



2018

**Transactive
Energy
Systems**

CONFERENCE & WORKSHOP

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51st State Perspectives Report: Massachusetts

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About SEPA

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USD, Solar Calculators, Mapping Tools, Research Reports, Project and RFP News, Custom Research Solutions



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Advisory Services, Webinars, Workshops, Case Studies, SEPA Publications, Blog, Expert Commentary



The 51st State



A community for exploring, discussing, learning, and developing solutions addressing the transition taking place in the electric industry.



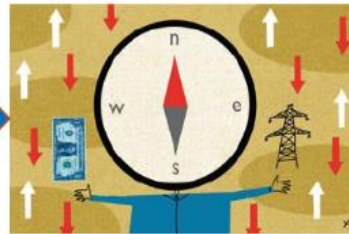


Transactive Energy and Massachusetts

Three Stages of Complexity in a “Participatory” Grid



Stage 1:
Time-of-Use
or
Real-Time Pricing



Stage 2:
Locational-
Based
Pricing



Stage 3:
Peer-to-Peer
Transactions

Getting to a Participatory Grid in Three Stages (Source: John Caldwell, Edison Electric Institute.)



Overview of Massachusetts' Electricity Market

- Restructuring Act (1997)
 - Retail deregulation
 - Retail choice (and CCA)
 - First RPS
- Decoupling (2008)
- ISO New England (1998)
 - DER participation





Progress to Date

- **Key policies:**
 - GCA (2008)
 - SMART
 - Clean Peak Standard
 - PBR
- **Clean Energy Achievements:**
 - Energy efficiency
 - Solar
 - Electric Vehicles
 - Energy Storage

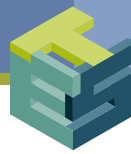




Areas for Improvement

- Retail Choice
- Grid Modernization Initiatives
 - 2014: Grid Modernization Order
 - May 2018: DPU issued final decision revising 2014 grid modernization objectives
 - Approves \$220 million in “grid facing” grid modernization investments
 - Distribution automation and supporting systems like SCADA and ADMS
 - Delays decision on deployment of smart meters





Overall Assessment

- Leader in clean energy solutions
- Delayed approval of customer-facing investments
- \$220 million authorized for grid-facing investments is insufficient





Other States Across U.S.





Questions?

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Appendix: Massachusetts

DOCTRINE 3: PRINCIPLES OF RATEMAKING			
CURRENT SOLUTIONS	INCREMENTAL CHANGES	→	TRANSFORMATIVE CHANGES
PRINCIPLES OF RATEMAKING	<ul style="list-style-type: none"> Traditional cost of service ratemaking remains in place with cost recovery mechanisms for energy efficiency, renewable energy, incremental cap investments, and transmission expenses 	<ul style="list-style-type: none"> Recent reauthorization of PBR Earn return on energy efficiency investments 	
DETERMINATION OF PRINCIPLES OF RATEMAKING		<ul style="list-style-type: none"> Net metering has been in place since 1982, with increasing caps over the years 	
ENHANCED ASSURANCE OF COST RECOVERY	<ul style="list-style-type: none"> Cost allocation methodology has been sufficient for utilities to recover costs through rates 	<ul style="list-style-type: none"> Approval of MMRC in Eversource case Decoupling began in 2008 to promote energy efficiency investments 	



Appendix: Massachusetts

TABLE Z. DOCTRINE 4: FOSTER CUSTOMER CHOICE

CURRENT SOLUTIONS	INCREMENTAL CHANGES	→	TRANSFORMATIVE CHANGES
RATE ALTERNATIVES OFFERED TO CUSTOMERS	<ul style="list-style-type: none"> Retail choice has been in place since <u>1997</u>, however, this may end in the near future for residential customers. 		<ul style="list-style-type: none"> Time-based pricing options are limited to customers in the non-residential sector.
MULTIPLE ENERGY PROGRAMS OFFERED TO CUSTOMERS	<ul style="list-style-type: none"> Community Choice Aggregation 		
INCREASED TRANSPARENCY FOR CONSUMERS			<ul style="list-style-type: none"> The Green Button Initiative provides customers with their energy usage history data and the ability to share it with 3rd parties