG emissions associated with such changes in production."). This analysis was strongly encouraged by comments from the Environmental Protection Agency. *See* Comments from EPA, to State Dep't, on Draft EIS for the Keystone XL Project, at 3 (July 16, 2010) ("[I]t is reasonable to conclude that extraction will likely increase if the pipeline is constructed."). Even when the State Department concluded that a different pipeline approval would not affect energy substitutes, the agency first assessed the market and "conclude[d] that this amount of crude oil [3% of total U.S. processing] is not expected . . . to significantly impact end-use price or demand." *Sierra Club v. Clinton*, 746 F. Supp. 2d 1025, 1046 (D. Minn. 2010). The State Department's practice of assessing whether its actions would affect overall energy demand stands in stark contrast with this case, where DOE simply made an unsubstantiated assumption, without conducting any analysis.

Other agencies that, during NEPA reviews, have properly analyzed how their energy management decisions might affect energy supply and demand, and so affect

emissions, include the Office of Surface Mining Reclamation and Enforcement (another Interior sub-agency), the Federal Energy Regulatory Commission, and the Nuclear Regulatory Commission. *See* Office of Surface Mining, *Draft Stream Protection Rule Environmental Impact Statement*, at 4-175 to 4-176 (2015) ("Modeling suggests that these Alternatives [to regulate surface coal mining to protect streams] could decrease national coal production . . . . [T]his analysis anticipates that the net effect on climate resiliency is positive at the national level under each Action Alternative . . . ."); *id.* at 4-160 to 4-161 "Under some Alternatives, the mix of production type, i.e., surface or underground, may also change. As discussed . . . surface and underground mining activities have different emissions profiles."); Fed. Energy Reg. Comm'n, *Lake Charles Liquefaction Project—Final Environmental Impact Statement*, 3-3 (2015)26 ("If the No-Action Alternative is selected, it could result in the continued use of less clean- burning fossil fuels at levels that might otherwise have been reduced through replacement with LNG."); Nuclear Reg. Comm'n, *Generic Environmental Impact Statement for License Renewal of Nuclear Plants* §8.2 (1996)27 ("Denial of a renewed license . . . may lead to the selection of other electric generating sources to meet energy demands . . . [or] to conservation measures . . . . [T]he environmental impacts of such resulting alternatives would be included as the environmental impacts of the no-action alternative.").

In short, at least nine different agencies—including Interior's Office of the

Secretary and at least three Interior sub-agencies (Office of Surface Mining, Bureau of Ocean Energy Management, and Minerals Management Service)—in NEPA analyses stretching back over 35 years, have analyzed how their energy management decisions affect energy supply and demand, and so affect emissions. The economic theory is undisputed, the economic models are easily accessible, and the practice is widespread through the government. DOE's unexplained assumption regarding the No-Action Alternative sharply breaks with 35 years of agency practice.

D. Even If DOE's Approach to the No-Action Alternative Were Correct, Its Calculation of the Economic Benefits and Climate Impacts of the Clean Power Link Would Be Overestimated and Inaccurate.

The EIS assumes that taking no action on the Clean Power Link would have, compared to approval, no net effects on carbon dioxide emissions, methane emissions, or climate change. *See* EIS at S-24 ("No new effects from air quality would occur. GHG emissions would continue to occur at the present rate.") These comments have explained why that conclusion is entirely inconsistent with economic theory, real market conditions, and past agency practices. Consequently, the EIS presents a deeply inaccurate and misleading comparison of the approval options and No-Action Alternative. However, even if DOE were to start from the proposition that the No-Action Alternative resulted in no impacts, the EIS would be inaccurate and misleading in a different but equally problematic way.

The EIS calculates the "economic benefits" and climate impacts of Clean Power Link by assuming that no other renewable energy facilities would be built to

take its place if it were not built. As explained above that is simply not true. Other sources of renewable energy generation would substitute for the Clean Power Link, then the EIS must subtract from its calculation of the Clean Power Link' economic, energy supply and climate benefits, the lost benefits from all those would-be sources of renewable energy generation that would no longer be built.

Once that is done Clean Power Link may have a net negative impact on economics or climate benefits compared to its substitutes. That is particularly so when it comes to economic benefits because all the economic benefits from the hydro-generation facility are realized in Canada, not the United States. And the United States would lose thousands of American jobs related to the US-based substitutes. The EIS does not comply with NEPA because it fails to analyze those effects.

E. Recent Testimony from Green Mountain Power Corporation Further Confirms the Lack of Need for the Project.

The EIS mentions Vermont's new renewable energy standard ("RES"), *see* EIS 6-3, but fails to undertake any analysis regarding its relevance. Green Mountain Power Company ("GMP") (which accounts for about 77% of the Vermont market) has testified during the past year in five separate dockets (dockets 8562, 8564, 8580, 8637 and 8682) before the Vermont Public Service Board that GMP's current Tier 1 RES gap is on the order of approximately 800,000MWhs, *less than*

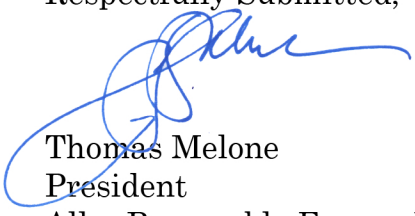
1/10th of the capacity of the Clean Power Link.[3] GMP has also testified that it has satisfied its Tier 2 RES requirement for at least the next decade. How could it be then that the EIS justifies the Clean Power Link's existence as filling a renewable energy gap in Vermont that would not be fulfilled by American generation projects, as opposed to Canadian Hydro, and then utterly fails to analyze the actual renewable demand and alternate sources for compliance?

F. The Public Interest Will Not Be Served By Issuance of the Permit.

The Clean Power Link is not in the public interest because as shown above, it would displace renewable energy projects (and the American jobs related to those projects) that would otherwise be built in the New England states and on the ISO-New England electricity grid. It is not in the US public interest to approve a project that will result in the loss of American jobs, and the economic benefits from those projects.

[3] GMP's compliance payment for failure to meet the Tier 1 requirement is only $10/MWh. The EIS also fails to account for and analyze the effect of such a minimal compliance payment.

Respectfully Submitted,



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Dated: July 18, 2016

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon the following:

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Dated at New York, NY, this 18th day of July 2016.

/s/ *Thomas Melone*

EXHIBIT A

Project Name	Developer	Size (MW)	Technology	Location
Candlewood Solar Project	Ameresco	20	Solar PV	New Milford, CT
Antrim Wind	Antrim Wind Energy LLC	28.8	Wind	Antrim, NH
Beacon Falls Energy Park	Beacon Falls Energy Park LLC	63.3	Fuel Cell	Beacon Falls, CT
Blueberry Hills	Blueberry Hills LLC	249.9	Wind	Deblois, ME
Canton Mountain Wind	Patriot Renewables	22.8	Wind	Canton, ME
Cassadaga	Cassadaga Wind LLC	126	Wind	Cherry Creek, NY
Alder Stream Wind/Moose Wind	NextEra	216/245	Wind	Eustis, ME
Clean Energy Connect	Iberdrola/EDP Renewables/Brookfield Renewable	600	Hydro/Wind	Multiple states
Conowingo Hydroelectric Project	Exelon	572	Hydro	Conowingo, MD
Simsbury Solar Farm	Deepwater Wind	26.4	Solar PV	Simsbury, CT
Fitchburg Solar 1	EDP-ibvogt Solar LLC	48	Solar PV	Fitchburg, MA
Gardner Solar 1	EDP-ibvogt Solar LLC	22	Solar PV	Gardner, MA
Hopkinton Solar 1	EDP-ibvogt Solar LLC	22	Solar PV	Hopkinton, RI
Hopkinton Solar 2	EDP-ibvogt Solar LLC	22	Solar PV	Hopkinton, RI
Hopkinton Solar 3	EDP-ibvogt Solar LLC	22	Solar PV	Hopkinton, RI
Hopkinton Solar 4	EDP-ibvogt Solar LLC	22	Solar PV	Hopkinton, RI
North Stonington Solar	EDP-ibvogt Solar LLC	22	Solar PV	Stoning, CT
West Greenwich Solar	EDP-ibvogt Solar LLC	22	Solar PV	West Greenwich, RI
Aroostook County Wind	EDP Renewables	248 up to 650	Wind	Aroostook County, Maine
GRE 501 MIRA LLC	Greenskies	20	Solar PV	Windsor, MA
Hope-Scituate Solar	RES Americas	20	Solar PV	Cranston, RI
Woods Hill Solar	RES Americas	20	Solar PV	Pomfret, CT
King Pine Wind	SunEdison	600	Wind	Aroostook/Penobscot Counties, ME
Maine Clean Power Connection (Moo	NextEra, SunEdison	547	Wind	Western Maine
Maine Renewable Energy Interconne	SunEdison (King Pine) , EDP (Number Nine Wind,	1250	Wind	Maine (various locations)
Alder Stream and Moose Wind, Winte	NextEra	662	Wind/Solar (15(	Franklin County, ME
Northern Pass Line	Eversource	1090	Transmission Li	Multiple states
Chinook Solar	Ranger Solar LLC	50	Solar PV	Fitzwilliam, NH
Enfield Solar	Ranger Solar LLC	20	Solar PV	Enfield/Somers, CT
Farmington Solar	Ranger Solar LLC	50	Solar PV	Farmington, ME
Quinegaug Solar	Ranger Solar LLC	50	Solar PV	Brooklyn/Canterbury, CT
Sanford Airport Solar	Ranger Solar LLC	50	Solar PV	Sanford, ME
Somerset Wind	SunEdison	85.8	Wind	Somerset County, ME
The Wind and Hydro Response	Invenergy/Hydro-Quebec/Vermont Green Line	400	Wind/Hydro	Various locations (NY/Quebec)
Weaver Wind	SunEdison	72.6	Wind	Eastbrook, ME