Vision for The Future

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Northeast Climate Change Preparedness| Manchester, NH| May 20, 2014

Presented by Fouad Dagher, National Grid

National Grid Owns and Operates Large-scale International Energy Transport Networks

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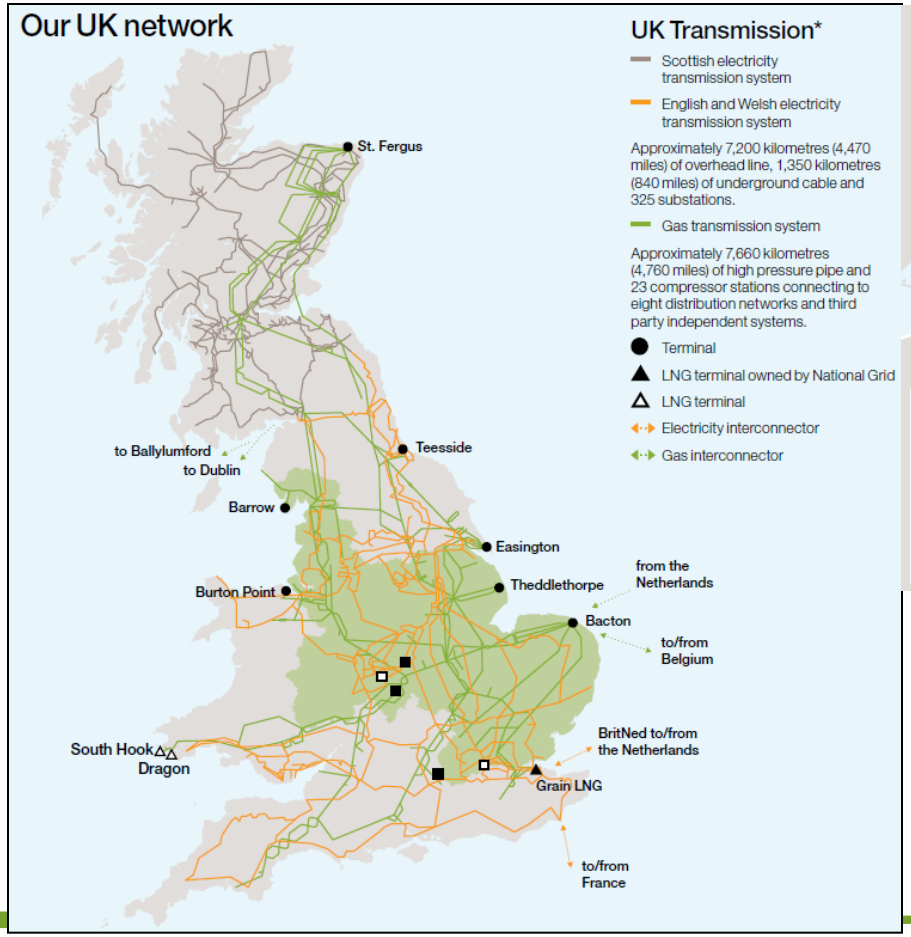

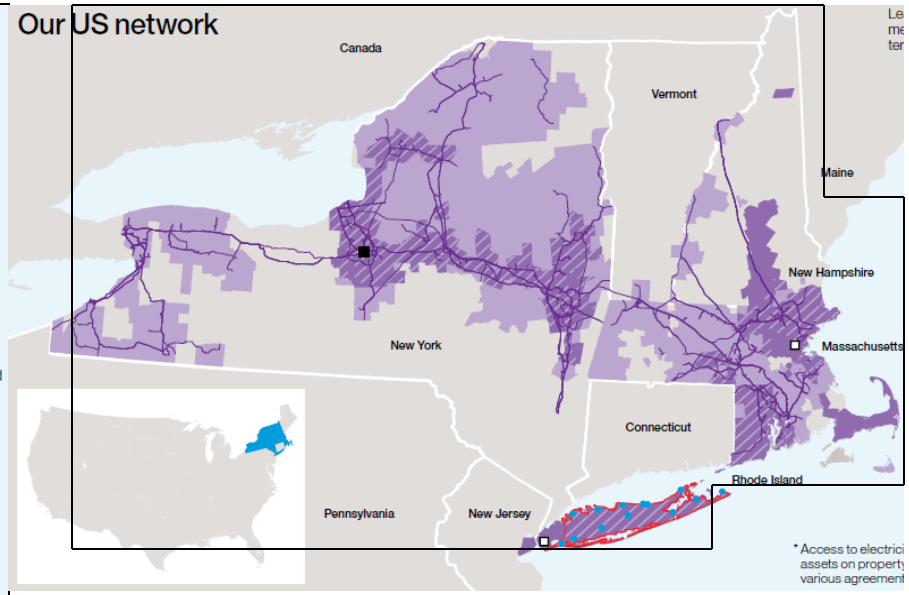

- We aim to build on core UK and US electricity and gas regulated businesses to deliver superior customer services.

National Grid is a longstanding leader in energy efficiency

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We are recognized for our excellence and active industry role

- Multiple ENERGY STAR Excellence Awards, numerous ACEEE awards, and IEA recognized programs
- Engaged leader within EE community
  - ASE: Tom King co-chair
  - Board of directors: CEE, ACEEE, IEPEC, Top 10 USA, NEEP, etc.

ENERGY STAR

ALLIANCE TO SAVE ENERGY

Our states lead ACEEE policy rankings

We operate large-scale EE programs

- 2013 budget is largest in the nation
- MA 2013-15 plan has most ambitious savings goals in the nation
- Beyond 2015, deceleration in growth of customer funding expected[1]

Top Four US EE Utilities	2013 EE budget
National Grid	**$490m**
Pacific Gas & Electric[2]	$411.5m
Southern California Edison	$390.5m
Connecticut Light & Power	$156.2m

[1] Modest budget growth expected in MA and RI, while budget uncertainty exists in NY. [2] PG&E was approved $823m for 2013-2014 combined, average $411.5m/year

Northeast Climate Change Preparedness

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Our Future is built from our History

- Learning & Collaborating
- Exchanging valuable information from world practices
- Developing workforce today and into the Future

National Grid's promise to:

- Partner to work better together,
- Connect with our Customers today, and be trusted to help them meet their energy needs tomorrow

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Our Challenge

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Current Energy Networks cannot Support 21st Century customer demands and innovations

- Too old
- Inefficient
- Not very agile
- Dead-end designs
- Not very resilient

Community Investment Report highlights EE, recycling and solar

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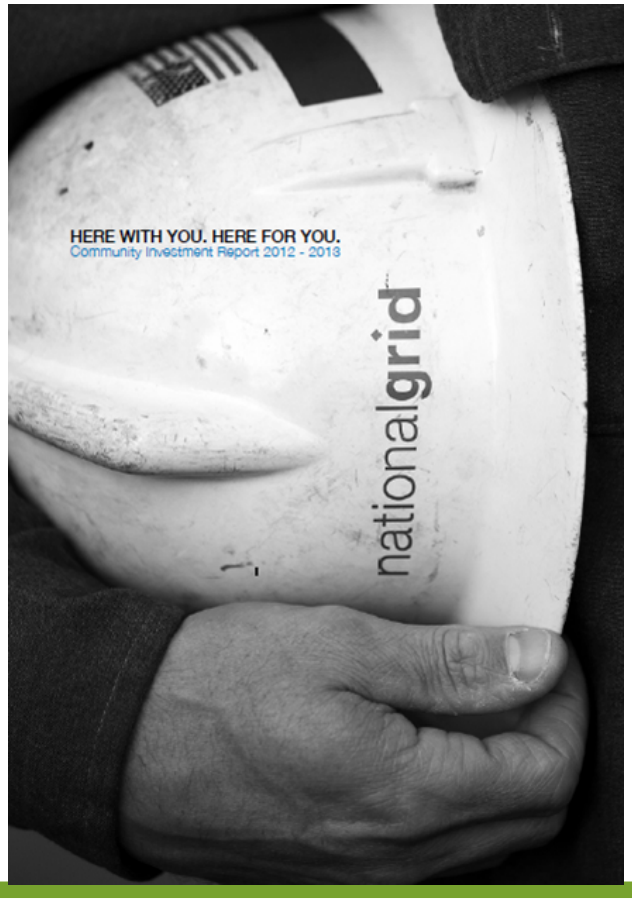

- CHP plant at U-Mass Medical
  - ~ 10 MW CHP plant with incentives from NG toward the plant, Worcester, MA
- 30 million pounds of scrap
  - We sort, recycle and repurpose huge quantities of scrap each year in Liverpool, NY and Sutton, MA
- More solar for Dorchester
  - 1.25MW solar plant next to “rainbow” tank powers 250 homes

We're on our way to install 150 EV charging stations across three states

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New York

Rhode Island

Massachusetts

Offshore Wind Will Play a Role

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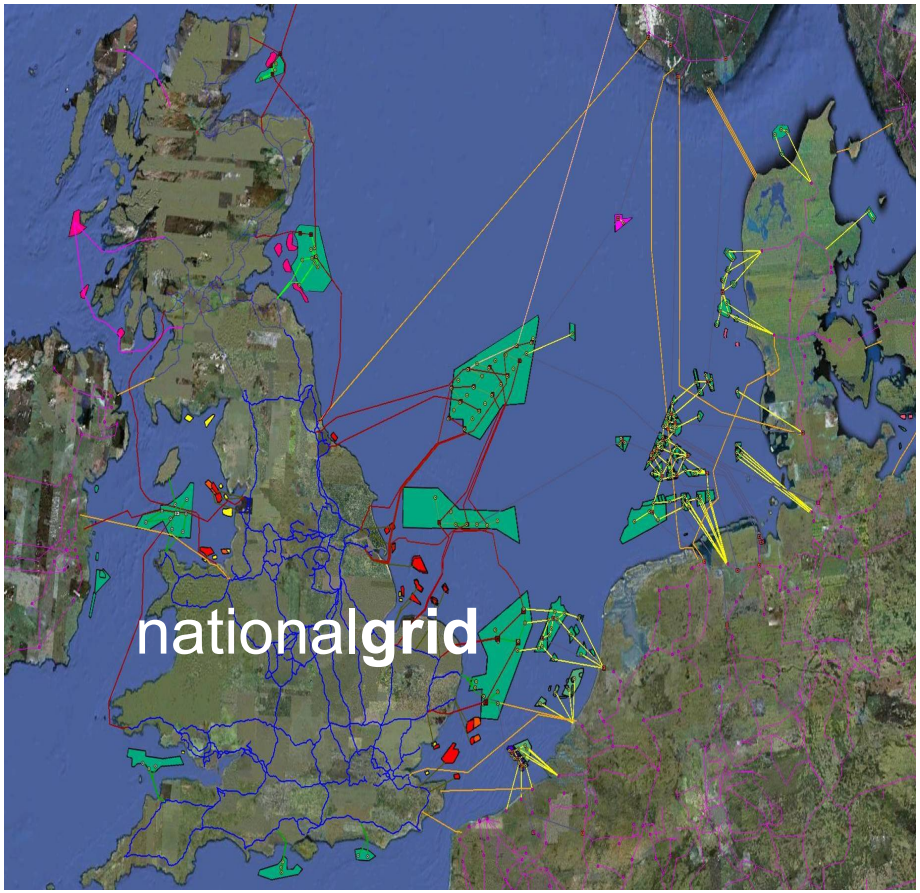
- UK has 3.3 GW of offshore wind installed to date
  - London Array project 630 MW is largest offshore development in world
- New England development
  - Cape Wind 468 MW
  - Deepwater 30 MW
- Mid-Atlantic states exploring legislative and regulatory mechanisms for offshore wind
- Interconnections via undersea transmission cables and improvements to on-shore transmission networks



And via investment in next generation transmission lines

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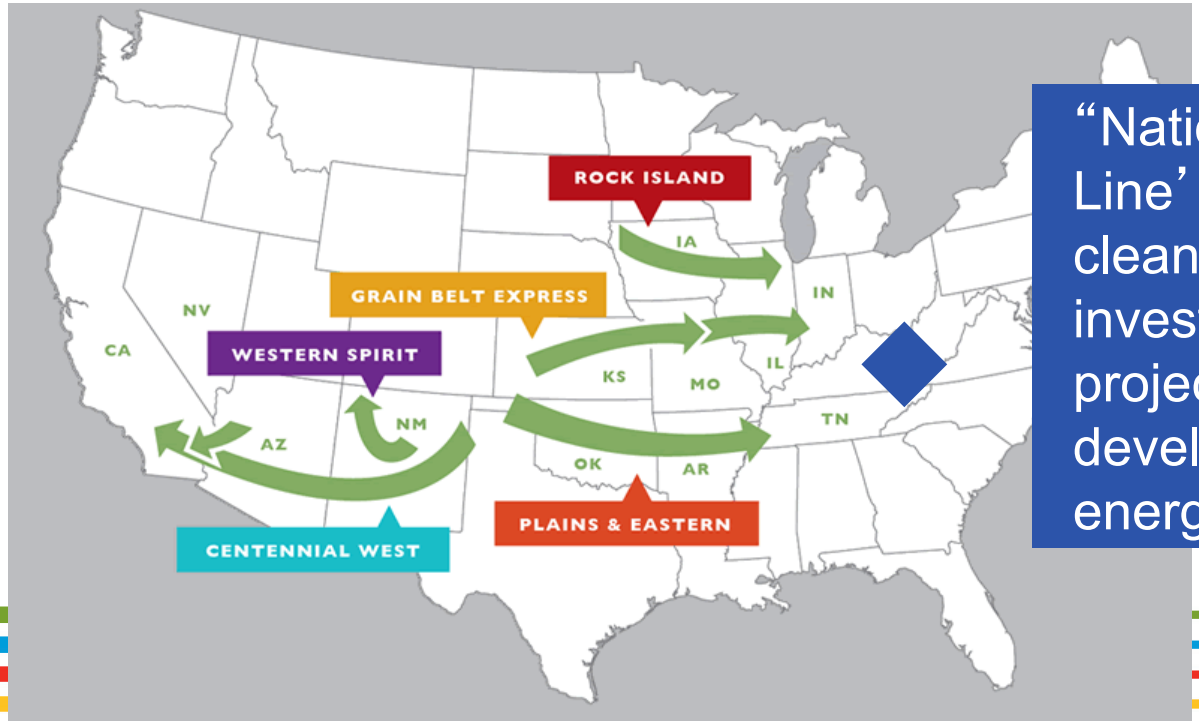
- Closed $40M investment in Jan 2013
  - Advance development of four HVDC transmission projects connecting onshore Midwest wind energy resources

CLEAN LINE ENERGY PARTNERS



"National Grid shares Clean Line's vision of enabling a cleaner energy future by investing in transmission projects that facilitate the development of renewable energy resources."

We are demonstrating renewable natural gas technology in Brooklyn

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- Largest wastewater treatment plant in NYC
- Project will inject enough gas into grid to heat ~2,500 homes
- Reduce CO2 emissions by about 16,000 tons annually
- Equals ~3,000 car reduction for one year
- Partnering with NYCEDC and NYCDEP

Existing anaerobic digesters at Newtown Creek waste water treatment plant in Brooklyn, NY

What is Driving the Solution

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Customer & Policy Drivers

- Resiliency and Reliability
- Cost Efficiency
- Efficient Consumption
- Greenhouse Gas Emissions
- CAFE standards – Alt Fuels
- Oil to Gas Conversions

The Network

- ***Resilient Backbone*** – prevents and reduces impact of outages while integrating clean, central and distributed resources
- ***Market Enabler*** - facilitates and sends the right price signals to customers and 3rd parties
- ***Customized Solutions*** – provides utility-customized solutions that can stimulate the market

Technology & Market Drivers

- Energy Efficiency
- Demand Response
- Distributed Generation
- Electric Vehicles
- Information
- Combined Heat & Power
- Energy Storage

- ***Optimizes*** value for ***all*** customers
- Meets policy objectives and Enables policy drivers to facilitate market solutions
- ***Centralizes*** information to prioritize & optimize solutions
- ***Creates accountability*** to deliver policy drivers
- ***Accelerates*** market expansion to meet policy objectives

Regional Initiatives

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MA: Grid Modernization in MA to Enhance Reliability and Resiliency

NY: Reforming the Energy Vision (REV) to facilitate technological innovation, enhance security needs and Enhance Resiliency

- Modernize the electric grid to enable customer choices (integration of renewable sources, EV, co-generation, energy storage, HEM devices, micro-grids)
- empower customers to make informed decisions about their energy consumption
- Develop real time information and communications for faster restoration

Small Scale Renewables & Smart Grid

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- Largest smart grid in Massachusetts
- Installing smart meters for up to 15,000 customers in Worcester
- Features both customer and grid-facing technology
- Drives customer choice and real-time information sharing
- Enables distributed generation
- Enables better storm response

America's energy future: A smart grid city

Worcester, MA smart grid pilot

Summary:
The US Electricity Future

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- We are moving toward cleaner generation, improved energy networks, and additional customer-side choices and services
- Energy policies will impact how well we are able to achieve a reliable, sustainable, and affordable energy future
- A clear and coordinated set of national and regional energy policies will expedite progress:
  - Energy Efficiency, New and Integrated Technologies
  - Renewable Energy policies
  - Electric Transmission planning, siting, and investment policies
  - Environmental policies (influencing generation mix)

Thank You

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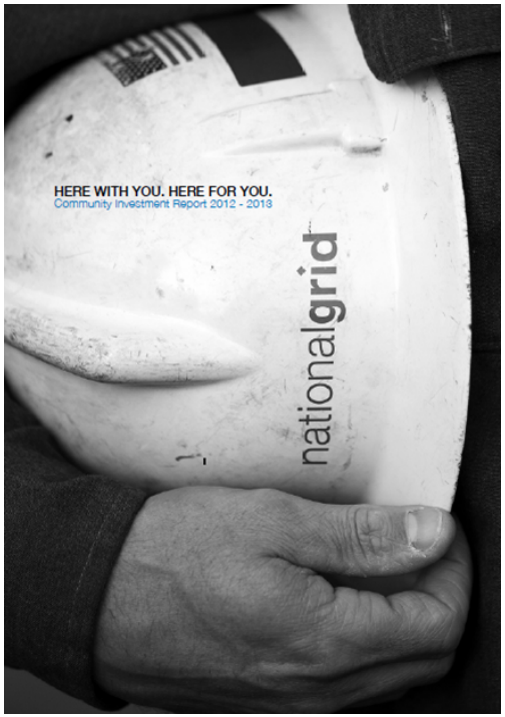

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