NewJersey Builders Association

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Energy Master Plan Committee
Board of Public Utilities
44 S Clinton Avenue
Trenton, New Jersey 08625
emp.comments@bpu.nj.gov

Re: Draft 2019 Energy Master Plan: Policy Vision to 2050

To Whom It May Concern:

The New Jersey Builders Association (NJBA) is submitting comments on the Draft 2019 Energy Master Plan (EMP). NJBA is a professional trade organization representing individuals and businesses in the home building industry who strive for a more vibrant and affordable housing market in New Jersey. NJBA's members generate billions of dollars of economic activity each year; as such, NJBA has a direct and substantial interest in any modifications to the EMP, as it may impact building practices, economic development and the affordability of housing in New Jersey. NJBA shares the goals of the EMP, but it hopes that the final EMP adoption consider its two main concerns: affordability and timing. NJBA offers the following more detailed comments:

IMPACT ON AFFORDABILITY

The goals of the EMP, to make New Jersey more sustainable and combat the global threats of climate change, are commendable. The building industry has taken many steps towards cleaner and greener building practices over the past three decades, and it will continue to work with various state departments and agencies to ensure that it does its part to reduce greenhouse emissions. However, a transition to sustainable energy sources as momentously prescribed by the EMP will be met with numerous economic challenges.

The residential construction industry is no stranger to energy efficiency and green building techniques. The National Association of Home Builders (NAHB), NJBA's national affiliate, works collaboratively with the non-profit International Code Council (ICC) to establish the National Green Building Standard. This standard is the only residential green building rating system approved by the American National Standards Institute, which provides practices for the design and construction of all types of green residential buildings, renovations, and land developments.

Through NAHB, NJBA participates in the development of the model codes by the ICC, which are the model codes used in New Jersey and throughout most of the nation. These model codes have led to significant improvements in energy conservation, and over the last 30 years, the building industry has seen a 40% reduction in energy use in residential buildings built to the baseline code. It is important to note that this has been accomplished incrementally through updates produced every three years and it has been balanced with affordability. The process is on-going, robust, and open to all who want to participate, and accordingly results in a balanced and practical code.

NJBA agrees with the EMP that New Jersey should work within the ICC process to effectuate change and agrees that New Jersey needs to provide incentives for builders and homeowners to implement above code practices. However, NJBA is very concerned that under the EMP's goals, New Jersey would stray from the model codes and develop its own energy code. The main objective behind the State's Uniform Construction Code law was to provide requirements for construction and construction materials consistent with nationally recognized standards. This was intended to provide uniformity across all municipalities and to make sure that the code was in line with the rest of the nation. Adoption of a different energy code would saddle New Jersey with another competitive disadvantage, dissuade investments, suppress the creation of new housing units and make it more difficult to produce affordable units.

New Jersey's history and economic structure already give builders additional challenges to operate a successful business and build affordable homes. When creating policy that affects housing in the state, NJBA stresses the fact that New Jersey and its residents suffer from both an affordable housing supply problem and a housing affordability problem.

New Jersey residents spend more money on housing than residents of almost any other state and residents seeking their first home are already faced with extremely high barriers to entry. Further, after years of affordable housing litigation, New Jersey is finally beginning to address its constitutionally mandated but unmet affordable housing needs that have accumulated over

decades. These new units would help provide shelter to some of the state's most vulnerable residents and any effort to make New Jersey more sustainable or energy efficient should weigh heavily the impact it will have on the state's low- and moderate-income residents.

Additionally, since homeownership leads to wealth creation, economic stability, secure retirement, tax benefits, stronger community ties, and higher educational attainment for children, the EMP should consider that New Jersey has one of the lowest homeownership rates in the nation. Adding tens of thousands of dollars to the price of a new home would only further marginalize New Jersey's middle class and economically disadvantaged from homeownership or relegates them to older less efficient units, while only the wealthy would be able to enjoy the benefits, both in terms of safety and energy efficiency, of new construction.

As the EMP correctly notes, new construction codes ensure new buildings are built to high thermal efficiency standards, and that much of New Jersey is already developed. New Jersey has over 3 million housing units with over 80% built before 1990 and nearly 50% built prior to 1960. Considering the number of homes built annually represents less than one percent of the state's entire housing stock, there is no way to substantially impact the carbon output from residential buildings without addressing the current housing stock. While it may be more difficult and more costly to retrofit existing homes, that does not obviate the need for it. As a result, the EMP should focus more on how to make the most substantial progress, and that is by looking at the most energy inefficient homes, which are, and will continue to be, the vast majority of the state's older housing stock.

Lastly, it is worth noting, operating a fully electrified home is currently more expensive and more environmentally burdensome than present practices. When comparing the carbon output of a home running on natural gas and one that has been fully electrified, the home without natural gas ultimately emits more carbon dioxide since the sources used to generate the electricity produce more emissions than natural gas alone. At a time where most residents struggle to pay some of the highest utility bills in the nation and very few have the ability to save for an emergency, many households sacrifice basic necessities to keep up with their payments. Electric heat pumps and electric water heaters are more expensive to install and operate in residential homes. Moreover, electric heat pumps utilize forced air to heat and cool a room, and this technique is less efficient in cold climates. There is currently no industry standard to substantiate the effectiveness of an air source heat pump in very low temperatures, but air source heat pumps' output dramatically decreases at lower temperatures. As a result, New Jersey residents would be faced with higher utility bills,

decreased comfort and increased negative environmental impacts should the transition to a fully electrified house happen before technology and infrastructure allow.

LACK OF PROPER TIMING

If New Jersey moves toward carbon neutral buildings, the EMP needs to extrapolate a suitable time table for the transition. As previously stated, NJBA supports the goals expressed in the EMP to make the state more sustainable, but the EMP does not explain how to achieve 100 percent clean energy and what incremental steps are needed to get there. The EMP notes that a transition plan is necessary to fully electrify buildings, and NJBA agrees. However, the technology necessary to meet the desired electrification projections in the EMP either does not exist or has not advanced to a point where it is beneficial. Further, the state needs to make significant investments in its infrastructure to accommodate the transition.

New Jersey already relies heavily on the electrical grid during peak load and for emergencies, and major technological advances are needed to support additional demand. The EMP calls for fully electrified buildings, electric vehicle charging infrastructure, and the reduction of natural gas and fossil fuels. The grid currently depends on natural gas to generate the majority of the state's electricity. Electric vehicle charging stations, electric water heaters and electric heat pumps will dramatically increase the amount of electricity that a resident consumes. The EMP demands these substantial changes, yet it provides no mention of how the grid will support it. Energy storage technology is another area that needs improvement before transition to net zero carbon buildings, and New Jersey cannot move down this path until it establishes a reasonable and affordable method of storing energy.

In addition to the increased load that the grid must sustain to meet 2050 green energy goals, the EMP must consider resiliency and emergency back-up power. Superstorm Sandy changed the way the industry builds in certain regions of the state and it certainly changed the way residents prepare for future storms; with the heightened reliance on the electrical grid that the EMP demands, New Jersey would be ill-prepared to handle an emergency of that magnitude. As a result of the storm, hundreds of thousands of residents were left without power for an extended period, yet at the same time, there was little to no interruption in natural gas distribution to homes. New Jersey households rely on natural gas to heat their homes, heat their water, dry their clothes, cook their food, and for the most part, supply their electricity.

The EMP would require a heavy reliance on solar to power many households, and NJBA shares in the Rate Counsel's concerns regarding the uncertainty of future solar in New Jersey. The

building community needs clarity on a realistic solar transition to understand how to provide 100% electric homes.

New Jersey already needs significant upgrades to its utility infrastructure that go beyond energy and electrical transmission. In the midst of a lead service line water crisis in the state's largest city, the state has already planned several changes to water quality policy and changes to water distribution methods. With climate change dramatically impacting the state, future planning and design must take into account that sea level will rise, and storms will continue to get more severe. New Jersey must first figure out how to deal with the new mainline water extension rules, water testing protocols and necessary water infrastructure upgrades without foisting more obligations on the ratepayer and building community before discussing additional infrastructure plans relating to gas and electricity. New Jersey has a long way to go before it has a system that can overcome resiliency challenges irrespective of the other challenges that the EMP will produce.

FLAWED STAKEHOLDERS' PROCESS

Up to this point, input from stakeholders has been requested in a fashion that is not conducive to the development of sound public policy. The stakeholders' process should follow more closely the principles set forth in Governor Murphy's Executive Order 63, which calls for thorough process and the consideration of distributed impacts across various subsets of the population and economy before issuing a proposal. While NJBA appreciates the forums that the EMP Committee provided pre-draft and post-draft release, large-scale forums with limited feedback and strict time constraints is not efficient or sufficient. Although the written comment period has been generous, further discussion is necessary to fully articulate multi facet interests from various parties. This revolutionary plan needs substantial input from experts and a real stakeholders' process to allow all voices ample time to speak in a constructive setting.

Additionally, the Integrated Energy Plan (IEP) process, which uses modeling scenarios to analyze various strategies to accomplish the EMP's goals, is taking place during EMP development, yet participation in the IEP is by invitation only. This process excludes certain members of the public, and furthermore it fails to address costs in the modeling scenarios. Final IEP data will not be available until after the comment period closes on the EMP. All strategic planning must involve real cost projections and it must allow for a proper forum for stakeholders to participate and contribute.

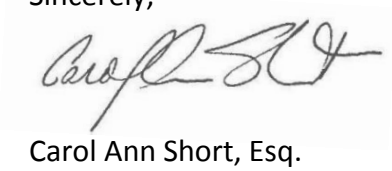
CONCLUSION

There are many questions surrounding when and how to electrify the states' supply of buildings, and NJBA appreciates that the draft plan acknowledges that a lot of information and planning is needed before proceeding. The EMP recognizes that New Jersey's electric grid is not capable of sustaining the complete electrification of buildings and rightfully points out that technology needs to improve, and economies of scale need to grow to drive down the costs. Technology is one barrier to electrification, and another is running an electrified heating system, which will undeniably cost consumers much more than traditional natural gas heating systems. At this time, New Jersey is not only unprepared to make this change because of the lack of economic feasibility, but there is still a doubt on whether it makes environmental sense because current methods of generating electricity can produce heightened emissions.

Housing is important to the local, state and national economies and accounts for about 15% of the nation's gross domestic product. New Jersey has had a challenging decade; living through both the Great Recession and Superstorm Sandy, and still has not fully recovered. NJBA is concerned that many of the proposals in the EMP will increase the costs of housing, slow down the state's housing sector and economic growth, and will make it more difficult for residents to realize the dream of homeownership or find affordable housing.

NJBA appreciates the consideration of its concerns and recommendations. NJBA looks forward to working with the EMP Committee and various Departments and Agencies to create statewide policy to address the harmful effects of climate change.

Sincerely,



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