



DRIVING CLIMATE ACTION THROUGH UTILITY INTEGRATED RESOURCE PLANS

A North Carolina Case Study of Local
Government Leadership

American Cities
Climate Challenge

RENEWABLES ACCELERATOR

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Cover Photo: Giuseppe Famiani

INTRODUCTION

As cities and counties across the United States make the transition to a clean energy future, they are finding that state-level policies and processes can sometimes limit their access to renewables. In some cases, this means that even if a local government takes every action within its jurisdictional control, it may not meet its government operations and community-wide renewable energy, greenhouse gas (GHG) emissions reduction, and equity goals.

One approach that local governments are taking to overcome these barriers and expand access to renewable electricity is by engaging in utility long-term resource planning, including integrated resource plans (IRPs) and the related state-level regulatory proceedings where energy system decisions are made. In the spring of 2021, 15 local governments in North Carolina came together to participate in the regulatory review process for their electric utility's (Duke Energy's) IRP. This was a novel effort for most of the local governments, and if attempted alone, may have required more staff time and resources than were available. By working as a group and collaborating with technical partners, the local governments were able to leverage limited resources and capacity, increase inclusivity, and create a larger, stronger, collective voice.

This case study will provide insight into how and why local governments are starting to get involved in IRP processes through the lens of one coordinated engagement in North Carolina. It shares details and takeaways from this leading example of local government collaboration to inform other local governments' efforts to advance a cleaner, more equitable and sustainable energy future.

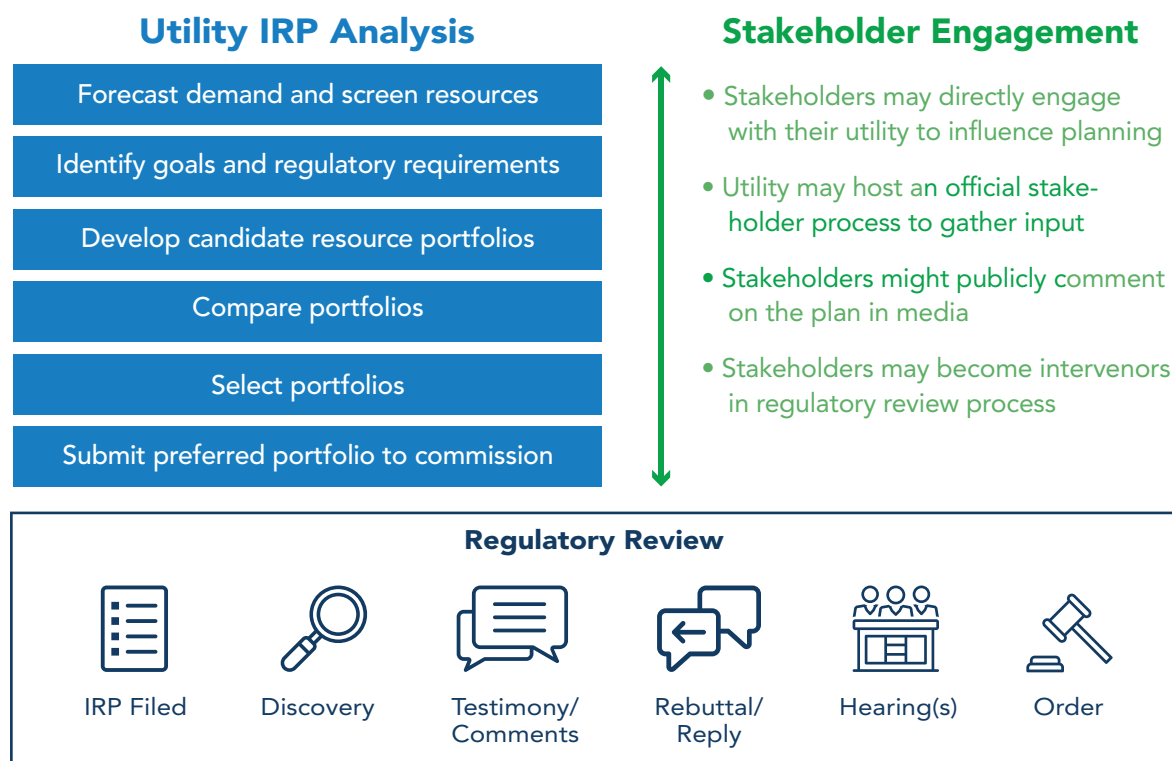
WHAT ARE IRPS AND WHY SHOULD LOCAL GOVERNMENTS GET INVOLVED?

Utilities create IRPs to establish a plan to address future energy demand, create a vision for long-term resource development, and help determine what the energy mix will be in the coming years. IRPs typically address questions about the trade-offs between different resource options such as building new generation assets, purchasing energy from other generators, integrating distributed energy resources (DERs), investing in energy efficiency programs, and investing in demand response programs. These resource considerations are used to evaluate and communicate potential strategies for delivering safe, reliable electricity at the lowest system-wide cost over approximately 10 to 20 years.

For regulated, investor-owned utilities (IOUs), IRPs are typically developed in accordance with state requirements and tend to follow the general development and regulatory review process illustrated in Exhibit 1. These processes offer various opportunities and pathways for stakeholder input and participation.¹

Local governments can provide a unique voice in utility long-term resource planning processes, as both individual customers—in some cases the utility's largest customer—and as representatives of their residents. Given the importance of IRPs in determining future resource development and the unique voice that local governments represent, local governments should be a key stakeholder in utility IRP processes. By engaging with electric utilities and state utility regulatory bodies on IRPs, local governments can drive the following outcomes:

- **Achieve their clean or renewable energy goals more quickly.** Because utilities supply a majority of the electricity used by local governments and communities, the renewables share of the overall generation mix directly impacts how much renewable electricity local governments are using. The more renewable electricity a utility provides, the less local governments will need to procure on their own to meet their goals.



Source: City Renewables Accelerator IRP Support Package

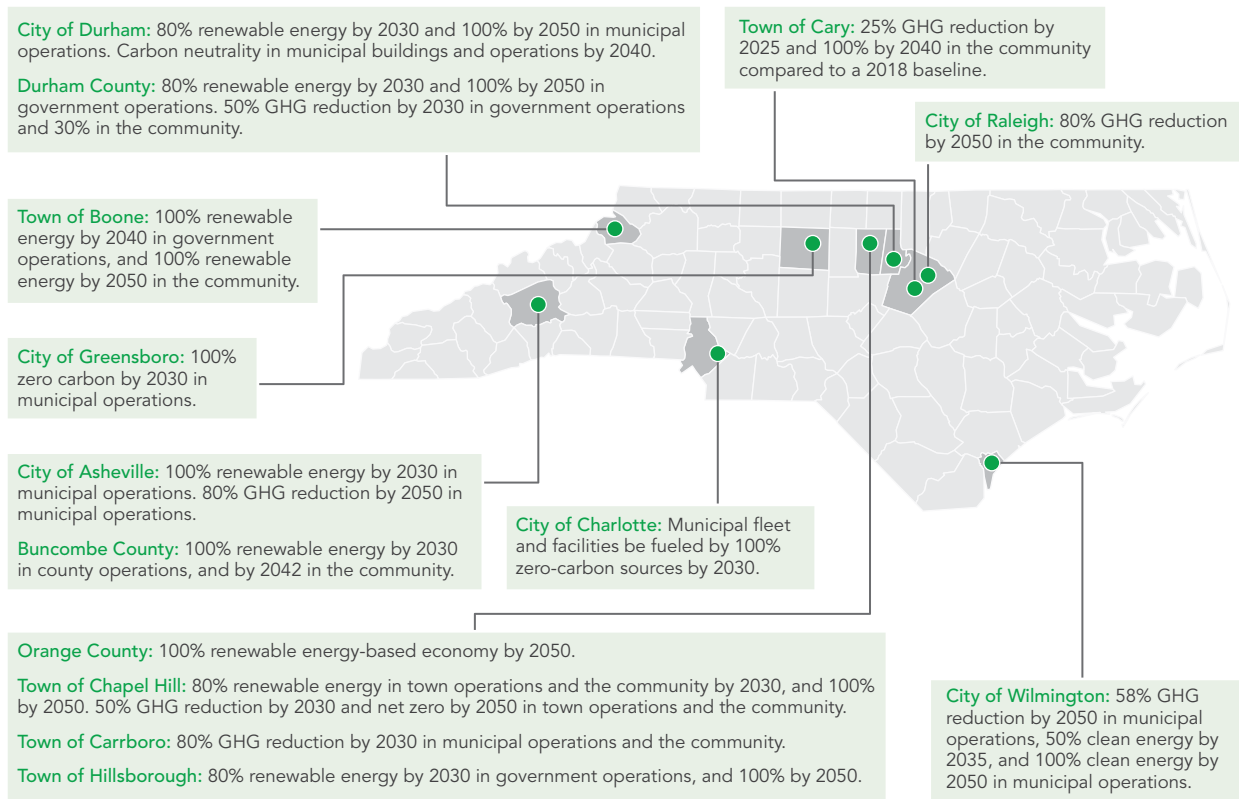
- **Increase access to clean or renewable energy more broadly for other customers within their utility's service territory.** This may be particularly helpful for other large energy customers with similarly ambitious individual clean or renewable energy and GHG reduction goals, like corporations and universities, and is also important for community-wide goals.
- **Address other community priorities such as energy efficiency, electrification, and issues relating to equity,** such as the equitable distribution of the energy system's economic benefits, equal access to resources, reduced energy burden, and overall affordability.
- Provide ancillary benefits such as **enhancing utility and other stakeholder collaboration,** improving relationships between local governments and their utilities and regulators, and **demonstrating local government leadership on climate issues.**

CONTEXT ON LOCAL GOVERNMENT GOALS AND RENEWABLES PROCUREMENT OPTIONS

As in many states, local governments in North Carolina have set GHG emissions reduction and renewable energy goals to mitigate the impacts of climate change,² but to date have not had sufficient access to renewables to achieve them. Exhibit 2 shows the local governments in North Carolina that participated in the 2020 Duke Energy IRP process, with information on their GHG and renewable energy goals.

To achieve these goals and decarbonize the state's electricity sector, the local governments must take steps to transition their operations and communities to renewable electricity. However, they have found that their options to purchase renewable electricity

Exhibit 2: Map of North Carolina local governments that participated in 2020 Duke Energy IRP process



Sources: Appendix B: Local Government Renewable Energy and Greenhouse Gas Reduction Targets;
Maps by: Free Vector Maps

or develop off-site renewable resources are limited by utility and state policies, programs, and processes outside their jurisdictional control.

North Carolina has a regulated electricity market without enabling retail choice legislation, which means that all customers (including local governments) must purchase electricity from a regulated utility, such as an investor-owned utility (IOU). The utility controls what generation resources are used and how customers can or cannot access renewables, under the oversight and direction of the state regulatory body, in this case the North Carolina Utilities Commission (NCUC).

Most of North Carolina's electricity customers fall within the service territory of Duke Energy Progress (DEP) or Duke Energy Carolinas (DEC), both subsidiaries of Duke Energy. The remainder are served by Dominion Energy, another IOU, or by

electric cooperatives or municipal utilities. Although municipal utilities and electric cooperatives are not regulated by the NCUC, many of them purchase power from Duke Energy. Therefore, Duke Energy's long-term resource planning has broad implications for most electricity customers in the state.

Local governments that are Duke Energy customers can access renewable electricity in two nonexclusive ways: through on-site solutions like behind-the-meter solar panels installed on government property, and through off-site, utility-scale renewables accessed through participation in green purchasing or green tariff programs administered by the IOUs. To date, these solutions have been insufficient to meet the ambitious goals of the local governments due to high costs, restrictions on how many and which customers can participate, limitations on how much each customer can purchase, and other factors.

DUKE ENERGY'S 2020 IRPS

In even-numbered years, all IOUs in North Carolina are required by state law to propose and file an IRP with the NCUC; in odd-numbered years, IOUs file a report updating their most recent biennial IRP. NCUC then reviews the plan and subsequently approves or denies the IRP based on legislative and regulatory requirements.³ The review process is public and there are various opportunities for stakeholders to participate informally and formally. Throughout the process, a range of individuals or organizations—including customers, community stakeholders, advocates, and subject matter experts—provide public comments and testimony to be considered by the NCUC. In addition to the state's administrative review requirements, these engagements or comments can influence the NCUC's decision to approve, deny, or request changes in subsequent IRPs.

In September 2020, DEP and DEC jointly filed IRPs with NCUC based on internal modeling and input from more than 200 customer and stakeholder participants. The plan outlined six possible scenarios to reach the utilities' goals of halving emissions by 2030 and hitting net-zero carbon by 2050 based on various policy and generation scenarios:⁴ Base without Carbon Policy, Base with Carbon Policy, Earliest Practicable Coal Retirements, High Wind, High Small Modular Reactors (SMR), and No New Gas Generation.⁵ While all of these scenarios would have enabled progress toward decarbonizing the state's electricity sector, they did not go far enough to fully support North Carolina local governments' renewable energy, GHG reduction, and equity goals.

THE IRP ENGAGEMENT PROCESS

Over the course of winter 2020 into spring 2021, fifteen local governments in North Carolina came together to learn about IRPs, evaluate various engagement pathways, develop a vision and core messaging, and ultimately submit public comments and formally intervene in the Duke 2020 IRPs. The following sections will step through the process taken by the group in order to provide insight for other local governments interested in participating in IRP processes.

1. UNDERSTANDING ENGAGEMENT OPPORTUNITIES

A critical first step in any IRP engagement effort is for local governments to develop a high-level understanding of plan development and regulatory review processes, how local governments can engage, and what the impacts of engagement might be. The North Carolina local governments participated in utility engagement trainings and discussions held by multiple environmental and sustainability groups, including the Southeast Sustainability Directors Network (SSDN), Environmental Defense Fund (EDF) Cities Initiative, North Carolina Sustainable Energy Association (NCSEA), and the American Cities Climate Challenge Renewables Accelerator, a program run jointly by RMI and the World Resources Institute (WRI). Through these efforts, the local governments learned of the importance of utility IRPs and their impact on future resource development and local governments' renewable energy, GHG reduction, and equity goals.

Generally, there are three pathways to participate in IRP processes: directly engaging with the utility to understand and influence analysis and scenario development, participating in regulatory review processes, and making public comment on the plan through media engagement. These pathways are not mutually exclusive.⁶ In North Carolina, several local governments directly engaged in Duke Energy's internal analysis and stakeholder process prior to the plan being filed. However, by the time most local governments were aware of the IRP, this window of opportunity had passed.

The first available pathway for the local governments to consider as a group was to participate in the regulatory review process. There are two options for this type of engagement; 1) formally submitting individual or joint letters as

intervenors,⁷ or 2) submitting an individual or joint informal public comment, which in North Carolina is called a “consumer statement of position.” More information on these options can be found in Exhibit 3.

Exhibit 3: Pathways for Regulatory Body Engagement on IRPs

REGULATORY BODY ENGAGEMENT		
	Informal Participation	Formal Participation
What	State regulatory bodies—known as Public Utility Commission (PUC), State Corporation Commission (SCC), Public Service Commission (PSC), etc.—typically convene legal proceedings, designated as dockets, to review and/or approve IRPs as required by state legislation. These proceedings may be litigated or non-litigated, which will influence the manner in which local governments can participate.	
How	<p>Informal IRP regulatory proceedings typically allow customers, including local governments, to participate informally in public hearings and/or submit written comments to be considered in the proceeding.</p> <p>Local governments can participate in the regulatory process individually or in coordination with others. Participation allows local government staff to comment on, support, and critique elements of the proposed plan.</p> <p>Mayors or other leadership figures or sustainability staff typically lead engagement in public hearings or written comments. In deciding who should lead this engagement, consider the implied power or level of authority of each figure and the requirements for them to participate.</p>	<p>Local governments can formally participate by petitioning the regulatory body to grant them intervenor status. Acting as an official party to the case typically involves meeting legal requirements, which are usually established in the regulator’s rules and guidance.</p> <p>As a formal participant a local government can more actively submit testimony, request information from other parties, participate in closed conversations, and engage in any settlement or stipulation conversations. Keep in mind that regulators must conduct their review and make a final decision based on the evidence before them; engagement as a formal party, with the opportunity to more actively influence the review process, can enhance the comments or evidence regulators must consider. In deciding who should lead this engagement, consider the implied power or level of authority of each figure and the requirements for them to participate.</p> <p>Formal engagement may require legal representation.</p>
When	Public hearings and comment periods are governed by the regulatory body. This timing is often established in the docket.	Formal proceedings commence either when a docket or case opens and a schedule is set for proceeding or when otherwise dictated by the local administrative law or regulator guidance.

Source: [City Renewables Accelerator IRP Support Package](#)

2. DECIDING WHETHER TO PARTICIPATE

Once the group of local governments was educated on the opportunity and the pathways available, the next step was to decide whether to participate in the regulatory review process. To inform this decision, the local governments discussed and considered a series of questions (Box 1) designed to clarify their ability to engage in this topic, the desired outcomes, and the likelihood of success.

Another primary point of consideration was the NCUC's ability and willingness to direct or influence the IRP outcome. As noted previously, the NCUC reviews IRPs for compliance with basic legislative and regulatory requirements and then accepts or denies a utility's proposal. The NCUC can also require changes to future IRPs based on stakeholder feedback. There was precedence for this type of action from NCUC: although they accepted DEC and DEP's 2018 IRPs, NCUC did not accept some of the underlying assumptions and ordered Duke to make significant changes to how it models resources in the 2018 IRP updates and future IRPs.⁹

Given the impact of the IRP on local governments' abilities to achieve their renewable energy and GHG emissions reduction goals and the opportunity to influence the NCUC's decision-making, the local governments decided that there was value in local government participation in the 2020 regulatory review process. Momentum began to coalesce around the idea of developing a joint public comment that multiple local governments could sign onto. A key enabling factor in the decision to move forward was the fact that there was an already established group of local governments working together to address their goals. This existing network provided the opportunity to collaborate and share resources and knowledge, thereby limiting the demands on any one entity.

BOX 1: KEY CONSIDERATIONS FOR ASSESSING WHETHER TO PARTICIPATE IN AN IRP PROCESS

When assessing whether to participate, local governments can consider the following questions:

- Is there political will to engage in an IRP process, and to what degree?
- How would your IRP engagement align with your energy, climate, and equity commitments?
- How feasible are your desired IRP engagement outcomes?
- What capacity and resources are available to participate in an IRP analysis and review process versus other efforts to achieve commitments? Are there others who can provide support, either technically or as partners, to align your respective messages, carry the IRP engagement forward, or more?
- What is your current utility or regulatory relationship, and how may IRP engagement strengthen, challenge, or otherwise influence it? How does this align with your desired relationships? How do your IRP engagement outcomes balance with other utility efforts and requests (e.g., a specific deal for a renewable energy resource on government property)?
- What are the regulatory requirements that shape the scope or content of the IRPs and the analysis or review process? What is the timing of the IRP analysis or review process (which could limit the outcome of the engagement)?⁸

3. DEVELOPING A VISION AND MESSAGE

The group started working on draft messaging for a joint public comment. They first aligned on high-level objectives and a vision statement, then engaged with other stakeholders to refine their understanding, and finally identified a specific set of detailed requested actions to present to the NCUC.¹⁰ The group centered their comments around their individual renewable energy and GHG reduction goals, and local governments' unique roles as both large energy customers and representatives and stewards for the communities that they serve. They aligned on the following language to introduce their letter:

The undersigned are some of the largest Duke Energy customers and our local governments collectively serve more than 1.4 million North Carolina residents. Combined, our community-wide and government operations constitute more than 18,600 GWh of electricity use annually. Accelerating a transition to a clean energy economy is a shared priority for our communities, and the decisions made in this 2020 Biennial IRP process, including the decisions made regarding generation, transmission, and energy efficiency, will critically impact our ability to meet the targets below. While our individual renewable energy goals and GHG reduction goals vary, the undersigned all share a vision of a reliable, affordable, resilient, and equitable energy system.

After agreeing to the framing of the message, the local governments dove deeper into the content and scope of Duke Energy's IRPs, identifying where the IRPs aligned with local government goals and where the IRPs could be strengthened to better support community priorities. To help bridge knowledge gaps, local governments attended informational sessions held by Duke Energy and also reached out to technical experts like GridLab, American Council for an Energy-Efficient Economy (ACEEE), RMI, and WRI, who were conducting their own analyses of the IRPs. They also connected with NCSEA to understand the views of renewable energy developers and industry stakeholders within

the state. Support from these partners helped the local governments deepen their understanding and save time and effort.

This education and partner outreach occurred throughout the fall of 2020 into winter 2021, after which the local governments decided to focus their engagement on a subset of discrete topics, including resource procurement, coal retirement, energy efficiency, renewables, transportation electrification, equity, and transmission (see Exhibit 4).

To build out the message for each of these topics, the local governments expressed what was appreciated and in alignment with their goals, and the desired further actions. As much as possible, when the governments requested actions, they also provided research to enhance their position, precedents for the NCUC and Duke Energy to consider, and opportunities where the local governments could support the request.

4. OBTAINING LEADERSHIP APPROVAL AND SCALING THE EFFORT

Once the local governments had crafted their preliminary message, the next steps were for each jurisdiction to finalize their specific regulatory engagement pathway (e.g., individual or joint public comment and/or formal intervention), obtain approval from their attorneys and senior leadership (e.g., a mayor, city council, or board of commissioners), and work to scale the effort. Although they were working collaboratively, each local government retained the flexibility to choose the engagement pathway(s) that worked best for their unique jurisdiction.

The local government network proved particularly valuable in the next step in the process: securing necessary approvals from attorneys and senior leadership. Early in this process, peer learning between local governments helped to move the discussion forward; for example, Asheville and Buncombe County's lawyers met to discuss the process for participating in a utility regulatory proceeding. Once they had received guidance

Exhibit 4: List of topics and requested actions in the local governments' collective message

TOPIC	REQUESTED ACTION ¹¹	RATIONALE	WHY IT'S RELEVANT FOR OTHER LOCAL GOVERNMENTS
Resource Procurement	<ul style="list-style-type: none"> Local governments requested that Duke Energy institute a transparent, competitive process for resource procurement and replace any needed generation through all-source procurement with an aim toward a combination of renewables, efficiency, demand response, and storage that can provide the same services as fossil gas plants at lower costs. 	<ul style="list-style-type: none"> The IRPs included plans to replace capacity with natural gas power plants, which could eventually become stranded assets due to the projected decline in the cost of renewable energy and storage. The costs of early retirement of stranded assets would be pushed onto customers' electricity bills.¹² 	<ul style="list-style-type: none"> All-source procurement is a competitive, technology-neutral approach that allows a variety of resources—including renewables, storage, and more—to compete on an equal playing field.¹³ It can ensure that customers are receiving the best solutions the market can offer while benefiting from increased competition that can lead to lower electricity rates for customers.
Transmission	<ul style="list-style-type: none"> Local governments recommended that Duke Energy undertake a more comprehensive and robust technological and economic analysis, including a substantial investigation of potential transmission alternatives, the repurposing of existing transmission corridors, and the economies of scale gained through large utility-scale renewable projects or joint balancing area planning. 	<ul style="list-style-type: none"> Conventional power systems planning and Duke's analysis suggest that significant investments in the transmission system are necessary to enable higher penetrations of renewable energy. The IRP should consider the potential transmission benefits of operating DEC and DEP as a single balancing authority as well as the impact of North Carolina's commitment to the SMART-POWER memorandum.¹⁴ 	<ul style="list-style-type: none"> A reliable and cost-effective electric grid distribution and transmission infrastructure is critical to enabling renewables development.¹⁵ Transmission upgrades may be needed to increase the amount of renewables on the grid.
Coal Retirement	<ul style="list-style-type: none"> Local governments strongly encouraged Duke Energy to retire coal plants as soon as possible via the "Earliest Practicable" IRP scenario to improve health and public benefits of NC communities. 	<ul style="list-style-type: none"> Under the most economic scenario in the IRPs, seven coal plants would not be retired before 2030, accounting for almost half of current capacity from coal (4,300 MW). 	<ul style="list-style-type: none"> Coal power plants have negative impacts on public health, the climate, and the economy. They are heavy emitters of GHG emissions and pose an economic risk if they become stranded assets due to the decline in the cost of renewable energy and maturation of storage technology.¹⁶

Exhibit 4: List of topics and requested actions in the local governments' collective message (Cont.)

TOPIC	REQUESTED ACTION ¹¹	RATIONALE	WHY IT'S RELEVANT FOR OTHER LOCAL GOVERNMENTS
Energy Efficiency	<ul style="list-style-type: none"> Local governments encouraged the NCUC to review Duke Energy's assumptions in the Market Potential Study and request that Duke Energy submit updated scenarios. Local governments requested that Duke Energy submit updated scenarios that use a Utility Cost Test and use customer adoption models that include the full range of potential methods, including a range of financing tools to fully value the contribution of energy efficiency programs that help local governments and customers address affordability and climate concerns. 	<ul style="list-style-type: none"> When looking at electricity bills, 31% of households in DEP territory and 26% of households in DEC territory had a median electricity burden of 6% or greater. Minority groups are disproportionately shouldering these high energy burdens. The Market Potential Study (MPS) that Duke Energy used to analyze how much energy efficiency is available as a resource undervalues the potential contributions of energy efficiency.¹⁷ 	<ul style="list-style-type: none"> Energy efficiency is a cost-effective strategy for reducing GHG emissions.¹⁸ Because of the connections between energy burden, race, and income,¹⁹ energy efficiency measures are an important strategy for meeting local governments' renewable energy and equity goals. Energy efficiency not only saves customers money, but also improves the comfort and livability of homes.
Renewables	<ul style="list-style-type: none"> Local governments requested the NCUC consider their collective goals when reviewing the proposed scenarios. Local governments requested Duke Energy to utilize additional renewable energy resources or develop subsequent customer programs that allow local governments to reach stated goals. 	<ul style="list-style-type: none"> Duke Energy's renewable grid mix of 14% in the Carbon Policy scenario is too low to support achievement of local government renewable energy targets. 	<ul style="list-style-type: none"> Renewable technology cost is low and falling; however, this is not always reflected in IRPs. IRPs often contain a range of barriers that reduce the amount of solar in the grid mix and that is available to customers through utility programs, impacting the ability of customers to meet clean energy targets.²⁰
Transportation Electrification	<ul style="list-style-type: none"> Local governments recommended Duke Energy consider automakers' EV rollouts and Governor Cooper's Executive Order 80 to better forecast EV penetration, improve utility planning, and actively promote EV adoption through incentives and rate design. 	<ul style="list-style-type: none"> In the IRPs, the assumed electric vehicle penetration rate is 7.3% by 2035, which might be too conservative.²¹ 	<ul style="list-style-type: none"> Transportation electrification paired with clean energy portfolios can support local governments' decarbonization goals. Electrification will also provide value to utilities through new revenue streams.²²
Process Equity	<ul style="list-style-type: none"> Local governments requested Duke Energy clearly articulate how it has engaged historically disadvantaged communities in developing its IRP and which of their recommendations are incorporated into the plan. 	<ul style="list-style-type: none"> Although the IRP details its income-qualified program offerings and the company describes its stakeholder engagement approach on the Duke website, it is not clear how or whether historically disadvantaged communities participated in decision-making about those programs, which may have led to underutilized/misrepresented assumptions about program use. 	<ul style="list-style-type: none"> Local governments are increasingly acknowledging that closing equity gaps and addressing climate vulnerability requires direct participation from impacted communities in solutions development and decision-making.²³ Successful and durable utility low-income programs engage historically disadvantaged communities before, during, and post implementation, so that programs benefit all.

from their legal departments, most had to secure approval from their elected officials. To support each other in this process, sustainability staff from each of the local governments shared their presentations and talking points with each other.

Once several jurisdictions had committed to engaging, staff discussed ways to increase participation, scale the effort, and increase their impact. Bringing more voices into the existing joint letter was a powerful strategy to enhance and deepen the impact of the IRP engagement. Members of the group began reaching out to other local governments who might have an interest in participation through existing networks such as SSDN and the EDF Cities Initiative. Local governments that joined later were invited to join group meetings to contribute to the messaging and strategy discussions.

Elected officials also helped scale the effort. One mayor shared the draft letter with the North Carolina Metropolitan Mayors Coalition, helping to increase awareness of the opportunity and educate other elected officials who were on the fence about participating in the IRP. As a result, other elected officials quickly decided to join the group effort. Local government staff who were still in the process of getting leadership buy-in found it easier to secure approval once others had signed on.

5. SUBMITTING THE FINAL COMMENTS AND INTERVENTION LETTERS

The final step in the process was to finalize letters, obtain the required signatures from city attorneys and elected officials, and then submit or file comments online with NCUC before the deadline. For local governments who chose to submit their own letter, this process was simpler. Coordinating signatures on the joint letter was more complicated, as it entailed compiling both physical and electronic signatures on one page while each jurisdiction had different timelines for approval.²⁴ Once the letters were finalized, they were submitted for the Commission's consideration.²⁵

Ultimately 15 local governments participated in the Duke Energy 2020 IRP regulatory review process:

- The **City of Charlotte** [formally intervened](#) based on Charlotte's Strategic Energy Action Plan and their localized energy burden facing low-income communities of color.
- The **City of Asheville and Buncombe County** [formally intervened](#) with a [detailed joint letter](#).
- **Eleven cities and counties signed on to a joint public letter**, one of the largest collaborative efforts by local governments to date. Signatories included: Town of Boone, Town of Carrboro, Town of Chapel Hill, City of Durham, Durham County, City of Greensboro, Town of Hillsborough, Town of Matthews, Orange County, City of Raleigh, and the City of Wilmington.
- The **City of Raleigh submitted an individual public comment** in addition to signing onto the group letter mentioned above.
- The **Town of Cary submitted an individual public comment**.

The range of engagement pathways taken by the local governments reflects the unique needs of their jurisdictions. Some local governments felt most comfortable contributing to a group effort, while others decided to take the joint letter, modify it to better reflect their community's perspective and needs, and then submit their own version via formal intervention or informal public comment. Finally, one decided to both sign onto the group effort and submit individual comment to provide additional considerations.

6. RAISING THE VISIBILITY OF IRP ENGAGEMENT IN THE MEDIA

To make others aware their efforts and inspire and motivate others, the local governments looked for ways to amplify their message to residents, businesses, and other clean energy advocates across the state. After the comments and letters were filed, the group brought in additional communications capacity from SSDN and coordinated media engagement, which resulted in several media stories, including an op-ed in Energy News Network.²⁶

THE IMPACTS OF ENGAGEMENT

The impacts and outcomes of regulatory engagement are not always immediate. While local governments reported some near-terms impacts, such as an increased interest in future regulatory engagement by local government leadership, other impacts weren't clear until after the legal proceeding concluded, which took most of the year. In the end, many of the local governments' requests from their IRP comments were reflected in NCUC's final IRP ruling, as well as in other regulatory decisions and legislation finalized in the following months.

In June 2021, the NCUC filed a notice indicating it would not automatically accept the IRP, as it had done since 2009.²⁷ Instead the Commission identified several topics of interest that it believed warranted further exploration prior to a final ruling, including many from the local governments' comments: the methodology for evaluating the economic retirement of coal plants, the potential use of all-source procurement, and the grid impacts of different resource portfolios. To further examine and get stakeholder input on these topics, the NCUC scheduled a technical conference for October 2021.²⁸

In November 2021, NCUC issued a final ruling.²⁹ The Commission ruled Duke Energy's IRPs as adequate for short-term planning purposes. The ruling also provided further direction for future planning efforts, based on the topics examined in the technical conference. For example, the Commission directed Duke Energy to include more information about transmission analysis, coal retirement dates, energy efficiency, and demand side management into future IRPs and a carbon plan to be developed in 2022.

Measuring a direct or causal impact of one individual's regulatory engagement is inherently difficult. However, many of the local governments' requests were reflected in NCUC's final ruling on the IRP. Additionally, discussions around the ongoing IRP regulatory process may have had a spillover effect onto the North Carolina General Assembly 2021 legislative session. The resulting House Bill 951 includes topics raised by the local governments and other stakeholders in the IRP process,³⁰ including requirements for competitive procurement of new solar, 4 GW of new solar, on-bill financing of energy efficiency, and more. The number of stakeholder voices sharing a unified message may have encouraged regulators and legislators to consider these issues more seriously.

Finally, participating in the 2020 IRP process provided a valuable educational opportunity for local government staff and leadership and a deeper appreciation of how local government voices can impact the IRP process. The local governments involved have since reported other tangential impacts of this effort, including an increased interest in future regulatory engagement by local government leadership, a better understanding of Duke Energy's processes and priorities, and identification of future opportunities for local government-utility collaboration.

LESSONS LEARNED

Participating in IRP processes is an emerging and impactful opportunity for U.S. local governments to influence utility decisions that will have critical ramifications for their renewable energy, GHG emissions reduction, and equity goals. Utility commissions across the country have acknowledged the importance of stakeholder comments and are working to improve stakeholder engagement processes to address emerging issues, including the growing number of clean energy goals and targets.³¹

The coordinated effort by North Carolina local governments provided an opportunity to communicate renewable energy, GHG reductions, and equity goals to NCUC. It also demonstrated to NCUC, Duke Energy, and the public that local governments across the state are important stakeholders that should be considered and engaged in the state's energy planning and that they are collaborative partners seeking to overcome barriers alongside their utility. Although this engagement is specific to the North Carolina state context and is unique for a variety of reasons, their efforts provide learnings for other local governments that are interested in engaging in IRP processes within their own states.

Some key lessons learned from this engagement include:

1. **Start early.** The IRP development process begins long before a draft plan is filed. Talking to a utility while scenarios are being developed could shape the inputs and analysis methods used. By the time many of the North Carolina local governments learned of the IRP, this opportunity had passed, but several have reported that they intend to participate in pre-filing stakeholder opportunities in the future.
2. **Communicate directly with the electric utility from the beginning and share that the local government will be participating in stakeholder engagement processes.** This could result in stronger collaboration and reduce any chance that the utility relationship will be compromised. Additionally, early engagement provides a forum for local governments to understand the regulatory environment as well as any limitations that the utilities face, while also creating space for utilities to understand local governments' interests and needs.
3. **Talk to other large energy customers within your state** to learn what actions they might be taking and consider aligning messaging with other organizations to present a unified voice and sense of urgency on critical issues. Conversations with other members of NCSEA helped the local governments understand other perspectives within the state.
4. **Recruit partners and technical experts to support IRP engagement efforts.** Partners can provide local government staff with education, data, and guidance on the opportunities and engagement pathways available. For example, the North Carolina local governments engaged the following types of partners:
 - a. Partners that can explain the general IRP process and national IRP trends (e.g., WRI and RMI)
 - b. Regional partners to support coordination, scaling, and communication (e.g., SSDN)
 - c. Partners that can speak to the unique state environment and other complementary advocacy efforts (e.g., EDF Cities Initiative)
 - d. Partners with deep technical knowledge of the specific utility and its IRP scenarios (e.g., GridLab)
 - e. Subject matter experts on particular topics (e.g., ACEEE on energy efficiency).
5. **Consider collaborating with peer local governments to learn from others, share resources and capacity, and amplify shared messages.** While several of the North Carolina local governments decided to submit individual public comments or formal intervention letters, all reported that working together on education and shared messaging helped to leverage limited resources and capacity, increase inclusivity, and create a larger, stronger, collective voice.

6. **Engage local government leadership early in the process to facilitate smoother future approval processes.** The first regulatory engagement that a local government undertakes will likely require more time, effort, and education; however, subsequent efforts should be more streamlined. A proactive measure would be to seek a mandate and approval from leadership for sustainability/energy staff to regularly participate in the IRP process on behalf of advancing the local government's climate or energy goal. North Carolina local governments have since participated in subsequent regulatory proceedings and reported that it has been easier to obtain leadership approval.³²
7. **Provide education to attorneys on the process for intervening.** Bringing attorneys from different jurisdictions together, as Asheville and Buncombe County did, can be productive and help to overcome knowledge gaps.
8. **Provide ample time and consider ways to streamline the process of gathering signatures.** For group letters, discuss the signature process early and explore options for streamlining the collection of signatures. For example, the North Carolina local governments used digital signatures when possible.

APPENDIX A: ADDITIONAL RESOURCES

Local governments that are interested in learning more about utility IRPs and how and whether to engage can consider the following selection of resources:

- **City Renewables Accelerator's IRP Support Package:** This series of factsheets created for local governments provides a foundational understanding of IRP processes and key considerations to help local governments evaluate their engagement plans and craft an initial engagement strategy.
- **City Renewables Accelerator's Engagement Guidance:** This webpage highlights engagement pathways available to U.S. local governments, along with links to resources that they can use to determine whether and how to engage with stakeholders. The site also includes links to examples of letters and testimonies filed by local governments.
- **Participating in Power: How to Read and Respond to Integrated Resource Plans:** This paper from the Institute for Market Transformation and the Regulatory Assistance Project is an educational resource for local governments and other entities advocating for advancing clean energy and equity priorities via intervention in the IRP process.
- **Pathways to Integrating Customer Clean Energy Demand in Utility Planning:** This WRI paper illustrates how IRP requirements and practices vary across states and utilities, including how they incorporate stakeholder input. It also breaks down the major steps and elements of IRPs to help customers understand how they can engage.
- **Solar Energy in Utility Integrated Resource Plans: Factors That Can Impact Customer Clean Energy Goals:** This WRI paper aims to raise awareness among large-scale customers, utilities, and regulators of some of the current barriers that limit solar energy in utility IRPs.
- **Local Government Engagement with Public Utility Commissions:** This National Council on Electricity Policy document identifies key areas in which local governments may engage with PUCs, the potential impacts of local government engagement at PUCs, and opportunities that exist to make regulatory processes more accessible for city and county staff.
- **Local Government Voices in Wholesale Market Issues: Engagement Approaches for Decarbonization:** This WRI paper provides local governments with education on why and how they may want to engage in issues at the wholesale energy market level, and examples of how other similar stakeholders are already working in this area.
- **The Power of Collaboration: How U.S. Cities and Corporations Can Work Together to Advance Renewable Energy:** This WRI paper details how municipal–corporate collaborations can remove policy and market barriers when procuring renewables for their own operations and when attempting to expand access to renewables for other energy users.

APPENDIX B:

LOCAL GOVERNMENT RENEWABLE ENERGY AND GREENHOUSE GAS REDUCTION GOALS

- The City of Asheville adopted [Resolution 18-279](#) in 2018 to transition municipal operations to 100% renewable energy by December 31, 2030. The City adopted [Resolution 07-90](#) in 2007 to reduce municipal GHG emissions by 80% by 2050. The City adopted [Resolution 20-25](#) in 2020 declaring a climate emergency and committing to end citywide GHG emissions by 2030 and to phase out fossil fuel power generation and use within the City.
- The Town of Boone adopted a [resolution](#) establishing the goals of climate neutrality in municipal operations by 2030, 100% clean renewable energy used in municipal operations by 2040, and 100% clean renewable energy used in the entire Town of Boone by 2050.
- Buncombe County adopted [Resolution 17-12-06](#) on December 5, 2017 as a roadmap to transition County operations to 100% renewable energy by December 31, 2030, and transition all of Buncombe County to 100% renewable energy by December 31, 2042.
- The Town of Carrboro accepted its [Energy and Climate Protection Plan](#) with goals of 80% GHG reduction by 2030 in municipal operation and the community.
- The Town of Cary's Town Council accepted Cary's Environmental Advisory Board's [Carbon Reduction Recommendations](#), including the goal to reduce carbon emissions by 25% by 2025, and 100% by 2040.
- The City of Charlotte adopted the [Sustainable and Resilient Charlotte by 2050 Resolution](#) to strive for all City fleet and facilities to be fueled by 100% zero-carbon sources by 2030, and strive to transform Charlotte as a whole into a low-carbon city by 2050 by reducing GHG emissions to below two tons of CO₂ equivalent per person annually.
- The Town of Chapel Hill adopted a resolution in 2019 to create a [Climate Action Plan](#) and achieve 80% clean, renewable energy in the community by 2030, and 100% by 2050. It also adopted a [Climate Action and Response Plan](#) in 2021 with the goal of reducing GHG emissions at the community-wide level and for Town operations by 50% by 2030, and net-zero by 2050.
- Durham County adopted a [climate action plan](#) in 2007 with goals to reduce government GHGs by 50% and the community GHGs by 30% by 2030 from 2005 levels. In addition, the County adopted a resolution to work toward 80% renewable energy by 2030 and 100% by 2050 in government operations.
- The City of Durham set a [goal to achieve carbon neutrality](#) in municipal buildings and operations by 2040 and to work toward 80% renewable energy by 2030 and 100% by 2050 in government operations.
- The City of Greensboro adopted a [resolution](#) establishing the goals of reducing GHGs in operations by 40% from 2005 levels by 2025 and to transition to 100% renewable energy in City operations by 2040.
- The Town of Hillsborough adopted a [resolution](#) in 2017 establishing a transition from fossil fuel-powered operations to 100% clean and renewable energy by December 31, 2050, or sooner and 80% clean and renewable energy by 2030.
- Orange County adopted goals to reduce GHG emissions community-wide by 26% by 2025 and transition to a 100% renewable energy-based economy by 2050.
- The City of Raleigh adopted a [goal in 2019 of reducing community GHG emissions by 80% by 2050](#). In addition, the City's [Comprehensive Plan](#) and [Strategic Plan](#) include policies and goals that focus on GHG reductions, utilizing alternative and renewable energy, improving energy efficiency, improving equity and resilience, and improving energy security.
- The City of Wilmington adopted a resolution in 2009 establishing a [municipal operations GHG goal](#) of 58% by 2050. The City adopted a [resolution](#) in 2021 establishing a transition from fossil fuel-powered municipal operations to 50% clean energy by 2035 and to 100% clean energy by 2050.

ENDNOTES

- 1 The name, development process, and content of these utility long-term resource plans can vary across the United States. The City Renewables Accelerator's [IRP Support Package](#) has additional information on IRPs more generally and on individual state requirements. Additional resources can be found in Appendix A.
- 2 These goals can be for internal operations or for the community more broadly, and they can center narrowly on renewable electricity or be part of a broader strategy to address GHG emissions. Please see Appendix B for a more detailed list of North Carolina local government goals and associated sources.
- 3 The authority given to a state utility regulatory body varies by state. Some regulatory bodies can only acknowledge a plan, while others can approve based on quality. NCUC falls in the middle of this spectrum.
- 4 "Duke Energy aims to achieve net-zero carbon emissions by 2050," Duke Energy News Center, September 17, 2019.
- 5 NCUC Docket No. E-100, Sub 165: [DEP Integrated Resource Plan, 2020 REPS Comp. Plan & 2020 CPRE Comp. Plan_public version](#).
- 6 The IRP engagement pathways available to a local government will depend on the state context and timing of the IRP process. Typically, IRPs are developed 18 to 24 months before submittal of a proposal plan for a review process. Therefore, to maximize the opportunity for the utility to respond or amend the IRP to customer preferences, engagement should occur as early as possible.
- 7 NCUC's [definition of intervenors](#): "Persons, other than the original parties to a pending proceeding, who voluntarily become parties thereto with leave of the Commission, are designated as intervenors."
- 8 These considerations are from the [City Renewables Accelerator IRP Support Package](#), which contains additional information on IRPs and pathways for local governments to participate.
- 9 NCUC Docket No. E-100, Sub 157: [Order Accepting Integrated Resource Plans and REPS Compliance Plans, Scheduling Oral Argument, and Requiring Additional Analyses](#).
- 10 The content, level of detail, and tone that a local government chooses to convey in an IRP comment can vary greatly. However, as a general rule of practice, the message should balance considerations such as the regulatory process, the timing of the opportunity, the scope of the IRP, desired IRP engagement outcomes, the feasibility of the ask(s), and desired relationships. These will influence the level of effort required and the potential impact.
- 11 Local governments' [joint letter](#) to NCUC on the Duke Energy 2020 IRPs.
- 12 Catherine Morehouse, "Duke stranded gas assets could cost customers \$4.8B, report finds," [Utility Dive](#), January 26, 2021.
- 13 All-source procurement has been utilized by IOUs, including notably by Xcel Colorado. More information on best practices for all-source procurement can be found in Energy Innovation's [Making the Most of the Power Plant Market: Best Practices for All-source Electric Generation Procurement](#).
- 14 A [balancing authority](#) ensures that power demand and supply are balanced in real time within a particular region and is essential to the safe and reliable operation of the grid. A [2020 study](#) from the National Renewable Energy Laboratory provides modeling on key factors for increased renewable energy penetration in North Carolina, including the impact of operating DEC and DEP as separate balancing authorities. The [Southeast and Mid-Atlantic Regional Transformative Partnership for Offshore Wind Energy Resources](#) (SMART-POWER) is a framework to promote, develop, and expand offshore wind energy. It would have a significant impact on North Carolina transmission needs.
- 15 Jeff St. John, "MIT Study: Transmission Is Key to a Low-Cost, Decarbonized U.S. Grid," [Greentech Media](#), January 8, 2021.

- 16 Uday Varadarajan et al., “Utilities, Analysts, and Customers Agree: Transitioning from Coal Saves Money,” RMI, July 8, 2021.
- 17 Rachel Gold, Charlotte Cohn, Andrew Hoffmeister, and Maggie Molina, [How Energy Efficiency Can Help Rebuild North Carolina’s Economy: Analysis of Energy, Cost, and Greenhouse Gas Emissions](#), ACEEE, September 2020.
- 18 [Multiple Benefits of Energy Efficiency: Emissions Savings](#), IEA.
- 19 Ariel Dreihobl, [Energy Burden Report](#), ACEEE, 2020.
- 20 Celina Bonugli, Eric O’Shaughnessy, Heidi Bishop, and Joseph Womble, [Solar Energy In Utility Integrated Resource Plans: Factors That Can Impact Customer Clean Energy Goals](#), WRI, August 2021.
- 21 Stan Cross, “[Utilities Can Help North Carolina’s Electric Vehicle Market Catch Up \(Part 3\)](#),” Southern Alliance for Clean Energy.
- 22 [New Sources of Utility Growth: Electrification Opportunities and Challenges](#), The Brattle Group, 2018.
- 23 [From Community Engagement to Ownership Tools for the Field with Case Studies of Four Municipal Community-Driven Environmental & Racial Equity Committees](#), Urban Sustainability Directors Network.
- 24 Some jurisdictions were hesitant or unable to share an electronic version of their signature.
- 25 The process to submit public comments or to intervene as a formal party to the case will vary by state and should be spelled out on a regulatory body’s website. In North Carolina, public comments could be submitted simply by emailing a provided email address. Formal intervention required several additional steps, including the creation of a specific type of online account for local governments on the NCUC website and then uploading required documents.
- 26 Meg Jamison, “[Commentary: Local governments take active role in reducing NC carbon emissions](#),” Energy News Network, February 26, 2021.
- 27 NCUC Docket No. E-100, Sub 165: [Commission’s Order Waiving in Part Rule R8-60\(h\)\(2\) and Giving Notice of Additional Proceedings](#).
- 28 Active participation in the technical conference required being a formal party to the case. Given the level of effort and the highly technical nature of presenting testimony, the local governments did not petition to participate.
- 29 NCUC Docket No. E-100, Sub 165: [Order Accepting Integrated Resource Plans, Reps And CPRE Program Plans With Conditions And Providing Further Direction For Future Planning](#).
- 30 General Assembly of North Carolina Session 2021: [House Bill DRH50028-R1a-26A: An Act to Study Emerging Energy Generation Sources, Issues, and Trends, Including Small Modular \(Nuclear\) Reactors](#).
- 31 This National Association of Regulatory Utility Commissioners (NARUC) 2021 [publication](#) details emerging best practices for stakeholder engagement in light of changing customer needs and new energy policy goals beyond providing affordable, safe, and reliable access to electricity. It also provides examples of inclusive regulatory proceedings and outcomes of engagement.
- 32 NCUC Docket No. E-100, Sub 178: [City of Charlotte Initial Comments on Rulemaking Proceedings to Implement Performance-Based Regulation of Electric Utilities](#).

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