

Inflation Reduction Act Solar Provisions
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By Thomas Beck, AIA, NCARB

There is much to be excited about in the recently passed Inflation Reduction Act (IRA). Our wallets, our health, and our planet will be positively impacted by the energy provisions which will help not only individual residential projects, but also businesses and non-profits.

When a well-established, respected bastion of business such as Forbes puts out an enthusiastic and detailed account of the benefits of the IRA, it is an encouraging sign that we are moving beyond fossil fuels in a way that businesses can embrace. “Utilities can increase investor returns, provide cheap power for consumers, lower emissions, and earn higher ratings by transitioning old fossil capital into new, cheaper clean energy projects.”

According to Forbes, the IRA puts the US within reach of its Paris Agreement commitment to cut emissions up to 52% by 2030.

(<https://www.forbes.com/sites/energyinnovation/2022/08/23/inflation-reduction-act-benefits-clean-energy-tax-credits-could-double-deployment/?sh=255628896727>) “The IRA will strengthen the U.S. economy by creating 1.3 million new jobs, and avoid nearly 4,500 premature deaths by reducing air pollution, both in 2030.” The clean energy tax credits are a huge improvement over previous incentives. “Stable, long-term policy will unlock clean energy for utilities and developers, accelerating renewable energy and battery storage deployment. Government funds will be spent more efficiently, and millions of Americans will enjoy cleaner air and cheaper electricity.” They predict that by 2030 wind and solar capacity will expand by 2 to 2.5 pre-IRA projections. Renewables create thousands of jobs, and already produce more power annually than coal.

Forbes praises the format of the tax credits for “providing business certainty by extending credits at their full value for at least ten years, giving investors, manufacturers, utilities, and developers enough time to plan and build” new projects into the 2030s. The “boom-bust” cycles of the way these credits have historically been handled by Congress has inhibited meaningful strides forward in solar implementation. Only when the power sector has slashed emissions 75% from today’s levels will the value of the credits decline.

There are additional tax credits such as the production tax credit (PTC) and the investment tax credit (ITC) to encourage implementation of zero emissions technology.

Another innovative way the tax credits can be applied is that the “IRA makes tax credits “transferrable,” allowing developers to sell credits directly to anyone with tax liability, circumventing waste and making each federal dollar go much further. It also offers cash grants to tax-exempt entities like municipal utilities and rural electric cooperatives, further simplifying the process.” In other words, non-profits like Salud Family Health, the American Legion, Crossroads Ministries, or churches, would be able to benefit from implementing zero-emissions technology, despite the fact they are tax exempt. Municipal utilities like ours here in Estes Park could receive cash grants.

Forbes points out that “the IRA puts utilities on a more level playing field. They can now choose the PTC of solar, which pays out over ten years for utilities and developers alike.” The ability for utilities to profit from renewables may help push the evolution of utilities development preference, from fossil fuel plants (less capital-intensive) to zero-emissions alternatives.

Currently 60% of U.S. annual electricity generation is still provided by fossil fuels. This contributes to the projected increase in electricity prices this year because fuel commodities are tied to global markets. Renewables put “downward pressure on electric bills,” because renewable energy is “free once projects are built.” Forbes cites RMI’s article about the myth of renewable’s role in inflation. ([https://rmi.org/reality-check-the-green-inflation-myth/.](https://rmi.org/reality-check-the-green-inflation-myth/))

A new area which had been neglected by previous solar and renewable energy incentives is the inclusion in the credits of energy storage, such as batteries. This is a major component of successful solar implementation, and will help those who wish to, or need to, disconnect from the grid, or need back-up sources of energy, such as medical facilities, or schools.

There is a major incentive for the application of meaningful labor standards. In order to realize the full PTC tax credit of 30% laborers and mechanics in solar projects must be paid prevailing wages and to be part of an electrical apprenticeship program. Additional requirements, including mandatory qualified apprentice employment, will help encourage contractors and subcontractors to create opportunities for the next generation in the skilled trades.

More incentives for the building trades include additional credits of as much as 10% (40% total) by investing in domestic produced hardware, steel and iron. Initially at least 40% of solar panels, electrical gear, etc., must be manufactured in the USA.

Another example of how the IRA will benefit workers is an additional 10% tax credit for projects in “energy communities” which have traditionally employed workers in fossil fuel plants such as a coal power plants closed after 1999, or the loss of extraction jobs in coal, oil or natural gas.

For consumers there are meaningful incentives for replacing fossils fuel powered furnaces and water heaters with heat pumps, and zero-emission stoves and boilers. There is a residential tax credit of 30% that applies to installation of solar panels, or wind, geothermal and biomass fuel. “The IRA creates two rebate programs tied to clean energy and efficiency: one offering up to \$8,000 and another up to \$14,000 (<https://www.cnbc.com/2022/08/13/how-to-qualify-for-inflation-reduction-act-climate-tax-breaks-rebates.html>;) The \$8000 HOMES rebate covers cutting home energy via efficiency upgrades, such as insulation. The “high-efficiency electric home rebate of up to \$14,000 covers efficient electric appliances: up to \$1750 for a heat pump water heater; \$8,000 for a heat pump for space heating or cooling; and \$840 for an electric stove or an electric heat pump clothes dryer, for example.” The latter, “high efficiency” rebates, are only available to lower income households earning less than 150% on an area’s median income. Here in Estes Park our median household income, according to the U.S. Census Bureau, is \$54,925, meaning than households earning less than \$82,387 qualify. (<https://www.cnbc.com/2022/09/03/inflation-reduction-act-when-to-claim-climate-tax-breaks-rebates.html>)

According to Solar United Neighbors “those who installed solar this year and were expecting a 26% credit, you will be eligible for the full 30%.” (<https://www.solarunitedneighbors.org/news/how-the-inflation-reduction-act-can-help-you-go-solar/>)

The IRA gives us excellent tools for affordable implementation of technologies which will make a serious difference in our impact on our planet. Time to get busy taking those steps.

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