

**VERMONT
CLEAN ENERGY DEVELOPMENT
FUND**

***MUNICIPAL TECHNICAL
ASSISTANCE PROGRAM
APPLICATION***



CEDF MUNICIPAL TECHNICAL ASSISTANCE PROGRAM

GUIDELINES

The CEDF will offer technical assistance grants to Municipalities, Public Schools, and Vermont State Colleges to investigate the installation of a wide variety of clean and/or renewable electric energy technologies, including but not limited to the following: solar photovoltaic; wind energy; farm, landfill, and sewer methane recovery; combined heat & power (CHP) systems; and hydroelectric systems. All projects must be grid-connected.

The CEDF will make technical assistance grants for projects that meet the Fund's objectives and advance the overall goals of the Fund as more specifically set forth in 10 V.S.A § 6523 and the CEDF Strategic Plan in the section entitled "Potential Funding Areas," available at http://publicservice.vermont.gov/energy/ee_cleanenergyfund.html. Eligible recipients may include Vermont municipalities, public schools and State colleges.

Eligible categories for technical assistance include: evaluating site(s) for potential use of grid-connected clean and/or renewable electric energy technologies; developing and/or permitting grid-connected clean and/or renewable electric energy generation projects; preparing funding proposals for grid-connected clean and/or renewable electric energy generation projects; and developing bid specifications to prepare RFPs when seeking cost proposals for grid-connected clean and/or renewable electric energy generation projects.

The maximum grant award is \$5,000, and funds can only be used to pay for up to 90% of a project's cost; the grantee must match 10% of the project's cost in cash. All grant funds must be used for activities or assets directly related to the project. Projects for which grant funds are awarded must be completed within 1 year.

Completed applications for funding are due the first Thursday of every month for review that month. The review period for complete applications may be up to 30 days. If applications are not complete or unforeseen circumstances arise, the review period could be longer.

Principals of the applicant may be asked to be in attendance to answer questions when the CEDF Investment Committee considers the application. Meetings are open to the public, subject to certain exceptions.

entire completed application should be 10 pages or fewer. You must submit both an electronic version (either by email or on a CD) and two hard copies, one of which must be signed, of the completed application to:

Anne Margolis
Clean Energy Development Fund Manager
Vermont Dept of Public Service
112 State Street
Montpelier, VT 05620-2601
anne.margolis@state.vt.us

For additional information, contact Anne Margolis at:

Tel: 802-828-4017
Fax: 802-828-2342
Email: anne.margolis@state.vt.us

APPLICATION PROCESS:

The CEDF Municipal Technical Assistance Grant application consists of the four pages that follow, starting with a Summary Page. Please fill out each section. The

1. SUMMARY PAGE

Project Title: Putney Micro-Hydro on Sacketts Brook

Applicant Name: Town of Putney

Authorized Representative Contact Name: Daniel Hoviss – Town Energy Coordinator

Applicant Address:

Town of Putney
PO BOX 233
Putney Vermont 05346

Tel: 802 387 2521 **Email:** Daniel@putney.net

Secondary email : manager@putneyvt.org

Federal ID Number (EIN, or SSN for an individual): 036000636

15-Digit Business Acct. Number (starts with a “4” and ends with “F-01”; if not applicable, write “N/A”:
N/A

Total Project Cost: \$5,500 **CEDF Funds Requested:** \$4,950

Brief Project Description (3 sentences or less):

This project, (in phase 1) is a feasibility study to confirm the merit of installing a grid tied micro-hydro system on the lower Sacketts Brook in Putney Vermont.

This installation would transmit electricity directly to the grid to meet a small net-metered group of clustered housing nearby, or sold into the grid to help to meet some of Vermont’s base electrical requirement.

The existing dam and proposed location of turbines are on town owned lands; we will need to seek rights of way (ROW’s) for the small foundations (required for pipe supports) granted by the abutting landowners.

Name, title, phone, and email of primary project personnel, including their role in the project and their skills, qualifications, and experience relevant to the project. Also list subcontractors including firm name and address, contact person, work to be subcontracted, and nature of subcontractor's abilities.

1. Daniel Hoviss – Town of Putney Energy Coordinator and Chairperson of the Putney Energy Committee – 802 387 4141 – Daniel@putney.net – PO Box 628 Putney VT 05346

Mr. Hoviss has over 15 years experience developing multi-disciplinary projects, working with a variety of sub contractors. The PEC has completed 20 projects since inception in 2006 and continues to develop new energy saving projects. He will oversee all aspects of project coordination. He will be the liaison to Community Hydro and Putney Town Manager.

2. Lori Barg, Subcontractor - President of Community Hydro, 802 454 8458, lori@communityhydro.biz - 113 Bartlett Road, Plainfield, VT 05667

As a consulting geologist, Ms. Barg has more than 15 years of experience in hydrology, fluvial geomorphology, and riverine processes. Recently, Ms. Barg inventoried the undeveloped hydroelectric potential at existing dams in Vermont for the Vermont Department of Public Service. She co-authored the chapter on small-scale hydroelectric generation for the *Guide to Renewable Energy* published by the Vermont Department of Agriculture in 2006.

Ms. Barg will serve as project manager, as well as the lead on report writing, hydrology and permitting.

Karl Johnson of Community Hydro

Karl Johnson has a degree in civil engineering, and has worked on energy and environmental matters for more than 30 years. In addition to consulting, expert witness, project management, business development and marketing assignments, Mr. Johnson has experience growing companies, developing new business, and setting and implementing strategies. He has a proven track record of resolving sensitive regulatory & legal issues and achieving positive outcomes in all types and jurisdictions of regulatory and public processes with a focus on energy, the environment, and business initiatives.

Community Hydro's (CH) team has extensive experience in site assessment, development, and implementation for hydro projects ranging in size from 3 KW to 260 MW. The team has designed turbines and control systems; conducted feasibility studies; owned and operated small hydro sites; obtained local, state and federal permits and licenses; and arranged financing and sales of renewable energy credits.

Community Hydro has assembled a team with more than 100 years of combined experience in analysis and implementation of hydroelectric generation. Their team features engineers, hydrologists, turbine designers, and financial and legal analysts skilled in hydroelectric development, permitting, and sales of financial incentives.

Members of Community Hydro's team own and operate small hydro sites and have conducted numerous feasibility studies throughout New England. Their first-hand experience allows Community Hydro to fully understand and assess the capital, operation and maintenance costs associated with different sites.

3. Chris Ryan, Putney Town Manager, 802 387 5862 - manager@putneyvt.org - 127 Main Street, P.O. Box 233, Putney, VT 05346 – Mr. Ryan will oversee and administer funds and report to the Putney Selectboard. He has 12 years of experience in town management in Massachusetts, and 3.5 years in Putney Vermont.

Work Plan: indicate the number of hours allocated to each task and which staff member(s) will complete the tasks. Include a time-related chart showing each event, task, and decision point in the work plan. Also describe the plan for project oversight; quality assurance measures, and financial management and which staff member(s) will have this responsibility. Include a list of all permitting requirements for the project and whether any of the permits have been obtained.

Work Plan details				
Description of work	Months to completion	Staff	Hrs	Cost
Determine owners of abutting properties, research ROWs	1	PEC	2	0
Seek permission from abutters for site evaluation	1	PEC	2	0
Develop flow-duration curves based on United States Geological Survey (USGS) long-term gauges. The hydrologic analysis will use data from a full period of record from appropriate USGS gauges for the watershed	1	CH	2	\$180
Determine permitting and regulatory requirements	1	CH	6	\$540
Determine distance to transmission by conducting field surveys as needed	1	CH	3	\$270
Determine the amount of water currently in use by the Paper Mill	2	PEC	3	
Assessment of electrical usage by municipal buildings and usage by the residential community group located close to installation	2	PEC	2	0
Assess hydropower potential & create preliminary estimates of power and energy output, including detailed survey. This will be presented as megawatt hours per year (mWh/yr) and Kilowatts (KW) of installed capacity.	2	CH	14	\$1260
Research and recommend types of hydroelectric turbines, pipe, and other equipment suitable for the application, determine and list potential suppliers	2	CH	16	\$1440
Analyze barriers to the development of this project	2	CH	4	\$360
Asses financial feasibility for revenue production	2	CH	5	\$450
Investigate the environmental impacts of implementing the proposed facilities and identify needed state and federal permits and their associated costs.	3	CH	4	\$360
Research local permits and associated costs and requirements	3	PEC	4	0
Evaluate economic incentives such as renewable energy certificates and carbon credits	3	CH	4	\$360
Present report to the PEC and Selectboard	4	CH	2	\$180
Research historical data for future public presentations	4	PEC	2	0
Create a report and make copies of materials to present to Town of Putney	5	PEC	6	\$100
Host a public meeting to present findings to residents	6	PEC	4	0
Total time allotted for project	6mo		85hrs	\$5,500

Travel: Travel time and mileage expenses are included in CH estimates
Permits: none required for feasibility study.
Donations: PEC members will donate their time in this project.
Project oversight: Daniel Hoviss will work closely with the Community Hydro group, and the CH project manager Lori Barg. He will also provide coordination, quality assurance and project oversight for each aspect of this project, according to the timetable above. Daniel will work with the PEC and local volunteers as needed to provide the balance of related services for this project. Project start date and CH involvement is dependant on PEC providing materials on time.

Budget: Submit a budget, including narrative explanations and the following items:

Personnel (position, rate, hours)

Travel (mileage can not exceed the state rate of \$0.585 per mile)

Supplies & Materials

Equipment

Other (specify)

Total Direct Costs

Indirect Costs (may not exceed 23.64% of direct costs)

BUDGET TOTAL

The budget must also show your cash match for the project. For each cost element, show what portion will be paid with CEDF funds and what portion will be paid with matching funds. Municipal technical assistance grants are required to have a 10% cash match from applicants. For example: if the total project cost for a feasibility study project is \$4,000, no more than \$3,600 can be requested in funding from the CEDF, and the remaining \$400 must be met through a cash match. Cash spent on the project before the start of the contractual grant period cannot be used as match. All match must be documented and verifiable. Match greater than the required amounts is encouraged. The CEDF will expect to share in any cost savings realized by the selected applicant. Therefore, the CEDF final share of each line item expenditure will be paid out at the proportionate rate of participation as established by that line item in the grant budget and/or any approved amendment to the budget.

Proposed Budget

Projected Costs:	% CEDF	% Town Match	Amt.
Develop flow and duration charts	100%		\$180
Review permitting and licensing requirements	100%		\$540
Determine transmission line interconnect distance and cost	100%		\$270
Assess hydropower potential & create preliminary estimates of power and energy output	100%		\$1260
Research and recommend types of hydroelectric equipment	100%		\$1440
Analyze barriers to the development of this project	100%		\$360
Asses financial feasibility for revenue production		100%	\$450
Investigate the environmental impacts	100%		\$360
Evaluate economic incentives	100%		\$360
Present report to the PEC and Selectboard	100%		\$180
Supplies and Materials for presentation to residents		100%	\$100
Total Costs			\$5,500

Sources of Funds:

Town of Putney – Green Energy Fund matching amount.	\$ 550
Vermont Clean Energy Development Fund	\$4,950
Total Sources	\$5,500

In-Kind Services:

Hartgen Archeological Associates of Putney performed the initial survey to determine head height in the fall of 2007.

Cartographic Technologies provided 3D mapping Services – See appendix b.

Both of these activities were provided as in-kind services before this application was submitted.

Additional information: include any other information that is believed to be pertinent but that is not specifically requested elsewhere in this application.

PEC and the Town of Putney will work with Community Hydro to complete a Preliminary Site Assessment (PSA). PEC members will research background information on the site. Community Hydro will perform the technical aspects of this project.

The resulting report will include estimates of power and energy output, system design and type of equipment needed, cost estimates for installation, mechanism for grid interconnection, a summary of necessary permits, and projected return on investment.

Upon completion of the feasibility study, PEC will hold a public meeting to present the results and determine public interest and support for Micro Hydro in Putney.



This is a historic picture of townspeople ice-skating on the top of the dam

The Town of Putney was originally settled in 1753 along the Sacketts Brook to harness the 100 foot drop energy potential of this “never failing stream”. Over the course of the next 250 years, various small commercial mills including, grist, straw, paper and sawmills capitalized on this natural and abundant energy. It is entirely appropriate that waterpower once again be put to use to help meet Putney’s needs for energy. This project is the first step in that process.

List of Appendices

- A. Historic Town Mill Map**
- B. 3D Topographic map**
- C. Letters of support**

Name, title, phone, and email of primary project contacts and authorized representatives:

1. Daniel Hoviss – Town Energy Coordinator and Putney Energy Committee Chair Person – 802 387 4141 - Daniel@putney.net

2. Chris Ryan, Town Manager (802) 387-5862 Ext. 11 manager@putneyvt.org

Signature of an Authorized Representative:



Name and Title:

Date:

SELECTION CRITERIA

All proposals received will be evaluated based upon qualifications of the individuals proposed to perform the work, relevance of previous experience, completeness and quality of the proposal, how well the project meets the goals of the CEDF, reasonableness of cost, and any other criteria the DPS deems relevant. Acceptance or rejection of any or all proposals will be determined by the exercise of the Department's sole discretion.

All proposals are subject to an evaluation by the DPS, the CEDF Investment Committee, and any other non-departmental reviewers deemed necessary. The DPS reserves the right (but in no way is obligated) to interview the top prospective candidates to aid in the selection process.

The award of the contract will be made based on the following criteria:

1. Experience & Qualifications
 - Knowledge and/or experience in the relevant project area.
 - Experience with similar projects.
 - Adequate staffing for described work.
2. Work Plan
 - Clarity and reasonableness of work plan, including definition and timeliness of tasks to be performed.
 - Plan and capacity for project control and financial management are sufficiently described.
 - Reasonable timetable
3. Project Characteristics
 - Suitability of the site for the proposed projects.
 - Potential for replicability (the degree to which the project provides lessons applicable to other projects).
 - Potential for public visibility.
5. Budget
 - Budget line items and amounts are sufficiently described and justified to explain the necessity of each item.
 - Costs are reasonable and competitive.

GENERAL TERMS AND CONDITIONS

1. The DPS reserves the right to reject any and all proposals received for any reason, to waive minor irregularities in any proposals received, and to negotiate with any party in any manner deemed necessary to best serve the interests of the State.
2. The DPS shall not be responsible for any costs incurred by any party in preparation of any proposal.
3. The DPS reserves the right to amend or cancel the municipal technical assistance program at any time if the best interest of the State requires such action.
4. News releases pertaining to a grant award, or the project shall not be made without prior written approval from the DPS.
5. All parties submitting proposals shall be Equal Opportunity Employers. During the duration of the performance of this contract, the contractor will be expected to comply with all federal, state and local laws respecting non-discrimination in employment.
6. The DPS will pay for actual work performed and expenses incurred under this project up to the specified grant amount. Specific payment provisions will be arrived at upon mutual agreement of the parties. All payments will require the submission of an itemized billing of work performed to date in sufficient detail to justify payment.
7. The selected applicants shall agree to grant to the State a nonexclusive, irrevocable license to reproduce, translate, publish, use, and dispose of all material developed as a result of this project. The selected applicants further shall agree that they will not copyright any material developed as a result of the project.
8. Before commencing work grant Recipients must provide certificates of insurance to show that the following minimum coverage's are in effect. It is the responsibility of the Recipient to maintain current certificates of insurance on file with the State through the term of the grant.

Workers' Compensation: With respect to all operations performed, the Recipient shall carry workers' compensation insurance in accordance with the laws of the State of Vermont.

General Liability and Property Damage: With respect to all operations performed under the grant, the Recipient shall carry general liability insurance having all major divisions of coverage including, but not limited to:

Premises - Operations
Products and completed Operations
Personal Injury Liability
Contractual Liability

The policy shall be on an occurrence form and limits shall not be less than:

\$1,000,000 Per Occurrence
\$1,000,000 General Aggregate
\$1,000,000 Products / completed products aggregate
\$ 50,000 Fire Legal Liability

Automotive Liability: The Recipient shall carry automotive liability insurance covering all owned, non-owned and hired vehicles, used in connection with the Grant. Limits of coverage shall not be less than: \$1,000,000 Combined single limit.

No warranty is made that the coverage's and limits listed herein are adequate to cover and protect the interests of the Recipient for the Recipient's operations. These are solely minimums that have been set to protect the interests of the State.

11. The DPS assumes no liability in any fashion with respect to this program or any matters related thereto. All prospective contractors and their subcontractors or successors, by their participation in the application process, shall indemnify, save and hold the DPS and its employees and agents free and harmless from all lawsuits, causes of action, debts, rights, judgments, claims, demands, damages, losses and expenses or whatsoever kind in law or equity, known and unknown, foreseen and unforeseen, arising from or out of this process and/or any subsequent acts related thereto, including but not limited to the recommendation of a contractor and any action brought by an unsuccessful applicant.