

## IMPACTS and OPPORTUNITIES of the INFLATION REDUCTION ACT of 2022

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H.R.5376

#### One Hundred Seventeenth Congress of the United States of America

#### AT THE SECOND SESSION

Begun and held at the City of Washington on Monday, the third day of January, two thousand and twenty-two

#### An Act

To provide for reconciliation pursuant to title II of S. Con. Res. 14.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

#### TITLE I—COMMITTEE ON FINANCE

#### **Subtitle A—Deficit Reduction**

SECTION 10001. AMENDMENT OF 1986 CODE.

Excent as otherwise expressly provided whenever in this sub-



# Even without the corporate tax and prescription drug pricing reform sections, it's a big bill ...

- Home and building energy efficiency tax credits
- Incentives for domestic manufacturing of solar, EV, batteries, critical minerals including aluminum, etc.
- Incentives for clean energy production including industrial solar
- Incentives for purchasing clean energy
- Rural electric / farm renewable energy loans
- Increased credit for solar projects in low income communities
- Clean vehicle credits, domestic EV manufacturing and charging
- Energy and electrical infrastructure, energy storage, microgrids
- "All of the above" energy types: solar, offshore wind and gas, biogas and biofuels, clean hydrogen, nuclear
- Water projects
- Carbon sequestration, air pollution and emissions
- Increased HUD funding



## **Building Energy Codes**

Under Title V, Subtitle A, Part 3 Building Efficiency and Resilience, \$1 billion appropriated to DOE for state and local governmental grants aimed at accelerating building energy codes:

- \$330 million to assist in adopting the latest energy codes.
  - 2021 IECC for residential, ASHRAE 90.1-2019 for commercial
- \$670 million to assist in adopting a zero energy code.
  - Based on the voluntary zero energy appendix of the 2021 IECC or equivalent stretch code
- Includes training and enforcement to achieve full compliance.
- Money is available 2022 through 2029.

(c)  $\overrightarrow{\text{Z}\text{ERO} \text{ENERGY} \text{CODE}}$ .—The Secretary shall use funds made available under subsection (a)(2) for grants to assist States, and units of local government that have authority to adopt building codes—

(1) to adopt a building energy code (or codes) for residential and commercial buildings that meets or exceeds the zero energy provisions in the 2021 International Energy Conservation Code or an equivalent stretch code; and

(2) to implement a plan for the jurisdiction to achieve full compliance with any building energy code adopted under paragraph (1) in new and renovated residential and commercial buildings, which plan shall include active training and enforcement programs and measurement of the rate of compliance each year.

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## **25C Energy Efficient Home Improvement Credits**

Under Title I, Subtitle D, Part 3 Clean Energy and Efficiency Incentives for Individuals

- 25C "Nonbusiness Energy Property" renamed "Energy Efficient Home Improvement Credits"
- Extended through 2032.
- Previous lifetime limit changed to an annual limit.
  - \$1200 annual limit for all 25C credits
  - 30% up to \$600 for windows + skylights, \$250 for one door, or \$500 for all doors.

(c) APPLICATION OF ANNUAL LIMITATION IN LIEU OF LIFETIME LIMITATION.—Section 25C(b) is amended to read as follows:

"(b) LIMITATIONS.—

"(1) IN GENERAL.—The credit allowed under this section with respect to any taxpayer for any taxable year shall not exceed \$1,200.

"(2) ENERGY PROPERTY.—The credit allowed under this section by reason of subsection (a)(2) with respect to any taxpayer for any taxable year shall not exceed, with respect to any item of qualified energy property, \$600.

"(3) WINDOWS.—The credit allowed under this section by reason of subsection (a)(1) with respect to any taxpayer for any taxable year shall not exceed, in the aggregate with respect to all exterior windows and skylights, \$600.

"(4) DOORS.—The credit allowed under this section by reason of subsection (a)(1) with respect to any taxpayer for any taxable year shall not exceed—

"(A) \$250 in the case of any exterior door, and

"(B) \$500 in the aggregate with respect to all exterior doors.



## **25C Energy Efficient Home Improvement Credits**

(1) STANDARDS FOR ENERGY EFFICIENT BUILDING ENVELOPE COMPONENTS.—Section 25C(c)(2) is amended by striking "meets—" and all that follows through the period at the end and inserting the following: "meets—

"(A) in the case of an exterior window or skylight, Energy Star most efficient certification requirements,

"(B) in the case of an exterior door, applicable Energy Star requirements, and

• Windows need to be certified to Energy Star Most Efficient program.

U <= 0.20 in all zones; SHGC <= 0.25 in south/south central, SHGC <= 0.40 in north central, minimum SHGC >= 0.20 in north

- **Doors** only need to meet normal Energy Star requirements.
- Skylights need to be certified to Energy Star Most Efficient ... but skylights are not included in the Most Efficient program. Therefore, no tax credit for skylights unless EPA adds them in a future year.



## **Other Residential Efficiency & Electrification**

- \$150 tax credit towards home energy audits.
- Extension and increase in tax credit for **Energy Star homes and multifamily buildings**.
  - Tax credit extended through 2032.
  - \$2500 per home, \$500 per multifamily unit, each doubled if prevailing wage requirements are met.
- Allocates \$4.3 billion for states operating a HOMES rebate program (to be developed in next 2 years)
  - Rebates of up to \$2000 \$4000 for home and apartment energy efficiency retrofits, depending on the energy savings.
  - Double the amount in low and moderate income housing.
- Another \$4.3 billion to states to implement high efficiency electric homes rebate program.
  - More focused on electrical HVAC and appliances, but also some insulation and air sealing provisions.
- \$200 million for home energy efficiency contractor training.



## **179D Energy Efficient Commercial Buildings Deduction**

- Previously, the 179D deduction was made permanent in the Energy Act of 2020 embedded within the Coronavirus Relief Bill.
- However, it set a baseline that was very difficult (50% beyond ASHRAE 90.1-2019) which many feared would make it unusable. IRA adjusts this to a sliding scale starting at 25% with increasing deduction to 50% beyond 90.1-2019.
- The amount was modified from the current \$1.88 per square foot of floor area to the sliding scale:
  - \$0.50 to \$1.00 / ft<sup>2</sup> as the baseline
  - Increase by 5x to \$2.50 to \$5.00 / ft<sup>2</sup> if prevailing wage and registered apprenticeship requirements are met.
  - The amount is also inflation adjusted after 2022.
- Previously, tax-exempt entities could not take advantage of the 179D tax deduction. This bill directs rules to be developed that would allow the deduction to be allocated to the *designer* of the property instead of the owner.



## **Electrochromic Glazing**

• Electrochromic glass was added as energy property that can qualify for a tax credit under 48A if construction begins before Jan 1, 2025.

(h) DYNAMIC GLASS.—Section 48(a)(3)(A)(ii) is amended by inserting ", or electrochromic glass which uses electricity to change its light transmittance properties in order to heat or cool a structure," after "sunlight".

**I.R.C. § 48(a)(3)(A)(ii)** — equipment which uses solar energy to illuminate the inside of a structure using fiber-optic distributed sunlight, or electrochromic glass which uses electricity to change its light transmittance properties in order to heat or cool a structure, but only with respect to property the construction of which begins before January 1, 2025,

- 6% credit as base level; multiply by five (to 30% credit) if meet prevailing wage and apprenticeship program requirements.
- May also qualify for Domestic Content Credit bonus of up to an additional 2% for base level or 10% when meeting prevailing wage and apprenticeship program requirements.

## **EPDs and Embodied Carbon**

Under Title VI, Subtitle A - Air Pollution and Subtitle E – Transportation and Infrastructure,

- \$250 million appropriated to EPA to develop a program for Environmental Product Declaration assistance and measuring / reporting / reducing embodied carbon of construction materials and products.
  - Includes grants to building construction materials manufacturers to develop and verify EPDs.
  - Money available 2022-2031.
- Low embodied carbon construction materials and products in Federal building and transportation projects:
  - \$100 million appropriated to EPA to develop labeling program together with GSA and Highway Administration to identify and label construction materials with "substantially lower levels of embodied greenhouse gas emissions" as compared to industry averages.
  - \$2.15 billion into the Federal Buildings Fund for GSA controlled building projects using above low embodied carbon construction materials and products.

### **Industrial / Manufacturing Incentives**

Under Title I, Subtitle D, Part 5 Investment in Clean Energy Manufacturing and Energy Security:

- Advanced manufacturing production credit for domestic production of solar modules of 7 cents per watt capacity.
- Advanced manufacturing production credit for domestic production of aluminum (included under "applicable critical minerals") 10% of production cost.

Under Title V, Subtitle A, Part 6 Industrial:

• \$5.8 billion appropriated to DOE for competitive grant projects through 2026 for industrial facilities to install, retrofit, or upgrade technology to reduce greenhouse gases. Specifically mentions **glass production**.

(3) ELIGIBLE FACILITY.—The term "eligible facility" means a domestic, non-Federal, nonpower industrial or manufacturing facility engaged in energy-intensive industrial processes, including production processes for iron, steel, steel mill products, aluminum, cement, concrete, glass, pulp, paper, industrial ceramics, chemicals, and other energy intensive industrial processes, as determined by the Secretary.





# A lot still to be figured out, but some interesting opportunities!

## **Questions / Comments?**



#### NGA Glass Conference: Miramar Beach

January 24 - 26, 2023

Hotel Effie Sandestin - Miramar Beach, FL

#### **Building Envelope Contractors (BEC) Conference**

March 5 - 7, 2023

Caesars Palace - Las Vegas, NV

#### NGA Glass & Glazing Advocacy Days

March/April 2023 Washington, DC More details to come.

#### NGA Glass Conference: Summer 2023

July 2023 | Tacoma, WA More details to come.



SAVE THE DATE



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