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THE INFLATION REDUCTION ACT

A Project Planner's Guide to Investment Tax Credits (ITC)

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Background: Inflation Reduction Act

The Inflation Reduction Act, enacted on August 16, 2022, brings a host of benefits for consumers who install, own, and operate energy systems. Among these benefits, Investment Tax Credits (ITCs) stand out as a significant incentive. ITCs are general business credits available for various types of energy property, offering a direct reduction in tax liability for the tax year when the energy property is first placed into service.

At Sparkfund, we preliminarily estimate the ITC rate at 30%

However, we commit to conducting a thorough analysis at the final design stage to determine eligibility for additional credits.

Eligibility criteria for the base 30% ITC

The base 30% ITC applies to projects that adhere to:

- Prevailing wage standards
- Apprenticeship requirements

ITC can increase up to 50% with adders

Projects may also qualify for an additional 10% credit for each of the following:

- The domestic supply adder
- Location within an energy community
- New markets/low-income adder
  - Applicable only to solar, wind, and battery storage projects
  - 20% if serving affordable housing

Types of Energy Property Eligible for ITCs

The eligibility for ITCs extends to a broad range of energy properties, as defined and detailed in the regulations.

These include, but are not limited to:

- Solar energy systems
- Electric Vehicle Supply Equipment
- Various energy storage technologies, including electrical, thermal, and hydrogen storage
- Combined heat and power (CHP) systems
- Fiber optic solar lighting
- Electrochromic glass
- Geothermal installations
- Qualified fuel cell and microturbine technologies
- Small wind energy projects
- Geothermal heat pumps
- Waste energy recovery systems
- Qualified biogas systems
- Microgrid controllers

Production Tax Credits (PTC)

The Production Tax Credit is an alternative to the ITC and provides a $0.026/kWh tax credit for all kWh generated by renewable energy assets in the first 10 years of operation.

For most projects, the ITC and PTC are mutually exclusive, but co-located projects with the same address can opt for different credits.

Historically, the PTC has been more often utilized for wind projects since its value depends on the actual output of the asset, and wind typically has higher production (kWh) than solar relative to installed capacity (kW).

This is also known as capacity factor, which is calculated as follows:

kWh output/(kW installed capacity * 8760 hours/year) = % capacity factor

Wind typically has between a 30% and 40% capacity factor provided that it has been installed at a well-vetted site that is favorable for a wind project. Solar more frequently operates in the 10% to 20% capacity factor range. An example below shows the value of the PTC for a generic 1 MW wind project and a generic 1 MW solar project, assuming a 35% capacity factor for wind and a 15% capacity factor for solar.

Wind at a 35% capacity factor = 1,000 kW * 8760 hr/yr. * 35% capacity factor = 3,066,000 kWh/year
Solar at a 15% capacity factor = 1,000 kW * 8760 hr/yr. * 15% capacity factor = 1,314,000 kWh/year

At $0.026/kWh for 10 years, this makes the wind PTC worth $797,160 compared to the solar PTC value of $341,640. If a 1 MW wind project costs $2.00/W and a 1 MW solar project costs $1.60/W, or $2.5MM and $1.6 MM respectively, equivalent 30% ITCs would be worth $600k for wind and $480k for solar.

ITC Requirements

30% ITC (for projects over 1 MWac)

Prevailing wages: laborers, mechanics, contractors and subcontractors must be paid wages at least at prevailing rates, which are determined by the Secretary of Labor, during the construction, alteration and repair of the facility and for ten years thereafter.
Apprenticeship requirements: To satisfy the apprenticeship requirement, the following percentage of total labor hours for construction, alteration or repair work on the qualified facility must be performed by qualified apprentices:

- During 2023: 12.5%
- During 2024 and beyond: 15%
- Taxpayers must comply with the apprentice-to-journey worker ratios of the Department of Labor, or the applicable state, and there must be one apprentice for each taxpayer, contractor, or subcontractor that employs four or more individuals to construct, alter, or repair the facility.
- The apprenticeship requirement will still be satisfied if the taxpayer makes a good faith effort to comply based on specific standards set forth in the Act, or pays a penalty to the Secretary of Treasury of $50 multiplied by the total labor hours not in compliance with this requirement. Like the prevailing wage requirement, if the apprenticeship requirement is intentionally disregarded, then the penalty increases.

+10% Domestic Supply Adder

The 30% ITC requirements must be met (Prevailing Wages + Apprenticeship)

The domestic content requirement is satisfied if:

- 100% of any steel or iron that is a component of the facility was produced in the United States.
- 40% of manufactured products that are components of the facility were produced in the United States.
- Manufactured products will be deemed to have been produced in the United States if no less than 40% of the total product cost across all such manufactured products of such a facility are attributable to manufactured products that are mined, produced or manufactured in the United States.

+10% "Energy Community" Adder

The 30% ITC requirements must be met (Prevailing Wages + Apprenticeship)

Siting a project in an "energy community" requirement is satisfied if the solar array is located within at least one of the areas defined below:

- A Brownfield
- A census tract or any adjoining tract in which a coal mine closed after Dec. 31, 1999, or a coal-fired electric power plant was retired after Dec. 31, 2009.
- A statistic area that has (or, at any time during the period beginning after Dec. 31, 1999, had) at least 0.17% direct employment or at least 25% local tax revenues related to the extraction, processing, transport or storage of coal, oil or natural gas, and currently has an unemployment rate at or above the national average.