

MA Transition to the Future Grid 2024 Event Series: Series Summary & Stakeholder Recommendations

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I. Introduction & Executive Summary




This document presents a summary of a three-event stakeholder series conducted by Massachusetts Clean Energy Center (MassCEC) and the Alliance for Climate Transition (ACT) in 2024. Over three days, starting in March 2024 and ending in September 2024, MassCEC, in partnership with ACT (formerly NECEC), brought together nearly three hundred diverse stakeholders from across the Massachusetts grid landscape to convene around a brainstorming and solutions-building exercise. The three events are summarized below. Materials from the event series are available on the MassCEC website.¹

- **Event 1: Exploring Strategies for an Efficient Grid Transition** was held on March 28, 2024, and featured a framing presentation from MassCEC; keynotes from Rebecca Tepper, Secretary, MA Executive Office of Energy and Environmental Affairs and Dr. Emily Reichert, CEO, MassCEC; and, a brainstorming exercise.
- **Event 2: Transforming Ideas into Solutions** was held on May 23, 2024, and featured a fireside chat with Melissa Lavinson, Executive Director, MA Office of the Energy Transformation and Jamie Van Nostrand, Chair, MA Department of Public Utilities; a series of level-setting presentations on each of the topic areas; and facilitated table discussion on each topic area.
- **Event 3: Draft Recommendations for a Path Forward** was held on September 26, 2024, and featured a keynote from Elizabeth Mahony, Commissioner, Massachusetts Department of Energy Resources; a presentation of a set of draft recommendations by MassCEC; a fireside chat debriefing the Department of Public Utilities’ (DPU) Order on

¹ <https://www.masscec.com/resources/event-series-transitioning-future-grid>

the first Electric Sector Modernization Plans (ESMPs), facilitated by Director Lavinson, with Chair Van Nostrand and utility representatives from the Grid Modernization Advisory Council (GMAC), Andrew Schneller of National Grid and Digaunto Chatterjee of Eversource. Finally, stakeholders had an in-person opportunity to discuss and record feedback on the draft recommendations.

Over the course of the series, attendees contributed to the development of a set of six recommendations across three topic areas:

 Incentive-Based Regulation	<p>Recommendations</p> <p>Rec. 1: Grid metrics straw proposal Rec. 2: Peak demand management targets</p>
 Fostering the Adoption of Gridtech	<p>Recommendations</p> <p>Rec. 3: Gridtech launch program Rec. 4: Gridtech taxonomy & look-book</p>
 Engagement in Grid Planning	<p>Recommendations</p> <p>Rec. 5: Monitor & define engagement gaps Rec. 6: Statewide energy literacy campaign</p>

The development of the recommendations was supported by a set of expert presentations and conversations with key grid leaders to provide context (summarized above). Each recommendation summarized below includes a Stakeholder-Recommended Champion, and a Potential Path Forward. This document is a report out of these stakeholder conversations. We see the role of this event series as providing a forum to support, inform, and advance stakeholders’ work, and the role of MassCEC and ACT to be convenors and catalysts. We encourage stakeholders to work on, or advocate for, continued progress on the recommendations.

Note that the information and statements in this document reflect the conversations of the stakeholders that participated during the event series. The **Appendix** provides a list of the organizations represented in the series. As such, this document is not intended to represent the position of MassCEC or ACT.

II. Background on the Event Series

Over three days, starting in March 2024 and ending in September 2024, MassCEC, in partnership with ACT, brought together nearly three hundred diverse stakeholders from across the grid landscape to convene around a brainstorming and solutions-building exercise.

The event series was developed with the intention to complement the State’s formal grid planning process which occurs through the Grid Modernization Advisory Council (GMAC) and

Electric Sector Modernization Plans (ESMPs). These events achieved the goals of convening stakeholders around grid challenges, developing ideas for solutions and next steps, and creating space to foster new and standing relationships. Over the course of the series, attendees contributed to the development of a set of recommendations on how Massachusetts can approach challenges that the transition to the future grid presents.

This document presents a final set of recommendations which were developed via the following process:

- Stakeholders provided input during Events 1 and 2. This input formed the initial draft recommendations.
- The draft recommendations were then presented at Event 3. Participants provided additional input on the draft recommendations via facilitated table discussions and post-event feedback.
- Final revisions to the recommendations incorporated the feedback from Event 3 and are represented in this “Final Recommendations” document.

All slide deck presentations and event materials are available on the MassCEC webpage: <https://www.masscec.com/resources/event-series-transitioning-future-grid>.

III. Overarching Feedback

Two prominent themes emerged from the feedback:

- The recommendations garnered a lot of support as important areas of work and worthy of action, and
- The recommendations lack clear action plans or accountability.

With respect to the lack of action plans or accountability, we begin to address this by formulating next steps where we can. In Event 3, we asked stakeholder tables who they would identify as a potential champion for each recommendation, and we include these below. This document is a report out of these stakeholder conversations and is not intended to assign responsibility for the recommendations.

For recommendations with no clearly identified next step, MassCEC and ACT will continue to look for additional pathways for progress. We also encourage stakeholders to work on, or advocate for, continued progress on these recommendations. We see the role of this event series as providing a forum to support, inform, and advance stakeholders’ work, and the role of MassCEC and ACT to be convenors and catalysts.

IV. Recommendations

There are six total recommendations, two in each of three topic areas identified in the series:



**Incentive-Based
Regulation**

Recommendations

- Rec. 1: Grid metrics straw proposal
- Rec. 2: Peak demand management targets



**Fostering the
Adoption of Gridtech**

Recommendations

- Rec. 3: Gridtech launch program
- Rec. 4: Gridtech taxonomy & look-book



**Engagement in Grid
Planning**

Recommendations

- Rec. 5: Monitor & define engagement gaps
- Rec. 6: Statewide energy literacy campaign

Incentive-Based Regulation – Recommendation 1: Develop a straw proposal for a set of grid performance metrics.

- Goal: Provide stakeholders, including the Department of Public Utilities (DPU), with a starting point for consideration in future metrics development processes.
- Utilize stakeholder input to create a list of common objectives for the electric grid and develop metrics for tracking the status of progress toward those objectives.
- Include at least one metric for overall investment efficiency and/or one for cost efficiency; consider a metric for economic development impacts.
- Include metrics that measure impacts (benefits and burdens) to disadvantaged communities (consider using GMAC’s Equity Working Group proposed metrics as a starting point).
- Develop metrics that can be utilized as performance incentive mechanisms (PIMs) (even if straw proposal metrics may not yet be proposed as tied to incentives).
- Metrics should be simple (even if inputs are complex), agile (to account for e.g., changing technology), and consistent across investor-owned electric distribution companies (EDCs).
- Can look to Energy Efficiency Advisory Council (EEAC) as a model (short-term, targeted tactical output-based PIMs to get architecture in place, and move to larger, general, strategic, outcomes-based metrics over time).

Stakeholder-Recommended Champion: GMAC was the most frequently suggested, followed by MassCEC and DOER.

Additional Notes: Participant feedback indicated that many key stakeholder groups are currently strapped for capacity and unable to add another working group or project to their calendars. In response, we removed the working group component of the recommendation, and instead oriented toward existing channels, such as the GMAC and/or an independent or third-party effort. It is important to note that the recommendation to develop metrics as

framed here is just one step, and that implementation of metrics is a process that would happen within a DPU proceeding.

Potential Path Forward: Current GMAC members can raise this recommendation for consideration by the GMAC. Alternatively, or as part of a GMAC effort, a third-party could research and develop metrics for consideration. Work on developing metrics can leverage table notes and feedback from this Event Series. Additional steps could include focus group interviews to gather additional input from stakeholders on objectives and key considerations. These ideas for the next steps try to incorporate minimal additional time commitments from stakeholders. A resulting straw proposal of metrics could then be introduced to the GMAC and/or leveraged by stakeholders wishing to engage in future DPU proceedings on metrics. As stated above, MassCEC and ACT will continue to look for additional pathways for progress, and we encourage stakeholders to work on, or advocate for, continued progress.

Incentive-Based Regulation – Recommendation 2: Develop targets for peak demand management.

- **Part 1:** Conduct an analysis to determine reasonable quantitative targets for peak demand management.
 - **Motivating questions:**
 - 1) What do we mean by an “efficient” grid?
 - 2) What amount of forecasted peak demand can be mitigated?
 - 3) What is a realistically ambitious expectation and what are the roles of the EDCs in achieving peak demand management?
- **Part 2:** Map practical policy, regulatory, and technical building blocks needed to operationalize peak demand management strategies, including the current status, deployment timelines, and role of enabling EDC systems and technology, such as AMI, DERMS, and ADMS deployment.

Stakeholder-Recommended Champion: DOER

Additional Notes: Table discussion notes focused on complications with developing and then achieving peak demand reduction targets, such as the relationship between system-wide and local peaks, the ability of EDCs to control aspects of peak demand, importance and role of the customer-side and understanding of responsiveness/elasticity of demand, and the difficulty and fairness of assigning rigid goals and responsibility for peak demand at this point in time.

Potential Path Forward: With respect to Part 1, despite the complicating factors, peak demand management is so critical to the grid transition that baseline analysis and developing broad goals could help to motivate continued progress at pace/scale and be used to align EDC incentives. As stated above, MassCEC and ACT will continue to look for additional pathways for progress, and we encourage stakeholders to work on, or advocate for, continued progress. With respect to Part 2, an assessment of practical building blocks to operationalize demand-side approaches may be in scope for the currently active [Grid Services Study](#) being led by MassCEC, so we will pursue a pathway via that channel.

Fostering the Adoption of Gridtech – Recommendation 3: Develop a program to support gridtech, with integrated DPU collaboration. Include a pathway for municipal light plants (MLPs), who also need help researching, testing, and auditing new technology, and consider potential for MLPs to pilot technologies that could also then benefit the investor-owned electric distribution companies (EDCs).

- Consider pathways for: start-ups and more established companies, GETs (transmission-focused), and MLPs needing gridtech support.
- Provide grant funding opportunities.
- Integrate mentality of fail-fast and phased iteration, with early reviews to consider go/no-go decisions, clear accountability for progress, and a runway for scaling. Compile/track a repository of learnings from pilot-scale efforts.
- Form advisory group to help shape structure and offerings, which should include at least representatives from EDCs and MLPs (together, “utilities”), government, regulator, innovation ecosystem, and consumer advocates. Utility role, and potentially DPU via hosting technical sessions, would include identifying holes and functions they see an unmet need for. Utility role would also include sharing guidelines and requirements, such as for cybersecurity, network communications, data strategy and quality, privacy, and use of AI.

Stakeholder-Recommended Champion: MassCEC

Additional Notes: There was broad support for the idea of providing support to fill the gap between available gridtech and utility adoption. Table discussions focused on refining what support is needed. It was suggested that the term “sandbox” implies something too early-stage, as opposed to a program intended to lead to meaningful scaling.

Potential Path Forward: In the short term, MassCEC will work with MA utilities to offer a paired grant and utility partnership opportunity for emerging gridtech companies, utilizing existing MassCEC grant program structures. In the longer term, MassCEC will continue to develop a Gridtech Launchpad program, including developing an advisory council, integrating DPU review and support, and expanding offerings to a range of TRLs (technology readiness levels).

Fostering the Adoption of Gridtech – Recommendation 4: First, develop a taxonomy of available gridtech solutions that may be applicable for Massachusetts, assessed across characteristics such as grid-facing versus customer-facing, and hardware versus software. This step will provide a common understanding of the evolving range of gridtech solutions. Second, use the taxonomy and interviews with DPU and utilities to identify the types of gridtech that would benefit the Massachusetts grid and customers, and create a list to include in a look-book. Third, to demonstrate what the path to adoption and scale can look like, develop a look-book of gridtech case studies from other jurisdictions of companies deploying solutions. The look-book can include instances of failed pilots/technologies, to inform of lessons learned. Case studies should be done in a way that is easily updated (e.g., templated), and should be updated on a

regular basis. Case studies should include a policy context and risk reduction mechanisms that can be used.

Stakeholder-Recommended Champion: Most tables suggested MassCEC, though some suggested DOER, GMAC, DOE, and RMI.

Additional Notes:

- The EDCs indicated that they already do this to a degree, having established tools like a rubric for assessing solutions, lists of available solutions, and case studies. They also indicated that they are highly supportive of an additional tool for informing them of future technologies. However, EDCs also advised that their role should not extend into the selection process, so as not to violate procurement or other internal vetting practices.
- The look-book can be a tool that informs the development of the Gridtech Launchpad (Recommendation 3). A common piece of feedback was the inclusion or preference for tech expos or pitches, which could be integrated into the Gridtech Launchpad (Recommendation 3).

Potential Path Forward: As part of developing the Gridtech Launchpad (see Recommendation 3), MassCEC will consider developing a taxonomy and look-book of gridtech, leveraging expertise and resources available from organizations such as DOE and RMI.

Engagement in Grid Planning – Recommendation 5: To address the critical need for meaningful and broad stakeholder engagement in the grid transition, more coordinated exploration is needed to define problem statements and solutions. Consider designing additional convenings or workshops to explore further. This work requires the input of diverse voices, including from Environmental Justice communities.

Stakeholder-Recommended Champion: Table notes did not suggest a clear quorum on who was best suited to advance this recommendation.

Additional Notes: It was noted explicitly, and feedback and discussion around the topic confirmed, that it would be more accurate to change the name of this topic from “Democratizing grid planning” (now referenced as “Engagement in Grid Planning”). Feedback also conveyed that the level and extent of engagement needs to consider aspects such as sensitivity to community “burnout,” offering incentives or compensation for participation, balancing efficiency with the administrative burden of extended processes, and balancing openness and input with exposure to misinformation or the necessity of baseline technical background. Others noted that future work in this area should be designed so that participants who lack a technical background can still participate and provide relevant input. Incorporating neutral parties and expert witnesses can help to create informed and balanced exchanges.

Potential Path Forward: The development of related efforts of the GMAC, including the Equity Working Group, and the Community Engagement Stakeholder Advisory

Group (CESAG), proposed by the EDCs and approved by the DPU in its ESMP Order, is still early. As those channels mature, additional coordination with the GMAC and EDCs can assess what additional support may be needed. As stated above, MassCEC and ACT will continue to look for additional pathways for progress, and we encourage stakeholders to work on, or advocate for, continued progress.

Engagement in Grid Planning – Recommendation 6: Acknowledging the complexities introduced by the energy transition for households, including adapting to new habits and processes, a statewide strategy is needed to inform and support grid users, such as an energy literacy campaign. The tools of change management, including stakeholder mapping, may be valuable in developing a statewide informational campaign.

Stakeholder-Recommended Champion: Table notes did not suggest a clear quorum on who was best suited to advance this recommendation.

Additional Notes: It was identified across many tables that there is a need for a long-term campaign on energy literacy, and that given the known evolution in the ways we will interact with the electricity system and use energy, information should be coming from government and trusted entities to all State residents. It was suggested that behavioral economics can be used to better understand how electricity customers/energy users can be motivated to respond to new programs and signals and alter behavior over time. Further, promoting benefits and savings was identified as a likely path forward.

Potential Path Forward: Stakeholders should consider elevating the need for a campaign on energy literacy. A first set of actions could include identifying a champion and funding for such a campaign, and the development of an advisory group. Any new energy literacy campaign should account for existing resources and efforts of state agencies and the utilities, such as Mass Save,² Climate Action is for All of Us,³ and Clean Energy Lives Here.⁴ As stated above, MassCEC and ACT will continue to look for additional pathways for progress, and we encourage stakeholders to work on, or advocate for, continued progress.

V. Additional Areas for Consideration

In addition to the topic areas addressed in this series, stakeholders identified several additional areas of potential consideration for similar exploration and solutions development. Some of these were identified early in our series and added to a “parking lot”, and others were noted in final feedback. These include:

- Interoperability standards for data and APIs
- Data access and transparency
- How to serve and leverage growth of AI and data centers

² <https://www.masssave.com/>

³ <https://www.mass.gov/news/healey-driscoll-administration-launches-climate-action-campaign>

⁴ <https://goclean.masscec.com/>

- Coordination between building energy management systems, DERMS/ADMS, versus direct third-party control of DER

VI. Final Thoughts

At MassCEC and ACT, we believe that the achievement of grid innovation is dependent on how well we all collaborate as grid stakeholders. This series was a unique opportunity to informally brainstorm around a common set of challenges. There is still work to do to foster inclusive collaboration and new ways of making progress in the energy transition, and MassCEC and ACT are committed to growing our support in this space.

Appendix: List of Participating Organizations

Note that this list includes all organizations with at least one registrant across the three events. Some organizations had multiple registrants.

1A Brazil Heating and Air Conditioning Inc	Clean Energy Venture Group
2050 Partners	Clean Water Action
Acadia Center	CLEAResult
ACT / NECEC	Climable
AiDash / Schneider Electric	Commonwealth of Massachusetts
Albireo Energy Procurement LLC	ConnectDER
Alsym Energy Inc	Copper Labs
Analog Devices	CTC Global
Another Age Productions	Decarbonize Energy Advisory
Auroral LLC	Department of Public Utilities
B2Q	Dewey Square Group
Baringa	DNV
Barr Foundation/Grid Modernization Council	Doug Denny-Brown Esq./PathZERO Energy
BCG	E2
Belmont Light	E3
Better Together Brain Trust (BT2)	Ecoloop
BGI	Egon Zehnder
BIDG, BCSC, Renewable Renegades	EIT InnoEnergy
Biochem	Elders Climate Action, Mass Chapter
Black Economic Council of Massachusetts	Elecnor Hawkeye
Blazewicz Energy Advisors	ElectroTempo
Blue Innovation Labs	Emerald Cities Collaborative
Boston Mayor's Office of Housing	Emmaty, Inc
Boston Public Schools, Depart. of Transportation	Emulate
Boston University	Energy New England
Breakthrough Innovations LLC	ENGIE North America
BT2 Energy	Environmental League of Massachusetts
Burns & McDonnell	Essex County Community Foundation
CairnPath Advisory / Boston University	Eversource
Camus Energy	EVKON
Canaccord Genuity	Fast Handy Services
Cape Light Comapct	FastForward Energy Inc.
Capital Energy	Figured Eight Consulting LLC
City of Boston	Foley Hoag
City of Cambridge	Form Energy
City of Lawrence	Fornasaro, LLC
City of Somerville	Franklin Cummings Tech

Fraunhofer USA
GenUnity
Green Energy Consumers Alliance
Green Hudson; Hudson Light and Power
GreenRoots
Greentown Labs
GridEdge Networks
GridUnity Inc.
Gridwealth
HEETlabs
High Rock Engineering, LLC
IBEW 103/ NECA
Independence Solar
Independent Consultant
InnoEnergy
Innovation Centre Denmark
Intentional Endowments Network
Jacobs Engineering Inc.
Kea Smart Technologies
KO Law, P.C.
Latitude Media
Lincoln CFREE Committee
LineVision
LEAN: Low-Income Energy Affordability Network
MA ClimateTech Studio
MA Exec. Office of Energy and Envmtl Affairs
Madison Park Development Corporation
Mansfield Municipal Electric Department (MMED)
MAPC
Marsh McClennan Agency
Massachusetts Attorney General's Office
Massachusetts Clean Energy Center
MA Department of Energy Resources (DOER)
MA House of Representatives (Rep. Steve Owens)
Matcha EV
MC2 Renewable Energy Services
McKinsey
Merrimac Light Department
National Electrical Contractors Association
National Grid
NEC Solar
New Ecology Inc.
New Leaf Energy
Nexamp
NextEra Energy Transmission
Nexus
Northeast University
Onyx Group
Paradeisos EV/Energy
Peak Power
PG&E
Piclo
Potomac Law Group
PowerOptions
Prezerv Technologies, Inc.
Prithvi Ventures
Québec Government Office in Boston
Rasky Partners
Reading Municipal Light Dept
Recharge America
ReVision Energy
Rhode Island Energy
Ridgeline Strategy
Riverstone Sustainability
RMI
RTO Insider
RWE
Sagewell, Inc.
Saitow Consulting
Schneider Electric
Scratch Marketing + Media
Self Employed
Sense
Sherman Energy Solutions LLC
Sierra Club Massachusetts Chapter
Slingshot
Smart Electric Power Alliance
Solar Design Associates
Solect Energy
SRGE The Construction Accelerator
STAdvising
Steven Winter Associates
Studio HPDC
Suffolk Tech

Summit Energy
Sunrun, Inc.
Sustainable Energi
Synapse Energy Economics
SYSO Technologies
Tabors Caramanis Rudkevich
TCB
The Community Builders
Town of Falmouth
Town of Yarmouth
TRC Companies
TSK Associates
ULI Boston
UMass Chan Medical School
United Civil
University of Connecticut

Uplight
VEIC
VEIR
VHB
Vicinity Energy
Viridi Edge
Wartsila Energy
Wellesley Municipal Light Plant
WENVERTER
Williams College
WinnCompanies
Worcester Polytechnic Institute
Xilectric Inc
Zero-Point Development