



POLICIES SHAPING LONG-TERM CONTRACTS FOR WIND

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Presentation Overview

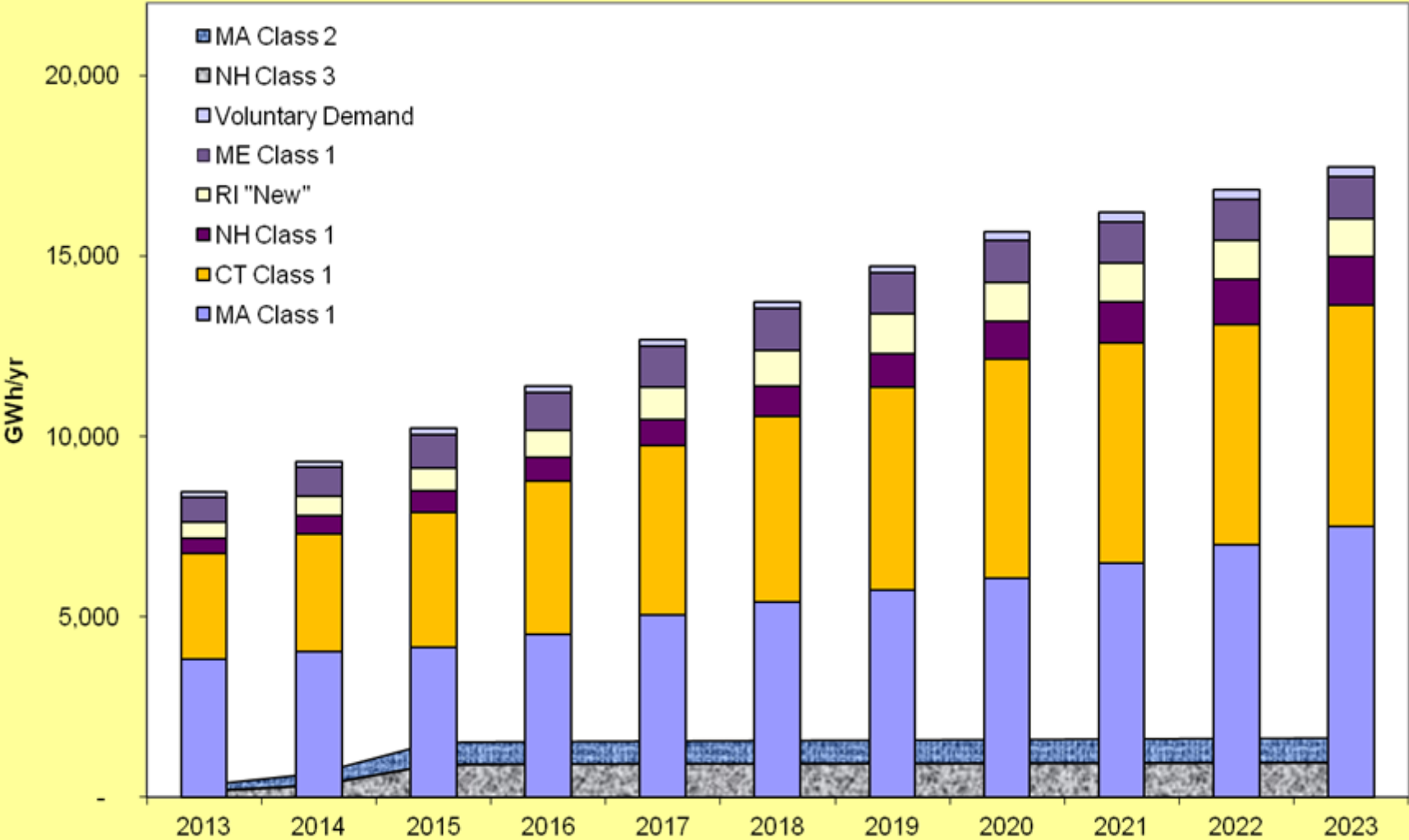
- Connection between LT Contracts and RE
 - Current demand for RE in the region
 - Benefits of LT Contracts for RE
- State policies supporting LT Contracts
 - Procurement status for Grid-scale Wind
- Legal Challenges
- Policies and Legislation under Consideration



Demand for RE Growing in New England

- State RPS requirements
- Greenhouse Gas reduction goals
- Other factors
 - Retirement of coal and oil-fired power plants
 - Current over-reliance on natural gas
 - Pipeline capacity limitation
 - Grid stability concerns
 - Transmission constraints

Demand Projection for Premium RE





Why Long-Term Contract Policies?

- Generators:
 - More capital-intensive → more sensitive to long-term revenue predictability
 - Enables financing (investors generally unwilling to take on both commodity market price risk and policy risk)
 - Access to financing at a lower cost, longer-term debt, reduced debt-service coverage ratios
 - Solves lack of credit-worthy counterparties
 - Options for effectively hedging long-term revenue streams at reasonable cost diminishing over several years
- Load:
 - Hedge/stability of procurement portfolio
 - Reduce cost of meeting RPS targets
- State:
 - Influence where projects get built (and economic benefits accrue) (influenced somewhat limited by interstate commerce clause)
 - Influence ‘favored’ technologies (emerging; local manufacturing, etc.)





Long-Term Contract Policy Approaches

- Structure
 - Competitive procurement
 - Negotiated contract
 - Standard Offers
- Degree of revenue stability
 - Contract term
 - Fixed price
 - Partially fixed
 - Floor price (cap?)
- Products
 - REC-only
 - Energy-only (capacity?)
 - Bundled (REC + Energy and perhaps capacity)?



LT Contract Policies for Large Scale Wind

State	Policy	Eligibility	Solicitation Size	Contract Term
MA	G.C.A. Section 83	Class I eligible sources	3% of EDC load over 2 RFPs	10 – 15 yrs
MA	G.C.A. Section 83 A	Class I eligible sources	3.6% of EDC load over 2 RFPs	10 – 20 yrs
CT	Public Act 13-303 Sec. 6	New Class I eligible sources	Up to 4% of EDC load	Up to 20 yrs
CT	Public Act 13-303 Sec. 7	Class I eligible sources or <i>verifiable</i> large hydro	Up to 5% of EDC load	Class I: Up to 20 yrs Hydro: Up to 15 yrs
RI	Long-Term Contracting Standard	New-renewables	90 MW over 4 RFPs	10 – 15 yrs*
ME	35-A M.R.S.§3210 C	New renewable capacity resource projects (no RECs)	N/A	Up to 10 yrs*
ME	Ocean Energy Task Force Act (P.L. 2009 Ch. 615)	Deep-water offshore wind energy pilot or tidal energy demo projects	N/A	Up to 20 yrs

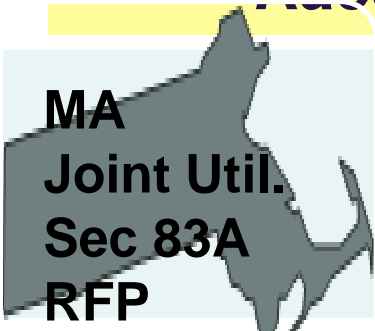
* Can be longer than the stated contract terms with regulatory approval

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2013: Responses to LT RE Procurement

Race to Secure PTC/ITC-Eligible Supply



MA
Joint Util.
Sec 83A
RFP

Statutory Target: Min 3.6% of load, 2013-2016

Proposals: 40 projects, 2357 MW

PPAs: 3.5% (565 MW from 6 wind projects → **2.5% (410 MW) from 3**)

Approval: DPU approved

Avg. Price: <\$80/MWh



CT DEEP LT
Contract
'Sec. 6' RFP

Statutory Authority: Up to 4% of load (~125 aMW)

Proposals: 47 proposals, > 2000 MW

PPAs: 3-3.5% of load, 270 MW, 2 projects (**250 MW wind**, 20 MW PV)

Approval: PURA approved

Avg. Price: <\$80/MWh



NGRID RI
LT RE
PPAs

Statutory Authority: Target 90 aMW

2012 RFP PPA: **48 MW wind** project, RIPUC approves PPA

2013 RFP: sought ~22 aMW → Withdrawn, to be reissued before 7/2014



ME
PUC's
RE RFP

Statutory Authority: if economic

2012-13 RFP issued: : proposals submitted

PPAs: PUC selected **1 large 90 MW wind** project (energy+cap., no RECs), PPA to come

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Grid-Scale Wind Projects under PPAs

MA	Hoosac (28.5 MW), Groton (48 MW), Bull Hill (34 MW), Cape Wind (363 MW), Passadumkeag (37.5 MW), Wild Meadows (75.9 MW), Oakfield (147.6 MW), Bingham (186 MW), Kibby Mountain (30 MW), Maple Ridge (30 MW)
CT	EDPR Number 9 (250 MW)
RI	Bowers (48 MW), Deepwater (30 MW)
ME	Apex Downeast (90 MW), Rollins (60 MW)
VT	Sheffield Wind (40 MW), Granite Reliable (54.7 MW), Georgia Mountain (12 MW)



Pending Issues for LTKs

- ***PPA Attrition is Likely***
- Several of the large projects not yet operational in MA, CT & RI award groups possess completion risk; 3 projects awarded PPAs in MA dropped out
- Projects without PPAs left to regroup...
 - What comes next? The presence or absence of clarity on future opportunity can impact the availability of pipeline going forward
- **Sec. 83**
 - Cape Wind, Passadumkeag?
 - Sec 83 has sunset... no statutory 'replacement' provided for
- **Statutory obligations...**
 - Target, Min or Max?
 - To contract, or procure?
 - Will attrition be replaced?
- Until more clarification on issues, contributing to a pause in the development pipeline (along with issues assoc with ITC, PTC, FCM, Curtailment, TX. etc)

LT Contract and Tariff Policies for DG Scale Wind

- **MA Section 83A LTK Carve-Out**
 - 0.4% of EDC load by end of 2016
 - Onshore wind $\leq 99kW$; or
 - Innovative/emerging design; or
 - Small offshore wind
- **RI DG Standard Contract Program**
 - 40 MW between 2011 and 2014
 - 15-year contract term
 - “Wind” between $50 - 1,500 kW$ (2014 proposal)
 - Recent legislation proposes to extend and expand the program
- **CT Util Ownership up to 30MW**
 - Colebrook Wind under contract
- **CT ZREC Program $\leq 1 MW$**
 - Lg,Med ZREC’s via 15-yr contracts
 - Small ZREC via tariffs
 - ZREC mostly Solar PV, some small hydro
- **ME Community-based Renewable Energy Pilot Program**
 - For locally-owned RE facilities only
 - Limited to projects $\leq 10 MW$
 - Up to 20-year contract term
 - Currently maxed-out

Legal Challenges to Long-Term Energy Contracts

- District Courts struck down MD and NJ's LT contract policies for capacity from new gas fired plants in late 2013
 - Claim: states intruded on FERC's jurisdiction by setting wholesale prices for sales of capacity
 - Both cases currently being appealed
 - Appeals backed by renewable generators, AWEA, NE states and CA
- Similar lawsuits in New England:
 - **CT:** Allco v. DEEP Commissioner Esty re. PA 13-303 Sec.6 RFP
 - **MA:** Alliance/Barnstable v. NSTAR, Cape Wind and DPU
 - DPU exceeded its jurisdiction in setting wholesale rates for electricity
 - DPU forced NSTAR to enter into PPA with Cape Wind – discrimination against out-of-state generators
- Eyes on the courts

Regional Policy Outlook

- Joint/regional solicitation capitalizes economies of scale allowing procurement of large wind development
- Coordinated procurement for renewables (July 2012)
 - NESCOE drafted work plan and solicited stakeholder comments
 - Plans to address transmission constraints
 - “Lapped” by CT and MA procurements in 2013
- Regional procurement initiative for large hydro (June 2013)
 - NESCOE issued hydro import whitepaper and analysis in 2013
 - NE states to develop coordinated procurement for large hydro (CT/MA/RI moving)
- Governors’ commitment to regional cooperation on energy infrastructure issues (December 2013)
 - Commitment to provide “affordable, clean and reliable energy”
 - Strategic investments in energy efficiency, renewable energy resources, natural gas pipelines and electric transmission
 - NESCOE recently requested ISO-NE’s technical assistance in achieving the initiative



2014 Legislative Outlook

- States are considering legislation to promote regional procurement of Class I RE and large hydro
 - CT 13-303 Section 5
 - Direct utilities to issue RFPs for large hydro (not RPS eligible) and Class I resources – no specific mandates requiring states to enter into PPAs
 - Enable utilities to engage in regional procurement initiatives
 - Support solicitation for electric transmission infrastructure
- **MA:** An Act Relative to Clean Energy Resources (Currently not numbered)
 - Aggressive schedule and solicitation size – 30% of load in 6 months!
- **RI:** An Act Relative to Public Utilities and Carriers (S.2439)
 - Enabling language allowing utility to engage in regional initiatives in coordination with PUC and OER – no specific mandates

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Transmission, Hydro and Wind

- Depending on how solicitations are structured:
 - large hydro imports may potentially price out Class I RPS bids
 - or solicitations could enable both
- Large hydro impact on RPS varies by state, but limited
 - CT is only state that *might count* large hydro toward Class I RPS (under PA 13-303) – but only under very specific circumstances triggered by material shortage of Class I resources
- Investments in transmission interconnections and upgrades are vital for wind growth
- Transmission facilities built to deliver large imported hydro provide synergies for wind
 - Lowers wind transmission cost