

# MA Wind Working Group Presentation



### **Outline**

- 1. First Wind Overview
- 2. Comparison of long term contract opportunities across core markets
- 3. How important are long term contracts
- 4. Key aspects of a long term contract
- 5. Challenges and opportunities of NE long term contract options

### **Overview**

- Founded in 2002 and headquartered in Boston with 200+ employees at offices and project sites around the U.S.
- Wind projects range from 15 205 MW, situated on private, state and federal lands
- Vertically integrated to develop projects from conception through operations
- Successfully raised over \$6 billion to convert development projects into operating assets
- Utilize innovative technology and transmission solutions to bring stable, long-term contracts to utilities and customers in high-demand markets



Sheffield Wind - 40 MW

## **Capabilities**

 Vertically integrated renewable energy solution provider to develop projects from conception through operation

Phase of Project Development

#### Development

### Construction

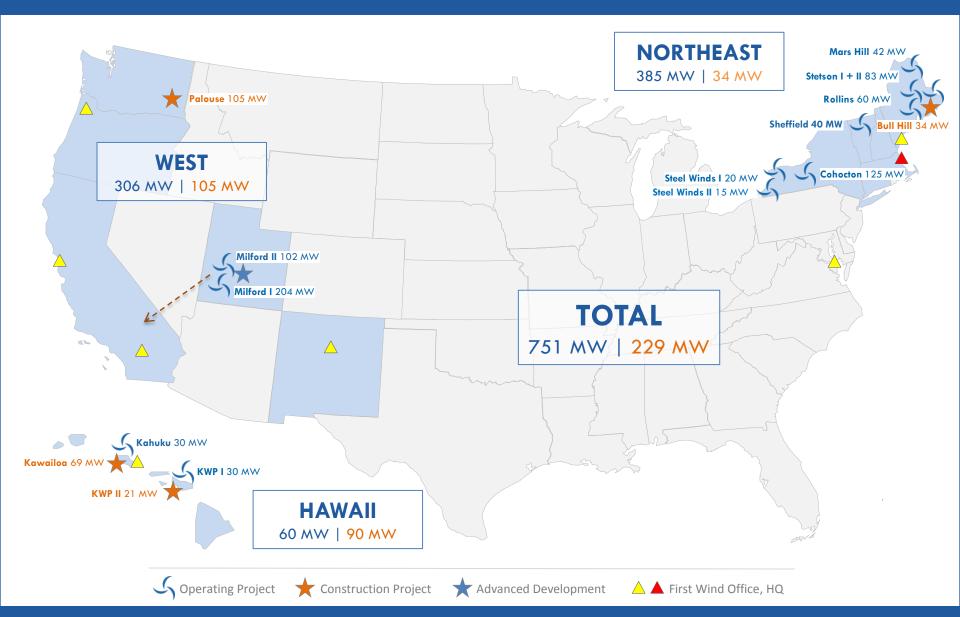
#### **Operations**

- Prospecting for and analysis of optimal site conditions:
  - Wind resource
  - Site constraints
  - Transmission and markets
- Met campaign and resource analysis
- Turbine assessment and procurement

- Project financing
- Unique transmission and BESS builds
- EPC contracting model with industry leading construction companies:
  - Mortensen
  - RMT
  - Reed & Reed

- Full O&M
- Vendor warranty oversight
- Regulatory compliance
- DACC and SCADA analysis and reporting
- Commercial/utility relations

### **Core Markets**



# Core Market Contract Comparison

	Northeast	West	HI
Key Market Driver	State level RPS and legislative mandates for long term contracts	California demand for renewable energy and high RPS requirements	High energy prices and dependence on imported fuel
Potential Offtakers	<ul><li>Northeast utilities</li><li>Universities/colleges</li><li>Public entities</li><li>Private entities</li></ul>	<ul><li>CA utilities</li><li>Other western utilities</li></ul>	• HI utilities
Negotiation Trigger	<ul><li>RFP issued by utility or legislative authority</li><li>Bilateral discussions</li></ul>	<ul><li>RFP issued by utility</li><li>Bilateral discussions</li></ul>	Bilateral discussions
Standard Product	Energy and REC contracts (bundled or unbundled)	Long term bundled PPA	Long term bundled PPA
Contract Tenor	Bundled: 10 - 25 yrs Unbundled: Energy – 10 to 15 yrs RECs – 10 yrs	20+ years	20+ years

16 of 16 Operating / Under Construction Projects have a Long Term Contract (LTC); Each Project Must Have a LTC Before Construction Starts

# Importance of Long Term Contracts

- Availability of long term contracts will ensure that renewable projects get built, bring investment and new sources of clean power, and help Massachusetts meet its renewable power and climate goals
- Long-term contracts are necessary to finance and build renewable projects given the current energy, REC, and financial markets
  - Groton, Hoosac, Bull Hill (109 MW total)
- A shortage of these opportunities is a major reason why the addition of renewables in New England in 2011/2012 is expected to be significantly smaller than RPS growth
  - NSTAR's 2010 RFP was extremely competitive, with qualifying bids for  $\sim$ 2,500 MW of supply (20 X capacity sought)

LTC's can reduce seller and buyers' exposure to highly volatile short-term power and REC prices, and they can keep power and RPS compliance costs down

## Importance to a Developer

- Why are these contracts so important to a developer?
  - It's all about financing
    - Provides revenue certainty for a significant portion of the project life and allows us to attract long term capital
    - Financing selection (tax equity, project debt, etc.) will depend on many factors, but is heavily influenced by the long term contract structure
    - Merchant revenue streams increase risk and uncertainty, and are typically not valued (or are discounted heavily) by lenders and investors
    - In turn, the project requires more of our own equity to get built (prefer to use for further development)
  - Reduces developer exposure to commodity market volatility
    - We are exposed to commodity price volatility in prospects/early stage developments
      - Want to reduce risk as early as possible

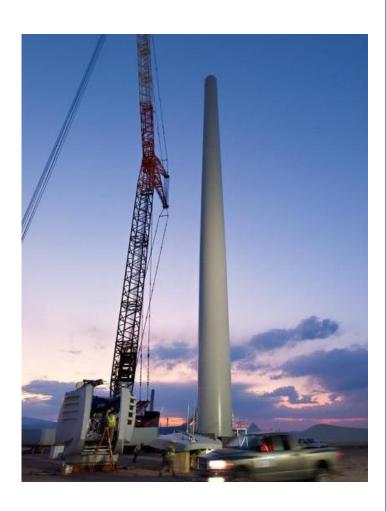
# Key Aspects of Long Term Contracts

#### Important aspects:

- Tenor
- Products offered (e.g., Energy, RECs, capacity)
- Price (fixed, flat with escalation, floor/ceiling)
- Volume (as generated, guaranteed fixed)
- Collateral requirements (LC, liens, etc.)
- Investment grade counterparty

### Challenging aspects:

- Delivery guarantees (MWh)
- Liens
- Cure periods
- Collateral sizing
- Regulatory Risk (RECs)



# Opportunities and Challenges of NE Contracts

- Opportunities
  - Utility RFPs
  - Colleges (i.e., Harvard)
  - Municipalities
  - Other (Google, Staples)
- Challenges
  - Not enough opportunities
  - Power prices have declined



