AN ANALYSIS OF THE IMPACT OF ADDITIONAL RE PROCUREMENTS AND RPS TARGETS ON MA RPS & GWSA COMPLIANCE

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Summary: RPS Compliance

- 1. A policy to increase RE procurement should be balanced with a policy to increase RE demand.
- 2. Proposed House & Senate procurements are consistent with at least a 2% annual increase in RPS targets, and are inconsistent with 1% annual increases.
- 3. Failing to match supply and demand will result in MA paying more than necessary for RPS compliance, because...
 - i. MA additional procurement will create regional surplus of RPS supply,
 - ii. Excess supply will suppress REC market prices;
 - iii. Benefits of reduced short-term market REC prices will inure to states other than MA, while MA pays the long-term contract price;
 - iv. When MA liquidates excess RECs into this suppressed spot market, it incurs a net cost when the market price < contract price.
- 4. Balancing supply and demand will result in the lowest cost of RPS compliance (through long-term contracting), and provide for a net increase in renewable energy production.

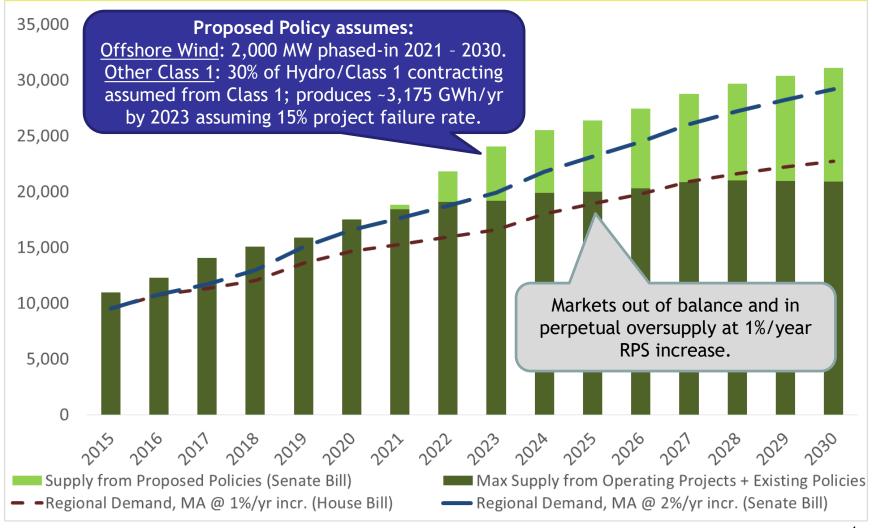
Summary: GWSA Compliance

- 1. Additional RE supply is required for the Commonwealth to meet its GWSA obligations.
- 2. In order to count additional procured supply towards GWSA limits, RPS targets must be increased so that RECs are retained.
- 3. If RPS targets are not increased, the RECs associated with additional procured supply will be sold for RPS compliance in other New England states. When these RECs are sold, the ability to count the associated greenhouse gas characteristics are conveyed with them.
- 4. Adjusting the rate of RPS target increase to 2% per year* beginning in 2017 is the most effective way to comply with the Supreme Judicial Court's ruling.



^{*} Including a periodic "resource adequacy" check (as was included in Rhode Island legislation) allows regulators to monitor the market.

↑Procurement without ↑ Demand Promotes Excessive and Unsustainable Surplus



MA Renewable Energy Objectives

- What are we trying to accomplish?
 - 1. A net increase in renewable energy generation over time...
 - 2. Supported by a competitive market, in addition to policy-mandated contracting, that...
 - 3. Meets or exceed GHG and RPS requirements, and results in...
 - 4. A diversified and balanced energy portfolio, that includes measures to mitigate price volatility and cost to ratepayers.

The objective of policy-based contracts should be to augment, and not replace, the competitive market. The availability of long-term contracts should stimulate incremental supply, not replace supply built in satisfaction of the RPS to date.

Implications of Current Policies

- Existing procurement policies overcommit the market
- Supply resulting from last several years of policy & development efforts are now coming on-line
- New DG projects alone are expected to meet most of incremental Class I demand through 2025 (under current targets)
- With incremental Class 1 demand dramatically reduced, fulfillment of the remainder of existing procurement policies will create perpetual oversupply and may displace Class 1 RE built in response to the RPS market (and related policies) to date.
- While one could quibble with some details, very little can change the conclusion... that the sum of state policy supply drivers and demand drivers are coming out of alignment



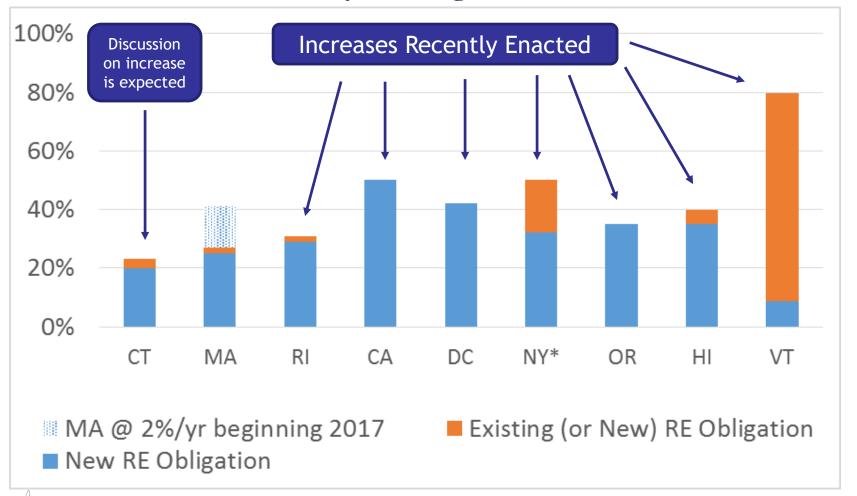
Implications of Future Policies

- Layering large-scale RE procurements onto these market conditions with no corresponding demand increase does not make sense.
- Such a case reflects the intersection of many individual, uncoordinated policies → and would appear to produce an irrational and unsustainable result.
- If S-D forecast shows indefinite surplus, then there will be no "market" outside of policy-driven contracts
 - Projects with PPAs have revenue certainty; projects without PPAs (but nonetheless built in response to the RPS) will see REC prices driven down by policy-mandated oversupply (unless RPS targets are increased sufficiently)



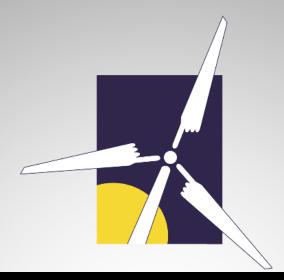
Other States Increase RPS Demand:

Summary of Targets @ 2030





Note: Year associated with target is shown below the state abbreviation.



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