April 8, 2019

Hunter Hydas
IRP Program Manager
Tennessee Valley Authority
1101 Market Street, MR-3C
Chattanooga, TN 37402

RE: Comments from the City of Knoxville on TVA’s Draft Integrated Resource Plan

Dear Mr. Hydas,

On behalf of the City of Knoxville, I appreciate the opportunity to comment on the draft 2019 Integrated Resource Plan (IRP) and commend TVA for its efforts to engage local communities and stakeholders throughout the IRP process.

The City of Knoxville has adopted a goal to reduce greenhouse gas emissions 20% by 2020 for both municipal operations and the community as a whole. I am also in the process of working with City Council to set new, longer-term goals that seek deeper levels of carbon emission reductions in coming decades. These goals reflect my commitment as mayor to leave Knoxville a better place than I found it, a commitment that includes addressing climate change and protecting the environment for future generations. Our goals also reflect the interests of local residents who have challenged the City to be a leader and to work alongside other regional institutions to promote systems-level change toward a more sustainable future.

TVA’s decisions about how to meet electricity demand within a rapidly changing energy marketplace have direct implications for Knoxville and our ability to achieve our sustainability goals. I appreciate the effort that TVA has made to understand the sustainability goals of our City and our regional peers, especially the other four large cities within the Tennessee Valley. The City of Knoxville’s Sustainability Office coordinated with regional peers in reviewing the draft IRP, and my administration looks forward to continuing multi-city collaborations with TVA to advance clean energy opportunities that make sense for the Valley.

Support for Sustainable Technology
The IRP analysis shows that renewable energy, distributed energy resources, battery storage, beneficial electrification, and energy efficiency can all play a role in meeting the potential capacity needs of the Tennessee Valley in ways that are cost-effective, less impactful on our environment, and respectful of utility grid constraints. Strategies that maximize the use of these resources, which can be scaled to meet the needs of the market without resulting in ratepayers being locked in to long-term investments in fossil fuel generation, should be prioritized.
Zero-Carbon Energy

Zero-carbon energy sources play an expanded role across all scenarios and strategies within the IRP. The increased use of cost-effective, zero-carbon energy resources drives continued reductions in total and annual direct emissions of CO₂ and CO₂ intensity in all alternative strategies, and this is to be commended. TVA should embrace the IRP’s analysis that renewable energy, battery storage, and energy efficiency can help further transition away from fossil fuels in a way that is cost-effective and consistent with TVA’s mandate for least-cost planning.

The confirmed closing of two additional coal-fired power plants, in particular the Bull Run Fossil Plant, will help the City of Knoxville make progress toward our emission reduction goals and have meaningful, positive impacts on local air quality and environmental health. TVA should prioritize strategies that achieve continued reduction in reliance on coal-fired generation.

While it is encouraging to see continued reductions in carbon intensity through 2038 across all alternatives, it is clear from the IRP that TVA anticipates that fossil fuel resources will continue to provide a significant portion (37% -39%) of Valley electricity for the next two decades. Constituents in Knoxville are challenging the City to significantly decrease carbon emissions and expand the use of zero-carbon clean energy. Many businesses across the Valley are committing to clean energy goals. TVA, working with local power companies (LPCs), should create and deploy opportunities for their customers (including cities like Knoxville) to expand and accelerate the use of zero-carbon energy sources in order to further reduce the portion of our electricity provided by fossil fuels. Such opportunities could take the form of green tariff programs or similar products that allow customers to directly invest in clean energy in ways that align with the needs of the regional and local utility grid.

Distributed Solar Energy

Distributed solar installations have played a key role in the City of Knoxville’s sustainability actions and will continue to do so due to the positive impacts that distributed solar creates for our municipal operations, our local economy, and community resilience. The IRP indicates, generally speaking, a trade-off between TVA promotion of distributed-scale versus utility-scale solar in terms of meeting projected capacity needs. I strongly encourage TVA to pursue strategies that result in significantly expanded solar capacity at whatever scale (distributed or utility) best meets the needs of TVA and Valley communities. However, it is also important that TVA and LPCs accommodate and do not create or exacerbate barriers to private investment in distributed solar, including barriers that result from ratemaking decisions.

Energy Efficiency

Energy efficiency is also a core tenant of our efforts to achieve aggressive, cost-effective reductions in carbon emissions. In Knoxville, TVA’s Energy Right Solutions program has helped local residents and businesses make practical improvements that lower utility bills while also benefiting the utility grid, supporting local job markets, and protecting the environment.

While the IRP scenarios build in assumptions that the market will continue to drive energy efficiency, it is disappointing to see that, across the IRP strategies, TVA-led energy efficiency programs are not projected to play a significant role in meeting future electricity demand. I encourage TVA to be an energy efficiency leader, both through direct investments that support
utility needs as well as through policy and industry leadership that promotes continued market-driven adoption of energy efficiency. This leadership aligns with the goals of the City of Knoxville, and we would be a willing partner to work with you on these efforts.

In particular, the City and a multitude of partners have championed efforts to increase the ability of lower income residents to improve the efficiency of their homes in order to save money, address health stressors, and live more comfortably. TVA has been a critical partner in these efforts, as exemplified through TVA’s investment in the Knoxville Extreme Energy Makeover (KEEM) program and HomeUplift in support of KUB’s Round It Up program. I cannot underscore enough the importance of TVA’s robust engagement in ongoing conversations about how to ensure that those with fewer financial resources are not left out of the transition to an efficient, 21st century energy system.

The reality is that many low-income residents have not received proportional benefits from TVA’s EnergyRight Solutions financial incentive programs, even though they have contributed proportionally to the rate-recovery of those programs. Continued investment in programs specifically designed to meet the needs of low-income customers should be considered within the lens of this historical inequity and play an increased role in TVA’s future investment in energy efficiency.

I am pleased to see that the IRP includes continuation of the Home Uplift pilot in all tiers of energy efficiency programming. It is important to recognize that there are many ways of supporting low-income energy efficiency that need not always rely on TVA covering all—or the bulk of—costs directly. We have heard from residents who are willing to put “skin in the game,” but who don’t always have access to the upfront capital necessary to make efficiency investments. We encourage TVA and local LPCs to explore low-income energy efficiency financing options that empower residents of limited financial means to make practical investments in their long-term financial interests.

**Net Participant Cost Analysis**

The IRP analysis of Total Resource Cost indicates that some strategies require additional investment from participants net of energy savings, driven by distributed energy resources such as energy efficiency and distributed generation. However, it is critical to recognize that there are a multitude of non-energy benefits that participants receive by participating in such programs. TVA should seek to include the value of non-energy benefits in its cost analyses in order to more accurately capture the true value of these programs to the Valley.

Especially in the case of low-income energy efficiency programs, including TVA’s Home Uplift pilot, additional participant costs are borne not by the low-income families served but by supportive community partners, including the City of Knoxville, that provide leveraged funds for TVA’s investment. These additional community investments are more than justified by a multitude of non-energy benefits such as improved health, improved quality and affordability of local housing stock, and financial stability. The aggregate value of these benefits accrues not just to participating families but also to the communities in which they live.
Land Use Implications of Solar
The Draft IRP repeatedly states that strategies resulting in greater solar utilization will require higher land use. This metric fails to recognize a significant difference in how land is impacted by solar installations relative to other resource options: solar projects do not change the long term nature of the land, which can quickly and easily be returned to the original condition or use. Our experience in Knoxville has shown that solar is an ideal use for brownfields and other underutilized land. It is often a way to return to productivity parcels that otherwise sit vacant in our communities. Rather than a land-use liability, solar can be a land-use asset. While this distinction is referenced in the IRP’s Environmental Impact assessment, this should be clearly stated in the final IRP.

Conclusion
TVA’s Integrated Resource Plan should show bold leadership toward a more sustainable future for the Valley and its residents. TVA should support strategies that result in the lowest levels of carbon emissions, transition the Valley away from reliance on fossil-fueled generation, and create pathways for customers to strategically utilize 21st century technologies. IRP analysis suggests that such strategies can meet the needs and demands of customers while achieving flexibility, reducing risk, maintaining economic health, and maximizing benefits for communities in the Tennessee Valley.

Thank you for the opportunity to review and comment on this important utility process. I look forward to continuing to work with TVA and KUB to advance shared sustainability goals. Please contact Erin Gill, Director of Sustainability for the City of Knoxville, with any comments or questions: egill@knoxvilletn.gov or 865-215-4430.

Sincerely,

Madeline Rogero
Mayor