



Infrastructure Investment and Jobs Act: Summary of Industrial/Manufacturing, CCUS, and Hydrogen Provisions

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+ Infrastructure Investment and Jobs Act



- H.R. 3684 became Public Law No. 117-58 on Nov. 15, 2021
- In addition to energy, covers transportation, natural resources, water and wastewater, broadband – 1039 pages
- See NASEO summary for list of energy-related sections:
<https://www.naseo.org/news-article?NewsID=3644>
- Coverage here:
 - Industrial energy efficiency
 - Other manufacturing and industrial provisions
 - CCUS and related infrastructure
 - Hydrogen
- Additional funding potentially available through separate reconciliation package

+ Industrial Energy Efficiency

| Amount | Program | Notes |
|---------------|--|---|
| \$550 million | Future of Industry Program and Industrial Research and Assessment Centers (§40521) | <ul style="list-style-type: none">- Supports Industrial Assessment Centers (IAC), tech assistance to small/medium manufacturers and water/wastewater facilities.- Expands IACs to trade schools, community colleges, union training programs; est. Centers of Excellence; workforce training support (50% cost-share)- \$400 million grant program (max. \$300,000 each; 50% cost-share) for implementing IAC recommendations |
| \$50 million | State Manufacturing Leadership (§40534) | <ul style="list-style-type: none">- Funds state smart manufacturing technology implementation programs and programs to provide high-performance computing access to small-/medium-sized manufacturers- Competitive funding, up to \$2 million each, at least 30% state cost share |
| n/a | Sustainable Manufacturing Initiative (§40522) | <ul style="list-style-type: none">- DOE will provide onsite technical assessments for energy, water, and resource efficiency, pollution prevention and waste reduction. |

+ Other Manufacturing and Industrial Provisions

| Amount | Program | Notes |
|-----------------|---|---|
| \$140 million | Rare Earth Elements Demonstration Facility (\$40205) | <ul style="list-style-type: none"> - Fund with an academic partner a facility to demonstrate integrated rare earth element extraction, separation, and refining |
| \$6.135 billion | Battery processing and manufacturing (\$40207) | <ul style="list-style-type: none"> - Support domestic supply chain for battery production - \$60 million for battery recycling RD&D programs (states eligible) - \$50 million for state and local programs - 50% cost-share requirement |
| \$200 million | EV battery recycling/second-life applications program (\$40208) | <ul style="list-style-type: none"> - RD&D of second-life applications/technologies, and process for final recycling/disposal - Includes funding for grant program |

+ Other Manufacturing and Industrial Provisions (continued)

| Amount | Program | Notes |
|---------------|--|---|
| \$750 million | Advanced Energy Manufacturing and Recycling Grant Program (§40209) | <ul style="list-style-type: none"> - Funding for advanced energy manufacturing and recycling facilities in “covered census tracts” (those in or adjacent to coal mine closures or coal-fired generator retirements) - Includes renewables, grid mod, fuel cells, microturbines, energy storage, EV, energy efficiency, CCUS, etc. low-carbon/low-emission tech. |
| \$400 million | Critical Minerals Mining and Recycling Research (§40210) | <ul style="list-style-type: none"> - Grants for critical minerals R&D - Grants (not exceeding \$10 million per project) for pilot projects for development, processing, and recycling of critical minerals and metals in the United States; - To advance innovative critical minerals mining, recycling, and reclamation strategies and technologies |
| \$500 million | Industrial Emissions Demonstration Projects (§41008) | <ul style="list-style-type: none"> - Authorizes appropriations for industrial emissions demonstration projects under EISA 2007 454(a)(3) (42 USC 17113(d)(3)) |

+ Carbon Capture, Utilization, Sequestration, and Transportation Infrastructure

| | Program | Notes |
|----------------|--|---|
| \$~310 million | Carbon Utilization Program (§40302) | - Grant to states, localities, public utilities or agencies to procure and use commercial and industrial products that use or are derived from captured CO ₂ that reduce net lifetime GHG emissions |
| \$100 million | Carbon Capture Technology Program (§40303) | - Amends EPACT 2005 to add support of front-end engineering and design for CO ₂ transport infrastructure for CCUS |
| \$2.1 billion | Carbon Dioxide Transportation Infrastructure Finance and Innovation (§40304) | - “CIFIA” program of federal loans (up to 80% project cost) for CO ₂ transport infrastructure (pipeline, ship, rail, other) - Grants to incrementally expand capacity to meet projected future (up to 20 years) demand (up to 80% of cost differential) |

+ Carbon Capture, Utilization, Sequestration, and Transportation Infrastructure (cont'd)

| | Program | Notes |
|---------------|--|--|
| \$2.5 billion | Carbon Storage Validation and Testing (§40305) | <ul style="list-style-type: none"> - Commercialization program to fund development of new or expanded large scale carbon sequestration and associated infrastructure |
| \$75 million | Secure Geologic Storage Permitting (§40306) | <ul style="list-style-type: none"> - \$25 million (\$5m ea. year FY '22-26) to EPA for (UIC) Class VI well permitting - \$50 million from EPA to states with Class VI well primacy to establish and operate permitting programs |
| \$3.5 billion | Carbon Removal (§40308) | <ul style="list-style-type: none"> - For 4 Regional Direct Air Capture (DAC) hubs of at least 1 million metric ton [per year] capacity - Preference for regions with existing or recently closed carbon-intense fuel production or industry - At least two in economically distressed regions with high fossil fuel resources - Priorities for skills and employment development and scalability |



Hydrogen: Additional Clean Hydrogen Programs (§40314)

| | Amends EPCACT 2005 to add | Notes |
|---------------|---|---|
| \$8 billion | Sec. 813 Regional Clean Hydrogen Hubs | <ul style="list-style-type: none">- For at least 4 Regional Clean Hydrogen Hubs to demonstrate production, processing, delivery, storage, and end-uses of H₂- At least 1 hub ea. to demo fossil-, renewable-, nuclear-derived H₂; at least 1 ea. to demo electric generation, industrial, transportation end-uses- As practicable, at least 2 in natural gas-rich regions- Priorities for skill and employment development |
| \$500 million | Sec. 815 Clean Hydrogen Manufacturing and Recycling | <ul style="list-style-type: none">- RD&D for advancing manufacturing and recycling of technologies for H₂ production, processing, delivery, storage, and end-uses. |
| \$1 billion | Sec. 816 Clean Hydrogen Electrolysis Program | <ul style="list-style-type: none">- RD&D, commercialization, and deployment program to advance electrolyzers and related components and technologies. |

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