



**REQUEST FOR PROPOSALS
FOR
Heat Recovery from Composting**

**Date Issued: February 8, 2018
Questions Due by: February 19, 2018
Proposals Due: March 19, 2018**

Vermont Public Service Department
Clean Energy Development Fund
112 State Street
Montpelier, Vermont 05620-2601
(802) 828-2811
TTY/TTD (VT): 1-800-734-8390
Internet: <http://publicservice.vermont.gov/>

INTRODUCTION

The Public Service Department and the Clean Energy Development Fund (CEDF) seek proposals for installations of equipment that recover heat from compost. Total funding available through this solicitation is \$63,000.

Proposed projects should promote the development and deployment of cost-effective, replicable technology that benefits Vermont electricity customers and/or users of heat energy.

All projects must be farm-based. All awards will be made through this competitive RFP process.

Awardees will be subjected to transparency and reporting requirements including, but not limited to: reporting, tracking and documentation of incurred costs, and access to records. Respondents are encouraged to thoroughly review this RFP. Award recipients will be expected to provide one year of operational data, as well as other information detailed below.

Proposals must be for projects based in Vermont. All projects must be installed within 12 months of the award agreement being executed.

Minimum cost share is required. Grants shall cover no more than 40% of the cost of the equipment used to recover heat, regardless of total project cost.

Projects that are part of farm or food waste digesters that have or will participate in the Vermont Standard Offer program are not eligible for grants from the CEDF.

PROGRAM SUMMARY:

| Award Description | |
|-----------------------------------|---|
| Eligible Entities: | Any entity may apply as long as the project is farm-based. |
| Funding Type: | Grants |
| Total Amount available: | \$ 63,000 |
| <i>Maximum Grant:</i> | \$63,000 |
| <i>Minimum Grant:</i> | \$15,000 |
| Criteria and award formula | See section entitled “Selection Criteria” beginning on page 11 |
| <i>Award formula</i> | 7 x the rated capacity (Btu per hour) ^{0.63} |
| Cost Share Required: | A minimum of 60% of the cost of the heat recovery and heat distribution equipment must be covered by the grantee. |
| Technologies Allowed: | Compost heat recovery: aerobic process, and not including combustion, pyrolysis, or similar. |
| Exclusions (not eligible): | Projects that have, or will have, Vermont Standard Offer Power Purchase Contracts |

SUBMITTING THE APPLICATION

Proposals must arrive at the Public Service Department by 4 p.m. on Friday, March 19th, 2018. Proposals received after this time and date will not be considered.

The following documents must be delivered to the Clean Energy Development Fund:

1. One original, signed hard copy
2. An electronic copy, delivered by e-mail

Proposals must include a complete Cover Page, Proposal Narrative, and Budget Worksheet, which are appended to this RFP. These appended items are also available as spreadsheets by request and are available on the CEDF web site

(http://publicservice.vermont.gov/renewable_energy/cedf).

Proposals and questions should be addressed to:

Andrew Perchlik
CEDF Director
c/o Vermont Public Service Department
112 State Street
Montpelier, VT 05620-2601
Phone: (802) 828-4017
Email: Andrew.Perchlik@Vermont.gov

Any questions should be submitted in writing, preferably by email, with the subject line, “Compost Heat Recovery RFP Question.” **Questions are due by close of business, Monday,**

February 19th, 2018 and will be answered comprehensively at the CEDF web site (http://publicservice.vermont.gov/renewable_energy/cedf) alongside this RFP by February 23rd, 2018.

CEDF BACKGROUND

In 2005, the Vermont General Assembly established the CEDF through Act 74 (30 V.S.A. § 8015). The Act specifies the CEDF scope of work and authorities. 30 V.S.A. § 8015 (c) states the purpose of the CEDF as follows: “The purposes of the fund shall be to promote the development and deployment of cost-effective and environmentally sustainable electric power and thermal energy or geothermal resources for the long-term benefit of Vermont consumers, primarily with respect to renewable energy resources, and the use of combined heat and power technologies.”

Programmatic activities and associated funding are developed by the CEDF staff in conjunction with the appointed Clean Energy Development Board, which oversees development of the CEDF strategic plan, program designs, and annual plan/budget. Additional information on the CEDF is available on the Department of Public Service website at:

http://publicservice.vermont.gov/topics/renewable_energy/cedf

BACKGROUND ON COMPOST HEAT RECOVERY

To create compost, the operator must balance the need to allow the microbes to access oxygen, while also enabling the organic material to reach a temperature of 140-150° F. To strike this balance, operators can turn compost piles or windrows mechanically, or pull air through the pile, or push air through the pile, or some combination of these.

Composting one ton of organic material releases approximately one million British Thermal Units (BTU) of heat in the form of warm air and water vapor. Equipment to capture this heat takes many forms and has been in use and development for 40 years.

Vermont composters process over 4,500 tons of food scraps annually, to which is added an even greater tonnage of other organic materials. Manure is also widely composted.

INFORMATION FOR APPLICANTS

General Information: This solicitation is open to new and previous applicants or grantees who have received or sought funding under any CEDF solicitations, RFPs, or through the CEDF's Small-Scale Renewable Energy Incentive Program. Priority will be given to those that have not received funding before. Subcontractors can be included in more than one proposal. Funds cannot be used for projects that have already begun construction or for equipment purchases that have already been made. All awards will be made through this competitive grant process.

Term: All projects funded under this solicitation should be operational within twelve (12) months, with final report submitted within eighteen (16) months from the execution of the grant agreement with the CEDF.

Reporting: Reporting shall be required for all projects receiving an award. Reporting shall include quarterly progress as well as a final report submitted within eighteen (18) months from the execution of the grant agreement with the CEDF.

Quarterly updates and a final project report will include expenditures and specific activities and results. Five percent of grant funds will be held back until the final report has been received and approved by the CEDF.

Cost Share: Under this solicitation, applicants must demonstrate their cost share as part of the application process and must submit a letter of commitment identifying the cost share and the source of that funding. For example, if an applicant has received a commitment from an organization to provide funds that cover part of the cost for the project, the applicant must provide a copy of the commitment letter. Preference will be given to projects that demonstrate cost share by the applicant in amounts greater than the required minimums.

Exclusions: No funding will be awarded for projects consisting only of feasibility studies. Applicants will not be reimbursed for educational, outreach, and similar types of activities. All projects must be based in Vermont. Funds cannot be used for projects that have already begun construction or for equipment purchases that have already been made.

Revisions: The Department of Public Service/CEDF reserves the right to make necessary changes to any statements made in this RFP at any time.

INFORMATION REQUIRED FROM APPLICANTS

Proposal Guidelines:

Proposals should be prepared simply and economically, providing a straightforward, concise description of the applicant's ability to meet the requirements of the RFP. Emphasis should be on completeness and clarity of content.

Proposals should be no longer than 10 pages, with no less than a 12-point font and one-inch margins. Resumes, letters of support, the Cover Page, and the Budget Worksheet, plus completed feasibility studies, **do not** count toward the 10-page limit. Other information, such as site maps, pictures, etc., count towards the 10-page limit.

Proposals must include the following information:

A. Cover Page

Applicants must complete the Cover Page and submit it electronically. An image of the Cover Page is included as Appendix A of this RFP as a reference. The electronic version is available as a spreadsheet at http://publicservice.vermont.gov/renewable_energy/cedf. Alternatively, the spreadsheet can be obtained from the grant administrator (andrew.perchlik@Vermont.gov).

The following section explains the information required for the Cover Page.

1. **Project Title**

Provide a descriptive title for the project.

2. **Project Summary**

Provide a short paragraph describing the essential elements of your project.

3. **Identification of Applicant Organization**

State the full name and address of the organization. Also list the main contact and his or her contact information. This person should also be listed as an Authorized Negotiator below.

4. **Identification of Subcontractors**

If applicable, list any subcontractors that will perform, or assist in performing, the work, including their name, address, and contact information.

5. **Authorized Negotiator(s)**

Include the name, phone number, and email address for individuals authorized to negotiate all aspects of the proposed grant with the State and/or CEDF. One original hard

copy of the proposal must be signed by a duly authorized representative of the party (or parties) submitting the proposal.

6. Location of Proposed Project(s):

Include the name of the county and town where the project will be located.

7. Details:

As requested on each line.

8. Estimated Equipment Lifetimes

Applicants must provide estimates, either from warranty information or a reasonable estimation based upon similar installations, of the major capital equipment on the site.

9. Total Project Costs

Applicants must include the **total** project costs (this should also be included in the budget – Appendix B).

10. CEDF Funds Requested

Applicants must specify the amount of funds they are requesting from the CEDF towards their project.

11. Signature:

Please sign to indicate you have read and acknowledge all the conditions of this request for proposals, and that, to the best of your knowledge, the information you have supplied is accurate. This applies only to the hard copy submission.

B. Project Narrative

Describe the project for which funding is requested. Provide a statement of the project's goal(s) and objectives. State why this project is necessary and why CEDF grant funding is needed.

Proposals should be address how composting heat recovery would be a significant improvement to the farm's operations. The proposal must demonstrate a strong pathway to profit due to the installation of equipment and the necessary change in practices. Ideally, the installation and project would show how other sites could install the same or very similar equipment.

C. Personnel

Applicants should have demonstrable knowledge, skills, and experience as it relates to the required work. Proposals should include a description of the applicant's prior experience in all areas relevant to the project. The proposal must identify all persons that will be employed in the proposed work by skill and qualifications. Identify key personnel by name and title and provide their prior experience (if resumes are included they **do not** count toward the 10-page limit). Subcontractors (if known) must be listed, including the firm name and address and contact person (on the cover page as well), and complete description of work to be subcontracted. Include descriptive information concerning subcontractor's organization and abilities.

D. Work Plan

Describe in narrative form the plan for accomplishing the work required to complete the project. Include a description of any pre-development activities that have been completed, including feasibility studies or resource measurements.

Describe the plan for project oversight, quality assurance measures, and financial management and which team 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. Applicants must ensure that they will comply with all federal, state, and local permitting regulations.

E. Potential Energy Generation

Applicants should use this section to provide a brief description of any assumptions used in completing Section 7 on the Cover Page. Include information on how the energy output was calculated, including any relevant data, and including energy usage related to the equipment proposed. Please name the buyer of any energy to be sold.

If known, list any equipment and installation warranties that the project will have.

F. Environmental, Economic, & Community Impact

Applicants should describe the specific environmental, economic, and community benefits created through the project such as: power generated, jobs created, value of the power generated, and impact on the local community. Include information on whether all the abutting landowners to the project have been notified and whether they support the project, if relevant.

G. Budget & Budget Narrative

Applicants must submit a proposed budget for the project and include narrative explanations. The budget worksheet must be submitted electronically. An image of the budget worksheet is included as Appendix A of this RFP as a reference. The electronic version is available as a spreadsheet at: http://publicservice.vermont.gov/renewable_energy/cedf. Alternatively, the spreadsheet can be obtained from the grant administrator (andrew.perchlik@vermont.gov).

The budget should include the applicant's cash and any in-kind cost-share for the project. For each cost element, the applicant must show what portion will be paid with CEDF funds and what portion will be paid with cost-share funds. The applicant should distinguish between cash and in-kind cost-share.

For this grant solicitation, applicant's time/labor committed to the project is considered in-kind match. Subcontractors'/third-party **donated** labor/services, equipment, and materials would also be considered in-kind match.

All match (both cash and in-kind) must be necessary for the accomplishment of project objectives and must be applicable to the grant period (i.e., cash or time previously spent on the project 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's 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.

H. Additional Information

Applications must include information described in sections A-G above. Applications should include any other information that they believe to be pertinent and important.

SELECTION CRITERIA

All proposals are subject to an evaluation by the Agency of Food, Farm, and Markets, CEDF/Department of Public Service staff, and any other reviewers they deem necessary. The Department of Public Service reserves the right (but is not obligated) to interview the top prospective candidates to aid in the selection process. Acceptance or rejection of any or all proposals will be at the sole discretion of the CEDF and Department of Public Service.

All proposals will be evaluated based upon the evaluation criteria listed below.

1. Project Characteristics

- Fossil fuels displaced per year per dollar of CEDF funding
- Destruction of greenhouse gases, or reduction in amount of greenhouse gas emitted
- Consumption of energy (thermal or electric) to drive the process (garners a deduction)
- Ability to document and share above three quantities
- Suitability of the site for the proposed project
- Ability to start project promptly and be installed within 12 months
- Degree to which pre-development activities such as measurements, feasibility studies, permitting, and other required approvals are completed
- Project risks (for example securing necessary permits) are acknowledged and are compared to similar proposed projects

2. The project supports the CEDF's primary goal of maximizing cost-effective and environmentally sustainable renewable energy generation, and/or one or more other CEDF goals.

- Minimize the environmental impact of Vermont's energy portfolio
- Improve the cost effectiveness of compost heat recovery systems in Vermont.
- Accelerate economic development for the clean energy sector in Vermont, for example:
 - Jobs retained and created
 - Creation of new businesses
 - Increase of business revenue to the farm or facility, especially that which cycles within Vermont
 - Support and/or development of the clean energy industry/sector
- Community involvement and acceptance of the project, for example community support demonstrated

Priority will be given to projects from applicants who have not received CEDF funding in the past.

3. Experience & Qualifications

- Knowledge and experience in the relevant project area, including successful experience with similar projects
- Demonstrated ability to complete project on time and on budget
- Previous experience with state and/or federal grants

4. Budget

- Budget line items and amounts are sufficiently described and justified to explain the necessity of each item
- Costs are reasonable and competitive
- Amount of cost-share above the minimum
- The need for financial assistance is well-established and justified.

5. The project can be completed on-time and within budget, including the responsibility of reporting for the grant.

GENERAL TERMS AND CONDITIONS

1. The CEDF reserves the right to reject all proposals received in response to RFP 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 CEDF/PSD shall not be responsible for any costs incurred by any party in preparation of any proposal submitted in response to this RFP.
3. The CEDF reserves the right to amend or cancel this RFP at any time if the best interest of the State requires such action.
4. News releases pertaining to this RFP, grant award, or any project funded with a grant from the CEDF shall not be made without prior written approval from the CEDF.
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. Once the grant is executed, the CEDF will reimburse the grantee for actual work performed and expenses incurred 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. Final payment will require a final report that includes total power production, energy and fossil fuel savings, and lessons learned.
7. In most instances, the grant payments made under this program will be treated as taxable income by the IRS and the State of Vermont. It is the responsibility of the recipient of this grant payment to consult with their tax advisor to determine the correct treatment of this payment for Federal and State tax purposes.
8. Insurance:
Workers Compensation: With respect to all operations performed, the Party 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 contract, the Party 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 Operations Aggregate
- \$ 50,000 Fire/ Legal/Liability

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

Party shall name the State of Vermont and its officers and employees as additional insureds for liability arising out of this Agreement.

9. The CEDE/PSD and the State assume no liability in any fashion with respect to this RFP or any matters related thereto. All prospective contractors and their subcontractors or successors, by their participation in the RFP process, shall indemnify, save and hold the State 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 RFP 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.

10. All grant awards are subject to the availability of funding.

APPENDIX A: - Cover Page

An image of the Cover Page is included below as a reference. The electronic version is available as a spreadsheet at http://publicservice.vermont.gov/renewable_energy/cedf . Alternatively, the spreadsheet can be obtained from the grant administrator (Andrew.Perchlik@Vermont.gov).



Note: Instructions for each field are in the Request for Proposals

| | |
|---|--|
| 1. Project Title: | |
| | |
| 2. Project Summary: | |
| | |
| 3. Applicant Name, Address, and Contact Information: | |
| | |
| 4. Subcontractors (Name, Address, and Contact Information): | |
| | |
| 5. Authorized Negotiator(s) (Name and Contact Information if different from Applicant information) : | |
| | |
| 6. Proposed Project Location (Site owner, town, county and utility territory) | |
| | |
| 7. Equipment/System Details | |
| Digester/compost heat recovery generation system rated capacity (kW and/or Btu): | |
| Estimated annual gross kWh and/or Btu (typical): | |
| Digester designer, volume, and type: | |
| Percent of digester volume taken with non-manure inputs: | |
| Estimated start-up month and year of system: | |
| Likely type of processing equipment, and capacities: | |
| Likely types, quantities, and origins of food waste (digesters only): | |
| Likely metering equipment and/or data collection methods to be employed: | |
| 8. Estimated System/major equipment componets: | |
| | |
| 9. Total Project Costs: | |
| | |
| 10. CEDF Funds Requested: | |
| | |
| 11. Estimated Payback Time (with and without CEDF funding): | |
| | |
| 12. Signature (required on hard copy only) : | |
| | |

APPENDIX B - Budget Worksheet

The budget worksheet must be submitted electronically. An image of the budget worksheet is included below for reference. The electronic version is available as a spreadsheet at http://publicservice.vermont.gov/renewable_energy/cedf. Alternatively, the spreadsheet can be obtained from the grant administrator (andrew.perchlik@vermont.gov)

| PROPOSED BUDGET -Windham Co. Digester and Compost Heat Recovery Projects 2016 | | | | |
|--|----------------------|---|--------------------------------------|---------------|
| APPLICANT NAME: | | | | |
| PROJECT TITLE: | | | | |
| 1. CAPITAL COSTS <i>(provide supporting info and/or detail in budget narrative)</i> | | | | |
| List items | CEDF \$ Requested | Funds from Applicant (Cash Match) \$ | Value of In-kind contributions \$ | Project Total |
| | | | | \$0 |
| | | | | \$0 |
| | | | | \$0 |
| | | | | \$0 |
| Subtotal Capital Costs: | \$0 | \$0 | \$0 | \$0 |
| 2. SUBCONTRACTOR SERVICES & SALARIES <i>(provide supporting info and/or detail in budget narrative)</i> | | | | |
| List provider and service (e.g., Engineering, Design, Installation, etc.), including hours and rates | CEDF \$ Requested | Funds from Applicant (Cash Match) \$ | Value of In-kind contributions \$ | Project Total |
| | | | | \$0 |
| | | | | \$0 |
| | | | | \$0 |
| Subtotal Subcontractor Services: | \$0 | \$0 | \$0 | \$0 |
| 3. OTHER <i>(itemize and explain)</i> | | | | |
| List item (e.g. Travel, Insurance, etc.) | CEDF \$ Requested | Funds from Applicant (Cash Match) \$ | Value of In-kind contributions \$ | Project Total |
| | | | | \$0 |
| | | | | \$0 |
| Subtotal Other: | \$0 | \$0 | \$0 | \$0 |
| 4. TOTAL DIRECT COSTS (1-3) | | | | |
| | \$0 | \$0 | \$0 | \$0 |

APPENDIX C – Composting Permit Thresholds

| No Municipal Regulation | Municipalities May Regulate | | |
|--|--|--|---|
| Backyard Composting Exemption | Vermont Agency of Natural Resources Composting Rules Vermont Solid Waste Management Rules 2012, Subchapter 11, Organics Management http://dec.vermont.gov/laws , Chapter 6) | | |
| De minimis or backyard composting exemption: less than 100 cy/yr of combined organic material. | <u>Small-Scale Composting</u> | <u>Medium-Scale Composting</u> | <u>Large-Scale Composting</u> |
| Vermont Agency of Agriculture jurisdiction under Required Agricultural Practices | <ul style="list-style-type: none"> • Manage up to 2,000 cy/yr of food residuals • Manage less than 5000 cy/yr total organics • No more than four acres involved with the composting activity, not including acreage required for liquid nutrients management • Must follow Accepted Composting Practices (ACPs) • Solid waste approval via registration process | <ul style="list-style-type: none"> • Manage up to 5,000 cy/yr of food residuals • Manage less than 40,000 cy/yr total organics • No more than ten acres involved with the composting activity, not including acreage required for liquid nutrients management • Solid waste approval via categorical certification process | <ul style="list-style-type: none"> • Manage greater than 5,000 cy/yr food residuals and/or greater than 40,000 cy/yr of combined organics • Greater than ten acres, not including acreage required for liquid nutrients management • Requires full solid waste certification |
| On-farm compost that is made with farm wastes, manures, bulking agents, and up to 1,000 cy/yr food processing residuals | | | |
| Act 250: 10 V.S.A § 6001 (3)(D)(vii) | | | |
| The construction of improvements below the elevation of 2,500 feet for the onsite storage, preparation, and sale of compost are not considered “development” in Act 250 if: <ul style="list-style-type: none"> • compost is produced from no more than 100 cubic yards of material per year, or • compost is principally produced from inputs grown or produced on the farm; or • compost is principally used on the farm where it was produced; or • compost is produced only from manure produced on the farm and unlimited bulking agents; or • compost is produced on a livestock or poultry farm, only with manure produced on the farm, up to 2,000 cy/yr of inputs approved in the ACPs, including food residuals from any source or imported manure or both, and unlimited bulking agents; • compost is produced on a primarily non-livestock farm that complies with the ACPs, including up to 5,000 cy/yr total organic inputs from off the farm, of which up to 2,000 cy/yr may be food residuals, Other composting operations are subject to Act 250 approval. | | | Act 250 permitting required for all medium- and large-scale composting facilities. |

From Vermont Sustainable Jobs Fund, Farm to Plate Network, “Sustaining Agriculture – Module 4, Local Regulatory Context”; page 15
<http://www.vtfarmtoplate.com/stories/sustaining-agriculture-land-use-planning-modules>