

The Inflation Reduction Act's Provisions for North Carolina's Electric Cooperatives

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I. Introduction

In August 2022, the United States Congress passed the Inflation Reduction Act of 2022,¹ a sweeping federal-spending bill that aims to address, among other domestic issues, the imminent threats of climate change.² The Inflation Reduction Act of 2022 (“IRA”) allocates nearly \$400 billion in federal funding to clean energy initiatives in the United States to promote the Biden Administration’s climate goal of a fifty percent reduction in national emissions from 2005 levels by 2030.³

The IRA provides two new opportunities for tax-exempt entities; first, a direct-pay option⁴ for renewable energy tax credits,⁵ and second, a competitive grant fund.⁶ This paper will focus on a group that has much to gain from these IRA provisions: electric membership cooperatives (“co-ops”). Electric co-ops are different from traditional utilities because they are owned by the residents they serve.⁷ Electric co-ops are an integral part of the national energy infrastructure, as they provide power to roughly forty million Americans in over “two-thirds of

¹ Inflation Reduction Act of 2022, Pub. L. No. 117-169, 136 Stat. 1818.

² Justin Badlam et al., *The Inflation Reduction Act: Here's What's in It*, MCKINSEY & CO. (Oct. 24, 2022), <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/the-inflation-reduction-act-heres-whats-in-it>.

³ Jesse Jenkins et al., *Preliminary Report: The Climate and Energy Impacts of the Inflation Reduction Act of 2022*, RAPID ENERGY POL'Y EVALUATION & ANALYSIS TOOLKIT (Aug. 2022), https://repeatproject.org/docs/REPEAT_IRA_Preliminary_Report_2022-08-04.pdf.

⁴ Inflation Reduction Act of 2022, § 13101; § 13102.

⁵ Credits are either an investment tax credit (“ITC”), such as an investment in a solar photovoltaic array, or a production tax credit (“PTC”), for the production of wind energy. Miguel Yañez-Barnuevo, *Clean Energy Tax Credits Get a Boost in New Climate Law*, ENV'T & ENERGY STUDY INST. (Sept. 9, 2022), <https://www.eesi.org/articles/view/clean-energy-tax-credits-get-a-boost-in-new-climate-law>.

⁶ Inflation Reduction Act of 2022, § 22004.

⁷ Rory McIlmoil, *RE: Comments on North Carolina's Clean Energy Plan*, APPALACHIAN VOICES (Sept. 9, 2019), https://appvoices.org/resources/energy-democracy/AppVoices_CEP_Comments.pdf.

the country’s landmass.”⁸ In North Carolina, electric co-ops served twenty-one percent of the state’s electricity customers, or 1.1 million people, in 2021.⁹ Historically, electric co-ops have been unable to take advantage of renewable energy tax credits, because they are not-for-profit organizations that do not pay federal income taxes.¹⁰

Before the IRA, co-ops interested in renewable energy development could only take advantage of renewable energy tax credits by partnering with eligible for-profit organizations—often facing unequal bargaining power in the process.¹¹ These partnerships are complex, time-intensive, require specialized financial knowledge, and ultimately hamper a co-op’s ability to invest in clean energy.¹² This paper will analyze both the direct-pay and competitive grant opportunities available to electric co-ops in the IRA, and advocate that North Carolina electric co-ops should pursue both to take full advantage of renewable energy development potential in the state.

II. Background of Electric Membership Cooperatives and the IRA

North Carolina’s clean energy policy provides multiple loopholes that exempt electric co-ops in rural communities from stringent clean energy development standards. First, North Carolina Senate Bill 3 in 2007, also known as the Renewable Energy and Energy Efficiency Portfolio Standard (“REPS”), set lower standards for electric co-ops than those imposed upon investor-owned utilities, like Duke Energy.¹³ Second, the law allowed co-ops to purchase

⁸ See Miguel Yañez-Barnuevo, *supra* note 5.

⁹ Co-ops supplied 19.5 million megawatt hours of electricity, or fourteen percent of electricity sales, in North Carolina in 2021. Yet, the average price to customers was 11.6 cents per kilowatt hour (“kWh”), which was nearly twenty-five percent higher than the statewide average of 9.3 cents/kWh. *North Carolina Electricity Profile 2021*, U.S. ENERGY INFO. ADMIN. (Nov. 10, 2022), <https://www.eia.gov/electricity/state/NorthCarolina/>.

¹⁰ Erin Kelly, *House Passes Direct-Pay Incentives for Electric Co-ops*, NAT’L RURAL ELEC. COOP. ASS’N (Aug. 12, 2022), <https://www.electric.coop/house-passes-direct-pay-incentives-for-co-ops>.

¹¹ *Id.*

¹² Partnerships “require financial knowledge that not every nonprofit may have.” Yañez-Barnuevo, *supra* note 5.

¹³ 2007 N.C. Sess. Laws 2007-397 (providing Renewable Energy and Energy Efficiency Portfolio Standard).

renewable energy credits¹⁴ to meet the standard set by REPS.¹⁵ As a result, most of the co-ops were able to meet the REPS “with little to no direct impact” for the rural communities they serve, which diminished the “equitable distribution of economic, social, and environmental benefits” of the growth in clean energy that occurred in North Carolina since 2007.¹⁶

Third, North Carolina House Bill 589 in 2017, also known as the Competitive Energy Solutions for North Carolina Act, allowed electric co-ops to exempt themselves from compliance with the Act.¹⁷ Although the law required North Carolina electric utilities to create a program for the “competitive procurement of energy and capacity from renewable energy facilities,” it precluded enforcement of this requirement for “an electric public utility serving fewer than 150,000 North Carolina retail jurisdictional customers.”¹⁸ As of December 2022, none of the twenty-six electric co-ops in North Carolina serve more than 150,000 customers, and thus none are required to meet HB 589 requirements.¹⁹

Ultimately, this history has led to North Carolina electric co-ops “grossly underperforming” in utility-scale solar development.²⁰ Duke Energy utilities—despite serving three times as many customers as North Carolina electric co-ops—outperformed them forty-to-one in installed utility-scale solar in 2021, which is projected to widen by 2025.²¹ This disparity is indicative of the disproportionately high home energy burdens in the rural communities served

¹⁴ A renewable energy credit allows a third-party who generates renewable energy to sell the credit earned from their generation to the electric co-op, thereby increasing renewable energy generation in the state overall without any renewable energy being generated in the community the electric co-op serves. *Renewable Energy Credits (RECs), Explained*, WATCHWIRE (Feb. 19, 2021), <https://watchwire.ai/renewable-energy-credits-recs-explained/#:~:text=Renewable%20energy%20credits%20are%20produced,can%20either%20sell%20or%20keep.>

¹⁵ 2007 N.C. Sess. Laws 2007-397 (providing Renewable Energy and Energy Efficiency Portfolio Standard).

¹⁶ McIlmoil, *supra* note 7.

¹⁷ *See* 2017 N.C. Sess. Laws 2017-192 (providing reforms to renewable energy generation distributed resources access).

¹⁸ *Id.*

¹⁹ *Our Members*, N.C. ELEC. COOPS. (2022), <https://www.ncelectriccooperatives.com/our-members/>.

²⁰ McIlmoil, *supra* note 7.

²¹ Bryan Jacob, *Solar in the Southeast: Fifth Annual Report*, S. ALL. FOR CLEAN ENERGY (July 2022), <https://cleanenergy.org/wp-content/uploads/22Solar-in-the-Southeast22-Fifth-Annual-Report-July-2022.pdf>.

by co-ops.²² In North Carolina, thirty-three percent of all households spent equal to or greater than six percent of their income on energy bills,²³ which qualifies them as “energy poor households.”²⁴

Access to clean energy in North Carolina is not equitably distributed.²⁵ The Inflation Reduction Act’s introduction of a direct-pay option for tax-exempt entities and a competitive grant fund for rural electrical systems provides significant opportunities for NC electric membership co-operatives to develop community-owned renewable energy projects for their customer-owners, but inadequate federal guidance, the supply chain, and transmission resiliency may hamper progress.

III. Opportunities in North Carolina under the IRA

a. The Direct-Pay Option

North Carolina electric co-ops should be actively taking advantage of the new direct-pay option in the Inflation Reduction Act. The direct-pay option is a “gamechanger” that allows tax-exempt entities, such as non-profit electric co-ops, to “monetize the full value of the investment tax credit (ITC) or production tax credit (PTC) and receive a payment from the Treasury Department in lieu of claiming the credit on their taxes.”²⁶ This direct-pay, or “elective

²² These high energy burdens are partially attributed to the high poverty rates in these rural counties, and partially attributed to older, inefficient housing. McIlmoil, *supra* note 7; Energy burden is defined as “the percentage of gross household income spent on energy costs.” *Low-Income Community Energy Solutions*, U.S. DEP’T OF ENERGY (2022), <https://www.energy.gov/eere/slsc/low-income-community-energy-solutions>.

²³ The majority of these households are located in rural counties served by electric co-ops. *Low-Income Energy Affordability Data Tool*, U.S. DEP’T OF ENERGY (2022), <https://www.energy.gov/eere/slsc/maps/lead-tool>.

²⁴ Roger Colton, *Home Energy Affordability in New York: The Affordability Gap (2008-2010)*, N.Y. STATE ENERGY RSCH. DEV. AUTH. (June 2011), <https://www.nysesda.ny.gov/-/media/Project/Nyserda/Files/EDPPP/LIFE/Resources/2008-2010-affordability-gap.pdf>.

²⁵ Ashley Pegram, *Clean Energy in Rural Areas*, N.C. SUSTAINABLE ENERGY ASS’N (Aug. 7, 2020), <https://energync.org/ce-in-rural-areas/>.

²⁶ Inflation Reduction Act of 2022, § 13101; § 13102; The tax credits are worth thirty percent of the total installation cost through 2033 for homeowners, and through 2025 for commercial entities. 2025 is not the limit, though. “After 2025, solar and wind developers will need to meet prevailing wage requirements to claim the full tax credit value.” Yañez-Barnuevo, *supra* note 5.

payments”,²⁷ option directly addresses the tax barrier that electric co-ops historically faced: as not-for-profit organizations that do not pay federal income taxes, electric co-ops have been unable to take advantage of renewable energy tax credits, since no exceptions previously existed for federally tax-exempt organizations.²⁸ This direct-pay option is a clear opportunity for North Carolina electric co-ops to rapidly increase clean energy in their energy mix, which would bring significant health benefits to historically disadvantaged rural communities that already pay higher utility bills.²⁹

This direct-pay option has great potential to mitigate the disproportionately high environmental burdens that rural North Carolina counties face. It is designed to address the environmental justice issue³⁰ that rural North Carolina communities served by electric co-ops have historically been subject to: bearing the burden of unjust environmental harms, despite consuming and polluting far less than wealthier communities.³¹ With the birthplace of the environmental justice movement in Warren County, North Carolina,³² served by the Halifax electric co-op,³³ North Carolina electric co-ops have come to serve the communities poised to gain from an equitable administration of the law.³⁴ The IRA even has bonus credits, added on to

²⁷ *Rural Cooperative Utilities and the Inflation Reduction Act*, SIERRA CLUB (Oct. 2022), <https://www.sierraclub.org/sites/www.sierraclub.org/files/2022-11/Cooperatives%20and%20the%20IRA%20-%20Fact%20sheet.pdf>.

²⁸ Erin Kelly, *House Passes Direct-Pay Incentives for Electric Co-ops*, NAT’L RURAL ELEC. COOP. ASS’N (Aug. 12, 2022), <https://www.electric.coop/house-passes-direct-pay-incentives-for-co-ops>.

²⁹ McIlmoil, *supra* note 7; If the United States were to reach eighty percent clean electricity by 2030, then an estimated 317,500 lives would be saved from 2020 to 2050, with 453 premature deaths avoided in North Carolina in 2030. Charles Driscoll et al., *An 80x30 Clean Electricity Standard: Carbon, Costs, and Health Benefits*, CLEAN ENERGY FUTURES (July 12, 2021), <https://cdn1.sph.harvard.edu/wp-content/uploads/sites/2343/2021/07/CEF-80x30-7.15.21.pdf>.

³⁰ See Yañez-Barnuevo, *supra* note 5.

³¹ *Our Communities Know Climate Change*, N.C. ENV’T JUST. NETWORK (2022), <https://ncejn.org/issues/>.

³² Will Atwater, *N.C. Recognized as the Birthplace of the Environmental Justice Movement*, N.C. HEALTH NEWS (Aug. 26, 2022), <https://www.northcarolinahealthnews.org/2022/08/26/nc-recognized-as-the-birthplace-of-the-environmental-justice-movement/>.

³³ *Our Members*, *supra* note 19.

³⁴ McIlmoil, *supra* note 7.

the thirty-percent baseline, for projects that are placed in “low-income” or “environmental justice” communities.³⁵ For solar and wind projects, electric co-ops can claim up to a twenty percent bonus credit.³⁶ For projects located in “energy communities” that have historical fossil fuel ties or high unemployment rates, or that are located on brownfield sites—property deemed hazardous by EPA³⁷—electric co-ops can claim a ten percent bonus credit.³⁸

These bonus incentives to invest in clean energy development in environmental justice communities provide North Carolina electric co-ops a promising opportunity to reduce the home energy burdens on their customers. Research has shown that increased clean energy on the electricity grid not only increases grid resiliency,³⁹ but also reduces energy costs for consumers.⁴⁰ The IRA is expected to save the average American household between \$170 and \$220 annually on both their electricity bills and the costs of goods and services due to increased clean energy investments.⁴¹ In North Carolina, reduced electricity bills would mitigate financial burdens on numerous rural communities.⁴² Those with high energy burdens would be less often faced with a difficult decision: paying their electric bill or buying daily essentials like food or medicine.⁴³

b. The Competitive Grant Fund

³⁵ Inflation Reduction Act of 2022, § 13103.

³⁶ § 13103.

³⁷ *Overview of EPA’s Brownfields Program*, U.S. ENV’T PROT. AGENCY (May 4, 2022), <https://www.epa.gov/brownfields/overview-epas-brownfields-program>.

³⁸ § 13101.

³⁹ Elise Gout, *A Clean Power Grid Is a Reliable Power Grid*, CTR. FOR AM. PROGRESS (Feb. 24, 2022), <https://www.americanprogress.org/article/a-clean-power-grid-is-a-reliable-power-grid/>.

⁴⁰ Trevor Higgins, *Clean Energy Will Lower Household Energy Costs*, CTR. FOR AM. PROGRESS (Oct. 21, 2021), <https://www.americanprogress.org/article/clean-energy-will-lower-household-energy-costs/>.

⁴¹ Nicholas Roy et al., *Retail Electricity Rates under the Inflation Reduction Act of 2022*, RES. FOR THE FUTURE (Aug. 3, 2022), <https://www.rff.org/publications/issue-briefs/retail-electricity-rates-under-the-inflation-reduction-act-of-2022/>.

⁴² *Low-Income Neighbors Need N.C.’s Help with Energy Bill Burden*, SIERRA CLUB N.C. (Oct. 20, 2021), <https://www.sierraclub.org/north-carolina/blog/2021/10/low-income-neighbors-need-ncs-help-energy-bill-burden>.

⁴³ *See id.*

The rural electric cooperatives provision of the IRA offers another opportunity for North Carolina electric co-ops to bring clean energy to their customers.⁴⁴ The IRA allocates \$9.7 billion to a competitive grant fund that will remain open until Sept. 30, 2031, designed for:

[T]he long-term resiliency, reliability, and affordability of rural electric systems by providing to an eligible entity... to achieve the greatest reduction in carbon dioxide, methane, and nitrous oxide emissions associated with rural electric systems through the purchase of renewable energy, renewable energy systems, zero-emission systems, and carbon capture and storage systems.⁴⁵

This is a massive opportunity for North Carolina electric co-ops to kickstart clean energy development. Combined with the direct-pay option, a federal grant for a community solar development, for example, would be much more feasible for these rural communities.⁴⁶ A key factor that electric co-ops should consider in clean energy development is the economic growth that may be brought to their communities.⁴⁷ The Amazon Wind Farm, a major North Carolina wind farm located in the rural north-east, provided \$640,000 in tax revenue for the local communities.⁴⁸ If North Carolina electric co-ops were to utilize the IRA provisions available to them, these economic benefits of stability and viability—much needed to “support the well-being of these communities”⁴⁹—would likely be experienced at a larger scale.⁵⁰

However, this competitive grant fund has several caveats that may limit the degree of success for electric co-op clean energy aspirations. First, no one eligible entity can receive more than ten percent of the \$9.7 billion.⁵¹ Given that ten percent of this fund would equal \$970

⁴⁴ See Inflation Reduction Act of 2022, § 22004.

⁴⁵ *Id.*

⁴⁶ See *id.*; Community solar programs allow rural residents “who are unable to install their own rooftop solar panels,” due to financial or residential limitations, to participate in a cost-saving and community-oriented initiative. Pegram, *supra* note 25.

⁴⁷ *Id.*

⁴⁸ *Id.*

⁴⁹ *Id.*

⁵⁰ See *Rural Cooperative Utilities and the Inflation Reduction Act*, *supra* note 27.

⁵¹ Inflation Reduction Act of 2022, § 22004.

million, and a typical one-hundred-megawatt solar plant is estimated to cost between \$77 million to \$89 million in 2022,⁵² it does not appear likely that this ceiling will pose substantial issues. Second, the grant amount cannot exceed twenty-five percent of the “total project costs.”⁵³ This caveat may pose significant barriers to rural electric co-ops, especially those that lack significant financial resources, like the Cape Hatteras Electric Cooperative that serves 7,416 residents in Dare County and has only twenty-five employees.⁵⁴

c. Limitations

Despite the great potential for North Carolina electric co-ops to expand access to clean energy among rural communities, there are numerous limitations that may hamper progress. First, the Treasury Department was given 180 days—February 12, 2023—since the passing of the IRA to issue public guidance on the various provisions.⁵⁵ On February 13th, however, the Treasury only issued guidance on the expanded Qualifying Advanced Energy Project Credit and the Low-Income Communities Bonus Credit programs of the IRA, the latter of which is pertinent to electric co-ops.⁵⁶ The Treasury, though, has issued a public notice for comments on “Elective Payment of Applicable Credits and Transfer of Certain Credits.”⁵⁷ While the Treasury did indicate in December 2022 that the department would provide guidance on a few IRA provisions, including “FAQs for consumers on the tax credit for energy efficient home improvement projects and residential energy property,” there was no detail of when direct-pay

⁵² *Utility-Scale Solar: What Is It, How Does It Work*, SOLAR REVIEWS (Sept. 22, 2022), <https://www.solarreviews.com/blog/how-does-utility-scale-solar-work>.

⁵³ § 22004.

⁵⁴ *Our Members*, *supra* note 19.

⁵⁵ Llewellyn King, *Christmas in August: Electric Utilities Hit Renewable Pay Dirt With IRA Passage*, FORBES (Aug. 20, 2022), <https://www.forbes.com/sites/llewellynking/2022/08/20/christmas-in-august-electric-utilities-hit-renewable-pay-dirt-with-ira-passage/?sh=16418e2b1808>.

⁵⁶ I.R.S. Notice 2023-18; 2023-17 (Feb. 13, 2023).

⁵⁷ I.R.S. Notice 2022-50 (Oct. 5, 2022).

guidance would be issued for tax-exempt entities.⁵⁸ With no official guidance of the complex federal provisions yet available for electric co-ops, rural co-ops with limited resources are left in the dark as to how they can best proceed.

Second, the supply chain problems that electric co-ops are already facing have potential to limit the scope of progress that North Carolina co-ops may see in clean energy development. The COVID-19 pandemic has brought significant supply chain issues across numerous industries nationwide, especially to the electric utility sector.⁵⁹ Certain distribution transformers cost nearly three times more than they did pre-pandemic, as well as deliveries delayed by up to twelve months.⁶⁰ While some North Carolina electric utility experts suggest “temporarily changing [electric utility] standards” to ease supply chain burdens, it is unclear how long the pandemic-related supply chain issues will last.⁶¹

Finally, transmission concerns have the greatest potential to disrupt clean energy development by North Carolina electric co-ops. Transmission, the high-voltage lines that transport electricity,⁶² is viewed as the “largest quandary” for creating a reliable, sustainable, and clean energy grid.⁶³ In order to support a growing energy grid, transmission lines must keep up with the increasing connection of renewable energy sources to the grid.⁶⁴ Even the transmission

⁵⁸ See *Treasury Announces Information Timeline for Inflation Reduction Act Tax Implementation*, U.S. DEP’T OF THE TREASURY (Dec. 19, 2022), <https://home.treasury.gov/news/press-releases/jy1173>.

⁵⁹ *Supply Chain Issues Are Real for the Electric Industry. What is Public Power Doing to Help?*, ELECTRICITIES OF N.C., INC. (Sept. 15, 2022), <https://www.electricities.com/newsroom/articles/supply-chain-issues-are-real-for-the-electric-industry-what-is-public-power-doing-to-help/>.

⁶⁰ *Id.*

⁶¹ *Id.*

⁶² *The Path of Electricity*, N.C. ELEC. COOPS. (2022), <https://www.ncelectriccooperatives.com/wp-content/uploads/2017/10/Path-of-Electricity-2011.pdf>.

⁶³ See King, *supra* note 55.

⁶⁴ See Lisa Sorg, *Monday numbers: A closer look at the daunting challenges NC faces in transitioning to sustainable energy*, N.C. POL’Y WATCH (Oct. 31, 2022), <https://ncpolicywatch.com/2022/10/31/monday-numbers-a-closer-look-at-the-daunting-challenges-nc-faces-in-transitioning-to-sustainable-energy/>.

system of Duke Energy, North Carolina’s electric utility behemoth, is seen as “unprepared” for the drastic introduction of renewable energy sources to the grid.⁶⁵

North Carolina’s Electric Cooperatives, a collective organization of all twenty-six co-ops, actively participates in the annual N.C. Transmission Planning Collaborative.⁶⁶ The Collaborative seeks to plan for “future enhancements when cost effectiveness and reliability are optimized,” which the Cooperatives view as essential to their operations.⁶⁷ North Carolina electric co-ops’ involvement in the transmission planning process is a good indication of their desire to build a resilient and reliable future for their customers.⁶⁸

IV. Conclusion

The Inflation Reduction Act’s introduction of a direct-pay option for tax-exempt entities and a competitive grant fund for rural electrical systems provides significant opportunities for NC electric membership co-operatives to develop community-owned renewable energy projects for their customer-owners, but current limitations of inadequate federal guidance, the supply chain, and transmission resiliency may hamper progress. First, the direct-pay option will allow electric co-ops, previously unable to qualify for renewable energy investment and production tax credits, to qualify for a lump-sum payment in lieu of tax credits.⁶⁹ North Carolina electric co-ops have a promising opportunity to reduce the home energy burdens on their customers, including environmental justice communities that have been historically disadvantaged both economically and environmentally.⁷⁰ Second, the \$9.7 billion competitive grant fund for rural co-ops will

⁶⁵ *Id.*

⁶⁶ *Electric Cooperatives Participate in Annual Transmission Planning Collaborative*, N.C. ELEC. COOPS. (Mar. 23, 2022), <https://www.ncelectriccooperatives.com/who-we-are/spotlight/electric-cooperatives-participate-in-annual-transmission-planning-collaborative/>.

⁶⁷ *Id.*

⁶⁸ *Id.*

⁶⁹ Inflation Reduction Act of 2022, § 13101; § 13102; Kelly, *supra* note 10.

⁷⁰ Inflation Reduction Act of 2022, § 13103; N.C. ENV’T JUST. NETWORK, *supra* note 30.

provide an added boost of opportunity.⁷¹ By utilizing this fund, North Carolina electric co-ops may bring the economic benefits of stability and viability to the communities they serve.⁷² Combined, the grants and credits should allow North Carolina electric co-ops to bring more clean energy to their communities, but may ultimately be limited by issues with inadequate federal guidance, the supply chain, and transmission.⁷³

⁷¹ See Inflation Reduction Act of 2022, § 22004.

⁷² See Pegram, *supra* note 25.

⁷³ See U.S. DEP'T OF THE TREASURY, *supra* note 58; ELECTRICITIES OF N.C., INC., *supra* note 59; Sorg, *supra* note 64.