

Grid Assurance

Critical Spare Equipment Services to Improve U.S. Transmission Grid Resiliency

April 20, 2016

A Proactive Industry Solution





Recent events demonstrate a clear need to improve the resiliency of U.S. transmission system

- U.S. high voltage transmission system is vital to the economic and social fabric of the country
- Documented and emerging threats facing the system
- □ Legislators & regulators pursuing solutions and looking for action
 - Federal Energy Regulatory Commission (FERC) directs development of physical security standards - CIP-014-1
 - U.S. DOE April 2014 study outlines system issues and vulnerabilities
 - Presidential Quadrennial Energy Review calls for strategic large power transformer reserve
 - FAST Act directs DOE to submit a plan to Congress evaluating the feasibility of strategic transformer reserve

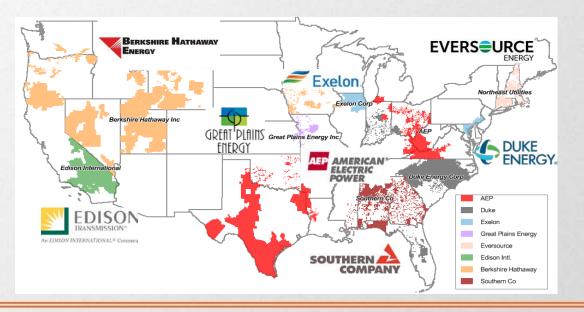
Growing national awareness - Wall Street Journal, NPR, books, national newspapers

Grid Assurance Overview



Goal & Objectives

- Provide all U.S. transmission owners a cost-effective solution
- Pool needs across the industry to provide economies of scale
- Store equipment away from potential targets
- Structure costs similar to existing FERC-regulated transmission rates



Services provided



- Procure, store and maintain long lead time equipment vital to the electric transmission system
- Provide secure location away from protected assets





- Sell equipment at cost to Subscribers upon a Qualifying Event
- Provide logistics support

Qualifying Events



Qualifying Event

A "Qualifying Event" is any damage, destruction or material impairment of the safe operation of a subscriber's equipment caused by:

- Act of war, terrorism, rebellion, sabotage or a public enemy, or any other physical attack,
- A cyber-attack
- An electromagnetic pulse or intentional electromagnetic interference
- An act of God, a natural catastrophe or a severe weather condition

Sparing Service Fee



A cost-effective solution for customers

- Pooling of asset needs drives economies of scale
- Warehouses offer security and equipment protection in tailored locations
- Focused team on providing targeted quick responses for Qualifying Events
- Administrative costs are shared by several companies

Fee consists of costs to operate Grid Assurance including,

- Cost to purchase, store and maintain the equipment
- General and administrative costs
- Financing costs
- A return on invested equity similar to regulated transmission returns

Regulatory Approvals



While Grid Assurance is not regulated, it is important for its target audience to have regulatory clarity to confidently subscribe for this service

FERC Approvals

- Initial Petition for Declaratory Order approved on August 7, 2015
 - Contracting with Grid Assurance for access to spare equipment is a permissible element of a physical security plan to satisfy Requirement R5 of mandatory reliability standard CIP-014-1; and
 - No prior authorization under Federal Power Act Section 203 is required for sales of spare equipment by, or purchases of spare equipment from, Grid Assurance.

Second Petition for Declaratory Order approved on March 25, 2016

- Prudent to join Grid Assurance and purchase of spare equipment in case of a qualifying event
- Single issue ratemaking
- Affiliate pricing rules waiver with certain conditions

Projected Operational Timeline



Acquiring subscribers, obtaining the necessary approvals and acquiring the equipment & buildings will take significant effort over 3 years

