

# The Benefits

A recently completed study by ESAI, a well-regarded independent consulting firm providing market research and strategic advisory services to the energy industry, concluded that Northeast Energy Link-delivered renewable power is very cost-competitive compared to other renewable energy alternatives, including Alternative Compliance Payments.

The Northeast Energy Link will meet several important public policy needs resulting in regional benefits, including:

- ▶ The renewable generation that will likely use the Northeast Energy Link has the potential to suppress market prices in New England by as much as \$7.3 billion over 30 years, thus leading to lower regional market prices.
- ▶ Additions to the tax base of local communities and states
- ▶ Lease payments to states for the use of public corridors
- ▶ Construction and maintenance jobs
- ▶ Significant environmental benefits from additional renewables and accordant reductions in fossil fuel emissions
- ▶ Increased reliability of the electric grid from improved fuel diversity
- ▶ Added transmission capacity to reduce system congestion
- ▶ Siting of the transmission lines in public corridors has many environmental advantages including reduced impact to wetlands and vernal pools, reduced tree clearing, and reduced visual impacts

The Northeast Energy Link also compliments the emerging Eastern Interconnection Planning Collaborative study efforts and 2010 ISO Economic Study performed at the request of NESCOE.

# Northeast Energy Link



# Technical Description

A feasibility study was completed in 2010 which found the Northeast Energy Link to be a highly achievable project based on the significant need for new transmission, positive regulatory environment, proven and reliable DC cable and converter station technology, geographic location, and ease of constructability. As such, the proposed project concept includes:

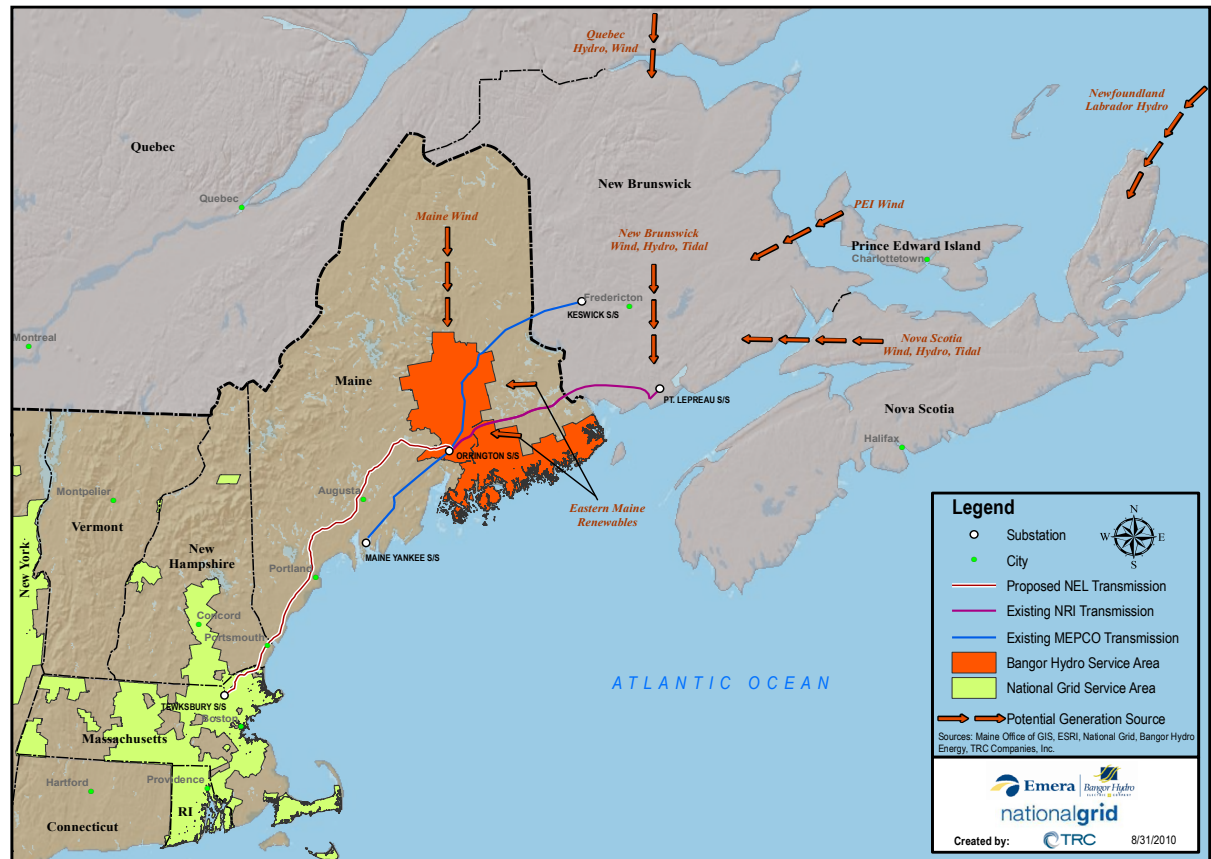
- ▶ Direct current (DC) technology that reduces line losses and is more efficient for long-distance electric transmission and underground construction;
- ▶ An underground cable (two conductors) extending approximately 230 miles from Orrington, Maine to Tewksbury, Massachusetts;
- ▶ Capacity of 1,100 MW at +/-320kV DC;
- ▶ AC/DC converter stations on each end;

- ▶ AC upgrades north of Orrington to collect renewable energy generated in northern and eastern Maine.

## Routing

In 2010, preliminary permitting and siting process planning was undertaken. Additional evaluations will include termination points, refined routing, material availability, refined cost estimates, procurement processes, and timing.

The preferred project design at this point calls for an overland route from Orrington, Maine to Tewksbury, Massachusetts. Current planning anticipates utilizing existing transportation corridors. Additional evaluations will include termination points, refined routing, material availability, refined cost estimates, procurement processes, and timing.



# The Project

## **The Northeast Energy Link**

is a proposed new 1,100 MW underground direct current (DC) transmission line interconnecting southern New England with cost-competitive renewable energy and capacity resources located in Northern and Eastern Maine, New Brunswick, Atlantic Canada, and Quebec. The project will facilitate the vision of the New England Governors' Blueprint Study, delivering wind energy and other renewable supply that would meet a substantial portion of a projected gap between state and regional Renewable Portfolio Standards (RPS) and renewable supply.

The project is being developed jointly by Bangor Hydro, a subsidiary of Emera, and National Grid. Emera's core business is the transmission and generation of electricity, with its corporate headquarters in Nova Scotia. Bangor Hydro is an electricity transmission and distribution company serving eastern Maine. Bangor Hydro has recently developed several important transmission projects in Maine, including the Northeast Reliability Interconnect Project.

National Grid is an international energy delivery company. In the U.S., National Grid delivers electricity to approximately 3.3 million distribution customers in Massachusetts, New Hampshire, New York and Rhode Island, provides electric transmission service to Vermont, and manages the electricity network on Long Island under an agreement with the Long Island Power Authority (LIPA). It is the largest distributor of natural gas in the northeastern U.S., serving approximately 3.4 million customers in Massachusetts, New Hampshire, New York and Rhode Island. National Grid also owns over 4,000 megawatts of contracted electricity generation that provides power to over one million LIPA customers.

The National Grid/Emera/Bangor Hydro partnership, with its combined transmission development experience and position in key states, offers the best means of delivering this type of project.

For more information please visit:

[www.northeastenergylink.com](http://www.northeastenergylink.com)



## **The Northeast Energy Link**

is a proposed new 1,100 MW direct current (DC) underground transmission line interconnecting southern New England with cost-effective renewable energy and capacity resources located in Northern and Eastern Maine, New Brunswick, Atlantic Canada, and Quebec.



**Northeast Energy Link**