Plainsandeastern

From: Tom Vinson <TVinson@awea.org>
Sent: Tuesday, June 09, 2015 10:34 AM
To: Plainsandeastern
Subject: AWEA CEO submission
Attachments: AWEA Sec1222 Plains and Eastern Clean Line letter to Secretary Moniz 6-2015.pdf

Office of Electricity Delivery and Energy Reliability, 1222 Program –

Attached please find a submission from AWEA CEO Tom Kiernan regarding the Plains & Eastern Clean Line application.

Thank you.

Tom

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AWEA AMERICAN WIND ENERGY ASSOCIATION

June 9, 2015

The Honorable Dr. Ernest Moniz
Secretary
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

Submitted via email to: plainsandeastern@hq.doe.gov

Dear Secretary Moniz:

The American Wind Energy Association[1] (AWEA) appreciates this opportunity to comment on the Department of Energy's (DOE) consideration of whether the proposed Plains & Eastern Clean Line meets the statutory criteria listed in Section 1222 of the Energy Policy Act of 2005, as well as all factors included in DOE's 2010 Request for Proposals.[2] Based on the recently released DOE Wind Vision report[3] and the just released Energy Information Administration (EIA) economic analysis[4] of the Environmental Protection Agency's Clean Power Plan (CPP), AWEA believes it is essential for DOE, within the confines of its authority, to facilitate the expansion of transmission service to enable state compliance with the CPP and to help achieve the President's climate and renewable energy goals.

The Quadrennial Energy Review[5] (QER) recognizes the need to expand our nation's transmission infrastructure.[6] The QER rightfully points out that large-scale transmission is necessary now, and for many decades into the future, to access remote utility-scale renewable resources, among other reasons.[7]

One of the few tools DOE has to directly facilitate the deployment of renewable energy is to help the expansion of transmission infrastructure, including by acting through the Southwestern Power Administration (Southwestern) or the Western Area Power Administration (Western), pursuant to Section 1222, to participate with other entities in constructing and/or owning new or upgraded electric power transmission facilities.

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[1] AWEA is the national trade association representing a broad range of entities with a common interest in encouraging the deployment and expansion of wind energy resources in the United States. AWEA's members include wind turbine manufacturers, component suppliers, project developers, project owners and operators, financiers, researchers, renewable energy supporters, utilities, marketers, customers and their advocates.
[2] 42 U.S.C. 16421.
[3] Available at: http://www.energy.gov/windvision
[4] Available at: http://www.eia.gov/analysis/requests/powerplants/cleanplan/
[5] Available at: http://energy.gov/epsa/downloads/quadrennial-energy-review-full-report
[6] "It is anticipated that in the next two decades, large transmission and distribution investments will be made to replace aging infrastructure; maintain reliability; enable market efficiencies; and aid in meeting policy objectives, such as GHG reduction and state renewable energy goals."
[7] "Both bulk and distributed technologies have the potential to supply low-carbon electricity, enhance system reliability, and operate at a reasonable cost for all consumers. High-quality renewable energy sources suitable for utility-scale generation facilities are often located in remote areas. New long-distance transmission lines may be necessary in the future to connect these resources to demand centers," and, "Planning for the future grid must recognize the importance of the transmission and distribution systems in linking central station generation—which will remain an essential part of the U.S. energy supply for many years to come—to electricity consumers."

If a proposed transmission project meets the statutory criteria listed in Section 1222 of the Energy Policy Act of 2005, DOE and the relevant power marketing administration (here, Southwestern) will consider other criteria, such as whether the project is in the public interest and whether it will facilitate the reliable delivery of power generated by renewable resources, as detailed in the DOE's 2010 Request for Proposals.[8] As indicated in Clean Line Energy Partners LLC's application for its Plains & Eastern Clean Line project, the project will include an overhead 600-kilovolt high voltage, direct current electric transmission system and associated facilities with the capacity to deliver approximately 3,500 megawatts primarily from renewable energy generation facilities in the Oklahoma and Texas Panhandle regions to load-serving entities in the Mid-South and Southeast United States via an interconnection with the Tennessee Valley Authority electrical grid. It strikes AWEA that this proposed transmission expansion and, in turn, the associated renewable resources that will be deployed from it are clearly in the public interest, as it would provide large economic and environmental benefits and facilitate compliance with federal and state public policies, as discussed below. In addition, transmission build out naturally provides a variety of benefits to consumers and for ensuing reliability.[9]

As you know, President Obama has called for 80 percent of our nation's energy to come from clean and renewable resources, including wind energy, by 2035.[10] In addition, in his Climate Action Plan released in June 2013, the President proposed to again double the deployment of renewable energy by 2020.[11]

As detailed in the chart below, DOE's Wind Vision document (which, consistent with the President's plan, envisions a doubling of wind energy by 2020 and again by 2030) quantified the incremental transmission needs necessary to achieve 10% wind energy by 2020, 20% by 2030 and 35% by 2050.

	Historical Average	2014–2020	2021–2030	2031–2050	Cumulative 2014–2050
Study Scenario MW-miles (change from *Baseline Scenario*)		311,000/year	801,000/year	949,000/year	29,000,000
Study Scenario circuit miles (change from *Baseline Scenario*)[a]	870/year	350/year	890/year	1,050/year	33,000
		By 2020	By 2030	By 2050	
Ratio of *Study Scenario* to *Baseline Scenario*		1.5x	2.7x	4.2x	

Note: ReEDS transmission capacity additions exclude those added for reliability purposes only and conductor replacement on existing infrastructure. Estimates shown here represent point to point transfers, for which explicit corridors have not been identified.

[a]Assuming a representative transmission line with a carrying capacity of 900 MW, typical for single-circuit 345 kV lines

Through Section 1222, DOE can contribute to the necessary transmission build out.

[8] 75 Fed Reg. 32940 (June 10, 2010).
[9] For more information, see: http://www.wiresgroup.com/docs/reports/WIRES%20Brattle%20Rpt%20Benefits%20Transmission%20July%202013.pdf
[10] Available at: http://www.whitehouse.gov/the-press-office/2011/01/25/remarks-president-state-union-address.
[11] Available at: http://www.whitehouse.gov/sites/default/files/image/president27sclimateactionplan.pdf.

Further, EIA's just released economic analysis of the CPP found that under a variety of scenarios, wind energy is the most widely deployed compliance option. Under EIA's CPP base case, wind energy represented 57% of the compliance, with energy efficiency (19%), solar (14%), and natural gas (10%) covering the remaining compliance needs.

As detailed in the table below, under its base case CPP scenario, EIA found that renewable energy, including wind energy, would be the economic compliance option in multiple regions of the country, including the Southeast.

Table 12. Growth rates for renewable generation by EMM region and compliance period for two cases, sorted by 2020-29 CPP growth rate

Region	2015-2019		2020-2029		2030-2040	
	AEO	CPP	AEO	CPP	AEO	CPP
Florida	2.0%	2.0%	1.8%	15.0%	4.9%	3.4%
Great Lakes	4.9%	6.6%	0.4%	13.7%	1.3%	0.5%
Virginia-Carolina	5.0%	7.1%	2.0%	10.6%	4.8%	3.5%
Mississippi Basin	7.8%	8.0%	0.6%	10.3%	1.7%	0.2%
Mid-Atlantic	2.4%	2.0%	2.0%	8.2%	2.0%	2.9%
Rocky Mountain	1.1%	1.1%	1.5%	7.1%	3.7%	1.3%
Lower Michigan	4.3%	13.1%	1.6%	6.9%	1.2%	1.4%
Southern Plains	7.3%	7.5%	0.2%	6.0%	0.6%	0.7%
Southwest	5.8%	5.8%	0.5%	5.5%	3.5%	4.3%
Tennessee Valley	2.2%	3.3%	0.7%	5.0%	1.2%	1.3%
U.S. Total	**3.5%**	**3.9%**	**0.9%**	**5.0%**	**1.9%**	**1.7%**
Northern Plains	2.8%	3.0%	0.2%	4.0%	1.9%	0.6%
Central Plains	3.5%	3.5%	0.4%	3.8%	8.2%	0.5%
Southeast	0.7%	2.0%	0.2%	3.5%	0.7%	6.7%
Mississippi Delta	1.0%	1.6%	0.9%	2.9%	2.6%	2.3%
Texas	3.5%	4.0%	0.5%	2.4%	1.7%	4.6%
Eastern Wisconsin	1.7%	2.5%	1.3%	2.3%	2.2%	2.7%
California	4.6%	4.5%	2.3%	2.1%	1.9%	2.0%
Northwest	2.2%	2.1%	0.5%	1.8%	1.2%	0.3%
Long Island	2.2%	3.6%	2.0%	1.6%	1.8%	1.8%
New England	6.8%	7.6%	1.0%	1.5%	0.5%	0.4%
New York City	1.1%	1.1%	1.3%	1.4%	1.8%	1.9%
Upstate New York	2.2%	2.2%	0.1%	1.3%	0.1%	0.1%

Source: U.S. Energy Information Administration.

Through Section 1222, and lines such as the Plains & Eastern Clean Line, DOE can help facilitate state compliance with the CPP.

AWEA has long been concerned that the development of new transmission infrastructure is not keeping pace with the goals set forth in various public policies that call for greater renewable energy development.[12] Indeed, if the considerable wind and other renewable resources of the United States are to be utilized to meet our current and steadily increasing levels of demand in the future and new markets for these resources are to be found, this will require a significant amount of new transmission in order to move renewable energy from where it would be generated to where it would be needed. At the end of 2014, more than 95 gigawatts (GW) of wind power projects were in interconnection queues of various transmission grid operators around the country.[13] There were also more than 15 near-term transmission projects pending as of the end of 2014, including the Plains & Eastern Clean Line, which together could carry an

[12] See, e.g., 2009 AWEA-SEIA Report on Green Power Superhighways: Building a Path to a Clean Energy Future available at: http://www.awea.org/files/FileDownloads/pdfs/GreenPowerSuperhighways.pdf.
[13] AWEA Annual Market Report for the Year Ending 2014, page 90. Available at: http://www.awea.org/amr2014

estimated 55 GW-60 GW of additional wind power capacity, or enough to nearly double the currently installed base of wind power in the U.S.[14]

To meet these challenges, it is critical that this nation expand the interstate transmission backbone that would enable large volumes of renewable energy resources to be integrated and delivered to load. High-capacity, high-voltage transmission lines, like the Plains & Eastern Clean Line, are the most cost-effective means for transporting large amounts of energy, and HVDC lines can play an important role in cost-effectively transmitting large amounts of energy over very long distances.

Based on AWEA analysis using the Environmental Protection Agency's AVERT model, the currently installed wind energy base in the U.S. avoids nearly 128 million metric tons of carbon dioxide annually, equivalent to over 5 percent of power-sector carbon emissions, or taking 20 million cars off the road.[15] Wind energy also avoids nearly 347 million pounds per year and NO_x by 214 million pounds in 2013 and saved 36.5 billion gallons of water that would have been consumed at conventional power plants, the equivalent of roughly 116 gallons per person in the U.S., or 276 billion bottles of water, which is increasingly important given sustained droughts in many parts of the country. The deployment of wind energy supported by the Plains & Eastern Clean Line and similar projects will increase the significant and measurable benefits for the environment that are already coming from wind energy.

Given the profound benefits that transmission expansion and, in turn, the deployment of wind energy (as well as other renewable resources) offer, AWEA urges the DOE to move forward as expeditiously as possible to a final decision under its Section 1222 authority on the Plains & Eastern Clean Line, and other such projects, that will facilitate the deployment of renewable energy, particularly given the time-limited nature of federal tax incentives for these resources.

Thank you for your consideration of these comments.

Sincerely,

Tom Kiernan
CEO
American Wind Energy Association

[14] Ibid. p. 96
[15] Available at: http://awea.files.cms-plus.com/FileDownloads/pdfs/AWEA_Clean_Air_Benefits_WhitePaper%20Final.pdf