

# GMAC MEETING BACKGROUND:

## INTEGRATED ENERGY PLANNING



**JUNE 2025**

### BACKGROUND

#### INTEGRATED ENERGY PLANNING OVERVIEW

The achievement of Massachusetts' 2050 climate goals requires GHG reductions across all sectors of the economy. By 2030, residential heating and cooling, commercial and industrial heating and cooling, and electric power must reduce their emissions by 49%, 49%, and 70% respectively relative to 1990 levels. To achieve these reductions, many end uses that rely on natural gas, such as space and water heating, will need to be electrified.

IEP in Massachusetts is driven by the [2022 Climate Law](#) and [D.P.U. Order 20-80-B](#).

The electric grid is owned and operated by electric distribution companies (EDC) and municipal light plants (MLP). The gas grid is owned and operated by local distribution companies (LDC). Because electric and gas distribution companies operate as financially independent and geographically distinct companies (even if they share the same brand name), coordination between EDCs and LDCs can be difficult.

*Integrated energy planning (IEP) is “a process to optimize gas, electric, and decarbonization investments that achieve the Commonwealth’s clean energy goals.”*

*Source: [DPU Order 24-10/11/12](#). Aug. 29, 2024. p. 150*

The maps on the last page provide a comparison of the service territories of the gas and electric distribution companies.

#### GAS UTILITY CLIMATE COMPLIANCE PLANS

The Department of Public Utilities' Order 20-80-B directed the LDCs to create Climate Compliance Plans (CCP). The CCPs must address how the LDCs will meet their emissions reduction mandate, satisfy customer demand, create demonstration projects of potential investment alternatives, evaluate performance metrics, and implement recommendations.

LDCs filed the first CCPs on April 1, 2025, and included the following information:

- For each LDC, Individualized Strategic Plans to propose how it will reduce GHG emissions
- A Non-Pipeline Alternative (NPA) framework to evaluate and implement alternatives to traditional gas investments
- A Model Tariff to recover costs associated with developing the CCPs and implementing the NPA Framework
- A study presenting transition costs for several scenarios and detailing the implications of various accelerated depreciation and cost recovery techniques on ratepayers.

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## NON-PIPELINE ALTERNATIVES

Non-pipeline alternatives (NPA) are alternatives to traditional gas infrastructure investment, such as electrification, geothermal networks, or energy efficiency. NPAs can avoid stranded investments or reduce gas usage in specific geographic areas.

As directed by Order 20-80-B, before making any new gas system investments, the LDCs must consider NPAs. If the LDC proves that an NPA is non-viable or cost-prohibitive, then it is permitted to move ahead with the traditional gas investment.

The [NPA working group](#) met monthly between October 2024 and March 2025 to develop an [NPA framework](#), which describes how to identify and implement NPAs.

## COMPARISON OF ELECTRIC AND GAS PLANNING DOCUMENTS

Electric Sector Modernization Plans (ESMP) and CCPs are both intended to be long-term planning documents that highlight solutions to challenges faced by the electric and gas industries, respectively.

IEP has a large scope, including the ESMPs and CCPs, but also including other utility working groups, stakeholder groups, and D.P.U. dockets. The boxes below provide a high-level comparison of the documents and their development process.

### Both the ESMPs and CCPs were directed to:

- Be prepared every five years
- Incorporate stakeholder input
- Balance decarbonization goals and affordability
- Encourage cost-effective investments
- Conduct short- and long-term forecasting
- Promote electrification demonstration projects
- Consider building and industrial electrification
- Considers energy efficiency and heat pumps as alternative investments to capital projects

### The ESMPs but not the CCPs were directed to:

- Consider distributed generation and storage as alternative investments to capital projects
- Consider electrification of non-natural gas end uses such as electric vehicles

### The CCPs but not the ESMPs were directed to:

- Consider targeted electrification, networked geothermal, and low-carbon fuels as alternative investments to capital projects
- Investigate alternative depreciation schedules of investments
- Assess investments via NPA framework

## CHALLENGES TO INTEGRATED ENERGY PLANNING

Few states are as far along as Massachusetts in addressing the challenges of gas-electric planning, which means Massachusetts may be the first to tackle difficult legal and analytical questions. Further, gas and electric planning processes have been siloed and there is inertia in current planning processes.

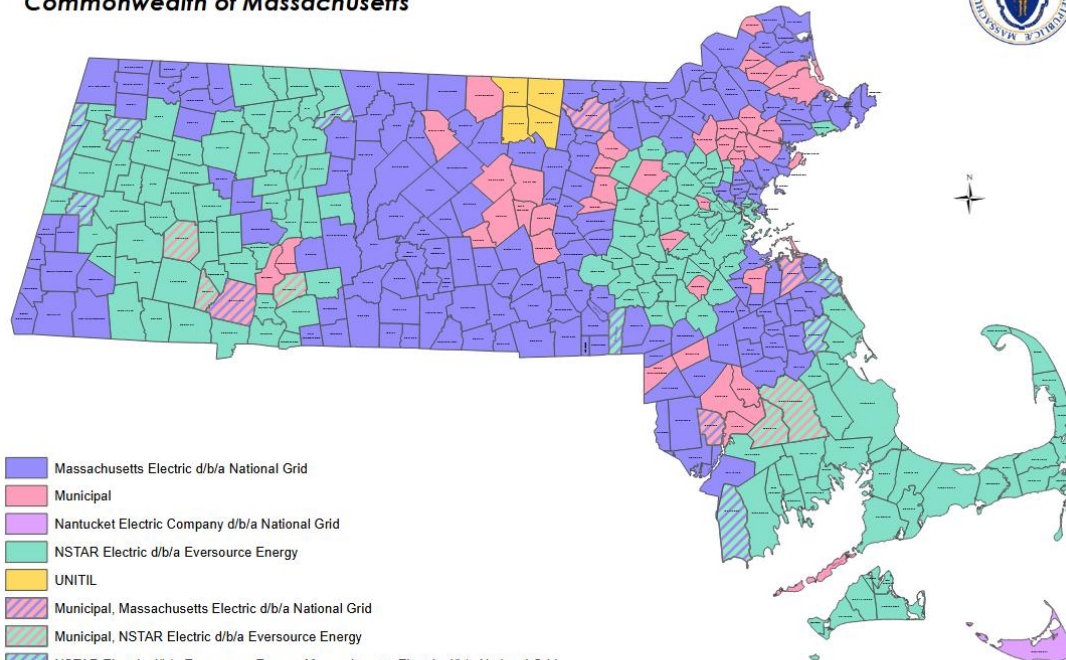
As customers depart the gas system, remaining customers are likely to see gas bills increase dramatically due to reduced LDC revenue and steady fixed costs being spread among fewer customers. Low-income customers and customers in Environmental Justice Communities may be disproportionately impacted by these rising costs if they are unable to overcome financial and logistical barriers to electrification.

Lastly, the need for 100% voluntary customer participation to implement NPAs due to the LDCs' current obligation to serve is a barrier to large-scale gas decommissioning.

# ELECTRIC AND GAS DISTRIBUTION COMPANY SERVICE TERRITORIES

## Electricity Providers by Municipality

Commonwealth of Massachusetts



- Massachusetts Electric d/b/a National Grid
- Municipal
- Nantucket Electric Company d/b/a National Grid
- NSTAR Electric d/b/a Eversource Energy
- UNITIL
- Municipal, Massachusetts Electric d/b/a National Grid
- Municipal, NSTAR Electric d/b/a Eversource Energy
- NSTAR Electric d/b/a Eversource Energy, Massachusetts Electric d/b/a National Grid

Source: Massachusetts Department of Public Utilities, September 2021



**EOTSS**  
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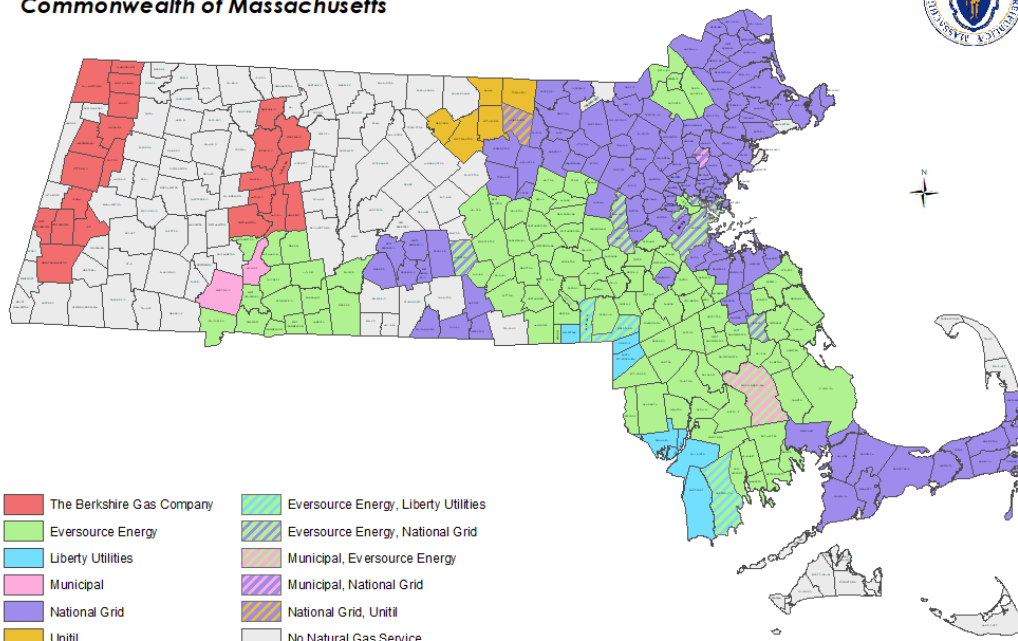
0 5 10 20 30 40 50 Miles

Map by MassGIS, 11/30/2021

Source: <https://www.mass.gov/doc/electricity-providers/download>

## Natural Gas Providers by Municipality

Commonwealth of Massachusetts



- The Berkshire Gas Company
- Eversource Energy
- Liberty Utilities
- Municipal
- National Grid
- Unitil
- Eversource Energy, Liberty Utilities
- Eversource Energy, National Grid
- Municipal, Eversource Energy
- Municipal, National Grid
- National Grid, Unitil
- No Natural Gas Service

Source: Massachusetts Department of Public Utilities, September 2021



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Map by MassGIS, 11/30/2021

Source: <https://www.mass.gov/doc/natural-gas-providers-png/download>