THE COMMONWEALTH OF MASSACHUSETTS

# EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS
# DEPARTMENT OF ENERGY RESOURCES

PATRICK C. WOODCOCK, COMMISSIONER

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**100 Cambridge Street, Suite 1020**
**Boston, MA 02114**

## Program Opportunity Notice (PON)

## Document Title: Green Communities Competitive Grant Program

## COMMBUYS Bid Number: BD-21-1041-ENE01-ENE01-58101
## Agency Document Number: PON-ENE-2021-034

## Issued: January 28th, 2021

Please Note: This is a single document associated with a complete Bid (also referred to as Solicitation) that can be found on www.COMMBUYS.com. All Bidders are responsible for reviewing and adhering to all information, forms and requirements for the entire Bid, which are all incorporated into the Bid. Bidders may also contact the COMMBUYS Helpdesk at COMMBUYS@state.ma.us or the COMMBUYS Helpline at 1-888-MA-STATE. The Helpline is staffed from 8:00 AM to 5:00 PM Monday through Friday Eastern Standard or Daylight time, as applicable, except on federal, state and Suffolk county holidays.

**GREEN COMMUNITIES COMPETITIVE GRANT PROGRAM**
***PON-ENE-2021-034***

# GRANT APPLICATION INFORMATION

## ***ELIGIBILITY CRITERIA AND SCHEDULE***

- Applicant must be an existing designated Green Community.
- To be eligible for **Block 1**, applicants must have:
  - Expended all prior Green Communities designation and competitive grant funds **by February 12, 2021.** All grant-funded projects must be 100% complete and operational prior to February 12, 2021. All invoices must be paid (funds expended); and
  - Submitted their final grant report no later than 5 PM **February 12, 2021;** and satisfied all outstanding questions no later than 5 PM **March 19, 2021**; and
  - Submitted their FY 2020 Annual Report by **November 6, 2020** and satisfied all outstanding questions no later than 5 PM **February 12, 2021**
- To be eligible for **Block 2**, applicants must have:
  - Expended all prior Green Communities designation and competitive grant funds **by September 3, 2021.** All grant-funded projects must be 100% complete and operational prior to September 3, 2021. All invoices must be paid (funds expended); and
  - Submitted their final grant report no later than 5 PM **September 3, 2021;** and satisfied all outstanding questions no later than 5 PM **October 1, 2021**; and
  - Submitted their FY 2020 Annual Report by **November 6, 2020** and satisfied all outstanding questions no later than 5 PM **April 30, 2021**
- **Block 1 competitive grant applications will be accepted until 5 PM April 9, 2021**
- **Block 2 competitive grant applications will be accepted August 16 through 5 PM October 8, 2021**

- This application is available as PON-ENE-2021-034 on COMMBUYS (as a "Bid").
- All questions for Block 1 must be submitted by 5 PM on **March 26, 2021** to COMMBUYS and questions for Block 2 must be submitted between August 16 through September 24, 2021
- To find an item on COMMBUYS: log into COMMBUYS, locate the Bid, acknowledge receipt of the Bid, and scroll down to the bottom of the Bid Header page. The "Bid Q&A" button allows Bidders access to the Bid Q&A page.
- Applicants should not submit their competitive grant applications to COMMBUYS. To submit an application, see the Instructions on page 24.

## ***SPECIAL ELIGIBILITY CRITERIA***

- Applicants must have met all the eligibility criteria above
- Applicants that are a Green Community in good standing for **six (6) or more years** AND have also achieved and maintained a minimum of fifteen percent (15%) energy reduction of their Energy Reduction Plan target **for three (3) or more years** are eligible to apply for additional qualified projects, as described in Section 4..

## ***SECTION 1 - GENERAL INFORMATION***

Up to fifteen million dollars ($15,000,000) in funding has been made available for the 2021 Competitive Grant Program. DOER anticipates awarding funds equally across Block 1 and Block 2. Competitive grants will be offered on an annual basis as long as funding is available. The amount of available funding for future competitive grant rounds, if available, may vary. The cumulative total of actual awards depends on the number of applications received that are deemed eligible for funding and the funding allocation available for this grant program. This Program Opportunity Notice (PON) is offering funding through three pathways; prescriptive; traditional; and custom; which are further defined in subsequent sections. Designated Green Communities may submit a grant application to fund all, or a portion of the costs of, constructing and implementing energy efficiency and renewable or alternative energy activities, including but not limited to:

- Energy conservation measures and projects
- Hybrid, electric or plug-in hybrid-electric vehicles
- Electric vehicle charging stations
- Vehicular efficiency measures, such as idle reduction equipment and after-market hybrid retrofit kits

- Financing the siting and construction of renewable and alternative energy projects on municipally owned property
- Building Operator Certification training staff members
- Energy storage to address peak demand

## ***ADDITIONAL INFORMATION***

- The maximum grant award per applicant for the calendar year 2021 Green Communities Competitive Grant program is two hundred thousand dollars ($200,000), unless an applicant is applying for a custom implementation grant, which is capped at five hundred thousand dollars ($500,000). The maximum grant amount per applicant may vary in future competitive grant rounds
- For applicants that have received cumulative Green Communities Competitive Grant awards of seven hundred and fifty thousand dollars ($750,000) or greater, the maximum amount of grant award per applicant for the calendar year 2021 Green Communities Competitive Grant program is one hundred thousand dollars ($100,000), unless they are applying for a custom implementation grant. Applicants should check the Green Communities website for grant award history.
- Applicants will not be awarded more than one (1) grant per calendar year
- Projects with a return on investment that is longer than the equipment's useful life as determined by ASHRAE or other appropriate industry standards will require a municipal contribution
- The list of qualified projects is subject to change in future competitive grant rounds
- As this is a competitive solicitation, proposed projects cannot be significantly changed once awards are made. If an awarded project is not able to proceed within 180 days of grant contract execution, the award may be forfeited at DOER's sole discretion
- Applicants must acknowledge if utility incentives are estimated or approved/confirmed. If the incentives are approved, documentation from the utility is required
- DOER reserves the right to reject incomplete applications
- Quarterly reporting is required upon receipt of a Green Communities Competitive Grant. The DOER will provide reporting requirement details when a grant contract is executed

This Program Opportunity Notice (PON) is being conducted under 815 CMR 2.00, and has been distributed electronically using COMMBUYS, the Commonwealth's official procurement record system (http://www.commbuys.com). The project name is the Green Communities Competitive Grant Program 2021, and the project number is PON-ENE-2021-034. Correspondence to the DOER shall include the project number as well as the project name. All notifications and amendments to this PON will be posted on COMMBUYS. It is the responsibility of every potential respondent to

check COMMBUYS for any addenda or modifications to a PON to which they intend to respond. The Commonwealth of Massachusetts and its subdivisions accept no liability and will provide no accommodations to respondents who fail to check for amended PONs or submit inadequate or incorrect responses.

Respondents may not alter PON language or any PON component files. Those submitting a proposal must respond in accordance with the PON directions and complete only those sections that prompt a respondent for a response. Modifications to the body of this PON, specifications, terms and conditions, or which change the intent of this PON are prohibited. Any unauthorized alterations will disqualify a response.

All proposals and information submitted in response to this PON are subject to the Commonwealth of Massachusetts Public Records Law, M.G.L., Chapter 66, Section 10, and to Chapter 4, Section 7 and Subsection 26. Any statements in submitted responses that are inconsistent with these statutes shall be disregarded.

## ***EVALUATION CRITERIA***

In keeping with the DOER's goal of reducing greenhouse gas emissions by limiting and/or eliminating the use of fossil fuels through the strategic electrification of the manner in which buildings are conditioned, water is heated, and vehicles are fueled, this PON will prioritize grant awards for projects that help advance these objectives. Applications will be evaluated on the measures listed below:

- Energy impacts, including reductions in energy consumption and greenhouse gas emissions
- Effective use of funds as determined by energy savings achieved per DOER dollar invested. For reference, a median of three-thousand seven-hundred forty-seven (3,747) Btus were saved for each dollar of grant award in 2020. The Microsoft Excel grant table provided with this PON will provide this calculation for applicants
- DOER will evaluate applications comprehensively, with project costs and savings aggregated. Municipalities are strongly encouraged to submit an application with a balance of projects with high energy savings (e.g., HVAC upgrades) and longer return on investment along with quicker payback projects (e.g., lighting retrofits)
- Shovel readiness, including viability, and appropriateness of the project
- Previous competitive grant awards
- Municipalities that have forfeited grant-funded projects to close-out grants to be eligible for the 2021 Competitive Grant will be viewed unfavorably
- Percentage of twenty percent (20%) energy reduction goal achieved since designation application

- Continuous adherence to Green Communities criteria in effect to date (Example of non-adherence is a vehicle purchased that does not meet the Fuel-Efficient Vehicle Policy that was in effect at the time of purchase)
- Justification of need for any requests for up to ten percent (10%) of funds for program administration costs with a dollar cap not to exceed ten thousand dollars ($10,000)

## *SECTION 2 – PRESCRIPTIVE PROJECTS*

Prescriptive measures are measures for which fixed financial incentives are paid per unit. DOER is offering prescriptive grants for the following project types: variable frequency drives (VFDs) for pumps or motors under ten (10) horsepower; walk-in refrigerator/freezer controls; weatherstripping for exterior doors and windows; Building Operator Certification training; and electric/hybrid vehicles and charging stations. See the chart on the next two pages for application requirements and funding levels.

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| Prescriptive Measure | Description | Grant Funding Methodology | Required Documentation | Grant Funding CAP | Savings Methodology (If Applicable) | Remarks / Notes |
|---|---|---|---|---|---|---|
| VFD - 10HP or less Motor | Installation of VFD for 3 phase 10HP or less motors | $2,400 for up to 1HP and then additional $200/HP above 1HP up to 10HP | (1) Quantity and Horsepower for each motor (2) Briefly describe current motor application - example toilet exhaust fan, hot water recirc pump etc. (3) Identify utility incentives if available | Maximum of $4,400 for 10HP or not to exceed total project cost, including incentives | MA eTRM - Annual Energy Savings Factors for C&I VFDs (kWh/HP). Demand savings not required to be calculated | **Source for savings:** https://etrm.anbetrack.com/#/workarea/trm/MADPU/COM-MAD-VFD/2019-2021%20Plan%20TRM/version/1?measureName=Motor%20-%20Variable%20Frequency%20Drive |
| Walk-in Refrigeration Controls | Walk-in refrigerator and freezer evaporator fan EC Motor, fan and compressor controls | $1,650 per evaporator fan motor | (1) Total number of Walk-in refrigerator and freezers along with the number of evaporator fans per unit (2) Identify utility incentives if available | Not to exceed $9,900 per walk-in unit. Not to exceed total project cost, including incentives | 1,800 kWh per evaporator fan motor | Includes funding for new EC Motor, controls, electronic defrost, anti-sweat door |
| Weather-stripping | Door and window weather-stripping | Up to $24 per linear feet | (1) Total number of single and double doors (2) Number of operable windows with approximate size per window OR total linear feet of window openings proposed for weather-stripping (3) Identify utility incentives if available. | Not to exceed $24,000 per facility (1,000 linear feet). Not to exceed total project cost, including incentives | Vendor provided energy savings are acceptable | Excludes attic and wall insulation projects. Energy cost savings estimated to be approximately $2.40 per linear feet of weather-stripping installed |

| Prescriptive Measure | Description | Grant Funding Methodology | Required Documentation | Grant Funding CAP | Savings Methodology (If Applicable) |
|---|---|---|---|---|---|
| Building Operator Certification | Building operator certification for a member of town facilities maintenance department | $2,180 for one employee, $4,060 total for two employees, and $5,940 for three employees max. If requesting training for three (3) personnel, one must be on school facilities staff | Identify the position/duties of the employees being selected for BOC. Provide a narrative that specifies how the training will enhance and facilitate existing and proposed new energy conservation measures | Not to exceed the total cost | Town to calculate 1% of total annual building energy consumption in annual energy and cost savings from BOC |
| Hybrid and Plug-in Hybrid Vehicles | Purchase or lease to replace 'exempt' gas or diesel vehicles or SUVs (hybrid) or gas or diesel vehicles (plug-in hybrid) in the municipal fleet | Maximum $5,000 towards purchase OR maximum of $3,000 towards lease per vehicle **Specially eligible communities maximum is $10,000 (purchase) and $6,000 (lease)** | Provide type and model of vehicle being replaced, its average annual mileage and fuel costs, as well as the make/model of the proposed vehicle, and the mpg for both vehicles. See VEH 98 for the state vehicle contract | Not to exceed vehicle purchase/lease cost | Town can use their own calculations or refer to any one of the following sites: https://www.fueleconomy.gov/feg/savemoney.jsp' and/or https://afdc.energy.gov/calc/ |
| Battery Electric Vehicle | Purchase or lease to replace gas or diesel-powered vehicles in a municipal fleet | Maximum $7,500 towards purchase OR maximum of $5,000 towards lease per electric vehicle **Specially eligible maximum is $15,000 (purchase) and $10,000 (lease)** | | | |
| EV Charging Station | Installation of publicly accessible Type 2 dual head EV charging station | Maximum of $7,500 per charging station | Location and type of charging station. See VEH 102 for state contract with EV charging stations | Not to exceed implementation cost | N/A |

## *SECTION 3 – TRADITIONAL ENERGY REDUCTION PROJECTS*

Applicants can apply for one or more of the measures listed below. Applications must include the audit recommending the proposed measure, information on other measure(s) completed to date from the audit/assessment, confirm whether the whole building was assessed, and how the measure proposed for funding was prioritized for implementation amongst the recommended measures. For proposed measures not recommended in an audit, provide technical information to support the implementation of this measure - the supporting information must include why this measure is recommended for funding, and sample calculations that list all assumptions for projected energy savings and costs.

- Building envelope improvements *(Exterior door and window weatherstripping projects are funded via Prescriptive Projects in Section 2)*
    - Air sealing
    - Insulation
    - Storm windows or insulated window inserts
- Compressed Air
    - High efficiency air compressors
    - Refrigerated air dryers
- Food Service
    - Commercial fryer, griddle, oven, or steamer
    - Energy Star® dishwashers
    - Kitchen hood controls
- Hot Water
    - High efficiency water heaters, including air-source heat pump, condensing, tankless and indirect
- Heating, Ventilation and Air Conditioning (HVAC) Equipment - **NOTE: DOER support for new oil heating equipment is limited. Any requests for new oil-fired heating equipment must include an explanation of why alternatives (i.e., air and ground source heat pumps, biomass, solar thermal, natural gas, or propane) are not feasible. Applicants are required to include a fifty (50) percent cost-share for new oil-fired boilers or furnaces.**
    - Energy Star® certified air or ground-sourced heat pumps using variable speed inverter technology and meet the **Cold Climate Air Source Heat Pump Specification Version 2.0** published by Northeast Energy Efficiency Partnerships effective January 1, 2017 or any version thereafter. Applicants are strongly encouraged to work with designers and installers registered with the Massachusetts Clean Energy Center found at **https://www.masscec.com/finding-commercial-designer-and-installer**

    - High efficiency boiler replacements, including condensing boilers and combo boiler/water heaters
    - High efficiency chillers
    - High efficiency furnace replacements
- Grants are also available to fund all or in part the following HVAC equipment:
    - Boiler reset controls (also known as outside air reset)
    - Burner upgrades
    - Demand control ventilation
    - Dual enthalpy economizer controls
    - Electronically commutated motors
    - Energy Star® Wi-Fi programmable thermostats
    - High efficiency air conditioners
    - Low-intensity infrared heating
    - Rooftop control units
    - Water-source heat pumps including wastewater source heat pumps
    - Repair/replace malfunctioning steam traps
- Building Controls
    - Energy Management Systems – grant application narrative must include a description of staff training
- Lighting
    - Interior lighting – LED retrofit/replacement. The project must be either: 1) whole fixture replacements of existing lamps and ballasts, 2) retrofit kits with internal drivers for non-linear and specialty lighting fixtures, or 3) Type C TLED lamp replacements with compatible external LED drivers. Other lighting types may be considered on an incidental basis with low operating hours, e.g., restrooms, storage rooms, etc.
    - Interior lighting controls – for existing, high-efficiency interior lighting
    - Daylighting – for existing, high-efficiency interior lighting
    - Exterior LED lighting and lighting controls – building lights, parking lot lights, traffic lights, streetlights and controls
- Operations
    - Building energy analytics software services using interval meter or energy management system data
    - Retro-commissioning
- Pumps, Motors & Drives
    - National Electrical Manufacturers Association (NEMA) premium efficiency motors
    - Pump coating and pump system optimization

    - Variable frequency drives – *(See prescriptive measures listed in Section 2 for VFDs on pumps or motors under 10 horsepower)*
- Resiliency
    - Air-source heat pump heaters for emergency generators ≥ 200 kW
- Refrigeration – *(see prescriptive measures listed in Section 2 for walk-in refrigerator and freezer controls)*
    - Case motor replacement
    - Cooler night covers
    - Door heater controls
    - Electronic defrost controls
    - Energy Star® refrigerators
    - Energy Star® freezers
    - Novelty cooler shutoff
- Vehicular Efficiency Measures **–** *(see prescriptive measures listed in Section 2 for EV charging stations, EV and hybrid vehicle acquisitions)*
    - Technologies that reduce vehicle fuel use (e.g., anti-idling technologies, add-on hybrid technologies). Check the state contract VEH 102 for information on purchasing idle-reduction and after-market vehicle conversion equipment for light, medium, and heavy-duty vehicles
    - Vehicle tracking and routing software that includes a feedback or fuel-savings component and has been qualified by DOER. Such software must include measurement and verification of the resulting fuel savings

**Renewable Energy and Resiliency Projects on Municipal Property**

- Solar thermal serving facilities with a year-round hot water heat load
- Energy Star ® certified air or ground-sourced heat pumps using variable speed inverter technology and meet the **Cold Climate Air Source Heat Pump Specification Version 2.0** published by Northeast Energy Efficiency Partnerships effective January 1, 2017 or any version thereafter
    - Applicants are strongly encouraged to work with designers and installers registered with the Massachusetts Clean Energy Center found at **https://www.masscec.com/finding-commercial-designer-and-installer**
- Anaerobic digestion that uses organic materials (e.g., food waste, agricultural waste) and which meets the Commonwealth of Massachusetts RPS low-emission requirements
- Solar-powered mixers at drinking water or wastewater facilities

- Community district heating and cooling infrastructure - providing for thermal energy from one or more central plants to at least two or more buildings through a network of pipes to provide hot water and chilled water to be used for space heating, air conditioning, domestic hot water, and other end uses for the thermal energy. Preference will be given to renewable thermal district systems

- Biomass thermal that meets all the following criteria:
    - Utilizes only clean wood chips or wood pellet fuel;
    - Meets all applicable ASME and UL safety certifications;
    - Achieves fuel conversion efficiency ratings that are amongst the highest of those of commercially available products, typically above eighty to eighty-five percent (80%-85%); and
    - Utilizes Best Available Control Technology to reduce air emissions to levels that are amongst the lowest achieved by commercially available technology.
- Storage to shave peak demand charges
    - Grants may be for energy storage technologies that enable municipal facilities to mitigate demand charges and/or regional network service and installed capacity charges
    - If onsite generation is available (such as solar PV, CHP, etc.), the energy storage must be configured in such a way as to enable those resources to continue to provide power to the facility in the case of an outage
    - The energy storage must be connected in such a way that it can provide power to select onsite loads in the case of an outage. The municipality will be responsible for selecting which loads should be 'backed up' by the energy storage
    - These configuration requirements are to ensure the investment in energy storage provides both economic benefits as well as improved energy resilience benefits to the community

## *SECTION 4 – ADDITIONAL QUALIFIED PROJECTS (Special Eligibility)*

The DOER will inform potential applicants of their eligibility for these opportunities based upon data contained in their Green Communities Annual Reports. Applicants that are a Green Community in good standing for **six (6) or more years** AND have also achieved and maintained a minimum of fifteen percent (15%) energy reduction of their Energy Reduction Plan target **for three (3) or more years** are also eligible to apply for:

- Double the maximum award amounts for hybrid and battery-electric vehicles as indicated in *Section 2 – Prescriptive Projects*
- Behavior-based energy efficiency programs that focus on energy savings resulting from changes in individual or organizational behavior and decision-making, such as programs that employ goal

setting, rewards, and other tactics to encourage efficient energy use. Such programs must include measurement and verification of the resulting energy savings. Awards are capped at $10,000.

- Community outreach programs to promote existing residential and/or commercial energy efficiency programs, such as MassSave, including supplemental grant programs; and/or to promote other clean energy initiatives such as community-shared solar, Solarize, or HeatSmart. Awards are capped at ten thousand dollars ($10,000) for municipalities with populations under thirty-five thousand ; twenty thousand dollars ($20,000) for municipalities with populations over thirty-five thousand . For information on how to run a local clean energy campaign visit the Mass Clean Energy Center Solarize website: https://www.masscec.com/solarize-heatsmart-toolkit
- Energy efficiency projects, which are included in the list of qualified projects, at a facility not included in the municipality's baseline but in a district associated with the municipality, such as a regional school district, a water district, or a wastewater district.

## *SECTION 5 – CUSTOM PROJECTS*

Applications will be accepted from municipalities seeking funding for larger, comprehensive projects that extend beyond the typical grant in implementation time and cost. Awards for custom implementation projects are capped at five hundred thousand dollars ($500,000), require a minimum ten (10) percent match, must demonstrate reductions in energy use or greenhouse gas emissions, and must be completed within three (3) years of grant contract execution. Grant awards in this category are highly competitive and will be limited. Municipalities applying for a custom implementation grant cannot apply for other projects in this PON. Custom project implementation awardees under this PON will be ineligible to apply for competitive grants for two (2) years subsequent to award.

Applicants requiring support to perform engineering studies and/or design services are eligible for funding up to twenty-five thousand dollars ($25,000) for these tasks. Municipalities applying for custom project engineering grants ARE eligible to apply for other projects in this PON.

Municipalities considering applying for custom projects are highly encouraged to contact their Green Communities Regional Coordinator to discuss potential proposals with DOER staff. Funding of pre-implementation support does not guarantee approval of project implementation funding.

## NON-QUALIFIED PROJECTS

The following will **NOT** be funded in this grant round:

- Staffing beyond ten percent (10%) of the grant amount (not to exceed $10,000) for program administration
- Solar PV
- Revolving loan funds

- Energy audits, feasibility studies or assessments
- Air or water-source heat pumps for space cooling only
- Projects for buildings/facilities not included in the municipality's baseline and therefore not in the municipality's Energy Reduction Plan (e.g., a Regional School District), except for municipalities eligible under Section 4 as approved by the DOER.

**INSTRUCTIONS**

This application is available as PON-ENE-2021-034on COMMBUYS (as a "Bid").

Applicants must complete all required sections **via the online Green Communities grant application portal** in order to be considered for a grant award. No paper submissions will be accepted. Failure to submit all sections online will constitute a late filed application and will not be considered. The instructions for the online submission of the materials below are contained in Attachment D.

**Applications must be submitted by 5 PM April 9, 2021 for Block 1 and between 9 AM August 16 and 5 PM October 8, 2021 for Block 2**

- Applications must include:
    1. A Project Narrative for EACH project (see Attachment A below) which can be included in one document if requesting more than one project
    2. Completed Grant Table that contains specific metrics for the municipality's proposed project(s). This file must be submitted as an Excel spreadsheet. (Available with the PON on COMMBUYS, an example is contained in Attachment B)
    3. Supporting material in its original and complete format (e.g., the entire audit report, not a portion of it)
    4. Certification of Application – (see Attachment C)
    5. Name each of your files for the above listed documents with your municipal name and wording that makes the content of the file clear (see examples below) – this is **REQUIRED**. Please do not preface with "Town (or City) of," just the municipality's name. Examples for "Muni A":

        Muni A Grant Table.xls
        Muni A Efficiency Narrative.pdf
        Muni A Efficiency Audit.pdf
        Muni A Certification of Application

# ATTACHMENT A

- A project narrative *AS OUTLINED BELOW* must be provided for *EACH* project. It is preferred that the project narrative includes information for all proposals in a single document
- Each bullet below must be addressed for the type of project proposed
- If the applicant believes a particular bullet is not applicable, the applicant should note "n/a"
- Attach any documentation to support project technical and economic viability: applicable feasibility studies, site analysis, audits/assessments, design documents, contracts, construction schedule, and anticipated completion date. Provide complete documents with references to the relevant portions

## NARRATIVE FOR EACH PROJECT

- Provide the municipality's total energy consumption for the previous year in MMBtu, preferably from your approved Green Community Annual Report's Table 2. This should include buildings, vehicles, and streetlights
- Provide the total energy use for the applicable facility in native energy units (e.g., kWh, gallons, etc.)
- Provide specification sheets for all equipment to be installed including cut sheets for lighting
- Describe the scope of the proposed project including:
  - Purpose
  - Benefits
  - Timeline
  - Procurement required and status
  - Anticipated impact, qualitatively and quantitatively
  - How the project supports the municipality's five-year Energy Reduction Plan.
  - Why grant funding is required to complete the project
  - Identify any and all permits required and the status of each
  - Identify any other approvals required, e.g., local, state, federal, and the status of each
  - Opportunities for education and outreach and a concrete plan to accomplish them
- Provide a complete accounting/proposed budget for the project. Include:
  - A total project budget with cost estimates/quotes (annotated to clearly identify the option selected for the budget)

- Other sources of funding, including any utility or Mass Clean Energy Center incentives. Applicants must include documentation of either:
  - Confirmed, preapproved utility incentives
  - Application for utility incentives
  - Applications for any other grants
  - Justification for any funds to be used for administrative costs; this MUST be provided. In no case shall more than 10 percent of grant award (or $10,000, whichever is higher) be used to fund administrative costs

- Provide a description of the applicant and the project team and its qualifications for completing the project, including all identified partners, contractors, and any technical service providers. Applicants are encouraged to seek qualified, independent project managers or clerk of the works to coordinate the day-to-day activities. Grant administration funds can be used for this purpose.
  - Identify the specific roles and responsibilities of each of the parties
  - Identify how the project will be managed on a day-to-day basis
  - Provide a generic description of potential additional partners or contractors that will be required for completion of the project but have not yet been identified by the applicant or incorporated into the project team

## ADDITIONAL MATERIALS

IN ADDITION to the projected cost and energy savings, which must be included in the competitive grant table, and the supporting audits or studies, which must be included in the application, please provide the following:

## FOR ENERGY EFFICIENCY PROJECTS

For new HVAC equipment (boilers, furnaces, heat pumps), the building must have at least one of the following:

- An audit that confirms the building is properly weatherized and insulated, i.e., measures to address the building envelope were not recommended in the audit due to the building being well-sealed. Please attach a copy of this building audit.
- Documentation that the building has been properly weatherized and insulated within the last five years; this can include invoices for air sealing and insulation. Please attach a copy of this documentation.

- An audit stating that the building cannot be further insulated without a major renovation. For example, brick or masonry buildings cannot add wall insulation without major renovations to add insulation on the interior wall of every room. Attic spaces in these buildings, however, often can be insulated without major renovation and documentation must be shown that these spaces have been weatherized and insulated. Please attach a copy of this audit.
- DOER will consider applications that include both weatherization and HVAC equipment at the same facility. Applications should include assurances that the HVAC equipment is properly specified and sized to take the weatherization activities into account. Energy and costs savings attributed to each project should be calculated taking the other project into account.

For requests to fund measures as part of an **Energy Savings Performance Contract (ESPC),** please explain whether the measure(s) would be included in the ESPC without the funding, and, if not, why. Also, describe whether the ESPC will proceed without this funding.

For **boilers and HVAC system projects that ARE fuel conversions**, provide:

- Efficiency and fuel type of existing unit
- Efficiency and fuel type of proposed unit

For **boilers, rooftop ventilation units, and HVAC system projects that are NOT fuel conversions**, provide:

- Efficiency of code-compliant unit
- Efficiency of the proposed unit
- Cost of code-compliant unit
- Cost of the proposed unit

**NOTE: DOER support for new oil heating equipment is limited. Applicant must justify why conversion to an alternative heating fuel is not feasible. Applicants are required to include a fifty (50) percent cost match.**

For **energy-efficient consumer products such as Energy Star® refrigerators, freezers, and dishwashers** provide:

- Make and model of existing unit
- Make and model of the proposed unit

For **self-installed efficiency measures such as pre-rinse spray valves or Energy Star® Wi-Fi programmable thermostats,** provide:

- Number of each for each building

For **building envelope projects,** provide:

- R-values and/or U-Values for proposed installations
- Calculations that list all assumptions for projected energy savings and costs

For **interior LED lighting upgrades**, provide:

- Number and wattage of existing lights
- Their total electric consumption for the previous year in kWh
- Wattage and cost of proposed replacement lights
- Control equipment as appropriate
- Specification sheets of proposed lighting products

For **exterior lights, streetlights, traffic lights, or parking lot lights**, provide:

- Number and wattage of existing lights
- Their total electric consumption for the previous year in kWh
- Ownership (confirm that municipality owns its streetlights) and metering status (unmetered or metered)
- Wattage, cost, and technology (LED, induction, etc.) of proposed replacement lights
- LED streetlights must be controls-ready (seven-pin)

For **LED streetlight controls**, please provide the aforementioned information, as well as the following:

- Product specifications for controls;
- Proposed operating changes and associated projected energy savings; and
- Email or letter of support from the utility

Due to their complexity of operations and the proprietary nature of the systems, the DOER needs additional information to approve grant funding for **Energy Management Systems (EMS).** This information should be available in the project proposal. If not, please ask the consultant to provide this information. Please provide the following information for review:

- Current EMS (if any)
- Number of data points requested
- Systems and equipment to be monitored and/or controlled
- Estimated energy savings
- EMS manufacturer
    - Whether the EMS remote control units and transducers are interchangeable with EMS main control units from other vendors
    - Whether the EMS program software is open-source, and whether the updates and revisions can be installed by technicians other than the vendor
    - The communication protocol (e.g., BACNET) and whether it allows communication with other vendors' control systems

- Training on operations, emergencies, adjustments, troubleshooting, maintenance, and repairs
- Identify municipal and/or school personnel trained (or will be trained) to properly operate the EMS

While the following materials are not required for review, the DOER highly recommends that a municipality receive these from its selected EMS vendor:

- ✓ Operations and Maintenance manuals
- ✓ As-built control drawing package
- ✓ Graphical user interface
- ✓ As-built control sequences
- ✓ Maintenance service agreements, state of warranty date, and similar continuing commitments

For **all other building efficiency measures**, provide:

- The audit recommending the proposed measure
- Information on other measure(s) completed to date from the audit/assessment - address whether the whole building was assessed, and how the measure proposed for funding was prioritized for implementation amongst the recommended measures
- For proposed measures not recommended in an audit, provide technical information to support the implementation of the measures - the supporting information must include why this measure is recommended for funding, quantification of the measure's efficiency rating (e.g., R-value, U-Value, rated efficiency, etc.), and sample calculations that list all assumptions for projected energy savings and costs.

## FOR VEHICULAR EFFICIENCY PROJECTS

For **anti-idling retrofits, add-on hybrid technologies, or vehicle tracking and routing software**, provide:

- Department(s)
- Purpose/how used
- Average mileage per year
- Number of operators
- Current fuel consumption

- For **vehicle tracking and routing software programs**, provide:
  - Describe the proposed program to reduce vehicle energy use
  - Projected vehicle fuel savings with supporting analysis
  - How fuel use by individual vehicles will be tracked and reported

- The process for providing and obtaining feedback (i.e., how the users or department will be informed of their progress)
- Include the manufacturer's specifications/product name for the proposed vehicular efficiency measure(s)

## FOR RENEWABLE ENERGY PROJECTS

- Provide documentation demonstrating the availability of the renewable resource identified in this application.
- Identify energy conservation measures completed within the last five (5) years for the building(s) being considered for the renewable energy project OR document the building's EUI
- If available, provide a list of materials and equipment including manufacturer's specifications/product name
- For **biomass and anaerobic digestion** projects, provide a description of the source materials to be used and a plan for obtaining source material
- Describe plans and/or actions already taken to encourage community support for the project

For renewable energy projects, evaluate if eligible for MassCEC grants. If so, please include grant application or approval as applicable. Visit ***http://www.masscec.com/get-clean-energy/government-and-non-profit***

## FOR STORAGE PROJECTS

- Annual energy consumption of the facility
- A copy of a recent bill showing demand charges
- Interval data for the proposed facility (if exists)
- If paired with existing municipally owned solar PV, identify system location and size
- If paired with a new solar PV installation, provide information on the solar PV system as appropriate

## FOR BEHAVIOR-BASED AND COMMUNITY OUTREACH PROJECTS

Applicants for behavior and community outreach projects should have a clear, tangible goal for these projects. They may partner with local community groups, businesses, and/or institutions.

- The application must provide a thorough Scope of Work that includes:
  - Target audience
  - Tasks and timelines
  - Itemized budget

- Outreach/education methods and materials
- Qualifications of person(s) completing the work – please attach resume(s)
- Memorandum(s) of Agreement with partners as applicable
- Letters of support
- Intended outcomes
- Measurement and verification methodology of clean energy results

## FOR CUSTOM PROJECTS

Applicants for custom implementation projects should include all the information detailed above for the project narrative plus specific information for the appropriate technology and/or project type. In addition, they should include engineering plans and drawings as applicable, and a letter from the municipality's CEO committing a minimum of ten percent (10%) of local matching funds toward the project.

Applicants for custom project engineering and design grants should include a feasibility study or an ASHRAE Level 2 audit that identifies measure(s) to be implemented, including estimated energy and cost savings.

Municipalities considering custom grants are encouraged to contact their Green Communities Regional Coordinator to discuss potential project(s) with DOER staff.

# ATTACHMENT B

# EXAMPLE OF ONLINE GRANT TABLE

Please complete separate Excel file "Grant Application Table" and include in uploaded materials

| | | | | Project Annual Energy Savings | | | | | | Project Cost Information | | | | | Reference and Supporting Information | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Building Name and/or Location (as noted in MEI) | Traditional, Administrative, OR Prescriptive Project (select from dropdown list) | Project Name (description for Traditional Projects) [1] | Projected Completion (monthly year) [2] | Electricity (kWh)[3] | Natural Gas (therms)[3] | Oil (gallons)[3] | Gasoline (gallons)[3] | Diesel (gallons)[3] | Propane (gallons)[3] | Total Project Cost ($) [4] | GC Grant Funding ($) | Utility Incentives ($) | Other Grants ($) (please list source in column N) | Community Contribution ($) | Funding Source(s) for Other Grants and Town Contribution | Source of Community Contribution (if applicable) | Audit or Study Reference | Audit or Study Page Reference(s) [5] | Other Supporting Document(s) and Page References [5] | Part of Performance Contract? (yes or no) |
| | | | | | | | | | | $0.00 | | | | | | | | | | |
| | | | | | | | | | | $0.00 | | | | | | | | | | |
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| | | | | | | | | | | $0.00 | | | | | | | | | | |
| | | | | | | | | | | $0.00 | | | | | | | | | | |
| Green Community: | | | | 0 | 0 | 0 | 0 | 0 | 0 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | N/A | | N/A | N/A | N/A | N/A |

## ATTACHMENT C – CERTIFICATION OF APPLICATION

The Certification of Application below must be completed, scanned, and uploaded as a PDF file.

# CERTIFICATION OF APPLICATION

The **Chief Executive Officer** must complete this certification.

I, _____ am authorized to execute said Application on behalf of

_____, the applying municipality and verify that the information in the Green Communities Competitive Grant Application is true.

_____

[Signature of Chief Executive Officer]

_____

[Title of Chief Executive Officer]

_____

[Date]

**NOTE:** The Chief Executive Officer is defined as the manager in any city having a manager and, in any town, having a city form of government, the mayor in any other city, and the board of selectmen in any other town unless some other officer or body is designated to perform the functions of a chief executive officer under the provisions of a local charter or laws having the force of a charter.

## ATTACHMENT D - HOW TO SUBMIT APPLICATION ONLINE

The Green Communities Online Grant Application System is a portal available via iMeet Central. The Green Communities Division has worked hard to make this online process simple, please read the instructions.

**PLEASE NOTE**: *You cannot return to a partially completed form to add or correct information.* If you log out without using the <Submit> button, nothing has been saved in the system. If you want to practice using the system, simply do not use the submit button. When you use the <Submit> button, the information on the form along with uploaded files will be saved to DOER's system. If you log back in, the form will be blank, BUT the system saved your files and information. **Please only submit once**. If you do not see your city or town name on the drop-down pick list, made a mistake, or forgot something, please contact Jane Pfister at jane.pfister@mass.gov / 617-935-9158.

### Getting Started

- Only one person can submit the grant application from your city or town. Please designate a single point of contact (if it has changed from the previous point of contact) and provide his/her email address to your Regional Coordinator. A new single point of contact will receive an email invitation to the online application system and will be required to create a user profile. People already registered on iMeet Central (previous point of contact) retain their system access, but their Regional Coordinator needs to let DOER know they will be the point of contact for the competitive grant application.
- Use a high speed (broadband) Internet connection if possible. Dial-up connections work but are very slow. If you cannot find a suitable Internet connection, contact Jane Pfister, 617-935-9158.
- No paper submission is required or accepted for the grant application. The process is online and electronic only.

### Grant Application Process

1. Make sure you have all the files you will submit/upload ready and saved in one folder somewhere on your computer, easy to find and select once you begin. Begin EACH electronic file name with city or town name. Begin EACH electronic file name with city or town name, (example: "Springfield" rather than "City of Springfield"), then wording that makes the content of the file clear.

2. Fill out the online Grant Application form completely. You will upload all your application files using the form: Grant Application Table as Excel, signed Certification of Application (as PDF), Project Narrative(s) for each proposed measure, along with any other supporting files including energy audits, studies, proposals, specifications, or other documentation. Please upload a complete energy audit or study, not just relevant page(s).

3. Use the Upload lines (green lines at the bottom), one for each file, by either clicking in the blank space or grey <Browse> button. Then browse to and select a file on your computer, double click on it, or select the Open option on the dialog box. The file's path on your computer will show in the blank white space.

4. If you have more supporting documents than the available Upload lines (there are 20 Upload lines), you can create a compressed (zipped) file (with the required name format) with all supporting files for a proposed project.

5. Review the Grant Application Form and uploads lines carefully to make sure everything is complete and how you want it.

6. Click on the Calendar icon to access a calendar. Then, click on the date to select Date and Time which will be filled in on the blank line.

7. Now you are ready to submit everything. Click on the <Submit> button.

    - *When you submit a form, you may receive the following message: "This form is non-secure - do you still want to send it?" It is just informational; nothing to worry about. Answer <Yes>.*

8. After you submit, a confirmation page will appear. DOER will also receive a message from the system. Shortly, you will receive an email confirming that DOER's Green Communities Division has received your grant application and the number of files uploaded with it. If you have any concerns, please email Jane Pfister or call 617-935-9158.

**Create a Compressed (zipped) Folder**

1. Put all the files you want to attach somewhere on your computer (e.g., in one folder).
2. Select all the files you wish to include: Hold down the <Ctrl> key as you click each one. They will all be highlighted in blue.
3. Right-click any of the highlighted files (put your cursor over one of the files and click the right button on your mouse or other pointing device).
4. Select <Send To> (about halfway down the pop-up menu).
5. Select <Compressed (zipped) Folder> from the next pop-up menu.
6. Find the new folder. It will have the name of one of the files you selected (in step 3), but with a .zip extension (e.g., Town Efficiency Audit.zip).
7. Rename the zip folder (right-click the folder name, select <Rename> near the bottom of the menu).
8. Change only the name to the left of the period (i.e., keep the .zip extension).
9. Begin with town/city name, and then wording that makes the content of the file clear.
10. Upload the same way, using a green Upload line on the form.

**Get Help**

**Pre-Grant Application Process** - Contact your Regional Coordinator
**Online Process and Technical Issues** - Contact Jane.Pfister@mass.gov / 617-935-9158