UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Utilization in the Organized Markets of Electric Storage Resources as Transmission Assets Compensated through Transmission Rates, for Grid Support Services Compensated in Other Ways, and for Multiple Services	)))))	**Docket No. AD16-25-000**

Comments of WindSoHy, LLC

On behalf of WindSoHy, LLC (WSH) and our affiliated team members, I submit these comments regarding the benefits to the economy, the environment, and electric utility ratepayers from allowing third party energy storage developers to provide capacity, energy, and ancillary services.

1. Overview

WindSoHy, LLC is a renewable energy project developer focusing on developing compressed air energy storage (CAES) projects combined with wind power and hydrogen production. WSH has core projects in process in the USA and additional projects planned in China, South America, and Africa. The WSH CAES system is unique in that it is completely environmentally clean, due to a hydrogen combustion element that eliminates the need for combusting natural gas in existing CAES plant operations. The WSH CAES system will have greater efficiency and lower costs than other storage technologies which will lead to a more rapid transition to wind and solar power.

WSH strongly supports the Federal Energy Regulatory Commission's (FERC) efforts in this proceeding to identify obstacles facing energy storage's participation in the RTO/ISO markets, and encourages the Commission to move quickly to remedy these obstacles. Providing the remedy needed for energy storage will lead to economic and environmental benefits for the vast majority of Americans.

WSH is anxious to support FERC in efforts to create the regulatory changes needed to unleash the potential of CAES/energy storage and bring about the tremendous benefits that would accompany widespread energy storage development in the country.

2. Introduction

Current regulations limiting the potential of CAES, in particular its ability to provide ancillary services while simultaneously providing power generation, has effectively prohibited the development of CAES projects. This has effectively limited the growth of the wind and solar industry, while prolonging the production of fossil fuel power plants.

CAES is an incredibly flexible energy storage technology that blurs the lines between generation and transmission/distribution. Therefore, it is important for FERC to update the energy market regulations related to energy storage before we can take full advantage of the capabilities of CAES.

FERC has deregulated generation allowing providers to sell wholesale electricity at market-based rates into organized markets. Transmission, on the other hand, remains subject to strict adherence of open-access transmission tariffs, and cost-of-service ratemaking.

CAES can act both like a generator, by injecting electricity into the grid, and as a transmitter or distributor by providing frequency regulation or spinning reserve among other ancillary services. Despite these abilities, CAES developers must choose between participating solely as a generator providing energy for the organized wholesale markets, or solely as a transmitter that receives cost-based returns through an open access transmission tariff (OATT) or a transmission revenue requirement. By limiting energy storage in this manner FERC is preventing CAES from realizing the full value potential of its mechanical abilities, limiting its revenue, and in the process delaying needed investment for the growth of the wind and solar industry.

3. **Eliminating barriers to the use of the full mechanical potential of CAES/energy storage will bring many benefits to the market.**

   In April 2016 FERC solicited comments from every RTO/ISO about barriers to energy storage participation in their markets. While the RTO's/ISO's reported some progress on the participation of energy storage in their markets, several of them commented on the systemic barriers that remain in place that are limiting the participation of energy storage.

   While state-level policy will never be unified, FERC can, by establishing policy to allow CAES/energy storage facilities to monetize their full mechanical potential, create stronger interest from developers and investors in building energy storage projects within the RTO's/ISO's.

   FERC can also help by establishing an industry standard method to evaluate how value streams from energy storage can be prioritized and realized. This would include quantification of nonstandard benefits provided by energy storage which include reliability, environmental, and health benefits.

4. **CAES has unique energy and power capabilities when the plants are configured in a way to realize those capabilities.**

   The CAES plant system, made by Dresser-Rand/Siemens corporation and used by WSH, operates in a range of power production from 75MW-135MW. Multiple units of these plants can be combined to increase power production into thousands of MW at a single site.

   If FERC establishes Orders that allow for CAES energy storage systems to provide both generation and ancillary services, the WSH system will run each individual CAES "chain" at 100 MW for generation while setting aside 35MW per chain for ancillary services. In this way, the WSH CAES plant will be able to provide long-duration (≥10 hours) of storage for reliability and ancillary services. This is far superior to battery storage and will be a great asset to the RTO's/ISO's.

5. Conclusion

WSH wishes to thank FERC for considering our comments. We strongly support these proceedings and FERC's efforts to increase the use of bulk-scale energy storage technologies like CAES.

The prevailing energy storage business models of the future will be those that realize both the full technical and economic potential. Critical to achieving this potential are rulings by FERC that would eliminate the barriers that currently exist which are preventing the development of CAES. Such rulings by FERC will unleash economic, health and environmental benefits unmatched in any other industrial sector.

Respectfully submitted,

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