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Tommy Beaudreau  
Director  
Bureau of Ocean Energy Management  
381 Elden Street, MS 4090  
Herndon, VA 20170

Re: **CESA Comments on Commercial Renewable Energy Transmission on the OCS Offshore Mid-Atlantic States; Notice of Proposed Grant Area and Request for Competitive Interest in the Area of the Atlantic Wind Connection Proposal**

**Docket No. BOEM-2011-0023**

Dear Mr. Beaudreau:

Clean Energy States Alliance (CESA) submits the following comments on the public interest merits of the Atlantic Wind Connection (AWC) Project, and its environmental consequences, pursuant to Docket No. BOEM-2011-0023. CESA is a national non-profit organization that works with states to advance renewable energy policy, programs, finance, and technology innovation. CESA also facilitates a collaborative of state officials, federal agencies, non-governmental organizations, industry representatives, and other offshore wind (OSW) stakeholders with the objective of accelerating the development of a robust OSW industry in the U.S. – known as the Offshore Wind Accelerator Project.

CESA's comments are as follows:

1. CESA believes that the AWC Project has significant public interest in advancing the responsible acceleration of offshore wind deployment off the East Coast of the United States. Specifically, the AWC Project will reduce the costs of individual wind projects through implementation of a more cost effective approach to associated transmission infrastructure. The AWC Project represents the first offshore "backbone" electrical transmission system proposed for the U.S. If approved, it will enable up to 7,000 MW of offshore wind turbine capacity to be integrated into the regional high-voltage grid in a highly cost-effective manner, increasing reliability and reducing congestion in the heavily congested corridor between Virginia and New Jersey. The Project will provide significant population centers in the Mid-Atlantic region with efficient access to substantial amounts of offshore wind generation. An alternative terrestrial transmission backbone system would involve much greater environmental, land use, and socioeconomic conflicts.

2. The AWC Project supports state energy policy objectives established by many of the Atlantic Coast states, most notably ensuring that aggressive RPS targets in New York, Delaware, Maryland, and New Jersey can be met. It is unlikely that state RPS goals along the Atlantic Coast can be achieved without a backbone transmission system.
3. The AWC project is consistent with the recently issued FERC Order No. 1000, which directs transmission owners to consider transmission needs for the integration of renewable energy resources and other public policy requirements, and opens up the transmission business to new entrants by eliminating provisions that give a preference to incumbent utilities in constructing regional projects.
4. Offshore wind transmission systems are capital intensive with high upfront costs. The proposed AWC Project represents a “network model” that is capable of connecting multiple wind farms, in contrast to a radial system. The network approach is in the public interest because it will result in significant economies of scale, and entails less cost in the long run in comparison to building multiple radial lines to serve individual OSW projects. In addition, use of the network approach allows for more effective planning and siting, in contrast to use of individual, multiple radial lines, to avoid and minimize environmentally sensitive areas. That is, the AWC project will entail less environmental risks and potential effects overall than deploying a primarily radial system approach.
5. The merits of the transmission “network model” approach are further validated by a similar effort taking place in the European Union. The European Transmission System Operators Association has proposed dedicated regional, multinational offshore wind energy grid plans to coordinate the development of the necessary transmission infrastructure on a regional and European level to minimize the total cost of offshore wind projects there.
6. In the current framework for transmission investment, wind and transmission development suffers from a classic chicken-and-egg problem. Both wind projects and transmission infrastructure are costly, and, typically, each of these energy developments wants the other to be developed first. Without a more creative approach, as represented by the AWC Project, a stalemate will result: wind projects cannot proceed without transmission, and transmission investment does not tend to proceed without assurances that wind projects will develop. The AWC Project will break this chicken-and-egg cycle as AWC is willing to take on the upfront capital investment through commitments from private investors.
7. In analyzing the environmental effects of the proposed AWC right of way, BOEM should recognize that the AWC Project will have fewer harmful environmental and socioeconomic effects than the alternative of developing new land-based transmission facilities from more remote, land-based renewable generation sources to serve Atlantic Coast electricity loads.

8. The AWC Project is proposed by a well-established independent transmission company, Trans-Elect, with Atlantic Grid Development as the project developer, and Good Energies, Google, Elia, and Marubeni Corporation as sponsors. These companies, collectively, have the proven technical and financial capability and experience to finance, construct, operate, maintain, and decommission this type and scope of transmission project and to ensure compliance with the conditions of a BOEM right of way grant.
9. The AWC Project's use of High Voltage Direct Current (HVDC) is more economical than High Voltage Alternating Current (HVAC) cable systems in the offshore wind context. At distances longer than 80 km, HVDC systems are likely to be least cost, largely because the capacity of a given HVAC cable drops off with distance due to the capacitive and inductive characteristics of the cable and their associated losses. HVDC transmission avoids this entirely so it is the preferred technology for longer distances. See EnerNex Final Report: *Building an Infrastructure for Ocean Based Renewable Energy in the Southeast U.S.: Phase 2C – Offshore Wind Energy Transmission Study* (2011), prepared for GA Environmental Finance Authority, NC State Energy Office, SACE, and DOE.
10. In considering and minimizing the environmental and socioeconomic consequences of the AWC Project and its alternatives, BOEM should use the principles of Coastal and Marine Spatial Planning to improve the final siting, by considering competing uses of the proposed grid blocks.
11. The AWC Project's proposed transmission corridor's boundaries minimize routing through state submerged lands and sensitive near-shore habitats, to reduce environmental effects. Furthermore, the Project's potential environmental effects can be readily **minimized** if BOEM requires compliance, as **applicable** to the transmission project's specific development elements, with (a) the Best Management Practices established by the Record of Decision and *OCS Alternative Energy and Alternate Use Programmatic Environmental Impact Statement* (2008), and (b) the Mandatory Project Design Criteria related to Marine Mammals and Set Turtles, Appendix B, FONSI & *Final Environmental Assessment for Commercial Wind Lease Issuance and Site Assessment Activities on the Atlantic OCS Offshore New Jersey, Delaware, Maryland, and Virginia*.

Thank you for consideration of our comments.

Sincerely,



Mark Sinclair  
Executive Director