To: **Charles Teplin, Rocky Mountain Institute**
Hannah Thonet, Board of Public Utilities

From: **Michael J. Renna, President and CEO, SJI**

Subject: **SJI comments in response to the "findings of the Integrated Energy Plan" as presented on November 1, 2019**

Date: **November 15, 2019**

On behalf of SJI, thank you for the opportunity to provide comments and feedback on the findings of the Integrated Energy Plan (IEP) as presented by the Rocky Mountain Institute on November 1, 2019.

As you are aware, SJI currently operates two natural gas distribution companies in New Jersey, South Jersey Gas (SJG) and Elizabethtown Gas (ETG), collectively serving nearly 700,000 customers in all corners of our State. As one of New Jersey's largest and most experienced energy providers, we are well-positioned to help shape the State's future energy policy as envisioned by the Draft Energy Master Plan (EMP). To date, we have provided comments on the initial IEP modeling scenarios (August 9, 2019) as well as the Draft EMP (September 10, 2019) and respectfully request the EMP Committee's continued consideration of those comments. With respect to the most recent IEP findings, we offer the following feedback.

As noted previously, SJI supports the Murphy Administration's 2050 energy goals as set forth in Executive Order #28 and the Draft EMP. Embracing proper environmental stewardship is at the core of our community-centric values, as is our commitment to enhancing the quality of life for our customers through the delivery of affordable, safe and reliable energy services. These goals are most effectively met when our State's energy policies are appropriately calibrated to keep energy costs low while continuing to make investments in infrastructure and delivering responsible environmental outcomes. As the State moves closer towards final adoption of the EMP, with input and guidance provided by the IEP, we urge the Administration to take appropriate steps to ensure that the final Plan sets forth a balanced set of solutions that embraces both traditional and renewable energy sources to meet our future energy needs.

As presently drafted, the EMP calls for the mass electrification of homes and businesses across New Jersey along with the accelerated deployment of electric generation powered by renewable energy sources. According to the IEP, to meet mass electrification targets electricity generation requirements will more than double over the next thirty (30) years. Moreover, retrofitting of the building sector will begin as early as 2035. Even under the least cost pathway set forth in the IEP, New Jersey will still need to rely on the procurement of 20% of our energy from out-of-state, electricity from nuclear facilities well beyond their current licensing allowances, and the use of bio-gas as a supplement to wind and solar on peak demand days.

The mass electrification methodologies and pathways set forth in the IEP raise many unanswered questions and put the reliability and affordability of our State's energy systems at risk. First, it is well established that in winter months it costs consumers twice as much to heat their homes with electricity as opposed to natural gas, which costs are exacerbated by the comparatively higher costs of purchasing, installing and maintaining electric appliances. With approximately 75% of New Jerseyans using natural gas for home-heating, the statewide financial impact of this electrification policy is potentially staggering. Regrettably, the IEP does not provide necessary, detailed cost assumptions to justify the incremental energy spending increases projected therein. More importantly, the IEP does not project ratepayer impacts at all, relying instead on an overall GDP analysis.

While we appreciate the engagement of stakeholders throughout the process, we are concerned that there are noteworthy limitations in the modeling approach that could lead to a significant underestimation of costs to consumers and to the overall energy system. To alleviate these concerns we recommend that all inputs and assumptions be made available for analysis, including assumptions about advancements in technologies related to wind and solar generation and battery storage, grid capabilities, the financing of stranded costs, the availability of out-of-state electricity from renewable sources, the likelihood of continued access to nuclear generation beyond the current lifespans of such facilities, the capabilities of electric home heating systems to provide necessary conditioning in our region's climate, the practicality of the mass deployment of solar and the retrofitting of all homes and businesses in the most densely populated state in the nation, and the willingness of consumers to abandon existing systems and appliances. To be certain that we are planning properly for our future energy needs, a more detailed examination of these items is warranted.

We are also concerned that the IEP analysis does not evaluate the technical merits or cost-effectiveness of many other alternative pathways to meet clean energy goals and reduce emissions from the building sector. From the outset, the Draft EMP and the IEP modeling scenarios have relied solely on mass electrification powered by wind and solar sources to meet the long-term clean energy goals set forth therein. While wind and solar will undoubtedly be a critical component of our clean energy future, we believe the most prudent path is to diversify our future energy portfolio to provide the flexibility needed to respond to changing market

conditions and emerging technologies. For instance, by leveraging our existing and robust natural gas storage and delivery systems we can advance environmental goals in a practical and cost-effective manner. The accelerated development and deployment of wind and solar infrastructure should not be the only strategy employed to achieve the goal of 100% clean energy by 2050. Rather, advancements in science and technology that reduce or eliminate emissions from natural gas should be explored and the practical application of such technologies should be incentivized and supported.

One area where state policy-makers can advance environmental goals without overburdening ratepayers is renewable natural gas (RNG). More specifically, the development and deployment of renewable natural gas resources should be encouraged to support a balanced transition to a clean energy future and to supplement renewables when they are ineffective in delivering reliable energy. The adoption of statutory and regulatory guidelines for the procurement of renewable natural gas and the enactment of measures to incent investments in RNG infrastructure is urgently needed, but regrettably ignored by the current EMP framework. To be certain, RNG should be included in the broader mix of renewable energy sources so that the existing natural gas delivery and transmission systems can be leveraged to meet the State's long-term environmental goals.

In addition to RNG, compressed natural gas (CNG) can play a transformative role in improving environmental standards by reducing energy consumption and emissions from the transportation sector, where 46% of the State's net greenhouse gas emissions are created. At present, heavy-duty CNG-powered vehicles are commercially available, while heavy-duty electric vehicles are not. Moreover, CNG fueling infrastructure is already in place and can be easily expanded, through State support and incentives, to support the rapid deployment of CNG fleets.

An expansion of CNG-powered vehicles would result in significant and immediate reductions in greenhouse gas emissions and smog forming pollutants, with some estimates demonstrating reductions of over 50%. With heavy-duty vehicle emissions accounting for 20% of transportation related emissions statewide, and commercially available CNG vehicles and fueling infrastructure across New Jersey, the State should act now to incentivize and enhance the continued deployment of CNG.

Finally, advancements in carbon capture and sequestration technologies should also be considered by policy-makers as the state searches for ways to reduce greenhouse gas emissions. While such technologies are not yet ready for rapid deployment, their potential could be a game-changer. Advancements in these technologies could lead to large-scale dispatchable electricity that is produced without emitting any carbon dioxide and without generating any of the other pollutants that are byproducts of current electric generation. Moreover, embracing carbon capture and sequestration may lead to reduced ratepayer and consumer costs as the infrastructure to deliver and transmit such energy is largely already in place, and there would be no appliance retrofitting necessary by end-users.

We continue to believe that the State's best interests are protected not by imposing aggressive limitations on natural gas, but rather by leveraging its abundance and affordability to meet the State's laudable, future clean energy goals. Moreover, as noted above, consideration of, and investments in, emerging technologies that lower or eliminate the carbon footprint of natural gas should be an important part of the State's future clean energy plans to ensure a robust mix of energy sources and to lower costs through the utilization of existing infrastructure. Embracing a diversity of consumer choices will only serve to enhance energy affordability and lead to economic growth and a cleaner environment.

Once again, thank you for the opportunity to provide comments. SJI is committed to partnering with the State to help drive down the cost of energy, deliver safe and reliable service, improve energy efficiency and support a diverse energy portfolio that includes renewable sources.