



# **Local Infrastructure Hub: IRA: Putting Direct Pay into Action**

December 12, 2023



# How State and Local Governments Can Use Direct Pay to Transition Toward a Clean Energy Economy

# Ground Rules

- This deck provides an overview of certain Inflation Reduction Act tax provisions for general informational purposes only and **is not itself tax guidance**.
  - The content in this presentation is based on proposed and temporary regulations and other tax guidance on IRS.gov.
  - This deck relies on simplifications and generalizations to convey high-level points about Inflation Reduction Act tax provisions. Please **refer to guidance** issued by the IRS for detailed information on the rules associated with Inflation Reduction Act tax provisions.
- The **public comment period on provisions related to elective pay (often and herein called direct pay) ended on August 14<sup>th</sup>**. Please visit [regulations.gov](https://www.regulations.gov) to view public comments.
  - We will **not be able to provide substantive information** beyond what is in the proposed and temporary rules themselves.
  - Given that the proposed regulations are still under consideration, we will **not be able to comment** on opinions, interpretations, or specific-taxpayer related questions. You may also choose to consult with a tax advisor.



# Introduction: The Inflation Reduction Act

- The Inflation Reduction Act (IRA) makes the **largest investment in clean energy** in United States history. The bulk of the IRA investments flow through the tax code instead of direct government spending.
- The clean energy provisions of the IRA are boosting the U.S. economy. Under the Biden-Harris Administration, as of mid-November 2023, private companies have announced commitments to invest \$142 billion in electric vehicle and battery manufacturing, \$71 billion in clean energy manufacturing and \$133 billion in clean energy projects.
- The IRA is creating jobs, saving consumers money and accelerating the nation's transition to clean energy. It will reduce volatility in the cost of energy and increase the nation's energy independence.



# The Role of State and Local Government

- Potential roles for state and local governments include:
  - A direct role by **incorporating clean energy projects** into their capital planning process
  - **Shifting energy consumption** to clean and renewable sources by changing their fleet to clean vehicles, as just one example
  - **Centering community and economic development** strategies around the clean energy transition
  - **Promoting** consumer and business transition to clean energy



# The Role of State and Local Government

- In thinking about how best to take full advantage of the opportunities under the IRA and to lead on the clean energy transition, state and local governments might consider developing a plan of action to:
  - Build a team and establish a process to plan for, obtain funding/financing for and implement critical investments
  - Focus on collaboration across the public, non-profit and civic sectors.
  - Clearly define roles to ensure coordination across your team and among your partners
  - Think about how best to target your efforts to address issues of equity
  - Make sure that you fully understand – and are prepared to execute on – responsibilities and obligations



# What is Direct Pay?

- Under the direct pay provisions of the IRA, tax-exempt and governmental entities that do not owe Federal income taxes will, for the first time, be able to receive a **payment equal to the full value of tax credits for building qualifying clean energy projects or making qualifying investments.**
- Unlike competitive grant and loan programs, in which applicants may not receive an award, direct pay allows entities to get their payment if they meet **the requirements for both direct pay and the underlying tax credit.**
- The entities eligible for direct pay (applicable entities) would not normally owe federal income tax. However, by **filing a return and using direct pay**, these entities can receive **tax-free cash payments** from the IRS for clean energy tax credits earned, so long as **all requirements** are met, including a pre-filing registration requirement.



# How does Direct Pay work?

- Under the proposed rules and regulations, direct pay is applicable to 12 different tax credits related to **energy generation and carbon capture, manufacturing, vehicles and fuels.**
- The value of the credit depends on (a) statutory provisions related to the credit itself and (b) the applicability of various bonus provisions. By and large, the bonus provisions are designed to incentivize the creation of good paying, “high road” employment and location of investments in economically challenged communities.
- In thinking about how to structure and finance specific projects, it is very important to fully understand the requirements of the bonus provisions.





# Applicable Tax Credits for Direct Pay

Tax Provision	Description
<b>Production Tax Credit for Electricity from Renewables</b> (§ 45, pre-2025)	<b>For production of electricity from eligible renewable sources</b> , including wind, biomass, geothermal, solar, small irrigation, landfill and trash, hydropower, marine and hydrokinetic energy. <b>Credit Amount (for 2022):</b> 0.55 cents/kilowatt (kW); (1/2 rate for electricity produced from open loop biomass, landfill gas, and trash); 2.75 cents/kW if Prevailing Wage and Apprenticeship (PWA) rules are met <sup>1,2,3,7</sup>
<b>Clean Electricity Production Tax Credit</b> (§ 45Y, 2025 onwards)	<b>Technology-neutral tax credit for production of clean electricity.</b> Replaces § 45 for facilities that begin construction and are placed in service after 2024. <b>Credit Amount:</b> Starts in 2025, consistent with credit amounts under section 45 <sup>1,2,3,6,7</sup>
<b>Investment Tax Credit for Energy Property</b> (§ 48, pre-2025)	<b>For investment in renewable energy projects</b> including fuel cell, solar, geothermal, small wind, energy storage, biogas, microgrid controllers, and combined heat and power properties <b>Credit Amount:</b> 6% of qualified investment (basis); 30% if PWA requirements met <sup>1,4,5,6,8</sup>
<b>Clean Electricity Investment Tax Credit</b> (§ 48E, 2025 onwards)	<b>Technology-neutral tax credit for investment in facilities that generate clean electricity</b> and qualified energy storage technologies. Replaces § 48 for facilities that begin construction and are placed in service after 2024 <b>Credit Amount:</b> 6% of qualified investment (basis); 30% if PWA requirements met <sup>1,4,5,6</sup>
<b>Low-Income Communities Bonus Credit</b> (§ 48(e), 48E(h)) <b>Application required</b>	<b>Additional investment tax credit for small-scale solar and wind (§ 48(e)) or clean electricity (§48E(h)) facilities</b> (<5MW net output) on Indian land, federally subsidized housing, in low-income communities, and benefit low-income households. Allocated through an application process. <b>Credit Amount:</b> 10 or 20 percentage point increase on base investment tax credit <sup>7</sup>
<b>Credit for Carbon Oxide Sequestration</b> (§ 45Q)	<b>Credit for carbon dioxide sequestration</b> coupled with permitted end uses in the United States. <b>Credit Amount:</b> \$12-36 per metric ton of qualified carbon oxide captured and sequestered, used as a tertiary injectant, or used, depending on the specified end use; \$60-\$180 per metric ton if PWA requirements met. <sup>1,7</sup>
<b>Zero-Emission Nuclear Power Production Credit</b> (§ 45U)	<b>For electricity from nuclear power facilities.</b> Facilities in operation prior to August 16, 2022. <b>Credit Amount (for 2023):</b> 0.3 cents/kWh (reduced rate for larger facilities); 1.5 cent/kWh if PW req's met <sup>1,7</sup>

Energy Generation & Carbon Capture

\* For footnotes, see [irs.gov/pub/irs-pdf/p5817g.pdf](https://irs.gov/pub/irs-pdf/p5817g.pdf). You can also learn more at [IRS.gov/CleanEnergy](https://IRS.gov/CleanEnergy) and [IRS.gov/ElectivePay](https://IRS.gov/ElectivePay).



# Applicable Tax Credits for Direct Pay

	Tax Provision	Description
Manufacturing	<b>Advanced Energy Project Credit (§ 48C)</b> <b>Application required</b>	<b>For investments in advanced energy projects.</b> A total of \$10 billion will be allocated, not less than \$4 billion of which will be allocated to projects in certain energy communities. <b>Credit Amount:</b> 6% of taxpayer's qualified investment; 30% if PWA requirements are met <sup>1</sup>
	<b>Advanced Manufacturing Production Credit (§ 45X)</b>	<b>Production tax credit for domestic clean energy manufacturing</b> of components including solar and wind energy, inverters, battery components, and critical materials. <b>Credit Amount:</b> Varies by component
Vehicles	<b>Credit for Qualified Commercial Clean Vehicles (§ 45W)</b>	<b>For purchasers of commercial clean vehicles.</b> Qualifying vehicles include passenger vehicles, buses, ambulances, and certain other vehicles for use on public streets, roads, and highways. <b>Credit Amount:</b> Up to \$40,000 (max \$7,500 for vehicles <14,000 lbs) <sup>9</sup>
	<b>Alternative Fuel Vehicle Refueling Property Credit (§ 30C)</b>	<b>For alternative fuel vehicle refueling and charging property,</b> located in low-income and non-urban areas. Qualified fuels include electricity, ethanol, natural gas, hydrogen, and biodiesel. <b>Credit Amount:</b> 6% of basis for businesses and can increase to 30% if PWA is met.
Fuels	<b>Clean Hydrogen Production Tax Credit (§ 45V)</b>	<b>For producing clean hydrogen</b> at a qualified, U.S.-based clean hydrogen production facility. <b>Credit Amount:</b> \$0.60/kg multiplied by the applicable percentage (20% to 100%, depending on lifecycle greenhouse gas emissions), amount increases if PWA is met <sup>1,7</sup>
	<b>Clean Fuel Production Credit (§ 45Z, 2025 onwards)</b>	<b>Technology neutral tax credit for domestic production of clean transportation fuels,</b> including sustainable aviation fuels, beginning in 2025* <b>Credit Amount:</b> \$0.20/gallon (\$0.35/gal for aviation fuel) multiplied by CO2 "emissions factor"; \$1.00/gallon (\$1.75/gal for aviation fuel) multiplied by CO2 "emissions factor" if PWA is met <sup>1,7</sup>

\* For footnotes, see [irs.gov/pub/irs-pdf/p5817g.pdf](https://irs.gov/pub/irs-pdf/p5817g.pdf). You can also learn more at [IRS.gov/CleanEnergy](https://IRS.gov/CleanEnergy) and [IRS.gov/ElectivePay](https://IRS.gov/ElectivePay).



# Certain requirements and bonuses that may affect the amount of Direct Pay applicable tax credits

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## Prevailing Wage and Apprenticeship Requirements

For a number of the tax credits created or modified by IRA, **the credit amount is increased by five times for projects that meet requirements for paying prevailing wages and using registered apprentices.**

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## Domestic Content Bonus

Projects or facilities that meet domestic content requirements are eligible for a **10 percent increase** to the Production Tax Credit (sections 45, 45Y) or up to a 10 percentage point increase to the Investment Tax Credit (48, 48E). For projects or facilities beginning construction starting in 2024, for taxpayers using elective pay, the domestic content requirement can also result in a reduction of the Production Tax Credit or Investment Tax Credit if it is not met.

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## Energy Communities Bonus

Projects located in historical energy communities, including areas with closed coal mines or coal-fired power plants, are eligible for a 10 percent increase in the PTC and an up to **10 percentage point increase** in the ITC.

The bonus is also available to brownfield sites and to areas that have significant employment or local tax revenues from fossil fuels and higher than average unemployment.

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## Low Income Communities Bonus Credit Program

The program provides an increased credit **of 10 percentage points or 20 percentage points to certain applicable credits** that are part of the investment tax credit for certain facilities located in low-income communities, Indian lands, or federal housing projects, or serving low-income households.

You must apply and receive a capacity allocation, and then place your facility in service to claim this bonus.

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# Examples of Direct Pay Potential Use Cases

Goal	Project	Relevant Tax Credits
<b>Fleet Cost Savings</b>	Replace existing municipal vehicle fleet with new electric vehicles and associated charging infrastructure	<ul style="list-style-type: none"><li>• Up to \$7,500 per light vehicle</li><li>• Up to \$40,000 per larger vehicle</li><li>• Up to 30% credit on investment in eligible EV charging equipment</li></ul>
<b>Community Resilience</b>	Install microgrid with solar and energy storage to serve critical infrastructure and community facilities during emergencies and grid outages	<ul style="list-style-type: none"><li>• 6% - 50% credit on investment in solar, storage and microgrid controllers</li></ul>
<b>Community Heating</b>	Develop central geothermal system to provide heating to community buildings and residential households	<ul style="list-style-type: none"><li>• 6% - 50% credit on investment in geothermal energy property</li></ul>



# How Direct Pay Investments Can Potentially Reduce Cost

## Municipal Fleet Electrification

- Estimated **\$80 million savings over ten years** from electrification of fleet vehicles for ten largest municipalities in Arizona.

## Solar Microgrid

- **50% savings in annual electricity bills**, plus resilience benefits for solar, storage, and microgrid system installed at Chemehuevi Indian Tribe community center in Havasu Lake, CA

## Central Geothermal Heating

- Estimated **annual savings of over \$2 million** for Ball State University central geothermal heat pump replacement of aging coal boilers heating system for college campus.



# How do I claim and receive a direct payment?

- Identify and pursue the qualifying project or activity. You will need to know what applicable credit you intend to earn and use direct pay for.
- Complete your project and place it into service.
- Determine your tax year, if not already known, to determine when your tax return will be due.
- Complete pre-filing registration with the IRS.
  - This will include the credit(s) you intend to earn, among other information.
  - Upon completing this process, the IRS will provide you with a registration number for each applicable credit property.
- File your tax return by the due date (or extended due date) and make a valid elective pay election.
  - Provide your registration number on your tax return as part of making the elective pay election.
  - A valid election allows you to receive payment as a refund for the amount of the credit (or if applicable, offset your tax liability and receive a payment for any remaining amount).
- Receive payment after the return is processed.





# IRS Resources

IRS.gov/ElectivePay

The collage consists of four overlapping pages from the IRS website, each with a distinct color scheme and title:

- Elective Pay Overview:** Features a green and blue header. It provides a general introduction to the elective pay program, explaining that it allows eligible entities to pay their employees a portion of their wages in a tax-qualified investment account.
- State & Local Governments:** Features a purple and blue header. It details the specific requirements for state and local governments to participate, including the need for a written plan and the types of employees eligible for the program.
- Tax-Exempt Organizations:** Features a blue header. It outlines the rules for tax-exempt organizations, such as the requirement for a written plan and the exclusion of certain employees.
- Indian Tribal Governments:** Features a blue header. It explains the requirements for Indian tribal governments, including the need for a written plan and the types of employees who can participate.

## Applicable Tax Credits

The screenshot shows a table titled "Applicable Tax Credits" with the following columns: "The Provision" and "Requirements". The table lists several credits, including:

- Research and Development Credit:** Details the percentage of qualified research expenses that can be claimed.
- Energy-Related Tax Expenditures:** Lists credits for energy-efficient buildings, renewable energy production, and energy storage.
- Employer-Sponsored Health Insurance:** Explains the rules for deducting employer-paid health insurance premiums.
- Charitable Contribution Deduction:** Describes the limits on deducting contributions to qualified organizations.
- State and Local Tax Deduction:** Details the rules for deducting state and local taxes, including the SALT cap.
- Capital Gains Tax Exemption:** Explains the rules for the exclusion of capital gains from taxable income.
- Capital Loss Deduction:** Details the rules for deducting capital losses.
- Charitable Deduction:** Explains the rules for deducting contributions to qualified organizations.
- State and Local Tax Deduction:** Details the rules for deducting state and local taxes, including the SALT cap.
- Capital Gains Tax Exemption:** Explains the rules for the exclusion of capital gains from taxable income.
- Capital Loss Deduction:** Details the rules for deducting capital losses.

## Frequently asked Questions:

Q15. Are there requirements or bonuses that affect the amount of the applicable credits that are eligible for elective pay? (added June 14, 2023)

Q26. At what stage of development, construction, or operations are projects eligible for elective pay? (added June 14, 2023)



## Closing

- More Information on Direct Pay
  - ✓ [IRS.gov/ElectivePay](https://www.irs.gov/ElectivePay)
  - ✓ [CleanEnergy.gov/DirectPay](https://www.cleaneconomy.gov/DirectPay)
- More information on the IRA More Generally
  - ✓ [IRS.gov/CleanEnergy](https://www.irs.gov/CleanEnergy)
  - ✓ [www.whitehouse.gov/cleanenergy/inflation-reduction-act-guidebook/](https://www.whitehouse.gov/cleanenergy/inflation-reduction-act-guidebook/)








# Upcoming LIH Bootcamp – Clean Energy Tax Credit

## Clean Energy Tax Credit (Inflation Reduction Act: Elective Pay)

A technical assistance program for cities under 150,000 to connect with subject matter experts

-  Register using the QR to the right
-  <https://localinfrastructure.org/bootcamp-registration/city-summit/>
-  Technical assistance will start February

Scan this QR code to get registered!



# Panel



**Amy  
Turner**

**Director of the Cities Climate  
Law Initiative at the Sabin  
Center**



**Elizabeth  
Babcock**

**Denver's Executive Director of  
Climate Action, Sustainability,  
and Resiliency**



**Daniel Rickenmann**

**Mayor of Columbia, South  
Carolina**



**Doug  
Melnick**

**Chief Sustainability Officer for  
the City of San Antonio**

## Scale of near-term IRA direct pay opportunity for city-owned/funded projects

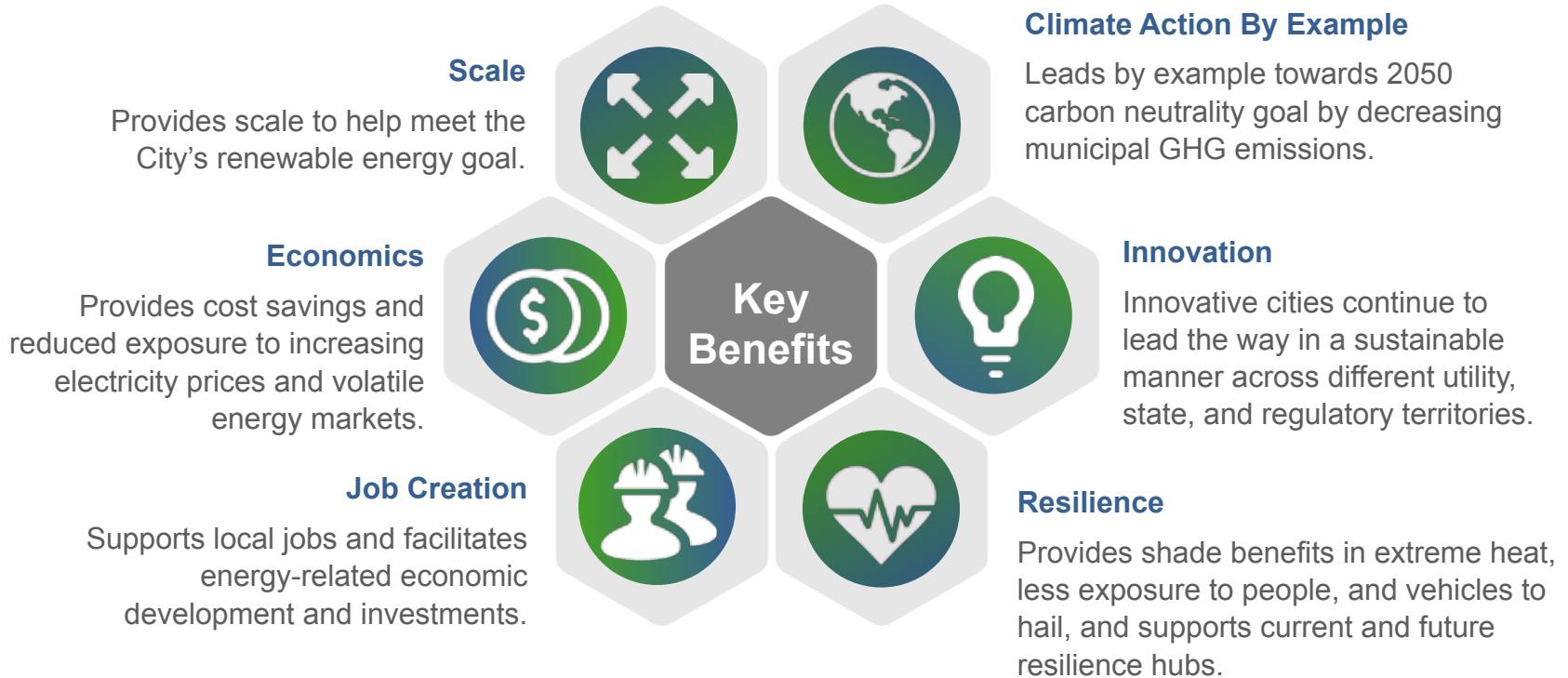
Description	Total Cost	Est. IRA Direct Pay %	Direct Pay Value (\$)
CASR owned/operated solar projects	\$41,250,000	37%	\$15,450,000
RDCS Tranche 1 - DPR Carports, DEN, NWC, etc.,	\$18,000,000	30%	\$5,400,000
RDCS Tranche 2 - Botanic Gardens	\$3,750,000	50%	\$1,875,000
RDCS Tranche 3 - Denver Public Schools*	\$9,000,000	50%	\$4,500,000
On-Call Solar Deployment (2023)	\$3,500,000	35%	\$1,225,000
On-Call Deployment (2024)	\$3,500,000	35%	\$1,225,000
On-Call Deployment (2025)	\$3,500,000	35%	\$1,225,000
CASR solar awards to eligible non-profits	\$12,000,000	40%	\$4,800,000
CASR-funded projects 2023	\$4,000,000	40%	\$1,600,000
CASR-funded projects 2024	\$4,000,000	40%	\$1,600,000
CASR-funded projects 2025	\$4,000,000	40%	\$1,600,000
CCD Ground Source HP Installations**	\$7,050,000	30%	\$2,115,000
DPR - Smith Rd. (2024)	\$550,000	30%	\$165,000
DPR - Westwood Rec Center (2024)	\$6,500,000	30%	\$1,950,000
Other CCD new construction/HVAC retrofits?	tbd	30%	tbd
<b>Total (2023-2025)</b>	<b>\$54,300,000</b>	<b>37%</b>	<b>\$20,340,000</b>



# IRA: Putting Direct Pay Into Action City of San Antonio Municipal On-site Solar Project

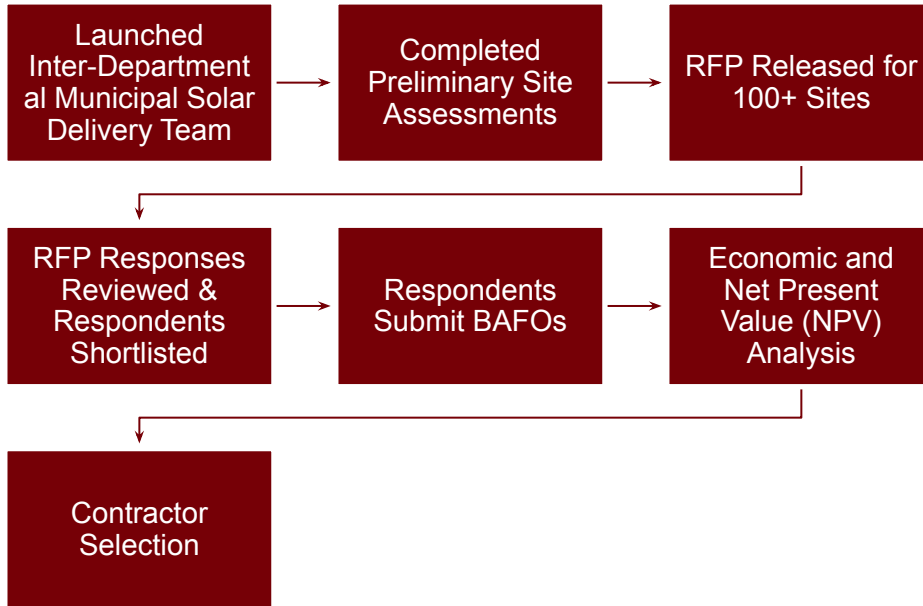
**Presented by:**  
**Douglas Melnick, Chief Sustainability Officer**  
**USCM/Bloomberg Webinar: Local Infrastructure Hub**  
**December 12, 2023**

# On-Site Solar Benefits





# Procurement Process



## Two-Phased RFP Process

### Phase 1: Experience & Qualifications

- Respondents submit Qualifications & Experience
- City shortlists Respondents based on experience & qualifications & proposed plan

### Phase 2: Price Proposal & BAFO

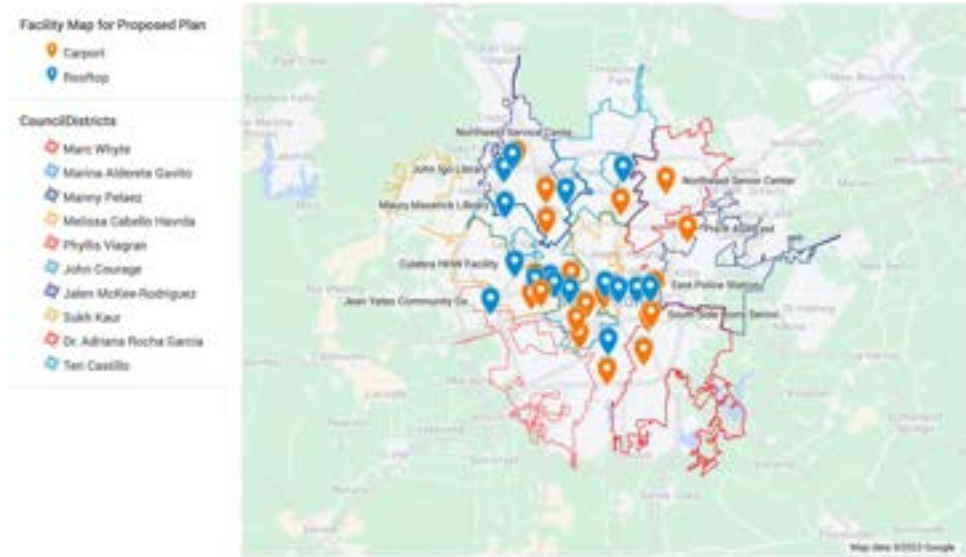
- Shortlisted Respondents submit price proposals
- Review Price proposals & interview
- Best & Final Offer (BAFO) for project packages
- Final selection & award



# Final Project Scope of Work



- Installation of City-owned rooftop, parking and park canopy solar photovoltaic (PV) systems at 42 municipal facilities.
- Project includes design, engineering, construction and ongoing operations and maintenance (O&M) of the PV systems.
- PV systems will be installed behind the CPS Energy electric meter.
- Four sites are Resilience Hubs and are being designed Battery Storage Ready.



*Draft map of planned solar sites in San Antonio. Orange pins show solar parking canopies and blue pins represent rooftop solar locations. (Source: Big Sun Solar)*

# Identify IRA Tax Credit Eligibility



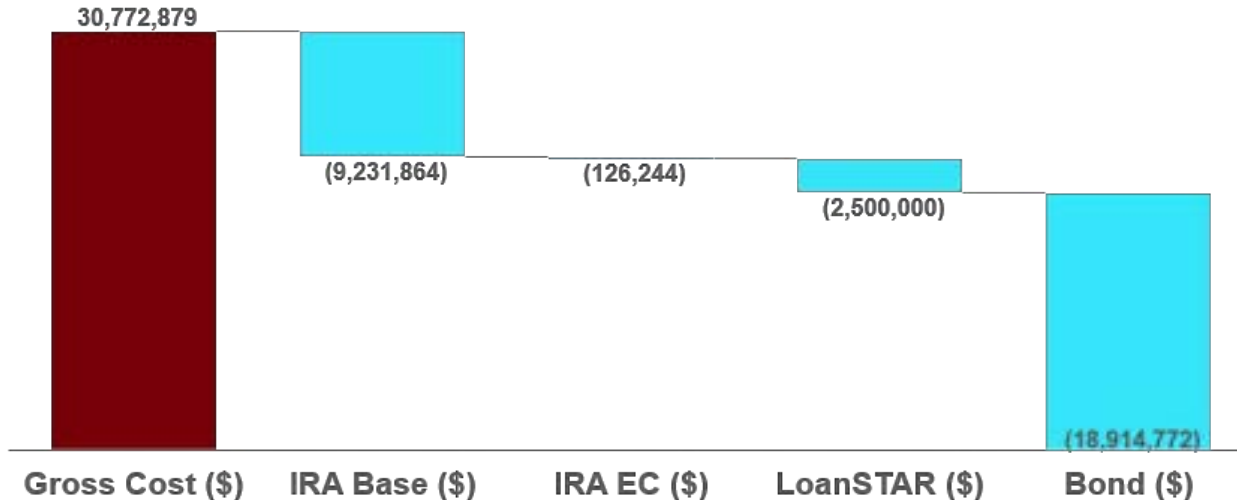
World Resources Institute IRA Bonus Tax Credit Mapper

<https://marketplace.ever.green/locations>





# Capital Stack



EC – energy community

- Program is eligible for an additional \$2.18M in IRA direct pay low-income credits and applications were due November 18, 2023.
- Approximate payback period of 10 years.
- Conservative estimate of \$7 to \$11 Million in savings over the 25-year life.
- Project would not have been viable if not for the IRA.

# Project by the Numbers

<b>\$ in Millions</b>	<b>Number of Projects</b>	<b>Estimated Project Cost</b>	<b>Estimated Kilowatts Generated</b>	<b>Estimated Annual Savings</b>
FY 2024	18	\$13.2	5,430	\$0.7
FY 2025	19	12.9	5,599	0.8
FY 2026	5	4.7	1,689	0.3
<b>Total</b>	<b>42</b>	<b>\$30.8</b>	<b>12,718</b>	<b>\$1.8</b>

- **Reduces City's building-related electricity consumption by 11% & GHG emissions by 18%**
  - **Includes Rooftop, Carport, and Park Shade Structures**
  - **Contract includes an additional \$10M for future projects.**



# Lessons Learned

*Make sure you have appropriate technical support.*

*Create interdepartmental teams early in the process to educate, identify opportunities, barriers, & secure buy-in.*

*Think big and leverage all assets to achieve economies of scale.*

*Don't be afraid to utilize a procurement process to gauge market opportunities.*

*Tailor procurement timelines to the scale of the request.*

*Streamline procurement by shortlisting on qualifications and then asking for detailed proposals.*

*Utilize Net Present Value (NPV) calculations to assess overall project fiscal benefits, not just upfront costs.*

*Build in financial capacity for future additional projects.*

*Capture savings to offset costs and for future solar and energy efficiency investments.*

*Quantify, leverage, and explain the many co-benefits of local, on-site solar.*

*Take advantage of peer learning and available pro bono expert support.*

[San Antonio, TX - American Cities Climate Challenge \(cityrenewables.org\)](http://cityrenewables.org)



# IRA: Putting Direct Pay Into Action City of San Antonio Municipal On-site Solar Project

Douglas Melnick, Chief Sustainability  
Officer  
Office of Sustainability  
[douglas.melnick@sanantonio.gov](mailto:douglas.melnick@sanantonio.gov)  
O: 210.207.1721

# Local Infrastructure Hub Sessions

December

December 14

**Climate Pollution  
Reduction Grants**

December 20

**Faster, Safer, Smarter, Fairer:  
Evaluating Key Tech for  
Transportation Projects**

# Local Infrastructure Hub

WITH SUPPORT FROM:



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