



March 18, 2022

Patrick Woodcock, Commissioner  
MA Department of Energy Resources  
100 Cambridge Street, Suite 1020  
Boston, MA 02114

Re: MA Stretch Energy Code

Dear Commissioner Woodcock:

The Northeast Gas Association (NGA) is appreciative of the opportunity to provide comments on the Building Energy Code Straw Proposal, released by the Department of Energy Resources (DOER) on February 8, 2022. DOER invited public comment on the proposal; NGA is pleased to offer comments on the proposed scope and provisions.

NGA is a trade association based in Needham that represents natural gas interests in the Northeast region of the United States – including Massachusetts. The local distribution natural gas companies in the Commonwealth deliver natural gas to 1.7 million customers – from homes and businesses to schools, hospitals and power plants.

Natural gas currently fuels over half the Commonwealth's households and over half of its power generation. It is an affordable and reliable energy source for residences and businesses, and its growth in the state has enabled substantial reductions in air emissions. The ongoing investments in the replacement of older natural gas system infrastructure, facilitated by the Legislature and overseen by the Department of Public Utilities (DPU), has also resulted in reduced methane emissions in the state.<sup>1</sup> Progress in that regard continues today.

We recognize that more needs to be done by our industry and others to meet the expectations of our customers and communities in addressing the climate change challenge. The Straw Proposal to address emissions within the building sector is ambitious and challenging, but it provides a thoughtful approach with a thorough analysis. The 2021 Climate Act and the Administration's 2020/2021 Clean Energy and Climate Plan (CECP) set guidance and targets for reducing greenhouse gas (GHG) emissions in the key sectors of our economy: the power sector, transportation and buildings. The Commonwealth continues to show leadership in addressing important environmental and social justice issues. Sensitivity to cost impacts of public policy decisions on citizens and businesses is also an important aspect of the clean energy transition.

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<sup>1</sup> We further note that the Massachusetts Department of Environmental Protection ("MassDEP") has undertaken initiatives regarding reductions in methane emissions with targets specifically geared towards the electric generation and natural gas distribution sectors.



The natural gas industry remains committed to being part of the solution to achieving a clean, reliable and affordable energy system. To that end, the natural gas utilities in the state are actively working to reduce the carbon content of their systems – through increased efficiency, the incorporation of renewable natural gas (RNG) and hydrogen, and through the replacement of older pipe components, such as cast-iron and bare steel. We are also looking at how to incorporate geothermal and heat electrification in areas where it benefits our customers and systems. On March 18<sup>th</sup>, each Massachusetts natural gas utility will be filing a “decarbonization plan” with the Department of Public Utilities under the DPU 20-80 “future of gas” docket, along with a statewide plan for achieving net zero emissions by 2050. These plans demonstrate that the gas distribution utilities have an essential role to play in helping the Commonwealth reach its decarbonization goals equitably and affordably. We urge DOER to utilize the important data and analysis developed through DPU 20-80 as you work to finalize the stretch energy code, and to leverage the gas utilities’ plans and commitments to achieving net-zero emissions to develop a stretch energy code that will complement the high-value building sector decarbonization pathways outlined in the utilities’ DPU 20-80 filings.

In our comments below, we address some of the opportunities for continuing this progress, and emphasize the importance of affordability and reliability in the Commonwealth’s future energy system. NGA maintains that natural gas has a continuing essential role in helping the Commonwealth advance along the path to a cleaner energy system that is also reliable and affordable.

### **Appropriate Emphasis on Energy Efficiency and Enhanced Building Envelope Investments**

The straw proposal emphasizes the importance of enhancing building efficiency and building envelope improvement, with options ranging from curtain walls to glazing to air systems. We agree.

Energy efficiency has been a key part of the Commonwealth’s energy and environmental planning for decades, and has been a national success story. Massachusetts remains a leader in both electric and natural gas efficiency programs, and we believe that the state’s continued emphasis on efficiency is critical to future progress. The most recent annual state efficiency study by ACEEE, released in February 2022, observes that Massachusetts spent the second-highest amount of all 50 states in gas efficiency program funding, behind only California, and spent the highest amount of any state in the nation in terms of dollars per residential customer. The commitment to these types of deep and sustaining efficiency investments help consumers save on their energy bills while also maximizing the effectiveness of the existing natural gas distribution system.

### **Optionality and not Prescription is Best Pathway for Most Efficient, Economic and Equitable Outcomes**

The straw proposal includes some optionality in future energy inputs to building development and does not prescribe only one energy source or one pathway. We agree with this approach. It will enable the best outcomes through innovation and the needed flexibility for communities, developers, businesses, and residents.

The proposed Home Energy Rating System (HERS) Index standard includes varying ratings for new electric heat buildings and for those incorporating fuels such as natural gas. The standard for fossil fuel

structures allows for an offset that would include passive solar, and require “some combination of triple-glazed windows, improved insulation, better air sealing and heat recovery ventilation.”

The builder community is best-positioned in our view to offer specifics on the viability and economics of the various building construction options, but we are encouraged by the optionality in the proposal’s approach.

DOER’s outline of possible options that do not exclude energy sources offers the best pathway to innovation and cost-effective solutions, and we support the proposal’s emphasis on inclusion.

### **Importance of Energy Affordability and Economic Equity**

The Commonwealth has always rightly emphasized the importance of energy affordability in state energy policy. Natural gas has been and remains the lowest cost heating option for households in the Commonwealth, and going forward can help alleviate and/or mitigate economic burdens on residences and businesses in this era of energy transition.

We know that the Administration and the Legislature are sensitive to the cost implications of the energy transition. We appreciate this proposal’s approach to seek to find a measured, achievable, practicable and cost-sensitive analysis.

The natural gas industry remains committed to working with the state and all interested stakeholders on improving the energy and environmental performance of the building sector. At the same time, we urge the Administration and Legislature to remain sensitive to likely cost impacts to residents through limiting customer choice to only one potential heating source in the future. Natural gas has grown to be the largest energy source for home heating in the Commonwealth over the last decades, due to its lower cost and affordability, its reliability, and its strong environmental performance vis-a-vis other fossil fuels such as oil and propane. The U.S. Energy Information Administration (EIA), in its 2022 Annual Energy Outlook released on March 3, 2022, projects that natural gas is by far the most affordable residential energy source in New England throughout the forecast period (through 2050) (See Table 3.1 in reference case tables: [https://www.eia.gov/outlooks/aeo/tables\\_ref.php](https://www.eia.gov/outlooks/aeo/tables_ref.php)).

Several studies released by ACEEE in recent years identified value in converting homes heated with heating oil and propane to electricity, but find less benefit in converting natural gas homes, especially in colder climate regions. In 2018, ACEEE observed: “For the residential sector, recent ACEEE research has found that some applications (oil- and propane-heated homes and homes in the South) can meet the criteria for beneficial electrification discussed above. For these applications it can make sense to electrify the next time a heating or cooling system or water heater needs to be replaced. But for many homes, electrification may not currently make sense and as a result, natural gas use will likely continue for decades, particularly in the North.” Two years later, ACEEE concluded in a report on electrification efforts at the state level that “[i]n areas with high use of delivered fuels (fuel oil and propane), many programs target customers using these fuels because the economics of electrification in these situations are often better than when displacing natural gas.”

We recognize the challenge and sense of responsibility faced by state government with these major sectoral transformations mandated in the Climate Act. All energy sectors need to meet the challenge to reduce emissions in their operations and processes and we in the natural gas industry recognize our responsibility as well.

### **Natural Gas and the Power Sector in New England: On the Pathway to Net Zero**

In its February presentation on the straw proposal, DOER noted that “a building becomes net zero when [the] MA electric grid is net zero.”

Currently the MA electric grid is over 60% natural gas (see U.S. EIA Massachusetts state profile page: <https://www.eia.gov/beta/states/states/ma/overview> ).

As the Commonwealth looks to dramatically reduce the use of natural gas in power generation, it is important in our view to reflect on the values that natural gas brings to the state and regional power system.

The comparative advantages of natural gas power generation include higher efficiency, lower heat rate, and reduced air pollutant emissions compared to other fossil fuels.

The rise in natural gas use in power generation has led to lower air emissions, from sulfur dioxide to carbon dioxide. In November 2020, U.S. EIA noted: "U.S. electric power sector emissions have fallen 33 percent from their peak in 2007 because less electricity has been generated from coal and more electricity has been generated from natural gas (which emits less CO<sub>2</sub> when combusted) and non-carbon sources."

At the regional level, the same dynamic is in play. ISO-NE reports that since 2001, emissions from power plants in New England have declined by 99 percent for sulfur dioxide (SO<sub>2</sub>), 78 percent for nitrogen oxides (NO<sub>x</sub>), and 42 percent for CO<sub>2</sub>.

As other fuel sources have retired from the regional grid in recent years, including nuclear, coal and oil, natural gas has increased its share, supporting overall system reliability. In Massachusetts, several new gas generation units have come online in recent years, including: (1) the 674 MW Salem Harbor station in Salem (June 2018); (2) the 333 MW single-cycle unit added to NRG's Canal 3 Generating Station in Sandwich (June 2019); and (3) the 200 MW peaker at Exelon's plant in Medway (June 2019). These plants help the state and region in ensuring a stable, affordable and lower-carbon electric system.

As the state moves to more broadly deployed strategic electrification, the electricity being drawn up will likely be generated by natural gas-fired generating facilities for many years to come. The availability of natural gas generation provides a secure foundation for the power grid as its transformation unfolds.

### **Note on Continued Progress in Reducing Methane Emissions in the Natural Gas Sector**

As the Commonwealth advances building sector transformation, we would like to note the continued progress of natural gas industry improvement in reducing system emissions of methane.

This reduction in methane emissions has been considerable, due in large part to the efforts of the Legislature, along with the coordinated efforts of EEA and its agencies (the DPU and MassDEP), for their foresight in enacting legislation in 2014 that resulted in the establishment of the GSEP program to manage increased annual gains in the replacement of older system components utilizing cast-iron and bare steel.

Methane emissions related to U.S. natural gas systems have declined by 15.4 percent since 1990, according to the U.S. EPA's draft 2020 national GHG inventory report released in February 2022. At the same time, methane emissions from the gas distribution system have declined by 70 percent. The EPA notes: "Distribution system emissions, which accounted for 8 percent of CH<sub>4</sub> emissions from natural gas systems and less than 1 percent of CO<sub>2</sub> emissions, result mainly from leak emissions from pipelines and stations. An increased use of plastic piping, which has lower emissions than other pipe materials, has reduced both CH<sub>4</sub> and CO<sub>2</sub> emissions from this stage, as have station upgrades at metering and regulating (M&R) stations. Distribution system CH<sub>4</sub> emissions in 2020 were 70 percent lower than 1990 levels and less than 1 percent lower than 2019 emissions. Distribution system CO<sub>2</sub> emissions in 2020 were 69 percent lower than 1990 levels and less than 1 percent lower than 2019 emissions. Annual CO<sub>2</sub> emissions from this segment are less than 0.1 MMT CO<sub>2</sub> Eq. across the time series." (EPA report, page 3-90, February 2022)

Massachusetts has seen a considerable decline in methane emissions related to natural gas systems. The MassDEP's GHG emissions inventory shows that methane (CH<sub>4</sub>) emissions from natural gas systems declined by 67 percent from 1990 to 2018.

This progress will continue, enhancing system resiliency and reducing system emissions statewide.

Thank you for the consideration of our comments. As the Commonwealth continues its progress in moving towards a low-carbon economy with increasing reliance on renewables and clean energy technologies, we believe that natural gas will remain a key sustaining part of the state's energy portfolio.

Very truly yours,

A handwritten signature in black ink, appearing to read "Charles C. Crews". The signature is fluid and cursive, with a period at the end.

Charles C. Crews  
President and CEO