PROGRAM NARRATIVE

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Section 1. PROGRAM STRATEGY NARRATIVE

The Iowa Economic Development Authority (IEDA) is requesting funding through the U.S. Environmental Protection Agency's (EPA) Solar for All program to establish the Iowa Community Solar Program (ICSP). The mission of the ICSP is to increase low-income and disadvantaged community access to the benefits of solar throughout Iowa. IEDA has collaborated with Iowa utilities, social services providers, state agencies, environmental organizations, local governments and solar developers to develop this community solar proposal. The ICSP will reduce greenhouse gas emissions, deliver the benefits of greenhouse gas reduction projects to Iowans, and mobilize financing and private capital to stimulate deployment of distributed solar, solar storage, public-private partnerships and housing upgrades in support of distributed solar. Additionally, the ICSP will enhance job training opportunities for the solar industry.

Iowa Community Solar Program Structure

The ICSP will be administered by staff of the U.S. Department of Energy-recognized Iowa Energy Office that is housed within IEDA, the lead community and economic development agency for the State of Iowa.

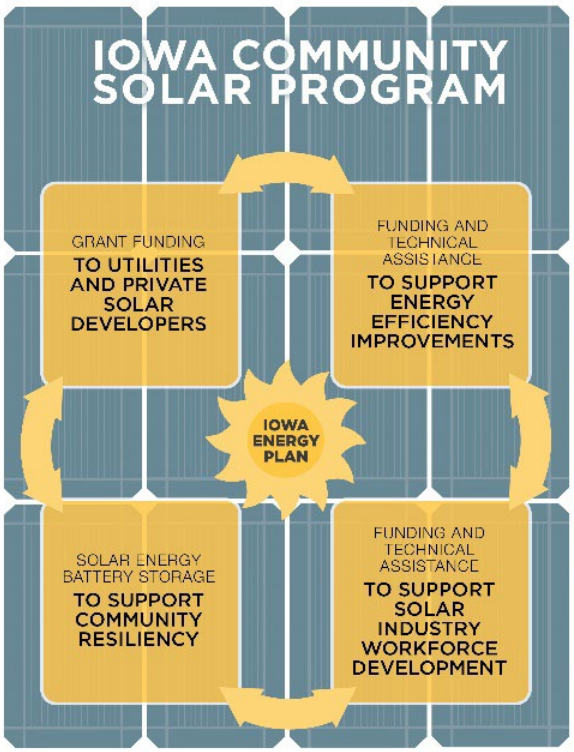


Figure 1: Program Graphic

Community Solar

The 2018 "Rooftop Solar Technical Potential for Low-to-Moderate Income Households in the United States" report by the National Renewable Energy Laboratory estimated that 49% of buildings for the 49.8 million low-to-moderate income households are unsuitable for hosting solar. Therefore, the ICSP will focus on supporting the development of community solar projects that are geographically dispersed across Iowa. IEDA will partner with solar developers (including Iowa utilities, commercial and nonprofit solar developers, etc.) through a competitive grant process. IEDA expects to provide a 30% subsidy on average for community solar projects. Selected projects will dedicate at least 50% of the energy produced to achieve an average savings of at least 20% on electric utility bills for low-income households and disadvantaged communities. A community solar approach to program delivery best supports the EPA's goal to maximize the number of low-income households and disadvantaged communities benefitting from Solar for All investment.

To ensure federal grant compliance, community solar project awards will include funding to procure a certified federal grant administrator, which can be found through IEDA's resource webpage for its Community Development Block Grant program. Grant administrators will assist

grant recipients with federal compliance tasks such as public notices, procurement, Davis-Bacon Wage Act, Uniform Relocation Assistance and Real Property Acquisition Policies Act (URA), National Historic Preservation Act (NHPA), and Build America, Buy America (BABA).

Energy Efficiency Upgrades

Building energy efficiency upgrades will maximize the impact of the energy credits produced by the community solar projects. Depending on the availability of local energy efficiency services, awarded community solar projects may be provided additional funding or services to support home energy efficiency audits and upgrades for low-income households and disadvantaged community solar program participants. IEDA will leverage and coordinate building energy efficiency upgrades with the Weatherization Assistance Program (WAP), Home Efficiency Rebates (HOME), High-Efficiency Electric Home Rebate Act (HEEHRA), and local utility rebate programs.

Workforce Development

Partnering with the Iowa Workforce Development (IWD) Office of Apprenticeship, the Iowa Solar Energy Trade Association, and existing job-training programs, the Iowa Community Solar Program (ICSP) will dedicate a portion of funding to enhance existing job training programs and develop new training opportunities for the solar industry. The solar workforce development initiatives will target skill gaps and provide high-quality job training for workers in low-income households and disadvantaged communities.

ICSP recipients will be encouraged to solicit bids during the procurement process from minority- and women-owned businesses to maximize the program impact for those businesses. ICSP recipients will also be directed to certified Iowa Targeted Small Businesses, a program established by IEDA to help women, individuals with minority status, service-connected disabled veterans and individuals with disabilities overcome hurdles of starting a business. Grant applications that include a robust plan to hire minority- and women-owned businesses and support workforce development opportunities in their project will receive a scoring preference.

Solar Energy Storage and Microgrids

IEDA anticipates that some funded projects will include solar storage but given the high cost, it is expected to be limited. The ICSP will prioritize serving as many low-income households and disadvantaged communities as possible, which is maximized through implementation of community solar projects. As a means of supporting community resiliency while eliminating or reducing the need for energy storage, IEDA will encourage program applicants to investigate the benefits of integrating microgrid development into community solar projects to continue power delivery during an outage.

Review Criteria

The ICSP will offer competitive grants and employ review criteria to select applications that support Solar for All program objectives and the Justice40 initiative. Table 1 outlines the current proposed ICSP evaluation criteria. Program development will continue with program stakeholders during EPA review of this application and may result in updates to the criteria.

Table 1: Proposed Evaluation Criteria (Application must score at least 200 out of 250 points)

Evaluation Criteria	Total Points
Applicant is eligible, proposed activity is eligible, and application is complete	Prerequisite
Percent of low-income/disadvantaged households in utility territory the project will benefit	25
Proposed average percent of electric utility bill savings	25
Project benefits a CEJST-identified disadvantaged community	20
Percent of overall solar energy allocated to low-income/disadvantaged households	20
Proposed education, outreach, community engagement and customer acquisition strategy	20
Percent of overall project cost requested from the Iowa Community Solar Program	15
Project approach to involve communities in program design and decision making	15
Solar array ownership structure supports ownership by low-income/disadvantaged households	10
Plan to hire minority- and women-owned businesses and support workforce development	10
Project overall cost per watt	10
Demonstrated project implementation and interconnection coordination with local utility	10
Proposal clearly describes the project and project goals	10
Project leverages other funding & technical assistance resources	10
Relevant project experience and capacity to implement the grant	10
Project's proposed approach to leverage building energy efficiency upgrade funding	5
Proposal clearly describes community resiliency benefits of the project	5
Proposed project readiness to proceed and project timeline	5
Project size (kW or MW)	5
Project includes an energy storage or microgrid component	5
Proposed plan for solar array operations and maintenance	5
Innovativeness of project	5
Other sources of project funding are secured	5

Section 1.1. Impact Assessment

Current Market Environment: The current market environment in Iowa for residential-serving distributed solar contains many opportunities and some challenges. Iowa was the first state in the nation to adopt a renewable portfolio standard (RPS) in 1983 which created interest in diversifying the statewide generation portfolio. Twenty-five years later, the state was able to generate more electricity each year than was consumed, with the majority of production coming from renewable sources. Solar accounts for 1% of all electricity generated in Iowa, while wind accounts for 63% (Energy Information Administration, 2022). All 99 counties in Iowa have seen solar investment while nearly three-fifths of the state's solar power supply is provided by utility-scale (1 megawatt or larger) solar arrays. Most of the Iowa solar-generating utilities maintain crystalline silicon-coated panels with a single axis tracking system and nameplate capacity under 5 MW.

Historical Deployment Rates and Low-Income Participation

Iowa has experienced a tremendous uptick in solar deployment in the last several years with 2022 seeing the most annual growth to date with the installation of 212 MW of solar.

Approximately 75% of Iowa's 678 MW of installed solar was installed in the last three years. On the other hand, no formal mechanism currently exists for tracking community solar installations in Iowa, but IEDA is aware of at least 6.5 MW of subscription-based community solar installed in 2022-2023.

Historically, the participation rate by low-income households in community solar, while not formally measured or tracked, is considered likely low as a result of limited household capital to invest in community solar subscriptions and no coordinated statewide effort to emphasize low-income household participation in community solar. The availability of Solar for All funding provides the perfect opportunity to increase the participation rate of low-income households and transform the development of community solar in Iowa.

The Iowa Community Solar Program (ICSP) will take a multi-pronged approach to increase low-income household and disadvantaged community access to the benefits of solar throughout Iowa. First, the ICSP will embrace the Justice40 Initiative by prioritizing solar projects serving disadvantaged communities in the scoring criteria. Second, applications that commit to allocating a higher percentage of community solar array generation benefits to low-income households and disadvantaged communities beyond the minimum required 50% will also receive higher scores. Third, ICSP applicants will be encouraged to automatically enroll Low-Income Home Energy Assistance Program (LIHEAP) and Weatherization Assistance Program (WAP) participants into the community solar program with an opt-out option versus having to opt-in.

Proposed Output and Outcome Metrics

Solar array size, land acquisition cost, location of the array in proximity to supporting utility infrastructure, and solar panel efficiency will all impact project costs. Solar for All supported projects are also likely to face project cost variability as a result of Davis-Bacon Act wage rates, domestic content supply availability, and the surge in demand for solar array components anticipated from the numerous project incentives available and forthcoming. These variables were considered when developing the proposed project outcomes.

Through community solar project development, IEDA is proposing to deliver, on average, 20-25% electric utility bill savings benefits to approximately 12,000 low-income and disadvantaged community households. These benefits will be generated through installation of an estimated 103 MW of new community solar across Iowa's investor-owned utilities, municipal utilities, and rural electric cooperatives. At least 50% of energy produced will generate electric bill savings for low-income households or disadvantaged communities. The anticipated number of households served and megawatts of solar installed is based on project numbers from a recently completed investor-owned 4.5 MW subscription-based community solar project. The program's proposed output and outcome metrics are outlined in Table 2.

Table 2: Proposed Output & Outcome Metrics

Output Metric	Goal	Outcome Metric	Goal
Environmental Benefits			
Number of projects financed	30	Clean energy generation	144 MWh
Solar capacity installed	103 MW	Greenhouse gas emissions reduced/avoided	165,710 tons CO_2
Storage capacity installed	3.5 MWh	Air pollution reduced/avoided	235,390 lbs. SO_2 201,180 lbs. NO_2 20,630 lbs. $PM_{2.5}$
Equity and Community Benefits			
Number of households benefitting from projects	12,000	Number of households with resiliency benefits (estimated storage or microgrid beneficiaries)	300
Amount of household savings delivered by project[1]	20% ($268)/ household/ year	Clean energy capacity owned by communities in direct ownership models (includes rural electric cooperatives)	20 MW
Projects executed using tools to promote good jobs and community benefits	30	Number of Iowa solar jobs created[2]	75
Investments in, or in partnership with, women- and minority-owned businesses[3]	20% of projects $13 million	Reduction in energy burden for low-income/ disadvantaged community households[4]	20%
Market Transformation Benefits			
Total private sector financing mobilized alongside projects funded	$122 million	Solar capacity deployed benefitting communities not financed by this program	300 MW
Number of community-based organizations engaged by Solar for All technical services	60	Changes in related tariff structures	3

[1] Simple calculation of the Iowa average residential electric expenditure per year (10,262 kWh per year[5] × $.1307 per kWh[6] × 20%). Savings do not factor in the many potential variables such as inflation, changing utility rates, net metering rates, fluctuations in solar panel performance, etc. IEDA would welcome EPA's technical assistance to further refine and verify household savings data.

[2] Interstate Renewable Energy Council projected 5-year job growth in Iowa of 8.3%.

[3] $65,473,334 budget request for solar + energy efficiency × 20%

[4] Average annual electric bill of $1,341 divided by LIHEAP maximum income limit of $29,160 for a single person household ($1,341 ÷ $29,160 = 4.6%). After 20% savings from solar percentage changes to 3.7% ($1,073 ÷ $29,160). Based on median household income in Iowa of $65,429, that household would spend 2% of income on electric bills ($1,341 ÷ $65,429).

[5] EIA Residential Energy Consumption Survey 2020

Below, Table 3 takes a deeper look into the goals and outcomes per funding requested. All estimates, unless otherwise noted, are based on the total Solar for All request of $75,000,000. The utility savings numbers in the table only represent the low-income households and disadvantaged communities directly benefitting from Solar for All grant dollars invested through the Iowa Community Solar Program. Additional benefits accrued to recipients of energy from any portion of community solar arrays not dedicated to low-income households and disadvantaged communities receiving subscriptions are not reflected in the cost savings numbers below.

Table 3: Output/Outcome Goal Per Dollar Requested

Metric	Output/Outcome Goal	Output/Outcome Per $ Requested
Solar capacity installed	103 MW	$728,155/MW 72.8¢/watt
Number of households benefitting	12,000	$6,250/household
Greenhouse gas emissions reduced	165,710 tons CO_2	$452/ton
Household utility[5] savings[6] from solar per year[7]	$3,216,000/yr.	
Household savings from solar delivered over 20 years	$64,320,000	$0.86/$1 requested
Household utility savings from energy efficiency upgrades per year[8]	$804,000	
Household utility savings from energy efficiency upgrades delivered over 20 years	$16,080,000	$0.21/$1 requested
Total household utility savings per year combining solar + energy efficiency	$4,020,000	
Household utility savings from solar + energy efficiency upgrades delivered over 20 years[8]	$80,400,000	$1.07/$1 requested

[5] *EIA Residential Energy Consumption Survey 2020*

[6] *EIA Monthly Electric Power Industry Report through December 2022*

[7] *Simple calculation of the Iowa average residential electric expenditure per year (10,262 kWh per year[5] × $.1307 per kWh[6] × 20%) × 12,000 households. Savings do not factor in the many potential variables such as inflation, changing utility rates, net metering rates, fluctuations in solar panel performance, etc. IEDA would welcome EPA's technical assistance to further refine and verify household savings data.*

[8] *IEDA is estimating a 5% electric utility bill savings result from implementation of energy efficiency upgrades. The most recent program report from Iowa's WAP identified an average of 671 kWh of electric savings per household. That equates to approximately a 6.5% reduction in electric use. Calculation is based on (10,262 kWh per year × 5% savings) × $.1307 per kWh = $67; × 12,000 households = $804,000.*

Section 1.2. Meaningful Benefits Plan

The Iowa Community Solar Program (ICSP) will support maximizing meaningful benefits of solar and solar + storage projects including household savings, increasing equitable access to solar, increasing resiliency and grid benefits, facilitating unique ownership models, and investing in a quality workforce. This will be done through collaboration with public and private entities supporting the ICSP approach.

Section 1.2.1. Household Savings

Each project funded with Solar for All funds will be required to document annually, and for a five-year period, delivery of a minimum of 20% average household electricity bill savings to all households served under the program, including households in multifamily and master-metered buildings. IEDA does not anticipate any upfront costs for low-income households and disadvantaged communities to participate in community solar programs. If there are any program participation costs, they must be low, and the 20% average household electricity bill savings will be required to be net of all costs. Multifamily and master-metered solar projects may offer a non-financial benefit equal to or greater than a 20% annual electric utility bill savings. More frequent monitoring of projects may be completed at the discretion of IEDA, its partners, or at the request of the EPA. Annual household subscriber savings will be calculated using the following formula.

$$\text{Savings \%} = \frac{\text{Average Qualified Subscriber Bill Credit}}{\text{Annual Average Household Electricity Bill in Utility Territory}} \times 100\%$$

Section 1.2.2. Equitable Access to Solar

Opportunities and need for solar to provide meaningful benefits exist across Iowa. Sixty-five of Iowa's 99 counties have at least one Climate and Economic Justice Screening Tool (CEJST) identified census tract. U.S. Department of Housing and Urban Development data from the American Community Survey has identified at least 311 of Iowa's 937 communities as having at least 51% of local households at 80% or less of the county median household income. The ICSP will increase access to distributed solar generation in low-income households and disadvantaged communities by decreasing barriers and increasing awareness.

The biggest barrier for low-income households and disadvantaged communities to access the benefits of solar are the upfront costs. The ICSP proposes to eliminate the upfront costs to participating in community solar and energy efficiency programs by subsidizing community solar programs. IEDA anticipates awarding project grants covering approximately 30% of the total cost of community solar. The project grant combined with the anticipated federal tax credits and revenue from community solar anchor tenants will support allocating at least 50% of community solar arrays to low-income households and disadvantaged communities at no upfront cost. Low-income households and disadvantaged communities participating in the community solar project will also receive no cost home energy efficiency assistance either from the Weatherization Assistance Program, local utility programs, rebate programs, the ICSP, or a combination of these programs.

Awareness of the benefits and availability of community solar is also a barrier. Those enrolled in targeted federally funded income-driven programs will receive no upfront cost opportunities to subscribe to available participating community solar arrays. Example programs determined as priority are Supplemental Security Income (SSI), Supplemental Nutrition Assistance Program (SNAP), Weatherization Assistance Program (WAP), and Low-Income Home Energy Assistance Program (LIHEAP). Those that are qualified to receive benefits from these programs will not have to certify their income beyond providing the Determination Letter or notation on utility bill. Additional programs may be identified for inclusion in this streamlined documentation process. IEDA will work with the LIHEAP and WAP programs to cross-promote opportunities to participate in community solar. Iowa Community Solar Program (ICSP) applicants that propose to automatically opt-in LIHEAP and WAP participants into the community solar program will receive additional points in the application scoring process.

IEDA, and its sister agency the Iowa Finance Authority, have decades of experience designing and implementing state and federal programs targeting disadvantaged communities and low-income households. The agencies will use that experience and existing partnerships with utilities, utility associations, social services providers, local governments, councils of governments, academia and other state agencies to develop, promote and implement the ICSP.

Subscription agreements and contracts will be provided in advance to the potential disadvantaged or low-income subscriber and use clear and concise language that can be understood by those without legal training or experience reading contracts. Each project will be encouraged to use consolidated billing, where the community solar subscription benefits appear on the same bill as other utility services. Low-income or disadvantaged community solar customers will be allowed to cancel the subscription agreement without fee or penalty during the life of the subscription. Additionally, there will be an easily accessible complaint mechanism and transparent tracking system so that patterns of customer complaints can be easily identified.

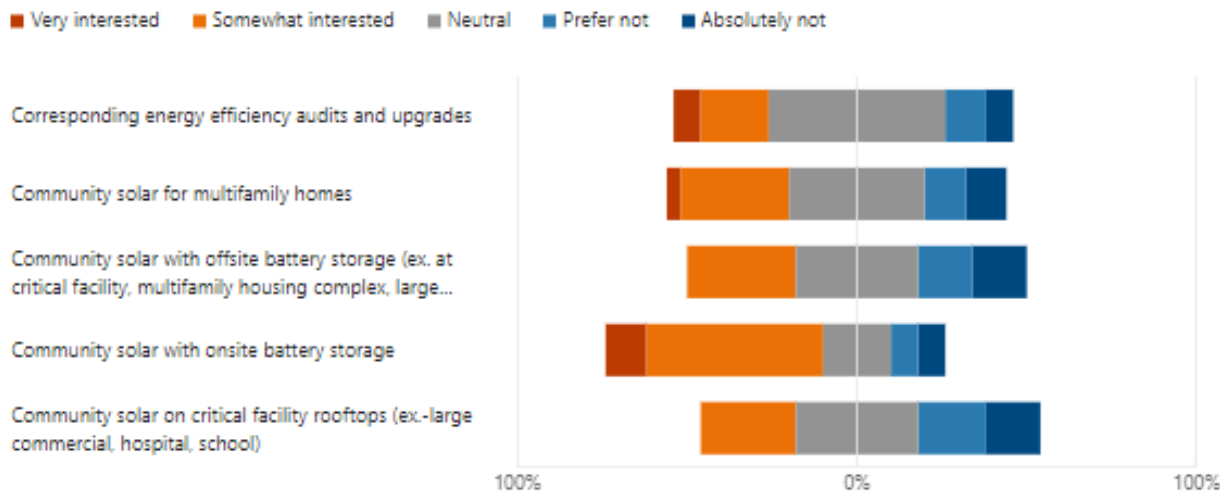
Section 1.2.3. Resilience Benefits

The ICSP will not just create additional solar capacity, but also encourage the utilization of microgrids and battery storage to increase the resilience of the power grid. This may be done through several techniques in coordination with the local utility provider including solar and on-site storage at critical facilities, solar and on-site storage on property owned or leased by the solar project developer, or the inclusion of microgrids designed to utilize solar to continue electrical service at critical facilities. Many utilities are amenable to the idea of battery energy storage but recognize that cost is a major barrier as well as potential end-of-life implications. The Electric Power Research Center (EPRC) at Iowa State University is actively working with multiple communities to research and design solar + microgrid projects. The EPRC currently has a grant through the FEMA Building Resilient Infrastructure and Communities program to develop a tool for siting and sizing renewable infrastructure for resilience including microgrids. The ICSP could be a key piece of financial and technical assistance to support demonstration of the viability of a solar + microgrid approach to community resilience. Likewise, IEDA proposes to identify how the ICSP may support and leverage a recent U.S. Department of Energy funding award involving a project in Iowa to utilize vanadium redox flow batteries (VRFBs). The batteries will have discharge capabilities of up to 20 hours. The project is intended to

demonstrate the use of the batteries to bring high-benefit, low-risk energy solutions to vulnerable and underserved rural areas.

IEDA collected feedback from utilities through many individual conversations as well as a survey intended to aggregate utility interest regarding technological approaches, among many topics. Results from the survey shown in Figure 2 reveal interest primarily in onsite battery storage but with the opportunity to explore additional models.

Figure 2: Iowa Community Solar Utility Survey Related Activities



Concerns were raised about the cost implications of deploying storage with solar as well as potential regulatory hurdles that could extend the timeline to implement these solutions specifically for rate-regulated utilities. Iowa's two investor-owned electric utilities are interested in the expansion of battery technology, but incorporating battery storage connected with distributed resource deployments would require the Iowa Utilities Board (IUB) to approve new rate tariffs.

In addition to the utility survey, an industry survey was also conducted. The variation between the results is an area of potential further conversation. The lowest interest was with battery storage, with only 64.3% of respondents indicating any level of interest in both the onsite and offsite battery storage in comparison to the 92.8% interest in energy efficiency audits and upgrades.

In lieu of the high costs and potential delays faced with battery storage solutions, there are inherent resiliency benefits resulting from the building upgrades for low-income and disadvantaged community solar project participants. Energy efficiency upgrades that include proper insulation installation and air sealing not only result in lower energy bills, but also are a form of energy storage that allows more of a buffer in case of short-term grid interruptions by reducing heating and cooling losses. Energy efficiency upgrades also provide quality of life benefits and improved comfort.

Section 1.2.4. Community Ownership

Community ownership of electric utilities is a long-standing tradition in Iowa. Iowa has 136 municipal electric utilities and 42 distribution rural electric cooperatives. In the case of many municipal utilities and all rural electric cooperatives, utility customers directly elect local residents or may be elected to make utility management decisions. Additionally, rural electric cooperative members have direct access to influencing utility operation decision making at annual meetings and the opportunity to receive patronage (dividends) from their ownership in the cooperative based on utility performance.

To capitalize on Iowa's allowed use of third-party power purchase agreements, the Iowa Community Solar Program (ICSP) will also entertain innovative project proposals that promote community solar ownership by disadvantaged community or low-income households, for profits or nonprofits serving the population in demonstrated coordination with the local utility. There are potential regulatory limitations with this model but, in certain scenarios, it could be viable to have a cooperative of qualifying households and/or a nonprofit serving qualified households develop a solar array that would generate energy for sale to the local utility or the building operations where the array is located. The revenue generated from the array could then be passed onto the array's owners/investors via the array's ownership investment agreement. This method would still provide an economies of scale approach while providing ownership for qualified residents or nonprofit entities serving qualified residents. Alternatively, interconnection could become a concern if proper utility coordination is not completed during project planning. Additionally, project proposals will need to address the capacity of the solar project owners to manage, operate and maintain the community solar array long term.

Iowa's utility statutes and regulations establish utility service territories; only the utility assigned to a territory is allowed to provide utility services in that territory. Likewise, Iowa utility regulations do not allow for virtual net metering. Given the regulations on who can provide utility services and where and how those services are provided, community ownership models will take careful planning and coordination with the existing local utility provider.

Section 1.2.5. Investment in Workforce

Prevailing wage and apprenticeship requirements in the federal solar tax credits will help drive demand and job opportunities for the apprentices participating in the proposed workforce training program described in detail in Section 1.5.1. Since the ICSP proposes to fund on average 30% of solar project costs while requiring at least 50% of energy produced to be credited to low-income households and disadvantaged communities, projects will be further incentivized to meet prevailing wage and apprenticeship requirements to maximize the federal tax credits. To incentivize more job opportunities for training program participants, ICSP grant applications that include a robust plan to hire minority- and women-owned businesses and to support workforce development opportunities in their project will receive a scoring preference.

The Iowa Economic Development Authority will assist solar project developers in identifying minority- and women-owned solar and solar supply chain businesses. To promote job opportunities for workforce training program participants and to assist solar developers in maximizing federal tax credits, IEDA will provide solar developers with information on

available quality pre-apprenticeship and registered apprenticeship programs. More details on IEDA's strategy to invest in workforce development are presented in Section 1.5.1.

Section 1.3. Distributed Solar Market Strategy

The market barriers to community solar in Iowa, like other regions, include administrative capacity, tariff barriers, third-party coordination, low electric rates, generation resource ownership and potential cross-subsidization between customers.

Section 1.3.1. Net metering

The Iowa Utilities Board (IUB) administrative rules for net metering are found within 199 Iowa Administrative Code (IAC) 15.11(5). Rate regulated utilities, Interstate Power and Light Company (dba Alliant Energy) and MidAmerican Energy Company, are required by Iowa Code § 476.49 to file net metering tariffs that use either a net billing or inflow-outflow method. Alliant Energy has both inflow-outflow and net billing approved tariffs while MidAmerican Energy operates under their approved inflow-outflow tariff. Additionally, Iowa Code also requires the IUB to develop a value of solar methodology and rate for eligible distributed generation facilities when the statewide distributed generation penetration rate equals 5%, or if the IUB is petitioned by an electric utility after July 1, 2027, whichever is earlier.

Section 1.3.2. Third-Party Ownership

Power Purchase Agreement (PPA) policies in Iowa allow distributed resources to be owned by third-party solar developers with electricity generated sold to the property owner where the solar array is located. Various beneficial methods allow third-party ownership to exist across the state. While there may be unique barriers and challenges to community ownership of distributed energy resources, there is no intention to preclude low-income households and disadvantaged communities from competing in the state's community solar application process. To maximize the number of households served via community solar, distributed residential solar rooftop installations are not planned within the scope of work done through IEDA's proposed program.

Section 1.3.3. Interconnection Processes

Resources are available for interconnection through local utilities or IUB. The IUB's standards for interconnection, safety and operating reliability are found in 199 IAC chapter 15 and are applicable to all utilities. Additionally, the IUB's rules for electric interconnection of distributed generation facilities are found in 199 IAC chapter 45. These are applicable to utilities subject to rate regulation by the IUB.

Partnering with utilities on all projects will reduce the lead time with interconnection despite nationwide challenges and wait times. IEDA anticipates that many of the proposed community solar projects will be utility-led projects which should minimize interconnection barriers and project delays. Ongoing partnering with Iowa's utilities will be of high priority throughout the implementation of this program.

Section 1.3.4. Renewable Portfolio Standard

In 1983, Iowa was the first state in the nation to adopt a renewable portfolio standard (RPS). The adoption of the RPS created interest in diversifying the statewide generation portfolio. Twenty-five years later, the state was able to generate more electricity each year than was consumed with most of the production coming from renewable sources. Solar accounts for 1% of all electricity generated in Iowa, while wind accounts for 63% (Energy Information Administration, 2022). As of August 2023, Iowa has a renewable portfolio standard mandate of 105 MW.

Section 1.3.5. Enabling Regulatory Frameworks

Iowa does not have any solar deployment caps or carveouts. Therefore, neither will limit IEDA's Solar for All deployment targets. Iowa's regulatory framework requires all rate-regulated utilities to go through the Iowa Utilities Board (IUB) to certify approved tariffs especially if they have greater benefits toward a group of customers. Rate-regulated utilities will likely need to take this route for tariffs to benefit low-income residents or disadvantaged communities within specific regions of the state. This process may be impacted by a review of ratemaking procedures required by 2023 Iowa Acts, House File 617.

For some community solar projects, the currently approved tariffs for Iowa's two largest investor-owned utilities may be applicable. For other projects, a new tariff may need to be approved by the IUB. Iowa's 42 distribution rural electric cooperatives may also have to complete a tariff filing and approval process with the IUB. Due to less rate regulation for Iowa's municipal electric utilities, those projects may be positioned to move more quickly.

Consolidated billing is allowed and commonplace in Iowa. It will be an expectation of the Iowa Community Solar Program (ICSP) that utility-operated community solar projects will display the energy credits earned and the value of those credits on the participating customer's utility bill. To facilitate and streamline the consolidated billing process, particularly for smaller utilities with limited staff capacity, IEDA may need to engage the handful of utility bill software providers serving many of the Iowa utilities.

Proposed solar projects that value solar power generation from community solar at, or close to, retail rates will score better than projects offering less value. Projects offering solar at, or close to, retail rates will be able to serve more low-income households and disadvantaged communities and/or provide a higher percent of average electric utility bill savings.

Section 1.3.6. Jurisdictional Nuances

Iowa has a wide variety of utility structures with two large investor-owned utilities, 42 distribution rural electric cooperatives, nine generation and transmission electric cooperatives, and 136 municipal electric utilities. It is not anticipated that the jurisdictional nuances will negatively impact the ability for the ICSP to serve the entire state of Iowa.

There are two jurisdictional nuances in Iowa most applicable to the Solar for All program. First, within Iowa's 189 electric utilities, there is a large variance in electric retail rates. The variability in retail rates will impact community solar project design to achieve the required minimum 20%

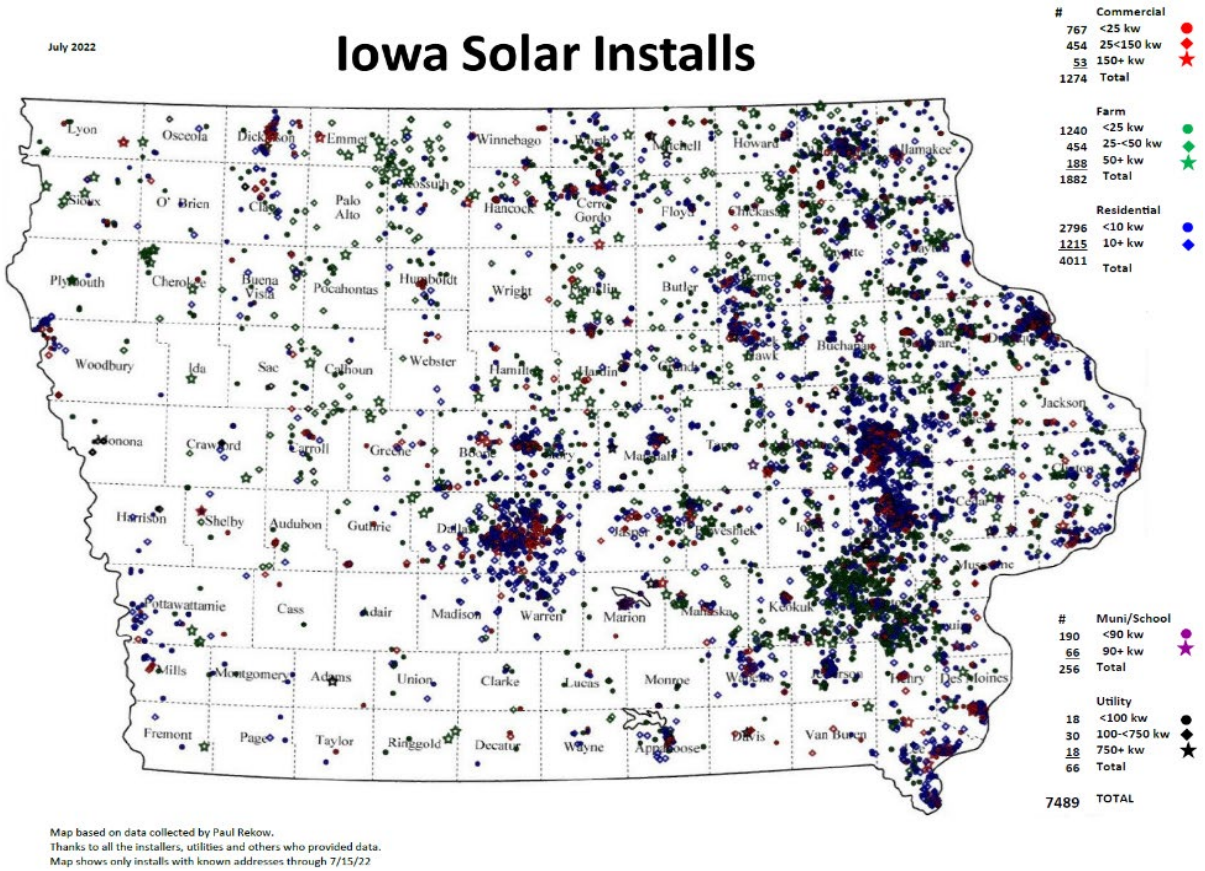
average electric utility bill savings. The ICSP will be designed for flexibility and will allow solar project applications to design projects and request funding to address individual project nuances.

Second, the IUB has a much larger role in regulating the investor-owned, rate-regulated utilities than the rural electric cooperatives and municipal electric utilities. Fortunately, Iowa's large investor-owned utilities have tremendously skilled staff and a history of supporting and developing distributed renewable energy resources. Both utilities have already demonstrated the capability to successfully earn tariff approvals for solar projects.

Iowa's 187 non-regulated utilities (rural electric cooperatives and municipal electric utilities) have tremendous flexibility to design and adopt new programs and projects such as community solar. Many of the non-regulated utilities have already installed solar at the utility and community scale. The associations representing these utilities—Iowa Association of Electric Cooperatives and the Iowa Association of Municipal Utilities—will be great resources for sharing community solar best practices among their members.

As of July 2023, Iowa already has more than 8,000 solar installations across all 99 Iowa counties. As seen in Figure 3 below, solar is possible and supported across Iowa. IEDA is confident there will be statewide support and interest for the Iowa Community Solar Program (ICSP) as well. To continue growth of solar across Iowa, IEDA has engaged the utility associations and the investor-owned utilities during development of this proposal. Both utility associations will work with IEDA to promote the ICSP and share best practices for community solar development.

Figure 3: Iowa Solar Installations Through July 2022



Section 1.4. Financial Assistance Strategy

The Iowa Community Solar Program (ICSP) will provide financial assistance to residential-serving community solar projects, energy efficiency initiatives, and workforce development. Eighty-seven percent of the requested total award is budgeted for investment in solar installations (~$52 million) and building upgrades (~$13 million) to maximize the benefits of the solar installations.

Residential-Serving Community Solar

The ICSP will utilize a competitive grant application process to award grant funds to selected residential-serving community solar and solar + storage projects. The budget prepared for this grant application anticipates the ICSP awarding grants covering on average 30% of the total cost of community solar installation. Awarded projects will commit at least 50% of the energy produced to generating energy bill credits for low-income or disadvantaged community customers resulting in an average electric utility savings of at least 20%. Projects committing to allocating more than 50% of the energy produced will be able to request a higher percentage of overall project investment by the ICSP. To maximize the number of households benefitting from the program, ICSP grant applications dedicating a larger portion of the solar project to low-income and disadvantaged community households at a lower investment percentage from the ICSP will receive preferential scoring. For example, projects requesting grant funds for 25% of the overall project costs and dedicating energy produced from 50% of the solar project will score better than projects that request 30% of overall project costs and dedicate 50% of the solar project to low-income households and disadvantaged communities.

The Iowa Economic Development Authority believes that a grant equal to approximately 30% of overall community solar installation costs will incentivize widespread community solar development. Many community solar projects will be positioned to access tax credits ranging from 40-60% of overall project costs. Sources of funding are available to economically cover the remaining 10-30% of community solar installation costs including the following.

- Community solar anchor tenant subscriptions
- USDA Rural Energy for America Program
- USDA Energy Efficiency and Conservation Loan Program
- USDA Rural Energy Savings Program
- USDA Empowering Rural America Program
- Low-cost financing available to utilities (e.g., CoBank for rural electric cooperatives)
- Community Power Accelerator
- National Clean Investment Fund
- Clean Communities Investment Accelerator partnering community lenders
- Solar Renewable Energy Credits
- Iowa Energy Center Energy Infrastructure Revolving Loan Program

IEDA considered offering a companion low-interest loan program to assist community solar and solar + storage projects receiving ICSP grant awards. Stakeholder feedback to IEDA indicated that there likely would be little or no demand for a loan product as low-interest financing still

exists today through other resources such as USDA and CoBank, and municipal utilities are still able to access bonds with rates below 2%.

The Iowa Economic Development Authority will also seek other ways to lower the overall cost of community solar development, such as coordinating bulk purchase contracts, providing template community solar bid documents, and disseminating community solar best practices information to potential program applicants.

Energy Efficiency Initiatives

Up to 20% of the funds dedicated to community solar development will be available to improve energy efficiency in the homes of low-income and disadvantaged community household subscribers to the community solar array. To maximize the impact of the energy efficiency program dollars, the Iowa Community Solar Program (ICSP) will coordinate home improvements with other existing energy efficiency programs including local utility audits and rebates, the WAP, and HOME and HEEHRA rebates. Energy efficiency upgrade dollars will only be used for costs not covered by other programs. For example, the energy efficiency program intends to utilize data from energy audits completed through WAP or the HOME rebate program instead of spending funds on a redundant audit. If the energy audit recommends an improvement that can be covered by a local utility incentive program, WAP, HOME or HEEHRA, the homeowner/tenant will receive assistance to help them access available programs.

To streamline energy efficiency improvements, maximize impact of the available dollars and to maintain a high level of quality control, the ICSP may competitively select one statewide entity to provide home energy audit and energy efficiency improvement services for solar array participating households not receiving WAP assistance and located in a utility service territory not currently offering audit and energy efficiency services.

Workforce Development

The Midwest Renewable Energy Association, in partnership with the Solar Energy Industries Association, is researching solar apprenticeship programs of interest to the solar industry. IEDA will apply the results of this research and the results of a workforce-needs survey conducted by the Iowa Solar Energy Trade Association to inform the best approach to solar workforce development through the ICSP.

With solar workforce needs and opportunities identified, the IEDA will utilize the expertise of the Iowa Workforce Development (IWD) Office of Apprenticeship to enhance existing and develop new career pathway apprenticeship opportunities to support high-quality jobs and businesses in low-income and disadvantaged communities. The ICSP plans to bolster statewide solar energy workforce growth in a similar fashion to the recent approach to grow healthcare-related registered apprenticeship programs by IWD. More information about this approach is presented in this proposal in Section 1.5.1.

Budget

Detailed budget information is presented below in Section 2.1, in accordance with *Appendix B* of the Solar of All Notice of Funding Opportunity. The budget table is provided in Attachment E.

Section 1.4.1. Financial Assistance Model

The model of financing that is proposed is a competitive grant program that will fund an average of 30% of total costs to install community solar projects with residential serving benefits. This method is common across IEDA programs and intends to provide flexibility and increased weight on applications able to leverage more investment to further spread funding available. IEDA estimates that 30% project grant funding will be adequate to spur program interest while at the same time maximizing the number of low-income households and disadvantaged communities that will benefit from the program.

The ICSP proposes installation of an estimated 30 community solar projects totaling 103 MW. At least 50% of the 103 MW will benefit approximately 12,000 low-income and disadvantaged community households. IEDA considers 30 projects serving 12,000 households to be appropriate targets given EPA's program guidance on eligible funding requests, Iowa's population and Iowa's housing conditions. The proposed selection criteria provided in Table 1 of this proposal demonstrates Iowa's plan to utilize the selection criteria to maximize the number of households benefitting from the program.

The need for low-income household assistance in Iowa is great, and the impact opportunity through this program is significant as demonstrated by the following:

- As of May 2023, 75,534 LIHEAP applications had been approved for the last year in Iowa. Approximately 51,000 of those applicants were served by investor-owned utilities while the remaining 24,000+ applicants were served either by rural electric cooperatives or municipal utilities.
- 65 of Iowa's 99 counties have at least one CEJST identified census tract.
- 311 Iowa communities are considered low-to-moderate income communities by the federal Department of Housing and Urban Development.
- Nearly 280,000 Iowans receive Supplemental Nutrition Assistance Program benefits.
- Iowa has more than 300,000 homes built prior to 1939 and some of the highest percentage of old housing stock in the country with nearly 40% built prior to 1960.
- Iowa's low average residential electric rate of $13.07/kWh—13.56% percent lower than the national average—often results in longer payback periods for solar projects, particularly for projects in Iowa utility territories with rates significantly lower than the state average. Even with Iowa's low electric rates, in May 2023, 86,009 (8.4%) of utility customers were behind $15 million on utility payments.

Iowa has more than 180 electric utilities: two investor-owned utilities, 42 distribution rural electric cooperatives, nine generation and transmission cooperatives and 136 municipal electric utilities. This large number of utilities geographically dispersed across Iowa represents many opportunities for simultaneous development and installation of community solar projects to meet the Iowa Community Solar Program goals.

Section 1.4.2. Leveraging Strategy

Solar for All funding will complement the tax credits created through the Inflation Reduction Act and other available subsidies. Many utilities have already considered tax credits but recognize

tax credits alone will not cover the entire cost of a community solar array. IEDA team members interviewed tax professionals and participated in webinars on the investment and production tax credits to get a firm understanding of the tax credit benefits available to solar projects and how to best leverage those tax credits. It is likely that most projects will receive a 30% tax credit, with some reaching as high as 60% if they are able to leverage the domestic content, energy community and low-income bonus credits.

To maximize leveraging, the IEDA will actively connect potential community solar developers with other sources of capital such as local lenders, USDA Rural Development Programs, IEDA's Energy Efficiency Revolving Loan Fund, Iowa Energy Center's Energy Infrastructure Revolving Loan Program, the Community Power Accelerator, and financial resources resulting from the National Clean Investment Fund and Clean Communities Investment Accelerator program. These connections will be made through one-on-one outreach, publications and workshops.

Community solar projects, after considering financial incentives, are typically funded by charging a subscription price to array beneficiaries who in return receive utility bill savings. As an example, a recent 4.5 MW community solar array in Iowa, after receiving Inflation Reduction Act incentives, has sold subscriptions for $291 for 250 watts (50% of a 500-watt solar panel) or $1.164 per watt. This same utility has identified an average subscription cost for community solar of approximately $1.40 per watt depending on other incentives received, size of array, access to grid and whether the utility already owns the land the array is to be located on. During program research, another Iowa utility recommended that the cost of community solar can be closer to $2 per watt.

In the Iowa Community Solar Program (ICSP) model, 30% of project costs would be covered by a Solar for All funded grant, 30-60% of costs would be covered by federal incentives. The remaining 10-40% would be covered through community solar anchor tenant subscriptions, other federal programs or low-cost financing available to many utilities.

The upfront subscription cost is not likely feasible for low-income households to front, which is why the ICSP is proposing to eliminate the upfront subscription fee for low-income households and disadvantaged communities by awarding direct funding to competitively-selected community solar projects. In return for the ICSP investment in the community solar array, at least 50% of the energy generated by the array will be required to produce energy credits for low-income households and disadvantaged communities for the life of the array. Solar projects must result in a 20% or greater annual electric utility bill savings on average for benefitting low-income and disadvantaged community households for at least the first five years of solar operation based on the average annual electric bill in the utility's service territory. Project applications proposing to allot a higher percentage of the array to low-income subscribers or proposing a higher percentage in electric utility bill cost savings will score better in the outlined review criteria. Projects pledging to provide at least a 20% average bill savings for more than five years will also score better in the review process.

To leverage low-income and disadvantaged community solar array subscriptions for greatest impact, the ICSP will take a four-pronged approach to improving energy efficiency in the homes of community solar participants. The four-pronged approach includes 1) energy efficiency education; 2) rebates; 3) Weatherization Assistance Program; and 4) Solar for All energy

efficiency upgrade funding. A proposed workflow for the energy efficiency upgrade services is shown in Figure 4. Solar for All funds not utilized for energy efficiency upgrades will be re-allocated toward solar and solar + storage projects.

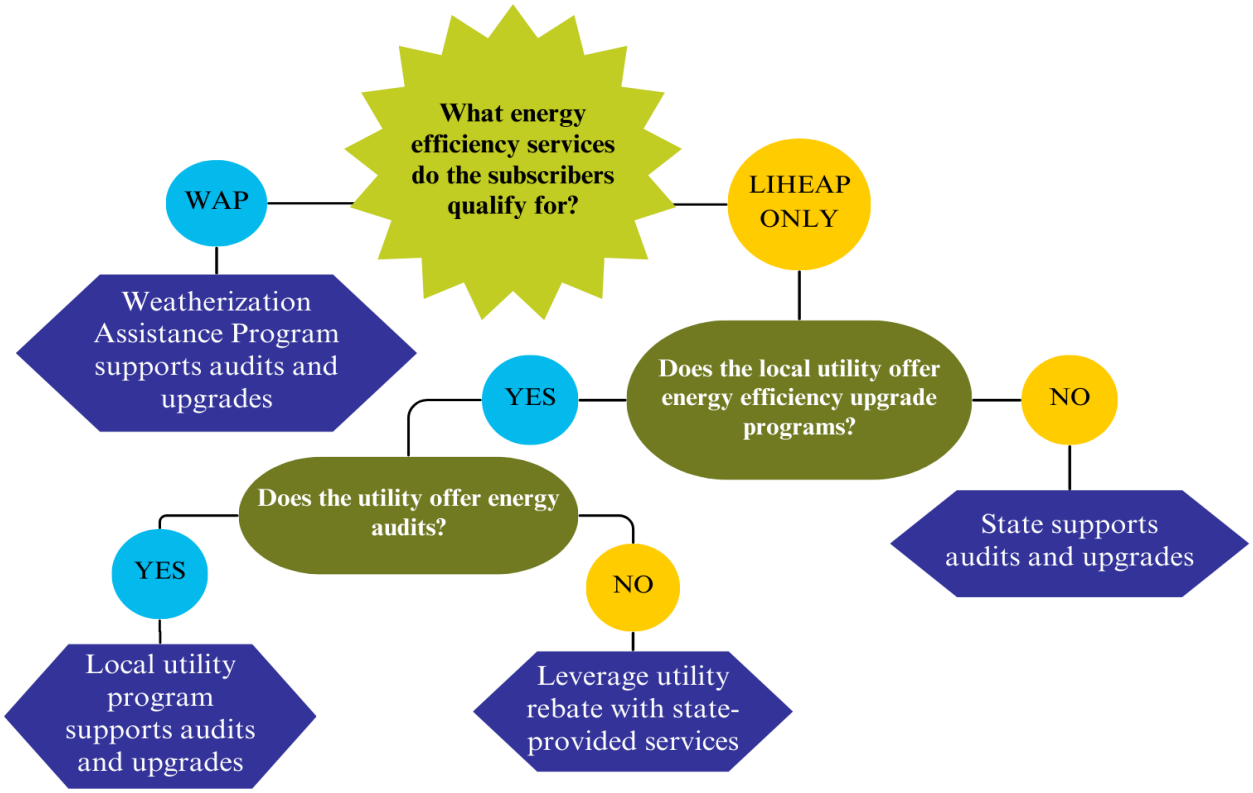
First, partnering with local utility providers, social services agencies, and energy efficiency service providers, information on practices that can be implemented within the home to reduce energy use will be shared with community solar participants.

Second, IEDA will be administering the Home Efficiency Rebates (HOME) and High-Efficiency Electric Home Rebates (HEEHRA). Therefore, program management will be strategically positioned to provide rebate program information to solar array participants along with information on rebates available from the local utility provider.

Third, the Iowa Economic Development Authority will partner with the Iowa Department of Health and Human Services to identify opportunities to use Solar for All upgrade dollars to enhance Weatherization Assistance Program (WAP) energy efficiency projects for community solar array participants and leveraging the home energy audit services already provided by the WAP.

Fourth, for low-income and disadvantaged community solar participants ineligible for the WAP or on the WAP waiting list, Solar of All upgrade funding could be paired with available rebates and utility programs to improve home energy performance and maximize the financial benefits of the solar array participation.

Figure 4: Proposed Workflow Chart for Corresponding Energy Efficiency Upgrades



Section 1.4.3. Storage and Upgrades Strategy

Based on stakeholder survey data and conversations with utility partners, there appears to be interest in exploring the benefits that exist with battery storage. However, there is also hesitancy due to the cost of storage and the impact that those costs could have on reducing the number of overall households benefitting from community solar. Given the current substantially high cost of adding storage to solar projects, the timing and location of solar deployment will need to be strategically considered. The criteria when considering integrating storage into a community solar project should include the following items:

- Project cost impacts
- Impacts on number of households that can be served by the solar array
- Impact on critical facility operations at time of energy outages
- Impact on outage resiliency for low-income and disadvantaged community households
- Energy capacity and power capacity of the proposed storage
- Proposed project is listed in, or consistent with, local hazard mitigation plan
- Microgrid consideration as an alternative or means to reduce storage needed

Solar + storage projects will be eligible for Iowa Community Solar Program (ICSP) funding consideration. Given the current high cost of storage, the program emphasis on serving as many low-income and disadvantaged community households as possible, and the potential benefits of microgrid considerations to reduce storage required, few solar + storage projects are anticipated. Eligible costs within the ICSP grant program will include necessary upgrades to distribution or transmission infrastructure.

Up to 20% of the funds dedicated to community solar development will be available to improve energy efficiency in the homes of low-income and disadvantaged community subscribers to the community solar array. To maximize the impact of the energy efficiency program dollars, the ICSP will coordinate home improvements with other existing energy efficiency programs. Those programs include local utility audits and rebates, the WAP and other rebates. Energy efficiency upgrade dollars will only be used for costs not covered by the WAP and HOME and HEEHRA rebates. For example, the energy efficiency program intends to utilize data from energy audits completed by local utility programs, the WAP or the HOME rebate program instead of spending funds on a redundant audit. If the energy audit recommends an improvement that can be covered by a local utility incentive program, WAP, HOME or HEEHRA, the homeowner/tenant will receive support to help them access assistance from those available programs.

To streamline energy efficiency improvements, maximize program impact and maintain a high level of quality control, the ICSP may competitively procure the services of nonprofit or community service based qualified providers to conduct home energy audits and air sealing, insulation and lighting improvements statewide. Those services would be made available to solar array participating low-income homes and will include only services not received from the WAP, the HOME rebate program or a local utility energy efficiency program. To further achieve upgrade efficiencies, the IEDA has discussed with the state procurement division at the Iowa Department of Administrative Services the options for possibly requesting bulk purchase bids to place on state contract key energy efficiency supplies for air sealing, insulating and lighting work. IEDA will also seek to leverage energy efficiency upgrade program best practices from

existing and budding resources such as the Residential Retrofits for Energy Equity initiative and the soon to be announced winners of the U.S. Department of Energy Buildings Upgrade Prize.

Section 1.4.4. Long-Term Impacts

The community solar program focus of the proposed program should resolve any concerns or necessity for anti-displacement and rapid cost increase prevention policies for low-income households and disadvantaged communities. Community solar is also not expected to affect housing stock affordability. The value resulting from a community solar array will likely be directly on the program participant's utility bill and will not directly impact the value of the home or rental property. In addition, rental properties utilizing HOME or HEEHRA rebates are programmatically required to not raise rent for residents for two years. The Iowa Community Solar Program (ICSP) intends to leverage both HOMES and HEEHRA as part of the building energy efficiency program component, which can be an additional benefit to renters.

ICSP applicants will be required to address their proposed plan for community solar operations and maintenance in their program application to support longevity of solar power production for customers. In utility ownership models, it will be in the best interest of the customer and utility as partners to ensure proper operation and maintenance. With third-party ownership models, it will be within the best interest of investors to also ensure the proper functioning of solar arrays to generate the expected returns on investment.

The reuse, recycling and proper disposal of solar assets is an important, necessary facet for the long-term viability and public support of the solar industry. While difficult to anticipate all the technological innovations that will take place in the next 20 years for managing solar assets at end-of-life, the IEDA anticipates new opportunities to manage solar assets will emerge. The Solar Energy Industries Association, as an approved Accredited Standards Development Organization, announced in July 2023, that it is developing 11 new solar industry standards including standards for decommissioning, recycling and end-of-life management. IEDA will seek opportunities to apply these standards as they become available to support reuse, recycling and proper disposal.

IEDA has financially assisted projects to support recycling of solar assets and critical materials recovery. Projects include investments in the U.S. Department of Energy's national laboratory in Ames, Iowa to support recovery of critical materials in electronics recycling, as well as an investment in an Iowa-based electronics recycler to optimize the reclamation process, improve the energy efficiency of the reclamation process and expand operations to include recycling of solar assets. To further support future solar asset recovery initiatives, IEDA staff members participated in a recent initiative led by the Iowa Department of Natural Resources to develop a sustainable materials management plan for Iowa. The initiative included a working group that developed priorities and strategies to support end-of-life management of materials from Iowa solar and wind energy industries.

Section 1.5. Project-Deployment Technical Assistance Strategy

IEDA and its Iowa Community Solar Program (ICSP) partners will take a multi-faceted approach to supporting communities and solar market stakeholders to develop and deploy community solar projects. The ICSP is focused on community solar projects, of which Iowa utilities across the state are already aware and of which many already have first-hand experience developing and deploying. Lessons learned from those projects can be shared as part of the program marketing and application process.

Interested community solar project developers will be made aware of the nearly 60 resources developed by the EPA, available on the Solar for All resource list. To assist local governments, IEDA will encourage utilization of resources from SolSmart. SolSmart, funded by the U.S. Department of Energy, is led by the Interstate Renewable Energy Council (IREC) and the International City/County Management Association (ICMA). The SolSmart program provides no-cost technical assistance to help interested local governments utilize best practices in solar expansion planning. SolSmart also provides national recognition opportunities for local government solar efforts. Iowa currently has 12 communities participating in the SolSmart program. Additionally, IEDA worked with the Great Plains Institute to develop the "Local Government Solar Toolkit: Planning, Zoning and Permitting." Community solar developers may find this Iowa-specific toolkit helpful. The toolkit includes the following resources:

- Model language to support solar in community land use plans
- Model ordinances to include solar development in local zoning codes
- Model clear and predictable permitting process templates

IEDA has budgeted approximately $1 million dollars of Infrastructure Investment and Jobs Act State Energy Program funding to support development and delivery of a variety of energy-related technical assistance. A portion of these funds are earmarked to develop an energy resiliency portal. The development of the energy resiliency portal with partners from the utility, local government and academia sectors and Iowa Homeland Security and Emergency Management, will provide additional technical assistance resources related to solar and microgrid project development and operations. Additionally, IEDA may utilize some of the contractual budget to fund expert consultant services to aid solar developers in developing more complex community solar projects.

Section 1.5.1. Workforce Development Technical Assistance

Growing Iowa's solar workforce is critical to long-term, affordable and sustainable growth of the solar industry in Iowa. The ability to invest Solar for All funds into workforce development services provides a tremendous opportunity to create long-term, life-changing impacts through the Iowa Community Solar Program (ICSP).

According to the Solar Energy Industries Association's July 2023 Quarter 2 State Solar Spotlight, there were 886 jobs supported by the solar industry in Iowa in 2022. The Environmental Law and Policy Center also found that there are 85 Iowa businesses involved in the solar energy supply chain. IEDA has identified several resources, including the Midwest Renewable Energy Association, the Iowa Solar Energy Trade Association, and Iowa Workforce Development (IWD) to help identify the workforce needs of the solar industry.

The Midwest Renewable Energy Association, in partnership with the Solar Energy Industries Association, is conducting research to define solar apprenticeship programs of interest to the solar industry. The Iowa Solar Energy Trade Association has offered to survey its membership to identify workforce needs. The Iowa Community Solar Program (ICSP) will leverage the results of the workforce research of these two associations to inform design and implementation of solar workforce development initiatives.

With solar workforce needs and opportunities identified, the ICSP will employ the expertise of IWD's Office of Apprenticeship to enhance existing job training programs and add new training programs where needed to support high-quality jobs and businesses in low-income and disadvantaged communities. IWD regularly provides technical assistance to workforce efforts across Iowa. Some examples of technical assistance offered include one-on-one calls with interested employers or sponsors of programs, template work schedules for on-the-job training, and sources of workforce training instructors. The Iowa Office of Apprenticeship is committed to ensuring U.S. Department of Labor requirements are followed. The Iowa Office of Apprenticeship will help IEDA sponsor enhancements to existing solar industry related training programs and development of new statewide apprenticeship programs alongside interested companies.

The ICSP solar workforce training plan is based on a recent approach by IWD to grow Iowa's healthcare-related registered apprenticeship programs. That approach awarded grants via a request for proposals (RFP) process to enhance or develop additional registered apprenticeship pathways for emergency medical services, nursing, direct support care and behavioral health occupations. Twenty-one grants, totaling $13.5 million were awarded to support an estimated 1,463 apprentices. Eligible grant costs for IWD's healthcare alternative pathways RFP included the following list:

- Equipment purchases under $5,000
- Tuition, textbook and fee expenses for accredited, third-party related training instruction (RTI) provider
- Training materials (such as textbooks, curriculum, etc.) for in-house instruction
- Supportive services for apprentices including uniforms and personal protective equipment
- Fees traditionally incurred by apprentices, such as CPR training and CNA test expenses, lab costs and background checks
- Apprentices' 'Earn and Learn' wages up to $7.00 per hour for on-the-job training provides up to an annual maximum of $7,000
- Instructor salaries for in-house related training instruction
- Administrative expenses (limit 5% of total award)
- Transportation expenses for programs

A similar approach to funding solar job training opportunities is proposed along with supportive wraparound services, like childcare and transportation, but may require EPA approval per section III.D of the NOFO.

Following the model above, IEDA proposes to work with IWD's Office of Apprenticeship to issue an RFP to enhance existing career pathways and develop new state registered

apprenticeship pathways for occupations such as solar designers, solar technicians, human resource professionals, project managers and apprenticeship/prevailing wage compliance professionals. The new solar industry-related apprenticeship programs may be similar to those established in Florida, Maine and Ohio.

IEDA has included $3 million dollars in its grant request to support workforce training initiatives. Based on the average cost per estimated apprentices participating in the Iowa healthcare industry program cited above, IEDA estimates supporting 300-325 apprentices. The actual solar job classifications and needs will be determined based on the results of the workforce needs study currently being conducted by the Midwest Renewable Energy Association and an Iowa Solar Energy Trade Association's workforce needs survey of its members.

Key to growing Iowa's solar workforce will be recruiting workforce training participants from underserved communities. IEDA will utilize the experience of Iowa Workforce Development, quality pre-apprenticeship and registered apprenticeship program providers, solar developers, school STEM programs and local community social services groups to identify and deliver program promotion best practices. The Iowa Environmental Council in its EPA Environmental Justice Thriving Communities Technical Assistance Center role may also be a potential resource to aid in recruiting workforce training participants from underserved communities. In addition, the staff and programs of the Iowa Department of Health and Human Services Community Advocacy and Services Division are potential key resources in aiding the Iowa Community Solar Program (ICSP) in its outreach to underserved communities. Programs within the Iowa Department of Health and Human Services Community Advocacy and Services Division include the following:

- Office of Deaf Services
- Office of Latino Affairs
- Office of Native American Affairs
- Office on the Status of African Americans
- Office on the Status of Women
- Office of Asian and Pacific Islander Affairs Communications
- Office of Latino Affairs' Latinos Can Coalition

IEDA will provide information on available quality pre-apprenticeship programs and registered apprenticeship programs to ICSP applicants to promote job opportunities for program participants and assist solar developers in their pursuit to maximize solar project federal tax credits.

Section 1.5.2. Interconnection Technical Assistance

Iowa's proposed community solar program model is predicated on the idea that most, if not all, community solar projects awarded will either be owned and operated by the local serving utility or will be developed in close coordination with the local utility. This approach to program delivery simplifies, and in some cases may eliminate, interconnection challenges and promotes faster development of community solar serving as many low-income households and disadvantaged communities as possible.

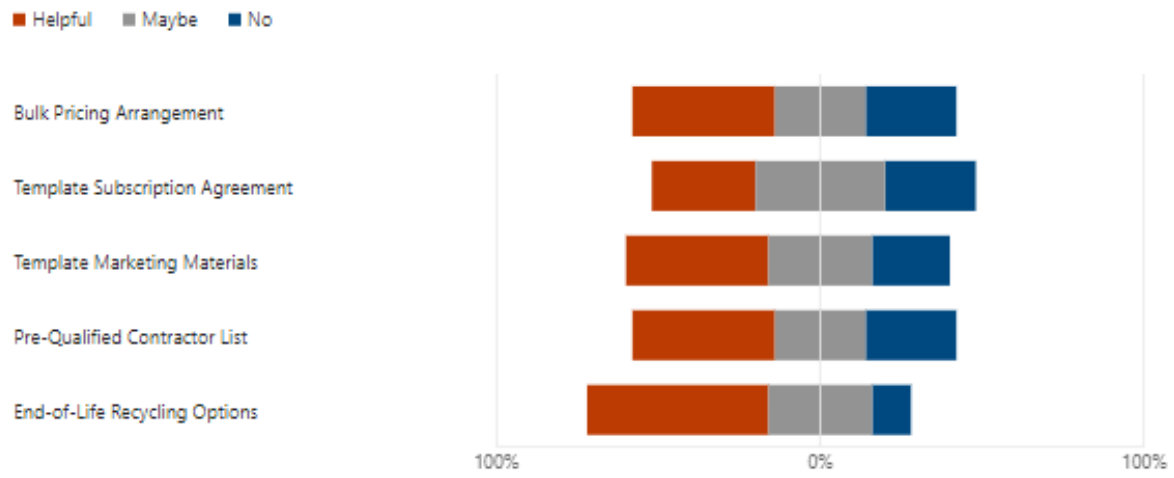
If there are any interconnection challenges faced by smaller local distribution utilities in interconnecting with their contracted generation and/or transmission utilities, the Iowa Utilities Association, Iowa Association of Electric Cooperatives and Iowa Association of Municipal Utilities, could provide technical assistance directly or connect the utility developing the solar project with other member utilities with interconnection experience.

Delays from electrical equipment manufacturers and suppliers in supplying critical electric infrastructure components may present an interconnection challenge difficult for the Iowa Community Solar Program (ICSP) to solve. However, the timeline to schedule delivery of electrical components may be shortened due to close partnership with utilities throughout the planning and execution of the ICSP.

Section 1.5.3. Program Project Development Technical Assistance

During the stakeholder engagement process informing this proposal, interest was expressed to have IEDA create five base technical assistance resources, which include bulk pricing arrangements for panels, templates for subscription agreements and marketing materials, a pre-qualified contractor list to ensure workforce requirements are met, as well as resources pertaining to end-of-life recycling options. These options were then included in a larger group survey of Iowa's utilities, as shown in Figure 5.

Figure 5: Iowa Community Solar Utility Survey Technical Assistance Priority



In addition to the potential technical assistance services and resources above focused on streamlining project development time and lowering project cost, IEDA produced the "Local Government Solar Toolkit: Planning, Zoning and Permitting" described in Section 1.5 to assist in streamlining local siting and permitting of solar projects. Additionally, the ICSP will promote many of the nationally available best practices resources to potential solar project developers, including the EPA's extensive list of solar related resources as well as the SolSmart program as described in Section 1.5 above.

Program applicants will be asked to describe how the project is consistent with, and supports, local and county hazard mitigation plans. Applicants will also be asked to describe their project

location and the impact project development may have on prime farmland, steep slopes, greenspace, wetlands, and pollinator habitat.

IEDA is an immense advocate for agrivoltaics. IEDA's Iowa Energy Center Grant Program funded a project to create a business model for monetizing carbon capture on utility scale solar energy farms on reclaimed land. IEDA also provided technical assistance and funding supporting the integration of agrivoltaics into a solar project at Maharishi International University. IEDA assisted the solar project by connecting project developers to agrivoltaic expertise and Trees Forever grant funding to establish pollinator plantings. Furthermore, IEDA provided a letter of support for a $1.8 million U.S. Department of Energy grant awarded to Iowa State University (ISU) to research food production at community scale solar installations. The 1.35 MW solar project will involve Alliant Energy, land owned by ISU and a diverse team of ISU researchers, including electrical and computer engineers, a bee specialist, agricultural experts and economists.

To maximize solar project federal tax credits, the Iowa Community Solar Program (ICSP) can connect with the Iowa Department of Natural Resources' Brownfield Redevelopment Program to help solar developers identify brownfields sites for possible redevelopment. IEDA administers a competitive Redevelopment Tax Credit that awards up to 24% tax credits for projects redeveloping brownfield sites. Alliant Energy is currently developing a 1 MW solar project with the City of Perry on a remediated brownfield site. This project can serve as a model for future solar projects on brownfield sites.

To support post-construction inspections and construction quality control, all solar projects will apply online for electrical permits with the Iowa Electrical Examining Board. Per Iowa law, state electrical inspectors from the Iowa Department of Inspections, Appeals & Licensing will conduct solar project electrical inspections.

Section 1.6. Equitable Access and Meaningful Involvement Plan

Iowa Economic Development Authority (IEDA) is committed to maximizing the benefits of the program for low-income households and disadvantaged communities in Iowa. IEDA's mission is to build partnerships and leverage resources to make Iowa the choice for people and business. Thus, serving and assisting low-income Iowans is a priority goal. The IEDA and its sister agency, the Iowa Finance Authority, administer many federal programs serving low-income households, including the Community Development Block Grant and Low-Income Housing Tax Credit programs. Agency experience administering those programs and the established partnerships resulting from those programs will be an asset for the efforts to maximize benefits of the ICSP for low-income Iowans and disadvantaged communities.

In the many planning meetings that IEDA has had with utilities and administrators of the LIHEAP and WAP services, they indicated the most successful outreach strategies to low-income and disadvantaged communities have involved direct outreach by participating neighbors and trusted service providers. Examples of that include utilizing the local community action agency as well as radio advertisements in the commonly spoken languages in those communities. During the ICSP application process, applicants will describe the process they used or will use to educate and engage communities on the benefits of solar energy. Likewise, applicants will also describe how they will engage low-income and disadvantaged communities in the design and

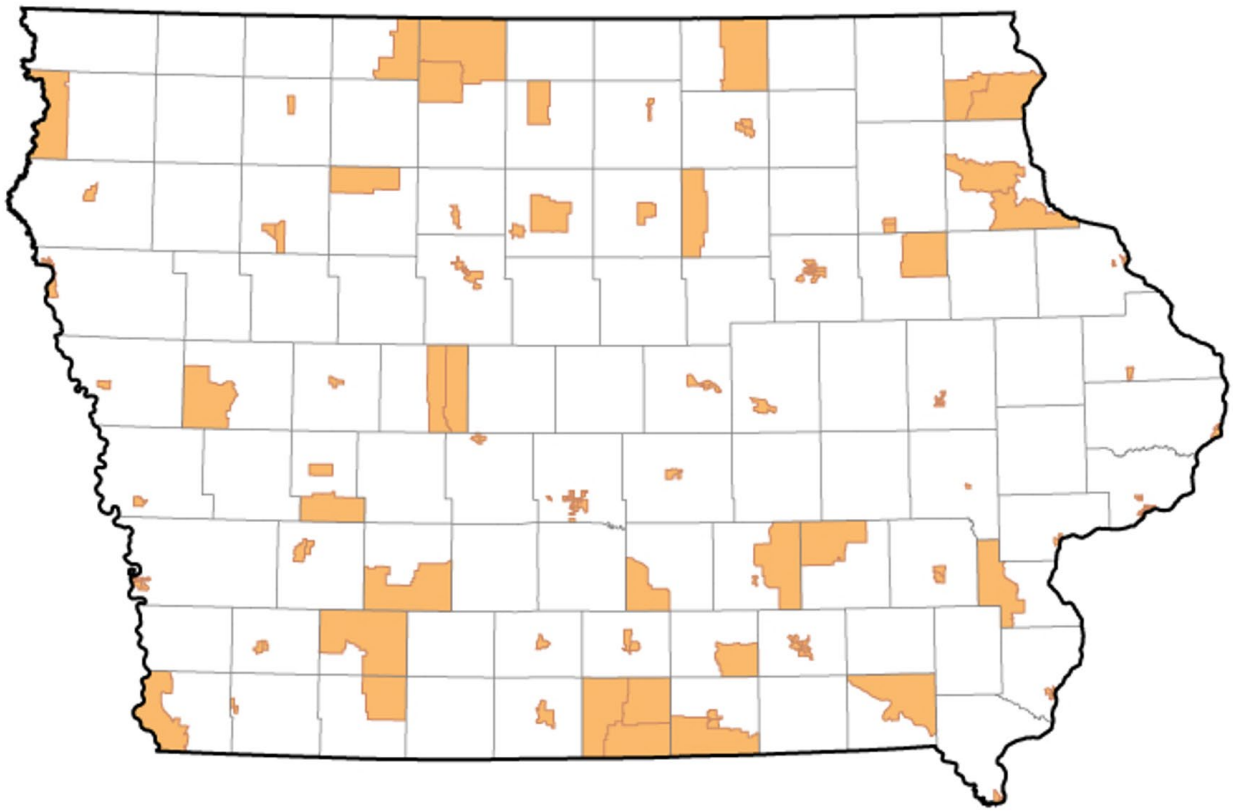
operation of the local community solar array and maintain that engagement on a regular and meaningful basis.

Iowa's only federally recognized American Indian tribe is the Sac & Fox Tribe of the Mississippi in Iowa (Meskwaki Nation). The tribe has an existing electrician apprenticeship program that is working with the Electric Power Research Center at Iowa State University to add a microgrid training module. The tribe is also working with the Electric Power Research Center and Siemens to develop a microgrid project on the settlement and is also working on an additional solar + microgrid project with Montezuma Iowa Municipal Light & Power. This significant opportunity could serve as a model for utilizing microgrids to improve community resiliency while reducing the need for high-cost energy storage. The Iowa Community Solar Program (ICSP) will work with the Tribe and the Electric Power Research Center in advancing mutual objectives of economic and career skills development in energy efficient building technologies, including solar installation.

Section 1.6.1. Strategy to Maximize Equitable Reach

To maximize the breadth and diversity of communities served, the ICSP will utilize a competitive grant process to award funding for community solar projects and supportive building upgrades. Review criteria will include geographic diversity, impact on utility bill savings, the applicant's proposed approach to program outreach and low-income household participation in program design and implementation.

Figure 6: Geographic Dispersion of CEJST Disadvantaged Communities



As shown in Figure 6, Iowa's CEJST-identified disadvantaged communities are geographically dispersed throughout Iowa. Similarly, the Iowa Community Solar Program (ICSP) geographic service area will be the entire state of Iowa. Projects from anywhere in Iowa will be eligible to apply. The program will be promoted directly to Iowa's utility companies; the statewide associations serving Iowa's investor-owned utilities, municipal utilities and rural electric cooperatives; community action agencies; nonprofit organizations advocating on behalf of low-income Iowans and targeted underserved populations; and entities involved in the development and management of multifamily properties serving low-income Iowans. Many of these same entities were engaged in the process that informed Iowa's proposal.

In addition, IEDA will work with the Iowa Finance Authority, with whom IEDA shares an agency director and office space, to identify opportunities to integrate low-income solar benefits into the Iowa Finance Authority's portfolio of housing programs and existing low-income multifamily projects.

IEDA engaged many stakeholders including utilities, utility associations, nonprofit organizations, state agencies, local governments, subject matter experts, solar installers, tribal staff and academia to develop information for the ICSP. IEDA intends to broaden its engagement efforts and continue working with stakeholders that have already been engaged to further develop the program design while this application is under review by the EPA.

Community solar projects will target existing WAP, LIHEAP, SSI and SNAP participants and verified low-to-moderate income tenants of affordable housing projects. Those participants will be considered pre-qualified to participate in the community solar array project. Community solar project developers will be encouraged to automatically subscribe these pre-qualified participants to the array unless they opt out. Proposed projects not incorporating an automatic opt-in approach will have to address how the proposed project will make program signup convenient. Examples may include an online "one-click" opt-in approach, return mailer, phone call or visit the utility office approach for potential participants lacking, or uncomfortable with, online services.

Iowa's only federally recognized American Indian tribe is the Sac & Fox Tribe of the Mississippi in Iowa (Meskwaki Nation). The tribe has an existing electrician apprenticeship program to which it is working with the Electric Power Research Center at Iowa State University to add a microgrid training module. As a result of program discussions with tribal representatives during development of this proposal, IEDA will work with the Meskwaki Nation and the Electric Power Research Center to identify opportunities to leverage the ICSP to support the Meskwaki Nation's microgrid and workforce development initiatives. This significant opportunity could serve as a model for utilizing microgrids to improve community resiliency while minimizing the amount of storage needed to provide community resiliency in the event of an outage.

Section 1.6.2. Participatory Governance Structure

The Iowa Economic Development Authority has a long-standing tradition of working closely with Iowa communities to improve quality of life. Agency personnel regularly engage communities and service providers to help design and refine programs for enhanced performance and greater benefits. The Iowa Energy Office's mission in implementing this program is

supported by the following core values of the combined agencies of IEDA and the Iowa Finance Authority.

Iowa Economic Development Authority Core Values

- Innovative - We inspire people with our ideas, turn those ideas into reality and know how to replicate success.
- Mission Oriented - We keep a constant focus on the Iowans our programs benefit.
- Purposeful - We nurture a culture of outstanding work, collaboration and diligence.
- Accountable - We accept responsibility, are trustworthy in our commitments, respectful to one another and transparent in our actions.
- Customer Service Focus - We are courteous, responsive and respectful and serve as a reliable resource for our clients and constituents.
- Thought Leaders - We are imaginative visionaries who find creative ways to reveal opportunities and leverage data to drive decisions.

IEDA engaged with a wide variety of stakeholders to inform this proposal, including the following: utilities, local government officials, solar industry, workforce development experts, health and human services, housing advocates, deliverers of energy efficiency services and many others. While the proposal is undergoing EPA review for funding selection, IEDA intends to broaden the civic engagement process to develop an efficient and effective program. IEDA will be prepared to rollout the program quickly if awarded Solar for All funding. The engaged stakeholders will serve as a roundtable to inform development and implementation of the Iowa Community Solar Program (ICSP).

Through collaborative planning discussions with representatives of the Meskwaki Nation and the team at the Electric Power Research Center, opportunities will be identified for how the ICSP can support the tribe's solar workforce development initiatives and demonstration of microgrid technologies to improve resilience. More information about the proposed interaction with the Meskwaki Nation is provided in Section 1.6.1 above.

Section 1.6.3. Education, Outreach, and Community Involvement Strategy

Methods of outreach and education to communities include radio, internet, solar basics classes and culturally appropriate flyers in the language of intended recipients. The successful community solar programs in Iowa found that radio advertisements were the best way to connect with low-income customers. The Iowa Community Action Agencies that assist with LIHEAP and WAP additionally could send flyers with their annual program materials. Local communities and partners on projects will also assist with delivering program information to the most disadvantaged or historically marginalized populations. The Iowa Environmental Council in its roles as EPA Environmental Justice Thriving Communities Technical Assistance Center has offered its assistance in promoting the program in local communities. Outreach resources will be available in Spanish or additional languages as census tracts indicate. According to the American Community Survey in 2021, approximately 8.6% of households in Iowa speak another language at home, with Spanish as the primary language in 4.3% of households.

IEDA will provide resource templates to interested parties. Some of these resources could include template subscriber agreements with easy-to-understand terms, standardized Q&A for

consideration, end of life recycling option lists, community solar benefits fact sheets and others also mentioned in Section 1.5.3 of this proposal narrative. IEDA will require community engagement, outreach and education activities alongside solar installation with the Iowa Community Solar Program (ICSP). This factor is tentatively proposed as eligible for up to 20 points of 250 in the review criteria.

Section 1.6.4. Customer Acquisition and Management Strategy

The ICSP will increase access to distributed solar generation in low-income households and disadvantaged communities by decreasing barriers and increasing awareness. Those enrolled in targeted federally funded income-driven programs will receive opportunities to subscribe with no upfront costs. Example programs thus far determined as priority are Supplemental Security Income (SSI), Supplemental Nutrition Assistance Program (SNAP), Weatherization Assistance Program (WAP), and Low-Income Home Energy Assistance Program (LIHEAP). Those that are qualified to receive benefits from these programs will not have to certify their income beyond providing the Determination Letter or notation on utility bill.

In fiscal year (FY) 2021, 80,753 households applied for energy assistance through LIHEAP in Iowa. Of those applicants, 23% were heated with electricity. Fifty-nine percent of the 74,600 awarded households were below 100% AMI federal poverty guideline. As of May of FY 2023, 75,534 households received benefits. LIHEAP's income maximums for FY 2024 are:

Household Size	Maximum Household Income
1	$29,160
2	$39,440
3	$49,720
4	$60,000
5	$70,280
6	$80,560
7	$90,840
8	$101,120

In Iowa, the LIHEAP and WAP applications are the same. Through the LIHEAP and WAP application process, Iowa's utilities, community action agencies and program administrators at the Iowa Department of Health and Human Services can identify and contact 75,000-80,000 low-income Iowa households annually. These trusted service providers can serve as a main outreach mechanism to those households to promote the benefits of solar and the opportunities to participate in a community solar program. Applicants to the ICSP that propose to automatically opt-in LIHEAP participants into proposed community solar projects will receive a significant scoring preference in the grant application review process. ICSP applicants must also describe the marketing and outreach approaches they intend to use to recruit low-income households and disadvantaged communities for community solar project design and participation.

The Iowa Energy Office (IEO) is a member of the National Association of State Energy Officials (NASEO) and an IEO staff member is participating in the National Community Solar Partnership (NCSP) stakeholder network. NASEO and NCSP offer access to the Community Solar Subscription Tool which will aid in recruitment of LIHEAP participants to community solar opportunities.

Section 1.7. Program Planning Timeline and Workplan Narrative

The Program Planning Timeline and Workplan tables are included as *Attachment D* of this proposal. The Program Planning Timeline visualizes the expected timeframe for accomplishing the tasks outlined within sections 1.2.1 through 1.6.4 as well as provides deliverable deadlines for the outcomes of those efforts.

Section 1.7.1. Program Refining Process

In anticipation of this proposal, a community solar interest survey was sent to all utilities and selected industry partners. The survey was a crucial opportunity to identify potential resilience benefits and future technical assistance offerings as described in Section 1.2.3 and Section 1.5.3. Stakeholder engagement pre-program planning will continue through December 2023, as supported in Section 1.6.3. Additionally, as described in Section 1.5, identification of resources will commence following proposal submittal in October through March of 2024. The Iowa Community Solar Program (ICSP) will be developed within approximately one month of award negotiation. Public feedback will begin shortly after award announcement by U.S. EPA and will continue until program development is complete as expressed in Section 1.6. In February 2024, quarterly roundtable meetings will commence to assist input collection regarding program marketing materials and anticipated other technical assistance IEDA plans to provide as further explained in Section 1.5.

Information regarding the specific expectations of the ICSP will be released in September 2024 in anticipation of complete community solar project round 1 application submission by February 2025. The application window is likely to be open for approximately 45 days following the four month preparation and marketing period to overcome jurisdictional nuances (Section 1.3). Project selection and contract negotiations will likely occur in May 2025. Project agreements will then be executed, and selected awardees may then begin any necessary contracted procurement processes in summer of 2025. The program will open for applications again one year later with incorporation of feedback collected from quarterly roundtable meetings. Additionally, the home energy efficiency upgrade program will be prepared following the release of the ICSP programmatic information through May 2025. Audits and upgrades are anticipated to be available soon after the selection of community solar projects as highlighted in Section 1.2.3 and Section 1.4.3.

The solar workforce program as described in Section 1.2.5 and Section 1.5.1 is expected to begin proposal development processes within a month of U.S. EPA award announcement. The proposal development process shall last approximately until February 2025, at which point request for proposal responses will be solicited until April 2025. Following the selection of proposals, curriculum will be developed before the start of the next school semester in August 2025.

Section 1.7.2. Stakeholder Coordination

IEDA emphasizes stakeholder engagement when establishing and managing programs and initiatives. The Solar for All funding opportunity was vetted by affected parties prior to development of Iowa's proposal. All entities were given the opportunity to respond to the

community solar interest survey following the review of a provided background information sheet on the Solar for All program. Two draft versions of Iowa's proposal were provided to stakeholders for comments, questions or edits.

Due to an accelerated timeline for Solar for All Proposals, IEDA has not yet met one-on-one with every stakeholder that could be involved in the Iowa Community Solar Program (ICSP). After application submission, IEDA will begin an extensive engagement process consistent with Section 1.6. This process will include, but is not limited to, creating a quarterly roundtable, allowing opportunities to provide input on program development and gathering input for desired resource development. In addition, there may be opportunities for partnership with IEDA to assist in the creation and distribution of supporting materials, including fact sheets (Section 1.5.3) about tax incentives, rebates and community solar in order to leverage additional funding as explained in Section 1.4.2.

Section 1.7.3. Best Practice Leverage

Housed within IEDA, the Iowa Energy Office has thorough experience reviewing resources the national labs and state universities provide. Resource identification will occur particularly in the first year following Solar for All proposal submission.

The team at IEDA has been actively seeking and reviewing community solar best practices resources within Iowa and nationally. Within Iowa, IEDA has engaged the Electric Power Research Center at Iowa State University; the Iowa Solar Energy Trade Association; solar developers; solar equipment and electronics recycling expertise; and investor-owned, municipal and rural electric cooperative utilities in development of the Solar for All grant proposal. Outside Iowa, IEDA staff have reviewed national community solar resources, investigated existing state community solar programs, networked with peers in the National Association of State Energy Officials, and participated in Solar for All application support webinars from the Clean Energy States Alliance.

The community solar, building energy efficiency upgrade, and workforce development components of the ICSP are all based on program models already in Iowa. To develop this grant proposal, IEDA met with Iowa utilities with existing residential-serving community solar services, the Iowa Department of Health and Human Services to discuss integration with the LIHEAP and WAP programs, and Iowa Workforce Development to craft an approach to solar workforce development. IEDA is leveraging those successes and lessons learned to develop a relatively straightforward, high-impact approach to expanding low-income household and disadvantaged community access to the benefits of solar.

Many more community solar best practice resources are being developed nationally on a regular basis. IEDA's efforts will persist to stay up to date with the latest information.

Section 2. PROGRAM ADMINISTRATION NARRATIVE

Section 2.1. Budget Narrative

In the Notice of Intent to apply, IEDA indicated the intent to request $150 million in grant funding. Due to the August 31, 2023, Solar for All NOFO update that modified how to determine what size of program applicants may apply for, IEDA has modified its budget request to $75 million. Eighty-seven percent of the requested $75 million is budgeted to support solar projects. Table 4 provides a detailed breakdown with further supporting documents included within Attachment E.

Table 4: Budget Table

CATEGORY	TOTAL
Personnel	
0.6 FTE Program Manager @ $107,232/year	*$321,696*
0.2 FTE Assistant Project Manager @ $63,645/year	*$63,645*
TOTAL PERSONNEL	*$385,341*
Fringe Benefits	
Program Manager @ 39.4% of salary	*$126,748*
Assistant Project Manager @ 33.5% of salary	*$21,321*
TOTAL FRINGE BENEFITS	*$148,069*
Travel	
Technical Assistance Conference Travel – 2 staff @ 4 meetings	*$12,000*
Project Compliance Travel – 2 staff @ 5 in-state locations/year	*$23,000*
Marketing and Outreach conferences – 2 staff @ 1 in-state location/year	*$7,000*
TOTAL TRAVEL	*$42,000*
Contractual	
Grant administration assistance for recipients	*$852,575*
Technical assistance (building upgrades delivery, workforce development, community solar resource templates, marketing/outreach, etc.)	*$5,000,000*
TOTAL CONTRACTUAL	*$5,852,575*
OTHER	
Subgrants for solar installation investments	*$52,378,668*
Subgrant for energy efficiency upgrades	*$13,094,666*
Subgrant for workforce development training program	*$3,000,000*
TOTAL OTHER	*$68,473,334*
TOTAL DIRECT	*$74,901,319*
Indirect Costs – *(18.5% indirect rate agreement included in Attachment E)*	
Indirect costs on financial assistance	$98,681
Indirect costs on other direct costs	$0
TOTAL INDIRECT	$98,681
Funding Request Total	**$75,000,000**

Budget Category Descriptions

Personnel: $385,341
The total request for personnel funding is $385,341. This request represents a time commitment of 0.8 full-time equivalent (FTE) project management employees for five years.

Fringe Benefits: $148,069
$148,069 is requested for five years of fringe benefits applicable to the personnel costs described above. Fringe benefit costs are based on a range of 33.5% to 39.4% of salary, depending on position classification and salary. The specific fringe benefits are included in the budget table.

Travel: $42,000
The total five-year travel budget request is $42,000. This includes technical assistance conference travel, project site visit compliance travel and travel related to program marketing and outreach.

Contractual: $5,852,575
The contractual grant request of $5,852,575 can be broadly categorized into 1) federal grant compliance, and 2) technical assistance. Of the total amount of contractual, $852,575 is earmarked to support solar project grant recipients to hire a certified federal grant administrator to assist the solar project funding recipients with federal compliance tasks such as public notices, procurement, Davis-Bacon Act, Uniform Relocation Assistance and Real Property Acquisition Policies Act, National Historic Preservation Act and Build America, Buy America. The remaining $5,000,000 is budgeted to support technical assistance delivery in the areas of building upgrades, workforce development, community solar resource policy and program template development, and marketing and outreach to low-income households and disadvantaged communities.

Other: $68,473,334
IEDA is requesting $68,473,334 in the "Other" category of the budget to support subgrants in three categories. $52,378,668 is requested to subgrant in support of solar project installations. $13,094,666 is requested to support subgrants and contract services for energy efficiency upgrades on properties of low-income household and disadvantaged community participants in solar projects. Solar for All funds not utilized for energy efficiency upgrades will be re-allocated toward solar and solar + storage projects. The remaining $3,000,000 will support development and implementation of workforce development programs supporting the solar industry.

Indirect Costs: $98,681
Indirect costs are a calculation of the $385,341 in personnel costs described above, plus the $148,069 in fringe benefit costs described above, multiplied by IEDA's federally approved indirect rate of 18.5%. IEDA's indirect cost agreement was provided by the U.S. Department of Health and Human Services and is effective through June 30, 2025. The indirect cost agreement is provided in Attachment E with the budget table.

In total, the Iowa Economic Development Authority is requesting $75,000,000 of Solar for All grant funding. Iowa Economic Development Authority will deploy funds as laid out in Attachment E and throughout this proposal.

Section 2.2. Fiscal Stewardship Plan

Section 2.2.1. Plans and Policies for Program Oversight

IEDA staff have extensive experience managing federal grants. This includes terms and conditions included in 2 CFR § 200.303 and 2 CFR § 200.332(b) and (d). Iowa Community Solar Program (ICSP) projects will be awarded through a competitive procurement process to eligible subrecipients, and procurement activities will also adhere to federal procurement requirements.

To streamline the Solar for All grant process and aid in maintaining federal compliance, IEDA will develop a comprehensive policies and procedures manual. Previous IEDA federal grant policies and procedures manuals have included the following topics and more:

- Fraud and Waste Policy
- Cash Management – Request for Payment
- IowaGrants.gov Management System Process
- Request for Federal Funds
- Procedure to Determine Timely Expenditures
- Program Income
- Reporting/Financial and Performance Review
- Budgeting
- Citizen Participation
- Audits
- Procurement
- Eligible Activities
- Monitoring Policy

Implementation of the ICSP Policies and Procedures Manual will be the responsibility of the IEDA staff, grant subrecipients, contractors and grant administrators. Grant administrators will assist project grant recipients with federal compliance tasks such as public notices, procurement, Davis-Bacon Wage Act, Uniform Relocation Assistance and Real Property Acquisition Policies Act, National Historic Preservation Act, and Build America, Buy America.

Community solar participating low-income household and disadvantaged community subscribers will have the ability to continue receiving bill credits if they move within the utility territory. To prevent fraud and abuse, there will be no transferability to others or return value for those that did not expend personal funds in order to acquire solar credits.

Section 2.2.2. Customer Protections

The Iowa Community Solar Program (ICSP) will develop and implement a multi-faceted, robust consumer protection plan. The robust consumer protection plan will begin by involving the Iowa Office of the Consumer Advocate (OCA) in program development. Advocating for customer protection is the central priority of the Iowa OCA. The primary mission of the OCA is “to represent Iowa consumers and the public interest in all forums with the goal of maintaining safe, reliable, reasonably priced and nondiscriminatory utility services for all consumers in all market settings while informing and educating the public on utility related issues.”

Recipients of Iowa Community Solar Program (ICSP) project funding will have to follow federal procurement procedures when hiring project contractors. Prior to signing contracts, project contractors will be verified through the federal System for Award Management (SAM) to make sure the contractor is not debarred from receiving federally supported work.

The Iowa Attorney General's Office may also be contacted to verify whether a proposed solar project contractor has been, or currently is, under review as a result of consumer complaints or alleged harmful or illegal practices. The Iowa Attorney General's Office received 40 consumer complaints about solar companies in the first half of 2022, resulting in the investigation of 14 solar companies, most of them located out of state. The complaints concerned residential and small commercial projects. The office's investigative work and subsequent public relations work has served to put solar bad actors on notice and has heightened the awareness of customers to do their due diligence before proceeding with a solar project. The ICSP intends to fund larger scale projects that will feature experienced, skilled and well-financed larger solar development and installation firms which will provide some project risk mitigation.

Additional planned consumer protection tools include working with consumer trusted programs like LIHEAP and WAP and the community action agencies that deliver those programs to provide information to consumers on building upgrade and community solar opportunities. In addition, the ICSP intends to work with utilities, the Iowa Department of Health and Human Services, community action agencies, Iowa OCA and others to prepare program information language and model community solar subscription contract documents. Within the model community solar subscription contracts will be language providing the ability for consumers to maintain their subscription when relocating within the same utility service territory and the ability to terminate the subscription at any time with notice.

Quarterly progress reports will be required and will address customer interactions and benefits, as well as relevant credible complaints. Random, periodic monitoring of program partners or entities that directly interact, transact or contract with consumers will also occur. A minimum twenty-four-hour notice will be given for monitoring visits.

Section 2.2.3. Guardrails

ICSP solar project funding recipients will be required to document at least annually that the average electric utility bill savings committed to in their funded project proposal have been met. A random sample of solar project participating household utility bills will be audited to verify that solar generated energy credits are being applied to participant utility bills. Projects not meeting the commitment to average electric utility bill savings will need to make program adjustments to fulfill their contract responsibilities or may have to return funding to IEDA.

Section 2.3. Reporting Plan

The Iowa Economic Development Authority's reporting plan will be based on decades of staff experience fulfilling reporting requirements for U.S. Department of Energy contracts and Housing and Urban Development Community Development Block Grant contracts.

IEDA utilizes its online IowaGrants.gov Grant Management System to track project compliance, reporting and claims reimbursement. Within IowaGrants.gov or other similar systems that may

be used in the future, IEDA will have the ability to gather project-level data and aggregate that data through report generation capabilities. The IowaGrants.gov system can be programmed to utilize key assumptions and project reported outputs and outcomes to satisfy EPA's program performance reporting requirements and populate EPA's provided reporting templates.

The Iowa Community Solar Program (ICSP) could establish a quarterly program reporting section on the anticipated program's website similar to the quarterly reports IEDA publishes online for its Community Development Block Grant Disaster Recovery contracts. This quarterly information includes budget expenditure by contract, description of quarterly activities, and output and outcome results.

The communications and marketing staff at IEDA has vast experience leading production of high-quality, professional evaluation videos, reports and project case studies touting the impacts of a variety of programs. IEDA will lean on this internal team to tout the outcomes and lessons learned from the ICSP.

Section 2.4. Programmatic Capability & Environmental Results Past Performance

The staff of the Iowa Economic Development Authority (IEDA) are experienced, successful federal grant administrators. Team members are actively engaged daily while fulfilling federally funded assistance agreements. The Iowa Energy Office staff have a combined 103 years of state and federal grant administration, implementation and evaluation. For the purposes of this grant application, the programs listed below highlight just a few diverse recent federal assistance agreements that staff have implemented. Attachment F contains additional information regarding the agency's described awards.

Assistance Agreement #1: Community Development Block Grant Disaster Recovery

In December 2020, IEDA was awarded $96,741,000 (contract B-19-DF-19-0001) by the U.S. Department of Housing and Urban Development (HUD) to respond to the 2019 major flooding in southwest Iowa. Project activities for this assistance agreement include land use planning, flood impacted property buy-outs, development of replacement for sale and rental low-income housing, and stormwater infrastructure improvements. Less than five months after receiving the federal grant, IEDA announced more than $10.6 million in disaster recovery housing awards. Ninety-seven percent of funds were committed within the first 12 months.

These housing awards are supporting the development of nearly 250 low-income housing units. Included in these projects are 92 low-income housing units seeking to achieve U.S. Department of Energy Zero Energy Ready Home certification, a community solar array directly benefitting 40 low-income homes and 33 single-family homes receiving rooftop solar to achieve net zero energy. In addition to the housing awards, disaster recovery funds have been utilized to support 71 property buy-outs to mitigate future disaster impacts.

All project reporting has been completed on time. The program successfully completed a March 2023 HUD monitoring. HUD recognized IEDA's federal grant administrator certification program to train grant administrators on federal compliance and Iowa's Green Streets Criteria for sustainable building design and construction as best practices to be replicated nationally by grant recipients.

Assistance Agreement #2: Clean Cities

The Iowa Clean Cities program, coordinated at IEDA, is the state's designated member of the U.S. Department of Energy's Clean Cities Coalition Network. The Iowa Clean Cities Coalition was designated on October 15, 2005, and operates under a cooperative agreement while providing reports and additional deliverables. Alternative fuel price and progress reports are submitted quarterly, meanwhile station status and cost updates can be daily. Annual reports include a full scope transportation emission reduction progress and overall program redesignation is every four years. The federal funding allocated to the program was $114,500.

Iowa Clean Cities Coalition works with vehicle fleets, fuel providers, community leaders and other stakeholders to save energy and promote the use of domestic fuels and advanced vehicle technologies in transportation. Collaborative efforts include educating fleets, developing infrastructure to support alternative fuel vehicles, disseminating technical information and raising awareness through meetings, workshops and webinars. In 2023, Iowa Clean Cities Coalition was recognized as one of the top 10 coalitions for greatest percent increase in gasoline gallon equivalents reduced.

Assistance Agreement #3: State Energy Program Formula

As the designated State Energy Office for Iowa, IEDA annually administers approximately $800,000 of U.S. Department of Energy (DOE) state energy office formula dollars, which are utilized for a portion of energy office staff salaries and for projects supporting the energy security, energy efficiency and renewable energy objectives and strategies of the state energy plan. IEDA successfully completes quarterly reporting on program metrics and milestones. The formula dollars are administered following the federal Davis-Bacon Wage Act; National Environmental Policy Act; Build America, Buy America; and the National Historic Preservation Act.

In early 2023, IEDA received a one-time $6 million allocation from the U.S. Department of Energy through the Bipartisan Infrastructure Law. This funding is being utilized to update the state energy plan, fund a transmission planning study by researchers at Iowa State University, support energy security planning work at the local level and for workforce development programming.

Assistance Agreement #4: National Disaster Resilience Competition

In 2016, IEDA received a U.S. Department of Housing and Urban Development sponsored National Disaster Resilience Competition grant (B-13-DS-19-0001) for $96,887,177. Funded activities included low-income housing rehabilitation and disaster mitigation, watershed management plants and implementation of flood mitigation and water quality practices, development of local flood resiliency action plans, and public infrastructure improvements to mitigate the impact of future flooding events.

The project objectives were completed in 6.25 years and expended 99% of the available grant funds. All program reporting requirements were successfully completed. Program deliverables included the following:

- 188 low-income, owner-occupied homes rehabilitated
- 10 stormwater and sanitary sewer flood mitigation infrastructure projects completed
- 7 local flood resilience action plans completed
- 1 Flood Resilience Action Plan: Guidebook for Planners
- 696 watershed practices installed
    - 30 wetlands
    - 85 terraces
    - 15 stormwater detention basins
    - 347 sediment control basins
    - 1 saturated buffer
    - 7 rock chutes
    - 2 riffles
    - 3 prairie strips
    - 92 ponds
    - 13 perennial/prairie cover plantings
    - 5 oxbow restorations
    - 48 grassed waterways
    - 32 grade stabilization structures
    - 6 floodplain restorations
    - 2 channel bank stabilizations
    - 5 buffer strips
    - 3 bioreactors

Staff Expertise/Qualifications

The Iowa Energy Office team at the Iowa Economic Development Authority will administer the Iowa Community Solar Program (ICSP). Iowa Energy Office staff have a combined 103 years of state and federal grant administration, implementation and evaluation.

Jeff Geerts, a member of the Iowa Energy Office team, will be the lead program administrator for the ICSP. Jeff has been managing state and federal grants for 31 years. Those 31 years of grants management experience include 15 years managing waste reduction and recycling grant programs at the Iowa Department of Natural Resources and 16 years at IEDA managing Community Development Block Grant, Community Development Block Grant Disaster Recovery and National Disaster Resilience Competition grant programs. In addition, Jeff has also been on the grant implementation side as well, writing successful grant applications and implementing federal grants from the U.S. Department of Agriculture and the National Endowment for the Arts. Jeff has a Bachelor of Science degree in management science and statistics and a master's degree in public administration. Jeff has also completed the National Charette Institute Charrette Management and Facilitation™ Certificate Training and is an EcoDistricts (Just Communities) accredited professional.

Abbie Christophersen, another member of the Iowa Energy Office team at IEDA, will be the assistant program administrator for the ICSP. Abbie has been managing state and federal grants for two years. Projects during that time include directing the Iowa Clean Cities Coalition, a U.S Department of Energy-designated Clean Cities Coalition focused on the adoption of clean fuels; assisting with the successful rollout of the Iowa Rent and Utility Assistance program during the

COVID-19 pandemic; providing technical assistance to the Iowa Department of Transportation with Justice40, workforce and outreach requirements of the National Electric Vehicle Infrastructure Program; and assisting with the state's Energy Efficiency and Conservation Block Grant associated programs. Through the role of Clean Cities Program Manager at IEDA, Abbie has provided continued technical assistance to awardees of federal programs and coordinated public events. Abbie has a Bachelor of Arts degree in environmental science and biology and is a Biobased Certified Fleet Professional.