



2023 was a key year for implementation of federal climate and infrastructure legislation from the Bipartisan Infrastructure Law (BIL), Inflation Reduction Act (IRA), and the CHIPS and Science Act. Federal agencies have released guidance for the hundreds of programs, new and existing, funded by these laws and billions of dollars have already been disbursed or allocated throughout California and rest of the country in a multitude of infrastructure and clean energy projects. These federal agencies are using a mix of mandates and incentives to achieve their job quality goals. Namely, the use of prevailing wages, apprenticeships, and community benefit agreements.

This report provides a brief overview of these three laws and some of their key provisions, with a particular focus on the labor standards attached to each. In addition, this report also provides a brief overview of what investments look like in California to date.

For the purposes of this report, labor standards are understood to be contractual requirements intended primarily to improve conditions for workers. These include compensation standards but can also include other types or protections for workers such as fair scheduling rules, union neutrality, whistleblower protections and others.¹

BIPARTISAN INFRASTRUCTURE LAW (BIL):

The BIL, also referred to as the Infrastructure Investment and Jobs Act, was signed into law on November 15 of 2021 and represents an investment of \$1.2 trillion by the federal government over a 5-year period. These investments are distributed across more than 380 federal programs, for the purposes of modernizing the country's physical infrastructure. The BIL seeks to "grow the economy, enhance our competitiveness, create good jobs, and make our economy more sustainable, resilient and just."² Of the \$1.2 trillion, \$650 billion will reauthorize existing funding and \$550 billion will go towards funding new programs.

¹ Zabin, Carol. "Putting California on the High Road: A Jobs and Climate Action Plan for 2030." June, 2020, pp 68, <https://laborcenter.berkeley.edu/wp-content/uploads/2020/09/Putting-California-on-the-High-Road.pdf>

² <https://www.whitehouse.gov/briefing-room/statements-releases/2021/08/02/updated-fact-sheet-bipartisan-infrastructure-investment-and-jobs-act/>

As of January 2024, the federal government has announced the release of over \$415 billion in funding through the BIL.³ Federal agencies allocating these funds include:

- Dept. of Energy - \$62 billion⁴
- Dept. of Transportation - \$661 billion⁵
- Dept. of Agriculture – Amount not specified
- Dept. of Commerce – Amount not specified
- Dept. of Interior – Amount not specified
- Dept. of Health and Human Services – Amount not specified
- Dept. of Homeland Security - \$8 billion
- EPA - \$50 billion
- US Army Corps of Engineers - \$17.1 billion
- General Services Administration - \$3.4 billion

Qualifying entities for these funds will vary depending on the program type, but generally include states, municipalities, educational institutions, tribes, developers, utilities, corporations, non-profit groups, and others. Funding will be allocated through any of these ways:

- *Mandatory Grants:* (Grant awarded under a program where the authorizing statute requires the head of the agency designee to make an award to each eligible entity under the conditions and in the amount [or based on the formula] specified in the statute)⁶:
 - Formula
 - Block
- *Discretionary Grants:* (Grant for which the federally awarding agency generally may select the recipient from among all eligible recipients, may decide to make or not make the award based on the programmatic, technical, or scientific content of an application, and can decide the amount of funding to be awarded):⁷
 - Project
- *Loans*
- *Bonds*
- *Technical Assistance*
- *Cooperative Agreements:* (Distinguished from a grant in that it provides substantial involvement between federal awarding agency or pass-through entity and the non-Federal entity in carrying out the activity contemplated by the Federal award).

³ <https://www.whitehouse.gov/build/maps-of-progress/>

⁴ <https://www.energy.gov/clean-energy-infrastructure/articles/bipartisan-infrastructure-law-frequently-asked-questions>

⁵ <https://mikethompson.house.gov/infrastructureguide>

⁶ <https://www.grants.gov/learn-grants/grant-terminology.html#M>

⁷ <https://www.grants.gov/learn-grants/grant-terminology.html#M>

Labor Standards in BIL:

Projects funded through the BIL are subject to prevailing wage standards under the Davis-Bacon Act. This is the main labor standard in the BIL and applies to projects where construction is involved.

However, rather than being the goal, prevailing wage is the floor that every project must meet. It does not guarantee that jobs will be good jobs in general and does not guarantee that jobs will go to local communities, both of which are goals outlined throughout the legislation.

Incentives around how the funding gets allocated through many of the different programs is key to meeting these goals and it creates incentives for a race to the top.

What is perhaps the best model for this has been the implementation of Community Benefit Plans (CBPs) as part of the application requirements for a significant portion of Department of Energy (DOE) grants funded through BIL and IRA. CBPs count for as much as 20% of an applicant's score on their funding proposals and are aimed at meeting four core policy areas of the DOE:⁸

1. Engaging communities and labor
2. Investing in America's workers through quality jobs
3. Advancing diversity, equity, inclusion and accessibility through recruitment and training
4. Implementing Justice 40, which directs 40% of the overall benefits of certain Federal investments to flow to disadvantaged communities.

Community Benefit Plans have great potential to be a very effective way to guarantee good quality jobs for disadvantaged communities in both the temporary jobs created during the construction of projects and on the permanent operations jobs. CBPs do this, among other things, by:

- Encouraging grantees to use Project Labor Agreements with local hire and apprenticeship provisions.
- Encouraging grantees to partner with unions for permanent jobs. This includes asking applicants to specify which of the following commitments they can make:
 - **Commitment C1.1:** Commitment to negotiate a Project Labor Agreement (PLA) for construction activity.
 - **Commitment C1.2:** Pledge to remain neutral during any union organizing campaigns.
 - **Commitment C1.3:** Intention or willingness to permit union recognition through card check (as opposed to requiring union elections),
 - **Commitment C1.4:** Intention to enter into binding arbitration to settle first contracts.
 - **Commitment C1.5:** Pledge to allow union organizers access to appropriate onsite non-work spaces (e.g. lunch rooms).
 - **Commitment C1.6:** Pledge to refrain from holding captive audience meetings.

⁸ <https://www.energy.gov/infrastructure/about-community-benefits-plans>

- Encouraging grantees to partner with community groups and commit to a specific amount of funding that will be used to benefit the communities surrounding project locations.

BIL also creates multiple opportunities for states to use portions of the money to invest in workforce development, from pre-apprenticeship to apprenticeship and on-the-job training.

This is of significance to states since it allows them to add mandates on top of the federal ones, including apprenticeship requirements. SB 150 in California is an example of this, since it sets aside \$50 million of federal BIL funds to fund the state's high road construction careers program.

Build America, Buy America Act Provision (BABA):

The BIL also includes the Build America, Buy America Act (commonly known as BABA). BABA “establishes a domestic content procurement preference for all Federal financial assistance obligated for infrastructure projects after May 14, 2022. The domestic content procurement preference requires that all iron, steel, manufactured products, and construction materials used in covered infrastructure projects are produced in the United States.”⁹

Projects can waive the BABA requirements through the use of agency-specific or project-specific waivers. As an example, the EPA allows for the following 3 types of waivers:

- Public Interest Waiver – Applying the BABA preference would be inconsistent with the public interest.
- Non-Availability Waiver – Types of materials for project are insufficient and not available in reasonable quantities.
- Unreasonable Cost Waiver – Inclusion of US iron, steel, manufactured products and construction materials would increase the cost of the overall project by more than 25%.

INFLATION REDUCTION ACT (IRA):

The Inflation Reduction Act, commonly referred to as the IRA, is the single largest climate investment in American history. The law was signed on August 16, 2022 with the goal of building a new, clean economy through the use of tax credits, loans, rebates and direct federal spending. The IRA is projected to cut US greenhouse gas emissions by over 40% by the year 2030, compared to peak emissions in 2005.

The IRA will invest \$390 billion in climate and clean energy programs and initiatives. It consists of 125 programs, 66 of which are new or contain new components. Federal agencies with IRA funding include the following:

⁹ <https://www.commerce.gov/oam/build-america-buy-america>

- Dept. of Agriculture
- Dept. of Commerce
- Dept. of Energy
- Dept. of Homeland Security
- Dept. of Housing and Urban Development
- Dept. of the Interior
- Dept. of the Treasury
- Dept. of Transportation
- Environmental Protection Agency
- General Services Administration
- US Postal Service

IRA funding consists of grants, both formula and non-formula based, tax credits, and loans.

- Grants: \$75.1 billion available through grants.
 - Formula funding: A small minority of programs are entirely formula funding:
 - Home Energy Performance Based, Whole House Rebates – \$4.3 billion in funds
 - Up to 20% can be used by states for planning, administration or technical assistance
 - Remaining funds for eligible equipment that reduces energy consumption in single family homes or multi-family housing.
 - Grants go to state agencies (CEC in CA)
 - Overseen by DOE
 - High Efficiency Electric Home Rebate Program – \$4.5 billion in grants
 - Money going to state energy offices to develop and implement a high efficiency electric home rebate program.
 - Up to 20% can be used by states for planning, administration or technical assistance
 - Remaining funds going towards rebates for purchase of high-efficiency electric home appliances
 - 8 other programs with formula funding:
 - Climate pollution reduction grants – \$5B
 - Funding to Address Air Pollution: Emissions from Wood Heaters”, \$15m
 - Funding to Address Air Pollution: Mobile Source Grants, \$5m
 - Environmental Product Declaration Assistance, \$250m
 - Low Embodied Carbon Labeling for Construction Materials, \$100m
 - Assistance and Support for Underserved Farmers, Ranchers, and Foresters, \$2.2B
 - Investing in Coastal Communities and Climate Resilience, \$2.6B
 - Research and Forecasting for Weather and Climate, \$200m
 - Block Grants: \$3 billion available from one block grant program:

- The Environmental and Climate Justice Block Grants program will provide funding directly to community-based organizations to undertake air pollution reduction, improve community resilience to climate change, and capacity building to engage with state and federal decision makers.
 - Administered through the EPA
- Tax Credits:
 - The goals of the IRA depend heavily on the use of refundable and non-refundable tax credits.
 - The IRA allows eligible entities who may not have a federal tax burden, including state governments, to qualify for tax credit benefits via Direct Pay.
 - Direct Pay means qualified entities can receive up-front payments to be used as direct capital (rather than deductions or refunds through taxes).
 - Production Tax Credits – Rebates based on the amount of production of a particular product (like clean energy).
 - Investment Tax Credit: Credits to offset investments in renewable energy projects and other sectors of the clean economy.
 - Consumer tax credit – credits to consumers of certain goods
 - Additional Business Tax Credits – (excise, property and income)
- Loans, Loan Guarantees, Loan Forgiveness
 - Not a significant portion of IRA
 - 9 of the 125 IRA programs involve loans.
- Direct Federal Spending:
 - \$15.25 billion distributed across the country through 20 programs.

Labor Standards in the IRA:

The IRA's primary inclusion of labor standards beyond current federal standards are contained in the tax credit and loan programs.

The two primary labor standards extended by the IRA are Prevailing Wage and Apprenticeship requirements:

- Prevailing Wage:
 - Pursuant to the Davis-Bacon Act, federally funded project projects are required to pay prevailing wages. State law goes further in requiring prevailing wages on public works projects meaning that the vast majority of projects through the IRA's grant-funded and Direct Pay programs will be subject to prevailing wage requirements.
 - The IRA also creates incentives in programs that don't use direct public funding, such as tax credit and loan programs, to encourage prevailing wages in the deployment of that funding.
- Apprenticeship:

- CA has a Public Works project requirement that all public works contracts of over \$30k have an obligation to hire apprentices unless the trade does not require the use of apprentices.
- This means that vast majority of IRA grant-funded and Direct Pay funded projects will be subject to apprenticeship requirements.
- The IRA also creates incentives in programs that don't use direct public funding, such as tax credit and loan programs, to encourage apprenticeship programs.
- CA has also expanded apprenticeship requirements for some private sector construction and subset of public works projects through "skilled and trained" workforce requirements. This standard was established in Senate Bill 54.

Most IRA tax credit programs increase the credit by 5x if both prevailing wage and apprenticeship requirements are met.

CHIPS AND SCIENCE ACT:

The Creating Helpful Incentives to Produce Semiconductors and Science Act, commonly referred to as the CHIPS and Science Act, was signed into law on August 9, 2022. It seeks to boost American semiconductor research, development, and production. The funding consists of \$52.7 billion broken down into \$39 billion for manufacturing incentives, \$13.2 billion in research and development and workforce development, and \$500 million to provide for international information communications technology security and semiconductor supply chain activities.¹⁰

The first funding opportunity for CHIPS was announced on February 28, 2023. It is for the construction, expansion, or modernization of commercial facilities in the fabrication of leading-edge, current-generation, and mature-node semiconductors.

- Awards under this program will take the form of direct funding, federal loans, and/or federal guarantees of third-party loans.
 - Six program Priorities:
 - Economic and National Security
 - Commercial Viability
 - Financial Strength
 - Project Technical Feasibility and Readiness
 - Workforce Development
 - Applicants must commit to developing and maintaining a highly skilled, diverse workforce, including by outlining their plans to hire economically disadvantaged individuals. In addition, applicants are encouraged to work with government organizations, educational

¹⁰ <https://www.whitehouse.gov/briefing-room/statements-releases/2022/08/09/fact-sheet-chips-and-science-act-will-lower-costs-create-jobs-strengthen-supply-chains-and-counter-china/>

institutions, labor unions, industry associations, and other strategic partners to meet the needs of the semiconductor industry in their region. Finally, any applicant requesting more than \$150 million in funding must provide a plan for access to affordable, accessible, reliable, and high-quality child care for both facility and construction workers.¹¹

- Broader Impacts
- It is required that applicants have secured state and local incentives, so California’s opportunity to enforce the highest labor standards comes into play in the state’s and local governments’ incentive decisions.

In addition to this initial funding opportunity, multiple federal agencies have released guidance for multiple projects funded through CHIPS relating to creating workforce pipelines. These include:¹²

- Creation of 5 Workforce Hubs to “create pipelines for Americans to access good-paying jobs in the semiconductor industry.”
- 50 community colleges have announced new or expanded semiconductor workforce programs.
- The development of a multi-agency National Semiconductor Technology Center (NSTC) tasked with a R&D program to support innovation, cut down on time and cost of commercialization of new technologies, and developing the semiconductor workforce.
- Funding opportunity for a Tech Hubs Program focus on economic development.
- Funding opportunity for a Recompete Pilot Program that supports economic opportunity and creates good jobs in persistently distressed communities.

Labor Standards in the CHIPS and Science Act:

- Prevailing wages in funded construction projects.
 - While Project Labor Agreements are not required, the CHIPS Program Office strongly encourages the use of PLAs in connection with construction projects. Applicants that commit to using best-practice PLAs will be likely to produce a construction workforce plan that meets the CHIPS Program Office’s criteria. Applicants that do not commit to using a PLA will be required to submit workforce continuity plans and show that they have taken other measures to reduce the risk of delays in project delivery.
- Incentives such as the one above are aimed at meeting job quality and workforce pipeline goals outlined under the CHIPS Act. These include:

¹¹ https://www.nist.gov/system/files/documents/2023/02/28/CHIPS_NOFO-1_Fact_Sheet_0.pdf

¹² <https://www.whitehouse.gov/briefing-room/statements-releases/2023/08/09/fact-sheet-one-year-after-the-chips-and-science-act-biden-harris-administration-marks-historic-progress-in-bringing-semiconductor-supply-chains-home-supporting-innovation-and-protecting-national-s/>

- **“Creating good-paying jobs and build strong communities.** The CHIPS for America Fund will support the growth of a vibrant U.S. semiconductor industry that supports quality jobs and a diverse workforce. Workforce development investments will create jobs in communities around the country and create opportunities to increase industry participation for economically disadvantaged individuals and populations that may be underrepresented in the industry, such as women, people of color, workers in rural areas, and veterans.”¹³
- **“Expanding the workforce pipeline to match increased domestic capacity workforce needs:** The CHIPS incentives program will create good-paying jobs that benefit all Americans, including economically disadvantaged individuals and populations that may be underrepresented in the industry. The program will prioritize workforce solutions that enable employers, training providers, workforce development organizations, labor unions, and other key stakeholders to work together. The goal is to create more paid training and experiential apprenticeship programs, provide wrap around services, prioritize creative recruitment strategies and hire workers based on their acquired skills.”¹⁴

GENERAL OVERVIEW OF BIL/IRA FUNDING IN CALIFORNIA TO DATE:

BIL/IRA impact on California:

Rebuilding California (rebuildingca.ca.gov) estimates that formula funding coming to California over the five years of the BIL (FFY 2022 through FFY 2026) will amount to \$41.9 billion. According to data provided by the White House through Invest.gov, as of February 6, 2024, California has already received \$39.8 billion dollars of investment through both BIL and IRA in both discretionary and formula funding broken down the following way:

- **\$27.6 billion** announced for transportation investments in roads, bridges, public transit, ports and airports, electric buses (both school and transit), EV charging and other transportation related infrastructure.
- **\$4 billion** in grants, rebates and other initiatives aimed at accelerating deployment of clean energy, clean buildings, and clean manufacturing.
- **\$1.7 billion** for climate resilience.
- **\$2.4 billion** to improve water infrastructure.

In addition to this, BIL and IRA investments via discretionary funding have also sparked private sector investment in clean energy manufacturing in the state. This includes \$36 billion committed to the following industries:

- **\$17 billion** in clean power

¹³ <https://www.nist.gov/chips/implementation-strategy>

¹⁴ <https://www.nist.gov/chips/implementation-strategy>

- **\$7 billion** in clean energy manufacturing
- **\$6 billion** in Semiconductors and Electronics
- **\$6 billion** in EVs and batteries
- **\$826 million** in biomanufacturing