



05.10.2023

# **Home Repairs and Upgrades Pilot Proposal**

## Background

Section 8.5.3.3 of the Illinois Power Agency’s (the “Agency” or “IPA”) 2022 Long-Term Renewable Resources Procurement Plan (the “2022 Long-Term Plan”) highlights that the need for home repairs and electric upgrades, which are a precondition for installation of solar panels, has proven to be a barrier for several customers otherwise eligible for Illinois Solar for All (“ILSFA” or “the program”) Residential Solar (Small) sub-program. The Agency recognizes that income-eligible residents are more likely to face this impediment to participation. Accordingly, the Home Repairs and Upgrades Pilot (“Pilot”) outlined in the Agency’s 2022 Long-Term Plan intends to make additional incentives available to ILSFA Approved Vendors that complete the home repairs and upgrades necessary for solar installation on owner-occupied income-eligible homes within the Illinois Solar for All: Residential Solar (Small) sub-program. Owner-occupied homes that are otherwise qualified for ILSFA are eligible to participate in this Pilot, and the Pilot’s repairs and upgrades incentives are limited to electrical work and roof repairs (including permit fees for allowable repairs) necessary for the solar installation.

This Pilot’s primary goal is to improve participation in the Residential Solar (Small) sub-program by offering incentives that help address home repair costs, which can be a barrier for homeowners hosting solar panels. While the Pilot addresses costs of necessary upgrades for owner-occupied homes to host solar panels, the Agency notes that there are also various state, federal, and non-profit programs that provide home repairs and upgrades for eligible households. As noted in Section 8.8.6 of the 2022 Long-Term Plan, the Agency and the ILSFA Program Administrator (“Program Team”) will work with the entities providing these home repair and upgrade programs to determine how these programs complement the Pilot and how income-eligible homes may participate in the programs.

This Pilot will also enable the ILSFA Program Administrator to gather information from Approved Vendors on the frequency and extent of electrical and/or roof repair needs in income-eligible homes planning to install solar panels. This data will help the Agency adjust the Residential Solar (Small) sub-program to address prerequisite home repairs that are common barriers for homeowners hosting solar. Following Program Year 6 (2023–2024), the Agency will evaluate the success of the Pilot and may adjust the Pilot and/or the Residential (Small) sub-program as needed.

As outlined below, the only repairs and upgrades that are eligible for additional incentives through ILSFA under this Pilot are electrical work and roof repairs (and related permit fees) that are necessary for solar panel installation in owner-occupied, income-eligible homes within the Residential Solar (Small) sub-program.

The Program Administrator is seeking stakeholder feedback on the design of this Home Repairs and Upgrades Pilot proposal. Upon finalization of the Pilot design, the Program Team will publish a redline version and a clean version of this proposal to the ILSFA announcements web page.

## Solar-Ready Home Repair Costs

ILSFA Approved Vendors have encountered many homeowners interested in participating in the Residential Solar (Small) sub-program but who were unable to host solar panels at their residences because their homes need roof or electrical repairs and/or upgrades prior to installing solar panels. While some Approved Vendors will cover some electrical upgrades, none of the Approved Vendors currently working in the Residential Solar (Small) sub-program have taken on roof repairs as a part of their solar projects because of the higher cost of these repairs.

In fact, the Program Administrator's research indicates that in 2020 the cost of a single-family home roof replacement in Chicago typically ranged between \$5,000 and \$11,000, with an average cost of \$8,000. In the same timeframe, roof replacements in central and southern Illinois typically ranged from \$5,500 to \$8,500, with an average cost of \$7,000. Additionally, the labor needed for roof repairs accounted for about 60% of the cost, and the other 40% of roof repair costs were for materials.

In addition to labor and material costs, the location, size, orientation (pitch and incline) of the roof, condition of the roof, building codes and permits, the removal of the old roof, and labor are all factors that affect the cost of roof repairs and roof replacement.

Electrical upgrades are also commonly required to install solar panels at residential properties. These electrical upgrades include upgrading the service panel and upgrading the service from 100 amps to 200 amps. The cost to upgrade the service panel can range between \$1,000 and \$3,000, with an average of approximately \$2,000, depending on the size of the service panel and the location of the home within the state. Other costs associated with electrical upgrades may include required permit fees, meter and riser upgrades, grounding rods, and water grounding.

## Proposed Program Outline

To implement the Home Repairs and Upgrades Pilot, the Program Administrator is proposing the following processes:

## **IDENTIFYING OUTSIDE FUNDING**

Following Sections 8.5.3.3 and 8.8.6 of the Agency’s 2022 Long-Term Plan, the Program Administrator will first seek to connect owner-occupied income-eligible homes with federal, state, or non-profit programs that fund home repairs. These agencies and non-profits include, but are not limited to, U.S. Department of Housing and Urban Development (HUD)-approved housing counseling agencies, the Illinois Housing Development Authority, Habitat for Humanity affiliates in Illinois, the U.S. Department of Veteran Affairs Regional Loan Centers, and the U.S. Department of Agriculture (USDA) Rural Development Office. Coordination with these programs is an important part of the Pilot design and evaluation process, and a good-faith effort to exhaust external funding options will occur before the Pilot funds repairs and/or upgrades.

The Program Administrator will conduct outreach to these external programs to determine where funding may be available, and Approved Vendors will be notified of available external funding and will be expected to share this information with potential participants in need of repairs. The Program Administrator will be available as needed to aid potential participants in preparing paperwork and documentation for external funding. To demonstrate efforts to obtain funding from an outside source, the potential participant will have to provide the Program Administrator with written communications that reflect the request to support home repairs and/or upgrades and that funding is unavailable within two months of the potential participant’s request.

The ability of these external programs to help fund home repairs and/or upgrades will be included in the evaluation of the Pilot following its first year of operation. Where funding is not available from these sources, the Pilot may support income-eligible customers through the Approved Vendor process described below.

## **APPROVED VENDOR PROCESS**

Where outside funding is not available for a homeowner’s home repairs or upgrades, the Pilot may fund eligible measures chosen from the list of repairs and upgrades approved by the Program Team. In this case, the Approved Vendor can seek funding for approved repairs and upgrades through the following process.

When the Approved Vendor encounters a home in need of electrical and/or roof repairs and/or upgrades necessary to complete a solar installation, it must complete and submit a copy of the Home Repairs and Upgrades Reference List (“Reference List”) indicating which of the Pilot-approved repairs are needed at the home prior to solar installation. The proposed Reference List is included in the appendix to this proposal, and it itemizes home repairs and upgrades that are eligible and approved by the Program Team for funding through this Pilot, each with a maximum allowable cost. No other repairs,

upgrades, or costs other than those contained in the Reference List are eligible for an incentive under this Pilot.

The prices in the Reference List are estimates, and the Program Team is seeking stakeholder feedback on these estimated prices before the Pilot is finalized. Along with a completed Reference List, the Approved Vendor will be required to submit photos of each repair needed prior to the full Part I submittal for the project. The Approved Vendor will follow the same process currently used to demonstrate compliance with site suitability requirements in the Part I application by submitting these photos and documentation on the Project Portal Mitigations page. Additionally, a new checkbox will be located on this page for the Approved Vendor to select when applying to participate in the Pilot; by checking this box, the Program Administrator will know to review that submission as part of this Pilot. The Project Portal Mitigations page will also include a new response field for the Approved Vendor to input the amount requested for repairs from the Reference List during this stage. Once the completed Reference List and photos are submitted, the Program Administrator will assess the repairs and upgrades identified as necessary to facilitate the installation of solar and notify the Approved Vendor if the project has been approved to pursue additional incentives through participation in the Pilot (assuming the project otherwise is eligible for participation in ILSFA). The Program Administrator will reject any incomplete submittals, and Approved Vendors will be required to resubmit a completed Reference List with photos.

Once the Approved Vendor receives the Program Administrator's authorization to participate in the Pilot, the Approved Vendor must arrange for an electrician and/or contractor that meets the Contractor Eligibility specified below to complete an in-person site assessment of the home. The in-person assessment will establish the final cost estimate from the electrician or contractor for that project, including a breakdown of the repairs and upgrades. Program Administrator authorization to pursue additional incentives through the Pilot and completion of a cost estimate for the project by an electrician and/or contractor does not guarantee that a project will ultimately meet all ILSFA requirements and receive a renewable energy credit ("REC") contract approved by the Illinois Commerce Commission.

The Approved Vendor will submit this cost estimate to the Program Administrator in its Part I application. The Program Administrator will review the cost estimate to determine the adjustment to the REC price to be included on the Part I project application to compensate the Approved Vendor for repairs and/or upgrades. Repair costs above the maximum allowable cost reflected on the Reference List will not be accepted. Once the Program Administrator determines the project's eligibility, it will include the electrician or contractor's cost estimate as a REC adder on the estimated system REC production for the Approved Vendor's project and submit it to the Illinois Commerce Commission ("ICC") for approval. The Approved Vendor will receive an email notification when the

project has been submitted to the ICC and can expect a response to the submittal within seven (7) business days for the project. The Approved Vendor should alert the homeowner and electrician or contractor of the decision once notified.

Following contract approval by the ICC, the Approved Vendor and electrician or contractor will work to complete the repairs and/or upgrades prior to the solar installation. The Approved Vendor and electrician or contractor will be expected to relay the timeline of completing the repairs and/or upgrades to the homeowner. This requirement is detailed in the Consumer Protection section below. The Approved Vendor will then be responsible for timely payment to the electrician or contractor that performs the home repairs and/or upgrades.

Upon completion of the repairs and/or upgrades, as part of the Part II application, the Approved Vendor must submit to the Program Administrator the final itemized invoice(s) of the expenses incurred to complete the repairs and/or upgrades that were approved in the Part I process along with pictures to document the repair status as completed. There will be a new upload field on the Part II form for the final itemized invoice(s) and a response field to input the invoice amount to be filled in by the Approved Vendor who received Part I approval for the Pilot. As with all ILSFA projects, it is important to note that the total incentive amount established by the Part I submission cannot be increased if actual costs exceed the incentives approved by the program and the ICC; therefore, in no event will incentives be paid by the Agency for repairs and/or upgrades that exceed the amount approved during the Part I process.

By participating in this Pilot, Approved Vendors must acknowledge that any costs above the approved cost estimate will not be covered by the Agency, the Program Administrator, or the owner-occupant of the building. These costs are the sole responsibility of, and must be covered by, the participating Approved Vendor, though Approved Vendors may negotiate arrangements for covering increased costs with electricians or contractors.

Approved Vendors do not need to have established connections to electricians and/or contractors to participate in the Pilot. In instances when an Approved Vendor does not have established connections with electricians and/or contractors, the Approved Vendor should submit a completed Reference List and photos to the Program Administrator and note on the Reference List that it needs to be connected with potential electricians or contractors. The Program Administrator will provide a list of potential electricians and/or contractors that meet the Contractor Eligibility guidelines specified below and may be utilized for the repairs and/or upgrades. Approved Vendors are not required to use contractors on this list but must use contractors that meet the required (and, if possible, the recommended) eligibility criteria in the Contractor Eligibility section of this document to complete all repairs that receive incentives under this Pilot.

Approved Vendors are solely responsible for ensuring any electricians and/or contractors it uses to perform work under this Pilot and ILSFA are eligible to make the repairs and/or upgrades and meet the eligibility criteria below.

## Contractor Eligibility

To increase transparency for the Pilot and the network of electricians or contractors available to all Approved Vendors working with ILSFA, electricians or contractors directly interacting with end-use customers to review and perform repairs and/or upgrades under this Pilot are required to register with the Program Administrator. [Registration](#) includes providing up-to-date contact information, acknowledgment of business relationship(s) with the Approved Vendor(s), and identification of the categories of the consumer-facing services provided. Each contractor must also acknowledge that it will comply with all applicable program requirements through the attestation on the registration form.

To ensure electricians and/or contractors that make repairs and upgrades under the Pilot have the requisite skill and experience, the Program Administrator may require the submission of documentation by the Approved Vendors and/or contractors performing repairs under the Pilot to confirm the required and/or recommended eligibility criteria in this section.

### REQUIRED

- The electrician and/or contractor is properly licensed, certified, bonded, and insured. The required minimum insurance is as follows:
  - Workers Compensation Insurance – following Illinois statutory limits
  - Commercial General Liability - \$1,000,000 per occurrence/\$2,000,000 in the aggregate
  - Auto Liability Insurance for owned, non-owned and hired vehicles - \$1,000,000 per occurrence/\$2,000,000 in the aggregate

### RECOMMENDED

- At least three years of experience in electrical or roofing work
- No OSHA-reportable incidents in the last three years
- Can demonstrate completion of quality projects through photos, references, and/or customer testimonials

## Expected Project Costs

The Program Administrator proposes using two categories of expected costs that would cover the typical household repair and/or upgrade needs. The expectations for home repair and/or upgrade costs are split accordingly: up to \$4,000 for electrical work and up to \$8,000 for roofing work. These values provide an estimated allowable cap for household repair and/or upgrade needs to facilitate participation in ILSFA, and the Program Administrator expects project estimates to vary below these numbers.

The Program Administrator recognizes there are specific conditions that may be unforeseeable during the initial site visit. However, the Program Team is unable to increase the repair costs following approval during the Part I project review process. In the event a contractor encounters additional repair needs after the repair costs have been approved in the Part I process, the Approved Vendor will bear sole responsibility for any additional costs, though the Approved Vendor may negotiate responsibility for increased costs with the electrician and/or the contractor.

### INCENTIVE STRUCTURE

Because ILSFA’s incentive structure is based on the purchase of RECs from Approved Vendors, the incentives for the Pilot must also fit into that structure. As such, the Program Administrator is proposing that incentive payment be determined using the following calculation.

First, the base REC purchase payment amount would be calculated using the formula currently described in Section 13 of the Approved Vendor Manual, as follows:

$$15 \text{ years} \times \text{Total AC System Size in kW} \times 8760 \text{ hours/year} \times \text{approved capacity factor}^1 \times /1000^2$$

The home repair and/or upgrade costs must be calculated as an adder to the base REC price.

$$\begin{array}{rcccl} \text{Base REC} & & \text{Home Repair} & & \\ \text{Price (\$)} & + & \text{Adder REC Price} & = & \text{Total Project} \\ & & (\$) & & \text{REC Price (\$)} \end{array}$$

<sup>1</sup> This includes a 0.5% annual degradation.

<sup>2</sup> This is the conversion from kWh to REC (1 REC = 1000 kWh)



To determine this added value, the approved cost of the qualified repairs and/or upgrades will be divided by the qualified number of RECs for the project:

$$\begin{array}{rcccl}
 \text{Total Home} & & \text{Number of Qualified RECs} & & \\
 \text{Repair Cost} & \div & [\text{System (inverter) size in MW AC x approved} & = & \text{Home Repair} \\
 & & \text{capacity factor x 365 days/year x 24 hours/day x 15} & & \text{Adder Value (\$)} \\
 & & \text{years x 1 REC/MWh}] & & 
 \end{array}$$

Current standard REC contracts will be amended to include specific terms for projects participating in the Pilot.

### **BUDGET AND FUNDING**

As specified in the Expected Project Costs section above, the Program Administrator has established two categories of expected project costs for approved repair and/or upgrade work: one for only electrical repairs and/or upgrades and one for only roofing repairs and/or upgrades. Providing two categories of expected costs allows the Program Administrator to organize the budget and project requests based on actual need. The Program Administrator will track participation in this Pilot through the budget instead of counting REC incentives.

The Agency proposes setting a maximum budget for the Pilot to ensure sufficient funding with the expected increase in Residential Solar (Small) project applications in the 2023–2024 program year. This proposed budget is meant as an upper limit on the number of projects that can receive Pilot funding for eligible home repairs and/or upgrades. This does not restrict funding for projects outside of the Pilot under the Residential Solar (Small) sub-program or preclude the Agency from using this funding for projects outside of the Pilot. This Pilot’s budget of \$2,971,875, or one-quarter of the Residential Solar (Small) sub-program year allocation, is expected to serve 100 to 125 projects with a maximum additional cost of \$12,000 for eligible repairs and/or upgrades.

As described above, these added incentives would be a part of the REC payments made to Approved Vendors from the Residential Solar (Small) sub-program budget and would not be set aside into a separate carveout for the Pilot. The Approved Vendor will receive the amount paid to the contractor for its electrical or roofing work through the REC incentives following energization and Part II approval of the solar installation.

## **Consumer Protections**

The Approved Vendors involved in the ILSFA program are required to work within prescribed guidelines that outline their interaction with the homeowners. These

requirements are meant to ensure that all homeowners are protected against any unfair or unsafe business practices, minimizing risk to participants.

The Home Repairs and Upgrades Pilot requires consumer protections to meet these goals. Following approval of incentives, the Approved Vendor and contractor must work together to create a repairs and/or upgrades timeline. The Program Administrator also proposes that the Approved Vendor or contractor provide an installation schedule to the homeowners they work with, which will include the days the contractor will be onsite, the estimated work completion date, and the date by which the Approved Vendor will begin the solar installation once the home repairs and/or upgrades are completed. If the contractor completing the repairs and/or upgrades amends the days when workers will be onsite or adjusts the project timeline, the contractor must notify the homeowner a minimum of 48 hours in advance.

If the required repairs and/or upgrades cost more than the Pilot will cover, the homeowner will not be responsible for those costs, following the ILSFA no-upfront costs requirement. In the event the contractor uncovers additional repair needs during construction or the cost of materials increases before the work begins, the Approved Vendor or the contractor shall pay any additional costs. Approved Vendors that do not abide by this requirement will be investigated by the Program Administrator for potential disciplinary action, consistent with the disciplinary process in the [Consumer Protection Handbook](#).

Under the Pilot, Approved Vendors are required to provide all documentation of the repairs and/or upgrades and the warranty and contact information of the contractors that completed the home repairs and/or upgrades to the homeowner. The Program Administrator proposes the requirement of a minimum warranty, covering both parts and service, of 10 years for electrical repairs or panel upgrades and 20 years for roof repairs.

These consumer protection requirements are meant to ensure that homeowners are regularly updated on the eligible repairs and/or upgrades to their homes, who they can expect at their house and when, and who will be responsible if there is a problem related to these repairs and/or upgrades.

**TIMELINE:**

Timeline Event	Date
Home Repairs and Upgrades Pilot Proposal Out for Comment	May 10, 2023
Home Repairs and Upgrades Pilot Proposal Webinar	May 17, 2023
Home Repairs and Upgrades Pilot Proposal Comments Due	May 24, 2023
Response to Comments Posted	June 6, 2023
Final Home Repairs and Upgrades Pilot Design Published	June 6, 2023
Onboarding Approved Vendors	June 7-26, 2023
Home Repairs and Upgrades Pilot Program Implementation	June 26, 2023

# Home Repairs and Upgrades Pilot

## Home Repairs and Upgrades Pilot Reference List

The following list of electrical and roof repairs, including allowable costs such as permit fees that may be necessary to complete photovoltaic solar installations, has been approved by the Illinois Power Agency as part of the Home Repairs and Upgrades Pilot. The costs listed below are the maximum allowable amounts for each repair type. Only the actual cost of repairs up to the maximum amount for the repair(s) will be incentivized through an adder to the base REC price. The cost caps for repair types are split accordingly: up to \$4,000 for electrical work and up to \$8,000 for roofing work.

An Approved Vendor that encounters an income-eligible home that requires one or more of the allowable repairs listed below must submit a completed copy of this document, along with photos of the needed repairs, to the Program Administrator before contacting an electrician or contractor to make these repairs. If the total estimated cost of electrical or roofing and structural repairs listed below exceeds either of the applicable caps, the incentive values will be limited to the maximum allowable amount for each repair type under the Pilot. Any repair type that is left blank, or any submittal that is not accompanied by a signed copy of the attached attestation and photos documenting the repair needs will not be considered for Home Repairs and Upgrades Pilot funding.

### PROJECT INFORMATION:

Approved Vendor: \_\_\_\_\_ Project ID: \_\_\_\_\_

Street Address: \_\_\_\_\_ City: \_\_\_\_\_ Zip Code: \_\_\_\_\_

System Size (kW): \_\_\_\_\_

### ELECTRICAL :

Item or Fee	Maximum Cost	Work Needed? (Y or N)
Required Permit Fee(s)	\$100	
Service Panel Replacement or Upgrade (includes new meter and hookup)	\$2,100	
Meter and Riser Upgrade	\$1,100	
Grounding Rods	\$300	
Water Grounding (100/200 amps)	\$700/\$1,000	

Please send me a list of eligible electrical contractors who may be available to perform this work.

**TOTAL ESTIMATED COST OF ELECTRICAL WORK**

---

**ROOFING AND STRUCTURAL :**

Item or Fee	Maximum Cost per Unit	Maximum Cost <sup>3</sup>	Work Needed? (Y or N)
Required Permit Fee	--	\$500	
Solar-related Roof Work <sup>4</sup>	\$200 per sq. ft.	\$3,000	
Full Roof Replacement <sup>5</sup>	--	\$8,000	
Sister Rafters	\$100 per rafter	\$2,000	

Please send me a list of eligible roofing and structural contractors who may be available to perform this work.

**TOTAL ESTIMATED COST OF ROOFING WORK**

---

**By completing and submitting this form:**

Approved Vendor agrees that it has read and understands, and agrees to the requirements of the ILSFA program, including, but not limited to, the requirements of the Home Repairs and Upgrades Pilot. This includes but is not limited to, covering all costs and expenses, if any, in excess of the maximum amounts for work as specified above.

Approved Vendor warrants that all information furnished in or as part of this project is true, accurate, and complete in all material respects. Approved Vendor further agrees to promptly inform the Program Administrator in writing of any change to the information provided herein.

The person submitting and signing this form represents and warrants that such person is duly authorized to act on behalf of the Approved Vendor and to bind the Approved

---

<sup>3</sup> This estimates prices for a home with a roof size of 1,200 ft<sup>2</sup> and a standard slope at 25 degrees.

<sup>4</sup> This includes any leak, puncture, decking, or work needed directly associated with the solar install.

<sup>5</sup> This includes tear off and replacement of a single layer of shingles.

Vendor to the program and Pilot requirements.

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_