

July 3, 2023

Ms. Chevales Williams
NEPA Specialist
Tennessee Valley Authority
400 West Summit Hill Drive
Knoxville TN 37902
nepa@tva.com
cwilliams1@tva.gov

Re: Comments on the Tennessee Valley Authority’s 2023 Draft Environmental Impact Statement For The Kingston Fossil Plant Retirement

Dear Ms. Williams,

We are at a crossroads – for our communities and our climate. Our over reliance on fossil fuels, like fossil gas, and ever-rising greenhouse gas emissions are inflicting mass suffering and instability around the world, including right here in the Valley. To preserve a livable planet and for a decent chance at limiting global warming to 1.5 degrees Celsius, the United States should phase-out coal use and significantly reduce fossil gas generation by 2030.¹ That’s why the decisions the Tennessee Valley Authority (“TVA”) – our country’s largest federal utility – makes today are so crucial. They will have lasting consequences for our climate, our communities, and thus our ability to ensure an affordable, safe, equitable and resilient energy future for all people.

TVA is one of the country’s largest emitters, averaging 38 million tons of CO2 emissions annually.² We appreciate TVA has made some progress in reducing its massive carbon footprint,³ but the agency lacks urgency in confronting the climate emergency head on, and in fact is moving in the opposite direction as it plans for new fossil gas additions. Even more, TVA is taking these steps despite community opposition and concerns from local power companies, elected officials, and even the Environmental Protection Agency.

We have strong concerns with TVA’s environmental review process, and question whether it has genuinely met its obligation to foster meaningful consideration. We believe

¹ See Evolved Energy Research, *Annual Decarbonization Perspective 2022*, (January 13, 2023), <https://www.evolved.energy/post/adp2022>. See also National Renewable Energy Laboratory, 100% Clean Electricity by 2035 Study, <https://www.nrel.gov/analysis/100-percent-clean-electricity-by-2035-study.html>.

² Christopher Van Atten, Amlan Saha, Luke Hellgren, and Ted Langlois, *Benchmarking Air Emissions Of the 100 Largest Electric Power Producers in the United States*, CERES, (September 2022), <https://www.ceres.org/sites/default/files/reports/2022-09/BenchmarkingAirEmissions2022%20%281%29.pdf>.

³ Tennessee Valley Authority, *TVA Charts Path to Clean Energy Future*, (May 6, 2021), <https://www.tva.com/newsroom/press-releases/tva-charts-path-to-clean-energy-future>.

TVA's draft Environmental Impact Statement (DEIS) fails to explore all reasonable alternatives that would have the utility do its part to minimize harm to communities and the environment.

We therefore submit these comments urging you, as leaders of the Tennessee Valley Authority, to reject Alternative A and instead consider an additional alternative that would maximize clean, renewable energy, including distributed solar, energy efficiency, and battery storage. The alternatives that TVA considers must center justice and equity and minimize negative environmental impacts. Further, the utility must take immediate steps to strengthen the public participation process to meet its statutory obligations under the TVA Act.

1. The Kingston Environmental Review Process Fails to Foster Meaningful Public Participation

TVA's process for informing and *engaging* the public on energy projects, like the Kingston retirement, is significantly insufficient. If the purpose is public participation, which is mandated in the TVA Act and by the National Environmental Policy Act (NEPA), TVA's process is not geared towards that end, especially in a way that is either meaningful or impactful. The processes as they currently stand appear more appropriate to an informal public notification, than one that gains the informed consent of the public whom TVA is obligated to serve.

First, the 45-day comment period does not allow for meaningful public participation. This is simply not enough time for someone to gain an understanding of the issue and formulate an appropriate response to any proposed changes. Do any of the TVA staff have enough time, in their personal schedules, to come to any of the three open houses? And while the virtual open house is a positive in a post-Covid world, this alternative is still no solution. The virtual meetings are better suited to a Youtube video presentation, since the people who attend this session have no concrete way of interacting and posing questions to any and all presentations.

Second, TVA has not addressed the many access barriers which make it difficult for individuals to attend public comment forums in the first place. When we talk about public engagement, that begins with information sharing and allowing for people to ask questions and communicate directly with TVA staff. Yet, without *accessible* public comment forums TVA will only hear from a limited pool of people, and often those who have the resources, knowledge, and capacity to attend these meetings and engage with the substance of the issue. Anyone can attest to the fact that life with a family, full time & part time employment alone, make attending any public forum prohibitively difficult. Other barriers, like access to public transportation or child care, make it that much harder to attend these public forums and to engage with TVA staff over the projects that will impact them. Therefore, any scheduling with the public that has true intentions, should be at a time when the public can actually attend. This could include having a rolling period with multiple meetings and open forums.

Third, TVA has scheduled five public comment deadlines within two weeks of each other. Two of these comment periods – for the Kingston plant retirement and the Integrated Resource Plan – are due on the same day. In effect, TVA is stretching the public thin and forcing them to pick which projects to engage with. If TVA is committed to public participation and the public power model, they would spread out these comment periods and extend the deadlines. Only in doing so can TVA ensure that they are sufficiently meeting their requirements under NEPA.

Fourth, TVA provides the public little to no acknowledgement that their comments are actually being processed and addressed. By law, TVA is not required to respond to comments but is allowed to state why a particular comment is being dismissed or used by TVA. There is currently no clear indication that anyone inside or affiliated with TVA as an organization, has actually seen and understood comments made by the public. While all submitted comments are recorded and made public, this is only a recognition that TVA received them. Our organizations have submitted hundreds of comments without any acknowledgement from TVA staff.

Finally, because TVA has no publicly elected oversight board or Office of Public Participation, there is no structure in place for robust public comment. Even more, multiple TVA board members have stated that TVA staff have told them they are not allowed to speak to the public. What sort of public utility tells its Board of Directors they do not have the right or authority to speak to members of the public on public matters when they actually do?

This process has almost no meaningful opportunity for public input. The public deserves, regardless of whether or not a utility is public or private, to have a say in the energy projects TVA will build in their communities—for their communities. Especially in this moment with the realities of the climate crisis and pervasive environmental injustice, the importance of meaningful public participation cannot be overstated.

2. TVA's Draft EIS Is Skewed in Favor of Gas and Fails to Consider All Reasonable Alternatives

TVA's plans for replacing the Kingston plant – and more generally, its overall system planning to expand gas generation in the Valley – raise many flags. As detailed below, we outline why the preferred gas CC/Aero CT plant alternative would not advance TVA's goals of ensuring reliability, minimizing rate impacts, and avoiding land use impacts. Additionally, the proposed gas plant would exacerbate the climate crisis, environmental injustice, and public health hazards.

a. Reliability

Utilities around the country often cite reliability as one of, if not the, most important factors when planning and making decisions that impact ratepayers. TVA is no different. On its website, TVA claims “99.999%” reliability when delivering energy to customers⁴.

The North American Electric Reliability Corporation (NERC) sets reliability requirements that all utilities must meet in order to avoid penalties for noncompliance. TVA is subject to the same requirements, but actually performs below many when it comes to reliability. According to Energy Information Administration (EIA) data compiled by the Citizens Utility Board, Tennessee, which is entirely covered by TVA’s service territory, ranks 37th in the country when it comes to its average performance on duration of power outages, time to restore power to customers, and frequency of power outages⁵. There are many reasons for this poor performance, but one of them came into sharp focus during the winter storms of December 2022.

Winter Storm Elliot hit the Tennessee Valley hard in December 2022, resulting in the first rolling blackouts in TVA history. TVA saw a single day record for energy demand on December 23rd, and a weekend record for peak demand the next day.⁶ TVA could not meet these energy demands and asked its 153 local power companies to implement rolling blackouts. These blackouts were caused almost entirely by the failure of TVA’s coal and gas plants, whose equipment could not operate in such cold weather. On the contrary, TVA’s limited solar assets performed well during the storm and were even used to refill the Raccoon Mountain pumped hydro storage facility according to TVA’s Don Moul during the February TVA board meeting.⁷

In spite of the very apparent weaknesses of fossil gas plants, TVA still seems inflexibly determined to build out its gas infrastructure, posing reliability risks to the Valley in the future. There are more reliable options that TVA should be considering, yet their plans for Kingston are clearly already favoring gas. A report from Synapse Energy Economics lays out exactly how

⁴ TVA Maintains Reliability and Low Rates in 2020, Tennessee Valley Authority, <https://www.tva.com/newsroom/press-releases/tva-maintains-reliability-and-low-rates-in-2020#:~:text=TVA%20continued%20to%20maintain%2099.999,customer%2C%20despite%20record%20setting%20weather.>

⁵ See Electric Utility Performance: A State-by-State Data Review, Citizens Utility Board, https://www.citizensutilityboard.org/wp-content/uploads/2021/07/Electric-Utility-Performance-A-State-By-State-Data-Review_final.pdf.

⁶ See “After Action Report: Winter Storm Elliot”, Tennessee Valley Authority, https://cdn1-origins.webdamdb.com/14125_149056454.

⁷ See Tennessee Valley Authority Meetings Archive for February 16, 2023 Board Meeting, available at: <https://www.tva.com/about-tva/our-leadership/board-of-directors/meetings-archive/2023/02/16/default-calendar/tva-board-meeting---february-16-2023>.

TVA could move forward with a reliable build out of renewable energy.⁸ Instead of tipping the scales toward gas, TVA should be seriously examining the potential of renewable energy alternatives such as distributed solar, storage, energy efficiency, and demand response.

b. Rate impacts

Another very real impact of continued reliance on gas is increased and volatile rates for Valley ratepayers. As a wholesale distributor of power, TVA passes any increases in costs directly onto ratepayers through its LPCs in fuel cost adjustment charges. More recently, the war in Ukraine and other factors led to massive spikes in the cost of gas for power generation and customers across TVA's service territory felt the impacts of this last summer with increases in their electricity bills⁹, including customers in Memphis whose bills doubled.¹⁰

The costs of gas also have long term impacts for ratepayers when utilities pass them along to consumers, as TVA does. When new federal standards such as EPA's proposed carbon rules for new and existing gas plants go into effect, gas plants that are designed to run for decades could become stranded assets that customers are on the hook to pay for. Additionally, should new legislation pass or if TVA is forced to comply with President Biden's 2035 carbon-free electric sector executive order, the costs to retire a gas plant before the end of its planned lifetime will also be passed onto customers. If TVA were a responsible utility that truly had the best interests of its ratepayers in mind, it should strongly consider potential stranded assets such as a new gas plant and pipeline for Kingston.

All of these costs, in addition to a lack of meaningful investment in home weatherization and energy efficiency programs, lead to the Southeast having some of the highest energy burdens in the country, meaning residents in our region pay some of the highest percentages of their income on energy. According to the American Council for an Energy Efficient Economy (ACEEE), the East South Central Region of the U.S, has the highest percentage of households with high energy burdens at 38%. TVA can and should do more to address this disparity which impacts Black, Hispanic, and low-income families most. Investments in less volatile renewable energy and energy efficiency programs would go a long way in reducing energy use and reliance on volatile fuel sources.

⁸ The full Study is available at the following URL, and is incorporated here by reference: <https://www.biologicaldiversity.org/programs/energy-justice/pdfs/TVAs-Clean-Energy-Future.pdf>.

⁹ See Huntsville Utility Board News Release, "TVA Fuel Cost Adjustments for July & August 2022", https://www.hsvutil.org/news_detail_T15_R92.php.

¹⁰ "Here's why your MLGW bill is so high", WREG Memphis, (Aug. 11, 2022), <https://wreg.com/news/local/heres-why-your-mlgw-bill-is-so-high/>.

c. Land use

TVA notes that its preferred alternative – the CC/Aero CT gas plant – would have permanent impacts on land use; however, they go on to state that activities associated with this project “would not have any indirect effects on land use, as further changes to the rural area would not be expected to be stimulated by the [...] Plant.” Draft EIS at 559. In discussing land use impacts with regard to Alternative B – the solar and storage alternative – TVA notes that the project would require just over 10,000 acres for solar and nearly 830 acres for battery storage facilities and converting nearly 9,000 acres of farmland to industrial use. Draft EIS at 565.

Insofar as TVA has pointed to utility-scale solar’s impacts to agricultural land as a reason not to pursue renewable energy alternatives, the utility should give serious consideration to distributed energy projects. Maximizing DER, energy efficiency, demand response, and building on degraded land could profoundly transform the TVA region and energy landscape in truly beneficial ways and reduce the transformation of agricultural land for industrial purposes. Additionally, these non-wire alternatives—which we are requesting TVA explore in a Final EIS—could also avoid additional costs associated with expanded transmission.

A recent report outlines many available options to meet our energy needs without having to build large-scale infrastructure like utility-scale solar and transmission, and especially new fossil fuel infrastructure like that proposed in the Draft EIS.¹¹ Maximizing energy efficiency, rooftop and community solar on residential and public buildings, parking lots, canals, and other already-built surfaces, could go a long way in helping TVA meet current and future energy demand without having to build unnecessary and risky gas infrastructure.

d. Climate Impacts

Climate science has made it abundantly clear that to preserve a livable planet, and limit warming to 1.5 degrees Celsius, global economies must immediately transition off fossil fuels. Earlier this year, the Intergovernmental Panel on Climate Change (“IPCC”) warned that without drastic steps to curb emissions we are likely to surpass 1.5 degrees of warming by early 2030.¹² This future would bring unimaginable harm to communities across the world, with the most severe and catastrophic consequences felt by communities of color and low-wealth.

¹¹ See “Pursuing a Just and Renewable Energy System: A Positive & Progressive Permitting Vision to Unlock Resilient Renewable Energy and Empower Impacted Communities,” *Center for Biological Diversity, The Center for Popular Democracy, Climate Justice Alliance et al.*, (May 2023), https://www.biologicaldiversity.org/programs/energy-justice/pdfs/Policy-Brief-for-Positive-Vision.pdf?_gl=1*83m972*_gcl_au*MTg5MDM4ODAxOS4xNjgzODI3Nzg3.

¹² Intergovernmental Panel on Climate Change, *Synthesis Report of the IPCC Sixth Assessment Report (AR6)* (2023), https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_LongerReport.pdf.

In TVA’s footprint, the realities of a rapidly changing climate with more intense disasters are all too familiar. Communities have and will continue to face more frequent and extreme winter storms, destructive flooding, record-breaking tornadoes, and heat waves without drastic and immediate action from the country’s biggest polluters to cut emissions and transition to clean, renewable and resilient energy. As the country’s largest public power provider, TVA should be leading the way when it comes to tackling the climate crisis. In fact, TVA’s environmental policy dictates that “TVA improves the quality of life and the environment by providing [...] increasingly clean energy”.¹³ A new gas plant would do the exact opposite and instead fuel the flames of the climate crisis, thereby threatening people’s quality of life.

TVA acknowledges that the solar and storage alternative would result in more beneficial climate impacts and emissions reductions, compared to both the No Action Alternative and Alternative A. However, TVA then goes on to justify that it still believes the gas plant is the best option because it meets the utility’s purpose of providing 1,500 MW of “firm, dispatchable power”. Draft EIS at xiv. That said, TVA has skewed the purpose and need such that it favors the gas alternative. In doing so TVA has also limited which additional alternatives it might have considered, such as distributed energy and storage and energy efficiency.

Further, TVA’s analysis of air quality and emissions impacts fails to comprehensively evaluate the upstream methane impacts associated with the preferred CC/Aero CT gas plant. Additionally, TVA did not adequately take into account the harm and associated risk of leaking pipelines, nor did they analyze combustion at plants. This violates NEPA and TVA’s implementation of the statute which states the utility shall “incorporate[...] environmental considerations into its decision-making processes to the fullest extent possible.”¹⁴

e. Public health impacts

New gas development will have a harmful impact on communities, especially frontline communities who have been disproportionately burdened by TVA’s reliance on fossil fuels. Like coal, fossil gas disproportionately harms communities of color and low-wealth.¹⁵ Gas generation produces especially potent methane emissions, on top of over 60 hazardous air pollutants – including volatile organic compounds, carcinogens, and endocrine disrupting chemicals.¹⁶

¹³ See Tennessee Valley Authority “Environmental Policy”, approved May 7, 2020, available at https://tva-azr-eastus-cdn-ep-tvawcm-prd.azureedge.net/cdn-tvawcma/docs/default-source/environment/environmental-stewardship/environmental-policy-5-7-2020.pdf?sfvrsn=ee4bdc08_2.

¹⁴ 85 CFR 17434 § 1318.20

¹⁵ Chandra Farley, John Howat, Jenifer Bosco, Nidhi Thakar, Jake Wise, and Jean Su, Advancing Equity in Utility Regulation, Lawrence Berkeley National Laboratory, (November 2021), <https://escholarship.org/content/qt1mr715sx/qt1mr715sx.pdf>.

¹⁶ Matthew Gray, Fuel Switching 2.0: Carbon Price Index for Coal-to-Clean Electricity, TransitionZero, (May 10, 2022), <https://www.transitionzero.org/blog/fuel-switching-coal-to-clean>.

Fossil gas generation produces nitrogen oxides, or NO_x, which cause respiratory problems, as well as toxic particulate matter and ozone,¹⁷ which can exacerbate asthma and other diseases.¹⁸ Fossil gas power plants also do not move – they just sit there and emit NO_x when they are operating. Those NO_x emissions may linger in nearby communities, leading to serious health problems for the people living near plants. And since many fossil gas power plants are concentrated in some of the most socioeconomically and environmentally disadvantaged communities, these emissions harm communities that are already overburdened with pollution.¹⁹ Additionally, gas compressor stations emit toxic and carcinogenic chemicals such as benzene, 1,3-butadiene, and formaldehyde. Gas combustion generates oxides of nitrogen that increase asthma risk and aggravate chronic obstructive pulmonary disease.²⁰

This problem may only get worse. A recent study by the Union of Concerned Scientists found that fossil gas plants in California will start and stop much more frequently in the future, and this increase in fossil gas plant start-ups may increase NO_x emissions,²¹ emitting as much as three to seven times as much NO_x during start-up than during one hour of full-load operation.²²

Expansion of gas imports into the TVA service area will affect emissions elsewhere as well; namely, in the regions where the gas is extracted and compressed into pipelines. Gas is associated with health and environmental hazards and reduced social welfare at every stage of its life cycle. Fracking is linked to contamination of ground and surface water, air pollution, noise and light pollution, radiation releases, ecosystem damage, and earthquakes.

Transmission and storage of gas result in fires and explosions, as well. The pipeline network is aging, inadequately maintained, and infrequently inspected. One or more pipeline explosions occur every year in the United States putting many lives at risk. This should be of significant concern to TVA given the fragile karst terrain through which the proposed pipeline.

¹⁷ See “Basic Information About NO₂”, Environmental Protection Agency, <https://www.epa.gov/no2-pollution/basic-information-about-no2>.

¹⁸ See Philip J. Landrigan, M.D., et al., The False Promise of Natural Gas, New England Journal of Medicine, (January 9, 2020), <https://www.nejm.org/doi/full/10.1056/NEJMp1913663>.

¹⁹ See “Policy Brief: Natural gas plants in California’s disadvantaged communities,” PSE Healthy Energy, (April 2017), https://www.psehealthyenergy.org/wp-content/uploads/2017/04/CA.EJ_.Gas_.Plants.pdf.

²⁰ Philip J. Landrigan, M.D., Howard Frumkin, M.D., Dr.P.H., and Brita E. Lundberg, M.D., “The False Promise of Natural Gas,” The New England Journal of Medicine, (Jan. 9, 2020).

²¹ See “Turning Down the Gas in California,” Union of Concerned Scientists, <https://www.ucsusa.org/clean-energy/ca-and-western-states/turning-down-gas>.

²² Birdsall, Brewster, et al., “Senate Bill 350 Study, Volume IX: Environmental Study,” (July 8, 2016), <https://www.caiso.com/Documents/SB350Study-Volume9EnvironmentalStudy.pdf>.

f. Just transition for workers

TVA must truly consider the impact this project will have on local economies and workers. Plant closures mean workers will be impacted no matter what the replacement alternative is. In evaluating the economic impact of the proposed project, jobs must be considered for both workers at the old plant, and any potential new jobs from the replacement alternative. Workers at the Kingston plant should be given relevant notice and job training in time to transition to new jobs, either with TVA or with outside employment opportunities.

A report from Appalachian Voices that examined the job prospects at the Cumberland plant showed potential for significantly more jobs if TVA chose investments in energy efficiency and solar plus storage rather than a gas plant and pipeline.²³ A similar analysis should be considered at Kingston to evaluate how additional renewable alternatives, like distributed energy, storage, and energy efficiency improvements, could result in more jobs in the region compared to building a new fossil gas plant and pipeline.

3. TVA Must Prioritize Distributed, Renewable Alternatives and Meaningful Public Involvement in its Energy Decisions

As outlined above, there are many deficiencies with TVA's DEIS and its justifications for the preferred gas plant alternative. And because TVA's public participation process is lacking, the people most impacted by this and all TVA decisions will have little say in the matter. This goes against the very nature of public power. If TVA is truly committed to reliable, low-cost, clean, resilient and safe energy, they should comprehensively examine alternatives for distributed renewable energy, such as rooftop solar, storage, energy efficiency, and demand response. They should do so through robust public participation that meets people where they are at.

Distributed renewable energy and energy efficiency would help TVA achieve its decarbonization goals and commitment to improving the quality of life of TVA customers. DERs bring several benefits including grid management, demand response, and transmission benefits.²⁴ These technologies, also when coupled with storage and energy efficiency, can minimize peak demand and effectively shift demand to meet variable supply rather than forcing supply to meet

²³ Knisley, Bri, et al., "Save Energy, Grow Jobs in the Tennessee Valley," Appalachian Voices, (July 14, 2022), https://appvoices.org/resources/reports/TVA_Jobs_Report_07_14_22.pdf.

²⁴ Armstrong et. al., Techno-Ecological Synergies of Solar Energy for Global Sustainability, 2 Nature Sustainability 560 (July 2019).

demand.²⁵ Additionally, distributed solar generation can provide benefits to communities and ecosystems including reduced water use, improved wildlife habitat, and even reduced land use.²⁶

These are investments TVA can make today. TVA can reliably and effectively meet energy demand without coal or new gas, saving customers nearly \$255 billion over the next two decades, lowering energy demand by 4 percentage points, and creating jobs.²⁷

It is well past time that TVA took a leadership role on climate and began living up to its mandate to steward the Tennessee Valley and improve the quality of life of its customers. That starts with decarbonizing at a rapid rate and charting a pathway to a fossil free future.

TVA customers deserve a utility that will truly serve the public interest. As the largest public utility in the country, TVA must advance a clean, renewable energy system that addresses the socioeconomic and racial inequality facing the communities it serves. TVA must commit to a just transition to 100% fossil fuel-free energy by 2030 by maximizing distributed and decentralized clean, renewable power and ensuring a just transition for workers.

Sincerely,

350.org

Animals Are Sentient Beings Inc

Animas Valley Institute

Appalachian Voices

Bergen County Green Party

Bergen County Immigration Strategy Group

Center for Biological Diversity

Center for Common Ground

²⁵ Clack et al., Technical Report: Why Local Solar For All Costs Less- A New Roadmap for the Lowest Cost Grid, Vibrant Clean Energy (2020), https://www.vibrantcleanenergy.com/wp-content/uploads/2020/12/WhyDERs_TR_Final.pdf.

²⁶ Techno-Ecological Synergies of Solar Energy for Global Sustainability (2019) at 563.

²⁷ Rachel Wilson, Iain Addleton, and Jon Tabernero, Synapse Energy Economics, Inc., Clean Portfolio Replacement at Tennessee Valley Authority: Economic and Emissions Benefits for TVA Customers, May 2022, https://drive.google.com/file/d/1rgB3Apa3C-1PF0CyVMHqdq_t4NX85VCL/view.

Climate Hawks Vote
Climate Reality Project Memphis and Mid-South Regional Chapter
Climate Reality Project Nashville Chapter
Don't Gas the Meadowlands Coalition
Earth Ethics, Inc.
Endangered Habitats League
Energy Alabama
Food & Water Watch
Foundation Earth
Fuerza Mundial
Justin Pearson, Elected Community Representative
Knoxville DSA
Mission Blue
NAACP Memphis Chapter
Protect Our Aquifer
Public Lands Project
SAGE TN
Sierra Club
Sowing Justice
Statewide Organizing for Community eMpowerment (SOCM)
Sungage Financial, Inc
Sunrise Nashville
Tennessee Interfaith Power & Light

The People's Justice Council

Union of Concerned Scientists

Unitarian Universalist Congregation of Cookeville (UUCU)

United for Action

Wall of Women

Zero Hour