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For a thriving New England

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May 12, 2015

The Honorable Benjamin B. Downing
Chair, Joint Committee on Telecommunications
Utilities & Energy
State House, Room 413F
Boston, MA 02133

The Honorable Thomas A. Golden, Jr.
Chair, Joint Committee on Telecommunications
Utilities & Energy
State House, Room 473B
Boston, MA 02133

Re: Joint Committee on Telecommunications, Utilities and Energy Hearing, May 12, 2015

The Conservation Law Foundation ("CLF") appreciates this opportunity to provide testimony to the Joint Committee on Telecommunications, Utilities and Energy on the energy issues facing the Commonwealth today.

In addition to our experience in energy law and policy, CLF is a member of NEPOOL's end-user sector and has been extensively engaged in stakeholder discussions at NEPOOL and ISO-NE committees regarding the gas and electricity market issues presented by this hearing over the past several years.

With regard to the questions facing the Commonwealth around natural gas infrastructure and our energy future, the facts are much less supportive of large public investments in natural gas infrastructure than is commonly understood, especially after a winter where wholesale prices dropped by half. There is a role for state leaders, working alongside New England's energy markets, to define the proper and, in the medium to long term, declining role of natural gas in our energy system. It is important to avoid overspending and stranded costs, and this approach will also enable us to meet our climate goals.

A winter energy crisis? Understanding where we really are in terms of energy costs

While our region's retail energy rates relative to those in other states have been used as a scare tactic to support overbuilding natural gas infrastructure, energy bills in Massachusetts and New England are in fact average for the US and in line with bills in regions with similar climates (as illustrated in the following figures).

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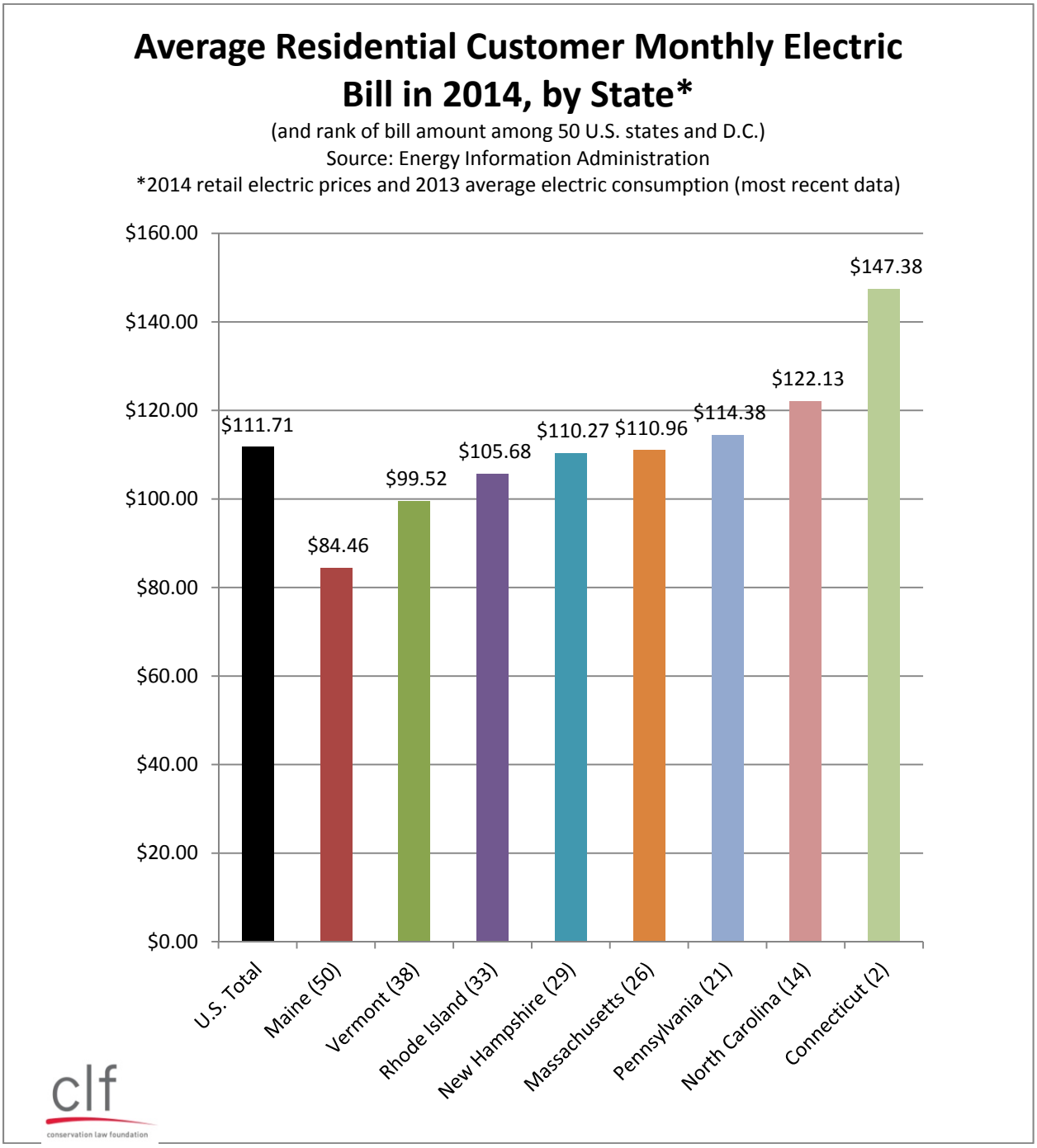

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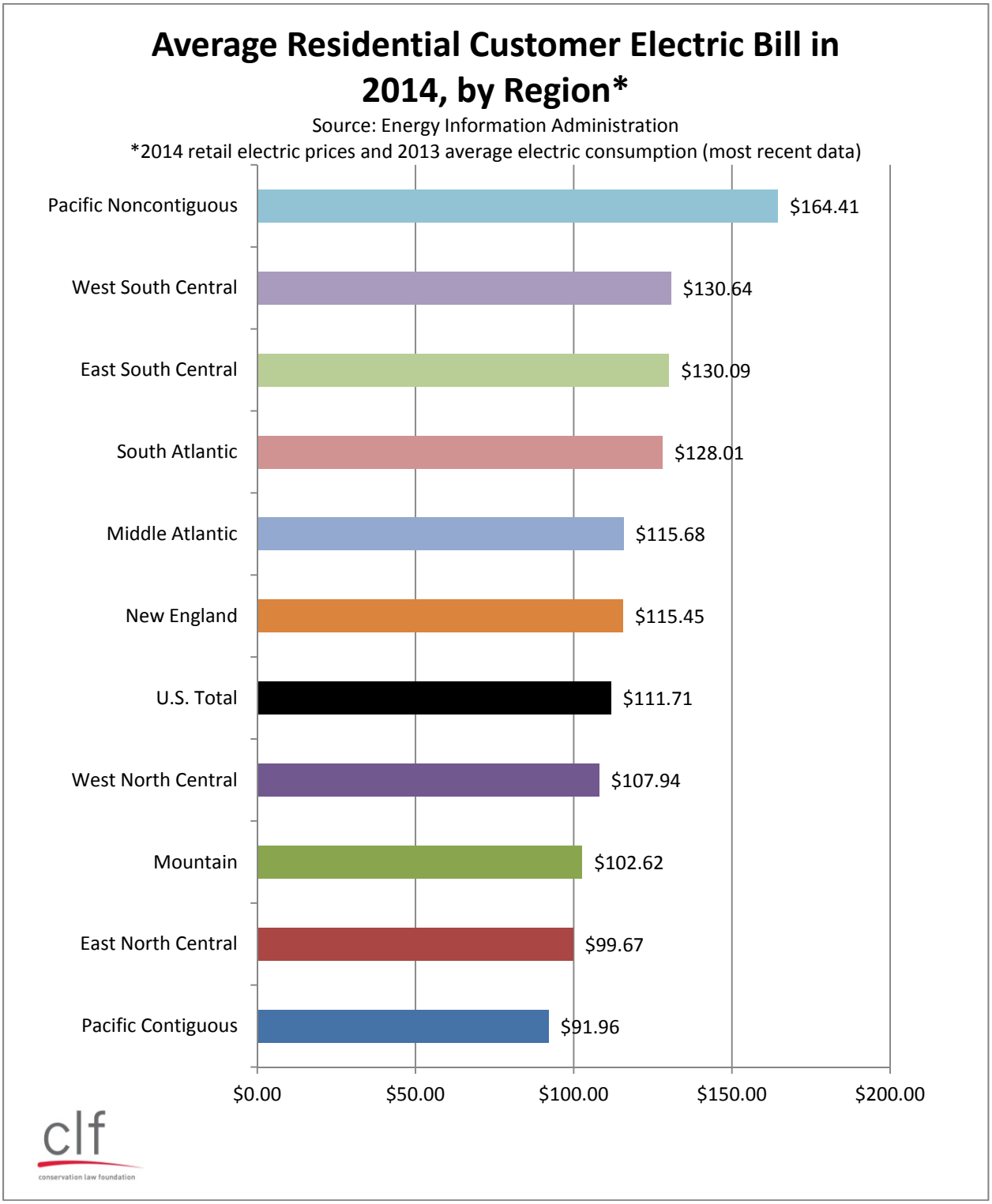

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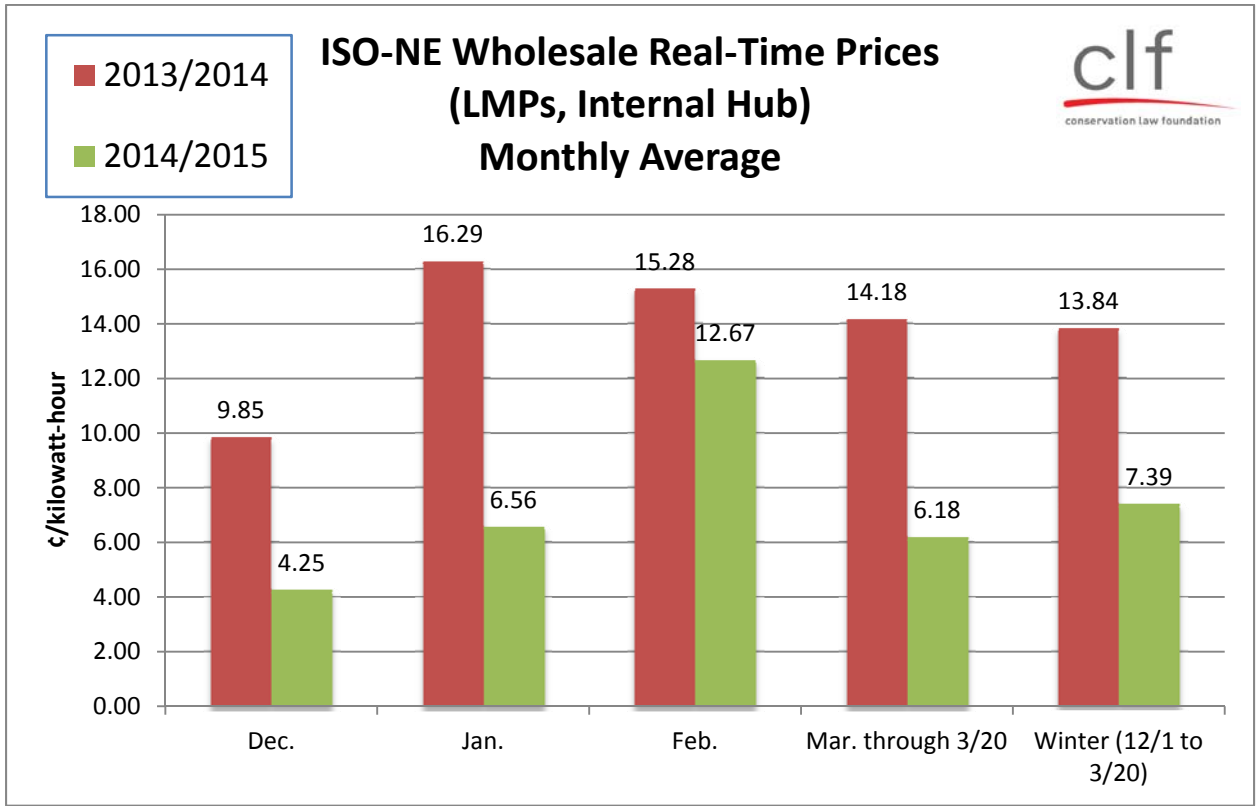
The steep increase in winter retail electric rates for this past winter in New England is a function of the natural gas futures market hitting a zenith in November of 2014. Actual wholesale prices were significantly lower this winter due to policy and market measures discussed later in this testimony, and this is already helping lower futures estimates so that next winter's retail rates will be lower.



The most cost-effective response to the experience of the past two winters in New England is to continue to improve the performance of our electricity and gas markets during the coldest days of the winter, not to overbuild natural gas pipeline capacity.

The winter performance of the energy markets in regions outside New England further illustrates this point. During this February (as in the previous winter), PJM and NYISO experienced price spikes at the same time as New England did, with spot wholesale electric prices sometimes exceeding New England prices. This is a strong indicator that more gas infrastructure does not necessarily result in much lower natural gas or wholesale power prices. The very mild 2011-2012 winter, with the lowest wholesale prices in history and lower-than-normal heating loads, is not an accurate benchmark for market conditions in very cold New England weather.

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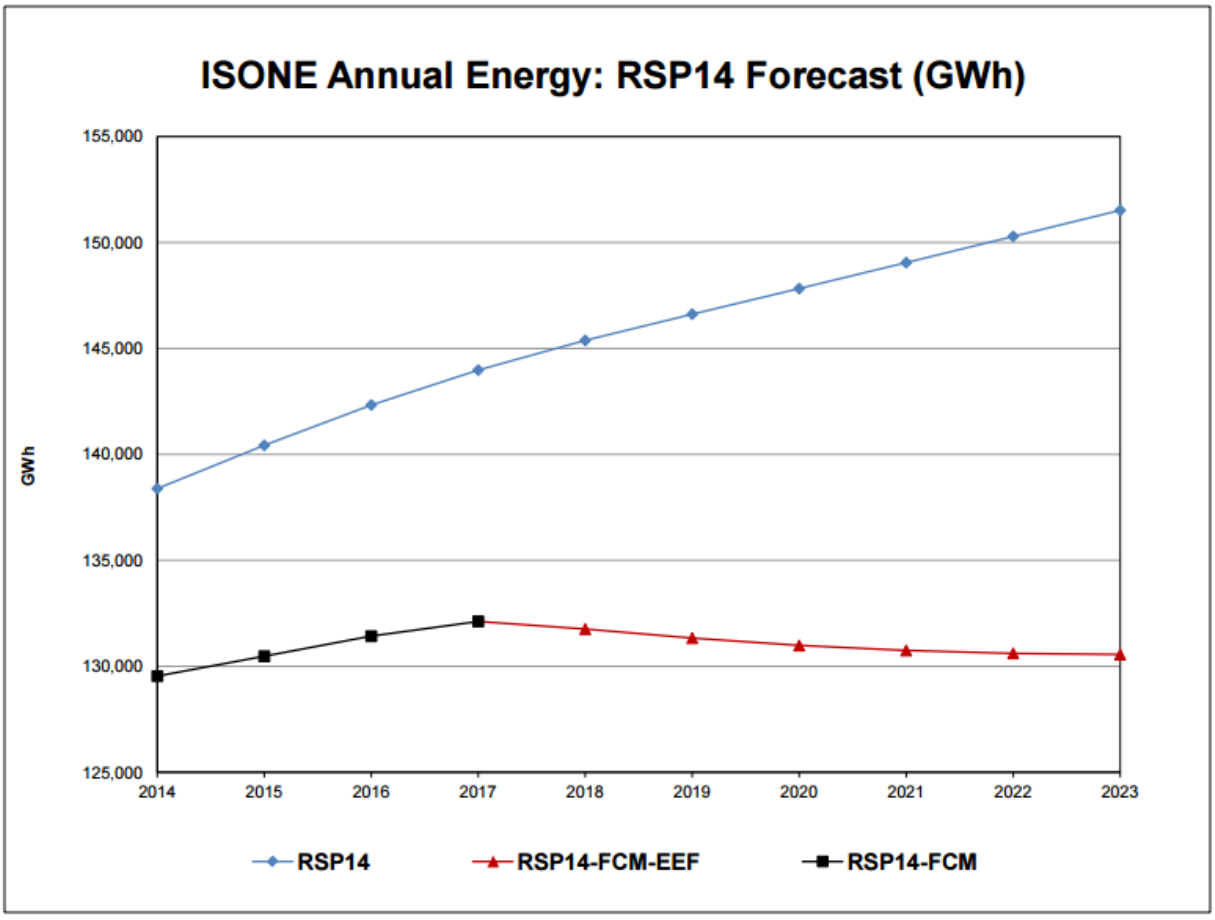
The Path Forward

1. **Strategic public investment in the resource with the best rate of return for ratepayers: Energy Efficiency.**

Our colleagues with Mass Energy Consumers Alliance and Acadia Center have submitted more detailed testimony regarding the benefits of energy efficiency for ratepayers and the environment. For the purposes of this testimony, CLF notes that the latest data from the Energy Efficiency Advisory Council demonstrates that for every dollar spent on energy efficiency, the Commonwealth and its ratepayers have reaped $5.23 in benefits. Each kilowatt hour of electricity or cubic foot of gas saved through efficiency measures is far more cost effective than new infrastructure or supply. Energy efficiency also has a powerful effect in suppressing the forecasted demand curve for energy, even by ISO-NE's notoriously conservative calculation.



Source: ISO-NE 2014 Energy Efficiency Forecast

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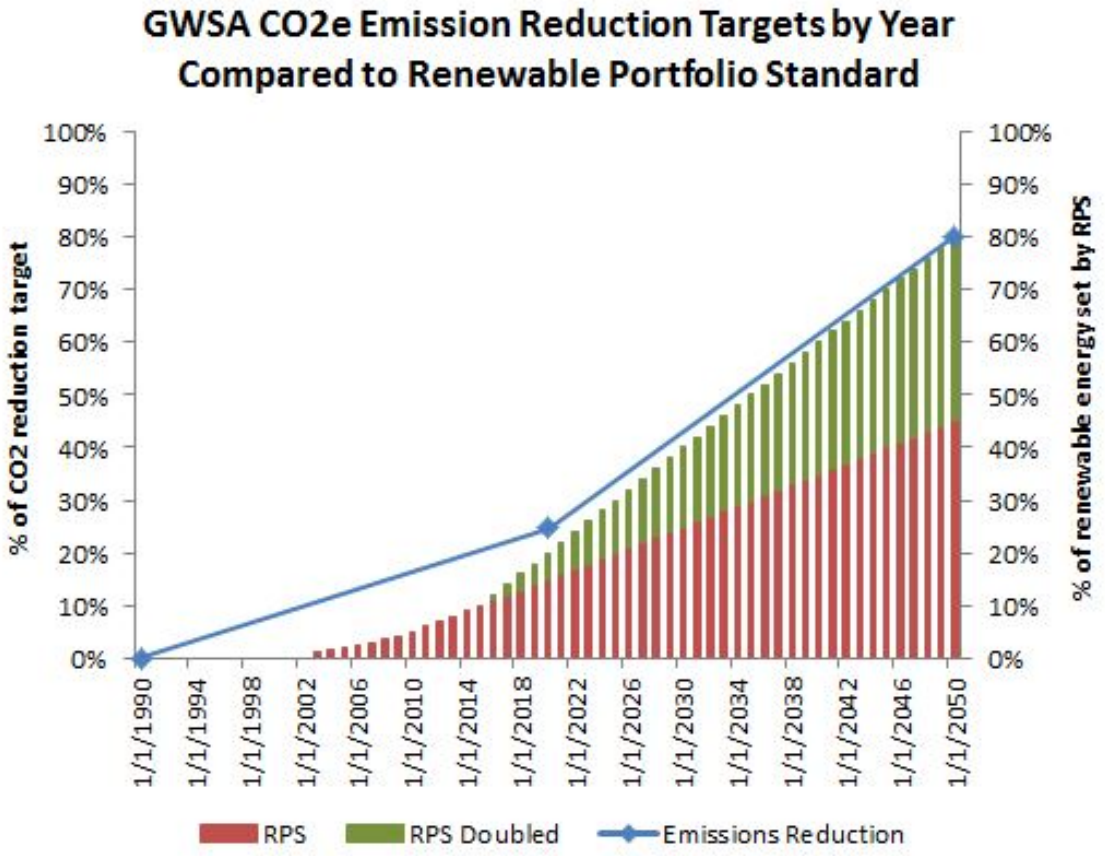
2. **Strategic public investment in electric generation that is not tied to fossil fuel prices: Renewables.**

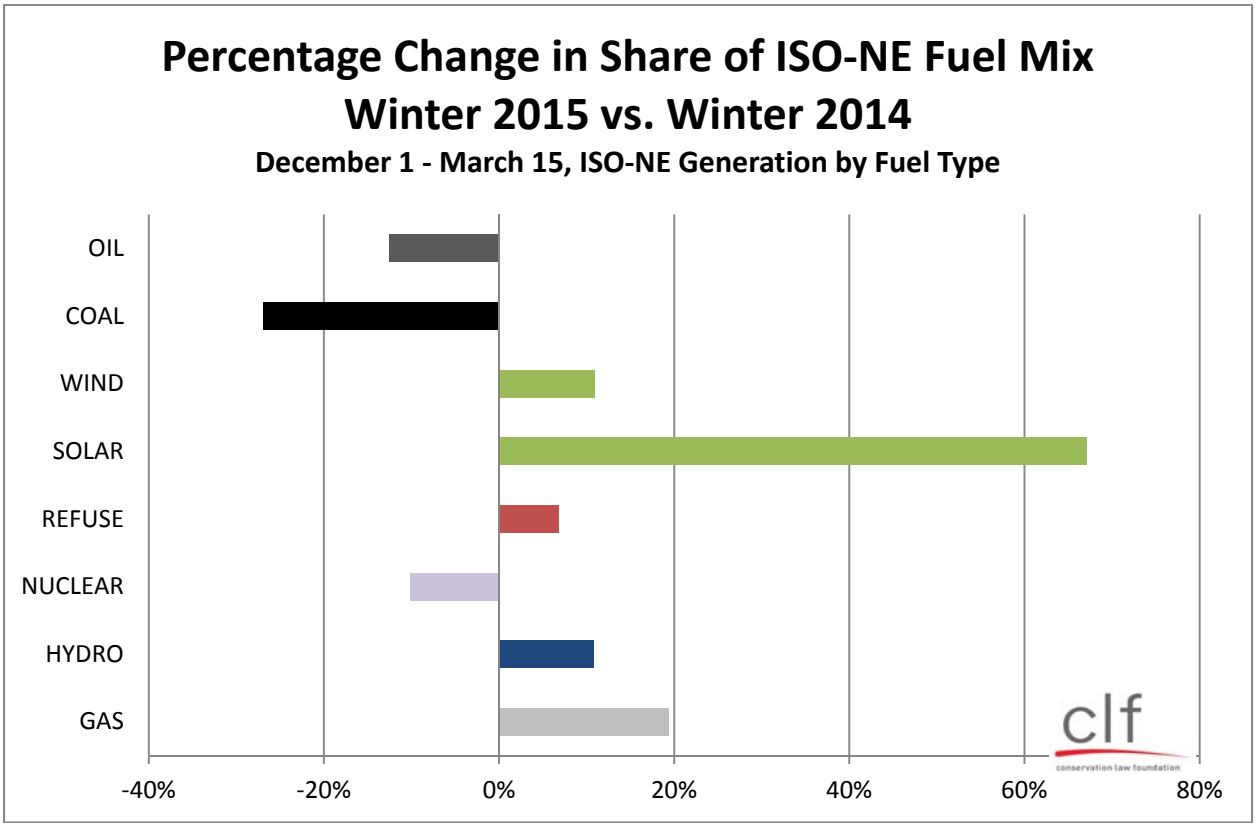
The Commonwealth is legally required to reduce our greenhouse gas emissions by 80% by 2050, and over that period it is very likely that state or federal regulations will further curtail greenhouse gas emissions. Investment in large-scale gas infrastructure that cannot or should not be used in the medium to long term is a bad bet for Massachusetts in the long run. The future of energy supply in the Commonwealth lies with renewables, not fossil fuels.

One simple action that the Committee can take is to support Senator Downing's currently proposed increase in the amount by which the Renewable Portfolio Standard (RPS) grows each year. The figure below models the effect of this measure on our ability to attain the Commonwealth's legally mandated Global Warming Solutions Act (GWSA) goals. Increasing the RPS is also a means to stimulate demand and financing for renewables, promote clean energy jobs, and balance out imported hydropower. Supporting long term contracting for renewable energy is a pathway to keeping renewable energy purchases more economic than fossil fuel generation.



Source: Mass Energy Consumers Alliance

New England's systemwide average greenhouse gas emissions are already lower than the emissions from the most efficient new natural gas plant, so further entrenching gas into our regional system for fifty years or more with new pipeline infrastructure is emphatically not a positive step for climate goals. Utilizing existing coal and oil generators more frequently during specific brief periods of the year (a dynamic that has already begun to wane, as illustrated in the figure below), and directing public investment toward renewables to supplant those existing generators, will be better for GWSA goals in the long run than overbuilding gas on the basis that burning gas emits fewer GHGs than burning coal or oil. It is incorrect and disingenuous to cite the GWSA in support of natural gas infrastructure.

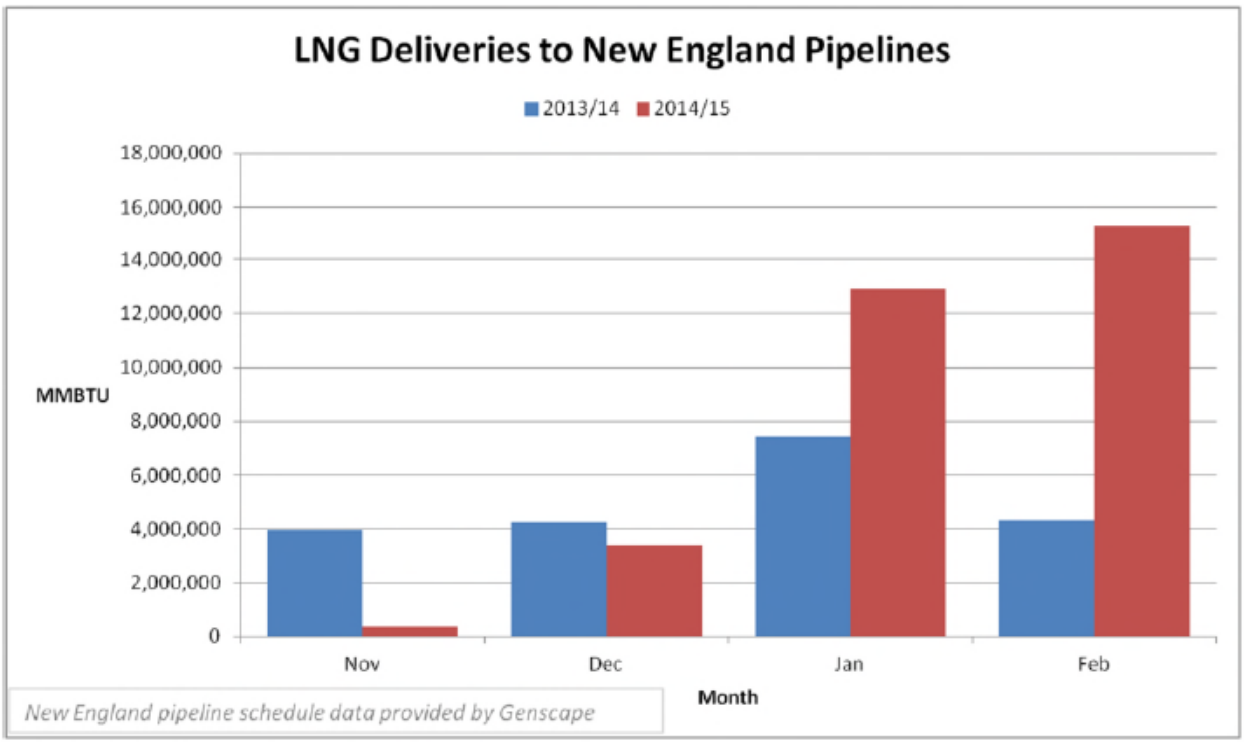


Source: ISO-NE data

3. **Encourage the electric and gas markets to utilize infrastructure we have now to meet peak gas demand.**

Fundamentally, this point and the two that follow are based in the principle that market risk of new fossil fuel infrastructure should be borne by the private parties engaged in those markets, not the public. Despite what may be heard from parties with financial or ideological interests in new

pipelines, this past winter is more likely to be the norm going forward in cold years than the winter of 2013/2014. Some fundamental market and policy tools helped bring about the reduced prices of 2014/2015—energy efficiency, renewables, liquefied natural gas (LNG), and the initial effects of market corrections. It's essential for the Commonwealth to support the first two through legislation, and not to support market-distorting efforts to flood the market with new gas.

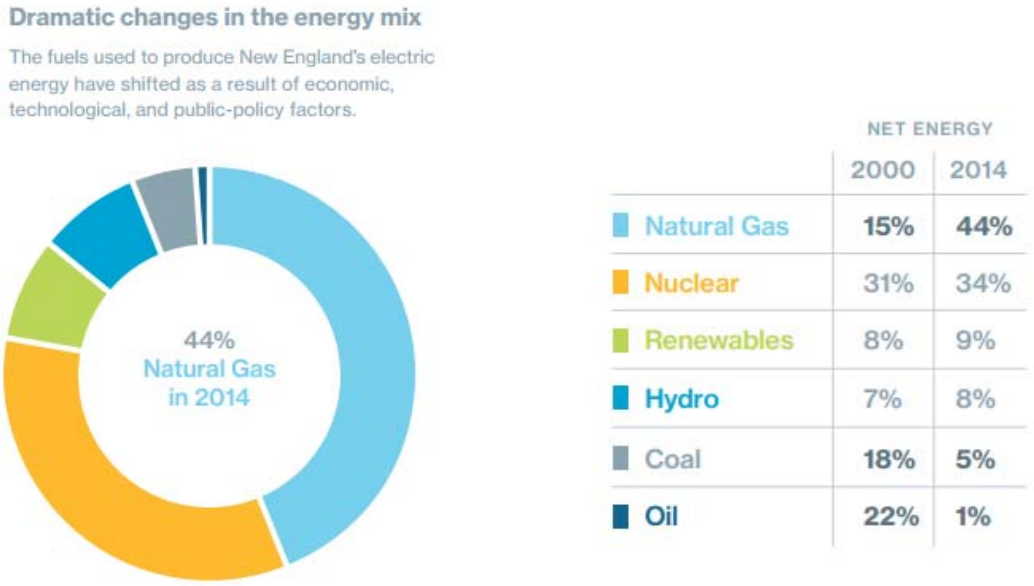


The contract announced this week between LNG supplier Distrigas and a local gas distribution company illustrates one of the primary tools at our disposal to avoid winter price spikes without building new pipelines. Long term contracts for LNG supply will help increase liquidity and supply for all natural gas uses, and will do so from the east, diminishing and limiting system bottlenecks. The past winter's example showed that bottlenecks in our current pipeline system are not necessarily intractable with flexible LNG supplies available. It is also important to note that available natural gas infrastructure includes our local distribution companies' own storage capabilities.

With respect to the market inefficiencies that contribute to winter price spikes, FERC and ISO-NE market participants are working to further synthesize the gas and electric markets. Major interim progress on this effort over this past winter helped keep prices much lower than last year.

The potential for volatility in the oil and LNG markets has been cited as a reason not to trust LNG imports as a short to medium-term solution for New England's winter natural gas supplies. It is important to note, however, that major LNG companies (including Distrigas) are starting to index

their prices to natural gas rather than oil to compete in the US markets. In terms of meeting capacity during isolated winter periods, any concern about a rise in fuel prices (a concern which is not currently in evidence in the futures markets) should equally be directed toward the price of natural gas as toward the price of LNG or oil. Given that our electric system is already overdependent on natural gas (see figure below), this underscores the inherent riskiness of massively building out natural gas infrastructure and making our system further dependent on gas for the long term. It must also be noted that large increases in pipeline infrastructure in New England will make US exports of LNG through Canada more economically feasible, a step that will bring US natural gas prices closer to the high prices in Europe. Gambling New England's energy future based on current natural gas prices is a dangerous proposition.



Source: ISO-NE Regional Energy Outlook 2015

4. **Overall, the need for new gas infrastructure has not yet been demonstrated, but if it occurs, we should begin with small projects first.**

There is an inherent difficulty in guessing or estimating how much natural gas we "need" as a region. This dynamic calculation depends on many variables, and such a demonstration of need has not yet been made. Given the demand-side uncertainty, it is prudent to proceed with caution in large new infrastructure investments.

It is important to remember that we are only having this conversation because of discrete peak days during the winter—to the extent that there are natural gas supply issues in New England, they are not a year-round phenomenon. The best investments in gas infrastructure, to the extent that they're

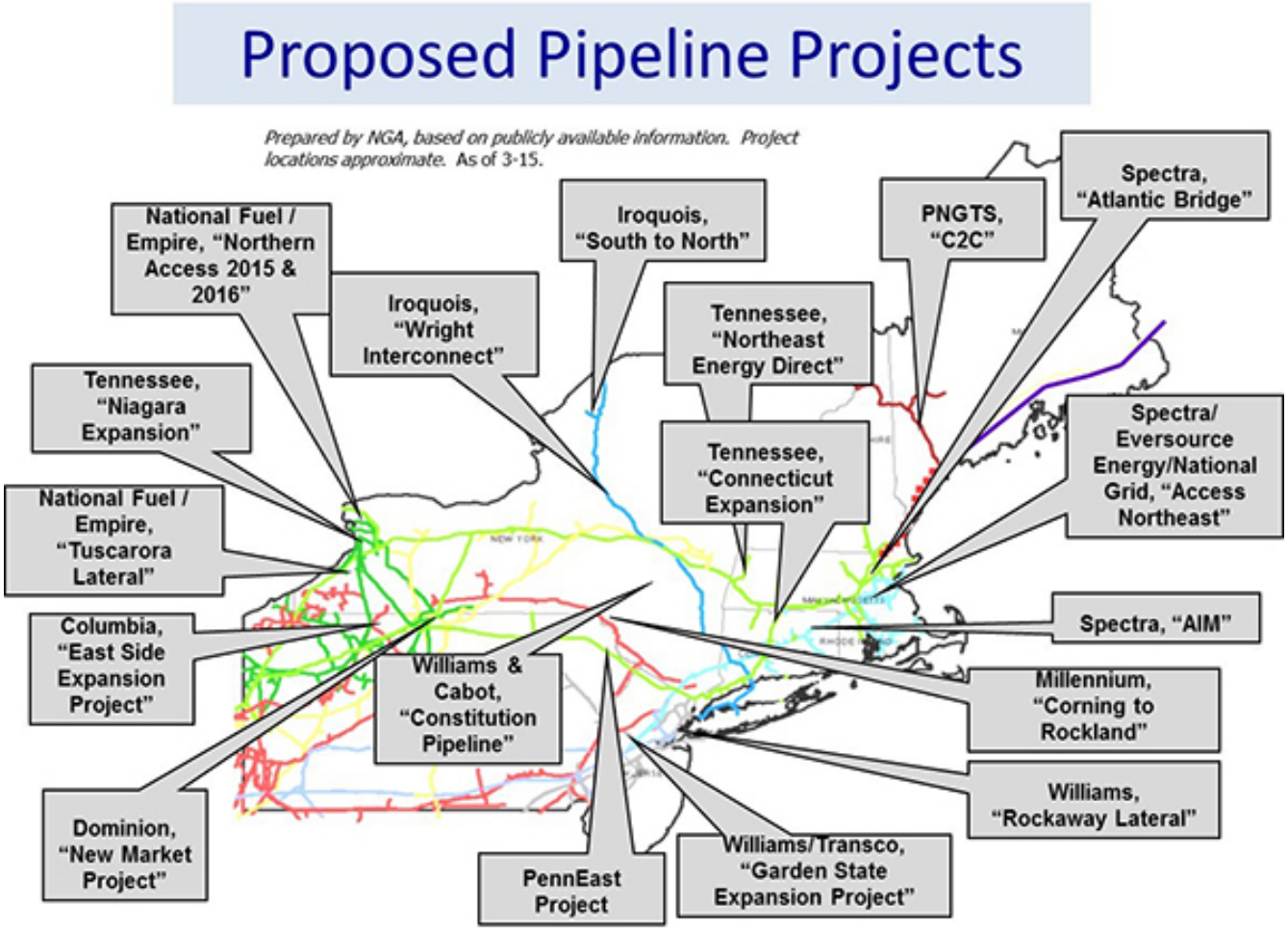
needed, will come from modest improvements in our ability to meet peak demand, not raising our year-round capacity far past where it needs to be. Modest expansions to the most flexible current infrastructure and supply, including LNG storage and secured LNG supply contracts, should be a logical first step before building new pipelines or pipeline capacity.

5. **If we still need more pipeline capacity after doing all of the above, go incremental first, and let the markets support the capital costs rather than putting them further on the ratepayers.**

CLF wants to make sure that we as a Commonwealth understand clearly what public financing for pipeline expansion advocates are asking us to commit to: $4-$6 billion in costs for Kinder Morgan's Northeast Direct project, and $3 billion for the Access Northeast project. These are projects that would increase our region's pipeline capacity by *fifty percent or more*, just to meet demand (that's already being met with targeted solutions) for a few days a year.

As CLF has illustrated throughout this testimony, it is fundamentally incorrect to claim that public investment in pipelines is needed because of a market failure. The energy markets are not incentivizing massively overbuilding pipeline capacity because it is not necessary.

Market signals have produced a more modest increase in natural gas infrastructure investment already. Market solutions are currently underway and forthcoming, including increased LNG supply contracts, new merchant LNG storage proposals, and proposed market products that manage existing storage better to allow for availability to generators and, potentially, for short-term contracts with generators. The AIM and TGP Connecticut pipeline projects are market projects, coming online over the next year and a half. Other market-oriented pipeline projects like Portland Natural Gas's C2C and Spectra's Atlantic Bridge are also moving forward. While CLF does not endorse any of these pipeline projects as proposed, they offer proof that there is not a market incentive void that needs to be filled with ratepayer money.



Source: Natural Gas Association

CLF would also like to note that any legislative or administrative action to support public financing of natural gas infrastructure is virtually guaranteed to result in litigation from multiple quarters over federal energy market preemption issues. It would also be bad public policy, asking Massachusetts ratepayers to subsidize infrastructure expansion that will be used by the entire region.

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Conclusion

Thank you again for the opportunity to weigh in on this important area of public policy. CLF respectfully urges the Committee to use its power to support measures that will maintain the Commonwealth's status as the nation's energy efficiency leader and enhance our renewable energy supplies. We also urge the Committee to allow the region's properly regulated energy markets (after accounting for demand-side resources and the benefits of renewable energy supplies) to determine the appropriate supply of natural gas in New England, and to prevent Massachusetts ratepayer funds from being used to expand natural gas infrastructure. CLF would be pleased to work with you and your colleagues in this endeavor.

Respectfully submitted,

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CLF Massachusetts