MREA
Maine Renewable Energy Association

Committee on Environmental and Natural Resources
% Legislative Information Office
100 State House Station
Augusta, ME 04333

February 25, 2026

Re: Public Hearing, LD 2174, Sponsor's Amendment: *An Act to Increase Predictability in the Permitting of Renewable Energy Development*

Dear Senator Tepler, Representative Doudera and Members of the Environment and Natural Resources Committee:

Thank you for the opportunity to share testimony in support of the sponsor's amendment to LD 2174, *An Act to Increase Predictability in the Permitting of Renewable Energy Development*, on behalf of the Maine Renewable Energy Association (MREA). MREA is a not-for-profit association of over 70 renewable energy producers, suppliers of goods and services to those producers, and other members of the renewable energy industry. Our member companies include wind, solar, hydropower, and biomass energy producers and developers of such projects, as well as companies that provide services to those producers, such as environmental engineers, electricians, and general contractors.

Renewable energy development including wind, solar, and battery energy storage in Maine is critical to meeting the state's renewable energy goals, building Maine's clean energy economy, and reducing rising electricity costs. Since 2011, Maine's renewable energy portfolio standard is estimated to have saved ratepayers more than $21 million annually in electricity costs, driven more than $100 million in direct investment, and supported over 1,000 jobs.[1] Electricity prices in Maine are primarily driven by natural gas. DOER reports that the cost of natural gas is expected to continue to rise. Maine can mitigate price volatility by diversifying its energy supply.[2] Investment in renewable energy is critical to this diversification.

It's important to remember, though, that ultimately these renewable energy developments are private investments. And like most private investment, one of the most

[1] *An Assessment of Maine's Renewable Portfolio Standard.* Sustainable Energy Advantage, LLC., 2024, available at: https://www.maine.gov/energy/sites/maine.gov.energy/files/inline-files/Maine-RPS-Impacts-and-Procurement-Policy-Options-Report-Master-FINAL.pdf, at iv.
[2] Murphy, Dean, et al., *Factors Driving Electricity Prices in Maine*. Brattle, 2026, available at: https://www.maine.gov/energy/sites/maine.gov.energy/files/2026-02/Factors%20Driving%20Electricity%20Prices%20in%20Maine%20Feb%202026%20Brattle%20for%20DOER.pdf

important factors in evaluating investment risk is regulatory predictability – predictability in time, expense, and outcome.

Feedback from MREA members is clear: They do not experience regulatory predictability in Maine, which either deters investment in the State or increases cost - and sometimes both - to the detriment of Maine's goals and pocketbook. Too often, years into project development - after spending tens of thousands of dollars in surveys, lease payments, and more - a state permit application process will take twice as long as anticipated or a town will enact a municipal ordinance that completely blocks that development. This lack of certainty in time, expense and outcome results in either financial losses that are too great for renewable energy developers to risk in investment or the increased risk and associated financial expense is passed on to consumers as higher electricity costs.

This bill proposes to bring much-needed predictability to the clean energy sector in Maine by: (1) Setting statutory permit processing time limits at the Maine Department of Environmental Protection (DEP) and the Maine Department of Agriculture, Conservation and Forestry (DACF) for wind, solar, and energy storage projects; (2) directing the DEP to establish a permit-by-rule under the Site Location of Development Act (SLODA) for solar projects no more than 100 acres and that do not trigger Tier 3 wetland review under the Natural Resources Protection Act (NRPA); and (3) limits the enforcement of standards in local land use ordinances to standards that are no stricter than DEP's environmental permitting standards for renewable energy projects.

1) Setting statutory permit processing timelines provides predictability in time, and therefore, expense.

A renewable energy development will often need to get multiple permits from state agencies for a single project, and a delay in any one of those permits can be extremely costly. This bill establishes processing time limits for permits under SLODA, NRPA, and stormwater management laws, as well as permits for solar energy development at DACF. The proposed statutory time limits are consistent with already established agency guidance. For example, most permits for renewable energy development under SLODA should be processed within 120 - 195 calendar days.[3] This bill proposes 180 calendar days. The statutory time limits, as opposed to published guidelines, provide the level of certainty that developers desire - certainty that reduces a project's risk profile and, by extension, the cost of the project.

Currently under 38 MRS §344-B, if DEP misses a deadline an applicant simply gets 50% of its permit processing fee returned and the DEP gets *an additional 120 days* to process the application. If the DEP misses that deadline, the applicant then may get a 100% reimbursement of their processing fee. This does not get the project to a yes or a no, which is what the developer really needs. This minor financial relief does not adequately compensate for significant delays. It is the not knowing for long periods of time that adds significant, and

[3]Maine Dep't of Environmental Protection, Processing Times for Licensing Applications, Effective Nov. 1, 2025 to October 1, 2026. Available at https://www.maine.gov/dep/processingtimes.pdf.

sometimes insurmountable, financial risk, such as deposits to the regional transmission providers and utilities that may be in the hundreds of thousands of dollars.

In addition to the statutory timeline, the bill proposes that if DEP fails to issue a decision within the applicable time limit, then the application is deemed approved. This is already the case at DACF under its permit-by-rule for developing solar on high value agricultural soils[4] and DEP's stormwater permits for any type of development. Understanding that there could be special circumstances that require more time, this bill allows for a mutually agreed upon 30 day extension and allows for additional time if a public hearing is needed.

2) DEP establishing a permit-by-rule for solar projects under SLODA provides predictability for applicants and relief for DEP staff.

A permit-by-rule (PBR) is a streamlined process for types of development in which the design does not vary greatly from site to site and the environmental impacts are well understood. Solar energy project is an ideal development type.

This bill directs DEP to establish a PBR program for solar projects under SLODA. To qualify, the solar project must not occupy more than 100 acres and must not require a Tier 3 review for freshwater wetland alternations under NRPA. Through rulemaking, DEP will establish criteria for a permit, and as long as that criteria is met, the permit will be approved. PBR is already in place at DACF under its permitting program for solar developments on high value agricultural land.[5]

Already existing PBRs under NPRA currently save significant time and agency resources at DEP. While DEP guidance indicates that individual permits typically take 120 days to process, a NRPA PBR is granted or denied within 20 working days.[6] A well-designed PBR program under SLODA for solar energy projects has the potential to provide much-needed relief to an over-burdened agency, as well as much-needed predictability for solar energy developers.

3) Limiting the enforcement of standards for renewable energy developments in local land use ordinances to those no stricter than DEP's standards provides predictability without compromising environmental protection.

The State of Maine is pursuing renewable energy precisely because it is good for the environment. No one - not the state, not the towns, not MREA members - want renewable energy generation projects to be developed without sufficient environmental guardrails – and DEP provides those guardrails through its current permitting requirements. For example, NRPA

---

[4]Department of Agriculture, Conservation and Forestry, Bureau of Agriculture, Food, and Rural Resources, Chapt. 575, Sec. 5.

[5] *Id.*

[6]Maine Dep't of Environmental Protection, Processing Times for Licensing Applications, Effective Nov. 1, 2025 to October 1, 2026. Available at https://www.maine.gov/dep/processingtimes.pdf.

doesn't allow "dredging, bulldozing, removing or displacing soil, sand, vegetation or other materials" adjacent to coastal wetland, great pond, river, stream or brook or significant wildlife habitat contained within a freshwater wetland, or certain freshwater wetlands without first getting a permit.[7] Significant wildlife habitat includes habitat for endangered species, for certain amphibians, for waterfowl, and for shorebirds.[8] SLODA already sets standards for "fitting the development harmoniously into the existing natural environment and that the development will not adversely affect existing uses, scenic character, air quality, water quality or other natural resources in the municipality or in neighboring municipalities" and noise and erosion.[9]

What our members find is that too often last minute local ordinance changes are not about reasonable and sound environmental protection – they are about stopping project development all together. Our members have tried multiple approaches to overcome this outcome. They report approaching towns early and working together in good faith, to build a strong renewable energy ordinance. Sometimes this works, and sometimes it doesn't. One example MREA has heard from members involves a developer that worked with a town in central Maine for two years on building an ordinance amendable to the town and the solar energy project. The ordinance was adopted. A small group of local opposition formed and amended the ordinance to kill the project without ever notifying the developer. That was two years of time, partnership, and investment, gone. Similar circumstances have been reported across the state, resulting in a chilling effect on renewable energy investment and development.

Some have also tried applying for and receiving municipal permits first– because that's where the majority of permitting risk lies. But even this approach is costly, because if the State, through DEP or otherwise, requires a change, the developer then has to amend its permit with the town.

The Legislature has recognized and overcome these types of statewide and local inconsistencies before. Under 38 M.R.S. § 1310-U, municipalities are prohibited from enacting standards for siting solid waste facilities that are stricter than rules adopted under that Chapter. Under 30-A M.R.S. § 4364-A municipalities are prohibited from applying housing density requirements that are different than those prescribed by the State, and in that same title §4352 renewable ocean energy projects are exempt from local ordinances if the Maine Public Utilities Commission determines that the exemption is reasonably necessary for public welfare and convenience.

Like these already existing provisions, this bill is not a blanket prohibition on municipal ordinances related to renewable energy projects. It is rather establishing that if a project is of the size and scope that it is subject to state standards *and that project meets all the state's standards* then the project has adequately met its regulatory obligations and will not be subject to above-and-beyond ordinances designed to prevent the project in the first place.

---

[7]See M.R.S. Title 38, Art.5-A.
[8]See 38 M.R.S. §480-B(10).
[9]38 M.R.S. §484(3).

Potential Friendly Amendments

MREA urges the committee to vote ought-to-pass-as-amended on LD 2174 and respectfully requests the committee's consideration of two additional minor amendments:

a) In Sec. 9 MREA suggests changing the number of calendar days that DACF has to process a permit from 150 to 90. Currently, under DACF's own guidance, it estimates that an individual permit will be processed in 30 calendar days;[10] and

b) In Sec. 11, MREA suggests changing "and" to "or" between 1 and 2This would allow for limited circumstances in which solar projects larger than 100 acres could qualify for a SLODA PBR, so long as the proposed development did not impact some subset of protected resources as determined by the Commission by rule.

Conclusion

Renewable energy is the best option for Maine's environment and energy independence, weaning us off fuels shipped in from out of state – that's why the Legislature set a goal for 100% clean and renewable energy by 2040.[11] It's important to remember, though, that ultimately these renewable energy developments projects are private investments. And like most private investment, one of the most important factors in evaluating investment risk is regulatory predictability – predictability in time, expense, and outcome. We can't just announce that we want renewable energy, we have to create the regulatory space for generation to occur.

Sincerely,

Eliza Donoghue

Eliza Donoghue
Executive Director

Attached

Murphy, Dean, et al., *Factors Driving Electricity Prices in Maine*. Brattle, 2026. Slide Deck, available in full at:
https://www.maine.gov/energy/sites/maine.gov.energy/files/2026-02/Factors%20Driving%20Electricity%20Prices%20in%20Maine%20Feb%202026%20Brattle%20for%20DOER.pdf

[10]Department of Agriculture, Conservation and Forestry, Bureau of Agriculture, Food, and Rural Resources, Chapt. 575, Sec. 5.
[11] 35-A M.R.S. §3210.

Factors Driving Electricity Prices in Maine

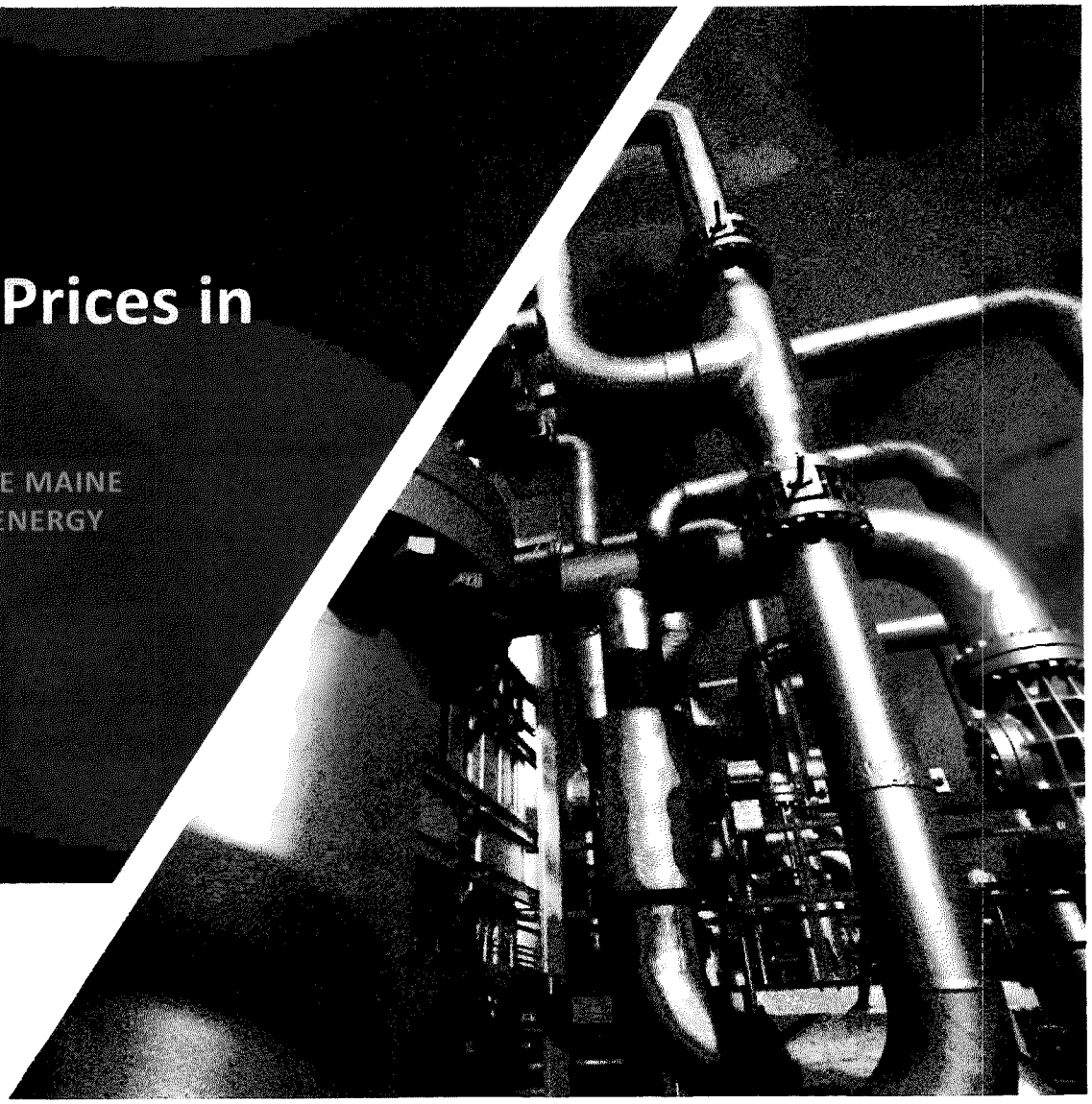
DEAN MURPHY

NOAH RAUSCHKOLB

PAIGE VINCENT

PREPARED FOR THE MAINE DEPARTMENT OF ENERGY RESOURCES

FEBRUARY 2026



Brattle

Overview

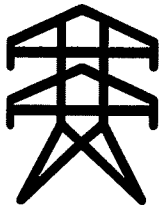
Electricity rates in Maine are under pressure due to a combination of factors, including dependence on fossil fuels for electricity generation, growing storm-related costs, aging infrastructure, and inflationary pressures

- Maine is part of the New England electricity grid, which is heavily dependent on natural gas for electricity generation and supply. This means Maine ratepayers take on substantial risk when gas prices rise.
  - Historic volatility in natural gas prices has been driven by winter storms, global competition, and (non-gas) generation outages
  - Future price increases will likely also be driven by increased national demand from data centers and expanded domestic LNG exports
- Transmission and distribution (T&D) charges are less volatile, but have been rising due to increased equipment and construction costs, aging infrastructure in need of replacement, and storm repairs

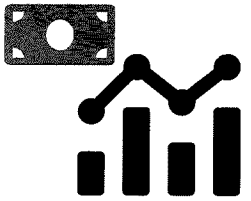
Maine can mitigate consumer risks by accelerating clean energy development, investing in load flexibility and cost-effective energy efficiency, and strategically electrifying end uses that rely on fossil fuels

FOSSIL FUEL DEPENDENCE

GROWING STORM COSTS



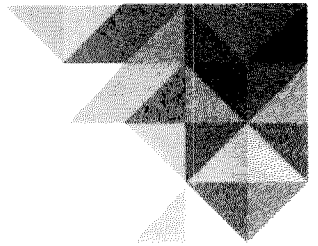
AGING INFRASTRUCTURE



INFLATION

FACTORS DRIVING ELECTRICITY PRICES IN MAINE

Understanding Electricity Bills in Maine (2015-2025)



Electricity bills in Maine include several different costs:[1]

- **Supply** (6-17¢ per-kWh): Reflects the cost of wholesale electricity purchased for utility customers.
  - This includes **energy** costs, which compensate generators for providing energy hour by hour; **capacity** costs, which are paid to ensure that there are enough generating facilities available to meet forecasted peak demand; and **ancillary service** costs, which pay for reliable and flexible power system operations.
  - A **Standard Offer Contract**, determined annually by the Maine Public Utility Commission through competitive procurements, sets Maine retail supply prices for most Maine households. The Standard Offer price reflects expectations of future short-term costs over the year, plus an implicit risk premium for buying at the volatile short-term price and reselling at the fixed Standard Offer price; this risk is primarily driven by natural gas prices.
- **Transmission** (2-4¢ per-kWh): Pays for the regional high-voltage transmission network. Rates are regulated by the Federal Energy Regulatory Commission (FERC).
- **Distribution** (5-8¢ per-kWh): Pays for the local delivery system (poles, wires, substations, metering, and customer service) and recovers the distribution utility's operations and maintenance costs as well as some storm costs. Rates are regulated by the Maine Public Utilities Commission (MPUC) and include an allowed rate of return on invested assets.
- **Stranded and Other** (0-2¢ per-kWh): Covers the cost of some long-term power contracts and provides support for renewable energy and energy assistance programs.

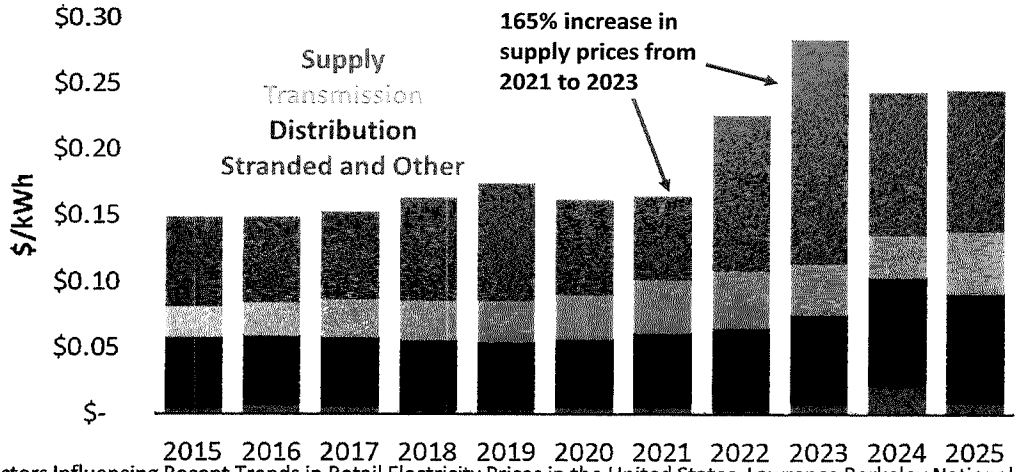
1. Ranges presented cover years 2015-2025, showing weighted average basic residential service rates across Maine Investor-Owned Utilities (Central Maine Power and Versant). Adapted from CMP Filing Average Price by Rate Class 2015-2024 and Versant Chapter 815 Report, March 2025. Weighted by annual load from Residential Electric Rates, Maine Public Utilities Commission, 2025.

FACTORS DRIVING ELECTRICITY PRICES IN MAINE

How Rates are Changing

- From 2021 to 2023, Maine supply prices nearly tripled, from 6.4¢ to 17¢ per-kWh, due to gas price increases – driven by global natural gas shortages caused by Russia's invasion of Ukraine
  - According to a recent report from LBNL,[1] volatility in natural gas prices contributed to a +/- 5¢ per-kWh swing in electricity prices in Maine between 2019-2024, causing uncertainty for consumers
- Transmission and distribution costs have also grown due to storm repair, storm hardening, and new transmission projects
  - These costs are more predictable than supply; once an investment is made, its cost is amortized over decades on a fixed depreciation schedule
  - Storm costs vary based on the frequency and intensity of extreme weather events. Costs associated with 2024 winter storm recovery currently cost the average residential CMP customer about $20 per month[2]

Average Maine Residential Electricity Rates by Component[3]

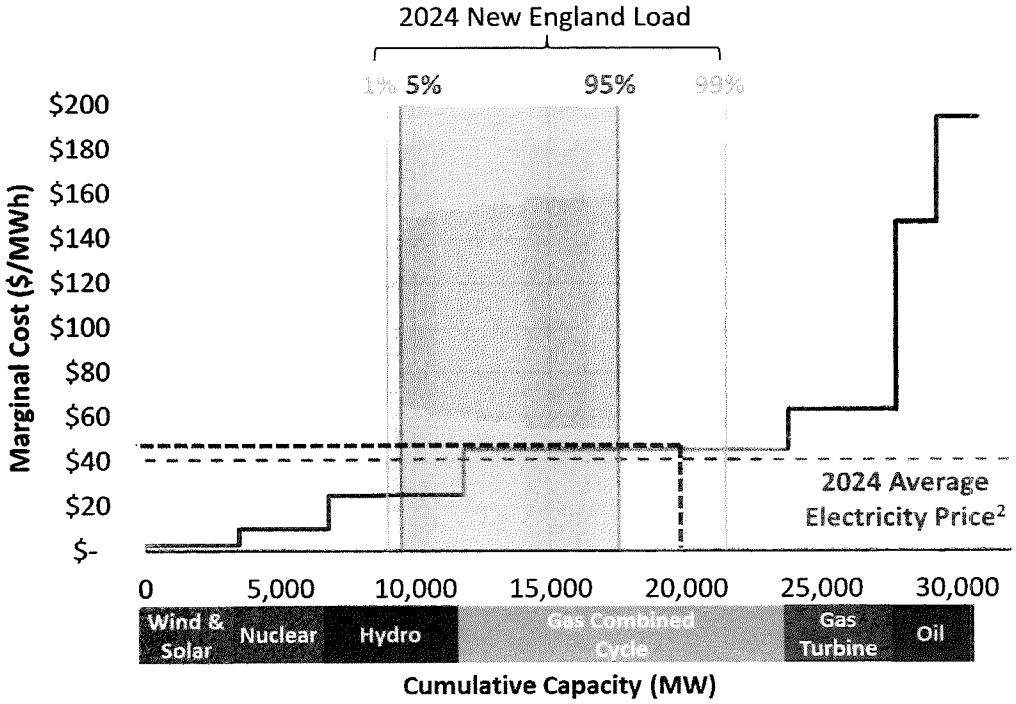


1. Factors Influencing Recent Trends in Retail Electricity Prices in the United States, Lawrence Berkeley National Laboratory, 2025
2. Electricity Prices FAQ, Maine Department of Energy Resources, 2025. Storm recovery costs are typically recovered over 1 to 3 years, whereas new distribution investments are recovered over much longer periods.
3. Weighted average of Residential Rate A electricity prices across Central Maine Power, Versant BHD, and Versant MPD. Prices for 2015-2024 adapted from CMP Filing Average Price by Rate Class 2015-2024 and Versant Chapter 815 Report, March 2025. Weighted by annual load from Residential Electric Rates, Maine Public Utilities Commission, 2025. Prices for 2025 are based on residential rates provided by DOER and weighed based on 2024 loads. Supply costs are determined by the Standard Offer Contract. Transmission costs cover the cost of maintenance and investments associated with high voltage wires and transformer equipment. Distribution costs are inclusive of distribution wires and infrastructure, and can include storm recovery costs. CMP "Stranded Costs and Other" include long-term power contracts, costs and benefits of renewable energy and energy assistance programs (Central Maine Power Annual Price Adjustments, July 2019). Versant "Stranded Costs and Other" include conservation costs, remaining costs from electricity industry restructuring and retired power plant costs. (Versant Power Rate Changes, September 2025).

Energy Supply Curve and Marginal Cost Pricing

- To minimize costs, electric generators in New England are dispatched based on *merit order*:
  - Resources with low/no fuel costs (such as wind, solar, and nuclear) dispatch first
  - Then more expensive resources such as combined cycle gas units and gas turbines dispatch as needed
  - At just the highest demand hours each year (or when natural gas is capacity constrained), high variable cost units such as oil-burning peaker plants must be dispatched
- All units are paid based on the market clearing price, governed by the variable cost of the **marginal generation resource** (the last unit dispatched), setting the **wholesale energy price**.
  - For example, in the illustrative chart on the right, if the demand equals 20,000 MW (the vertical red dashed line), all generators to the left of that point are dispatched and compensated at a *clearing price* of $45/MWh, including those with lower marginal costs
  - The Standard Offer price paid by Maine customers is determined in part by expectations of this wholesale price.

Illustrative Winter ISO-NE Merit Order[1]

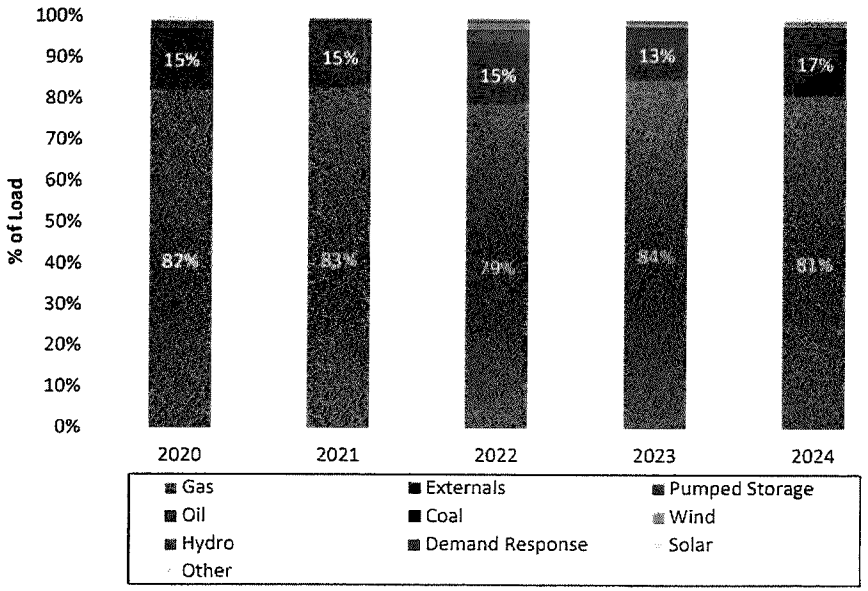


1. Illustrative marginal cost for New England assumes typical operating costs.
2. Based on day ahead locational marginal price

Natural Gas Drives Electricity Prices in New England

- In New England, the marginal generation resource is almost always fueled by natural gas
  - In 2023, natural gas was directly on the margin for 81% of load hours
  - Another 17% of marginal load hours were met by pumped storage; its price is determined indirectly by the natural gas price since it typically charges when gas is on the margin and shifts the power (and the price) in time
- The pipelines supplying natural gas to New England are capacity-constrained during winter cold spells, which causes gas prices to spike
  - During the coldest days of the year, natural gas prices are set by liquefied natural gas (LNG), which is far more expensive than pipeline gas due to the cost of liquefaction and transport
  - Adding new interstate pipeline capacity to New England would reduce the number of hours that prices are set by LNG. However, the potential operational cost savings should be weighed against the capital cost of the new infrastructure and associated risks.

New England Marginal Generation Resource[1]

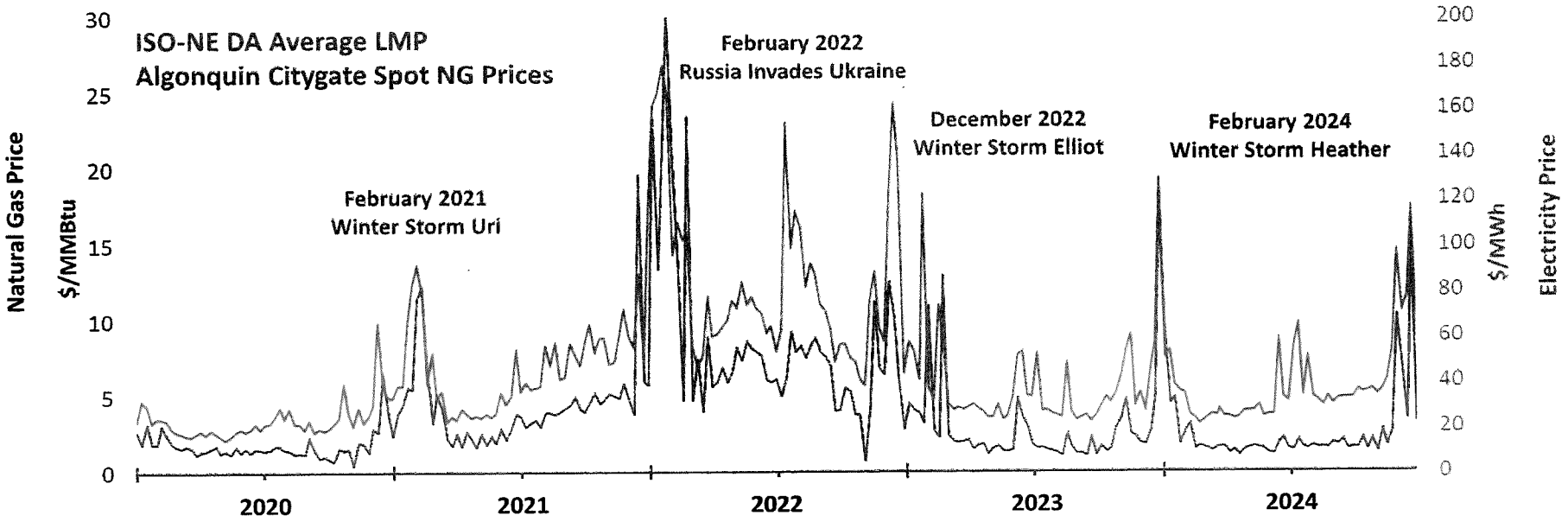


1. 2024 Annual Markets Report, ISO-NE. The contribution of each marginal resource is based on the total amount of load when that resource is setting the price. If more than one resource is marginal (when the system is constrained), the contribution of each marginal resource is based on the amount of load in each constrained area.

FACTORS DRIVING ELECTRICITY PRICES IN MAINE

Volatility in Natural Gas and Electricity Prices

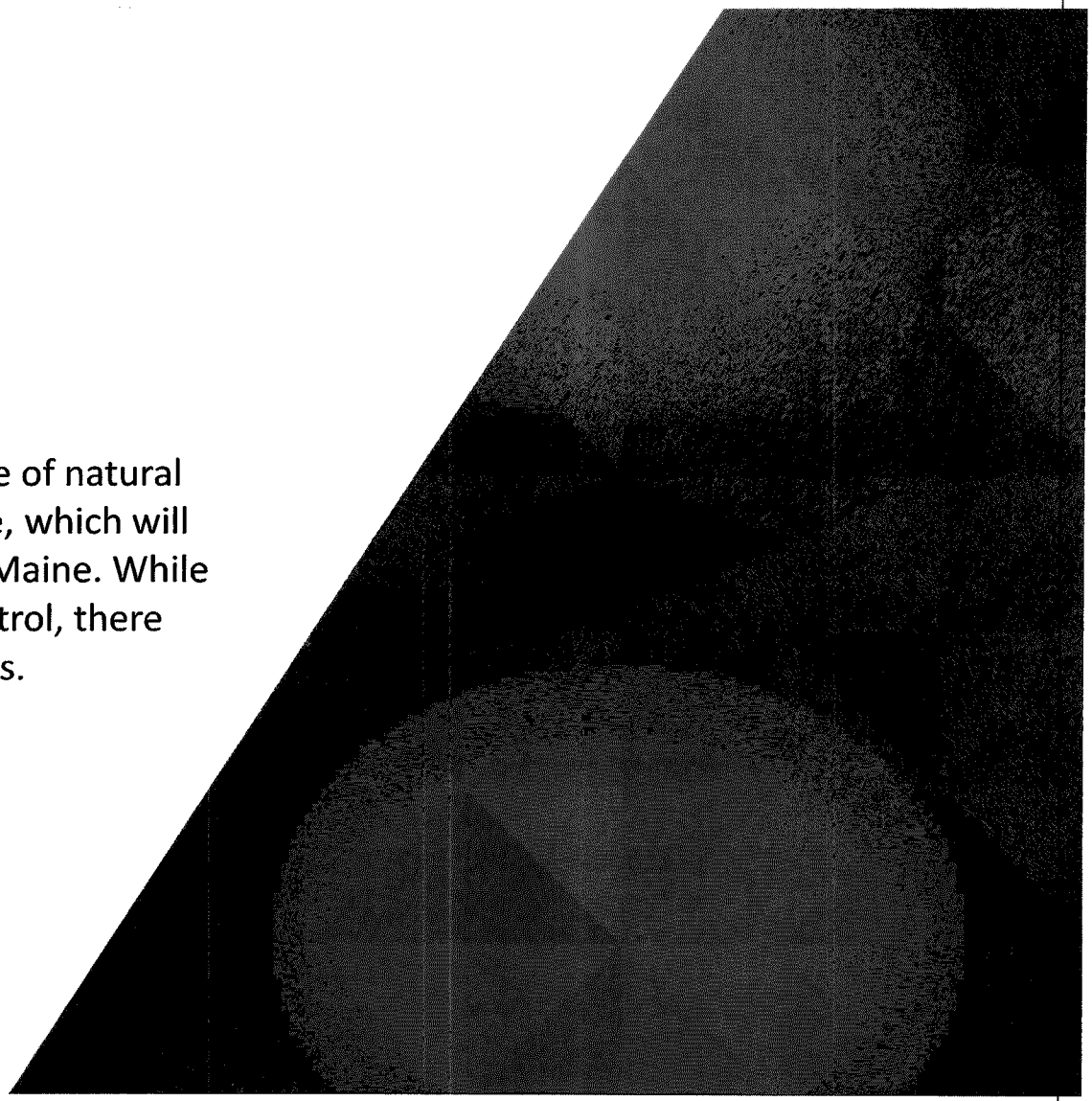
- Natural gas prices (and consequently, electricity prices) are volatile, driven by weather, pipeline constraints, geopolitical events, (non-gas) generator outages, and production disruptions (e.g., Winter Storm Uri)
- Due to pipeline constraints along the eastern seaboard, natural gas prices in New England are occasionally set by LNG, adding an additional source of volatility and risk for Maine ratepayers[1]



1. Previous studies have found that increasing natural gas pipeline capacity is less cost-effective than the current portfolio of market-based solutions, which includes limited use of dual fuel power plants and LNG to serve load during peak periods. Mass AG.

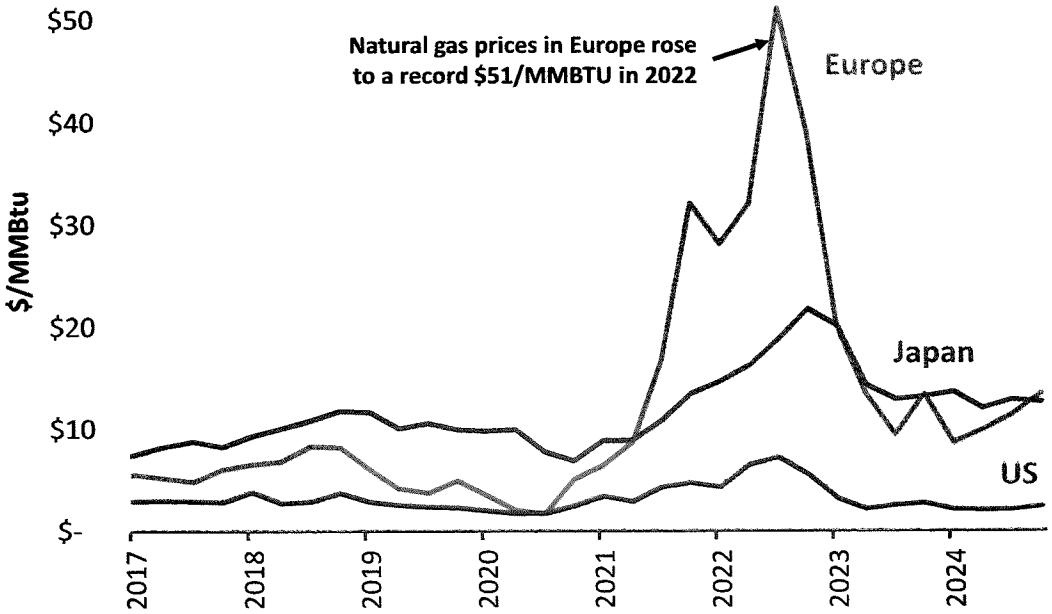
Emerging Trends

Several emerging trends indicate that the price of natural gas is likely to go up and become more volatile, which will make electricity more costly for customers in Maine. While many of these factors are outside Maine's control, there are steps the state can take to mitigate impacts.



Increased Liquefied Natural Gas (LNG) Exports

Monthly Average Natural Gas Prices in the U.S., Europe, and Japan[1]

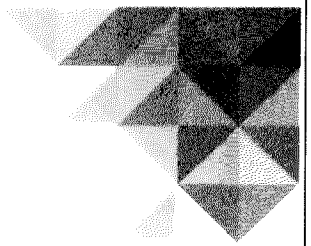


- U.S. natural gas prices have historically trended **significantly below global commodity prices**, enabling natural gas to become the key price-setting fuel for the electricity sector
  - After Russia's invasion of Ukraine, European gas prices shot up to a record $51/MMBTU
  - Japanese prices increased by a factor of three, as importers competed with Europe for LNG
  - U.S. prices[2] doubled, but remained well below international indices due to limited export capacity
- As the U.S. continues to increase its LNG export capacity (projected to more than double from the end of 2025 to 2031[3]), **U.S. consumers will compete more directly with foreign importers, who are willing to pay significantly more for the same commodity**
  - This will drive up U.S. pipeline natural gas prices, which will then raise electricity prices

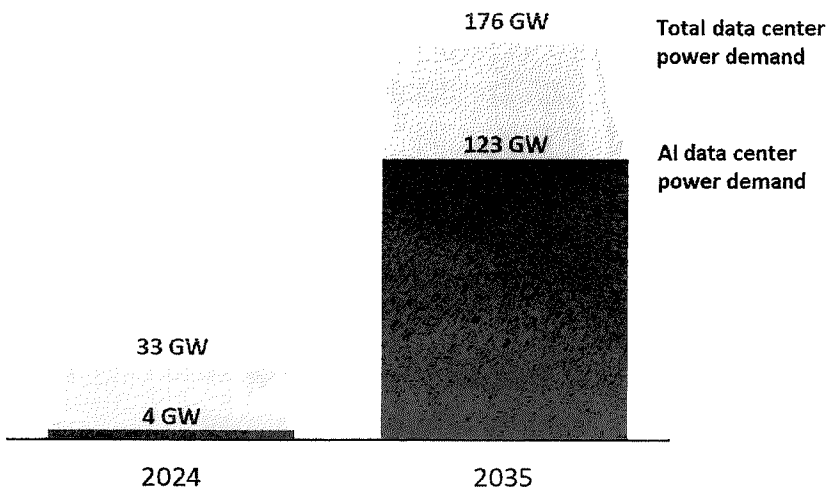
1. Data from on World Bank Commodity Markets Outlook Pink Sheets Natural Gas data 2017-2024.
2. Based on the Henry Hub index in Louisiana
3. EIA U.S. Liquefaction Capacity Data, Q4 2025

FACTORS DRIVING ELECTRICITY PRICES IN MAINE

Data Center Load Growth



Data Center Demand Forecast[1]



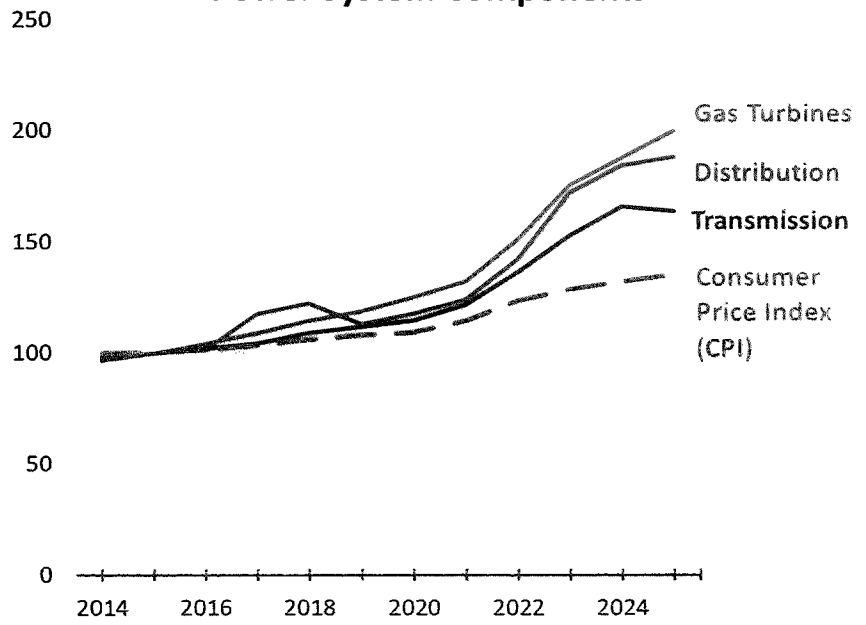
- Electricity demand from data centers has been forecasted to increase by 5x by 2035, to 176 GW[1], adding ~23% to U.S. peak coincident demand (760 GW today[2])
- Load growth from data centers is already impacting supply prices in PJM, and is likely to increase the cost of natural gas, and electricity, elsewhere in the country
- Even if most new data centers are built outside of New England, increased national electricity demand from these large loads may drive up natural gas prices (and therefore electricity prices) across North America
- Increased natural gas demand from data centers is generally viewed as a secondary effect to LNG exports in the short-run, but could become very significant in the long-run if demand growth persists[3,4]

1. Adapted from Deloitte 2025 AI Infrastructure Survey.
2. "Today in Energy: U.S. electricity peak demand set new records twice in July" U.S. Energy Information Administration, August 5, 2025.
3. Data Centers Driving U.S. Gas: Hyperscale or Over-Hyped?, Citi Group
4. Data centers to lift US gas demand, but LNG looms larger, analysts say, S&P Capital IQ

Rising Equipment Costs

- The cost of transmission and distribution equipment has risen over the last 10 years, **substantially outpacing inflation.**
  - The U.S. imports power system components from a global market, where prices have been increasing with growing electricity demand.[1] For example, the global price of copper (a key input for both transformers and wires) has increased by ~50% since 2016.[2]
- **The cost of new gas generating capacity has risen even more**
  - The price of gas turbines has increased by 46% over the last decade, due to increased global demand and constrained supply. Presently, firms are waiting 5+ years for new gas turbines.
- **While renewables have seen prices fall** over the last decade, shifting dynamics are driving up costs more recently.
  - According to EIA estimates[3], the *overnight capital cost* of new wind turbines and solar photovoltaic arrays have decreased by 21% and 56% respectively since 2016
  - However, rising interest rates and inflation[4], tariffs on steel and other components[5], and interconnection delays[6] have been driving up development costs over the past several years
  - The One Big Beautiful Bill Act made changes to federal energy policy (including removing tax incentives for wind and solar) that are expected to increase development costs by 30% or more

Producer Price Indices for Major Power System Components[7]



1. Wood Mackenzie, Transformer troubles: manufacturing and policy constraints hit US transformer supply
2. Indices of Market Prices for Non-Fuel and Fuel Commodities, 2021-2025, International Monetary Fund. All percent changes adjusted for inflation based on U.S. CPI.
3. Based on EIA AEO Cost and Performance Characteristics of New Generating Technologies, 2020, 2024
4. NREL, Offshore Wind Market Report: 2024 Edition
5. Berkeley Haas Energy Institute, Tariff Trial and Error in the Solar Energy Sector
6. LBNL, Queued Up: 2024 Edition
7. PPIs from Whitman, Requardt & Associates, LLP, "The Handy-Whitman Index of Public Utility Construction Costs." CPI data from FRED.

Potential Considerations to Manage Energy Costs

Transition to Renewables

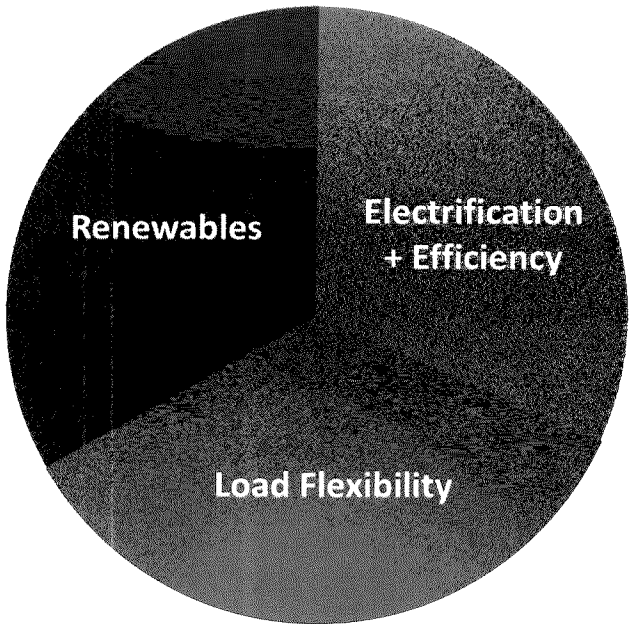
- Renewables displace energy production from thermal plants, which means Maine ratepayers will be less exposed to volatility in natural gas prices
- Cancellation of federal tax credits and support for renewables will make electricity generation more expensive. This makes it more important for Maine to streamline the development process for renewables (reducing administrative costs) and enable developers to be able to tap into other capital pools

Invest in Load Flexibility

- A 2025 Brattle report finds that load flexibility in Maine can substantially reduce costs across the generation, transmission, and distribution systems[1]
- Virtual power plant (VPP) capacity used to serve peak load costs ~40–60% of the cost of gas peakers and utility-scale batteries[2]. Adopting a strategy that employs load flexibility can mitigate the need for utilities to install costly new electrical equipment.

Adopt Economical Electrification and Energy Efficiency

- Because fuel oil and propane boilers are more costly to operate than electric heat pumps, shifting customers from these systems to heat pumps can reduce energy expenses, even if electricity prices rise[1]



1. Maine Pathways to 2040: Analysis and Insights, The Brattle Group (January 2025)
2. Real Reliability: The Value of Virtual Power, The Brattle Group (May 2023)