Application for Grants

Instructions

Refer to the Commonwealth Hydropower Round 14 **Solicitation** document, "Request for Proposals: Commonwealth Hydropower Program Round 14," on the MassCEC website[1] for program rules and requirements and instructions for submitting your application.

Complete all sections of this document or indicate that a section/question is not relevant; do not delete questions. Save the file with the name: "*Applicant Name* – Commonwealth Hydro."

It is the sole responsibility of the Applicant to ensure that its application is complete, meets minimum threshold requirements, and is properly submitted to MassCEC (as detailed in the Solicitation). MassCEC reserves the right to only consider applications that, in its sole judgment, meet the minimum threshold requirements.

All proposals must be submitted to hydro@masscec.com with the subject line "Commonwealth Hydro Application – [Company Name]". Within this email, please send the application as a separate file from any additional attachments.

Important Reminder

Any information submitted to MassCEC by the Applicant in response to this solicitation is subject to public disclosure requirements as set forth in the Massachusetts Public Records Act. See Section X of the solicitation, "General Request for Proposals Conditions," for a discussion of Public Disclosure requirements.

[1] See https://www.masscec.com/program/commonwealth-hydropower.

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Grant
Application Data Sheet

Applicant Information	
Applicant – Organization Name: **Organization Type:** ☐ Private ☐ Public	**Short Title of Project:** **Construction Project or Feasibility Study:**
Applicant legal status and state of jurisdiction (e.g., a Massachusetts corporation):	**Mailing Address:**
Total Estimated Project Cost:	**Total MassCEC Grant Funding Sought:** **Total Grantee Cost Share:**
Has Applicant previously received assistance from MassCEC? If yes, please explain and include amount(s) received. Note whether any of this assistance was for the same facility that is the subject of this application.	

Facility Information and Technical Summary	
Name of Dam or Facility:	**Name of Dam/Facility Owner:**
Name of waterway on which facility is located:	**Owner of water rights:**
Facility Street Address:	**City/ Town, State, Zip:**
FERC Status (check one): ☐ a. Existing FERC license or exemption (attach) ☐ b. Unlicensed, but located on a FERC-licensed canal ☐ c. Non-Jurisdictional (attach FERC Order) ☐ d. Qualifying Conduit Facility (attach FERC Determination) ☐ e. Pursuing a FERC "conduit exemption"	**FERC License (for Status choice a. or b.):** **License or Exemption Number:** **Expiration Date:**

	Will the facility apply for re-licensing? If so, when?

<table>
<tr>
<td>Date of last dam safety inspection:

Performed by:

Reported condition of dam:</td>
<td>MA Dam ID No:

Date of MA Dept. of Conservation and Recreation Certificate of Compliance:

If none, please explain:</td>
</tr>
<tr>
<td><u>Existing Facility</u>

Turbine Description — Generator Nameplate Capacity (kW)
T1: _____ _____
T2: _____ _____
T3: _____ _____
(add more if necessary)

FERC-authorized total station capacity:</td>
<td><u>Facility Upon Project Completion</u>

Turbine Description — Generator Nameplate Capacity (kW)
T1: _____ _____
T2: _____ _____
T3: _____ _____
(add more if necessary)</td>
</tr>
<tr>
<td>Average annual net electricity production from existing facility (consistent with Section 3.3, below):

_____ kWh/year</td>
<td>Projected annual incremental net electricity production from facility after project is complete (consistent with Section 3.3, below):

_____ kWh/year</td>
</tr>
<tr>
<td>If any onsite load, Average Annual Electricity Usage (kWh) (omit if parasitic load only):</td>
<td>Expected changes to onsite load, if any:</td>
</tr>
<tr>
<td>What service territory is your facility located in (electric distribution company or municipal lighting plant (“MLP”). Please note, if the facility is located within the service territory MLP or interconnects with an MLP, the MLP must have executed a Renewable Energy Trust Fund Membership agreement with either MassCEC or the Massachusetts Technology Collaborative. Please reference if so.</td>
<td>Does this facility participate in ISO-NE energy markets? If yes, which ones does it participate in?</td>
</tr>
</table>

Point of Contact Information	
Primary Contact *(Authorized to commit organization; notified upon decision of award)*	
Name:	**Title:**
Organization:	**Phone:**
Email Address:	**Website:**
Mailing Street Address:	**City/ Town:**
State:	**Zip +4 Code:**
Project Manager *(Contact over course of project)*	
Name:	**Title:**
Organization:	**Phone:**
Email Address:	**Website:**
Mailing Street Address:	**City/ Town:**
State:	**Zip +4 Code:**

Project Narrative Form

Instructions: Use this form for your project narrative. Please complete all sections or indicate that a section/question is not relevant; do not delete questions. The project narrative must not be more than 15 pages in length at 10-point font, excluding required attachments. It is acceptable to expand the boxes to supply the requested information. MassCEC's evaluation criteria favor complete, clear, and concise proposals. Applicants must also demonstrate a thorough understanding of project risks and related mitigation measures, and a firm commitment from all partners involved in the project.

SECTION 1: PROJECT OVERVIEW AND AWARD REQUEST

1. Project Title and Location (city, state):	
2. Applicant Organization Name:	
3. Total Facility Capacity upon Project Completion (kW):	
4. Total Requested Grant $	
5. Total Cost Share $ by Grantee	
6. Provide a concise summary (1-2 paragraphs) of the proposed project, including the project site and technology description, project objectives, project team, proposed scope of work, timeline, and total budget:	

SECTION 2: TEAM AND QUALIFICATIONS

2.1. Applicant's Objectives	
1. Briefly describe the nature of the Applicant's principal business or organization (e.g., wholesale power producer, manufacturer of precision widgets).	
2. State the Applicant's required economic threshold(s) for investing in the proposed project (e.g., simple payback requirements; internal rate of return), and *summarize* the ability of the proposed project to meet this requirement *with and without* the requested grant. (Note: further detail is requested in Section 3.5, below.)	

2.2. Host/Partner Commitment and Water Rights

If the facility owner and/ or site owner differ from the Applicant, describe the terms and conditions of the relationship(s) and the commitment of involved parties and their understanding of the nature of the project. If the project site is under a lease, describe the duration, conditions and terms of the lease and discuss, if relevant, the lessor's commitment to the project. For third-party ownership arrangements, describe the agreement between the host facility owner and the hydropower generation facility owner. *Note: A letter of commitment from the dam owner, if not the same entity as the Applicant, is a required attachment.*

2.3 Project Team Description	
1. Provide a brief overview of the project team, summarizing prior experience with development or rehabilitation of hydropower systems. Attach resumes of key team members.	
2. Summarize the roles and responsibilities of key team members, including contractors. Please refer to the main tasks identified in the Budget.	
3. Indicate which, if any, project contractors are Related Parties (see definition in Section IV—Eligibility of the Request for Proposals).	

SECTION 3: EXISTING FACILITIES AND PROJECT CHARACTERISTICS

3.1. Project Site and Setting (Note**:** The following requests pertain to facilities associated with dams. If your project does not involve a dam and/or you will be seeking a conduit exemption from FERC, please explain, and provide as much analogous information as possible.)

1. Describe the location of the dam on the river, e.g., first dam from the mouth of the river, second dam below the confluence of X River and Y River. Include a locus map, such as the relevant section of a USGS 7.5-minute quadrangle map showing the location of the proposed project.	
2. Identify the most immediate upstream and downstream dams on the river and the distances to each.	
3. Describe the existing facility's principal features, including height and head of dam; volume and area of impoundment; length of bypass reach, if any; length of penstock; type and capacity of hydroelectric equipment in place and general state of repair; automated controls. Please attach a schematic diagram or simple sketch illustrating layout of facility and facility's relationship to waterway (locations of diversion, bypass, tailrace, etc.).	
4. Describe the typical operating characteristics of facility. Include average annual energy production (consistent with Section 3.3, below), seasonal issues, record of compliance with any minimum stream flow requirements, and ability to operate in run-of-river mode.	
5. Describe any provision for fish or eel passage at the site. What species are the facilities intended to assist? Describe what is known about their effectiveness.	
6. Describe the local community engagement that your team conducts generally or has conducted through **prior** projects /activities. Please share any relevant examples of how your team incorporates learnings from those stakeholder interactions into your project plans, operations, or priorities.	
7. Briefly describe the condition of and maintenance protocols for the hydropower and fish/eel passage facilities. Please note any aspects of the facility's condition that may jeopardize generation. What aspects of the facility not to be addressed by the proposed project, if any, are likely to require significant maintenance or repair within the next	

10 years? What are your schedule and financing plans for addressing these needs?	
8. Under what permits does the existing facility operate? Please attach copies of any FERC licenses or exemptions, 401 Water Quality Certifications or NPDES permits; other permits may just be listed. *Do not include Critical Energy Infrastructure Information.*	
9. Is the facility currently in full compliance with all conditions of its FERC license or exemption? If not, please explain. If there are license conditions that are scheduled to be met in the future, please explain.	
3.2. The Proposed Project	
Describe the proposed project for which funding is being sought, including at least the following aspects (Note: If the proposed project is a feasibility study, please skip sections 3.2-3.5.):	
1. The changes that will be made to the existing facilities a. if installing or replacing generation equipment, describe the new or refurbished equipment to be installed, including related peripheral equipment (e.g., automated controls, automated metering, etc.) to be employed. Please note that all equipment should be accompanied by warranties and service support options, which may be subject to MassCEC approval. b. any civil work to be performed, (e.g., repairs to dam or canal, excavation of tailrace) c. any work related to grid interconnection d. any work to be performed specifically to benefit fish passage or habitat values	
2. the permitting or licensing activities that must be completed, including any amendments to an existing license or amendment	
3. the project's ability to comply with the Minimum Technical Requirements listed in the Reference Materials.	
4. Timeframe to complete the project	

5. Other relevant information (optional)	
3.3. Project Impacts	
1. Provide a brief overview of how the project will change typical operations in the future.	
2. Summarize the approach to modeling the production of a) the existing facility and b) the facility after the funded upgrades – the difference between which is the **average annual incremental generation** expected to result from the funded project. This modeling should be generally in accordance with the guidance provided in the Energy Modeling Guidelines found in the Reference Materials. Explain any deviations from the Energy Modeling Guidelines in your approach. Include with your electronic application files the live Excel model you used to derive the estimate of average annual incremental generation.	
3. State the estimated average increase in kWh generated per year, as compared to current conditions, resulting from your modeling.	
4. Describe any changes in the timing and magnitude of stream flow that will result from the project. Describe how the facility will be operated in run-of-river mode.	
3.4. Non-Financial Feasibility	
Describe the feasibility analysis that has been done in preparation for this project, including an assessment of technical, regulatory, and environmental factors. Summarize the conclusions of the analyses. Attach any relevant studies.	
3.5. Financial Feasibility	
1. What are the total estimated project costs? This figure may include costs that are not "Allowable Expenses" for purposes of the Project Budget, such as Direct Labor in excess of the allowable percentage. If contingency is included, identify the amount and explain the basis for it. Note: If construction activities will yield salvaged equipment that will not be reused in the project,	

the fair market value of the salvaged equipment should be reflected as a credit against project costs.	
2. Expected incremental annual revenues due to the funded project. Describe the plans for the sale of power and RECs.	
3. Summarize the various financing options that are under consideration for the project. What are the expected sources of Applicant's required Cost-Share?	
4. Provide a summary of pro-forma financial analyses of the project *with and without* the assistance requested from MassCEC. Reflect any tax credits you intend to claim.	
5. Explain how the requested assistance affects the project's financial viability relative to your financial requirements. MassCEC encourages Applicants to request less than the maximum allowed.	
3.6. MA RPS Qualification	
1. Is the facility qualified for the MA Renewable Portfolio Standard?	☐ Yes ☐ No
2. If not MA RPS qualified, and the project is *not* a conduit project, has it been certified by the Low Impact Hydropower Institute (LIHI)?	☐ Yes ☐ No ☐ N/A
3. If the answer to both questions above is "No," please **attach a letter from the MA Department of Fish and Game's (DFG's) Division of Fisheries and Wildlife** that identifies any concerns that may affect LIHI certification. DFG's letter may also offer potential solutions to those concerns and/or a non-binding opinion as to whether (or under what conditions) DFG would oppose LIHI certification. **Describe** here your plan for attaining LIHI certification and RPS qualification, including your response to any issues raised by DFG's letter. **Note:** If the facility is already MA RPS-eligible or LIHI-certified, a consultation with DFG is optional. Documentation of such a consultation may be submitted as an optional attachment.	
3.7. Project Risks	

1. Summarize the risks to completing the project in accordance with the planned schedule, and anticipated strategies for risk mitigation. Consider risks associated with technology, licensing, permitting, RPS qualification, water rights, site lease terms, required easements, public acceptance, financing, equipment delivery, construction, or complying with requirements to avoid construction period impacts on habitat or aquatic species.	
2. If the project will require a new or upgraded electrical interconnection, describe the status of this process.	

3.8. Other Rehabilitation Needs (*rehabilitation and upgrade project Applicants only)*

Affirm that the entire facility will have a minimum useful life of 20 years upon completion of the project, and/or that plans and financing are in place to make additional repairs to achieve this useful life.

☐ **I affirm**

3.9 Annual Generation Self-Reporting (Not for feasibility study projects)

Affirm that you will self-report annual generation data to MassCEC for five (5) years after completion of project construction.

☐ **I affirm** ☐ **N/A (Feasibility Study)**

SECTION 4: PROJECT BENEFITS

Provide a **concise** description of the project's benefit(s) for the following categories of benefits, as applicable. Include key metrics that best demonstrate the benefits of the grant-funded project. As noted in the RFP, applications will be evaluated in part based on the inclusion and clarity of relevant metrics for benefits.	
1. **Energy benefits**. Such as: (1) production of energy and MA RPS-qualified certificates (RECs) for consumption by ratepayers of Massachusetts investor-owned utilities. Examples of what this could include are annual energy outputs, energy generation efficiency, and reductions in system downtime; (2) electricity market services provided in ISO-NE markets (energy, capacity, or ancillary services); and (3) measurable reliability or resilience benefits.	
2. **Direct economic benefits**. Such as: (1) through tax payments to Massachusetts governmental entities, (2) leases to Massachusetts property owners, (3) increased construction or operation jobs for Massachusetts residents, (4) training/upskilling	

opportunities for labor, and (5) increased economic activity for Massachusetts firms.	
3. **System or infrastructure longevity benefits**. Such as extending the expected lifespan or improving the durability of the hydroelectric system or infrastructure. This could include expected lifespan improvements for specific technologies or the facility as a whole.	
4. **Environmental or ecological acceptability benefits**, i.e., reductions in adverse ecological or environmental impacts as a result of facility operations. Examples of what this could include are expected improvements in rates of fish or eel passage or reductions in impacts of operations on the surrounding ecosystem.	
5. **Local community benefits.** These benefits could include local hiring initiatives, local economic or energy benefits, improvements in community spaces, local educational activities with community organizations, or other direct benefits for the local community derived from your project's community engagement efforts.	

SECTION 5: WORK PLAN AND SCHEDULE

1. **Provide a deliverables-oriented Project Schedule**, assuming a start-date no sooner than 12 weeks from date of grant application. For each Milestone, list 1) the deliverables that you will submit to MassCEC to demonstrate project progress and 2) the date by which *all* the deliverables for that Milestone will be submitted. Please include a description of deliverables that will be sent to MassCEC for review of milestone completion and a proposed amount of grant funding to be disbursed upon completion of the milestone.

Project Schedule (Construction Projects)		
Milestone/Typical Tasks	**Applicant's Proposed Deliverables**	**Expected Completion Date**
Design Milestone: Design, Initial Permitting, Interconnection Application, Licensing and LIHI Application [Omit if Project will not have a Design Phase]	• • •	
Construction Milestone 1: Financing, Site Preparation, Equipment Order	• • •	
Construction Milestone 2: Delivery and Installation of Funded Materials; Draft Construction Project Report	• • •	
Construction Milestone 3: Commissioning, Final Permitting, and Final Report; RPS Qualification; Final Construction Project Report; PTS Registration and Initial Reporting	• • • • •	

Project Schedule (Feasibility Study)		
Milestone/Typical Tasks	**Applicant's Proposed Deliverables**	**Expected Completion Date**
Kickoff Meeting: Meet with MassCEC staff to discuss feasibility study outline and any outstanding questions	• • •	
Draft Feasibility Study submitted to MassCEC:	• • •	
Final Feasibility Study submitted to MassCEC:	• • •	

SECTION 6: BUDGET AND DISBURSEMENT SCHEDULE

1. Budget Form

The budget should be prepared and included as an attachment using the Standard Budget Form, which is a separate, downloadable Excel file. Instructions for completing the budget are available in the CommHydro Budget Instructions Document, included on the CommHydro webpage under application materials.[2]

SECTION 7: ATTACHMENTS

1. Required Attachments

The following attachments must be included in the proposal. *Important: Please send the application as a separate file from these attachments:*

- Standard Budget Form, as a functional Excel file
- A completed and signed Form A (Authorized Applicant's Signature and Acceptance Statement)
- Letter of commitment from dam owner (if not Applicant)
- Agreement for water rights, if not deeded with property
- Resumes of key team members
- Locus map (see Section 3.1)
- Site Plan, schematic diagram, or sketch of facility and setting (see Section 3.1)
- Evidence of MA RPS qualification or LIHI certification, or letter from MA Division of Fisheries and Wildlife
- FERC license or exemption, including any amendments; FERC Order that confirms non-jurisdictionality; or FERC Determination of Qualifying Conduit Hydropower Facility. Do not include Critical Energy Infrastructure Information.
- For Feasibility Study Project Applications Only: a proposed feasibility study scope, highlighting the purpose and expected results (e.g., what decisions or planning it will inform).
- For Design and Construction Project Applications Only:
    - Feasibility Study, including narrative summary of model used to estimate incremental generation due to proposed facility upgrades.
    - Live Excel model of generation under a) baseline conditions and b) upgraded facility developed to estimate incremental generation. (For new conduit facilities, follow Conduit Facilities section of the Energy Modeling Guidelines)

2. Optional Attachments

- If applicable, a community engagement plan, describing expected or already conducted activities to engage with the local community regarding the proposed project, inform or solicit input on expected impacts, including benefits, and learn about the local community's perspective.
- documentation of any optional consultations with DFW
- other documents that would further support the viability of the proposed project, such as a letter of support from a regulatory agency, an interconnection study, documents indicating progress toward a required easement or power purchase agreement
- a Gantt chart of the Project's work plan

[2] See https://www.masscec.com/program/commonwealth-hydropower.