

IMPLEMENTATION GUIDANCE FOR STATES AND PUBLIC UTILITY COMMISSIONS:

ELECTRICITY INCENTIVES IN THE INFLATION REDUCTION ACT

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To make rapid and cost-effective progress possible toward 100% clean electricity, states and public utility commissions (PUCs) should seize on new federal clean energy investments. However, states and commissioners must be proactive and utilize the many resources that the IRA provides, including technical assistance, grants, loan programs, and more.

States have long led the way with forward-thinking power sector policy that has driven affordable clean electricity with Renewable Portfolio Standards (RPS), Clean Electricity Standards (CES), net metering, and other programs spurring market growth and job creation. The Inflation Reduction Act (IRA) provides federal backing for even more ambitious action by offering long-term, uncapped, enhanced renewable energy tax credits and game-changing financing options that are easier for utilities to access. These change the economics of electricity, which has deep implications for what state regulators should require from utilities.

The IRA's clean energy incentives are projected to make fossil generation increasingly uneconomic compared with cheaper renewable generation. <u>RMI analysis</u> shows that with new IRA clean electricity tax credits, clean energy portfolios (a combination of renewables, storage, and demand side management) are more affordable than new gas generation up to 99% of the time. In addition, the IRA offers new financing programs that can facilitate the replacement of uneconomic fossil assets with clean energy technology.

This brief examines how public utility commissions (PUCs) can leverage IRA incentives to provide significant electricity bill savings for Americans. The IRA presents an excellent opportunity for state executive offices to support and accelerate bold, resourceful PUC action. Governors' offices typically play a role in appointing commissioners and can use their convening power to coordinate action between PUCs and other state agencies.

Program Details

Clean Energy Tax Credits

The new and improved Section 45 Renewable Energy Production Tax Credit (PTC) and Section 48 Renewable Energy Investment Tax Credit (ITC) are the bedrock of the IRA's electric sector incentives. The credits are more flexible than previous iterations, now providing developers with the option to build solar utilizing a per MW incentive via the PTC or to elect to take the ITC and receive an incentive as a percentage of capital expenditure (capex).

In addition, stand-alone energy storage, biogas facilities, and microgrid controllers now qualify for the ITC. There is also an ITC for grid upgrades to allow for interconnection to the distribution network for projects less than 5 MW. In 2025, the tax credits become technology neutral (available to all zero-emissions energy generation resources) and are renamed the Clean Electricity Investment Credit and Clean Electricity Production Credit. All zero-emissions generation assets can elect to take either the ITC or the PTC, while energy storage, biogas facilities, and microgrid controllers will continue to qualify for only the ITC. Effectively, the same renewable technologies will continue to qualify at the same incentive levels, while allowing for innovative zero-emissions generation technologies to begin to qualify. Additionally, existing nuclear power receives a \$5 per MWh PTC through 2032.

The tax credits were further amended to include direct pay for non-profits, rural electric coops, generation and transmission cooperatives, municipalities, states, and tribal governments. This allows entities without tax liabilities to still take direct advantage of the tax credits. For-profit entities including investor-owned utilities (IOUs) can utilize transferable credits, which can reduce the cost of monetizing the credits.

Finally, there are new bonuses that make the tax credits more generous if they meet low-income, domestic content, and/or energy communities' requirements (see Figure 1).



Exhibit 1. Tax Credit Bonus Structure

Note: ITC and PTC only reach full value if projects pay a prevailing wage and meet apprenticeship requirements. If they fail to meet these requirements, PTC falls to \$5.5 per MWh and ITC falls to 6%. The PTC is tied to inflation and can fluctuate on an annual basis, the \$/MW in the above graphic is based upon projects that went into service in 2022. Adders may stack to the maximum value indicated. The low-income bonus is only available for the ITC and is capped at 1.8 GW of production capacity per calendar year and projects under 5 MW.

Energy Infrastructure Reinvestment Financing Program

The Energy Infrastructure Reinvestment Financing Program (EIR) gives the Department of Energy's Loan Program Office (LPO) \$5 billion in credit subsidy with up to \$250 billion in lending authority for low-cost federally backed loans to replace, repurpose, or retool infrastructure, while providing economic opportunities for energy communities. The program also allows for refinancing of debt and equity for infrastructure that has ceased use.

Investor-owned utilities (IOUs) can utilize this program in several ways, including refinancing uneconomic fossil plants while reinvesting in cheap renewable energy with storage and repurposing the grid interconnection from the retired plant. If the loan goes to a utility, the program requires that 100% of the benefits be passed through to customers and communities, which has the potential to significantly reduce electricity bills. This can help utilities avoid short-term rate hikes while transitioning to cheaper electricity generation. It also can help revitalize communities that are dependent on aging fossil fuel infrastructure with economic opportunities in the new clean energy economy.

In addition, EIR can be utilized to create more grid capacity by allowing IOUs to receive loans for upgrading (also known as "reconductoring") existing transmission lines. While new transmission buildout faces significant siting and permitting barriers, which is stifling renewable energy deployment, upgrading existing transmission infrastructure has the potential to double the capacity of existing lines. EIR can also be used to help finance new transmission along existing rights of way used to transport fossil fuels such as railways and highways.

USDA Assistance for Rural Electric Cooperatives

The IRA created three new programs administered by the USDA to assist rural electric cooperatives. The first program offers \$9.7 billion in loans, loan modifications, and grants to rural electric coops to procure renewable energy and other carbon-free generation or to make energy efficiency improvements to generation and transmission systems. This funding can help create financial flexibility to retire uneconomic coal plants and reinvest in cheaper renewable energy. In some cases, PUCs regulate rural electric coops and can approve plans to use the program in ways that reduce electricity rates for members. The IRA also created a \$1.7 billion program that offers loans and grants for agricultural producers and rural small businesses to invest in renewable energy or energy efficiency and a \$1 billion program offering loans and loan forgiveness for states, local governments, tribes, nonprofits, and businesses for a range of electric system investments.

Transmission Grants and Financing

LPO received an additional \$2 billion in credit subsidy for low-cost federally backed loans to build transmission projects deemed to be National Interest Electric Transmission Corridors (NIETC). This could equate to nearly \$100 billion loan authority for high voltage DC lines connecting areas with abundant renewable resources to load cities. The IRA also includes \$760 million in grants for state and local governments to support siting of interstate and offshore electric transmission lines. The program includes funding for economic development in communities that will be impacted by transmission development. Studies suggest the United States may need to double transmission capacity to President Biden's goal of 100% clean generation by 2035.

Distributed Energy Generation Tax Credits and Rebates

The IRA contains a number of tax credits and rebates including for rooftop solar, heat pumps, electric vehicles, electric appliances, and energy storage. These credits and rebates are likely to increase electricity demand as vehicles and appliances are increasingly electrified. Programs to utilize demand-side management including vehicle to grid technology and home battery systems can help balance the grid and enhance reliability. The Greenhouse Gas Reduction Fund (GHGRF) can provide \$27 billion in additional financing for distributed energy resources (DERs) benefiting low-income communities through green banks and community development financial institutions (CDFIs).

Policy Impacts and Implementation Recommendations

Previous iterations of federal clean energy tax credits have been limited in their impact because they were short in duration and key players such as IOUs were unable to take direct advantage. The programs and credits contained in the IRA have the potential to remedy these flaws while stimulating private investment, creating thousands of new jobs, improving electricity reliability, and lowering costs for ratepayers. However, these benefits will not be fully realized without active participation by governors' offices to support and direct PUCs to enact forward-thinking regulatory frameworks that capitalize on key shifts in federal energy policy.

Certainty for long-term planning

In recent years, state regulators have dealt with uncertainty about whether Congress would extend federal renewable energy tax credits or allow them to expire. The 10-year tax credit package included in the IRA will finally allow utilities, regulators, and businesses to count on long-term renewable energy incentives when planning for future system needs. The tax credit package in the IRA also improves upon previous iterations, providing more robust incentives with greater flexibility.

Recommendations for governors' offices:

- Appoint commissioners who understand the need to re-evaluate cost assumptions for clean energy deployment and reflect the most up-to-date economic modeling for procurement.
- Work with the state legislatures to provide funds for PUCs to meet technical staffing needs.
- Create pathways for greater coordination between state energy offices, PUCs, and federal agencies for effective planning that incorporates all available state and federal tools and programs.

Allowing for greater utility ownership of clean energy assets

In the past, regulated IOUs have operated at a disadvantage compared with independent power producers (IPPs) in taking direct advantage of renewable tax credits due to tax normalization rules. Normalization required regulated utilities to keep some of the financial benefit of the ITC exclusively for its shareholders. This meant that utilities could only pass the tax savings to customers in small increments and over a long period of time, making it challenging for IOUs to justify owning renewable generation to regulators in comparison with third-party PPAs.

The legislation has fundamentally altered these dynamics, creating a friendlier environment for IOUs to invest in utility-scale solar. One major change is that solar now qualifies for the PTC. While the ITC is impacted by tax normalization rules, the PTC is not. This change allows utilities to compete with third-party power purchase agreements for utility-scale solar projects. In addition, the energy storage ITC contains a tax normalization opt out for IOUs, which allows them to compete with independent developers. This, combined with the change to allow transferable credits, increases the value proposition of these credits for IOUs. Given that the business models of most IOUs rely on owning and rate basing assets, IOUs are more likely to be active participants in the clean energy transition. For rural electric coops and municipal utilities, direct pay allows them to own their own assets.

Recommendations for governors' offices:

- Clarify the way state and federal programs and incentives stack and complement each other so PUCs, utilities, and developers have a more robust understanding of how to efficiently utilize all tools available to them.
- Create climate roadmaps with guidance for PUCs regarding utility planning and regulatory actions.
- Provide resources to PUCs to help clarify how expanded PTC and tax normalization opt out allow IOUs to prudently build and rate base more solar and storage.

Reducing electricity rates for consumers

Electricity rates, which are tied to fuel costs, have historically fluctuated in tandem with volatile international fossil fuel markets. Because clean generation isn't subject to the same price spikes caused by international conflict and constricted global fuel supply, utilities can lock in low electricity rates for their consumers using IRA renewable incentives and financing. Independent **analysis by Resources for the Future** found that the IRA could decrease electricity rates by 5% based on expected gas costs over the next 10 years. This significant rate reduction would result in an estimated household savings of \$170-\$220 annually.

Recommendations for governors' offices:

- Direct PUCs to require utilities to revise their planning scenarios if IOUs fail to account for potential clean energy savings from the enhanced tax credits.
- Work with the state legislature to expand PUC authority, allowing commissions to direct utilities to update resource plans and procurement to maximize ratepayer savings, while preparing the grid for increased renewables and electrification.
 - Update core mission of the PUC to reflect in statute that the PUC explicitly has this authority.
- Direct utilities to employ time-varying rates, demand response programs, and other programs to balance the grid with increasing electrification and variable generation.
- Coordinate with the legislature to ensure that new state green banks or similar green financing institutions provide finance mechanisms that complement and enhance the equitable delivery of existing ratepayer programs.

The Inflation Reduction Act has fundamentally shifted the economics of clean energy procurement for utilities. The new design of the clean energy tax credits means that utilities can invest in solar and storage while passing on the full savings of the tax credits to customers, putting utility-owned assets at parity with third-party developers. This, combined with the longer duration tax credits that offer increased flexibility for solar and storage, provides an opportunity for significant customer savings with increased renewable deployment. With cheaper clean energy generation comes greater flexibility to retire uneconomic existing infrastructure through DOE LPO's new EIR program. These significant changes provide a strong impetus to re-evaluate state power sector regulation and update long term utility planning to maximize customer savings.

Additional Resources

For a more in depth summary of IRA impacts on regulatory planning, program, and ratemaking decisions, see RMI's *What Utility Regulators Need to Know About IRA.*

For more on the role of both the IRA and state policy in achieving a clean electricity sector, see Evergreen and NRDC's roadmap *Powering Toward 100 Percent Clean Power by 2035*.

For more information on how the Energy Infrastructure Refinancing Program can be used for electric bill savings see RMI's "<u>The Most Important Clean Energy Policy You've Never Heard About".</u>

For more information on the definition of Energy Communities see Resources for the Future's "<u>What Is an</u> <u>'Energy Community?'</u>"

For more information on how grid- enhancing technologies can reduce grid congestion see RMI's <u>"FERC Could</u> <u>Slash Inflation and Double Renewables with These Grid Upgrades."</u>

For more information on how tax normalization opt out and solar PTC allows utilities to compete with PPAs see RMI's "<u>One Simple Tax Change Could Unlock Critical Energy Infrastructure.</u>"

For more information on prevailing wage and apprenticeship requirements see the Treasury's *Initial Guidance for Prevailing Wage and Apprenticeship.*

For more detail about utilizing state securitization to finance clean energy transitions see RMI's "<u>Securitization</u> in Action How US States Are Shaping an Equitable Coal Transition."