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April 20, 2015

Comments on Draft Environmental Impact Statement (DEIS) for the Plains & Eastern Clean Line Transmission Project (DOE/EIS–0486; Draft EIS)
Plains & Eastern EIS
216 16th Street, Suite 1500
Denver, Colorado 80202

To Whom It May Concern:

The Southern Alliance for Clean Energy (SACE) is a regional organization that promotes responsible energy choices that create global warming solutions and ensure clean, safe and healthy communities throughout the Southeast. We welcome this opportunity to engage in a thoughtful wind energy transmission discussion and we would like to thank you for your work in developing the Draft Environmental Impact Statement (DEIS) for the Plains & Eastern Clean Line Transmission Project ("Project" hereafter). SACE would like to voice our support for properly planned high voltage direct current transmission designed for clean energy resources.

Significant Demand for Low Cost, High Quality Wind Power Exists

Several utility companies are already purchasing wind power resources via existing alternating current (AC) transmission lines. These purchases are significant because much of the region has few or no requirements for the development or use of renewable energy resources; therefore, the existing purchases of wind energy are predominately dependent on low cost wind energy resources. Additional low cost wind power opportunities could encourage further wind energy development and use throughout the Southeast, even without state mandates or federal regulations requiring such purchases.

Table 1. Southern Utilities Purchasing Wind Energy

Utility	Year First Delivered	Capacity
Alabama Power	2012	404 MW
Arkansas Electric Cooperative Corp.	2014	201 MW
Georgia Power	2016	250 MW
Gulf Power	2016	300 MW
Tennessee Valley Authority	2010-2012	1,542 MW
Southern Power	2016	299 MW
Southwestern Electric Power Company	2011-2013	469 MW

Sources: Alabama Power[1], Bloomberg[2], Arkansas Electric Cooperative Corporation[3], Georgia Power[4], ReNews[5], Tennessee Valley Authority[6], Southwestern Electric Power Company[7]

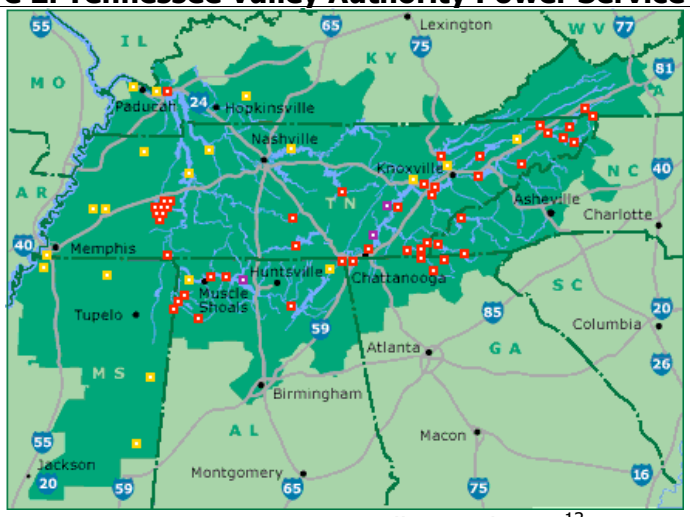
Even though several utility companies are already purchasing wind energy, the Project represents a significant opportunity for the further development of wind energy resources and use of those resources in the Southeast. With a potential to deliver up to 500 megawatts (MW) of wind power capacity to Arkansas, as well as up to 3,500 MW of wind power capacity to Tennessee, the Project would potentially double already existing wind energy power purchase agreement capacity totals for each state. As shown in Table 1, significant quantities of wind power have been purchased recently suggesting that wind power demand will continue to be strong in the near future, so long as low cost wind energy resources are available.

Recently, the Department of Energy (DOE) released its *Wind Vision Report*. The report found that the country could obtain 20% of its electricity needs from wind power by 2030. The Clean Line Plains and Eastern project would enable Southeastern states to achieve the *Wind Vision Report* benchmarks.[8] Arkansas's total net summertime power plant capacity is roughly 16,300[9] MW and Tennessee's total net summertime power plant capacity is roughly 21,300 MW.[10] The Project's wind power capacity for Arkansas would equate to approximately 3% of total state capacity and approximately 16.4% for Tennessee. Regional electric markets (such as the southern portion of the Midcontinent Independent System Operator for Arkansas, which is connected with Louisiana, Mississippi and Texas) and regional utilities (such as the Tennessee Valley Authority, which has an operational footprint in seven states) would ensure reliability and system balancing requirements. Potentially, the primary customer for wind power from the Project is the Tennessee Valley Authority (TVA). TVA recently announced it will retire approximately 3,000 megawatts of coal-fired power plant capacity.[11] Southern Company is another potential customer, it has recently announced the conversion of 4,060 MW of coal-fired plants to low capacity high-heat rate gas. These trends indicate a continuing need for both cost-effective capacity and low-cost energy resources at Southeastern utilities.

Figure 1. Midcontinent Independent System Operator, Southern Region

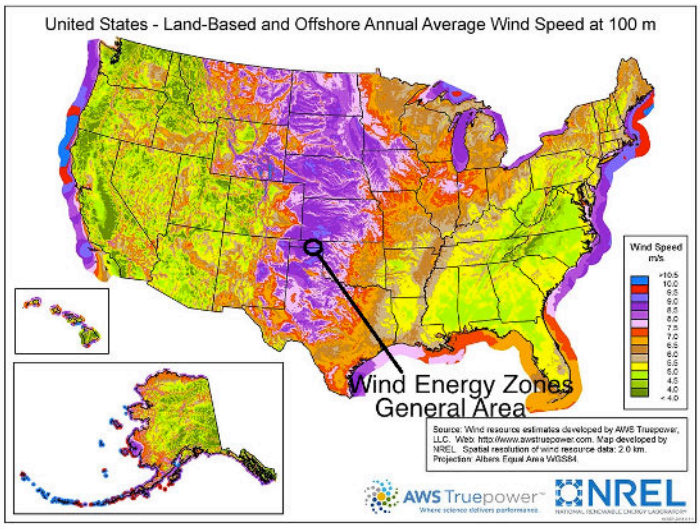
Source: MISO[12]

Figure 2. Tennessee Valley Authority Power Service Area



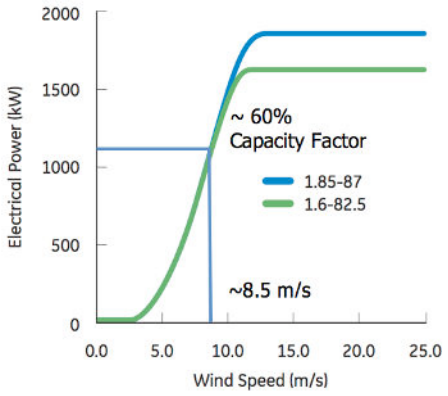
Source: Tennessee Valley Authority[13]

Figure 3. Wind Resource Estimates for the United States



Source: National Renewable Energy Lab[14]

Figure 4. Anticipated Wind Turbine Gross Capacity Factors (60% at 8.5 m/s)



Source: Adapted from General Electric, 2014[15]

Wind energy resources within a 40-mile radius of the Project's proposed Optima substation (Texas County, Oklahoma) are some of the best wind energy resources in the country (see Figure 3). Depending on turbine hub height and precise location, wind energy resources are estimated to reach average annual wind speeds of 8.5 meters per second (m/s) or greater at 100 meter hub heights. Already existing turbine technology could be expected to achieve 60% gross capacity factors in wind regimes found in the Project footprint. Such wind energy resources are not readily available throughout the Southeast, although some micro-sited mountainous areas and offshore areas (predominately in deeper water off North Carolina) may contain average wind speeds of 8.5 m/s.[16] Even so, offshore wind energy resources would still need substantial transmission capacity, across the Appalachian Mountains, in order to be delivered into TVA and MISO South territories.

Conservatively estimating net capacity factors of 50-55%[17], the Project would be anticipated to have access to, and potentially be able to transmit, approximately 19,940 to 21,934 gigawatt hours (GWh) of wind power annually. This quantity of clean energy emits no carbon emissions and could greatly assist Southeastern states in achieving proposed renewable energy generation targets under the Environmental Protection Agency (EPA) Clean Power Plan (CPP).

Table 2. Clean Power Plan Proposed Renewable Energy Generation Levels (by 2030, Gigawatt Hours, GWh)

	Proposed Targets	
	GWh	%2012 Generation
Alabama	14,293	9.3%
Arkansas	4,709	7.2%
Florida	22,110	10%
Georgia	12,231	10%
Kentucky	1,714	1.9%
Louisiana	6,892	6.7%
Mississippi	5,458	10%
North Carolina	11,668	10%
South Carolina	9,676	10%
Tennessee	4,306	5.5%
Virginia	11,192	15.8%
Total	104,247	

Source: EPA 2014[18], Excludes Hydropower

Assessing Potential Impacts from the Project

Based on the DEIS, most of the impacts associated with the Project appear to stem from its construction. However, the DEIS rightly points that many of the associated impacts would be minor, localized and temporary. Few long-term, permanent negative impacts are expected.[19] As stated by the Department of Energy (DOE), "[t]he Draft EIS did not identify widespread, major impacts as a result of construction or operation of the Project."[20] Of the expected impacts, the proposed Environmental Protection Measures (EPM) are anticipated to further reduce potential negative impacts. As stated by the DOE, "[i]mplementation of the environmental protection measures that the Applicant has included as an integral part of the Project would avoid or minimize the potential for major environmental effects to the affected resources."[21] These findings are similar to the Final EIS (FEIS) recently approved by the Bureau of Land Management

for the SunZia Southwest Transmission Project, a high-voltage AC transmission project that would connect up to 4,500 MW of wind power capacity in the southwest to load centers in the west.[22]

Recommendations

Calculate the Negative Impacts of the "No Action" Alternative

The Project does not directly develop wind farms; however, wind farm development is considered as a "connected action" affiliated with the Project.[23] Specifically, DOE states, "[o]ne of these connected actions includes the construction and operation of reasonably foreseeable future wind energy generation facilities that would interconnect with the Applicant Proposed Project."[24] DOE evaluates the development of up to 4,550 MW, including beneficial job impacts[25], reductions in air emissions[26] and other impacts associated with the wind energy connected actions. As part of the DEIS, DOE is required to evaluate potential alternatives to the Project, including alternative routes as well as a "No Action" alternative. Under this "No Action" alternative, the DEIS states in various sections that, "[u]nder the No Action Alternative, DOE assumes for analytical purposes that the Project would not be constructed. No impacts…would occur."[27] However, because the DOE recognizes emission savings (reductions) from the connected actions associated with the Project, DOE also implicitly recognizes that a No Action Alternative would result in continued harmful air emissions. DOE should calculate the negative impacts associated with a "No Action" Alternative, specifically the negative impacts associated with continued harmful air emissions and water consumption.

Recently, a district court judge found that the Bureau of Land Management failed to take into consideration the social costs of carbon dioxide protocol when considering an EIS. This oversight led to the court's decision that, "…omitting the protocol was arbitrary and capricious in violation of [National Environmental Policy Act, (NEPA)]."[28] The protocol in question is specifically the *Technical Support Document: Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis, Under Executive Order 12866*. The most recent version of this protocol was released in May 2013 by the Interagency Working Group on Social Cost of Carbon with participation by the Council of Economic Advisers, Council on Environmental Quality, Department of Agriculture, Department of Commerce, Department of Energy, Department of Transportation, Environmental Protection Agency, National Economic Council, Office of Management and Budget, Office of Science and Technology Policy, and Department of the Treasury.[29] While the court decision focused on the absence of the social costs of carbon dioxide emissions associated with a proposed *action*, for the Plains and Eastern DEIS, Project *inaction* would lead to higher carbon dioxide emissions. The Project is unique in that its non-existence would result in higher carbon emissions than its existence. Stated another way, the "No Action" alternative to the Project would have the higher associated carbon emissions and the social costs of carbon emissions of the status quo should be evaluated against the Project's emissions-savings attributes. To exclude the social costs of carbon emissions, emitted under a "No Action" alternative, as the previously mentioned court decision suggests, may be an arbitrary and capricious exclusion and in violation of NEPA. For comparison, the DOE's own *Wind Vision Report* evaluated carbon dioxide as well as water savings associated with a scenario where the country received 20% of its electricity from wind power by 2030.[30]

Fully Implement Environmental Protection Measures (EPM)

The proposed EPM's outlined throughout the DEIS and Appendix F[31] should greatly reduce, mitigate or eliminate the likelihood of potential negative impacts associated with the Project. SACE supports the inclusion of the EPM's outlined.

According to the DEIS, "[u]navoidable adverse impacts to land uses from the Project include the removal of vegetation and conversion of primarily rangeland and cultivated crops and some forested lands and developed open space to a utility use. The Applicant Proposed Route would result in the conversion of up to approximately 2,600 acres of land to utility use for the life of the Project, including 2,394 acres for access roads (assuming 90 percent of them will remain after construction), 120 acres for two converter stations, 86 acres for all pole structures, and 2 acres for fiber regeneration sites."[32]

Because the largest quantity of impacts are associated with access road construction and maintenance, to the extent possible, the Project should encourage the usage of existing roadways. Using existing access roads, or upgrading existing roads for the purpose of accessing the Project, should further minimize impacts from the Project. Additionally, efforts should be made, when practical, to minimize the overall length of the Project route. As stated in the DEIS, "longer routes would likely have a greater impact due to the greater length and extent of areas impacted."[33] Still, a shortened route should be evaluated based on conservation impacts, but also impacts to private property.

As noted in the DEIS, lattice-type tower structures were used to evaluate potential land use impacts associated with the Project. Specifically, the DEIS states, "[w]ithin the transmission line ROW (200 feet wide by 720 miles long), only the transmission structures would remain. For lattice structures, the operational footprint would be four to six structures per mile, and each foundation would measure 28 feet by 28 feet (less than 0.02 acre). Assuming 720 miles of lattice structures, the operational footprint would be 86 acres. Each structure would be 75 to 180 feet tall. For tubular pole structures, the operational footprint would be five to seven structures per mile, each 49 square feet, up to 5 acres total. Each structure would be 120 to 160 feet tall. Lattice crossing structures, which would be required in limited situations, would each have a structural footprint of 70 feet by 70 feet (approximately 0.11 acre). Guyed structures would also be required in limited situations, and would each have a structural footprint (not including guy wires) of 7 feet by 7 feet (0.001 acre). Impact calculations assumed lattice structures would be used for a conservative estimate of potential impacts."[34]

An estimated 6.8 million birds are killed annually in North America from lattice-type communication towers >60 meters in height.[35] As stated by a study published in PLOS One, "We do not report estimates of bird mortality at short (<60 m) towers in this paper because they contribute negligibly to overall annual bird mortality…."[36] Even though the proposed transmission structures would have a negligible contribution to overall bird mortality, Clean Line Energy Partners has proactively developed an Avian Program to better ensure reduction avian mortality risk.[37]

An additional consideration for mitigating the impacts associated with land use could be the establishment of a voluntary conservation easement program. Conservation easements have been used and encouraged by conservation-oriented nonprofit organizations, such as The Nature Conservancy[38], Ducks Unlimited[39], Trout Unlimited[40] and The Wilderness Society[41] as well as encouraged by agencies such as the United States Department of Agriculture[42] and United States Fish and Wildlife Service (FWS).[43] If the DOE encourages further use of conservation easements, the Project participants should consult with local, state and federal governmental agencies, as well as nonprofit conservation organizations, in order to best prioritize specific conservation easement locations and practices.

More Clearly Calculate Job Impacts

As part of the socioeconomic impact analysis, the DEIS evaluates job implications for the Project as well as connected actions. Overall, it is unclear if supply chain jobs and economic development impacts are included in the socioeconomic impact analysis. Specifically, Clean Line has announced its intention to regionally source power cable as well as power pole structures. According to Clean Line, "Plains & Eastern Clean Line and General Cable signed a Memorandum of Understanding for an order worth around $100 million, based on current commodity prices. Orders for the Plains & Eastern Clean Line high-voltage conductor cable would keep the current 152 associates at the Malvern, Arkansas plant busy for almost two years."[44] Clean Line also states, "Pelco Structural will be a preferred supplier for the tubular steel transmission structures that will be used for the Plains & Eastern Clean Line transmission line project."

The Plains & Eastern Clean Line will deliver wind energy produced in the Oklahoma Panhandle region to consumers across the Mid-South and the Southeast regions. Clean Line's potential future supply order from Pelco could be worth $300 million or more depending on commodity prices and the number of structures purchased. Under the agreement, Pelco will supply structures from its facility with approximately 100 employees in Claremore, Oklahoma. The transmission structures for the Plains & Eastern Clean Line will be manufactured within the states that the project crosses and raw materials will be sourced from local companies as much as possible."[45] It is unclear if the DEIS has incorporated these jobs in its socioeconomic impact analysis. At a minimum, a scenario should be included in the Final EIS that specifically allocates socioeconomic benefits to these already publicly announced agreements.

Minimize Impact to Recreation and Historical Areas

To the extent possible, the Project should avoid impacts to recreation and historical areas. Some recreational and historical areas that may be impacted by the Project include Ozark Lake Wildlife Management Area (WMA), Frog Bayou WMA, Webbers Falls Lock and Dam Reservoir lands, Ozark National Forest, Cherokee WMA, Singer Forest Natural Area within the St. Francis Sunken Lands WMA, and the Trail of Tears National Historic Trail.[46] Where avoidance is not possible, the Project should be sited to minimize impact to these areas. Participants should work with local, state and federal land and park managers to best evaluate routes and alternatives.

Encourage Voluntary Landowner Participation

The DEIS evaluated "Environmental Justice" considerations associated with the Project. The DEIS stated, "[n]o unavoidable adverse impacts were identified…" "[n]o irreversible or irretrievable commitment of resources was identified…" and, "[b]ecause the EIS did not identify any disproportionately high and adverse impacts to low-income or minority populations, there would be no long-term impact to these populations." Even though environmental justice concerns appear to be minimal, Participants should strive towards maximizing voluntary landowner participation. As stated in a letter from Daniel Poneman, Deputy Secretary of Energy, to Michael Skelly, president of Clean Line Energy Partners, LLC, "[b]efore the Department would commit to participate in the Project...it would need assurance that...Clean Line will agree that eminent domain authority would be used only as a last resort after negotiations in good faith have concluded with all affected landowners...."[47] The Fifth Amendment to the Constitution states "[n]o person shall be...deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation."[48] As part of the Project construction process, Participants must ensure landowners are provided "just compensation" in keeping with Constitutional protections. Clean Line Energy Partners has already developed an employee "Code of Conduct" in order to facilitate positive landowner relationships.[49]

SACE appreciates the opportunity to comment on this Draft Environmental Impact Statement for the Plains and Eastern Clean Line project. We strongly support the development and use of wind energy, but consider each project on its own merits. Contingent on commitments to adopt the practices discussed above, SACE believes that the Plains and Eastern Clean Line project will be environmentally beneficial and should be given favorable consideration during the permitting process.

Sincerely,

Simon Mahan
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Southern Alliance for Clean Energy

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