

# LBE Integrated Solar Grant Program for State Entities

COMMBUYS Bid # [BD-24-1041-ENE01-ENE01-93886](#)

## Program Context: EO 594

---

Executive Order 594 “Decarbonizing and Minimizing Environmental Impacts of State Government” directs state entities to deploy...

- ✓ Onsite renewable energy generation
- ✓ Battery energy storage
- ✓ Electric vehicle supply equipment (EV charging)



# LBE Integrated Solar Grant Overview

---



Solar canopy projects of >200 kW direct current (DC) capacity



Installation of battery energy storage or ensuring canopy is “storage-ready”



Installation of at least 4 Level 1 or Level 2 EV charging ports

## LBE Integrated Solar Grant: By the Numbers

---

<b>Base Grant Funding</b>	<b>\$0.75/watt*</b>
<u>Potential Grant Amount Adders</u>	
Battery Energy Storage Installation	\$100/kWh
Environmental Justice	\$0.05/watt
Building Decarbonization	\$0.05/watt

**Total maximum funding per project is capped at \$500,000\*\***

*\*Base funding cannot exceed \$400,000.*

*\*\*For third-party-owned projects, any grant under this Program cannot result in a PPA rate per kWh that is more than a 20% reduction from the site's basic service kWh rate at the time of application.*

# General Program Eligibility

## Who?

- State executive agencies
- State institutions of higher education
- Quasi-public state entities

## What?

- Solar Canopy projects:
  - 200 kW DC or greater
  - Located on Commonwealth-owned property
  - Owned by the Commonwealth or a third party



# Grant Adder Eligibility (Optional)

---

## Battery Energy Storage Installation

- Must install a battery energy storage system as part of the canopy construction

## Environmental Justice

- Solar canopy installed in a location that falls within a census block that is deemed an [Environmental Justice population](#), as defined by EEA

## Building Decarbonization

- Solar canopy has been considered in the context of future tangible decarbonization efforts, and application must include details about any decarbonization plans

## Eligible Project Costs & Milestones

---

Including but not limited to:

- Solar panels and related equipment procurement
- Related structural systems procurement, including steel
- Costs related to battery energy storage systems or storage ready preparation
- Interconnection and permitting costs
- Commencement of construction (site prep) or installation





# Additional Requirements for Grant Program

## Solar

- Demonstrate ability to meet requirements of SMART if participating

## Battery Energy Storage

If storage is installed, must meet SMART regulation 225 CMR 20 specifications or CPS regulation 225 CMR 21 specification and must be enrolled in one or more of the following programs

- SMART
- Clean Peak Energy Portfolio Standard
- Connected Solutions

If making project storage ready, intended location must be incorporated and solar PV system designed with intention of battery energy storage

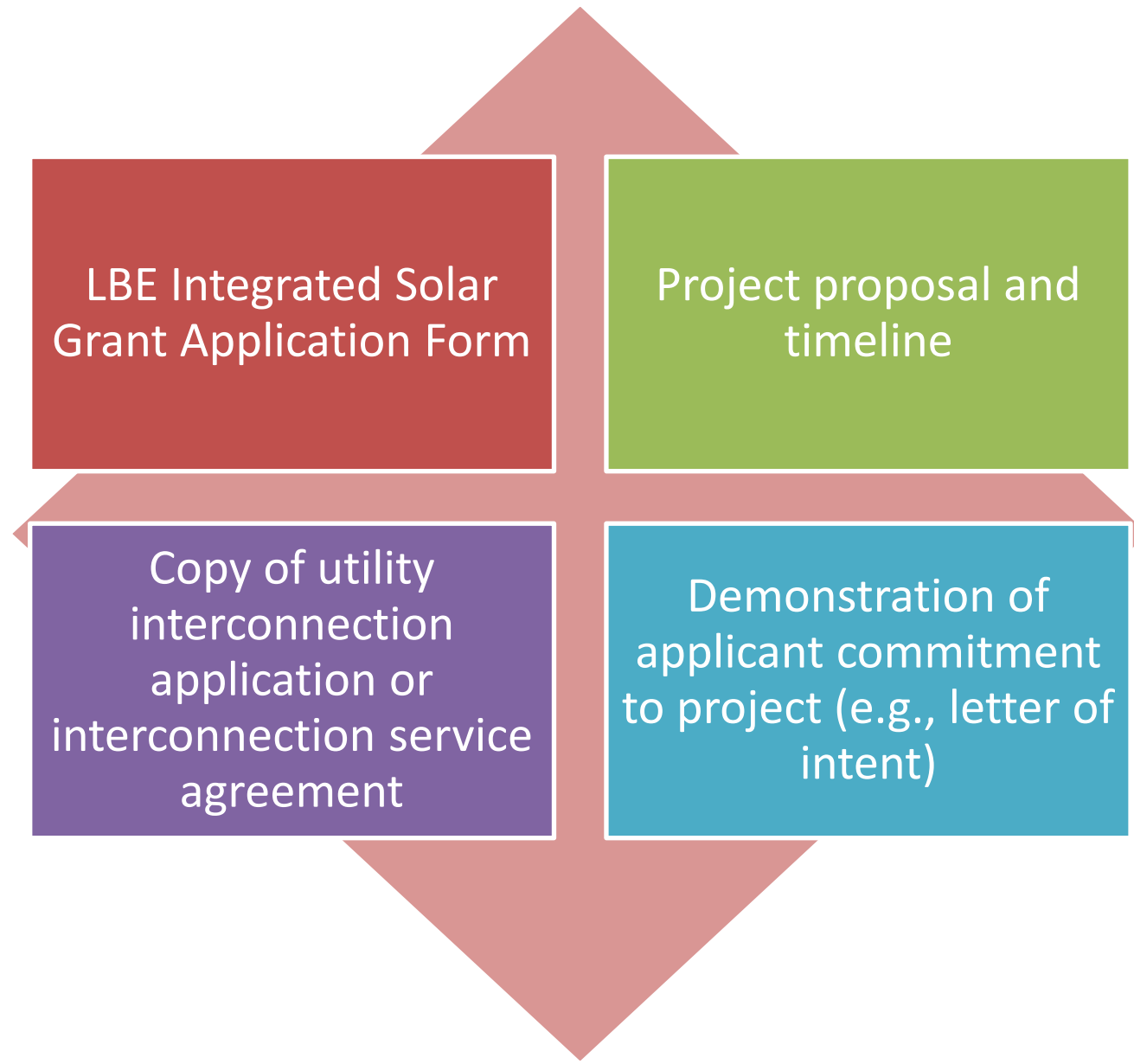
## EV Charging Stations

- Canopy must include at least four Level 1 or Level 2 charging ports; these must be kept in operation and maintained for at least five years
- Awardees strongly encouraged to pre-wire for future charging stations during canopy construction



# Required Application Materials

---



# Grant Submission Process

---

## Applications...

Will be reviewed by DOER on a rolling basis

Must be submitted by the  
deadline:  
**February 1, 2024**

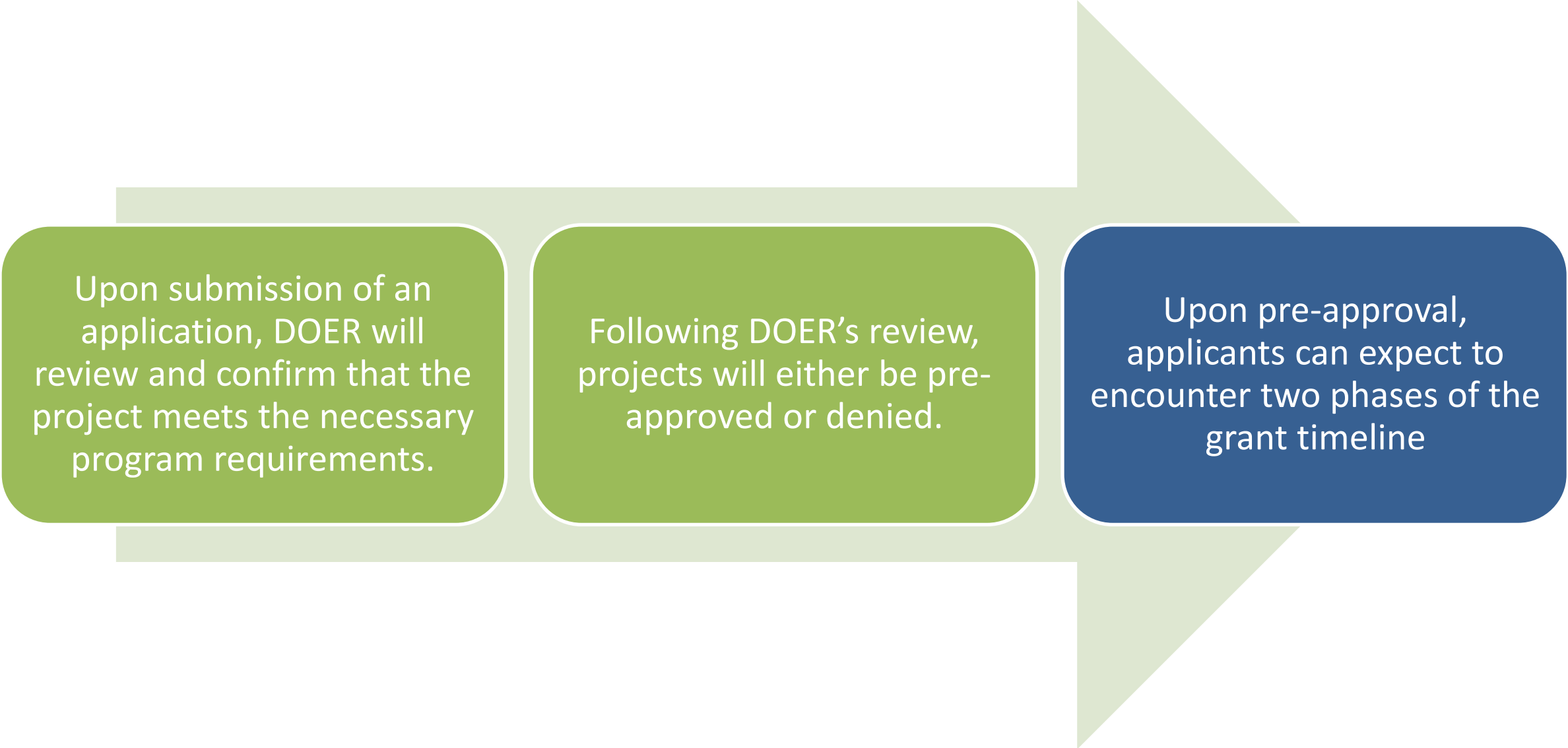
Must be submitted before  
signing a final contract with the  
applicable solar developer or  
construction manager



**Priority will be given to applications that include a utility interconnection agreement and a signed letter of intent by November 24, 2023.**

# Application Review Process

---



Upon submission of an application, DOER will review and confirm that the project meets the necessary program requirements.

Following DOER's review, projects will either be pre-approved or denied.

Upon pre-approval, applicants can expect to encounter two phases of the grant timeline

# Grant Development Phase 1

---

Once a project has been pre-approved, the applicant will have **3 months** from the date of pre-approval to provide backup documentation

*(This documentation is necessary to enter a grant agreement with DOER)*

## Commonwealth-owned Solar with or without Battery Energy Storage

Signed interconnection agreement with the electric utility

Signed notice to proceed to project developer or contractor.

## Third Party-Owned Solar (PPA) with or without Battery Energy Storage

Signed interconnection agreement with the electric utility

Signed PPA that includes interconnection costs, or another document signed by both the Applicant and project developer demonstrating intent to proceed with the project, which may include but not be limited to a memorandum of understanding or a letter of intent.

# Important Note on Phase 1

---

Pre-approval does not guarantee a project's funding.

Priority of projects is not determined by when an application is submitted.

Priority of projects and funding is given to those who have submitted backup documentation and are ready to execute a grant agreement with DOER.

## Grant Development Phase 2

---

Upon completion of Phase 1 and a grant agreement between the applicant and the DOER is executed, the applicant has until **June 30, 2024**, to incur all eligible project costs and meet all project milestones

Project costs and milestones will be mutually agreed upon, but generally will include :

- Solar panels and related equipment procurement
- Related structural systems procurement, including steel
- Costs related to battery energy storage systems or storage ready preparation
- Interconnection and permitting costs
- Commencement of construction (site prep) or installation

## Important Note on Phase 2

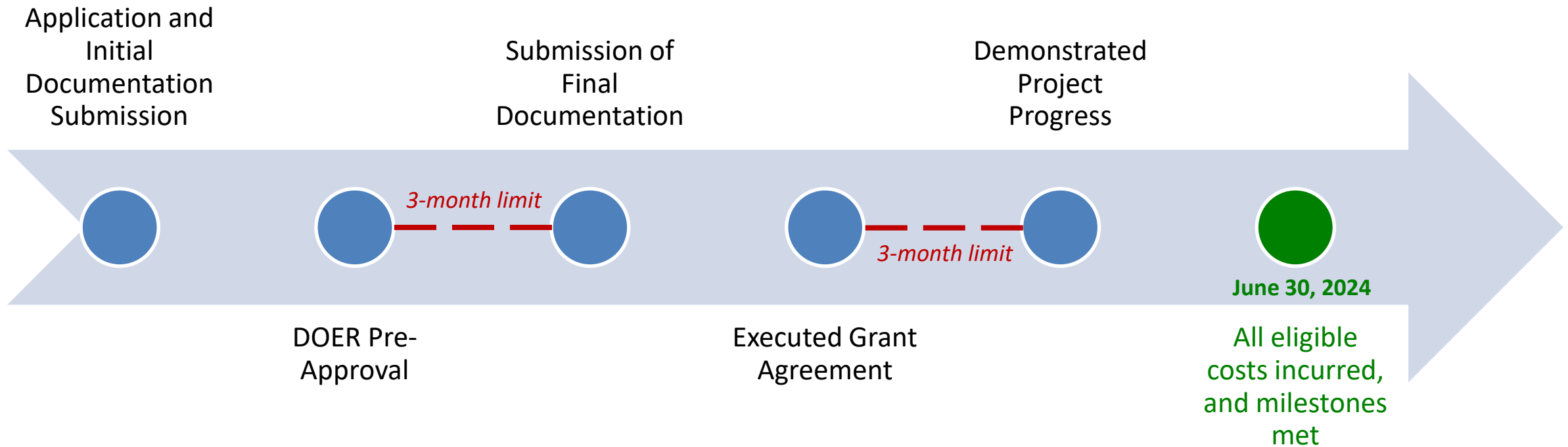
---

Projects must prove progress in the project within 3 months of the date of the executed grant agreement.

DOER has the right to withdraw funding if a project cannot demonstrate progress within 3 months.



# Timeline Breakdown



# Applicant Form

---

The form provides project details to help DOER determine whether a particular project meets the requirements of the grant program

DOER will review draft applications and provide feedback upon request

There are 12 sections within the application form:

Applicant Contact Information	Project Type	Project Narrative	Project Details	Project Cost Information	SMART Program for Solar
EV Charging	Battery Energy Storage	Environmental Justice	Decarbonization	Grant Funding Requested	Estimated Project Benefits for Site

# Applicant Contact and General Project Info

- Provide applicant contact information
- Note whether this is a new application or an update to a previously submitted application
- Insert or attach a narrative about the project

1) **Applicant Contact Information:**

Agency/Campus:	
Name:	
Title:	
E-mail:	
Phone:	
New Application or Update to Existing Application:	<input type="checkbox"/> New Application <input type="checkbox"/> Update to Existing Application
Date of Submission (whether new or update):	
Project Title:	
Project Location Address: <i>(include specific parking lot, where applicable)</i>	

2) **Project Type (select all that apply):**

<input type="checkbox"/> Large-scale Solar Canopy (>200 kW) <input type="checkbox"/> Small-scale Solar Canopy (<200 kW) Is justification provided? <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Installed Energy Storage <input type="checkbox"/> Energy Storage Ready
--	--

3) **Project Narrative:**

Describe project details, including description of system, system location, project status, and details of SMART qualification (behind-the-meter, adders, block, etc). In addition, please include any supplemental clean energy measures that will be undertaken onsite as part of this project or that have been implemented in the past. If this is a solar canopy smaller than 200 kW, please include a justification for requesting grant funding.

# Project Details

- Size of the solar canopy
- Ownership model
- Procurement plans
- Estimated project timeline
- Indicate whether the applicant will be pursuing the renewable energy production tax credit (PTC) for nontaxable entities in the future

4) Project Details:	
a. Solar Technology <i>(automatically populates from above):</i>	Choose a check box from Question 2 above
b. Solar Size/Capacity (kW AC):	
c. Solar Size/Capacity (kW DC):	
d. Ownership Model:	<input type="radio"/> Commonwealth-owned <input type="radio"/> Third-party owned
e. Projected Generation Year 1 (kWh):	
f. Percentage of Generation to be Used Onsite:	
g. Total Site Electricity Consumption/Year (kWh):	
h. Electric utility, service area & rate class:	
i. Utility basic service rate (\$/kWh):	
j. Please describe any expected interconnection challenges that have been identified in the pre-application report or through other measures:	
k. Procurement plans for solar canopy: expected timeline and procurement methodology (e.g., Chapter 149, Chapter 25A, agency RFR, PowerOptions member, etc.)	
l. Projected Timeline:	Please provide target dates for each section below
i. Planning/design	
ii. Procurement	
iii. Construction/site preparation start	
iv. Construction end	
v. Projected interconnection	
m. Will this project be pursuing the federal Renewable Electricity Production Tax Credit?	<input type="radio"/> Yes <input type="radio"/> No

# Project Cost Information

- Estimated total project cost
- Estimated interconnection cost
- Project cost/watt
- Information regarding PPA rates and terms

5) **Project Cost Information:**

a. Total Project Cost (incl. interconnection if known):	
b. Estimated Interconnection Cost (if known):	
c. Total Estimated Project Cost/Watt:	\$0.00
Breakdown of Cost/Watt Solar:	
Breakdown of Cost/Watt Storage (if applicable):	
d. Please describe any measures that have been taken to reduce the final project costs (e.g. minimal system add-ons, standardized design, etc):	
e. Estimated SMART incentive rate (please identify expected SMART block, base incentive rate and type and amounts of any expected adders):	
f. PPA rate per kWh <u>without</u> LBE Grant, if applicable:	
g. PPA rate per kWh <u>with</u> LBE Grant, if applicable:	
h. PPA terms, if applicable (e.g., escalator, timeline of contract, lease payments, etc):	
i. Has this grant already been factored into the PPA rate? If not, are there plans to use it to reduce the PPA rate? If the grant will not be used to reduce the PPA rate, please describe how the grant will be applied (e.g. design work, site prep, utility upgrades, etc).	
j. If this project is a lease-only arrangement (i.e. the facility is not an off-taker for any of the electricity produced), please describe the terms of the agreement and benefits to the agency.	
k. Other funding sources (please describe the degree to which funding has been secured):	

# SMART and EV Charging

Note whether SMART incentives are being pursued, or provide alternative justification

EV charging design and procurement:

- Number of charging ports (min. of 4 required)
- Level(s) of charging and use type
- Estimated cost
- Chosen procurement method

6) SMART Program for Solar:	
a. Will the project be pursuing SMART incentives for the solar generation?	<input type="radio"/> Yes <input type="radio"/> N/A <input type="radio"/> No
b. If you have evaluated applicable SMART incentives for this project but will NOT be pursuing SMART, please state your reasoning:	
7) EV Charging:	
a. Number of charging ports to be installed as part of this project (if fewer than minimum grant requirement of 4 ports, please include justification):	
b. Number of total parking spaces that will have a dedicated EV port:	
c. Describe the level of charging (e.g., Level 1 or Level 2) and charging use type (public access, workplace, fleet, or mixed-use):	
d. Estimated all-in cost per port for equipment and installation, if known:	
e. Will statewide contract VEH102 be used to procure charging stations?	<input type="radio"/> Yes <input type="radio"/> No
f. Number of parking spaces that will be pre-wired or made "EV ready":	
g. How many total parking spots are in the parking lot, including spaces not covered by the solar canopy?	

# Battery Energy Storage

- Nominal useful energy capacity
- Ownership model
- Program enrollment
- Expected benefits
- If the project will NOT include installed storage, applicants must detail the “storage-ready” elements of project – may provide as an attachment

8) **Battery Energy Storage:**

a. Does this project include installed energy storage? If yes, please answer the following questions:	<input type="checkbox"/> Yes <input type="checkbox"/> No
i. Nominal rated power capacity (kW)	
ii. Nominal Useful energy capacity (kWh)	
iii. Ownership model? (state vs third party)	<input checked="" type="radio"/> State <input checked="" type="radio"/> Third Party
iv. Which of the following programs will the energy storage system be enrolled in? (select all that apply)	<input type="checkbox"/> The SMART Program <input type="checkbox"/> Clean Peak Energy Portfolio Standard <input type="checkbox"/> Connected Solutions
v. Which energy storage specifications will the energy storage system be following?	<input type="checkbox"/> SMART Regulation 225 CMR 20 <input type="checkbox"/> CPS Regulation 225 CMR 21
vi. Please describe how the applicant intends to use the energy storage system, including expected cycling per year.	
vii. Please describe any expected benefits from the energy storage system, such as type and amount of economic impacts, added resiliency, etc.	
viii. If the energy storage system is being designed to provide energy resiliency benefits, please describe the system components that provide resilience, the loads being served during an outage and how these loads provide value to occupants/visitors/community and/or align with the facility's mission.	
b. Select energy storage system characteristics from drop-down:	
c. If you are not including battery energy storage due to lack of technical or fiscal feasibility, please outline your justification for this infeasibility herein or in a separate attachment submitted along with this application form.	
d. If installed energy storage is <u>not</u> included at the time of solar installation, will the project be energy storage ready? If yes, please answer the following questions:	<input checked="" type="radio"/> Yes <input checked="" type="radio"/> No
i. Specify what has been done to ensure the project is "storage-ready" (specifying the switchgear, transformer, breakers, that will be used and will easily integrate a battery, identifying space on the site plan for physical footprint of battery storage, etc.)	
ii. How has the project plan addressed interconnection and electrical requisites for future storage installation?	
iii. Has the project plan incorporated the intended location of the battery and code compliance as part of the design?	<input checked="" type="radio"/> Yes <input checked="" type="radio"/> No



# Environmental Justice and Decarbonization

If applicable...

- Identify if the project will fall within an EJ community as defined by EEA
- Provide details about the site's decarbonization plan

9) **Environmental Justice**

a. Does the project site address fall within a census block that the Executive Office of Energy and Environmental Affairs has deemed to include one or more Environmental Justice populations?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
--	------------------------------	-----------------------------

[Link to EEA Environmental Justice Map here](#)

10) **Decarbonization**

a. Does the project site have a concrete decarbonization plan?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
b. Describe the decarbonization plan:		
c. Does the decarbonization plan have committed funding?	<input type="radio"/> Yes	<input type="radio"/> No
d. Is this solar canopy considered in the context of future decarbonization efforts?	<input type="radio"/> Yes	<input type="radio"/> No
e. Has the sites decarbonization plan identified space needs for both the solar and any decarbonization activities?	<input type="radio"/> Yes	<input type="radio"/> No
f. Has the site's decarbonization plan established a long-term commitment to the electrification of facility thermal demand?	<input type="radio"/> Yes	<input type="radio"/> No

# Estimated Grant Funding Requested

Based on data fields filled out by applicants, the form automatically populates an estimated grant request amount

- Applicants must answer the relevant adder questions as outlined in yellow
- The amount listed is not the definitive amount a project will receive; DOER reserves the right to distribute funds as necessary

11)

Grant Funding Requested:	
NOTE: Grant amounts will be calculated automatically below based on inputs from questions 4c, 8a, 8aii, 9a, and 10a. (See "Introduction" tab for information on the eligible incentive rates and maximum grant awards outlined in PON )	
	Incentive
d. Solar System Base (calculated per watt)	\$0.00
e. Storage System Incentive (calculated per kWh)	\$0.00
f. Environmental Justice Incentive (based on per watt solar)	\$0.00
g. Decarbonization Incentive (based on per watt solar)	\$0.00
h. Total Grant Award Requested:	\$0.00
Note: For third-party owned systems, the maximum grant request will be capped when the PPA kWh rate reaches 20% reduction from current kWh rate (upon DOER's review of the application)	

# Estimated Project Benefits for Site

Applicants must also outline the estimated benefits of the project to the site, e.g.:

- Estimated energy savings
- Projected cost savings and revenue
- Total annual projected benefits

12)	Estimated Project Benefits for Site:	
a. Estimated Energy Savings (kWh) (same as 4e above if using 100% of electricity)		
b. Projected Cost Savings & Revenue		Please provide estimates below:
i. Annual avoided electricity costs from offset consumption:		
ii. Annual avoided electricity costs from net metering or on-bill credits:		
iii. Annual demand charge savings:		
iv. Annual capacity charge savings:		
v. Annual SMART revenue:		
vi. Other savings or revenue:		
Total Annual projected benefits:		\$0
c. Please describe any non-monetary benefits:		

## Thinking About Applying?

---

- ✓ Review the PON and ensure your project meets all the requirements
- ✓ Consult the LBE team to discuss the project, determine eligibility, and confirm if funds are available
- ✓ Submit required and supporting documentation on COMMBUYS and submit to [LBE-grants@mass.gov](mailto:LBE-grants@mass.gov) as backup
- ✓ Work with LBE to provide additional information as needed, to finalize your contract, and to proceed with the project

# Resources

---

## Solar and BESS:

- [Ask the Experts 9.23.21 Solar and Storage PPAs](#)
- [MassCEC Resiliency Toolkit](#)
- [All the Sun Without the Stumble](#)

## EVSE

- [VEH102: Advanced Vehicle Technology, Equipment, Supplies, and Services](#)
- [Quick Guide: LBE EV Charging](#)
- [LBE Scope of Services for Fleet EV Charging](#)
- [Considerations to Inform EV Charging Station Decision-Making](#)

# Questions? Comments?

**Grant Manger:**

Catie Snyder, Deputy Director  
DOER Leading by Example Division

[Catie.Snyder@mass.gov](mailto:Catie.Snyder@mass.gov)