

## **Nuclear Energy in the Inflation Reduction Act**

### **Production Tax Credit (PTC) for Operating Plants**

The legislation creates a credit of \$15 per megawatt-hour for electricity produced by existing nuclear plants. The credit gradually declines as power prices rise above \$25 per megawatt-hour.<sup>1</sup> The bill includes provisions that will allow companies to monetize the value of the credit. The PTC would go into effect at the beginning of 2024 and last through 2032.

To receive the full \$15 per megawatt-hour base tax credit, a nuclear power facility must meet prevailing wage requirements. Under these requirements, any laborers and mechanics employed by either contractors or subcontractors for the purpose of alteration or repair of the facility must be paid wages not less than the prevailing rate for similar jobs in the locality. Failure to meet this requirement results in a base tax credit of \$3 per megawatt-hour and applicable corrections and penalties if necessary.

### **Technology-Inclusive PTC for Clean Electricity**

The Inflation Reduction Act creates a new technology-neutral tax credit for all clean electricity technologies, including advanced nuclear and power uprates that are placed into service in 2025 or after. The bill does not change the existing Advanced Nuclear Production Tax Credit but precludes credits from being claimed under both programs. The value of the credit will be at least \$25 per megawatt-hour, depending on inflation, for the first ten years of plant operation. The credit phases out in 2032 or when carbon emissions from electricity production are 25 percent below the 2022 level.

### **Technology-Inclusive Investment Tax Credit (ITC) for Clean Electricity**

As an alternative to the clean electricity PTC, the bill provides the option of claiming a clean electricity investment credit for zero-emissions facilities that is placed into service in 2025 or thereafter. This provides a credit of 30 percent of the investment in a new zero-carbon electricity facility, including nuclear plants. Like the other credits, this investment tax credit can be monetized. The ITC phases out under the same provisions as the clean electricity PTC.

Both the clean electricity PTC and ITC include a 10-percentage point bonus for facilities sited in certain energy communities such as those that have hosted coal plants.

### **Loan Guarantee Expansion**

The bill includes authority for DOE's Loan Programs Office to employ up to \$40 billion in additional section 1703 loan authority, available through September 2026. In addition, \$3.6 billion is included as a direct appropriation to cover loan guarantee costs. This amount is

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<sup>1</sup> The legislative text that was released following the announcement of the agreement included an older version of the proposal that will require a technical correction to ensure that the provision works as intended. The Build Back Better bill that was passed by the House of Representatives late last year included the corrected language.

available to offset an applicant's credit subsidy cost for the guarantee. The funds are available to all technology types in addition to nuclear.

### **High Assay Low Enrichment Uranium**

The Inflation Reduction Act includes \$700 million for research, development and production of domestic HALEU fuel.

### **Clean Hydrogen Credit**

A PTC for hydrogen is included as part of the Inflation Reduction Act. The credit would provide up to \$3 per kilogram of hydrogen produced and sold by a qualified facility and would be available for 10 years. In order to receive the full credit, the facility must begin construction before 2033 and generate less than 0.45 kilograms of carbon dioxide equivalent per kilogram of H<sub>2</sub> based on a lifecycle assessment. Systems generating up to 6 kilograms of carbon dioxide equivalent per kilogram of hydrogen receive reduced subsidy amounts. The hydrogen PTC also requires a facility to meet prevailing wage requirements, or the maximum credit is reduced to \$0.60 per kilogram of hydrogen.

### **Advanced Energy Project Credit**

The bill includes an extension of the Advanced Energy Project Credit. The total amounts of the credits are capped at \$10 billion, with \$4 billion required to be located in energy communities. A qualifying energy project is eligible for a 30-percent ITC under this section.

### **Funding for Environmental Justice Initiatives**

The Inflation Reduction Act includes \$60 billion in grants and tax incentives to support environmental justice.

### **Additional Resources**

- Senator Manchin press release: <https://www.manchin.senate.gov/newsroom/press-releases/manchin-supports-inflation-reduction-act-of-2022>
- Bill text and section summaries: <https://www.democrats.senate.gov/inflation-reduction-act-of-2022>

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