



MAINE GREEN LINE

1200 MW HVDC Transmission System
Connecting Maine and Massachusetts



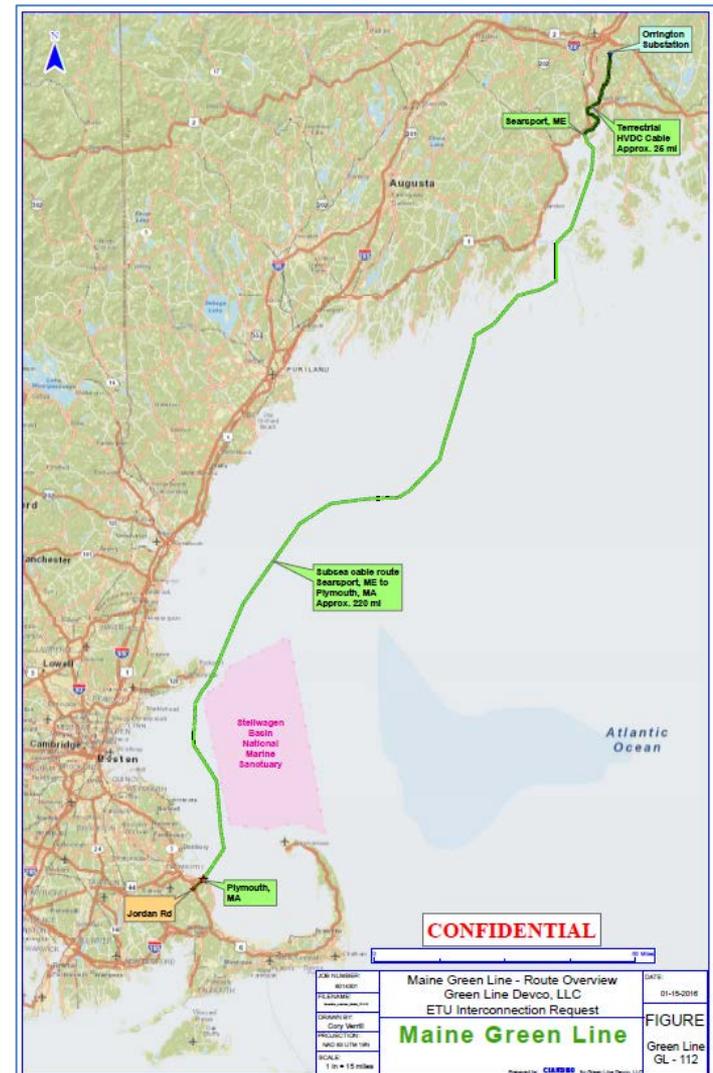
nationalgrid

GREEN LINE INFRASTRUCTURE ALLIANCE
Delivering Renewable Energy for New England

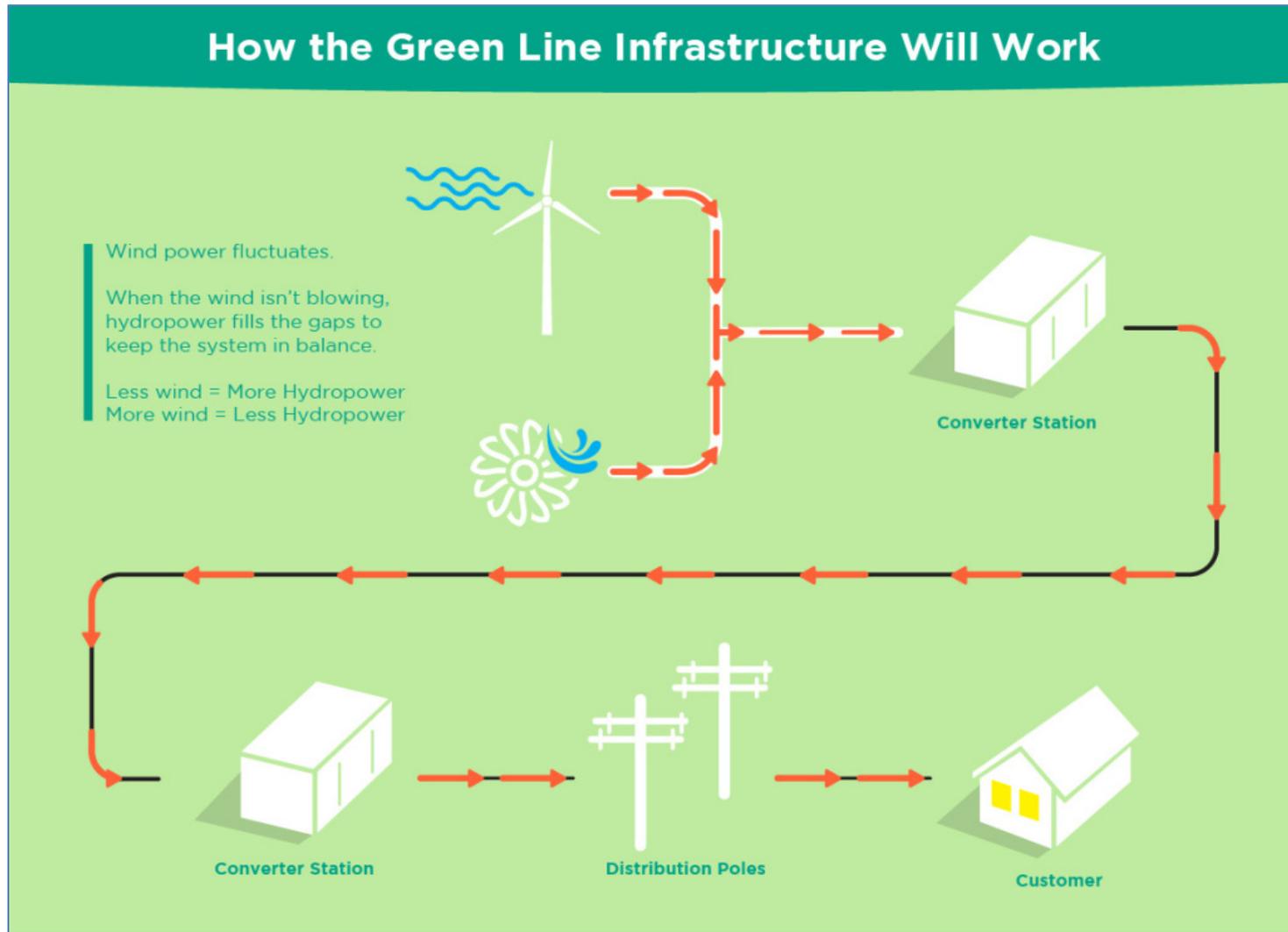


Maine Green Line Overview

- 1200 MW high voltage direct current (HVDC) electric transmission system between Maine and Massachusetts
- From the Orrington, Maine substation to a new substation in Plymouth, Massachusetts
- All 220 miles of submarine cable and any terrestrial cable in Maine and Massachusetts will be buried
- AC/DC converter stations to be located at each end of the cable



Green Line - Combined Hydro and Wind

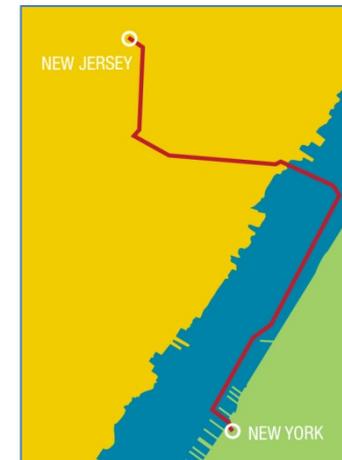


About Anbaric

Independent Developer of Transmission Projects

Operating Projects

- **Neptune Transmission Project (developed in collaboration with Atlantic Energy Partners) :**
 - 660MW independent HVDC transmission system linking New Jersey and Long Island Operational
 - Project is completely underwater (50 mi) and underground (15 mi)
 - Completed July 2007. **On time and on budget.** (www.neptunerts.com)
- **Hudson Transmission Project (developed in collaboration with PowerBridge) :**
 - 660MW from New Jersey to West 49th St in Manhattan.
 - Project is completely underwater (4 mi) and underground (3 mi).
 - Competitively selected by NYPA. Completed in June 2013. **On time and on budget.** (www.hudsonproject.com)



About National Grid

World Leading Transmission Development Utility

Representative Portfolio of Experience

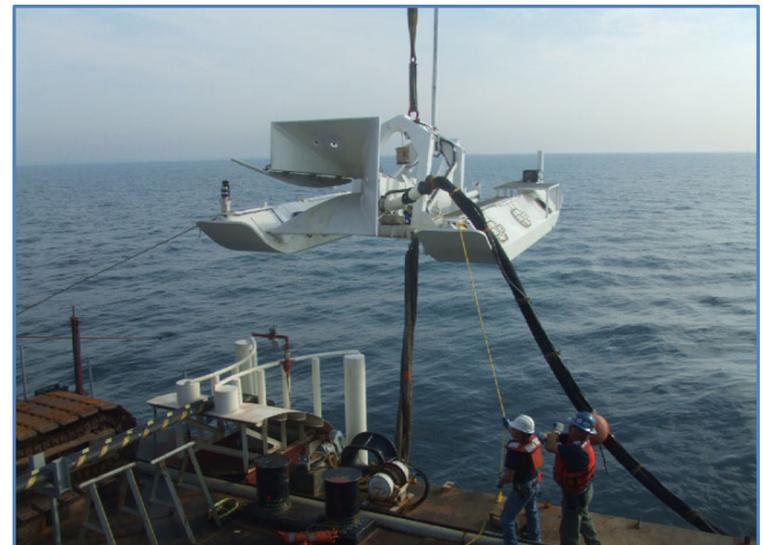
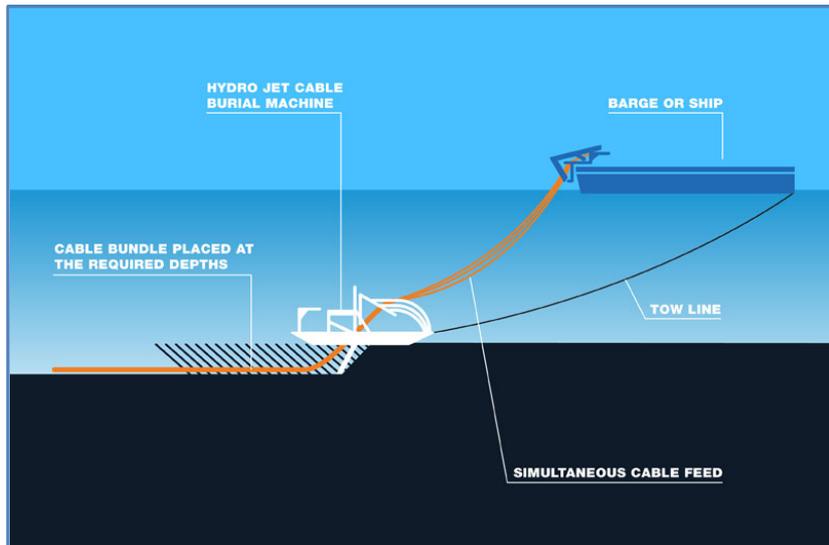
- **2000 MW HVDC Interconnector:**
 - Construction of the U.S. portion of a 2,000 MW HVDC interconnector between New England and Canada that operates at 450 kV and is jointly owned by some 40 energy companies; National Grid operates the line and owns a majority share.
- **BritNed:**
 - A 156-mile, bi-pole HVDC electricity interconnector with 1,000 MW capacities each way that connects the UK to the Netherlands.
- **Interconnexion France:**
 - Angleterre, a 2,000 MW, 42-mile HVDC electricity interconnector between England and France that includes 27 miles of undersea cable. Commissioned in 1986 as part of a joint agreement between National Grid and France's Transmission Service Operator, RTE.
- **The Western HVDC Link:**
 - Joint project between National Grid and Scottish Power Transmission to develop a proposed subsea HVDC cable on the western side of the UK to provide additional capacity on Great Britain's transmission system, and support continued growth and expansion of renewable energy in the UK.



Maine Green Line Project Status

- Currently in preliminary development stage
- Plymouth is the preferred location for our Massachusetts converter station
- Previously evaluated interconnection points in Salem, Lynn Harbor and Boston Harbor
- October 15, 2015 – Filed Interconnection Request with ISO-NE as an Elective Transmission Upgrade (“ETU”)
- Assigned Study Queue Position Number 569
- January 20, 2016 – Signed a Facility Study Agreement with ISO-NE
- Engaged in stakeholder outreach with potentially affected parties
- Evaluating routing and siting alternatives in all areas
- Following Massachusetts legislation that would advance the state’s meeting greenhouse gas reduction goals

Submarine Cable Installation



Examples of Converter Stations



Neptune's Sayreville, New Jersey, Converter Station – Siemens - Conventional HVDC (660 MW)
The DC converter station includes a clock tower that was asked for by the local community.

Examples of Converter Stations



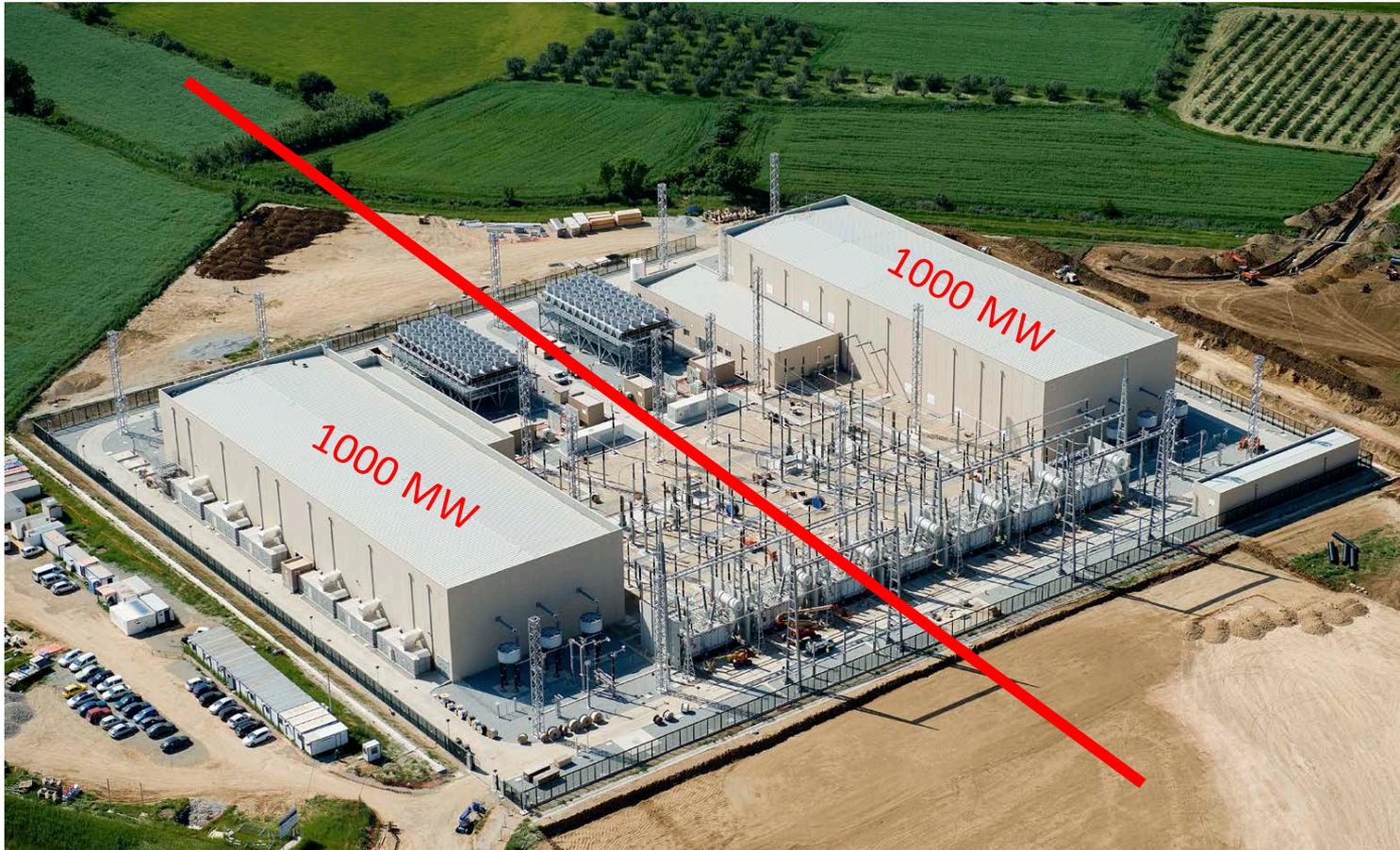
TransBay, Potrero Hill, San Francisco, Converter Station – Siemens - Voltage Source Converter HVDC (400 MW)
Lower profile building.

Examples of Converter Stations



INELFE Project, France-Spain, French Converter Station – Siemens - Voltage Source Converter HVDC (2 X 1000 MW)
Commissioned 2015.

Examples of Converter Stations



INELFE Project, France-Spain, Spanish Converter Station – Siemens - Voltage Source Converter HVDC (2 X 1000 MW)
Commissioned 2015.

Examples of Converter Stations



Vermont Green Line Project, Rendering New Haven, Vermont Converter Station – Voltage Source Converter HVDC (400 MW)
2016 RFP Proposal.

Contact Information



www.maine.greenline.com



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