

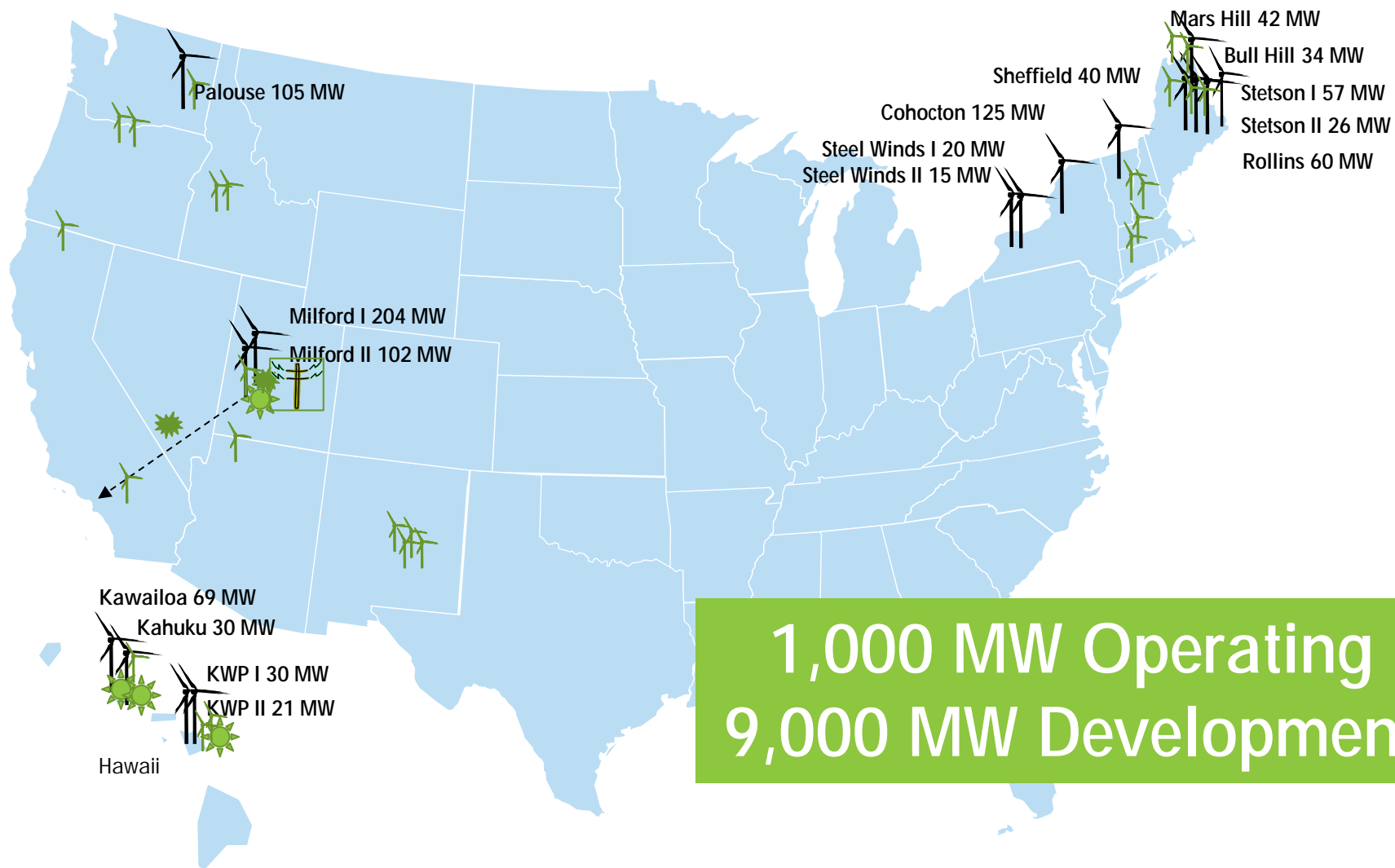


Cost Effective Ways to Meet State Renewable Requirements

May 2012

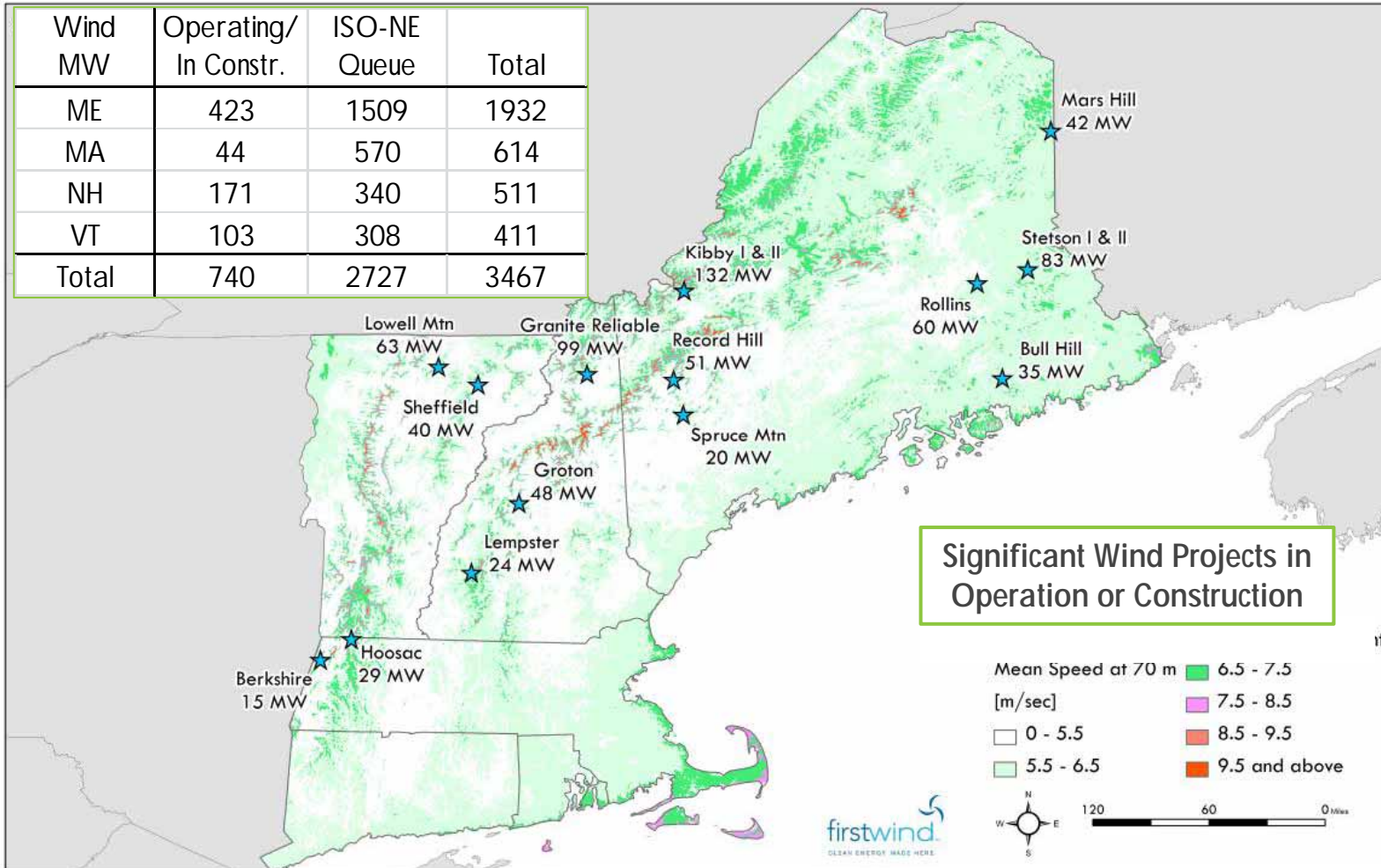


Overview of First Wind Projects

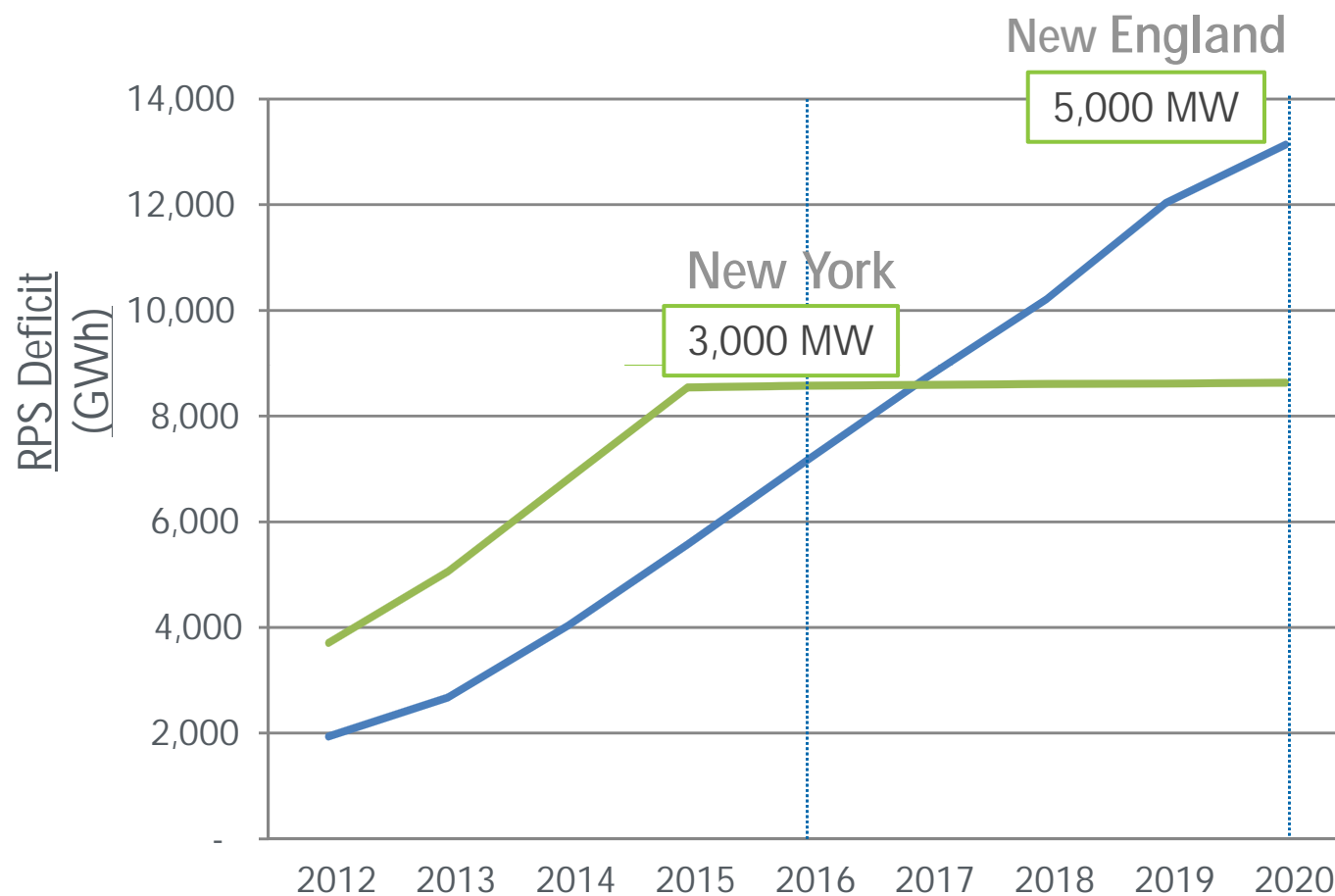


New England Wind Supply

- Wind is playing increasing role in meeting New England renewable energy goals, as supply from biomass, landfill gas and imports has leveled off



State Level Demand for Renewables



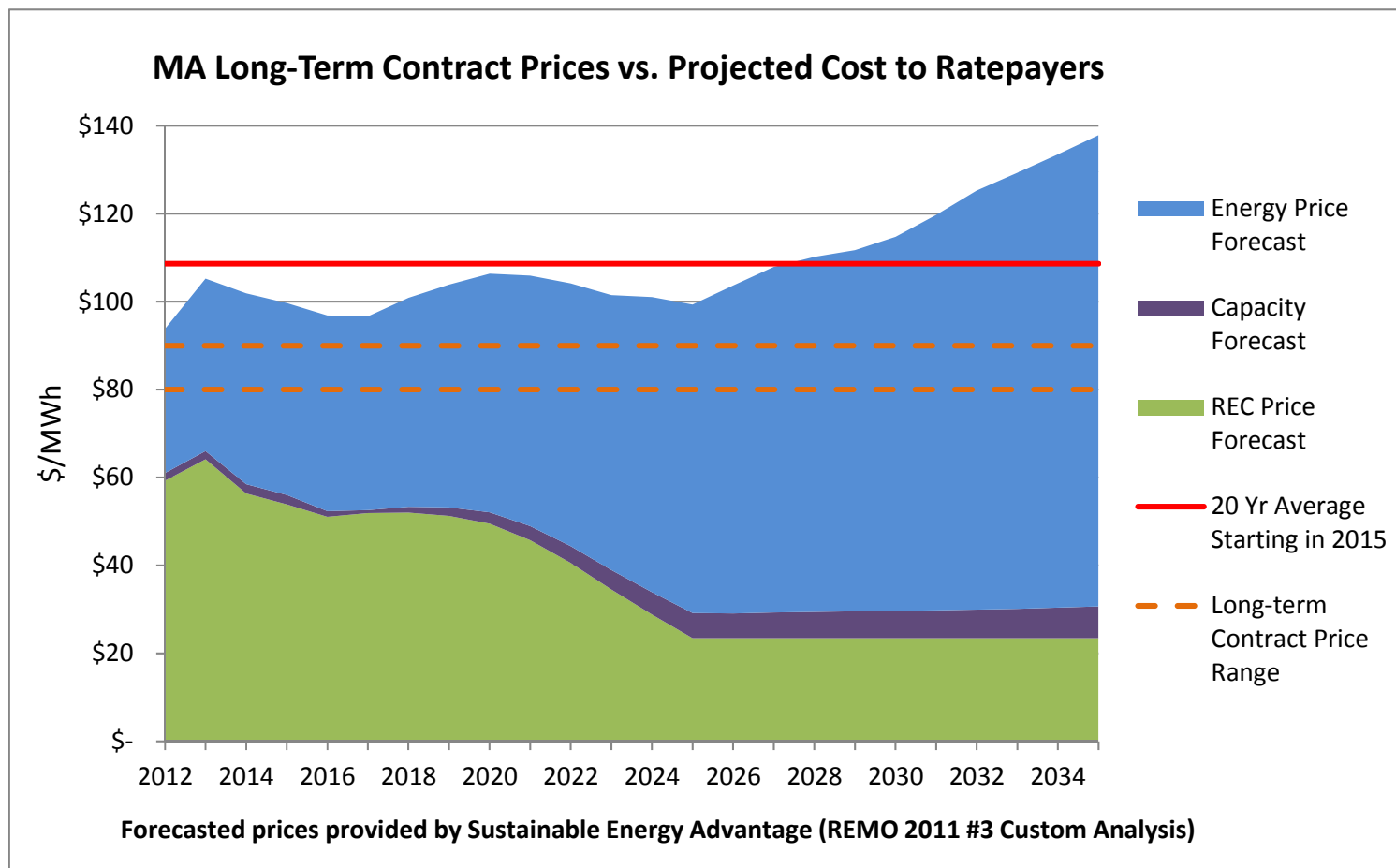
8,000 MW of RPS Demand in
New York and New England

Sources:

- EER/IHS
- Database of State Incentives for Renewables & Efficiency

Cost of New England Renewables

- Massachusetts 2010 Long-Term RFP demonstrated very competitive pricing for long-term contracts with new wind projects
- Estimated bundled long-term contract pricing in \$80-90/MWh range
 - Compares favorably to forecasted market prices for bundled renewable energy



Cost of Wind Declining

- Industry-wide turbine prices declining, >30% since the second half of 2008
- More sophisticated wind resource assessment
- Taller towers and bigger rotors capture more energy
- Second generation control systems improving energy capture
- Wind forecasting dramatically improved over last three years
- Emerging direct drive technology (no gear box)

How to Make Renewables Even More Competitive

Competitively Procure Long Term Bundled Contracts

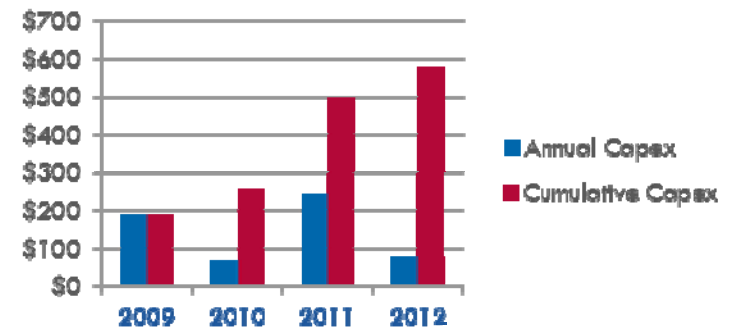
- Competitive procurement ensures lowest cost, most feasible projects selected
- Longer contracts translate into lower ratepayer costs
 - 25-year contract could lower prices \$10-20/MWh relative to 10-year contract
 - Asset lives are 30+ years
 - Capture more savings due to escalating market and compliance prices
- Bundled contracts generate rate payer savings
 - \$100 million per 100 MW or about \$28/MWh on average (compared to forecasted energy and RECs)
 - MA DPU experience with NSTAR and WMECO
- In addition large indirect savings can be realized through energy price suppression
 - Energy prices suppression provides large reduction in cost for all New England consumers, with estimates ranging from \$10 to \$60 million per 100 MW of wind per year*

* ISO-NE 2011 Economic Study suggests \$10-20 million, while recent consultant analysis for Cape Wind indicates \$60 million

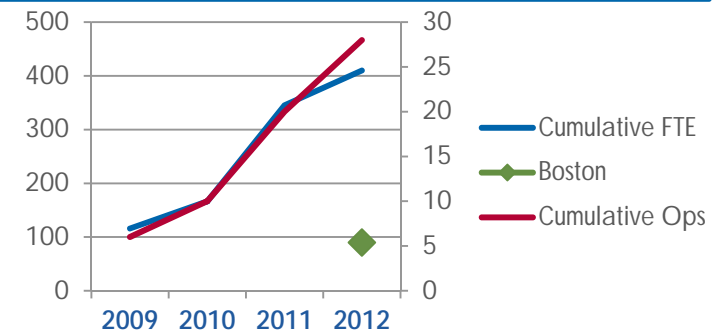
Economic Benefits (First Wind Fleet)

- Wind development in New England has been a powerful source of economic development, even amid the recession:
 - **\$500 million** invested by First Wind
 - Employees, contractors and consultants in every NE state:
 - 300+ Maine-based suppliers and contractors for Maine fleet
 - 50+ Vermont-based suppliers and contractors for Sheffield
 - 90 Boston-based FW employees; 135 cumulative in New England
 - Over **\$5 million/year** in local TIF or municipal revenue
 - (8) **\$3,000** scholarships issued for college-bound students from our host communities
 - Landowner payments and royalties

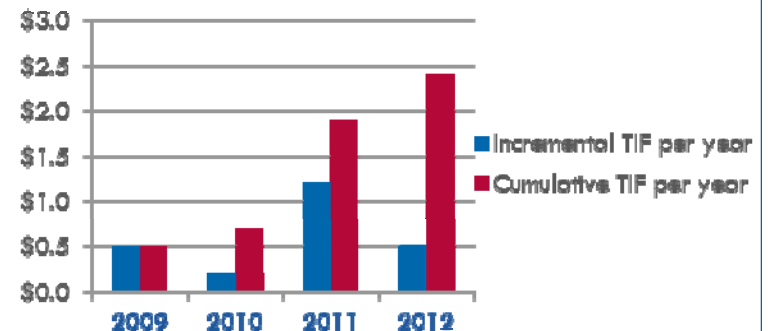
Cumulative New England Cap-Ex



Cumulative New England Jobs



Cumulative New England Local TIF



Environmental Benefits

- Wind capacity achieves emissions avoidance at scale meaningful for regional caps/targets and improved public health

