Single-Family Home LMI Solar Program – Program Design Guidance

A Solar for All Greenhouse Gas Reduction Fund-Compliant Solar Program Design for States – July 2023

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ABOUT THIS PROJECT

This guidance note was produced as part of the Scaling Up Solar for Under-Resourced Communities Project. This project, led by the Clean Energy States Alliance (**CESA**), seeks to accelerate the development of solar projects for three distinct subsets of the low- and moderate-income (**LMI**) solar market: single-family homes, manufactured homes, and community institutions, including multifamily affordable housing. For the single-family homes track, the project team has worked with states and green banks across the country to help design and launch LMI solar programs adapted from a public-private partnership third-party ownership model successfully adopted in Connecticut and that led to the adoption of more than 3,000 solar projects for LMI homeowners in that state. Additional resources are available about the program model on our website (above).

ABOUT THIS GUIDANCE NOTE

With the passage of the Inflation Reduction Act (**IRA**), additional federal funding is now available for states to launch programs that meet this project's goals to serve LMI communities and transform the LMI solar market. CESA has produced this guidance note along with a standard request for proposals (**RFP**) and other program documents that can be used by states and other relevant stakeholders to design and launch programs that follow the Connecticut model, as updated to reflect policy innovations in the IRA and in other states such as Rhode Island and the District of Columbia. Other relevant documentation, such as a standard program RFP to read along with this note, is available here: https://www.cesa.org/resource-library/resource/single-family-home-lmi-solar-program-request-for-proposals-template/

Additional guidance on community solar and solar+storage for multi-family homes program designs is forthcoming. Please refer to our website for the most up-to-date information on these topics.

For questions about this document, you may reach out to Vero Bourg-Meyer, CESA Project Director for Solar and Offshore Wind at Vero@cleanegroup.org.

State and tribal government officials can sign up for CESA's Solar for All updates by completing this form: https://forms.office.com/r/9C8TaLdzm6

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DISCLAIMER

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Section 1. Introduction

1.1 About this Guidance

This guidance note offers insights into how states can design and launch Solar for All programs for single-family homes. It was developed by the Clean Energy States Alliance (**CESA**) to support states in designing and launching public-private partnerships with one or more firms to provide solar access to low- and moderate-income (**LMI**) households.

This guidance note should be read along with the standard Request for Proposals (**RFP**) produced by CESA in July 2023 and available here: https://www.cesa.org/resource-library/resource/single-family-home-lmi-solar-program-request-for-proposals-template/

In this model, states support LMI households through **public-private partnerships** utilizing **elevated incentives** and **third-party ownership**. This model applies by default to **owner-occupied single-family homes**, although the RFP model also provides an option for tenants to participate, together with a homeowner. This model requires that third-party ownership be enabled in the state. It accommodates a large number of policy contexts and is designed to be flexible.

The RFP is intended to streamline states' processes for securing one or more third-party solar developers. It provides program guidance with recommended language, which states should adjust to reflect their local context.

In launching such programs, states will also have to make program design choices. In most cases, a default choice is available, and comments in the RFP and the guidance note below provide extensive information to guide the state's decisions.

1.2 Relationship between this Note and IRA Programs and Regulations

To maximize the funding opportunities afforded to states and other relevant stakeholders through the IRA, this program note and RFP template are designed to comply with the following:

(1) The Notice Of Funding Opportunity (**NOFO**) issued by the U.S. Environmental Protection Agency (**EPA**) on June 28, 2023, pertaining to the Solar for All competition (**Solar for All** or **the Competition**) of the Greenhouse Gas Reduction Fund (**GGRF**);
(2) The Notice of Proposed Rulemaking (**NOPR**) relevant to the low-income tax credit bonus program under 26 U.S.C § 48(e) (the **Low-Income ITC Adder**); and
(3) The preliminary rules relevant to 26 U.S.C § 48(a)(14) (the **Energy Community ITC Adder**).

As changes are made, program designs adapted to local circumstances, and clarifications offered by federal agencies across all IRA programs, we ***strongly encourage*** the users of this note and the related RFP to thoroughly familiarize themselves with the NOFO, NOPR, and relevant guidance and to not rely solely on the information provided in this document. We have made our best efforts to be thorough.

1.3 About the Solar for All Competition

EPA issued the NOFO for the Solar for All competition on June 28, 2023. You can find a summary of key features below. Please refer to the NOFO for additional details.

The overall goal of the Competition is to expand the number of low-income and disadvantaged communities that are primed for investment in residential and community solar. The Competition will provide up to 60 awards ranging from $25 million to $400 million across the country and within the following limits per category:

(1) Up to 56 awards, one to serve each of the 56 states and eligible territories;
(2) Up to 5 awards to serve American Indian and Alaska Native Communities; and
(3) Up to 10 awards to serve similar communities across multiple states.

Eligible applicants are states, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands, Indian Tribes as defined in Section 302(r) of the Clean Air Act, municipalities as defined in Section 302(f) of the Clean Air Act, and eligible nonprofit recipients as defined in Section 134(c)(1) of the Clean Air Act.[1]

1.4 Deadlines

EPA will grant awards through a competitive process, with **applications due September 26, 2023**. Applicants are required to submit a **Notice of Intent (NOI)** to be eligible to participate in the Solar for All program[2]. Deadlines vary based on applicant type:

Applicant Type	NOI Deadline
States, the **District of Columbia**, and **Puerto Rico**	**July 31, 2023** at 11:59 PM (Eastern Time)

[1] An eligible recipient is an organization that meets all of the following requirements: (a) is a non-profit organization; (b) is designed to provide capital, leverage private capital, and provide other forms of financial assistance for the rapid deployment of low- and zero-emission products, technologies, and services; (c) does not take deposits other than deposits from repayments and other revenue received from financial assistance provided using grant funds under this program; (d) is funded by public or charitable contributions; and (e) invests in or finances projects alone or in conjunction with other investors.

[2] Refer to *Section I.F: Required Notice of Intent* and *Section III. Eligibility Information* of the NOFO for the Solar for All competition for additional information NOI requirements and about applicant eligibility.

Applicant Type	NOI Deadline
Territories (specifically, The Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands), **municipalities**, and **eligible nonprofit recipients**	**August 14, 2023** at 11:59 PM (Eastern Time)
Tribal governments and **Intertribal Consortia**	**August 28, 2023** at 11:59 PM (Eastern Time)

1.5 Use of GGRF Funds

All Solar for All GGRF funds must flow to "low-income and disadvantaged communities," which are inclusive of the following four categories:[3] **(a)** communities identified as disadvantaged by the Climate and Energy Justice Screening Tool (**CEJST**) map; **(b)** a limited number of additional communities identified as disadvantaged by the EJScreen mapping tool; **(c)** geographically dispersed low-income households; and **(d)** properties providing affordable housing. More information is available below on how these definitions impact program designs.

Note that the Justice40 Initiative (**Justice40**) directs EPA to ensure that "at least 40% of the overall benefits from certain federal investments in climate, clean energy and other areas flow to disadvantaged communities," as defined by the CEJST. States will be required to justify compliance with this requirement.

1.6 Disclaimer

To apply for GGRF Solar for All funding, states and other eligible applicants will submit a program narrative, which details the program vision, impact assessment, meaningful benefits plan, and more, as well as a program administration narrative.[4] **This document offers guidance for building a state program and is designed to be compliant with the Solar for All Competition and other sources of IRA funding, but it does not offer recommendations related to individual state applications**.

Section 2. General Program Design

As stated above, this document offers program design guidance for developing or expanding a solar program that serves **low-income and disadvantaged communities**

[3] For further information, review the NOFO for the Solar for All competition, pgs. 10-12
[4] For further information, review the NOFO for the Solar for All competition, pgs. 43-48

through **public-private partnership** utilizing **elevated incentives** and **third-party ownership**.

At its core, the program design will include the following features:

- **A public-private partnership**. A state will develop a long-term relationship with one or more solar developers, which will apply through a competitive RFP process.
- **A program focused on LMI customers**. Successfully providing solar access to LMI customers requires intentional design and follow-through. By purposefully reaching LMI customers, a state can enable the growth of not just a program, but a whole market segment. LMI customers are usually defined as households with income up to 80% of Area Median Income (AMI). In the context of the Solar for All Competition and the Low-Income ITC Adder, states must pay attention to the eligibility requirements set by EPA and the U.S. Treasury, which may or may not align. State definitions of disadvantaged communities are not considered in these two federal programs. For additional information about eligibility based on income and geography, see below in Section 7.
- **Elevated incentives reserved for Eligible Customers**. A state will offer an incentive for one or more developers to finance solar in low-income and disadvantaged communities or for low-income customers (the **Eligible Customers**). The incentive funding could come from the Solar for All Competition or from any other source available to states for such programs, such as state budgets or regional cap-and-invest programs. In this design, the incentive amount is both proposed by developers during the RFP process and reduced relative to the developer's ability to take advantage of stackable tax credits (more below). Prospective developers will propose the elevated Incentive rate to be provided per kW_{DC} for each solar project in their bid.
- **Monetization of the Investment Tax Credit (ITC) by a lessor and ITC sharing requirements (contingent on ITC adders being available).** The selected developer(s) will utilize the ITC to finance the solar assets and offer substantial savings to the consumer (through, for example, a lower rate on their solar lease).
- **No down-payment and savings from day one ("cash flow positive" offering) through a lease**. The solar product should offer savings to consumers immediately and require no down-payment. Other consumer protection guidelines will be available shortly.[5]
- **Possible pathways to ownership**. The state will encourage the selected developer(s) to offer a clear pathway for the homeowner to purchase their solar system over some contracted period.
- **Wrap-around services and enabling upgrades.** When possible, the state will offer incentives for wrap-around services to enable the installation and successful operation of solar assets in the long term, or to increase customer savings. Such

[5] Please see CESA's website for most recent updates.

additional product or service can be integrated into a consolidated lease or power purchase agreement with the solar product, or can be provided by another contractor, vetted by the state. Note that enabling upgrades – such as structural repairs, electrical panel upgrades, household internet access, and some efficiency measures – are eligible for GGRF Solar for All funding.

- **Incentives stacking (if relevant to the state).** To the extent your state has existing energy efficiency or other relevant programs for LMI residents, consider structuring your Solar for All program requirements to align with the requirements of existing programs, as relevant for efficiency, weatherization, storage, or other. This design can help developers deliver more savings to consumers more efficiently.
- **Community-based marketing practices**. Trustworthy marketing is an essential aspect of a successful LMI solar program. Implementing organizations should work with the developer and contractors to co-brand and implement a marketing plan that gains community trust and ensures strong consumer protection practices are followed.
- **Partnering with existing workforce development**. Developers in this program will be required to participate in a state workforce development program. Such program is assumed to run in parallel with the solar program, and not organized via the RFP process.

Section 3. Getting Started

To prepare to launch an impactful third-party ownership program for LMI households, states should take the following first steps:

- **Use available resources.** We recommend that you read this document and the associated RFP template in detail.
- **Verify that third-party ownership is enabled in your state**. At least 29 states plus Washington D.C. and Puerto Rico allow third-party ownership either fully or partly. Some states may allow leases but not power purchase agreements (**PPAs**) or vice versa. The status is unclear or unknown in 15 states.[6] Confirm the status of your state with your local public utility commission or, as relevant, with your attorney general's office. The more certainty your state can offer in this regard, the more successful your program will be.
- **Take stock of your local policy context**. A successful low-income solar program rests on sound solar policy. Investigate all policies and programs that support the development and financing of solar energy in your state. These might include (but are not limited to) Renewable Portfolio Standards, Renewable Energy standards, net energy metering or feed-in tariffs, green banks, existing grants or incentive programs, sales, or property tax exemptions.

[6] 50 States of Solar Report, NC Clean Energy Technology Center

- **Research and/or gather data regarding your state's solar market**. Before issuing an RFP, provide context for the local solar market. Particularly, research the housing stock, LMI ownership status and distribution, and associated energy burden. Review Section 5 of this program design note for more information and data sources.
- **Consider how this program will interact with others**. To the extent your state has existing programs for energy efficiency upgrades, solar plus storage, home charging stations, and related programs, structure your Solar for All program to align eligibility requirements.
- **Determine the right state agency to launch the RFP**. A state energy agency is a logical place to launch such program. However, other agencies, quasi-public agencies, or even nonprofits with clear public mandates may be appropriate as well depending on local context. Examples could include a state's green bank or a clean energy fund. Consider for instance (**a**) whether an organization already plays an important role with respect to marketing, both to customers and to contractors, (**b**) existing programs and sources of funding that could be leveraged or aligned, (**c**) regulatory limitations related to commingling of funds (e.g., limitations related to the use of ratepayer funds), and (**d**) staffing resources and ease of administration.
- **Identify sources of funding**. If you have not already, consider both sources of state and federal funding. These could include cap-and-invest programs, public benefit charges, ratepayer funds, or federal funding opportunities such as the GGRF Solar for All Competition. If you have not, read EPA's Notice of Funding Opportunity and consult Appendix A (Meaningful Benefits Plan) of this guidance note for a list of meaningful benefits that EPA will be looking for in evaluating applications to the GGRF.

Section 4. Public-Private Partnership

4.1 Public-Private Partnership

The program design outlined in this document and the RFP template relies on a public-private partnership to deliver solar products to LMI households and communities. The design makes efficient use of public dollars by leveraging tax credits and incentives that individual households cannot utilize, such as the LMI ITC Adder.

In this model the state offers an elevated incentive, i.e., a higher incentive reserved for solar projects serving LMI households and disadvantaged communities to one or more private sector partners selected through a public procurement process (the **Elevated Incentive**). This approach was selected, in part, because it allows a state to bring the financial resources of the private sector to serve a greater number of households. With grants, for instance, funding would dwindle quickly, reaching far fewer households than if

the state had partnered with the private sector to bring down costs and leverage tax credits.

In addition, the model offers incentives for enabling upgrades (the **Enabling Upgrades Incentive**). For additional information, please refer to Section 8.2 below and to Section 10.2 of the RFP template for additional information.

A simplified diagram of the process is available in Appendix B (Program Delivery Overview).

4.1.1 Number of Partners

In delivering the program, the state entity will launch an RFP to solicit the solar developers with which it will develop a long-term relationship. The number of partners that the state will select depends on several factors. Consider the following:

- **Size of solar market**. Small states or states with limited solar resources should consider restricting the number of firms to be selected to one or two firms. If the solar market is very small, solar developers may prioritize larger states unless they have a chance to bring in the entire market for their business. For a program to be successful, private firms need to commit to delivering it.
- **Size of program**. The size of the program, i.e., the total available incentive amount, and the potential solar incentive per project will also be important factors for developers. The smaller the program and the solar incentive, the more useful exclusivity for the program will be. It is valuable for firms to be able to say that they are the only official partner of a state. Also consider the duration of this partnership vs. the duration of the program.
- **Program administration impacts**. The type of program administration chosen by the state should also be taken into account. Does your state energy agency have a small team that will directly administer the program? Or will a third-party administer the program? If keeping your team small is a priority, managing a public private partnership with one or two partners may be more reasonable than three or four.
- **Local developer market growth opportunities**. Consider the pathways for your local solar firms to grow and engage with this opportunity.

4.2 Customer Experience

In general, to the extent possible, states should prioritize processes that create a smooth customer experience. At a high level, the customer experience is expected as follows:

(1) **Developer and state launch a community-based marketing campaign**. Appropriate, trustworthy marketing is an essential aspect of a successful LMI solar program. States should work with the selected solar developer to co-brand and implement a marketing plan that gains community trust. A state may follow the

solarize campaign framework to target LMI households and disadvantaged communities, and make staff available to support direct outreach and be available to answer customer questions about program enrolment, eligibility, and other topics.

(2) **Developer identifies customer**. Customers are identified based on the state's eligibility criteria. Eligibility is verified following the process detailed below in Section 7. As needed, a contractor will access a dedicated application portal through which they can upload and/or certify that disclosure, geographic, and/or income verification documents, as relevant, have been received by the customer.

(3) **Developer conducts a site visit**. After verifying the customer's eligibility, the developer conducts a site visit to determine the technical specifications of the project. If roof repairs or other upgrades are needed, the developer will work with another contractor to deliver these services and seek state approval of expenses prior to proceeding with repairs or upgrades.

(4) **Developer conducts efficiency audit**. Efficiency upgrades can maximize solar savings by reducing the customer's load. At a minimum, a basic energy audit should be offered.

(5) **Developer installs solar array and relevant process is followed for inspection.** After inspection, the Elevated Incentive will be paid in one lump sum upon approval by the state agency.

(6) **Customer saves from day one.** Customers who meet eligibility requirements and enroll in the Solar for All program can expect to start receiving savings as soon as the solar PV project is energized.

Section 5. State Context

In their RFP, states should be prepared to provide substantial context on their relevant agencies and the existing solar market in their state. This may include:

- Background on the state agency, including their role in the RFP and in administering the program
- Background on any other relevant agencies / organizations and their role in administering or supporting the program
- The state's goals for their Solar for All program
- Information on the state's solar market. This may include:
    - General information, such as the state's national ranking in solar installations, amount of installed solar, and the percentage of solar in the state's overall energy portfolio. This information can be found through the Solar Energy Industries Association.
    - Housing information, such as the number of LMI single-family owner-occupied households, as well as their total solar generation potential. This information can be found in NREL's REPLICA dataset.
- A summary of relevant state solar policies

- A summary of the state's utility structure and relevant rates

Section 6. Program Eligibility Generally

Under the program outlined in this template, program eligibility can be broken down into two categories.

1) **Customers** by default must meet two out of three eligibility criteria (a) home ownership, and (b) geographic, and/or (c) income.
2) **The solar product** must meet minimum requirements.

More information follows in Section 7 and Section 8, and in Section 8 of the associated RFP.

Section 7. Customer Eligibility Specifically

7.1 Home Ownership and Rentals

The default design in this program guidance is that the customer is a **homeowner** and meets specific geographic and income criteria.

However, the RFP includes language so that where a **tenant** lives in the home, both the tenant and the homeowner will be required to sign the customer contract with the system owner. In that case, we recommend that income qualification criteria apply to the tenant only.

Covering tenants in this type of programs requires a willing landlord and likely some negotiations with solar developers and program funders. We have included this option to account for cases where a homeowner may be incentivized to pursue a solar project by the possibility of accessing structural repairs funding.

Unless the home is located in a GGRF DAC Area (as defined below), the tenant would have to income qualify as stated in the RFP and described below.

Note that a state will have to consider what to do if a tenant signs a solar lease contract and leaves. The new tenant would have to income qualify as well, and states would have to monitor these situations and coordinate with federal funders, such as EPA under the Solar for All Competition, to determine how to handle any compliance issues with any federal awards. Program funding compliance rules may further limit this option.

In addition, a developer would also have to determine in their proposal who would carry the risk for non-payment of the lease price if the tenant leaves and the premises sit empty.

7.2 Re. Geographic vs. Income Approach

In general, there are four ways that an eligible customer base could be defined by a state:

(1) Based on household income only;
(2) Based on location only;
(3) Based on both location **and** income; or
(4) Based on location **and/or** income.

A visual representation of the four options follows:

In this program design, we chose to utilize the fourth option above (location **and/or** income) as a default. This choice was made, in part, to allow states that wish to leverage IRA funding through the GGRF competition to comply with the NOFO, which provides options between (a) location and (b) income for "geographically dispersed" households.[7] Refer to Section 8.1 of the RFP on customer eligibility for details regarding NOFO compliance and relevant definitions of disadvantaged communities and low-income households.

Depending on state goals, sources of funding for this program, and where the areas designated as disadvantaged communities are located, a state may choose differently, and opt for option (1), (2), or (3).

Here is what to consider, at minimum, in making this decision:

- **Compliance with Justice40 if using federal funds**. Justice40 requires that at least 40% of federal programs like GGRF be expended in areas designated by CEJST. Local state definitions will *not* be considered. If a state chooses option 1 (**income only**), it must first be assured that there is significant overlap between LMI households and the communities designated by CEJST. Otherwise, the state program will risk not being in compliance with Justice40 requirements, even if the state program is meeting other program objectives and using 100% of the funds to serve LMI households.
- **Ease of administration**. If a state chooses option 2 (**location only**), it will ensure easy program administration since no income verification will be necessary and compliance with Justice40 would be assured. In addition, developers tend to like purely geographic program eligibility because it simplifies communication, outreach, and marketing, and they will not need to ask intrusive questions or keep private sensitive data safe. States should be aware, however, that this option will not be very impactful for states that have very few households in those disadvantaged communities, regardless of their size and the state coverage. States should also consider the status of their local solar market and the availability of qualified developers in the state. If a state expects to have a harder time attracting a contractor, a purely geographic eligibility criterion may make sense.
- **Impact**. Option 3 (location **and** income) is likely to be the option that ensures that public dollars are spent in the most impactful way on a household basis. It ensures that households of higher means that could afford solar and are located in those disadvantaged communities cannot access that funding, and that incentives are reserved to serve households that most need it. However, it also arbitrarily limits access to solar for families outside of these areas that would greatly benefit from that funding. If the funding for the program will be modest, this option may make

[7] For more information, review the NOFO for the Solar for All competition, pgs. 10-11

the most sense. It is also an option that is by default compliant with Justice40 requirements if the state is using federal funding. With access to large-scale program funding, and absent any flexibility to use local definitions of disadvantaged communities, we rejected this option as the default for the template.

- **Total number of eligible households**. Option 4 (location **and/or** income) was selected because it can be compliant with Justice40 with some coordination with developers and will make the program available to the largest number of households, which we think is the best approach and fits the main goal of a low-income solar program.

As a reminder, the IRA also uses geographic criteria for some of the tax credit adders that are relevant to this program. Refer to Section 10 in the RFP for more on this topic. Each state should also evaluate how these areas overlap with disadvantaged communities in the state. The RFP template is designed to fit the rules relevant to tax credit program administration that are currently published; the decisions that Treasury will make later in 2023 will necessarily impact the proposed program design. Be sure to consider them.

7.3 Geographic Eligibility

The program is offered to customers residing within an area designated as a disadvantaged community. In the context of the GGRF and as per the NOFO, EPA designates "low-income and disadvantaged communities" as follows:

(1) Areas identified through the Climate and Economic Justice Screening Tool, the publicly available mapping tool developed by the White House Council on Environmental Quality; or
(2) Areas included in the limited supplemental set of census block groups that are at or above the 90th percentile for *any* of EJ Screen's Supplemental Indexes when compared to the nation or state;
(3) Areas within Tribal lands as included in EJScreen;

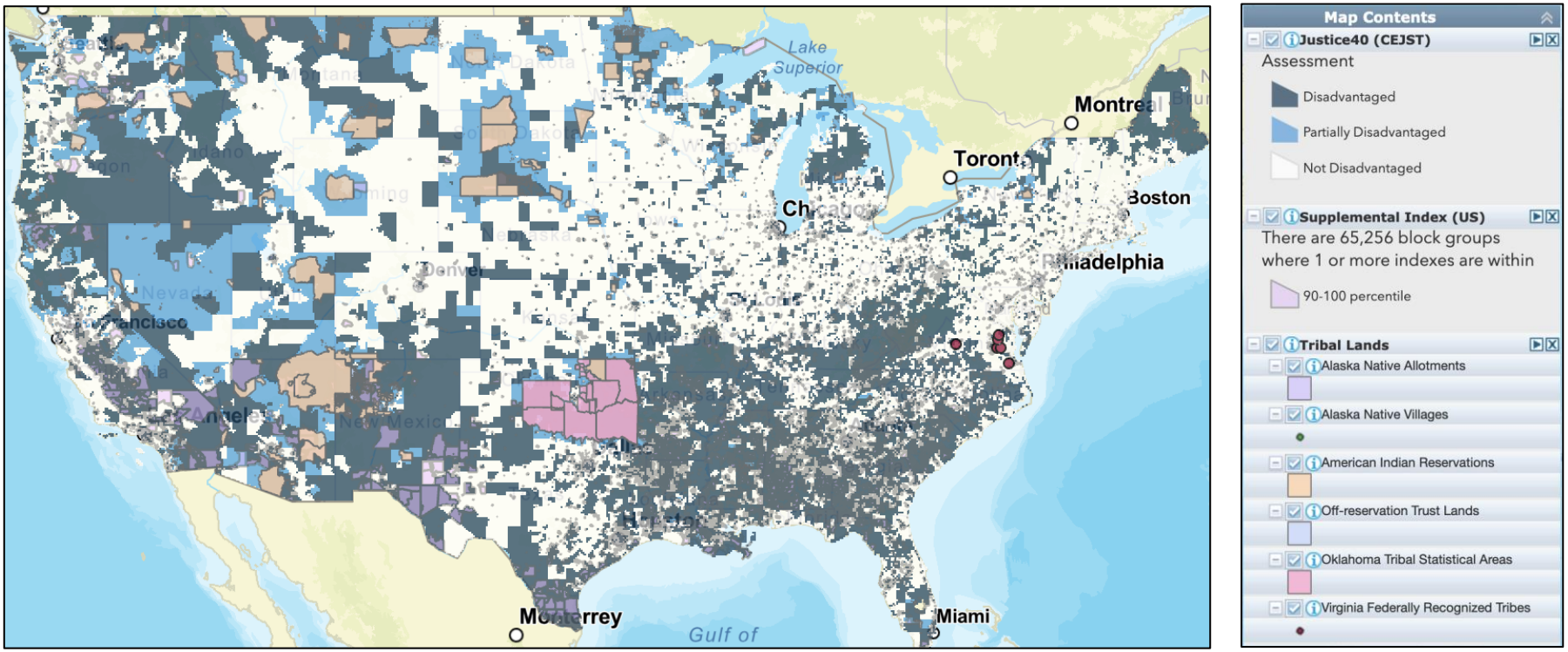
together, (the **GGRF DAC Areas**).

Our understanding is that the NOFO does not include "partially disadvantaged communities" in its eligibility criteria for the Solar for All program. The EJScreen tool can be used by states to produce a map of eligible communities in their state, including all three GGRF DAC Areas above. Navigate here to get started: https://ejscreen.epa.gov/mapper/.

The map below is an illustration only. Instructions to create a map of GGRF DAC Areas for a specific state are available in Appendix C (Instructions to Create a Map of GGRF DAC Areas).

GGRF DAC Areas - Continental U.S.

For Illustrative Purposes Only



Geospatial data are also available for download directly from federal agencies as follows:

- EJScreen data is available for download here: https://www.epa.gov/ejscreen/download-ejscreen-data
- CEJST data is available for download here: https://screeningtool.geoplatform.gov/en/downloads

7.4 Income Eligibility

Some customers outside of GGRF DAC Areas are by default eligible under our recommended program design if they qualify based on income. The RFP template uses the income eligibility rules set by EPA in the NOFO for the GGRF Solar for All Competition. Income eligible customers outside of GGRF DAC Areas are those meeting the requirements set forth below in (1) or (2):

(1) Individuals and households with incomes:

a) For Metropolitan Areas

At or below the greater of:

i) 80% Area Median Income; and

ii) 200% of the Federal Poverty Level;

b) For Non-Metropolitan Areas

At or below the greater of:

i) 80% AMI;

ii) 80% Statewide Non-Metropolitan Area AMI; and

iii) 200% of the Federal Poverty Level;

together, the "**Income-Qualified Customers**"

(2) Individuals and households currently approved for assistance from or participation in at least one of the following income-based or income-verified federal assistance programs:

a) U.S. Department of Health and Human Services (**HHS**)' Low Income Home Energy Assistance Program[8] (**LIHEAP**);

b) U.S. Department of Agriculture (**USDA**)'s Supplemental Nutrition Assistance Program[9] (**SNAP**);

c) U.S. Department of Energy's Weatherization Assistance Program[10] (**WAP**);

[8] For reference, under this program, income eligibility is defined so that "Grant recipients must target benefits to households with low incomes. They may set their own LIHEAP income eligibility limits; however, they must cap those limits at (1) no more than the greater of 150 percent of the Federal Poverty Guidelines (FPG) or 60 percent of the State Median Income, and (2) no less than 110 percent of FPG." See weblink above.

[9] For reference, income eligibility criteria for this program are available here: SNAP Eligibility | Food and Nutrition Service (usda.gov).

[10] For reference, under this program, households at or below 200% of the poverty income guidelines are considered eligible for weatherization services or if they receive Supplemental Security Income or Aid to Families with Dependent Children. In addition, each state or territory may elect to use the U.S. Department of Health & Human Services (HHS) Low-Income Home Energy Assistance Program (LIHEAP) criteria of 60% of state-median income. See weblink above for additional details.

d) Federal Communications Commission's Lifeline Support for Affordable Communications[11] (**Lifeline**);
e) USDA's National School Lunch Program[12];
f) U.S. Social Security Administration's Supplemental Security Income; or
g) Any other verified government or non-profit program serving Asset Limited, Income Constrained, Employed (**ALICE**) individuals or households designated by the EPA Administrator;

together, the "**Program-Qualified Customers**"

Under our proposed program design in the RFP, whether a customer outside of a GGRF DAC Area qualifies as an Income-Qualified Customer or as a Program-Qualified Customer has consequences on the income verification process.

By default, the template RFP uses a customer-driven process to limit invasive questions from contractors to households as much as possible and to reduce risks posed by the storage of sensitive customer data with a private sector organization. Income-Qualified Customers can self-verify by either providing a self-attestation in a form to be provided by the state (the RFP proposes language) to certify that they meet the requirements with respect to annual income and household size; or they can provide evidence of participation in any number of programs including those listed above. While this method technically complies with the NOFO and we find it preferable to the alternative, it is not certain that EPA would accept this method.

Consider the following:

- **NOFO verification requirements clarity**. The NOFO commingles the concepts of income eligibility requirements and income verification. Page 11 of the NOFO covers both together under households qualifying as "Geographically Dispersed Low-Income Households."
    - The NOFO does *not* specify what methods are authorized for households that qualify based on income thresholds rather than based on their participation in an assistance program.
    - The NOFO *does* specify that for households that qualify based on their participation in an assistance program, an award letter must have been provided in the last 12 months and the households must be "currently approved." Therefore, in an effort to comply with the NOFO, the RFP template follows this process for *Program*-Qualified Customers.
- **Advantages of self-attestation**. We propose a choice between self-attestation or providing evidence of more or less recent participation in an assistance program as

[11] For reference, the income eligibility under the Lifeline program is 135% or less than the Federal Poverty Guidelines. See weblink above for additional details.
[12] For additional information about income eligibility under this program, see Income Eligibility Guidelines | Food and Nutrition Service (usda.gov).

a default because it is the simplest, fastest, least intrusive for low-income families, least administratively burdensome for the state and the developer, and does not require that anyone involved set up complex data protection processes and policies.

- **Alternatives**. Other methods exist that states may elect to choose across the board instead, in order to prioritize administrative simplicity. A state could elect to offer several methods as options. In order of preference, these include:
    - Providing evidence of enrollment in other government programs with comparable or more stringent eligibility levels, such as SNAP, HCV, LIHEAP, etc.; or
    - Providing documentation using tax returns, paystubs, or other proof of income.
- **Clarifying requirements for the Low-Income ITC Adder**. Note that the Low-Income ITC Adder NOPR published to date does *not* exclude self-attestations for category 1 projects –"located in low-income communities"– as these do not require income-qualification.[13] Note that based on proposed rulemaking at the time of writing, Treasury is proposing to create additional criteria to determine which projects should receive the Low-Income ITC Adder in priority. States should pay close attention to any changes in such criteria in case Treasury elects to require proof of low-income status in the future, as the rulemaking is finalized.

Section 8. Solar Product Eligibility Specifically

8.1 Product Eligibility and Savings

Minimum and preferred product design requirements are outlined in Section 8.2 of the RFP. States may adjust the criteria as appropriate, ensuring that they maintain strong consumer protections. States should be prepared to issue program design requirements and a maximum eligible system size.

8.1.1 Product Features

Most importantly, eligible products are third-party owned solar assets, offered together with enabling upgrades (see below) and other relevant products, as allowed by a state. At minimum, Eligible Products should be available with no money down, be cash-flow positive on day one, include contracted 1st-year customer net savings minimums, and be structured to yield projected net savings during the contract term.

"Projected net savings" in this context means that the net savings over the duration of the contract must be clearly laid out, but do not need to be guaranteed by the developer, i.e., the developer does not need to financially compensate a lack of savings over a 20-year

[13] Refer to the NOPR here for additional information about what documentation will be required by Treasury.

contract. However, other elements of the contracts must be in place to adequately protect the consumer. Consider the following:

- **20-year production guarantees**. Production from the panels must be guaranteed for the whole duration of the contract. That is something the developer can ensure and acts as an incentive for the quality of the panels and the installation work to be high. It ensures that the customer will receive the amount of power they have signed up to receive.
- **Contracted first-year savings**. Savings during the first year, i.e., the year for which the developer and the customer have all information, must also be guaranteed. A developer should not object to this requirement unless they cannot guarantee a good product.
- **Projected savings**. Savings during the whole duration of the contract must be projected, i.e., must be justified, but a developer will not sign up for a program requiring a contractual guarantee of savings over such a long term. Note that (**a**) the state entity should ensure that developers provide enough information to enable the state and the consumer to understand the factors that may influence the savings over time, and (**b**) local circumstances, such as the size of the solar market, the quality of the solar resource, or other state incentives to help guarantee payments from customers, may influence this structure. For example, a state could ask bidders to submit the maximum number of years that they would be willing to guarantee savings, possibly in exchange for a larger incentive. The RFP template is organized by default with a one-year savings guarantee as a starting point.

Additional information about eligible products is available in the RFP.

8.1.2 Savings under GGRF Solar for All

If a state opts to pursue GGRF Solar for All funding for this program, note that the NOFO requires the program to "enable low-income and disadvantaged communities to deploy or benefit" from solar where "benefit" is defined as the "five meaningful benefits of residential rooftop and residential-serving community solar."[14] EPA will evaluate applications on a program's vision and ability to maximize such "meaningful benefits" including delivering "a minimum of 20% household savings to all households served under the program." The NOFO further defines 20% household savings as "20% of the average household electricity bill in the utility territory." The language in Appendix C of the NOFO is ambiguous in that it also states, "This financial benefit does not need to be calculated per each individual household and can be based on averages in the utility territory the applicant is serving." This would seem to indicate that a state may use a direct household benefit instead, but it is unclear. Should your state seek to apply, this should be clarified with EPA.

[14] See Appendix (Meaningful Benefits Plan)

8.2 Enabling Upgrades

A meaningful LMI solar program should address, to the extent possible, the prevalent and persistent barriers to LMI solar adoption. GGRF funding may be used for "enabling upgrades." As a starting point, the RFP proposes that developers need to demonstrate that such upgrades are necessary to properly install and maintain the PV system for a 20-year operating period, and including:

- **Efficiency interventions**, which can be proposed with the goal to maximize solar savings through load reduction;
- **Electrical panel upgrades**, which can be proposed if they are required for the safe and efficient installation and maintenance of a PV system;
- **Structural/roof repairs**, which can be proposed for roofs that would have to be repaired or replaced within a certain number of years of the solar installation or for structural defects that otherwise preclude safe solar installations; and
- **Individual household access to the internet**, which can be proposed when it would enable a household to comply with system monitoring purposes from the developer or the utility.[15]

Under the NOFO, the percentage of funding allocated for enabling upgrades and the maximum enabling upgrade incentive amount will be determined by the state and dependent on the state's context. However, to be compliant with GGRF, financial assistance for enabling upgrades may comprise up to 20% of the total financial assistance deployed during the lifetime of the program.[16] States should perform initial analyses to determine how much funding may be required for enabling upgrades in their target regions.

Before issuing their RFP, states should be prepared with the following information:

- Which upgrades will be covered or prioritized;
- An approximate total funding amount (or percentage) that will be reserved for enabling upgrades; and
- The maximum enabling upgrade incentive amount per project.

Note that if a state sets a 20% limit per project, it will not allow any flexibility for households that may need small solar projects but larger amounts of funding to support enabling upgrades. Similarly, if states set a maximum amount of support per type of intervention instead of per project (e.g., "no more than $x/projects for efficiency work"), it

[15] Per the NOFO for the Solar for All competition (pg. 9) applicants may decide the exact types of enabling upgrades that are eligible for Solar for All financial assistance, yet all enabling upgrades should be energy and building infrastructure related and deployed in conjunction with financial assistance for an eligible solar PV system

[16] NOFO for the Solar for All competition (pg. 9)

will also constrain the kind of assistance that a property could receive, which may not be in the best interest of low-income customers.

Section 9. Benefits to the RFP Partner

9.1 Elevated Incentive

States will offer an incentive to the private sector to de-risk its investment in the LMI market. **The Elevated Incentive rate to be provided per kW_{DC} for each solar project should be proposed by the applicant in their RFP proposal.** Generally, states will choose between a capacity-based incentive or a performance-based incentive.

A capacity-based incentive, which is paid in one lump sum after inspection documents are submitted to and approved by the state agency is based on the overall capacity of the system. In contracts, a performance-based incentive is paid based on system performance, measured per kW_{DC}. The incentive is paid to the developer, typically on a regular basis after installation, for instance quarterly.

9.2 Tax credits

Private sector partners may take advantage of the Investment Tax Credit, Domestic Content Bonus, Energy Communities Adder, and the Low-Income ITC Adder for savings of up to 60% of the overall project cost. **RFP applicants are required to explain how they will share the value of tax credits with customers.** For ease of reference, the ITC under the IRA is summarized below for projects under $1MW_{AC}$ placed in service in 2022 or later and begin construction before 2033.[17,18]

IRA Source ITC and CEITC	Stackable Tax Credit Categories ITC and CEITC	Credit Amount
26 U.S.C § 48(a)(9)(A)(i), 26 U.S.C § 48(a)(9)(B)(i), & 26 U.S.C § 48E(a)(2)(A)(ii)(I)	1) Base ITC for projects under 1 MW_{AC} (with or without meeting wage and apprenticeship requirements)	30%
26 U.S.C § 48(a)(12)(C)(ii) & 26 U.S.C § 48E(a)(3)(B)	2) Domestic content bonus	+10% points

[17] Solar Energies Technology Office, US Department of Energy

[18] 26 U.S.C. § 48 & 48E. Projects must begin construction before January 1, 2025 to be eligible for the § 48 investment tax credit. Projects beginning construction on January 1, 2025 or later are only eligible for the § 48E Clean Electricity Investment Tax Credit (which is only available to projects placed in service after December 31, 2024).

IRA Source ITC and CEITC	Stackable Tax Credit Categories ITC and CEITC	Credit Amount
26 U.S.C § 48(a)(14) & 26 U.S.C § 48E(a)(3)(A)	3) Energy Communities Adder[19]	+10% points
26 U.S.C § 48(e) and 26 U.S.C § 48E(h)	4) Low-Income ITC Adder[20]	+10% points[21]

Under this program design, RFP applicants must include a proposal to (**a**) reduce the amount of Elevated Incentive in situations where the system owner will receive additional amounts of ITC under the IRA, and/or (**b**) reduce the cost of the solar lease or PPA charged to Eligible Customers, and/or (**c**) offer additional technologies, perks, or value to Eligible Customers. Consider the following regarding this ITC sharing mechanism:

- **Establishing state priorities**. With the default language in the RFP, the private sector is free to propose solutions on a spectrum, rather than options set in stone by regulators/policymakers. States may instead opt to only offer option (a) or option (b), or to get rid of the sharing mechanism entirely in the RFP. Based on the Low-Income ITC Adder program administration proposed regulations to date, states could decide to keep the customer-facing price fixed, and to only request that the incentive amounts vary. However, we recommend states keep this flexible, communicate openly about the process with applicants, and be aware of the impacts of each option.
- **Consequences of default choices for states.** At one end of the spectrum (Option a) the program would prioritize reaching more households with the same amount of public funding. At the other end of the spectrum (Option b) the program would prioritize deeper savings, but a smaller number of low-income households. It is possible that the private sector can offer proposals somewhere in between, and/or offer additional technologies, such as storage (Option c). We believe that creative solutions that work for both the private sector and low-income consumers should be encouraged.
- **Flexibility and transparency**. The ITC sharing feature of this design is meant to allow flexibility for the private sector while promoting transparency for the benefit of LMI customers. For the avoidance of doubt, this ITC sharing mechanism by

[19] For additional details, reference the associated RFP, Section 10.1.6 (Energy Community ITC Adder).
[20] For additional details, reference the associated RFP, Section 10.1.5 (Low-Income ITC Adder).
[21] 26 U.S.C. § 48(e) also offers an additional 20% points for projects classified as a "qualified low-income residential building project" or "qualified low-income economic benefit project," which according to the most recent guidance from Treasury cannot be accessed for single-family homes.

default only applies to the Low-Income ITC Adders and the Energy Community ITC Adder. Solar companies are not required to share the tax benefit of complying with domestic content requirements of the IRA, which can involve significant additional direct costs for the private sector. This can be changed by a state based on its local policy priorities and local market.

- **Federal regulations**. The proposed design also accounts for the uncertainty around how federal agencies will administer the Low-Income ITC Adder program by proposing an administration process that helps developers price such adder in their initial quotes despite not being assured that they will receive the adder. See Sections 10.1.5.2 and 10.1.5.3 of the RFP Template for relevant details.

For all details relevant to the Elevated Incentive and ITC interaction, please refer to Section 10 of the RFP template. We encourage applicants to familiarize themselves with the rules applicable to the Low-Income ITC Adder program administration as they develop LMI solar programs.

Appendix A – Meaningful Benefits Plan

In its GGRF application, each state must submit a meaningful benefits plan. The plan describes the applicant's approach to ensuring planned solar and storage deployment benefits low-income and disadvantaged households, including household savings, equitable access to clean energy, power resiliency, asset wealth building, investment in local businesses, and quality jobs in alignment with the Department of Labor's Good Jobs Initiative.[22] More specifically, EPA's definition of "meaningful benefits" includes:[23]

(1) **Household Savings:** Delivering a minimum of 20% household savings to all households served under the program, including households in multi-family, master-metered buildings; 20% household savings is defined as 20% of the average household electricity bill in the utility territory. Household savings can be delivered as a direct financial benefit or, for households without an individual utility bill, a direct non-financial benefit equivalent in value to the program's household savings target in the utility territory.[24] Applicants may propose preliminary estimates in the financial assistance model for household savings and explain how they plan on refining those estimates during the first year of the program if more analysis is needed. EPA expects to work with grantees to refine estimates for household savings.

(2) **Equitable Access to Solar:** Ensuring the program increases access to residential distributed solar generation in low-income and disadvantaged communities through financing products and project-deployment technical assistance, maximizing the breadth and diversity of the households that can benefit from solar.

(3) **Resilience Benefits:** Increasing the resilience of the power grid by creating capacity that can deliver power to low-income and disadvantaged households and/or to critical facilities serving low-income and disadvantaged households during a grid outage.

(4) **Community Ownership:** Facilitating ownership models that allow for low-income households and disadvantaged communities to access the additional economic benefits of asset ownership.

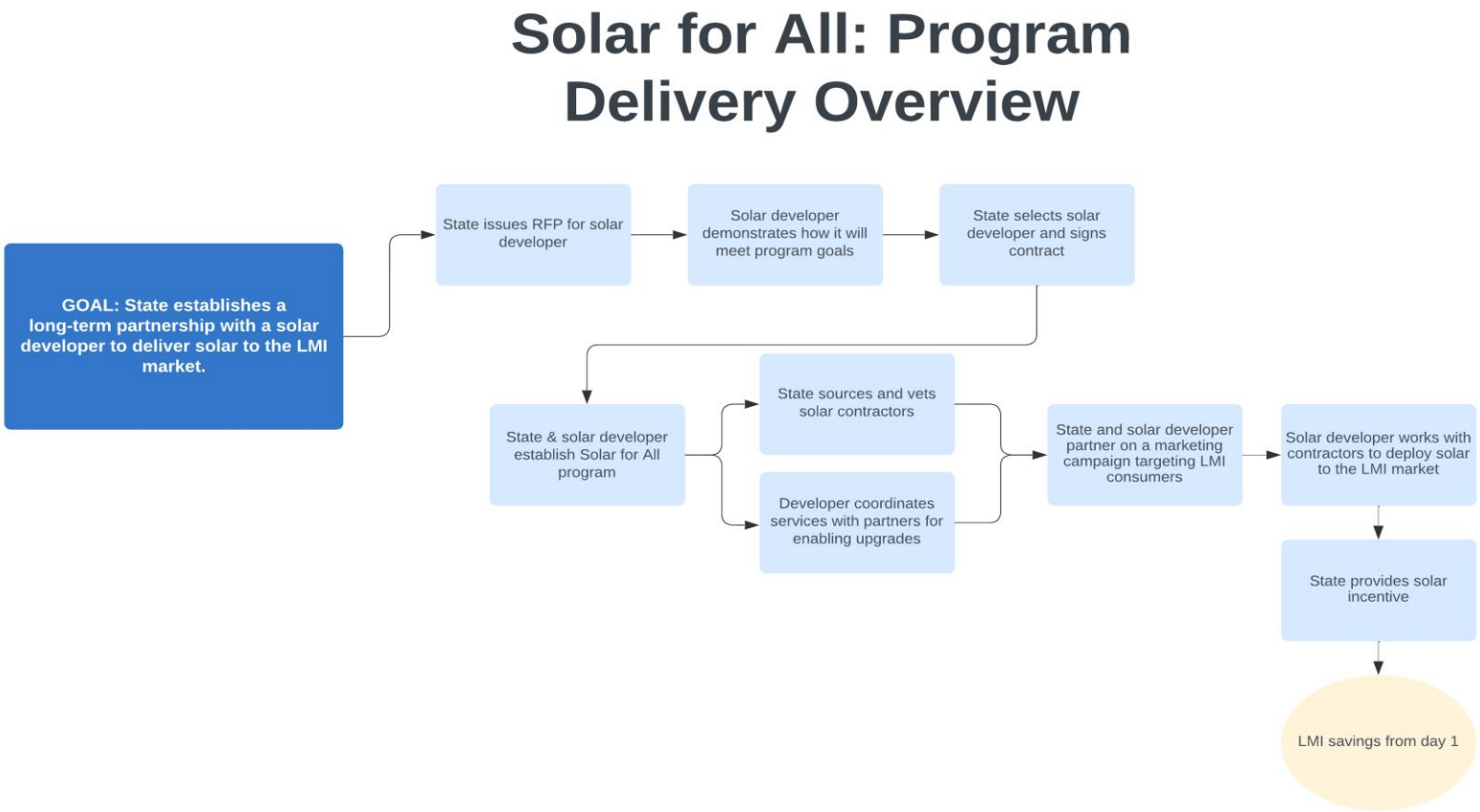
(5) **Workforce Development and Entrepreneurship:** Investing in high-quality jobs and businesses in low-income and disadvantaged communities by supporting prevailing wages, investing in effective workforce training programs for underserved populations (e.g., pre- apprenticeship and registered apprenticeship

[22] NOFO for the Solar for All competition, pg. 5
[23] NOFO for the Solar for All competition, pg. 12-13
[24] Additional detail on how to calculate household savings is included in the NOFO for the Solar for All competition in *Appendix C: Household Savings Guidance* (pg. 78)

programs), and prioritizing equitable economic opportunities for women and minority-owned businesses and contractor.

In their program design and RFP, states should clearly demonstrate savings and other benefits that may be attached.

Appendix B – Program Delivery Overview



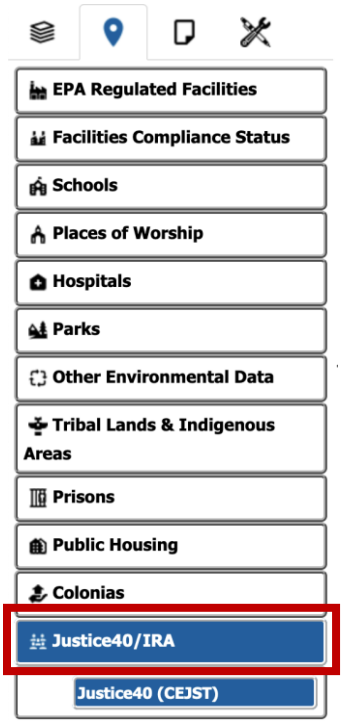
Appendix C – Instructions to Create a Map of GGRF DAC Areas

For a complete EJ Screen User Guide, visit:
https://ejscreen.epa.gov/mapper/help/ejscreen_help.pdf

The instructions below will help you create a map of "low-income and disadvantaged communities" for the purposes of the GGRF Solar for All competition.

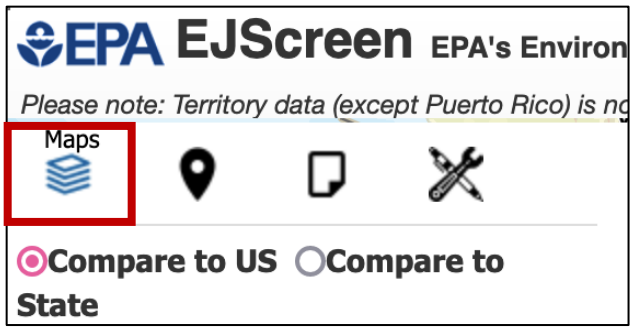
- Navigate to https://ejscreen.epa.gov/mapper/
- **TO ADD CRITERION ONE**: Areas identified through the Climate and Economic Justice Screening Tool ("**CEJST**"), the publicly available mapping tool developed by the White House Council on Environmental Quality
    - Select "Places"

    - At the bottom, select "**Justice40 (CEJST)**"



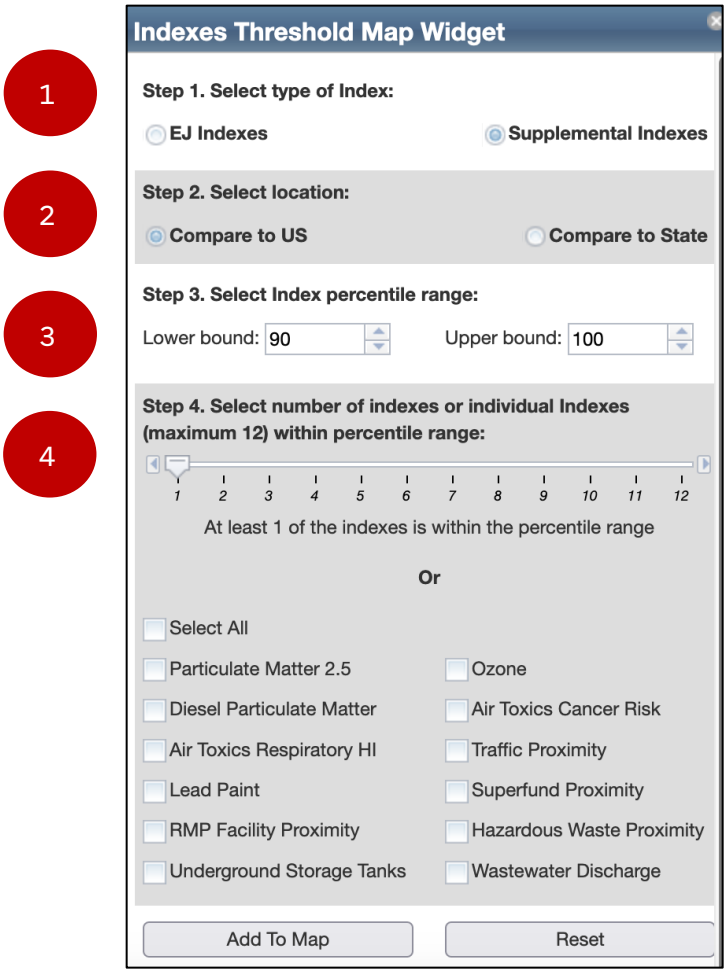
- Criterion one should populate.

- **TO ADD CRITERION TWO**: Areas included in the limited supplemental set of census block groups that are at or above the 90th percentile for *any* of EJ Screen's Supplemental Indexes when compared to the nation or state



- At the bottom, select "Threshold Map"

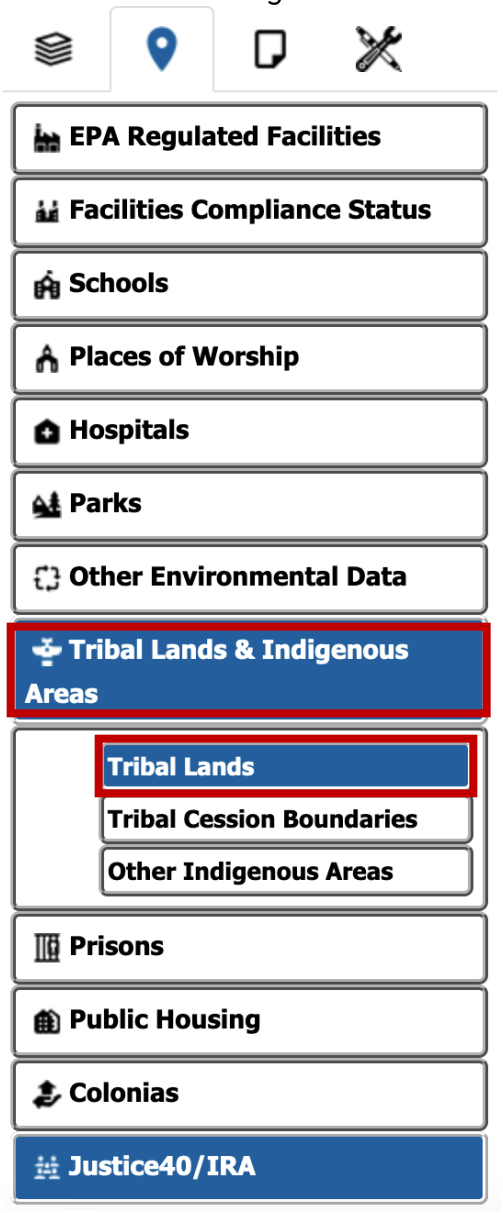
- In the pop-up widget, select the following:
  - Step 1: “supplemental indexes”
  - Step 2: “compare to US” OR “compare to state”
  - Step 3: lower bound = 90, upper bound = 100
  - Step 4: on the slider, select “1”



  - Click “Add to map” and exit the pop-up widget
- Criteria two should populate.

- **TO ADD CRITERION THREE**: “Areas within Tribal lands as included in EJScreen”

- Navigate to “Tribal Lands & Indigenous Areas” and select “Tribal Lands”



    - Criterion three should populate.

- Navigate to the state you'd like to view. The resulting map represents geographically eligible "low-income and disadvantaged communities" for the purpose of GGRF. Note: this map does not include geographically disbursed low-income households nor properties providing low-income housing.