



# Build Back Better Act Update and Bipartisan Infrastructure Package Overview

# Build Back Better Act Update

# Steps in Process

- Administration releases budget and Treasury “greenbook”
- Bipartisan negotiations continue until fruition or breakdown
- Budget resolution
- House/Senate bill introductions
- Committee consideration
- Full House consideration
- **Full Senate consideration**
- Conference or process to reconcile differences?
- Final passage
- President’s signature
- Regulatory process

# House bill tax provisions

- **Carried interest:** Tax increase provision **EXCLUDED** from package.
- **Capital gains rate:** Rate increase excluded from package, replaced with increased surtax (see below).
- **High earner surtax:** 5% surtax for income over \$10M, additional 3% for income over \$25M.
  - Effective date 1/1/22.
- **QSBS:** Dials back exclusion from 100% to 50%; reimposes AMT
  - Effective date for sales of stock 9/13/21.

# House bill tax provisions

- **NIIT surtax:** 3.8% surtax applied to income from certain partnerships.
- **IRS tax enforcement:** \$78B for IRS tax enforcement activities.
- **Common control:** Expands provision requiring companies with common majority investors to aggregate accounting for tax purposes.
- **R&D Credit payroll tax offset:** Expands the ability of early stage startups to offset up to \$500K in payroll taxes (up from current \$250K).

# QSBS

- Coalition with Angel Capital Assn, Engine, Center for American Entrepreneurship, Carta, BIO, MDMA, others.
- Question as to whether to try to kick out provision entirely or fight for fixes.
  - Fix retroactivity by making provision effective for new investments going forward, as opposed to sales of stock.
  - Fix issues limiting the value of the exclusion to only 30%, including tying to current capital gains rate and eliminating AMT.

# Example of new mechanics of QSBS

- \$10M gain
- \$5M now eligible for exclusion -
  - Exclusion pegged to 28% capital gains rate -14% rate
  - Add AMT addback (7% of \$5M taxed at cap gains rate) - .98%
  - Add ½ of Medicare surtax rate (3.8%) – 1.9%
  - Avoids 3% surtax on incomes over \$5M?
- **New tax rate under proposal on QSBS eligible income – 16.88%**

# Climate & sustainability tax provisions

5 year extension and expansion of current tax provisions, then transition to tech-neutral credit structure for additional 5 years:

- Each credit has base rate and bonus rate of 5 times the base rate awarded if activity meets the following qualifications:
  - Must adhere to prevailing wage requirements and 10-15% of total labor hours must be performed by qualified apprentices.
  - Ability to cure discrepancy retroactively by paying difference in prevailing wage to workers and \$5K penalty for each worker not paid prevailing wage.
- **Direct pay mechanism for climate credits included. This means startups can access value in the year the credits are generated.**
- 5 year extension of production tax credit
  - Energy producers can claim a base credit of 0.5 cents/kilowatt hour for energy generated by certain renewable sources.
- 5 year extension of the investment tax credit
  - Tax credit for the cost of deployment of clean energy property, with a base rate of 6% of the basis of the property, including solar, wind, geothermal, and biogas.
  - **Energy storage property with a minimum capacity of 5 kilowatt hours now eligible.**



# Other climate & sustainability tax provisions

- Expansion and lowered minimum scale requirements for 45Q Carbon capture credit.
  - Direct air capture facilities must capture at least 1K tons of carbon annually, power facilities 18,750 tons, other facilities 12,500 tons.
  - Base credit rate of \$17 per ton for sequestered carbon, \$12 per ton of utilized carbon.
- New zero emissions facility credit, which provides \$250M in credits to be allocated to facilities that generate zero carbon electricity using a technology or process which is not in widespread use for commercial generation of electricity.
- Enhanced investment tax credit for solar and wind facilities (including related storage) in low-income communities.
  - 1.8 gigawatts worth of competitive credits to be distributed by Treasury based on health and economic benefits of local low-income communities.
- New tax credit for clean hydrogen.
  - Base rate of up to 60 cents per kilogram of clean hydrogen depending on lifecycle greenhouse gas emissions.
  - Hydrogen produced with less than .45 kg of carbon per kilogram of hydrogen gets 100% of credit. The value of the credit scales down as the amount of lifecycle greenhouse gas emissions increases.
- New tax credits for purchases of certain EVs.

# Climate & Sustainability DOE provisions

## Department of Energy provisions include:

- \$40B in loan authority for Department of Energy's (DOE) Loan Programs Office.
- \$29B for the Greenhouse Gas Reduction Fund for nonprofit climate financing institutions leveraging public/private partnerships that support the rapid deployment of low- and zero-emission technologies.
- \$5B for a program to support low-carbon reinvestments in communities historically tied to fossil fuels.
- \$5B for clean heavy-duty trucks.
- \$4B for DOE's Advanced Industrial Facilities Deployment Program to support projects for installing and implementing advanced industrial technology at energy-intensive industrial and manufacturing facilities.
- \$3.5B for domestic manufacturing conversion grants for domestic EV production.
- \$3B for loans generated by DOE's Advanced Technology Vehicles Manufacturing program.
- \$3B for environmental and climate justice block grants.
- \$1B for energy efficiency and renewable energy demonstration projects.
- \$600M for Zero-Emissions Infrastructure Grants.

# Climate & Sustainability Ag provisions

## Department of Agriculture provisions include:

- New payment system up to \$25 per acre for farmers who establish cover crops for soil health and to address climate change.
- \$9.7B to accelerate the clean energy transition for certain electric cooperatives.
- \$2.9B for financing rural energy storage projects.
- \$2B for the Rural Energy for America Program.
- \$600M to the Natural Resources Conservation Service to engage in the quantification of carbon sequestration and greenhouse gas emissions.
- \$210M for research activities at the Foundation for Food and Agriculture Research.
- \$30M for the Agriculture Advanced Research and Development Authority.

# Climate & Sustainability DOT provisions

Department of Transportation provisions include:

- \$4B for community climate incentive grant program for grants to state and local (s&l) governments for carbon reduction projects.
- \$900M to support the procurement of low-carbon construction materials in highway projects.
- \$300M to support low-emission aviation technologies and sustainable aviation fuels.

# Workforce development programs

- **\$5B industry partnership grant program –**
  - Dept of Labor provides grants to industry partnerships that expand employment in high-skill or in-demand industry sectors and occupations.
- **Funding for Workforce Investment & Opportunity Act Programs–**
  - Funding provides grants to local Workforce Development Boards to administer the programs.
    - \$1B for Adult Employment & Training Activities.
    - \$2B for Dislocated Worker State Grants.
    - \$1.5B for Youth Employment and Training Activities.
- **\$1B for apprenticeships –**
  - Dept of Labor provides grants to states and private entities for registered apprenticeship, pre-apprenticeship, youth apprenticeship, and college preparation programs.

# Manufacturing

- **\$5B to support supply chain resiliency –**
  - Dept of Commerce program to fund mapping of supply chains, identifying and deploying supply chain technology, and financial support for companies that support these goals.
- **\$500M for enhanced use of the Defense Production Act –**
  - Dept of Treasury will use money to create, maintain, protect, expand, or restore the domestic industrial base capabilities essential for national and economic security.
- **Tax credits for manufacturing –**
  - \$20B for advanced energy property credits, which Treasury allocates on a competitive basis to projects with greatest economic impact, greenhouse gas impact and job creation impact, particularly for underserved communities. Eligible projects will receive credits worth 6-30 percent of investment.
  - Investment tax credit for domestic semiconductor manufacturing, worth 5-25% of investment.
  - Production tax credit for domestic production of certain critical components, including polysilicon, wafers, cells, and wind turbine components.

# Research and tech commercialization

- **\$3.36B for regional innovation hubs –**
  - Commerce Dept will use funds to develop regional economic growth clusters.
- **\$1.5B for NSF Technology Directorate –**
  - National Science Foundation (NSF) to administer new Directorate to accelerate use-inspired and translational research in technologies and innovations of national importance.
- **\$668M for NSF core research –**
  - Additional funds for research awards, traineeships, scholarships, and fellowships across all STEM disciplines.

# Diversity

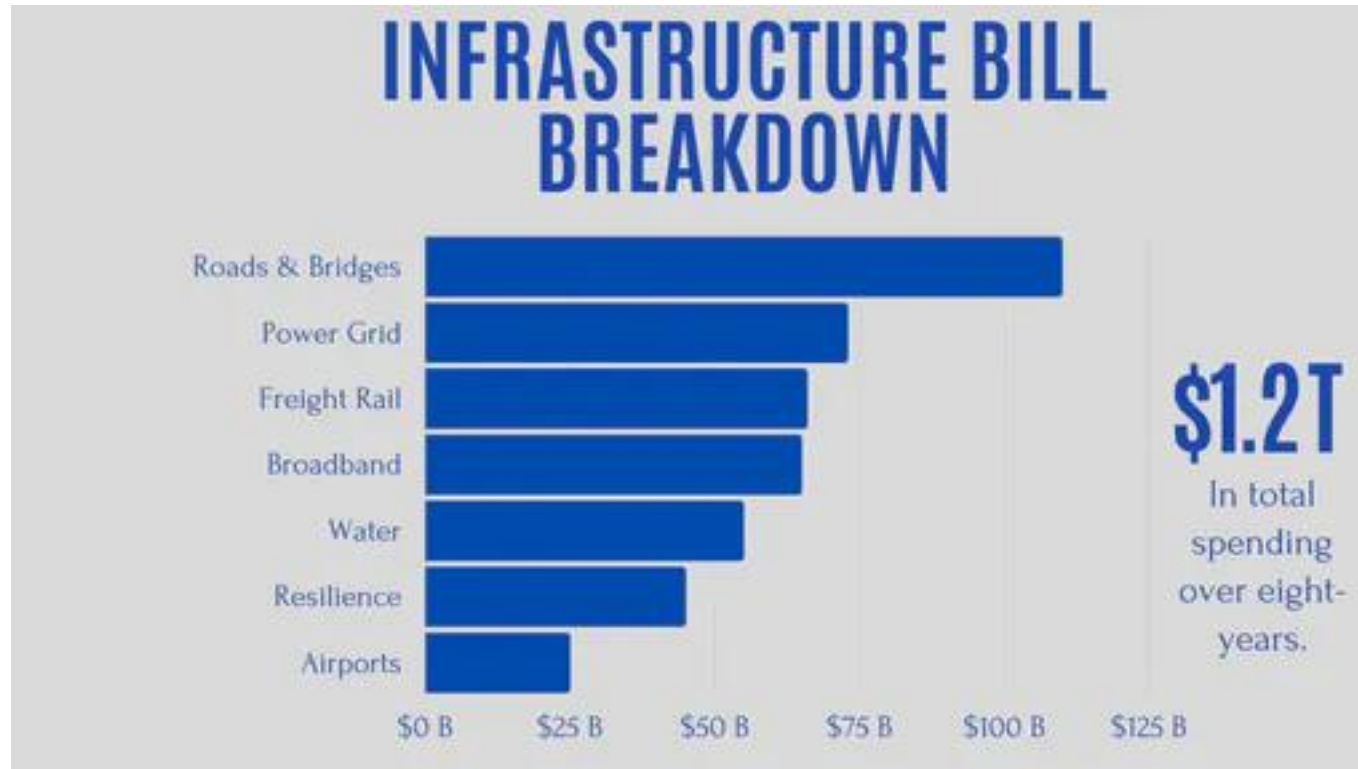
- **\$200M for growth accelerators –**
  - Small Business Administration (SBA) to provide grants to accelerator programs focused on innovative young companies with a prioritization of businesses owned by underrepresented individuals.
- **\$40M for MicroCap SBIC licenses –**
  - MicroCap SBIC licenses can be issued to emerging managers who don't have track record to be eligible for main SBIC program.
- **\$35M for entrepreneurial development programs for formerly incarcerated individuals –**
  - SBA pilot program awards grants to organizations to support existing entrepreneurial development programs for formerly incarcerated individuals to gain assistance to job training, business assistance, and access to capital.





# Overview of Technology Programs in Bipartisan Infrastructure Framework

# Bipartisan infrastructure bill is now law



# Technology a critical issue in bipartisan infrastructure package

Types of technology programs:

- Technology procurement programs
- Technology demonstration project grant programs
- Research and manufacturing grant programs
- New gov't technology offices and working groups



# Infrastructure technology procurement programs

Grant programs to state and local governments and utilities/transportation authorities for procurement of certain infrastructure-related technologies.

Examples:

- \$7.5 billion program to build out alternative fuel recharging infrastructure that includes the acquisition of charging and storage technology.
- \$1 billion dollar program to address cybersecurity risks and threats.
- \$3 billion for the Smart Grid Investment Matching Grant Program to support the deployment of technologies that enhance electric grid flexibility.
- \$50 million grant program for rural and disadvantaged communities to identify and deploy emerging drinking water technology.

# Technology demonstration project grant programs

Grants to state/local governments or directly to businesses to finance technology demonstration projects.

Examples:

- SMART Grant program to provide \$500 million for smart city demonstration projects.
- \$3.5 billion for carbon capture large-scale pilot projects and carbon capture demonstration projects.
- \$500M for a program to demonstrate viability of clean energy projects on current and former mine land.

# Research and manufacturing grant programs

Grant programs for private companies to support research and domestic manufacturing activity.

Examples:

- Creation of ARPA-Infrastructure (ARPA-I) to fund private sector R&D on advanced transportation infrastructure technologies.
- \$750 million to create the Advanced Energy Manufacturing and Recycling Grant Program to provide grants to smaller climate technology manufacturers that build or retool manufacturing facilities in former coal communities.
- Grant program for battery manufacturing and recycling facility retooling and construction, and for battery demonstration projects.

# Buy American Provisions

To satisfy domestic production requirements, more than 55% of the cost of components making up the product must be mined, produced, or manufactured in the U.S., unless another standard already exists in federal regulations.

The agencies implementing the program may waive this requirement if:

- Adherence to Buy America would be inconsistent with the public interest.
- Materials are not produced in the U.S. in sufficient quantities or reasonable quality.
- Using U.S. sourced products increases the costs of the overall project by more than 25%.

# Questions

- State and local government and utility procurement processes difficult for startups to access.
- Questions around how programs will be implemented.
- Do Buy American provisions work?



# Transportation & mobility

- \$7.5 to s&l governments and transportation authorities for alternate fuel recharging infrastructure.
- \$5B to s&l governments and private operators to purchase clean school buses.
- \$550M for the Technology and Innovation Deployment Program to accelerate adoption of market ready transportation technologies.
- \$550M for the Intelligent Transportation Systems Program to integrate advanced communications technologies into transportation infrastructure and vehicles.
- Expansion of Advanced Technology Vehicle Manufacturing Program to include medium and heavy –duty vehicles, trains, aircraft, maritime vessels and hyperloop technology.
- Expansion of Surface Transportation Block Gran Program to include funding for installation and deployment of intelligent transportation technologies.

# Infrastructure/smart city tech

- \$3B Smart Grid Investment Matching Grant Program for deployment of technologies that enhance grid flexibility.
- \$500M SMART grant program to provide grants to S&L governments to fund competitive smart city demonstration projects.
- Creation of Smart Community Resource Center to develop compilation of resources for s&l governments for smart city tech integration.
- Creation of Advanced Research Projects Agency-Infrastructure.
- \$10B for s&l governments and utilities for PFAS and other water pollutant treatment.
- \$50M grant program for rural and disadvantaged communities to identify and deploy emerging drinking water technology.

# Domestic production

- \$750M for the Advanced Energy Manufacturing and Recycling Grant Program.
  - Grants to climate tech manufacturers sub 500 employees/\$100M sales to build or retool manufacturing facilities in former coal communities.
- \$550M for industrial research and assessment centers to identify climate and environmental upgrade opportunities at industrial facilities and provide grants for upgrades by small manufacturers.
- \$500M for a clean hydrogen manufacturing and recycling program.
- \$500M to demonstrate viability of clean energy projects on current and former mine land.
- \$500M for industrial emissions demonstration projects.
- \$50M grant program for states to invest in smart manufacturing technologies.

# Energy storage

- \$3B for the Battery Material Processing Grant Program to promote a viable battery materials processing industry.
- \$3B for battery manufacturing and recycling grants to promote a North American battery supply chain.
- \$355M for the Energy Storage Demonstration Projects and Pilot Grant Program.
- \$200M for research and demonstration projects for EV battery recycling and second-life applications of EV batteries.
- \$150M for Long-duration Demonstration Initiative and Joint Program.
- \$60M for Battery Manufacturing and Recycling Grant Program.

# Clean energy sources

- Hydrogen:
  - \$8B for four clean hydrogen hubs.
  - \$1B program to decrease the cost of clean hydrogen production from electrolyzers.
  - \$500M for clean hydrogen manufacturing and recycling program.
- Renewable energy demonstration projects:
  - \$84M for enhanced geothermal systems.
  - \$100M for wind.
  - \$80M for solar.

# Cyber

- \$1B grant program to s&l governments and utilities/contractors to address cybersecurity risks and threats.
- \$250M Rural and Municipal Utility Advanced Cybersecurity Grant and Technical Assistance Program.
- \$250M Cybersecurity for the Energy Sector RD&D Program.
- \$157M for DHS Science and Technology Directorate for R&D.
- Requirement that EPA develop a cybersecurity framework for public water systems.
- Requirement for Federal Energy Regulatory Commission (FERC) to draft rulemaking that encourages investment in cybersecurity technology and threat information sharing programs.

# Carbon capture

- \$3.5B grant program to develop 4 direct air capture hubs, with priority for projects located in and around heavy manufacturing and fossil fuel communities.
- \$3.47B for Carbon Capture Large-Scale Pilot Projects and Carbon Capture Demonstration Projects.
- \$2.5B to expand DOE's Carbon Storage Validation and Testing Program.
- \$310M grant program for s&l governments and utilities to buy products derived from carbon oxides.
- \$115M for the Direct Air Capture Technologies Prize Competition.
- \$100M to expand DOE's Carbon Capture Technology Program to include front-end engineering and design (FEED).



# Thank you.

For any further questions about the group, please email Justin Field  
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