



April 30th, 2024

North Carolina Utilities Commission  
430 North Salisbury Street, Dobbs Building 5th Floor  
Raleigh, North Carolina 27603  
RE: Docket E-100 Sub 190CS

To the Utilities Commissioners and the Public Staff:

The North Carolina League of Conservation Voters (NCLCV) appreciates the opportunity to provide extended comments on Duke Energy's proposed Carbon Plan (Docket E-100 Sub 190 /190CS). The North Carolina League of Conservation Voters (NCLCV) is a pragmatic, results-oriented, non-partisan organization whose mission is to protect the health and quality of life for all North Carolinians, with an intentional focus on systematically excluded communities of color. We elect environmental champions, advocate for environmental policies that protect our communities, and hold elected leaders accountable for their decisions. NCLCV is submitting this statement as an organization and as a customer of Duke Energy. Our office is located at 127 W Hargett Street, Raleigh NC 27601 which is within Duke Energy's service area.

These comments were also submitted to the North Carolina Utilities Commission and the Public Staff by Michelle Carter at the Durham public hearing on April 30th, 2024. Michelle Carter is an authorized representative of NCLCV and has obtained explicit permission to share the details of the accounts included in this statement.

NCLCV opposes the proposed Carbon Plan as updated by Duke Energy on January 31st, 2024 and will highlight our organization's concerns on the Carbon Plan itself and the public process surrounding the Carbon Plan. NCLCV believes that this proposed plan for our resource future is too reliant on methane gas and its supporting infrastructure, presents unnecessary risks for carbon neutrality by prematurely betting on immature technology, and does not adequately represent the needs and priorities of North Carolina residents, specifically environmental justice and frontline communities. NCLCV further highlights the arbitrary limits on renewable energy planning and the underestimation of demand side management mechanisms.

### **Changes to the Carbon Plan Process Reduce Opportunities for Public Participation**

As an organization that prioritizes equitable access to public participation under modern democracy, NCLCV presents its concerns about the NC Utilities Commission's changes to

public hearings and public comment on this iteration of the Carbon Plan. During last year's Carbon Plan process, there were six total public hearings: four in person and two virtual. Even though there is evidence that public education and interest in North Carolina's energy future has increased, the NCUC has decreased the amount of opportunities for public comment. There are now four in person public hearings and one virtual hearing, with the number of speakers at the virtual hearing dropping from 30 to 20.

Furthermore, there are no in person hearings available for frontline communities, located where residents are directly bearing the impacts of these proposed projects. All of the in person hearings were also held in urban areas, increasing the burden of travel for rural folks. While a virtual hearing is theoretically available for all residents in North Carolina, folks who cannot drive to a hearing and who do not have strong access to broadband internet are effectively silenced in this process. There is also a developing track record that the Commissioners do not incorporate stakeholder feedback into their decisions. Limiting public participation in the future of our electricity system and failing to listen to feedback that is provided shows complicity with the status quo instead of an active desire to build an energy future that is in the best interest of North Carolinians.

Our organization understands that unlimited speaking time and opportunities for public participation in this process is not pragmatic. However, limiting speaking time to three minutes on a document with hundreds of pages and highly technical information eliminates the nuance that energy issues require. The Commission also requires a spoken public comment to address all the issues covered in a written comment, which is highly challenging to do considering the breadth of information discussed in this Carbon Plan.

To reasonably expand the public process and the opportunity to provide public comment, NCLCV recommends that future Carbon Plan processes prioritize hearings in both urban and rural areas with a specific focus on frontline and environmental justice communities. Next, we recommend the expansion of time per speaker at in person hearings to five minutes or as permitted by the Commission to more accurately capture concerns, questions, and comments on the Carbon Plan. Finally, NCLCV urges the Commission to more heavily weigh the valid and major issues presented by hundreds of Duke Energy customers during these public hearings. If there is no sufficient forum to provide public input and no public confidence that input will be valued and acted on, there is no purpose in holding public hearings.

### **The Carbon Plan Places Disproportionate Weight on Fossil Fuels to Reduce Emissions**

It is incredibly clear that House Bill 951 intends to transition North Carolina to clean, affordable, and reliable energy as opposed to a continued reliance on fossil fuel generation. Affordably transitioning to carbon neutral fuel sources will never include methane gas, which releases

thousands of tons of greenhouse gasses, causes health issues in adjacent and impacted communities, and requires an increasingly expensive supply chain. However, Duke's Supplemental Planning Analysis from January 2024 recommends the addition of nearly 9 GW of new gas fired capacity by 2035,<sup>1</sup> one of the largest methane gas build outs in the United States. From building gas plants on top of former coal plant sites to constructing entirely new units, Duke Energy is cementing our state into decades of gas powered electricity generation.

These gas plants will require miles of pipeline to provide enough fuel to keep them running. There are two currently proposed projects to do just this: Williams' Transco Southeast Supply Enhancement Project (SSEP) and Dominion and Duke's T-15 Reliability Pipeline project. Both of these projects have already received significant local opposition due to worsening property values, increased potential for gas leaks, and higher risks of water contamination. First, the SSEP is estimated to bring 1.4 billion cubic feet of gas into North Carolina per day, making this the largest proposed pipeline in our region in the last ten years.<sup>2</sup> Next, the T-15 Reliability Pipeline plans propose a 45 mile, 30 inch wide pipeline from Eden, North Carolina to Person County.<sup>3</sup> This pipeline is specifically intended to fuel the Roxboro gas plants and will cut across the properties of hundreds of North Carolinians, directly increasing their exposure to fossil fuels and creating risks to their health and safety. All of these projects will have major financial costs and will directly increase costs for ratepayers.

The largest issue with this Carbon Plan is the costs associated with Duke Energy's proposed methane gas buildout and the underlying assumptions Duke has made to support those costs. Large expenses come with the construction of this new infrastructure, from the plants themselves to the pipelines needed to deliver the fuel. Duke underestimates the consistent and ever increasing costs of securing fuel supply even though the Carbon Plan acknowledges prices of gas are projected to steadily increase from now until the 2040s.<sup>4</sup> This steady increase does not account for short term volatility, causing price spikes on monthly bills for ratepayers.

Methane fuel costs are incredibly volatile, and a recent study by EQ Research showed that fuel costs are significant contributors to retail electricity rates. In the Duke Energy Carolinas (DEC) service territory, increases in fuel costs account for roughly 67% of the increase in residential retail rates since 2017, making the portion of the rate increases attributable to fuel costs more

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<sup>1</sup> Anderson, J. (2024, April 16). *Duke Energy sees a need for incremental gas-fired power to meet demand growth: CEO*. S&P Global Commodity Insights.

<https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/electric-power/041624-duke-energy-sees-a-need-for-incremental-gas-fired-power-to-meet-demand-growth-ceo>

<sup>2</sup> Sierra Club. (n.d.). Say No to Duke and Dominion's Dirty, Dangerous Fracked Gas Buildout.

[https://www.sierraclub.org/sites/default/files/2024-02/2719%20NC-Factsheet%2005\\_web%20%281%29.pdf](https://www.sierraclub.org/sites/default/files/2024-02/2719%20NC-Factsheet%2005_web%20%281%29.pdf)

<sup>3</sup> *T15 Reliability Project: Dominion Energy*. T15 Reliability Project | Dominion Energy. (n.d.).

<https://www.dominionenergy.com/projects-and-facilities/natural-gas-projects/t15-pipeline>

<sup>4</sup> See Figure C-3, Appendix C, Duke Energy. (n.d.-a). Carolinas Resource Plan - Duke Energy.

<https://www.duke-energy.com/our-company/about-us/irp-carolinas>

than double the amount from all other rate components.<sup>5</sup> In the Duke Energy Progress (DEP) service territory, where gas currently represents a slightly lower percentage of the generation mix, increases in fuel costs account for roughly 46% of the increase in the residential retail rates since 2017.<sup>6</sup> Transitioning away from methane gas rather than building it out improves energy security by reducing our reliance on fuel supplies and will directly reduce North Carolinians' energy bills. Furthermore, any projects built now that may be forced to wind down due to the carbon neutrality mandate pose the risk of becoming stranded assets.

Even if fuel costs are put aside, there are inherent reliability risks from gas combustion that this Carbon Plan ignores. Duke inflates the reliability contribution assigned to gas plants while ignoring the execution risks around securing firm fuel supply to ensure fuel is available during extreme winter weather. Despite fossil fuel supporters claiming that we need gas to support our grid when the sun doesn't shine and the wind isn't blowing, there is concrete evidence that renewable power supported North Carolina's grid during Winter Storm Elliott. PJM's report on Winter Storm Elliott found that gas generators and fossil fuel plants accounted for 70% of unplanned outages.<sup>7</sup> Furthermore, the Federal Energy Regulatory Commission (FERC) noted that the conditions we faced in Winter Storm Elliott are not an isolated event. In fact, this was the fifth event since 2011 to compromise reliability from cold weather and the third event directly related to the failures of gas generation.<sup>8</sup> This failure of gas plants to perform in cold weather is not adequately accounted for in Duke's proposed Carbon Plan. Even though the propensity of coal and gas plants to fail at higher rates during extreme cold is driving up Duke's assumed reliability need, Duke fails to account for this risk in their assumption of those resources' reliability contribution. Even the premise of further relying on gas under the guise of reliability is opposite to the present state of our grid.

The combination of expensive infrastructure, rising and volatile fuel costs, and the increasing probability of extreme cold weather events all arrive at the same conclusion: methane gas is not the resource we need in North Carolina. Gas has proven to be unreliable and expensive, and recent federal administrative actions (covered at length in the next section) cement our nation's move away from gas towards emissions free, clean energy resources.

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<sup>5</sup> EQ Research LLC. (n.d.). *Issue Brief: The Role of Fuel Costs in Duke Energy's North Carolina's Retail Rates From 2017 Through March 2024*. Environmental Defense Fund.

[https://www.edf.org/sites/default/files/documents/Issue\\_Brief\\_Narrative\\_4\\_18\\_24.pdf](https://www.edf.org/sites/default/files/documents/Issue_Brief_Narrative_4_18_24.pdf)

<sup>6</sup> EQ Research LLC. (n.d.). *Issue Brief: The Role of Fuel Costs in Duke Energy's North Carolina's Retail Rates From 2017 Through March 2024*. Environmental Defense Fund.

[https://www.edf.org/sites/default/files/documents/Issue\\_Brief\\_Narrative\\_4\\_18\\_24.pdf](https://www.edf.org/sites/default/files/documents/Issue_Brief_Narrative_4_18_24.pdf)

<sup>7</sup> PJM. (n.d.-a). Winter Storm Elliott frequently asked questions.

<https://www.pjm.com/-/media/markets-ops/winter-storm-elliott/faq-winter-storm-elliott.ashx>

<sup>8</sup> Huff, D., & Polzin, E. (2024, February 13). 2022 Winter Storm Elliott inquiry findings ➤ gas-electric ...

[https://www.energy.gov/sites/default/files/2024-02/Day\\_1\\_-\\_FERC\\_2022\\_Winter\\_Storm\\_Elliott\\_Inquiry\\_Findings\\_untagged.pdf](https://www.energy.gov/sites/default/files/2024-02/Day_1_-_FERC_2022_Winter_Storm_Elliott_Inquiry_Findings_untagged.pdf)

## The Carbon Plan Does Not Adequately Consider Federal Legislation and Administrative Actions

Based on NCLCV's direct experience and work with the Inflation Reduction Act (IRA) within communities across North Carolina, we do not believe that Duke Energy has correctly estimated the amount of energy efficiency and demand side management improvements that will come to homes, apartments, and businesses across North Carolina. NCLCV's sister organization, the North Carolina League of Conservation Voters Foundation (NCLCVF), has been involved in tracking funding from the Inflation Reduction Act since its passage in 2022.

NCLCVF has worked in coalition with environmental, social justice, and community based organizations to build a toolkit for Carolinas residents to learn more about and apply for programs in the IRA and BIL (<https://energyfundsforall.org>). We have presented this toolkit to hundreds of folks and are working with individuals and communities to access loans, rebates, and tax credits to weatherize their homes and lower their energy bills. We also work with the North Carolina Department of Environmental Quality (NCDEQ) and the State Energy Office (SEO) to keep our information current.

Therefore, we know firsthand how much funding is coming to North Carolina and we are confident that money from programs like Solar for All, Climate Pollution Reduction Grants, Greenhouse Gas Reduction Fund, and others will increase distributed energy generation, improve demand side management, and provide relief for Duke Energy's projected demand increases. Much of this funding can also be accessed by small, medium, and large businesses, providing further opportunities to reduce this projected demand. Furthermore, studies have shown that 99% of new gas plants proposed are more expensive than similar amounts of renewable generation if utilities take full advantage of the tax credits available.<sup>9</sup> Both this Carbon Plan and Duke Energy must aggressively leverage these funds for the benefit of North Carolina, even at the risk of a smaller profit margin for their shareholders. As a corporation beholden to the public interest, Duke's obligation is clear and there is no better opportunity than now to leverage the full scope of federal funding to decrease our demand and improve our electricity portfolio. Beyond this, it is the mandate of this Commission and HB 951 to represent the people of NC by identifying the least cost, most reliable plan to meet NC's energy needs. The last iteration of the Carbon Plan explicitly called for maximum usage of IRA benefits, and it is clear to our organization that Duke Energy still has not fulfilled this maximization.

The Inflation Reduction Act is not the only federal action that is inadequately considered in the proposed Carbon Plan. The federal government has made multiple announcements in 2024 that have drastically altered the energy landscape and will subsequently alter Duke Energy's plans for

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<sup>9</sup> Modi, J. (2024, March 18). *Duke Energy's proposal to convert the Roxboro coal plant to gas would be one of many dangerous new fossil fuel investments*. Appalachian Voices. <https://appvoices.org/2024/03/18/roxboro-conversion/>

our future. In October 2023, The US Department of Energy passed over Duke Energy's application for a Hydrogen Hub, effectively shutting the Southeast off of supply plans and expansion opportunities for hydrogen gas. Duke cited this potential Hydrogen Hub as a key source for hydrogen fuel during their first Carbon Plan filing in August.

While Duke Energy has now said this failure to procure federal funding for hydrogen will not affect their plans, they have failed to provide evidence of other potential sourcing options. Duke has positioned its gas buildout as successful because of the projected hydrogen buildout to extend the life of their proposed infrastructure, but this does not change the underlying issues of reliability of fuel sourcing and supply. NCLCV believes that hydrogen can have a place in the clean energy transition, specifically to decarbonize challenging industrial and technical processes. However, there are cleaner, cheaper, and more efficient energy sources available for our power generation sector to employ much sooner than hydrogen will be available at a utility scale. We have access to more certain and affordable energy generation options now than the current landscape of hydrogen can provide.

The most notable omission of this Carbon Plan is the consideration of EPA's decision concerning new methane gas plant emissions. On April 25th, 2024, the EPA released the final version of their Section 111 rules governing emissions reductions and limits for power plants across the nation. This final ruleset is more aggressive than the previous draft, which was publicly released in 2023. These rules will cut carbon pollution for new gas plants by an estimated 90%, forcing new builds to run at lower capacity or implement carbon capture methods.<sup>10</sup> It is unclear if North Carolina's geography can support carbon capture and underground sequestration. Therefore, it is likely that any new gas plants built will need to majorly shrink their capacity and expected run times to avoid violation of these rules. This directly increases the cost per kilowatt hour of energy generated from gas plants, increasing bills even further. We understand it was not feasible for Duke Energy to evaluate these final rules before the release of their initial draft Carbon Plan, so we call upon the Utilities Commission to evaluate these rules in combination with other federal legislation and actions that have lowered the barriers and cost burdens of renewable energy to economically outcompete methane gas.

To quote Chapter 1 of the August 2023 Carbon Plan, North Carolina is experiencing a "changing energy landscape," and the Utilities Commission must modify this plan to accommodate these rules. If Duke proceeds with new gas plants and they do not comply with EPA's 111 rules, Duke Energy will incur daily fines and bills will increase even more. New gas is simply unaffordable with the release of EPA's final rules and therefore any new gas builds will likely violate the least cost planning principles the Carbon Plan is meant to follow.

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<sup>10</sup> *Fact Sheet: Carbon Pollution Standards For Fossil Fuel-Fired Power Plants Final Rule*. Environmental Protection Agency. (n.d.). <https://www.epa.gov/system/files/documents/2024-04/cps-111-fact-sheet-overview.pdf>

## The Carbon Plan Fails to Meaningfully Involve Environmental Justice (EJ) Communities

In its 2022 Carbon Plan order, the NC Utilities Commission ordered that Duke “[...] continue to develop targeted engagement plans for impacted communities, to enact these plans in the near term and to report to the Commission on these plans and the ensuing engagement with stakeholders in its upcoming CIPRP filing...”<sup>11</sup> Unfortunately, Duke Energy’s commitment to environmental justice in the Carbon Plan is clearly lacking, as only one small section of the written plan covered Duke’s work. This section did not include information on the number of meetings held, the outcomes of meetings, who attended these meetings, or virtually any concrete details on Duke Energy’s plan to engage impacted communities. To date, Duke has only publicly shared the structure of their community engagement plan but did not share any specific information regarding what response or feedback communities had provided to the utility regarding its Carbon Plan proposals. This mirrors the tardy and insufficient EJ outreach during the 2022 Carbon Plan process.

Duke’s approach writ large lacks basic environmental justice considerations by limiting their engagement to the infrastructure projects that are already approved in the Carbon Plan, inherently decreasing transparency. By only engaging with communities once a project is sited and decided on, Duke Energy minimizes voices that should be heard and taken into account earlier in the process. Our organization experienced this firsthand when one of our staff members reached out to participate in a regional environmental justice council.

Robin Smith, senior policy director at NCLCV, reached out to Jennifer Bennett, the Duke Energy Government and Community Relations District Manager for Buncombe, Haywood, Madison, Yancey, Mitchell, and Avery Counties on August 8, 2023. Ms. Smith expressed interest in serving on the local EJ council but was told because she did not live in Buncombe county specifically she could not serve on the council. Ms. Bennett explained that while Yancey County was within her region for engagement, Duke was only allowing community members from Buncombe County to serve on the EJ council as that is where Duke currently had projects planned. This not only negates the basic tenets of EJ engagement if all you are doing is mitigating after a decision to build is marked. It also ignores the National Environmental Policy Act (NEPA) that requires federal agencies to assess the environmental effects of their proposed action prior to making decisions. Greenfield construction of transmission lines, solar, and wind is a time consuming process requiring knowledge on where it is feasible to construct to assess the environmental effects of the proposed action prior to making a decision to build.<sup>12</sup> We recommend the Commission order Duke to engage with EJ communities at the greenfield stage

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<sup>11</sup> See Docket No. E-100, SUB 179: “Order Adopting Initial Carbon Plan and Providing Direction for Future Planning”.

<sup>12</sup> See Environmental Justice Interagency Working Group. (2019, March). *Community Guide to Environmental Justice and NEPA* ... Environmental Protection Agency. <https://www.energy.gov/lm/articles/community-guide-ej-and-nepa-methods-2019>

of project development to ensure the process to carbon reduction is not slowed down by long state and local lawsuits.

Duke Energy states in their August 2023 Carbon Plan that they have developed “customized strategies tailored to provide meaningful local engagement to those most impacted by specific projects” but fails to provide detail on these strategies or to define/measure “meaningful local engagement”. Because of the overall lack of details on this engagement, NCLCV is skeptical that this work aligns with the Commission’s initial recommendation for a robust environmental justice plan. So far, our organization believes this work is performative and arbitrary and lacks accountable measures by which the NCUC can evaluate success.

As one of the oldest environmental organizations in the state with a deep commitment to grassroots organizing in BIPOC and underserved communities, we have significant concerns around the meaningful inclusion of environmental justice communities in this process. From siting resources to public participation for the strong possibility of cumulative impacts, this proposed Carbon Plan comes with huge risks to our vulnerable communities.

An immediate and relevant example is the excessive and rapid development of Person County as the center of fossil fuel generation in our state. Currently, the Roxboro Steam Electric Plant is one of the largest coal fired power plants in North Carolina. While this Carbon Plan schedules it for retirement in the 2030s, it will be immediately replaced with a gas combustion plant. This project will keep pollution in this community for decades, leading to further adverse health impacts and keeping the population reliant on a fossil fuel driven economy. While we understand Duke’s desire to use existing transmission lines and infrastructure, this same infrastructure could be retrofitted and modified to support solar development and battery storage on this brownfield site.

Furthermore, other utilities and projects are coming to and through Person County. Dominion Energy has proposed the Moriah Energy Center, a 25 million gallon liquefied natural gas storage facility, which will emit thousands of tons of greenhouse gasses. The T-15 Reliability Pipeline, also proposed by Dominion, crosses through multiple rural counties to supply the Roxboro gas plant with fuel. As the Carbon Plan does not consider the actions and subsequent impacts from different utilities, we believe the Utilities Commission must be a governing body that considers our entire energy landscape to avoid additional harm to Person County residents and residents in other counties with similar future risks. Protecting our residents and communities from the joint impacts of multiple utilities protects all of us from future harms and promotes equity as we continue to build a carbon-neutral power sector.

Duke Energy’s Carbon Plan engagement strategy for impacted communities lacks transparency, fails to demonstrate the impact of community engagement and fails to provide the NCUC with



enough detail to evaluate if the 2022 Carbon Plan order requirements are satisfied. Therefore, we recommend the following:

- a. **Transparency on Community Engagement.** Going forward, Duke’s IRP website should include materials on community engagement subject to the same Chatham House restrictions as it does for other stakeholder engagement-for future CPIRPs. Specifically, this should include:
  - i. A publicly accessible, central repository regarding Carbon Plan impacted community outreach
  - ii. Widely publicized notice of future community meetings
  - iii. Past meetings slides, recording and documents publicly available
  - iv. Documents and written information relating to the overall process by which Duke is conducting its engagement and outreach measures
  - v. Feedback opportunities for the documents requested in (iv) without restriction to geographic location or identity
- b. **Demonstrate Impact of Community Engagement.** The CPIRP rules should require the utility to demonstrate how community feedback was incorporated in Carbon Plan decision-making, if at all, and if not, why not. Furthermore, Duke Energy must make its full plan for public engagement in impacted and environmental justice communities public and open for feedback from North Carolina ratepayers.
- c. **Require Additional In-Person and Written Utility Reporting to the Commission on Community Engagement.** During the 2022 CPIRP process, the Commission required Duke to report out and allow time for questions at the Commission’s meetings. We recommend that Duke should be required to do the same following its August 2023 CPIRP filings, so that the Commission has the opportunity to direct additional community engagement as appropriate during the remainder of the 2023/4 CPIRP process and occur on an annual basis. This is a departure from the biannual submission of the Carbon Plan but allows the Commission to provide increased oversight over this vital process.

### **The Carbon Plan is Not Affordable**

As stated explicitly in our oral statement made on April 30th to the Utilities Commission and the Public Staff, the proposed Carbon Plan is not affordable for North Carolina consumers due to the extensive amounts of infrastructure required. Duke Energy has estimated that bills will increase by \$80 per month on average by 2038.<sup>13</sup> This estimate does not include general rate increases or

<sup>13</sup> *Supplemental Planning Analysis*. Duke Energy. (2024, January 31).

<https://www.duke-energy.com/-/media/pdfs/our-company/carolinas-resource-plan/supplements/supplemental-planning-analysis.pdf?rev=f134d62ba6d645ccb3de2bc227a0d42d>

fuel riders, meaning bills in actuality could skyrocket to hundreds of dollars extra per month. While we in the Southeast have some of the least expensive bills in the nation, this Carbon Plan projects drastic bill impacts that are not truly transitioning us to clean energy.

Duke Energy continually emphasizes profits over the legal requirements by which it is bound and the pragmatism of the energy transition. In the only portfolio presented in Duke's August 2023 plan that meets House Bill 951's carbon reduction requirements, Duke added an arbitrary 20% adder onto all new generation resources.<sup>14</sup> This adder drastically inflates the cost of Duke's plan and implies significant risks for electricity customers while minimizing the benefits of energy efficiency and other demand-side investments in reducing customers' electricity bills. Duke's demand growth is driven by large industrial, manufacturing, and data center loads, but residential customers are exposed to rising costs. While we respect the wishes of large corporations and accounts that want to keep their bills low, it is not equitable to shift costs of one customer onto residents that neither benefit nor know these costs are coming from other customers. NCLCV acknowledges that the use of renewable energy will also come with up front costs and subsequent bill impacts. The transition to any technology from coal will come with economic and systemic costs. However, it is the role of the NC Utilities Commission to ensure a sustainable energy system from now until carbon neutrality is reached in 2050.

### **The Carbon Plan Relies on Immature Technology to Reach Carbon Neutrality**

In Duke Energy's Supplemental Planning Update, three tenets of the plan are emphasized: reliability, least cost, and least risk. Considering this proposed Carbon Plan relies on hydrogen gas and small modular nuclear reactors (SMRs) to achieve North Carolina's mandate of carbon neutral power generation, NCLCV has significant concerns about this plan's risk to North Carolina's consumers.

While Duke Energy says that this plan is the "least risk,"<sup>15</sup> it is actually not the lowest risk plan for consumers due to its future reliance on unproven, inaccessible future technologies. After constructing methane gas plants, Duke plans to gradually transition these plants to blended co-firing of methane and hydrogen with a gradual scale up on fuel. As mentioned previously, Duke did not get a Hydrogen Hub, meaning there is no plainly available source for the fuel intended to get North Carolina to carbon neutrality.<sup>16</sup> There are only 1600 miles of hydrogen fuel pipelines in the country and the federal government has indicated significant retrofits will be

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<sup>14</sup> Duke Energy. (n.d.-a). Carolinas Resource Plan: Chapter 3. <https://www.duke-energy.com/our-company/about-us/irp-carolinas>

<sup>15</sup> See *Supplemental Planning Analysis*. Duke Energy. (2024, January 31). <https://www.duke-energy.com/-/media/pdfs/our-company/carolinas-resource-plan/supplements/supplemental-planning-analysis.pdf?rev=f134d62ba6d645ccb3de2bc227a0d42d>

<sup>16</sup> Wagner, A. (2023, October 14). US Energy Department passes on hydrogen 'hub' for southeast | Raleigh News & Observer. <https://www.newsobserver.com/news/politics-government/article280513479.html>

needed to transition methane pipelines to 100% hydrogen.<sup>17</sup> Because the transition from methane to hydrogen falls outside Duke's window of their Near Term Action Plan, these issues and uncertainties can be conveniently ignored.

Duke's additional plans to employ SMRs are also in question. SMRs are not viable utility scale technology, and projects across the United States that develop SMRs have incurred significant delays and cost increases. Many of these projects have also been canceled, casting doubt upon the viability of this potentially emerging industry. If either hydrogen or small modular nuclear technologies do not materialize, North Carolina ratepayers will be subject to cost overruns and carbon neutrality may not be possible. Any failure of new technology will allow Duke to fall back on expensive and polluting methane gas infrastructure. Cost overruns of nuclear power plants are plaguing the South, and North Carolina is at risk for similar issues if Duke relies on SMRs for their baseload generation capacity.

## **Conclusion**

NCLCV as an organization is committed to expanding reliable, affordable, and clean energy and therefore does not support Duke Energy's attempt to cement our state into the legacy of fossil fuels. Specifically, this Carbon Plan also inequitably impacts frontline, environmental justice, and low-income communities: This Carbon Plan overburdens communities already dealing with the legacy of coal, does not provide sustainable transitions to renewable energy for both frontline communities and others across the state, and the Commission did not provide in person opportunities for those communities to share their feedback and experiences. The Commission has an obligation to comply with the law as it is written and must require a stricter transition to clean energy from every utility operating within our state. Duke Energy has never and will never be exempt from our laws and the Companies must begin operating with the best interests of North Carolinians in mind.

Signed on behalf of NCLCV,

Michelle (Meech) Carter  
Director of Clean Energy Campaigns

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<sup>17</sup> Office of Energy Efficiency and Renewable Energy. (n.d.). *Hydrogen pipelines* | *Department of Energy*. Department of Energy. <https://www.energy.gov/eere/fuelcells/hydrogen-pipelines>