



**MASSACHUSETTS  
OFFICE OF ENERGY  
TRANSFORMATION**

# **Energy Transformation Advisory Board: Fourth Quarterly Meeting**

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September 10, 2025



# Welcome and Introductions



**Melissa Lavinson**

Executive Director,  
Office of Energy Transformation



**Toby Berkman**

Consensus Building Institute



**Catherine Morris**

Consensus Building Institute

# Reminder of Office of Energy Transformation (OET) Mission and Structure

## Energy Transformation Advisory Board (Advisory Board or ETAB)

Provides guidance and recommendations on strategic direction to the OET and focus area work groups (FAWGs) to execute the energy transition, including gas-to-electric transition, electric grid readiness, and a just and equitable transition for workers, business, and communities.

### Transitioning Away from Everett Marine Terminal (EMT)

To develop a coordinated strategy to reduce or ultimately eliminate the local gas distribution companies' reliance on the EMT Liquefied Natural Gas (LNG) facility aligned with DPU Order 20-80 and the state's climate and clean energy mandates, including as established in the *Global Warming Solutions Act*.

### Decarbonizing the Peak (DTP)

To demonstrate pathways to reduce reliance on and expeditiously eliminate fossil fuels from peaking power plants and combined heat and power (CHP) facilities and deploy alternative demand and supply side options to meet peak load needs in Massachusetts, aligned with the electric sector sublimit and clean energy goals in the *2050 Clean Energy and Climate Plan*.

### Financing the Transition (FTT)

To identify alternative mechanisms for financing/funding electricity distribution system infrastructure upgrades needed to achieve Massachusetts's clean energy and climate mandates that minimize impacts on consumers' electricity bills, while providing an affordable, sustainable, and timely source of revenue for investments.

### Enabling Sustainable Economic Development (ESED)

To advance clean energy-ready economic development zones that enable key business sectors to grow in Massachusetts, in alignment with the state's interconnection, land use planning, environmental justice and equity, housing, and economic development initiatives.



# Agenda

Timing	Agenda Item	Presenter(s)
1:00 – 1:15	<b>Welcome, Agenda Review, and Ground Rules</b>	Melissa Lavinson, OET Toby Berkman, CBI
1:15 – 1:40	<b>Overview of the Energy Affordability, Independence and Innovation Act (EAI)</b>	Secretary Rebecca Tepper, Executive Office of Energy and Environmental Affairs
1:40 – 2:25 <i>(5 min intro and 10 mins per topic)</i>	<b>Update on Focus Area Work Groups (FAWGs):</b> <ul style="list-style-type: none"> <li>• Everett Marine Terminal (EMT)</li> <li>• Decarbonizing the Peak (DTP)</li> <li>• Financing the Transition (FTT)</li> <li>• Enabling Sustainable Economic Development (ESED)</li> </ul>	Toby Berkman, CBI Mike Walsh, Groundwork Data Liz Mettetal, E3 Melissa Lavinson, OET
2:25 – 2:35	<b>10-MINUTE BREAK</b>	
2:35 – 3:35	<b>Small Group Discussions on FAWG Progress</b>	Toby Berkman, CBI
3:35 – 3:50	<b>Small Group Discussion Report-Outs</b>	Toby Berkman, CBI Melissa Lavinson, OET Catherine Morris, CBI
3:50 – 4:00	<b>Decisions and Next Steps</b>	Toby Berkman, CBI Melissa Lavinson, OET



# Reminder of Ground Rules and Remote Participation

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## Ground Rules

- Assume positive intent.
- Engage in constructive dialogue and actively seek agreement.
- Stay on topic and within time (3 min or less).
- Be respectful and forthright.
- Speak one at a time, when called on by the moderator.
- Raise concerns with the Chair or designee, who will act accordingly.
- Be able to substantiate assertions or claims in support of comments and positions.
- Provide any additional written materials to share with the Advisory Board to the Chair prior to a meeting and OET will circulate.



## Remote Participation

- Raise your “hand” to be recognized by the Chair or designee.
- Identify yourself and affiliation prior to any comments.
- Refrain from side conversations in the room out of respect for remote participants.

OET will provide all meeting materials and agendas to Advisory Board Members at least seven days in advance of meetings. Meetings will have a virtual option. All Advisory Board meeting materials are posted to the OET website by the day-of-the meeting. Concurrent translation services will be made available at the request of a Member.



# Advisory Board Meeting: What to Expect

## Energy Transformation Advisory Board

### Transitioning Away from EMT

Advisory Board Members will be split into groups of ~8-10 for small group discussions (both in-person and remote). Subject Matter Experts associated with the EMT, DTP, and FTT FAWGs will rotate among the tables to facilitate conversations on their respected focus areas.

Small group discussions will provide an opportunity for Advisory Board members to do a deeper dive into the initial Phase 2 findings of the EMT, DTP, and FTT FAWGs and provide feedback and direction as the FAWGs complete Phase 2 and move to Phase 3.

For each focus area, the facilitator will ask Advisory Board members to briefly share thoughts and feedback, which the facilitator will report out to the full Advisory Board. After report-outs, Advisory Board members will be asked to decide on/approve several issues (as noted in the following sections of this pre-read deck).

### Decarbonizing the Peak

### Financing the Transition

### Enabling Sustainable Economic Development

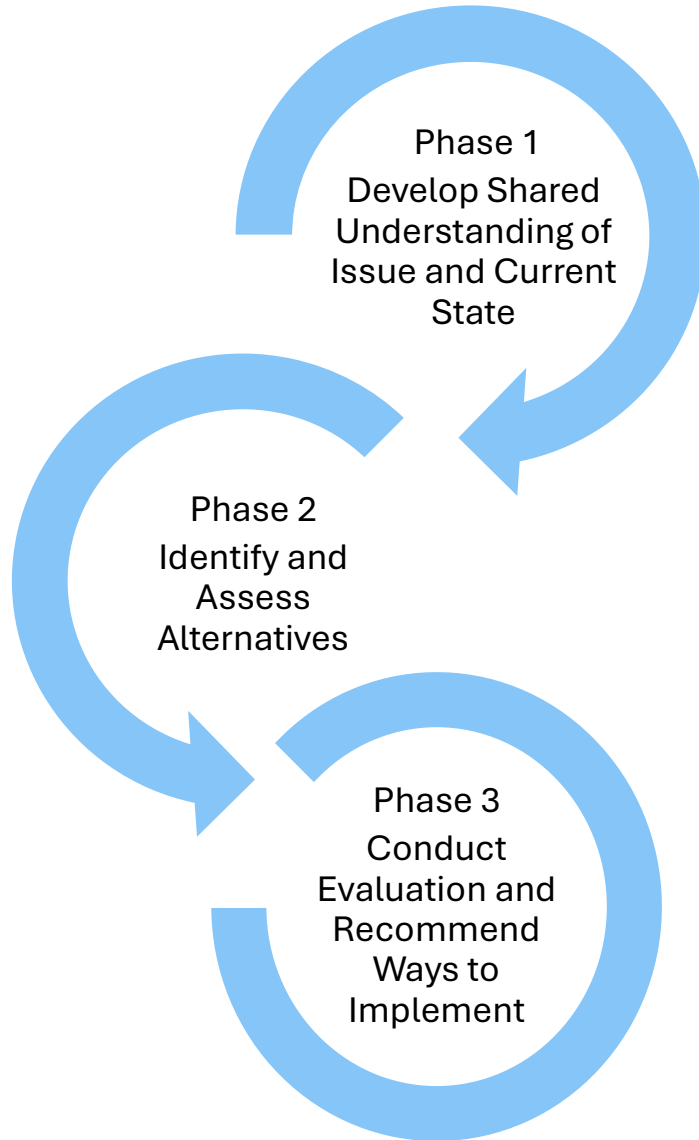
Inform only; no small group discussions at Advisory Board meeting. Comments or feedback can be submitted offline to [katherine.omalley@mass.gov](mailto:katherine.omalley@mass.gov).



# Overall Status of EMT, DTP, and FTT:

## Phase 2 Ongoing in Focus Area Work Groups

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- ✓ **Phase 1:** FAWG built a shared understanding of the issues to be addressed and identified preliminary lists of potential alternatives for consideration.
- **Phase 2:** Each FAWG launched Phase 2 and determined *how* its members would assess potential alternatives. Objectives for Phase 2 include:
  - ✓ Develop an agreed upon assessment framework and associated criteria.
  - ✓ Use the framework to examine list of potential alternatives.
    - Determine which alternatives warrant further, detailed evaluation in Phase 3.
- The list that emerges from Phase 2 should include an appropriate level of information for each identified solution to enable the FAWG to make recommendations during Phase 3.







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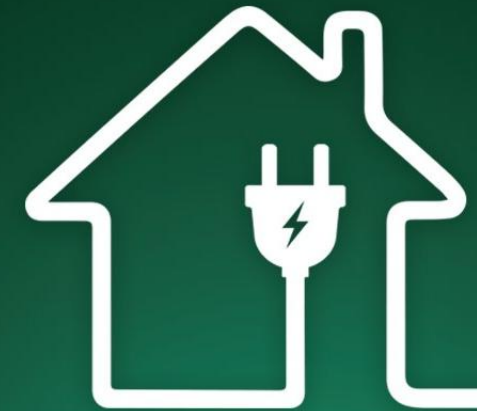
## The Healey-Driscoll Administration's Energy Affordability, Independence, and Innovation Act (EAI) – Inform

**Secretary Rebecca Tepper**

Executive Office of Energy  
and Environmental Affairs

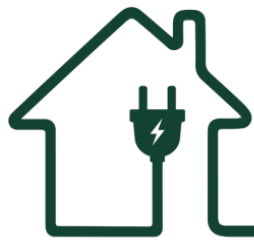
*The Healey-Driscoll*

## ENERGY AFFORDABILITY, INDEPENDENCE, AND INNOVATION ACT



*delivers lower energy costs and  
major savings for Massachusetts!*





## Energy Affordability, Independence, and Innovation Act

*More than \$10 Billion in Savings Over 10 Years*

- Filed on May 13, 2025.
- Holistic approach to driving affordability, with a focus on:
  - Lowering bills
  - Stabilizing prices
  - Avoiding spending
  - Bringing more energy online
- Took a hard look at existing policies, spending, and regulations and what other states are doing.



### Get Costs Off Bills | Saves \$6.9 Billion

- Phase out alternative portfolio standard bill charge
- Reduce net metering credit
- Pay for programs like Mass Save differently
- Reform existing rates and charges



### Create Accountability | Saves \$2.5 Billion

- Provide more oversight of costly transmission projects
- Restrict costs that utilities can recover from ratepayers
- Authorize utility management audits
- Require utilities to comprehensively plan and minimize grid costs



### Bring More Energy into Massachusetts | Saves \$200 Million

- Expand state energy procurement authority
- Provide flexibility to set supply rates
- Allow customers to connect faster to the grid
- Reduce barriers to small nuclear technologies



### Empower Customers to Lower Bills | Saves \$900 Million

- Protect customers from predatory electricity marketing and pricing
- Reduce upfront costs to building geothermal
- Reform low- and moderate-income discount rates
- Establish new financing tools for customers to efficiently heat and cool buildings
- Make Mass Save more efficient and responsive



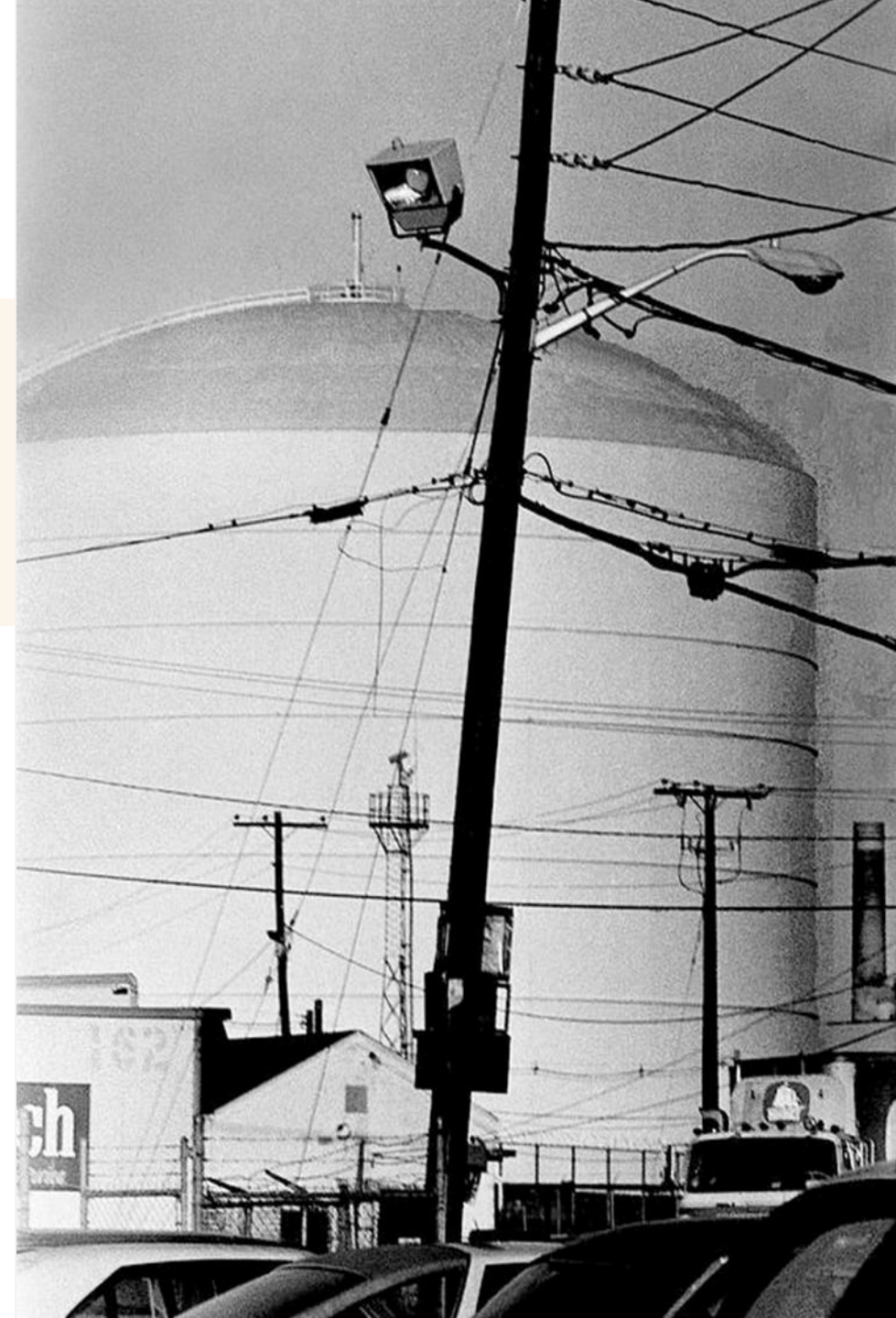
### Power Innovation and Growth

- Create clean energy ready zones to accelerate development
- Share benefits of infrastructure investments with ratepayers and communities



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# Presentation and Discussion on Everett Marine Terminal (EMT) FAWG – Inform/Decide

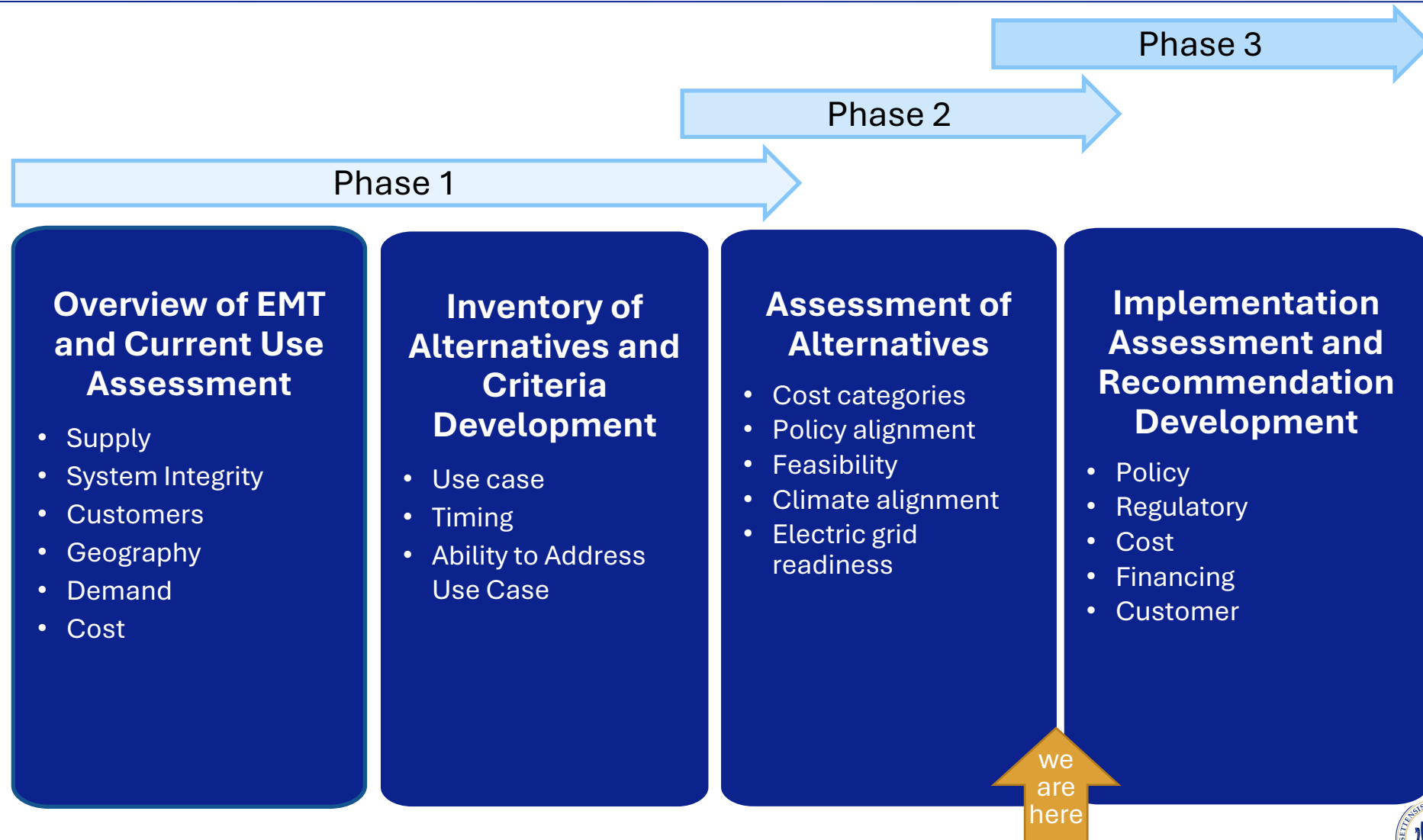


# Everett Marine Terminal FAWG: Topics to be Covered and Discussed

Topic	Advisory Board Request or Discussion Point
1. Progress Update	<i>Inform (pre-read only)</i> <ul style="list-style-type: none"><li>• Overview &amp; Status</li><li>• Mission &amp; Purview</li><li>• Phase 2 Activities Since Last Advisory Board Meeting</li><li>• Phase 2 Objectives and Outcomes to Date</li><li>• Alternatives Assessment Framework</li></ul>
2. Overview of Initial Alternative Assessments	Inform and review
3. Small Group Discussions	What are key takeaways of Advisory Board members on the initial assessments and high-level findings? Given initial findings, what are potential areas of focus for Phase 3 (e.g., ways in which to reduce costs to gas ratepayers, accelerate demand reduction, etc.)?
4. Report Out and Next Steps on Phase 3	Decide/Inform: Advisory Board initial recommended areas of focus for EMT FAWG Phase 3 work.



# Everett Marine Terminal FAWG: Workplan Reminder and Status



# Everett Marine Terminal FAWG:

## Alternative Categories & Assessment Criteria

What are the options and tradeoffs that could reduce or eliminate reliance by the end of the current contract (2030)?

Alternative Categories	New Distributed LNG Capacity	Pipeline System Changes	Demand Reduction
	Invest in other LNG facilities & sources	New or expanded pipeline infrastructure	Electrification, efficiency, demand response
Assessment Criteria	System Operations	Infrastructure	Policy & Broader Impacts
	<ul style="list-style-type: none"><li>Hourly, Daily &amp; Season Reliability</li><li>Pressure Support</li><li>System Resilience</li><li>Redundancy</li></ul>	<ul style="list-style-type: none"><li>Costs</li><li>Feasibility</li><li>Timing (<u>by 2030</u>)</li><li>Locational factors</li><li>Electric impact</li></ul>	<ul style="list-style-type: none"><li>Climate Policy</li><li>Affordability</li><li>Environmental Justice</li><li>Other impact areas as relevant</li></ul>

Note: Rule of thumb for assessments to follow: 1 dekatherm equals usage of 1 average household on peak day.



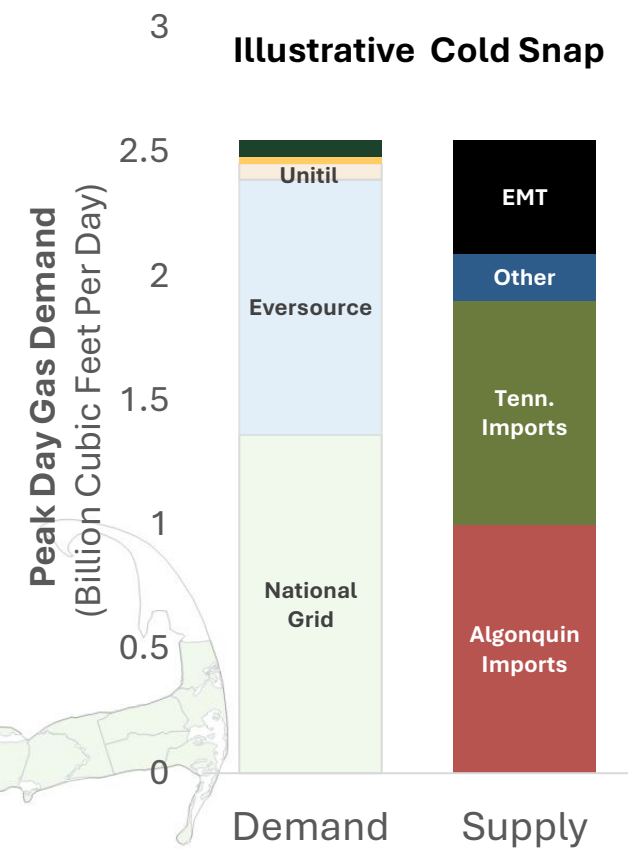
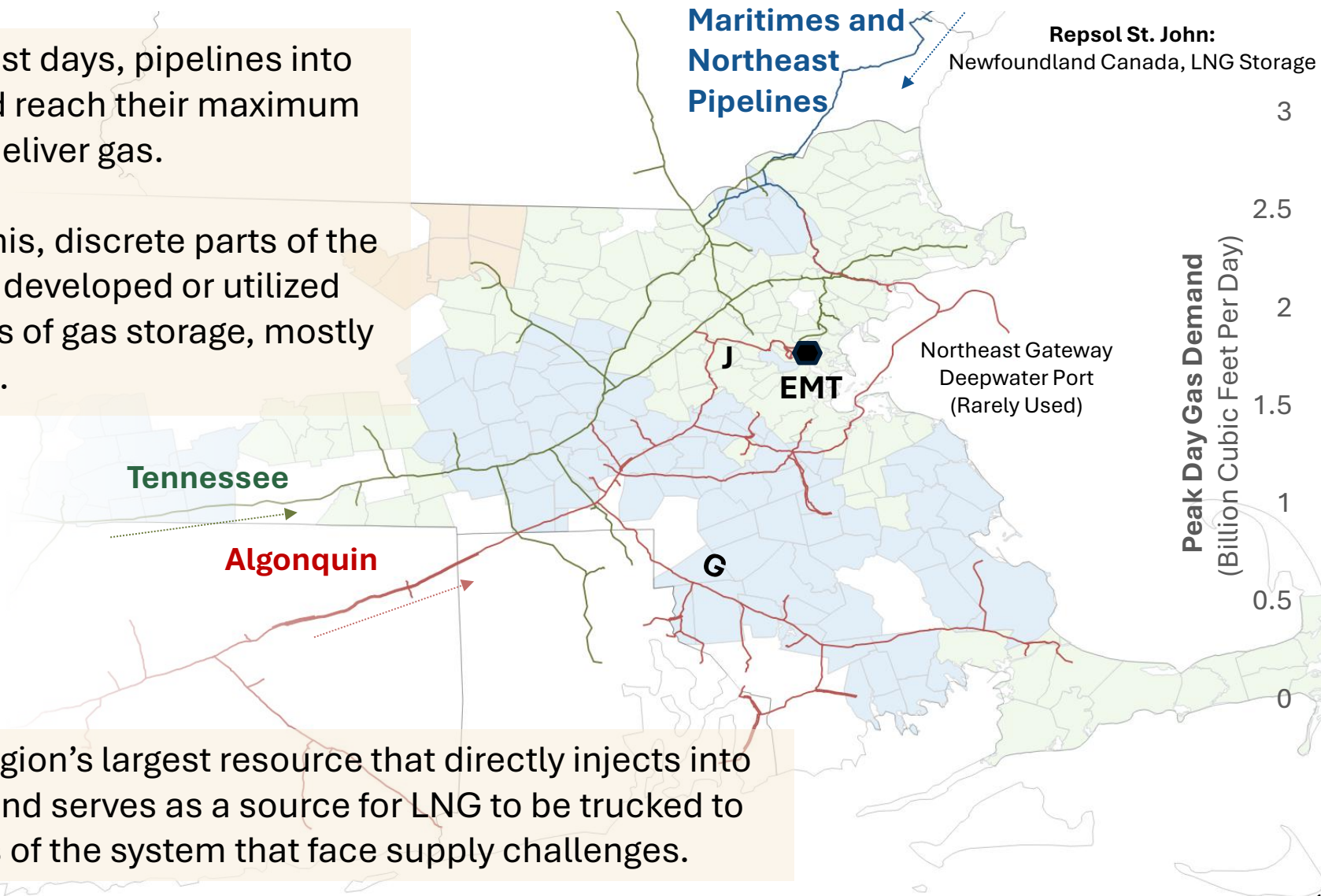


# Everett Marine Terminal FAWG: Review of Gas System Peaking Needs

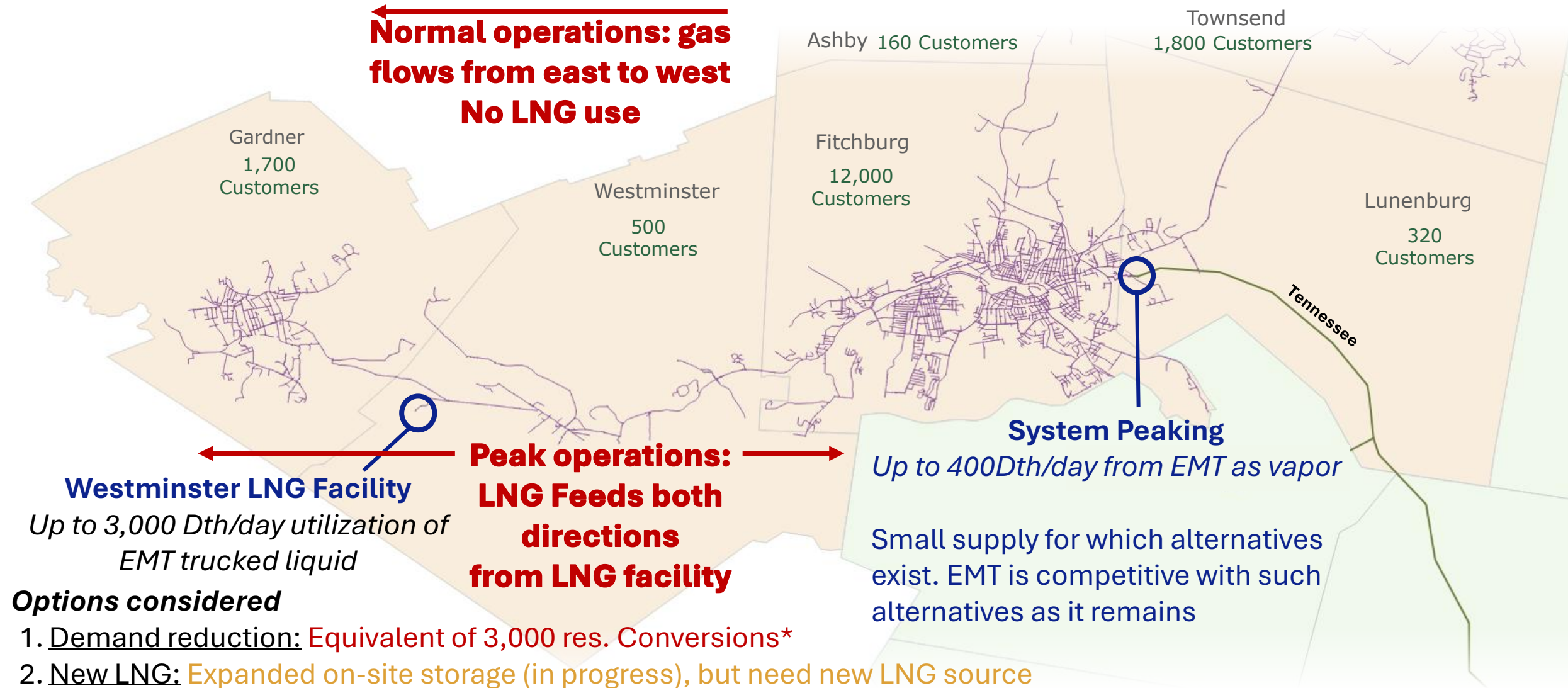
On the coldest days, pipelines into New England reach their maximum capacity to deliver gas.

To manage this, discrete parts of the system have developed or utilized various forms of gas storage, mostly through LNG.

EMT is the region's largest resource that directly injects into the system and serves as a source for LNG to be trucked to various ends of the system that face supply challenges.



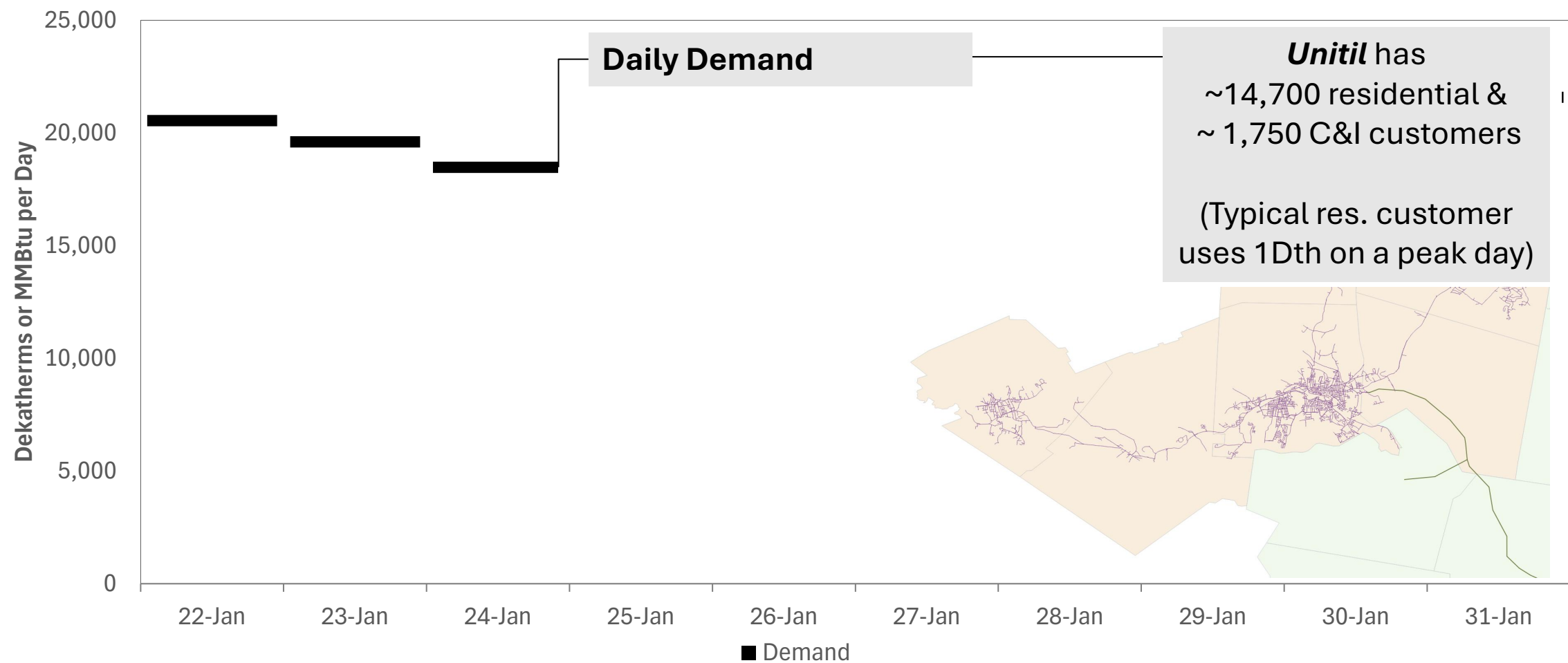
# Everett Marine Terminal FAWG: Unitil





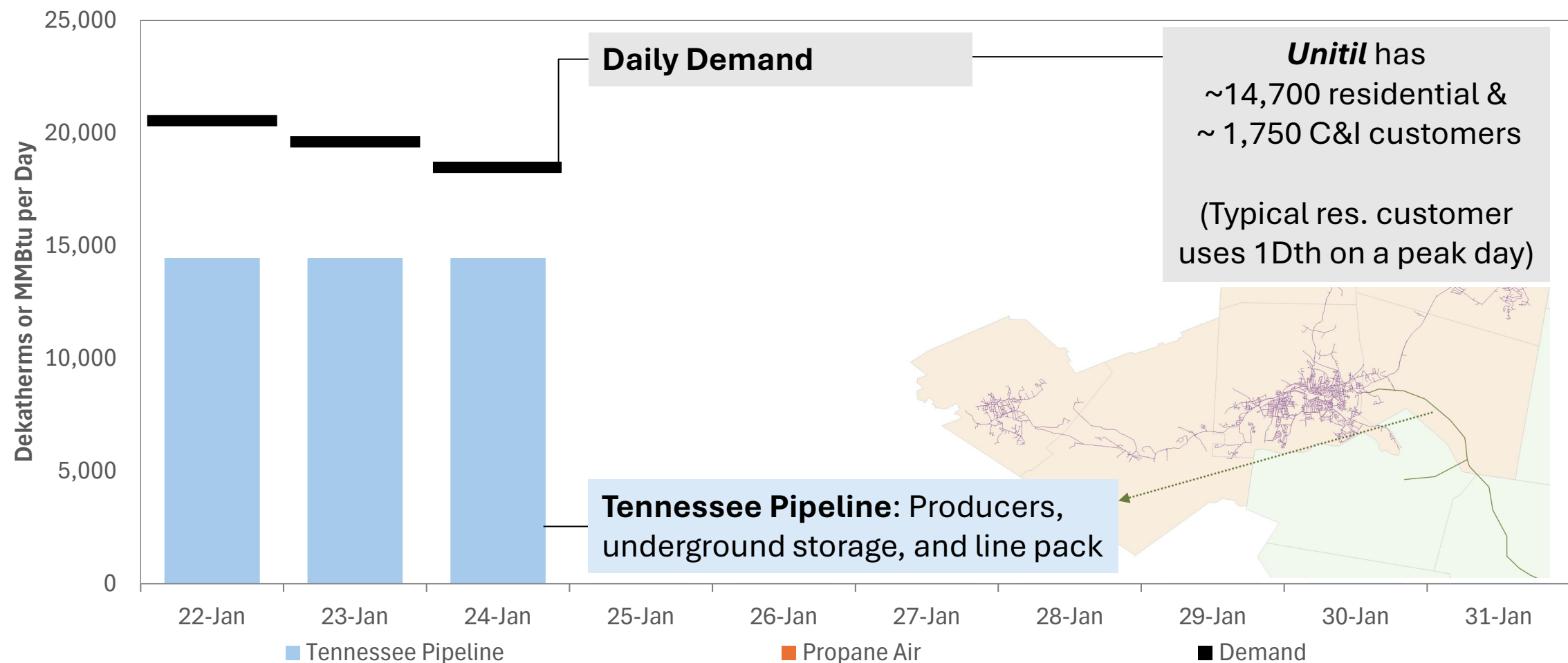
# Everett Marine Terminal FAWG: Unitil Coldsnap Operations

10-day cold snap averaging between 0°F and 15°F with a good wind (~1-in-30 year)



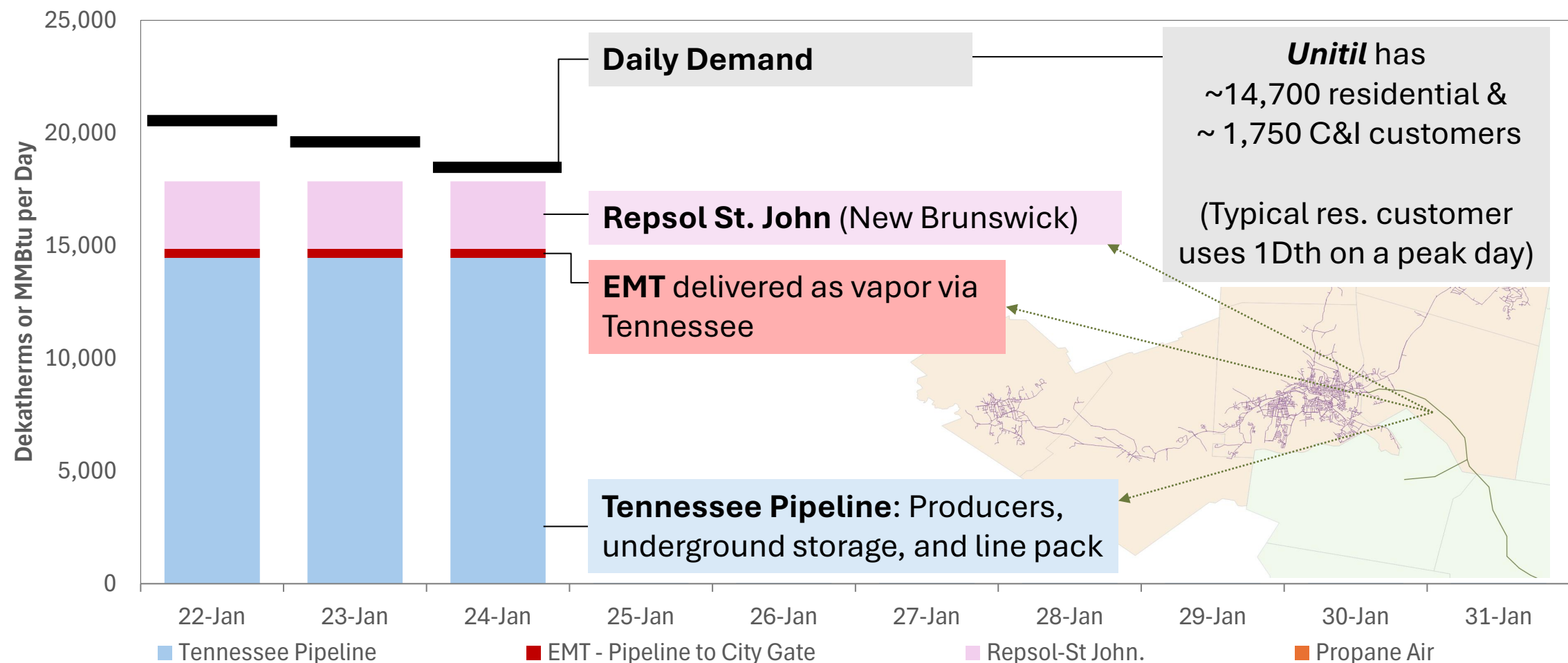
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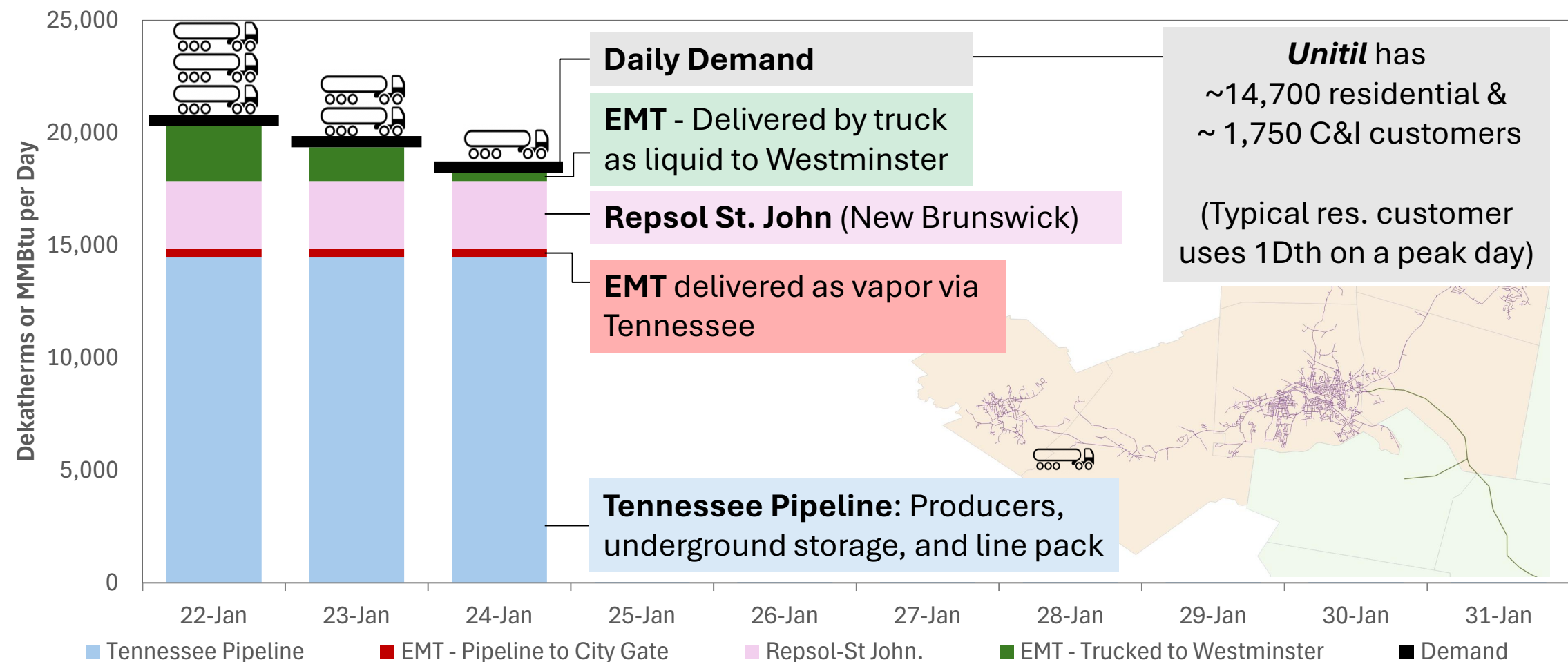
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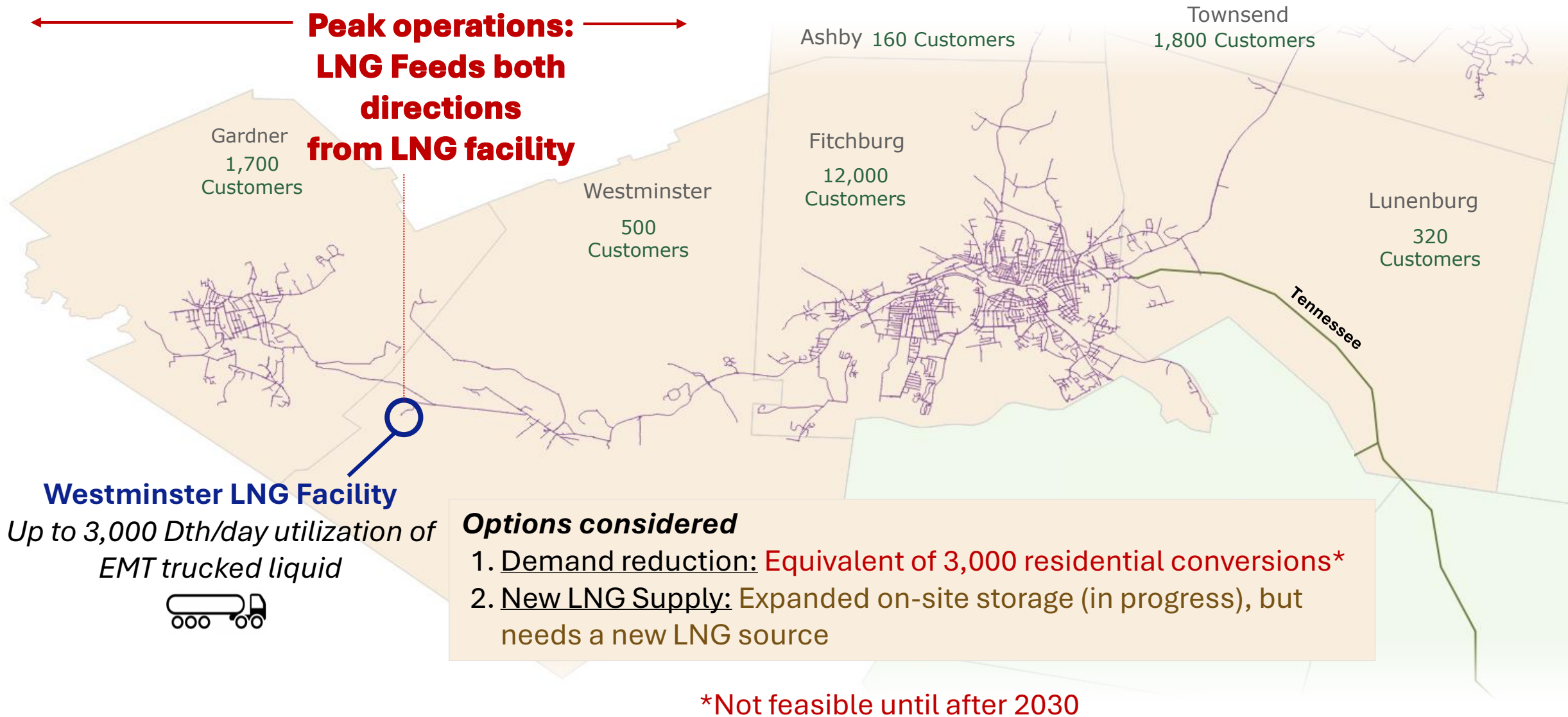


# Everett Marine Terminal FAWG: Snapshot of a Cold Snap in Unitil Territory

10-day cold snap averaging between 0°F and 15°F with a good wind (~1-in-30 year)

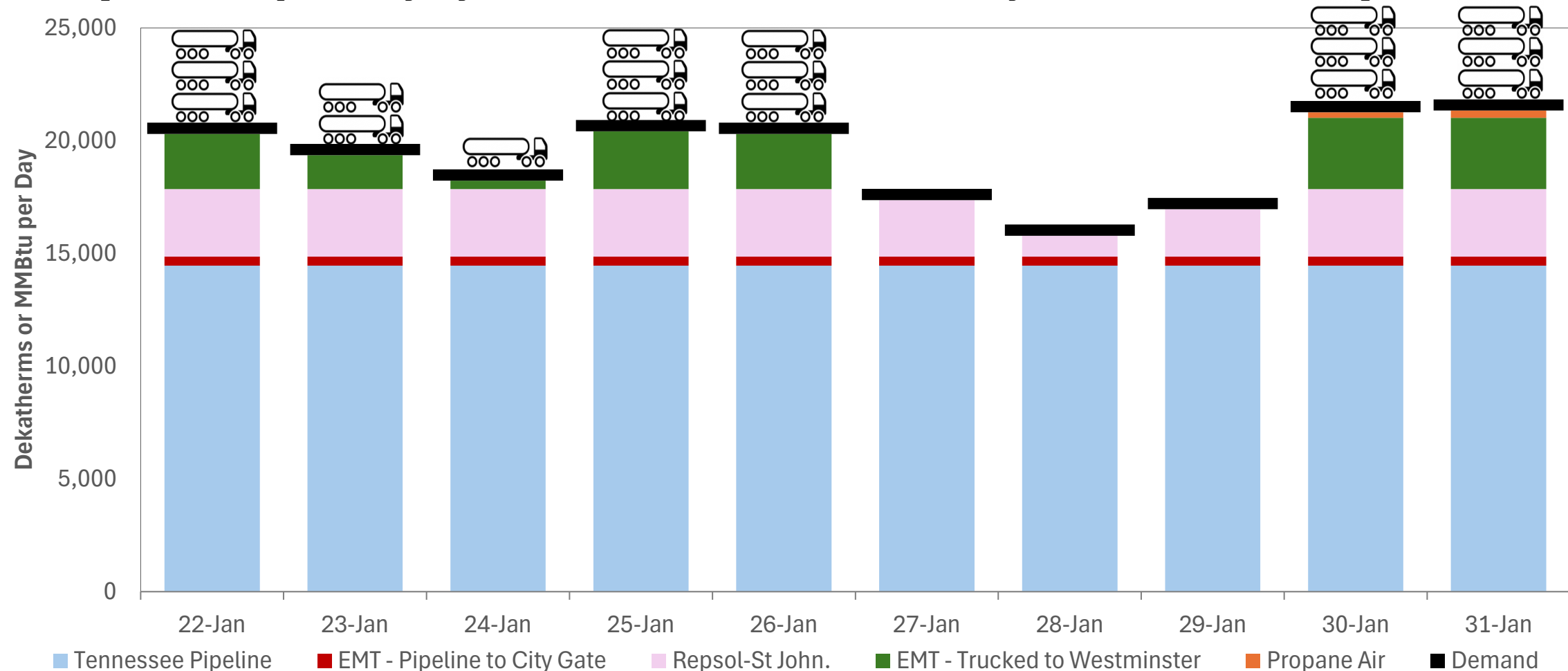


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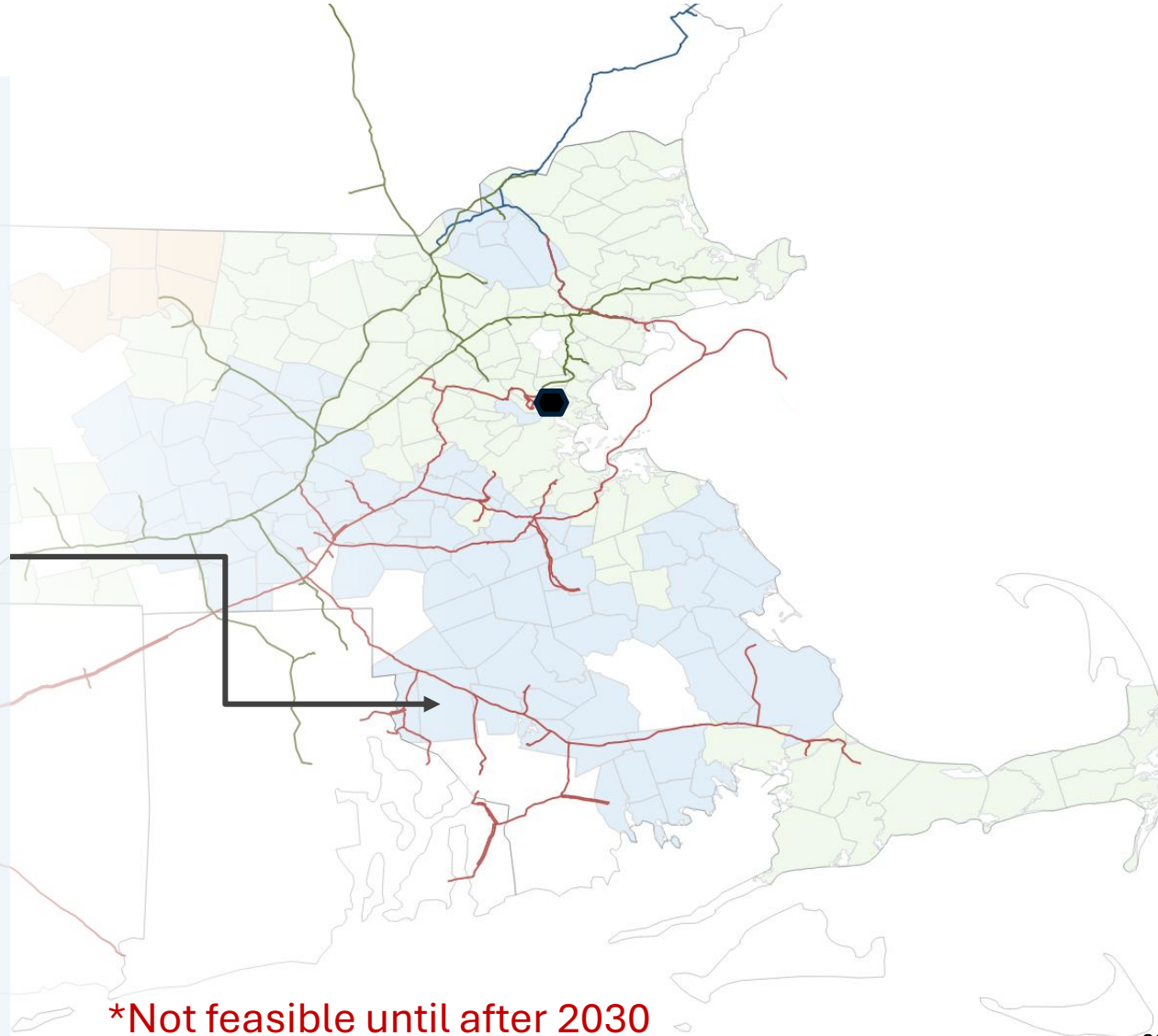
# Everett Marine Terminal FAWG: Eversource

## Algonquin G-lateral

*Up to 24,600 Dth/day utilization of  
EMT via pipeline (truck option)*

### **Options considered**

1. Demand reduction: **need  
~25,000 homes off gas\***
2. New G-Lateral LNG Storage:  
**new assets would need  
substantial planning and EFSB  
approval\***
3. Additional capacity on the  
Algonquin: **On 9/2, Eversource  
filed a petition to replace EMT  
with new supply enabled by  
Algonquin upgrades**



**\*Not feasible until after 2030**





# Everett Marine Terminal FAWG: Eversource

## Algonquin G-lateral

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3. Additional capacity on the Algonquin: **On 9/2, Eversource filed a petition to replace EMT with new supply enabled by Algonquin upgrades**

## Cambridge/Somerville

*Up to 15,000 Dth/day only via pipeline*

### **Options considered**

1. Demand reduction: **need to involve large commercial customers that have complex loads with opportunities and challenges\*** (~eqv. of 15k homes)
2. New LNG storage: **not practical in the zone**
3. Additional Tx capacity: **possible, but may require immediate action and the creation of a new redundancy\***

**\*Not feasible until after 2030**



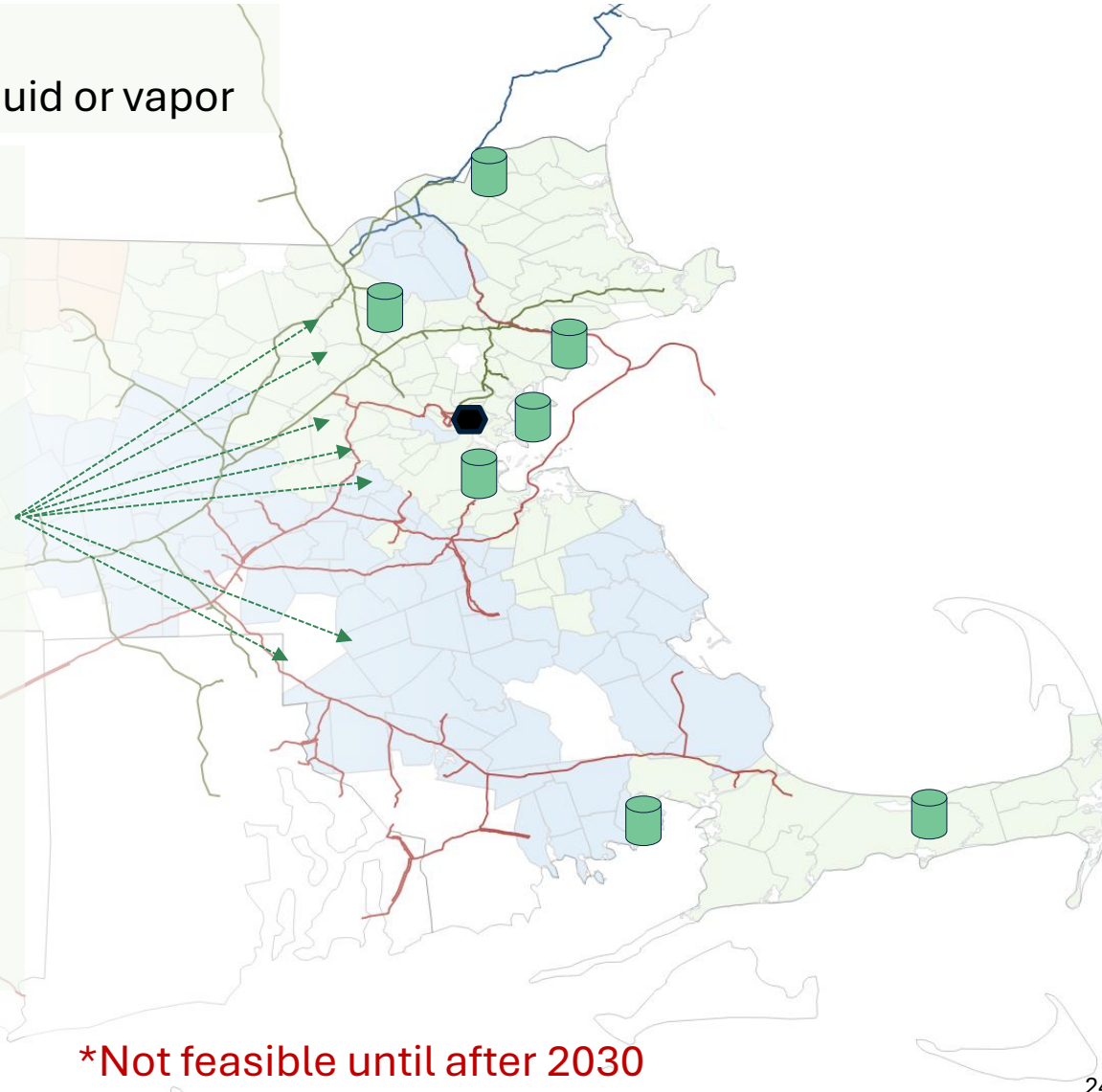
# Everett Marine Terminal FAWG: National Grid

**Contract:** 27,000 Dth/day (24/25) →  
78,000 Dth/day (24/30): liquid or vapor

## **Distributed (Trucked) LNG Use**

### **Options considered**

1. Demand reduction: **need ~20,000 homes off gas\***
2. Increase vaporization capacity at existing LNG plants: **could reduce, but not eliminate, reliance. Would need to truck LNG from further PA, Canada.**
3. New portable LNG facilities **could reduce, but not eliminate, reliance. Four facilities would be needed, including one in a location near EMT. Additional trucking needed.**



**\*Not feasible until after 2030**



# Everett Marine Terminal FAWG: National Grid

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## **Boston Gas – Direct Connection**

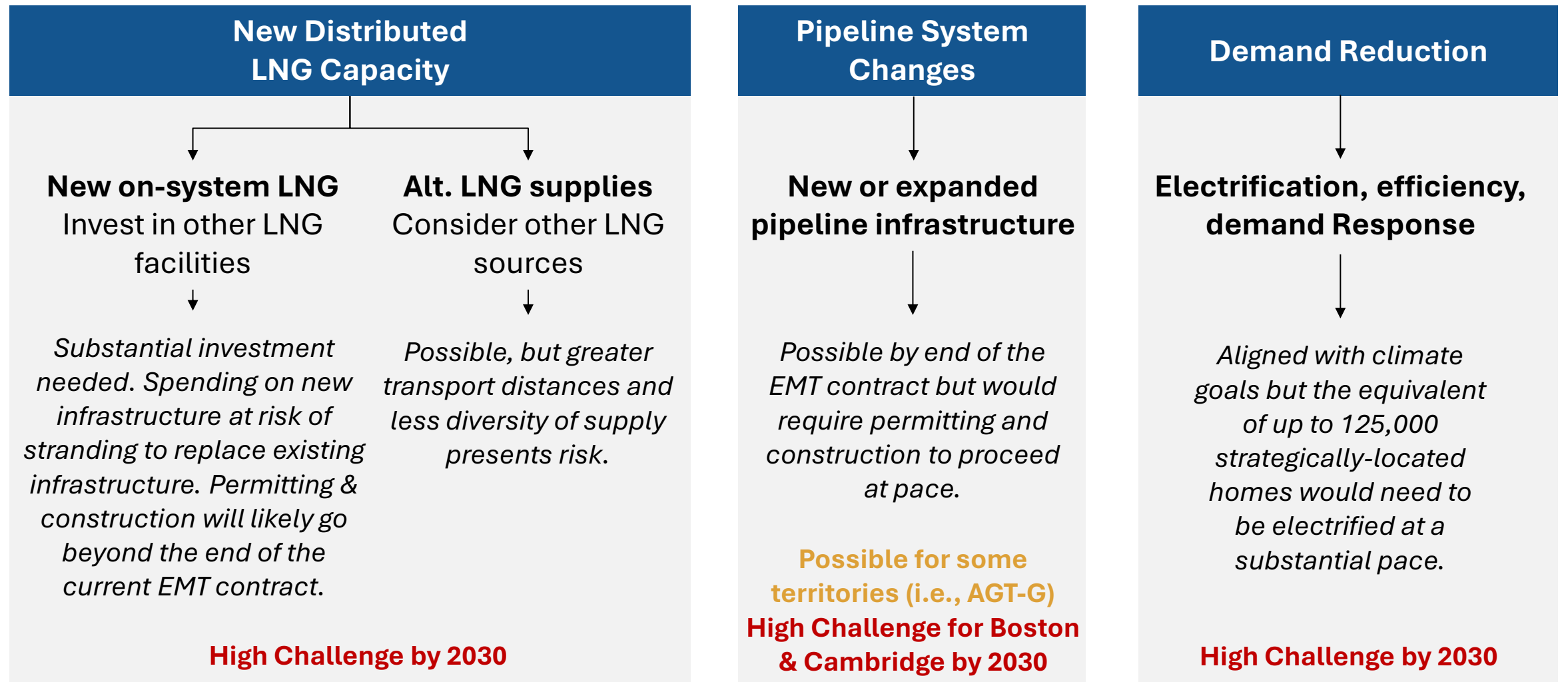
### ***Options considered***

1. Demand reduction: **Eliminating reliance would require removing 1/3 of peak gas demand in the service area (~60,000 homes).**
2. New 4mi high pressure pipeline crossing downtown Boston: **Expensive, partial solution, faces long challenging process\***





# Everett Marine Terminal FAWG: Initial Assessment High Level Findings



# Everett Marine Terminal FAWG: Phase 2 Findings & Next Steps

## Phase 2 Key Finding

Elimination of reliance on EMT for all the LDCs by the end of the current contract (2029/2030) is highly unlikely. Reduction in reliance is possible, which comes with associated implications.

## Phase 3 Next Steps

The FAWG intends to conduct a deeper dive into the assessments and formulate recommendations to guide policy and action over the remainder of the current contract and to inform future utilization of EMT.



## Everett Marine Terminal FAWG: Small Group Discussion Prompt

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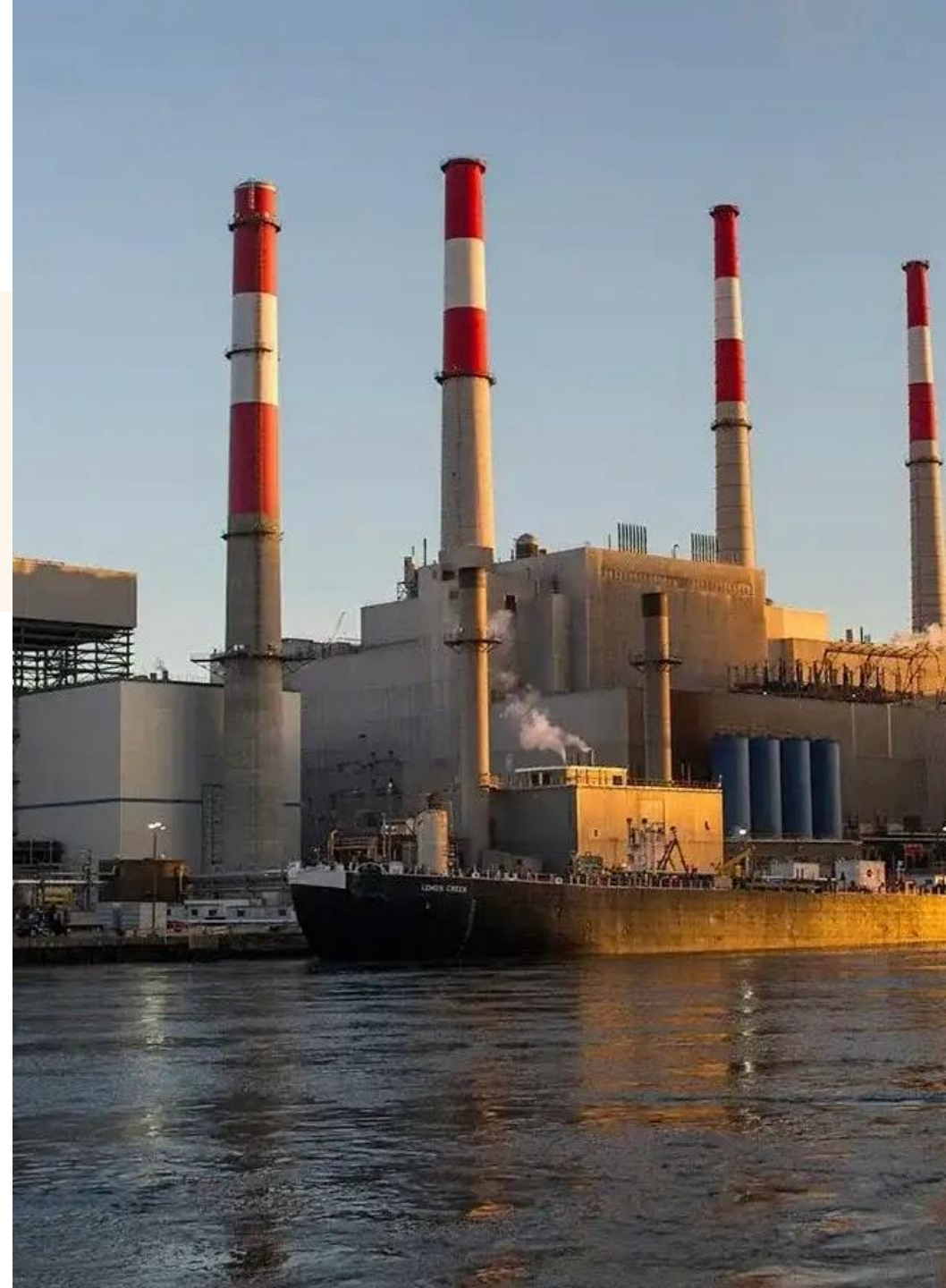
What are key takeaways of Advisory Board members on the initial assessments and high-level findings? Given initial findings, what are potential areas of focus for Phase 3 (e.g., ways in which to reduce costs to gas ratepayers, accelerate demand reduction, etc.)?





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# **Presentation and Discussion on Decarbonizing the Peak (DTP) FAWG – Inform/Decide**





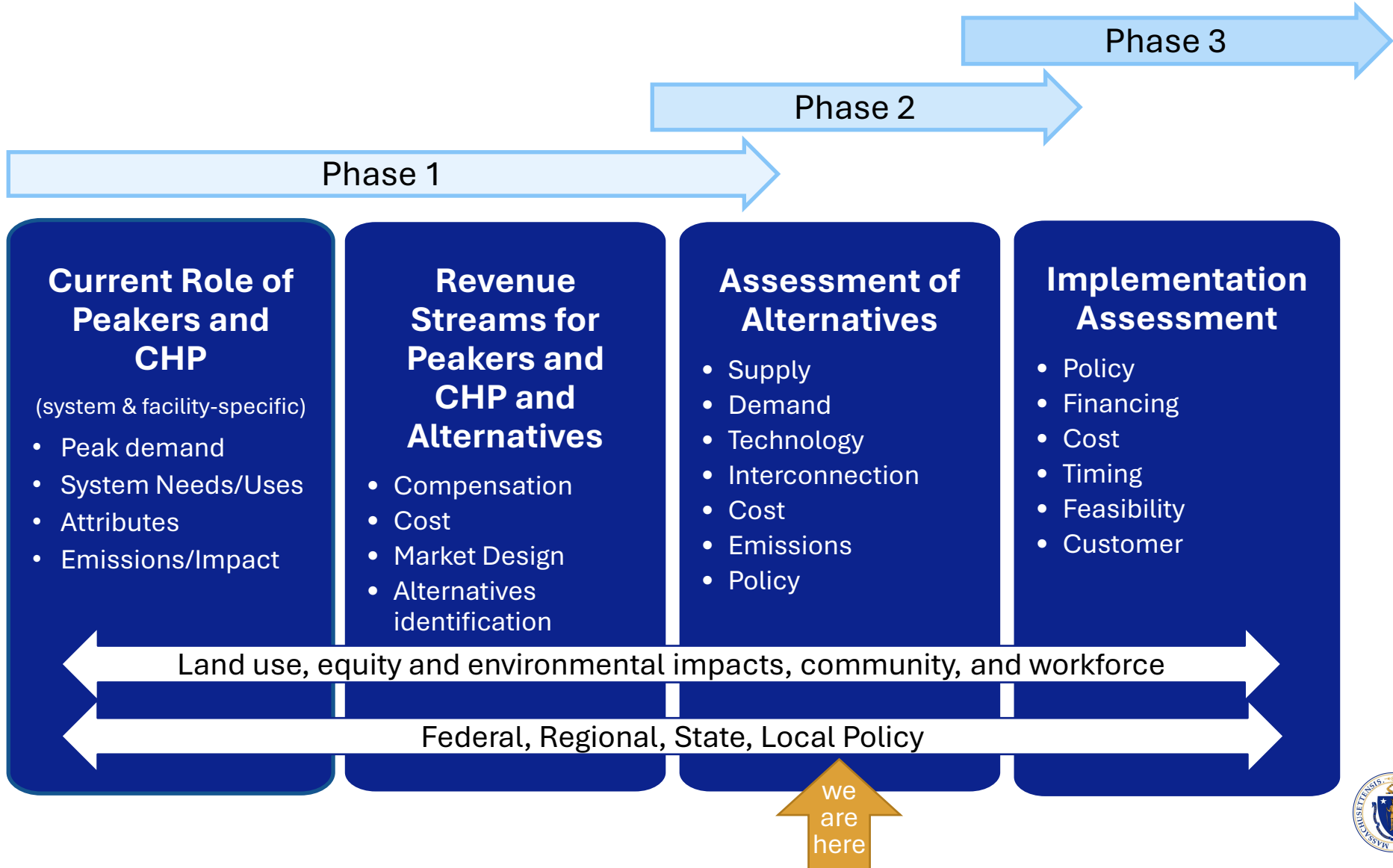
# Decarbonizing the Peak FAWG:

## Topics to be Covered and Discussed

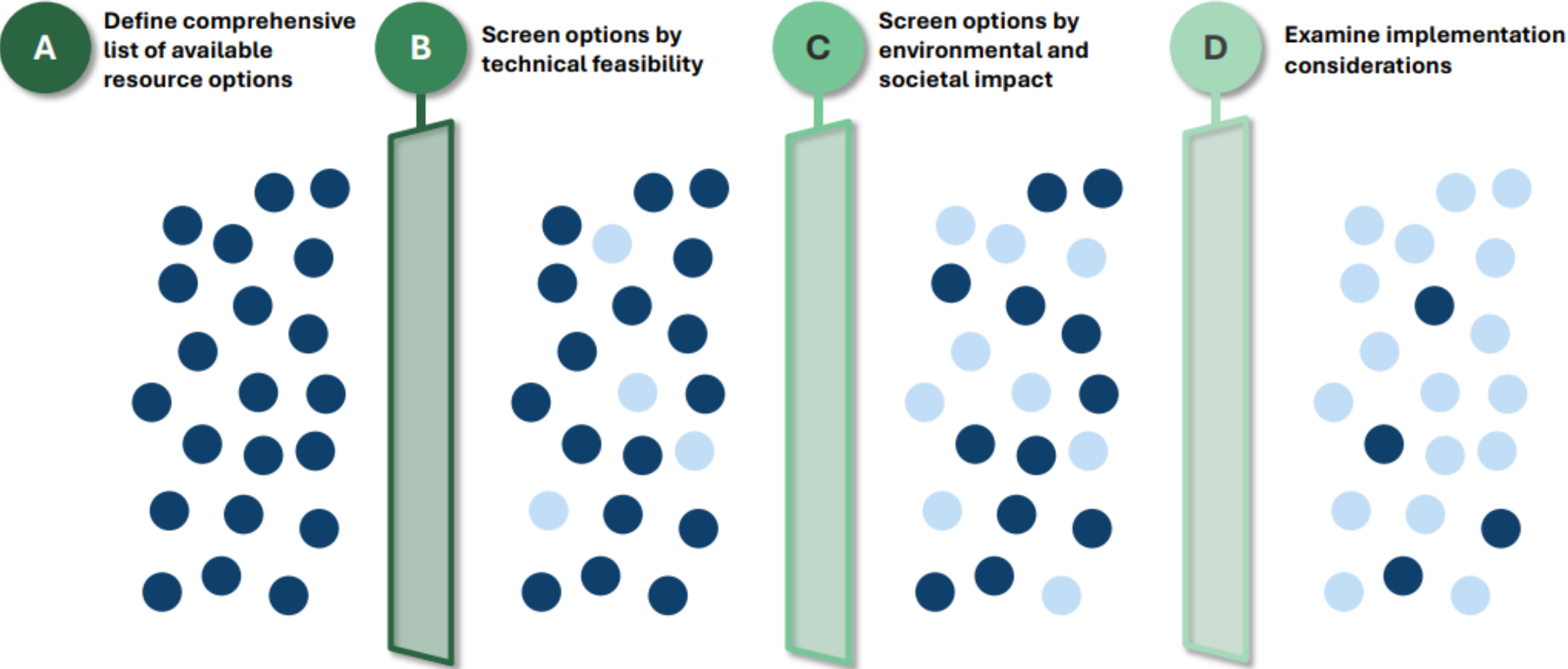
Topic	Advisory Board Request or Discussion Point
1. Progress Report	<p><i>Inform (pre-read only)</i></p> <ul style="list-style-type: none"> <li>• Overview &amp; Status</li> <li>• Mission &amp; Purview</li> <li>• Phase 2 Activities Since Last Advisory Board Meeting</li> <li>• Phase 2 Objectives and Outcomes to Date</li> <li>• Alternative Assessment Approach</li> </ul>
2. Overview of Technology and Policy Options and Evaluation Framework	Inform and review
3. Small Group Discussions	Are there any clarifying questions on progress to date or next steps with the DTP FAWG? How should the FAWG balance short vs. longer-term options to curb fossil fuel use at these facilities?
4. Report Out and Decide	Decide: Given information provided and small group discussion, does the Advisory Board agree with the direction of and approach for next steps, including using facility-level information to inform system-level alternatives, pathways, and policy needs?



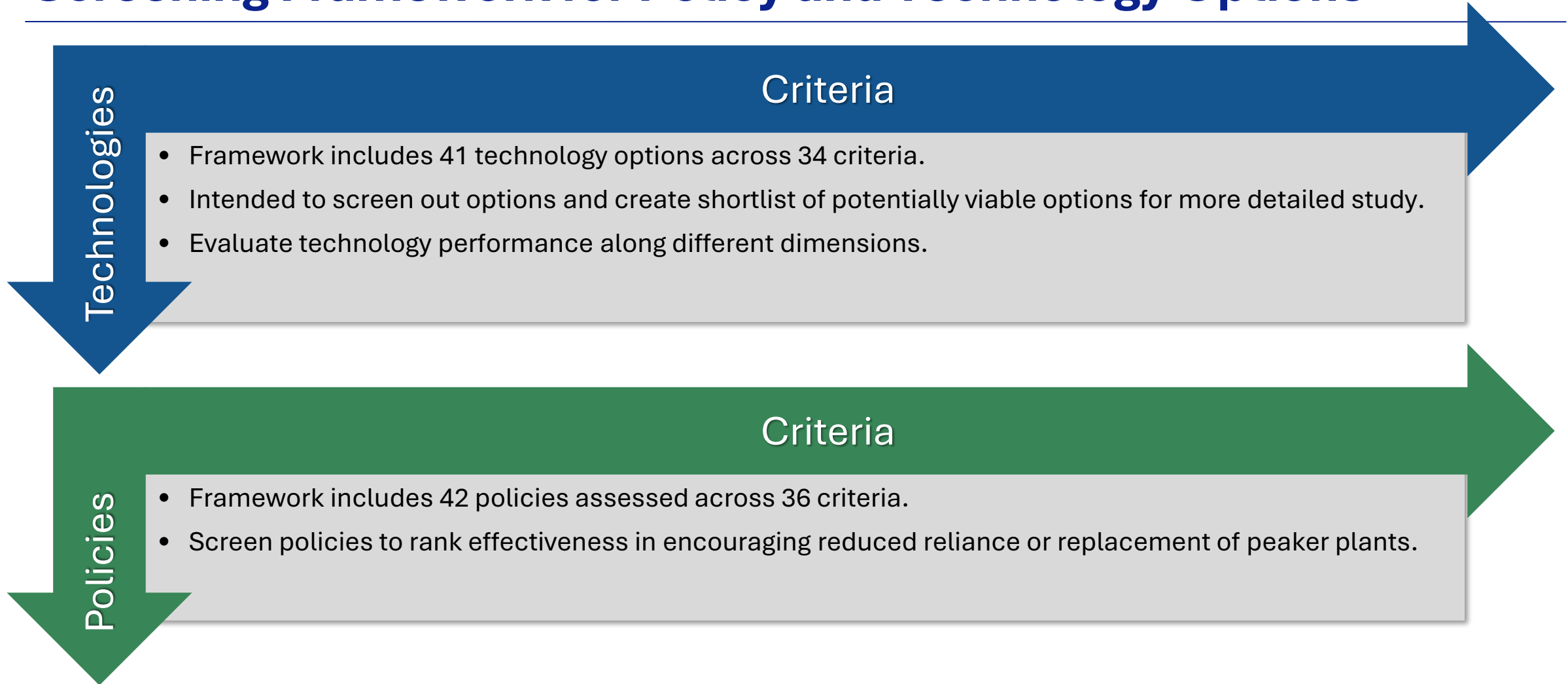
# Decarbonizing the Peak FAWG: Workplan Reminder and Status



# Decarbonizing the Peak FAWG: Overall Approach for Screening Alternatives



# Decarbonizing the Peak FAWG: Screening Framework for Policy and Technology Options



# Decarbonizing the Peak FAWG: Technology Screening Framework Updated per Advisory Board

## Technology Assessment Categories

Environmental Impacts

Feasibility

Community and Economic Impacts

Suitability for Peaker Replacement

Cost

Availability/Stage of Commercialization

Other Considerations  
(e.g., legal and policy risks)

## Advisory Board Feedback on Technology Framework

- Include alternative fuels, demand response, and CCS.
- Consider resource ramping capability as well as adaptability to changing conditions, including seasonal capacity rating changes.
- Include additional criteria under Environmental Impacts (e.g., particulate emissions) as well as externalities like the social cost of greenhouse gas emissions and lifecycle costs.
- Consider land use displacement and site-specific resilience risks.
- Distinguish between host and neighboring community impacts and quantify scale of community pushback.
- Address uncertainties impacting feasibility of technology options, including cost, commercial availability, supply chain, and development timelines.
- Account for potential changes in federal funding and regulations.
- Evaluate interactions between portfolio resources, as well as system-level substitutability and integration; leverage production cost modeling and include comprehensive assessment of costs.



# Decarbonizing the Peak FAWG: Policy Screening Framework Updated per Advisory Board

## Policy Assessment Categories

Impact on Peak Demand and Supply Alternatives

Equity Considerations

Cost Impacts

Implementation Pathway and Considerations

Timescale

Interaction with Other Jurisdictions

Other Considerations  
(e.g., political or technology factors)

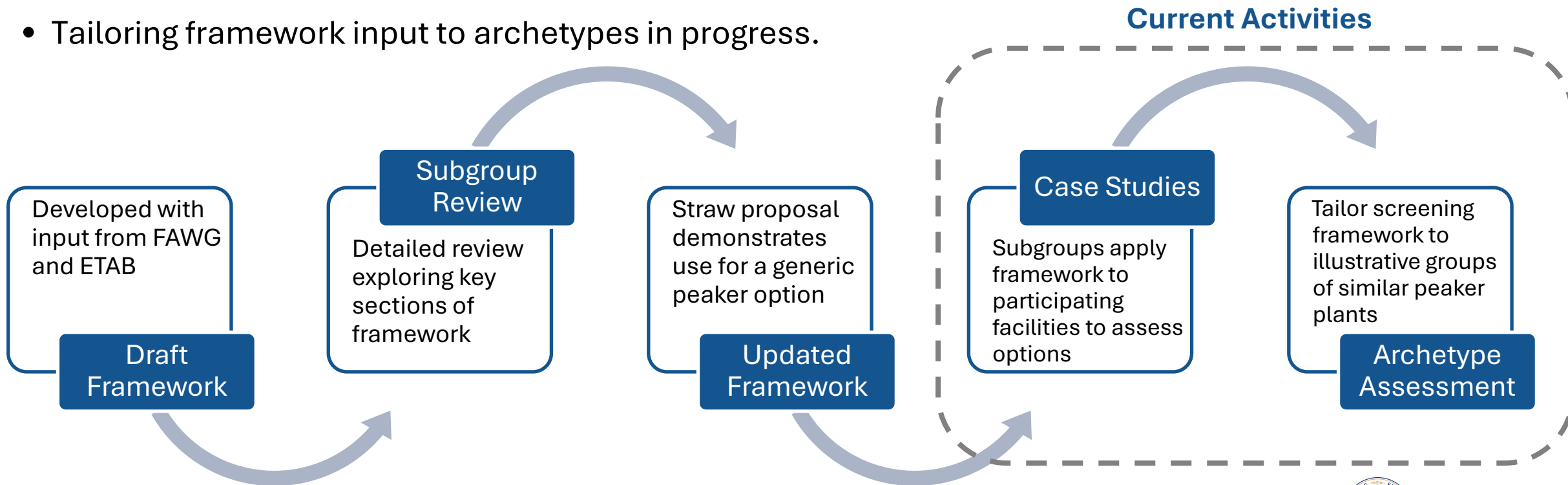
## Advisory Board Feedback on Policy Framework

- Include additional policies, including rate design options, permitting reforms, and co-location policies.
- Reframe carbon pricing policies.
- Assess how well each policy reduces peak demand and increases alternative sources of supply.
- Account for avoided costs and conduct a social cost analysis.
- Consider how costs are distributed across customer classes.
- Evaluate how each policy would affect grid infrastructure and flexibility to address load uncertainty.
- Examine interaction with other jurisdictions—federal risks, alignment with local actions, and potential for collaboration with other states.
- Consider whether each policy would add to system complexity.



# Decarbonizing the Peak FAWG: Screening Framework Refined and Applied

- The DTP FAWG refined and implemented the framework for generic replacement options, with subgroups reviewing specific sections and applications.
- Participating facilities are now implementing the framework to evaluate site-specific opportunities.
- Tailoring framework input to archetypes in progress.



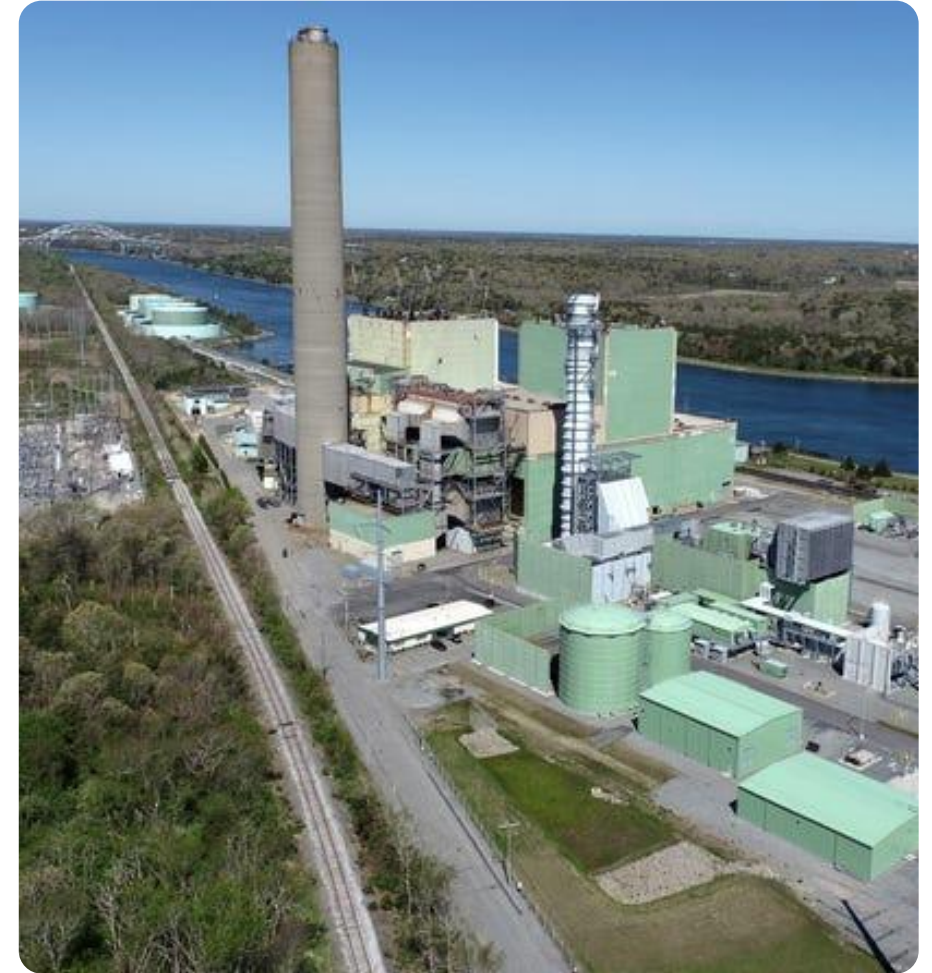


# Decarbonizing the Peak FAWG:

## Example of Work with Subgroup on Canal Generating Plant

Subgroup Members: JERA (owner of Canal plant), Form Energy, Clean Energy Group, Clean Fuels Alliance America, DOER, NEPGA, and Energy for the Common Good

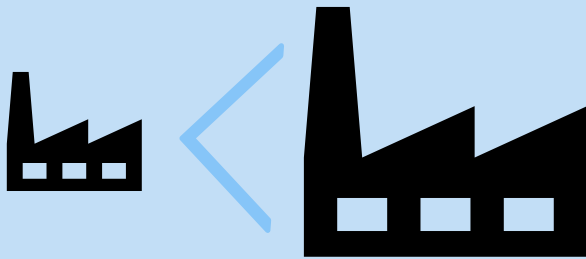
- ✓ Agreed to focus on replacement of units 1&2 and their existing interconnection at Canal and established a baseline of the Canal plant across the 34 criteria.
- ✓ Reviewed straw proposal of the 41 technology options and made suggested edits.
- ✓ Discussion and initial identification of priority criteria to use to begin screening out options; for example, land features / requirements, power density, and commercial availability.
- Next steps include further refining the list of potential technologies, identifying enabling policies, and presenting learnings to the FAWG for discussion and feedback.



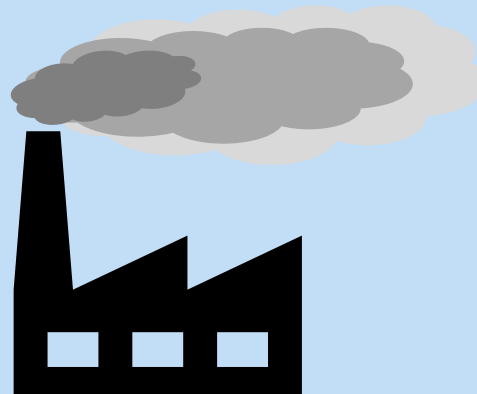
# Decarbonizing the Peak FAWG: Massachusetts Peaker Plant Inventory

- Massachusetts has **over 30** peaker plant sites (each site may contain multiple generators).
  - Data refined from 2023 EIA report; dataset changes annually as plants adjust their capacity factor or enter/exit operation.
  - Filtered for emitting, non-CHP generators with capacity factor <15%.
- Segmentation helps identify which technologies or strategies are better suited for specific categories of plants.

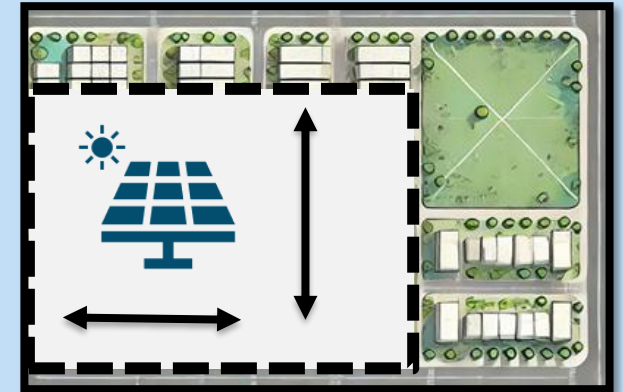
## Potential Archetypes for Screening Framework Assessment



Low capacity  
(<100 MW nameplate capacity)



Low energy generation  
(<5-10% capacity factor)



Redevelopment potential  
(parcel >10 acres)

# Decarbonizing the Peak FAWG:

## Next Steps under Discussion within FAWG

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1. Finalize framework applications using facility-specific case studies, which help surface challenging questions (e.g., alternative fuels, emissions accounting) and potential approaches and thresholds.
2. Apply the framework to archetypes, which provides information about categories/facilities that may be good candidates for reducing/replacing peaker operations.
3. Consider how evolving policy and market conditions may influence facility economics and decision-making, while monitoring federal and state legislation/policy/regulatory actions.
4. Leveraging the framework and case studies, perform additional evaluations to understand system-level implications of reducing/replacing peaker operations.



# Decarbonizing the Peak:

## Small Group Discussion Prompt

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Are there any clarifying questions on progress to date with the DTP FAWG or next steps? How should the FAWG balance short vs. longer-term options to curb fossil fuel use at these facilities?





# Presentation and Discussion on Financing the Transition (FTT) FAWG – Inform/Decide



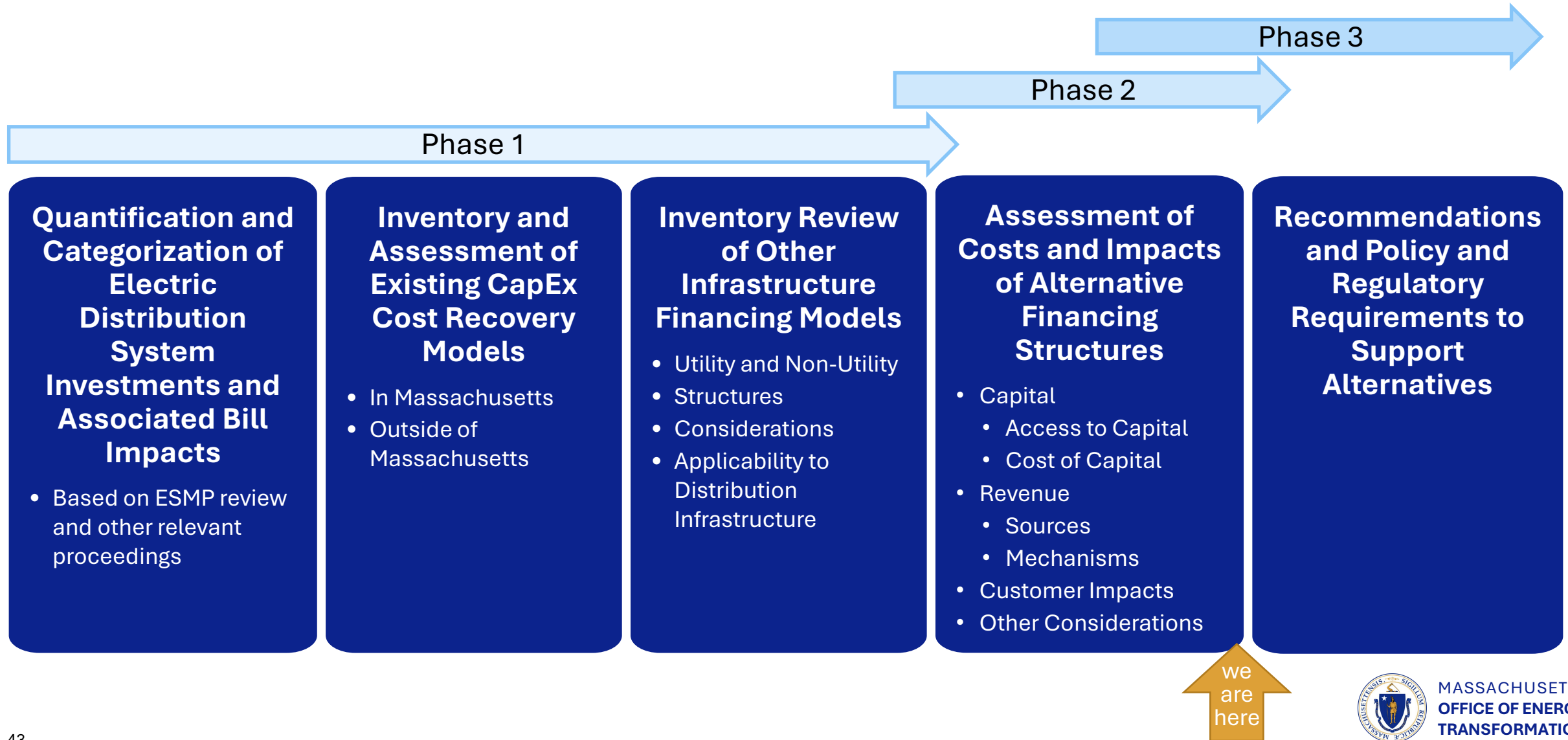
# Financing the Transition FAWG:

## Topics to be Covered and Discussed

Topic	Advisory Board Request or Discussion Point
1. Progress Report	<i>Inform (pre-read only)</i> <ul style="list-style-type: none"><li>• Overview &amp; Status</li><li>• Phase 2 Activities Since Last Advisory Board Meeting</li><li>• Phase 2 Objectives and Outcomes to Date</li><li>• Alternatives Assessment Approach</li></ul>
2. Overview of Financing Alternatives and Evaluation Framework	Inform and review
3. Small Group Discussions	What issues, criteria, and/or outcomes are most important for the FAWG to consider as it develops recommendations re: this list of alternatives for Phase 3 (e.g., near-term affordability, overall cost, feasibility of approach, etc.)? Should the FAWG move forward with the two additional approaches surfaced by FAWG members, at this time?
4. Report Out and Decide	Decide/Vote <ol style="list-style-type: none"><li>1) Affirm the FAWG’s application of the assessment criteria.</li><li>2) Align on prioritization of outcomes to assist with Phase 3 deliberations.</li><li>3) Vote on advancing two additional alternative approaches for further consideration, at this time.</li></ol>

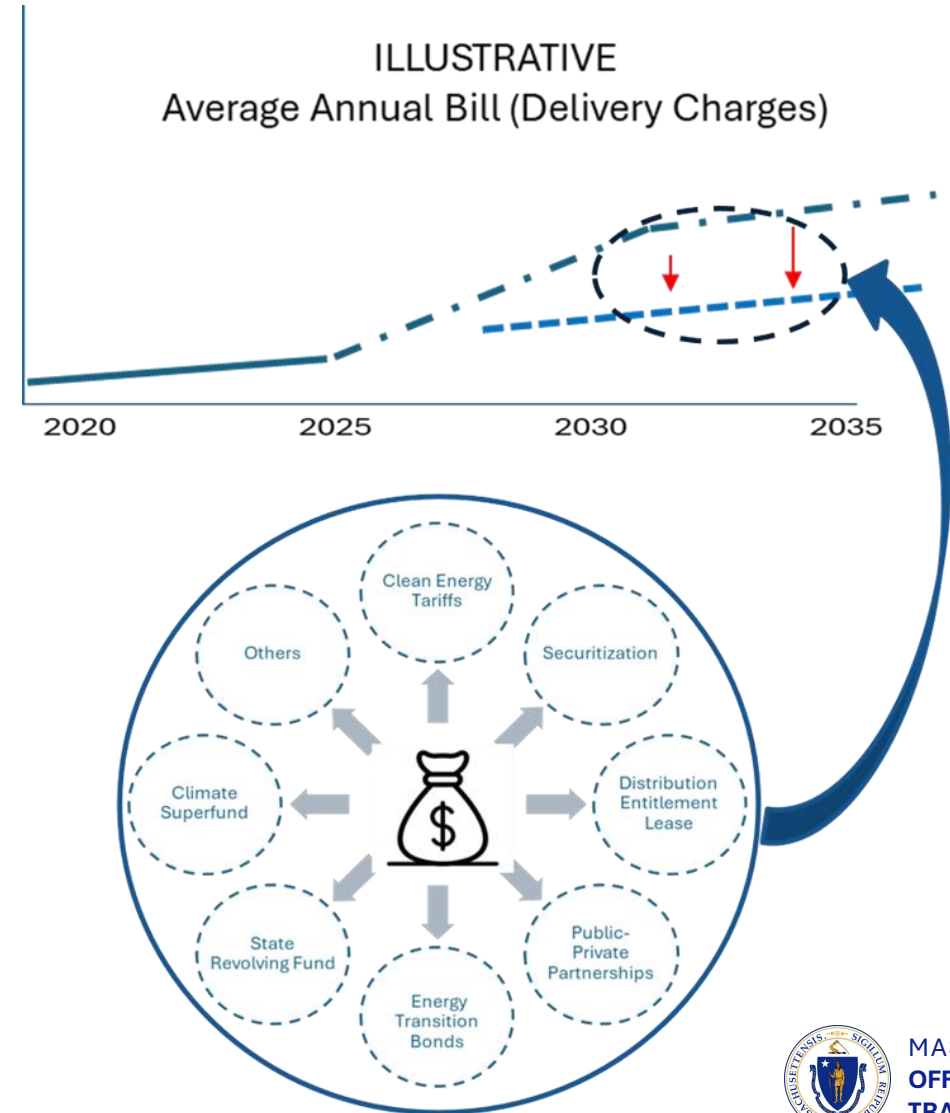


# Financing the Transition FAWG: Workplan Reminder and Status

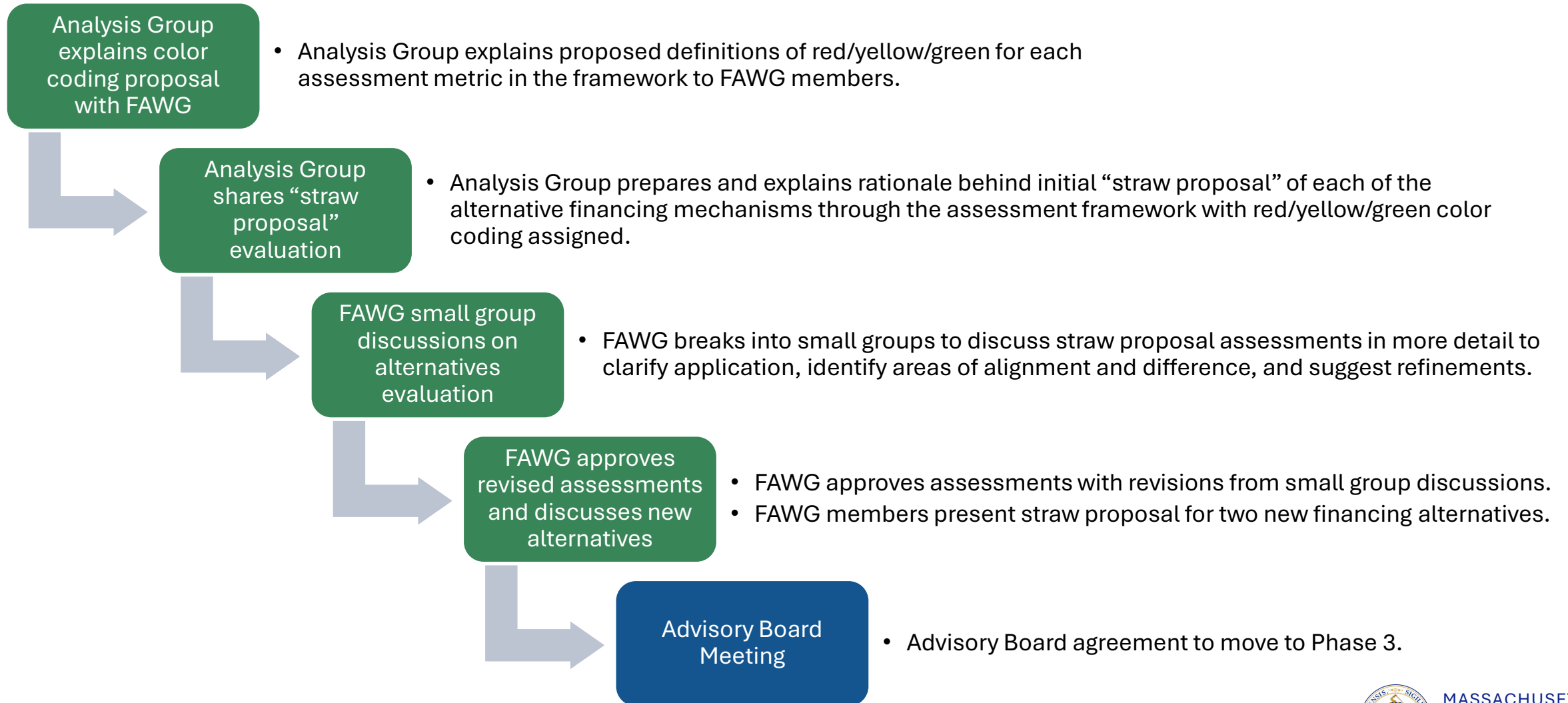


# Financing the Transition FAWG: Mitigating Future Electricity Costs

- Innovative financing mechanisms can mitigate the magnitude and "lumpiness" of potential rate increases by, for example:
  - De-risking investment (and lowering the cost of capital)
  - Smoothing in rate increases
  - Assigning costs to beneficiaries in more direct, tailored ways
- Alternatives to the *status quo* were identified and considered.



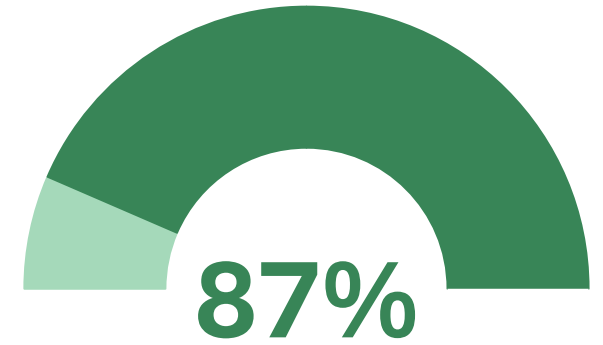
# Financing the Transition FAWG: Phase 2 Assessment Approach



# Financing the Transition FAWG: Completed Assessment Framework Guide

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- Final assessment framework included 23 criteria within three categories:
  1. Investment/cost recovery (dollar benefits)
  2. Implementation pathway (challenges)
  3. Other intangibles
- Each financing alternative was compared to traditional utility cost recovery/regulation (e.g., *status quo*) to determine color coding; comparisons were not made between alternatives.
- *The color coding is indicative of the impact on ratepayers of the investor-owned utilities.*
- **The FAWG affirmed moving forward with the color-coded assessments of the seven financing alternatives as the basis for making recommendations in Phase 3.**



Of the 23 criteria across seven financing alternatives, the FAWG agreed with **87%** of Analysis Group's initial proposed color coding and made minor changes to the other 13% of criteria.



# Financing the Transition FAWG:

## Combined Financing Alternative Assessments

ISSUE			Clean Energy Distribution Tariff	Climate Superfund	Distribution Entitlement Lease	Energy/Environmental Transition Bonds	Public-Private Partnership	Securitization	State Revolving Fund
Investment/cost recovery (dollar benefits)	Ratepayer impacts	1. Reduces cost of capital							
		2. Develops new source of capital							
		3. Levelizes cost recovery over time							
		4. Mitigates rate base growth							
		5. Total Net Present Value (NPV) impacts			It depends.	It depends.	It depends.	It depends.	It depends.
		6. Near- vs. long-term rate (and/or bill) impacts/ Intertemporal equity of cost recovery							
		7. Enables direct assignment of cost recovery from project beneficiaries							
	8. Taxpayer impacts								
	9. Low- and Moderate-Income (LMI) / Environmental Justice (EJ) impacts E.g., public health, intergenerational EJ impacts					It depends			
	10. Other investment / cost recovery impacts of note E.g., impacts on balance of risk between ratepayers and shareholders, labor (job creation, wage levels), the incentives for non-wires alternatives or the need for new distribution investment								
Implementation pathway (challenges)	11. Expected timeline (e.g., time to implementation)								
	12. Degree of barriers to implementation E.g., DPU familiarity, legislative needs/risks, political support vs. opposition, legal risks, stakeholder buy-in								
	13. Previous experience in implementing the approach								
	14. Administrative and operational needs / costs								
	15. Potential to scale			It depends		It depends	It depends		
	16. Suitability for investments of different size(s)								
	17. Replicability of the approach								
	18. Potential for impact by addition or withdrawal of federal program dollars								
Other intangibles	19. Adaptability of approach and type of investment E.g. ability to match lifetime of underlying assets with cost-recovery period, and/or other factors								
	20. Potential applicability to costs other than distribution investments E.g. transmission, generation, energy efficiency								
	21. Ability of repayment approach to be non-bypassable								
	22. Broader impact on utility E.g., utility credit rating, cash flow, cost of capital, incentives for distribution system investments, potential for mitigating impacts, asset ownership/ operational responsibility, consideration for cumulative impact								
	23. Other notable/unique elements E.g., potential for attracting/utilizing outside funding, sustainability, interaction with other programs or financing tools/approaches, degree of/opportunity for transparency re: ratepayer/ taxpayer costs, degree of adaptability to changes in energy and/or transportation sectors, indirect economic benefits/costs, potential unintended consequences, additional impacts on pace of energy transition not already captured, etc.								



# Financing the Transition FAWG:

## Key Takeaways from Phase 2 and Next Steps for FAWG

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- Many impacts of financing alternatives are dependent on design and implementation.
- Alternative financing mechanisms can shift and/or smooth costs over time but not eliminate them.
- Multiple alternatives could be combined and/or be used in concert.
- Overall impacts on utility financing costs, total costs over time, etc., of combinations of approaches are important to understand alongside assessments of each individual alternative.





# Financing the Transition FAWG:

## New Financing Alternatives Proposed by FAWG Members

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- FAWG members identified other alternatives to raise revenue/pay for certain infrastructure, educated the FAWG on the approach, and presented a straw proposal assessment.

### **GHG Fee and State Revolving Fund**

- A GHG fee applied to all fossil fuels delivered to or produced within Massachusetts. The revenue would be applied as electric bill credits and for clean energy-related infrastructure upgrades using a State Revolving Fund (SRF).
- The SRF would use the GHG fee as a funding source instead of government funding to pay for aspects of the energy transition, including low or zero-cost financing for utility infrastructure.

### **DER Aggregation Financed by Rate-Reduction Bond**

- Uses Rate Reduction Bonds(RRB) proceeds, as proposed in the EAll, to provide loans through the Mass Save program for solar and storage, prioritizing customers in areas facing capacity constraints. The RRBs are repaid through utility bills of participating customers.
- Mitigates peak demand and deploys solar and storage systems in lieu of traditional utility investments (e.g. non-wires alternative). Revenues generated by DERs would reduce participants' annual electricity bills.

- **Question: Should the FAWG continue work to explore these two alternatives, at this time?**



# Financing the Transition FAWG: Small Group Discussion Prompt

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What **issues**, **criteria**, and/or **outcomes** are most important for the FAWG to consider as it develops recommendations re: this list of alternatives for Phase 3 (e.g., near-term affordability, overall cost, feasibility of approach, etc.)?

Should the FAWG move forward with the two additional approaches surfaced by FAWG members, at this time?





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## **Presentation and Discussion on Enabling Sustainable Economic Development (ESED) FAWG – Inform**

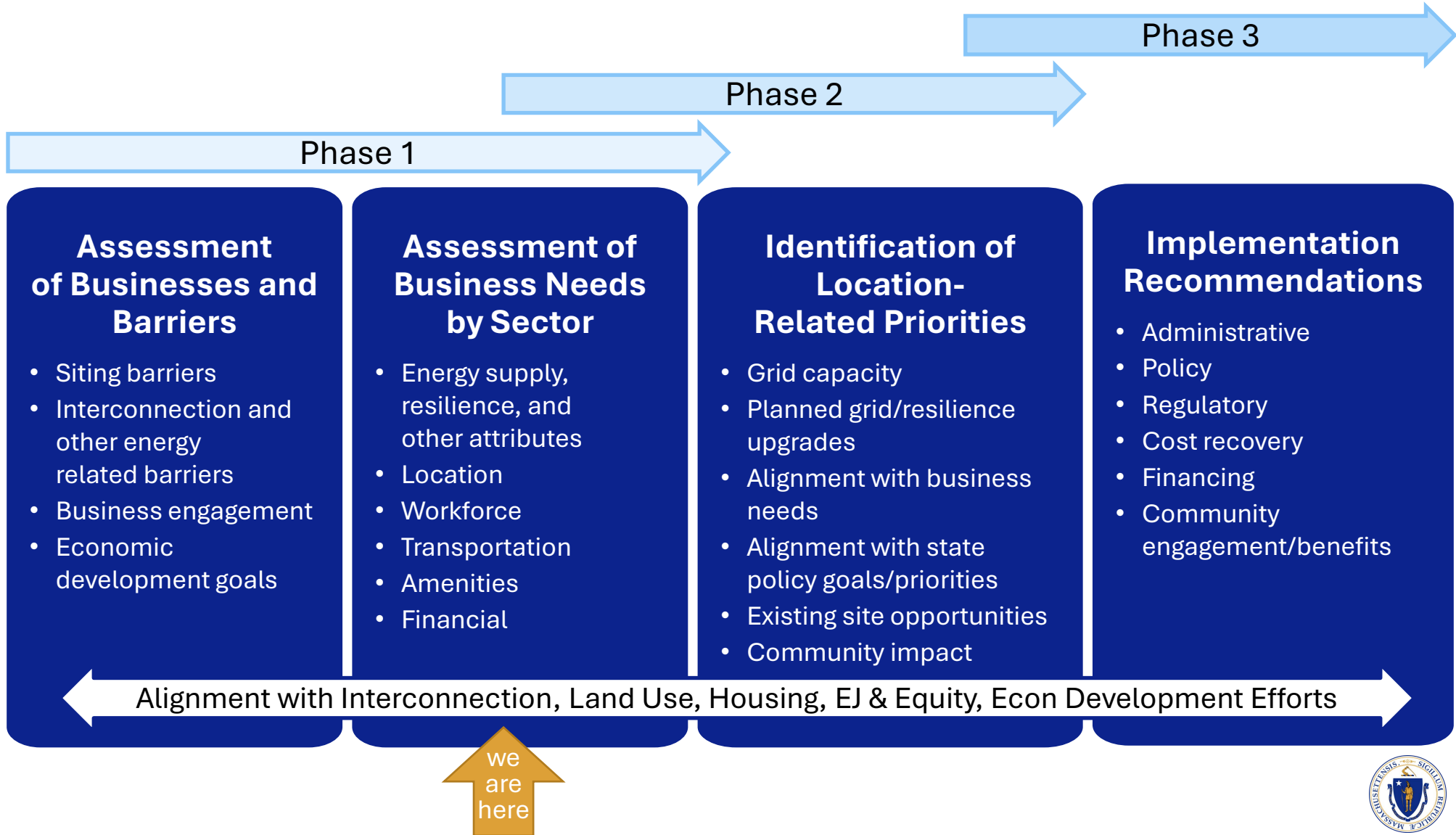


# Enabling Sustainable Economic Development FAWG: Topics to be Covered and Discussed

Topic	Advisory Board Request or Discussion Point
1. Progress Report	<b>Inform (pre-rad only)</b> <ul style="list-style-type: none"><li>• Overview &amp; Status</li><li>• Phase 1 Activities Since Last Advisory Board Meeting</li><li>• Phase 1 Objectives and Outcomes to Date</li></ul>
2. Reminder of Mission and Topic Issue	Inform during Advisory Board meeting
3. Takeaways from Focus Group Discussions	Inform during Advisory Board meeting
4. Key Takeaways and Next Steps for FAWG	Inform during Advisory Board meeting



# Enabling Sustainable Economic Development FAWG: Workplan Reminder and Status



# Enabling Sustainable Economic Development FAWG: Reminder of Issue Overview and FAWG Mission

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- Massachusetts aims to grow its economy by expanding and attracting business in sectors such as advanced manufacturing, life sciences, climatetech, and AI, aligned with climate goals and other state priorities.
- **The process for connecting new customer load to the electric grid can slow economic development** due to lengthy timelines and costly grid upgrades.



To advance clean energy-ready economic development zones that enable key business sectors to grow in Massachusetts, in alignment with the state's interconnection, land use planning, environmental justice and equity, housing, and economic development initiatives.





# Enabling Sustainable Economic Development FAWG: The Risk Gap

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## UTILITY

Requires customer commitment and payment before making grid investment to make prudence case for cost recovery at DPU.

GAP

***Result:*** Grid upgrades are not made prospectively



## BUSINESS

Upfront payment and uncertainty around timing and magnitude of cost for grid upgrades may present a financial barrier, especially before new project is operational.



# Enabling Sustainable Economic Development FAWG:

## Topics Reviewed with FAWG

Examples of Current MA Policies and Regulations	Examples of Current MA Economic Development Offerings	Examples of Other States' Economic Development Offerings
<ul style="list-style-type: none"><li>• Current load connection process</li><li>• Building Energy Codes and Standards</li><li>• Electric Sector Modernization Plans (ESMPs)</li><li>• Capital Investment Project (CIP) cost allocation mechanism</li><li>• Transportation Electrification Plans</li></ul>	<ul style="list-style-type: none"><li>• Commonwealth Site Readiness Fund</li><li>• Passive House Incentive Program</li><li>• Green Communities</li><li>• BioReady Communities (MassBio)</li><li>• ReadyMass 100 (MassEcon)</li><li>• Devens Community (MassEcon)</li></ul>	<ul style="list-style-type: none"><li>• Economic development rates</li><li>• Certified sites programs</li><li>• Clean energy tariffs</li><li>• Data center offtake agreements</li></ul>



# Enabling Sustainable Economic Development FAWG: Business Focus Group Update

OET engaged ~19 businesses across 5 sector-specific focus groups between July and September to gain perspective on needs and challenges related to, for example, energy availability and access, siting, and interconnection.

Climatetech	Manufacturing	Healthcare & Life Sciences	Housing / Real Estate Development	AI / Data Centers (upcoming)
<ul style="list-style-type: none"><li>• Sublime Systems</li><li>• FirstLight Energy</li><li>• Form Energy</li><li>• Sense</li><li>• Schneider Electric</li><li>• Commonwealth Fusion Systems*</li></ul>	<ul style="list-style-type: none"><li>• Raytheon</li><li>• Kinefac</li><li>• Design Communications</li><li>• Proctor &amp; Gamble</li><li>• Specialty Minerals</li></ul>	<ul style="list-style-type: none"><li>• Beth Israel Lahey Health</li><li>• Southcoast Health</li><li>• Johnson &amp; Johnson**</li><li>• Berkshire Health Systems**</li></ul>	<ul style="list-style-type: none"><li>• JLL</li><li>• MassDevelopment</li><li>• Lupoli</li><li>• HYM**</li></ul>	<ul style="list-style-type: none"><li>• Google</li></ul>

\*Held separate meeting

\*\*Unable to attend focus group session

Other companies invited included: Elevate, New Balance, Takeda, EMD Serono, Wayfinders, A.D. Makepeace Company, Cabot Cabot & Forbes, Amazon, Dell Technologies, Mitre, Verizon, and AutoDesk



# Enabling Sustainable Economic Development FAWG: Business Focus Group Takeaways

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- While each sector had unique needs/issues, there were many commonalities, including:
  - Energy costs
  - Capacity constraints for new site development/expansion
  - Inability to obtain timely interconnection/ infrastructure cost estimates for “go/no-go” decision-making
  - Challenges with multiple hand-offs (both utility and broader site permitting/infrastructure coordination)
  - Other: permitting timeline, talent, clusters, access to transportation, other infrastructure



# Enabling Sustainable Economic Development FAWG: Overall Takeaways and Next Steps for FAWG

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- Need for proactive grid planning to mitigate risk gap that exists between utilities and businesses and can stall development.
- Massachusetts lacks sufficient sites over 100 acres with adequate power to attract large business; strategic alignment of energy supply and site development is needed.
- Massachusetts has success stories and proven models.

**Near-Term Next Steps:** Synthesize background information, identify key gaps, and develop strategy(ies) for clean energy-ready zones including: 1) potential sites, 2) economic development rate offerings, and 3) regulatory models to support the proactive build out of clean energy and related infrastructure.

**Long-Term Next Steps:** Make recommendations to the Advisory Board on mechanisms to advance clean energy-ready economic development zones in Massachusetts, in alignment with broader state goals.





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## 10-Minute Break

We will return at 2:35 PM







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# Small Group Discussions on FAWG Progress



# Small Group Discussions on FAWG Progress Format

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- Advisory Board Members split into groups of ~8-10 for small group discussions (both in-person and remote).
- Subject Matter Experts associated with the EMT, DTP, and FTT FAWGs will rotate among the tables to facilitate conversations on their respected focus areas. **Advisory Board Members stay at their tables (do not move).**
- Each table will have an opportunity to discuss and provide feedback on each of these three focus areas.
- After the first “round,” rotating SMEs will update subsequent small groups they visit on input they already received, to help conversation build on each other.
- Facilitators will consolidate the feedback heard across the groups and report out to the full Advisory Board.
- After Report-out, Advisory Board will decide on aspects of next steps/direction for each FAWG.

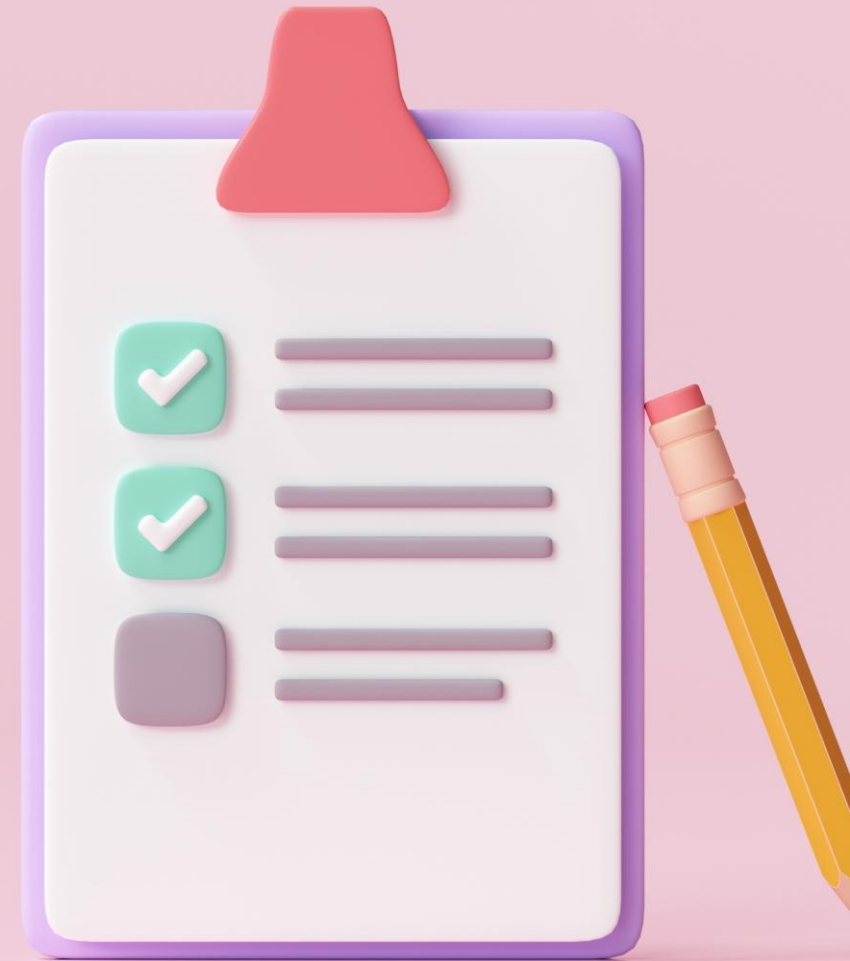


# Small Group Discussions on FAWG Progress Prompts

EMT	DTP	FTT
<p>What are key takeaways of Advisory Board members on the initial assessments and high-level findings?</p> <p>Given initial findings, what are potential areas of focus for Phase 3 (e.g., ways in which to reduce costs to gas ratepayers, accelerate demand reduction, etc.)?</p>	<p>Are there any clarifying questions on progress to date with the DTP FAWG or next steps?</p> <p>How should the FAWG balance short vs. longer-term options to curb fossil fuel use at these facilities?</p>	<p>What issues, criteria, and/or outcomes are most important for the FAWG to consider as it develops recommendations re: this list of alternatives for Phase 3 (e.g., near-term affordability, overall cost, feasibility of approach, etc.)?</p> <p>Should the FAWG move forward with the two additional approaches surfaced by FAWG members, at this time?</p>



## Small Group Report Outs





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## **Voting/Decisions and Next Steps**



# Everett Marine Terminal FAWG: Report Out and Next Step Recommendations – Inform/Decide

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## Decide

Based on small group discussion takeaways, Advisory Board members will provide initial recommendations for areas of focus for Phase 3 work.





# Decarbonizing the Peak FAWG:

## Report Out and Next Step Recommendations – Decide

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### Decide

Given information provided and small group discussion, does the Advisory Board agree with the direction of and approach for next steps, including using facility-level information to inform system-level alternatives, pathways, and policy needs?



# Financing the Transition FAWG:

## Discussion and Recommend/Decide

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### Recommend/Decide

- 1) Affirm the FAWG's application of the assessment criteria.
- 2) Align on prioritization of outcomes to assist with Phase 3 deliberations.
- 3) Vote on advancing two additional alternative approaches for further consideration, at this time.
  - DER Aggregation financed by RRBs
  - GHG Fee/SRF





**THANK YOU!**

