EFFICIENCY MAINE TRUST
REQUEST FOR PROPOSALS FOR
RESIDENTIAL HEAT PUMP IMPACT EVALUATION

RFP EM-009-2021

Date Issued: January 26, 2021

Closing Date: March 31, 2021, 3:00 p.m. Eastern Time (US)

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Separate attachments:

Attachment A – Proposal Cover Sheet Form
Attachment B – Standard Agreement
Attachment C – Project Proposal Cost Form
Attachment D – SBI Survey Script

SECTION 1 – RFP INFORMATION AND INSTRUCTIONS

1.1 Title and Purpose

RFP EM-009-2021 – Residential Heat Pump Impact Evaluation

The Efficiency Maine Trust (the Trust) seeks a qualified bidder or team of bidders to complete an independent impact evaluation of residential heat pump measures under the Home Energy Savings Program and Affordable Heat Initiative covering the period from July 1, 2019 through June 30, 2021[1].

1.2 Designated Contact Person for this RFP

Laura Martel, Research and Evaluation Manager
Efficiency Maine Trust
168 Capitol Street, Suite 1
Augusta, ME 04330-6856
Phone: (207) 553-3043
Email: laura.martel@efficiencymaine.com

1.3 Schedule of Activities

Event	Date/Deadline
RFP Issued	January 26, 2021
Question Period Closes	February 9, 2021, 3:00 p.m. Eastern Time (US)
Responses to Questions Posted	February 22, 2021
Proposals Due at Efficiency Maine Trust Office	**March 31, 2021, 3:00 p.m. Eastern Time (US)**
Anticipated Award Date	April 12, 2021
Anticipated Contractor Start	April 26, 2021

Schedule changes: The Trust reserves the right to modify this schedule at its discretion. Any changes or additional information regarding the RFP schedule and pre-bid activities, including responses to questions, will be posted on the Trust's website at: http://www.efficiencymaine.com/opportunities

1.4 Anticipated Contract Term

The anticipated term of the contract is April 26, 2021 through December 31, 2022.

1.5 Anticipated Contract Budget

The Trust will develop a budget for this evaluation after reviewing submitted bids. Bidders are encouraged to propose the most cost-effective evaluation methods that meet the requirements laid out

[1] Efficiency Maine introduced Tier 2 rebates for HESP heat pump in the middle of FY2020. For the HESP measures, the evaluated period will be January 1, 2020 through June 30, 2021.

below. Proposals that include a base scope and optional tasks priced separately will be considered. The contract will be structured on a Time and Materials basis with a Not-To-Exceed maximum budget.

1.6 Proposal Submittal Deadline

Proposals must be received at the Trust's office by the due date and time specified in section 1.3 delivered to the address specified in section 1.2. Any proposal received after the deadline will not be considered. Proposals must be complete when submitted; changes or additions will not be accepted after the specified due date and time, except for any clarifications requested of bidders by the Trust. Each bidder is responsible for ensuring timely receipt of its proposal. Further details regarding proposal requirements are provided in Section 4 of this RFP.

1.7 Submitting Questions

Questions regarding this RFP must be submitted by email to the Designated Contact Person listed in section 1.2 prior to the close of the Question Period specified in section 1.3. The subject line of the email should be: **RFP EM-009-2021 Questions**. Responses to questions will be posted on http://www.efficiencymaine.com/opportunities.

1.8 Proposal Confidentiality

Bidders should be aware that information provided to the Trust is subject to the Maine Freedom of Access Act (FOAA), 1 M.R.S. §§ 401 et seq., unless there is a specific confidentiality exemption in the Efficiency Maine Trust Act, 35-A M.R.S. §10106. Bidders should assume that all information submitted in response to this RFP will be considered public records available for public inspection pursuant to the Maine FOAA following announcement of an award decision.

1.9 Contract Award

The Trust will notify all bidders of the contract award decision by email. The anticipated award date is specified in section 1.3. The Trust reserves the right to negotiate the final terms and conditions of the contract award with a winning bidder whose proposal is selected by the Trust, and to reject any winning bidder with whom the Trust cannot agree to terms and conditions meeting the Trust's needs, in the Trust's sole judgment.

1.10 Contracting Process

The selection of service providers and grant recipients is governed by the Efficiency Maine Trust Rule Chapter 1: Contracting Process for Service Providers and Grant Recipients, which can be found on the Trust's website:
http://www.efficiencymaine.com/docs/Chapter-1-Contracting-Process-for-Service-Providers-and-Grant-Recipients.pdf

1.11 RFP Process – Reservation of Rights

The Trust reserves the right to cancel or extend the RFP process at any time. The Trust also reserves the right to reject noncompliant submissions in response to this RFP and to waive minor formalities in the Trust's reasonable discretion. Issuance of this RFP does not commit the Trust to make an award or to

pay any costs or expenses incurred by a bidder in connection with preparation of a proposal or response to this RFP.

1.12 Contract Agreement

A copy of the Efficiency Maine Trust Standard Agreement for this RFP is provided as **Attachment B – Standard Agreement**. This is the standard document that will complete the agreement for services between the winning bidder and the Trust. Information regarding a customer that has participated or that may participate in a Trust program is deemed confidential by the Efficiency Maine Trust Act. The winning bidder and its agents and subcontractors will be required to execute a nondisclosure agreement. See http://legislature.maine.gov/statutes/35-A/title35-Asec10106.html for additional information on related confidentiality restrictions.

1.13 Request for Reconsideration

An aggrieved person may request a hearing for reconsideration of a contract award decision by filing a written petition with the Executive Director of the Trust within 14 calendar days of the notification of the contract award. Each petition to reconsider must meet the requirements specified in Efficiency Maine Trust Rule Chapter 1, Contracting Process for Service Providers and Grant Recipients, Section 5(B), which can be found on the Trust's website under Documents and Services: http://www.efficiencymaine.com/docs/Chapter-1-Contracting-Process-for-Service-Providers-and-Grant-Recipients.pdf

1.14 Cost of Proposal Preparation

Costs incurred in the preparation of any proposal in response to this RFP are the sole responsibility of the bidder.

1.15 Conflict of Interest

In order to avoid conflicts of interest and ensure independence in the conduct of the program evaluation, entities may not bid for this evaluation if they are involved in (1) any aspect of the design, implementation or delivery of the program being evaluated, (2) in the installation, technical assistance analysis, application or commissioning of a measure being evaluated, or (3) currently under contract with the Maine Public Utilities Commission for services related to Efficiency Maine Trust.

SECTION 2 – BACKGROUND INFORMATION

2.1 Efficiency Maine Trust

The Trust is the independent administrator for programs to improve the efficiency of energy use and reduce greenhouse gases in Maine. The Trust does this primarily by delivering financial incentives on the purchase of high-efficiency equipment or changes to operations that help customers save electricity, natural gas and other fuels throughout the Maine economy. The Trust is a quasi-state agency governed by a Board of Trustees with oversight from the Maine Public Utilities Commission.

2.2 Home Energy Savings Program and Affordable Heat Initiative Background and Context

The Home Energy Savings Program (HESP) drives market-based home weatherization and installation of efficient heating systems by offering rebates and loans, providing customer and vendor education, and developing and maintaining a vendor network. HESP encourages energy upgrades in single-family homes and multifamily homes with up to four units. High performance heat pumps are the most popular measure offered by this program.

The Affordable Heat Initiative (AHI) is a market-based initiative offering enhanced rebates for weatherization and heat pumps for low- and moderate-income homes. Homes qualify for participation based on participation in the Low Income Home Energy Assistance Program (LIHEAP) or ownership of homes with property values less than county-based thresholds established by the Trust.

Below is a list of the current residential program incentives for heat pumps:

Measure	Minimum HSPF	Incentives
HESP: Heat Pump Single Zone 1st Unit Tier 1	12	$500
HESP: Heat Pump Single Zone 2nd Unit Tier 1	12	$250
HESP: Heat Pump Single Zone 1st Unit Tier 2	12.5	$1000
HESP: Heat Pump Single Zone 2nd Unit Tier 2	12.5	$500
HESP: Heat Pump Multi-zone 2 or more zones (1st two (2) indoor units)	10	$750
HESP: Heat Pump Multizone add on (2nd indoor unit)[2]	10	$250
AHI: MiniSplit HP LIHEAP & MiniSplit HP Property Assessed	13	$2000
AHI: Heat Pump Single Zone 2nd Unit Tier 2[3]	13	$500

[2] For participants that install a single zone unit first and then a multi-zone unit, the multi-zone unit is only eligible for the second indoor unit rebate.

[3] 2nd indoor units for AHI participants are HESP Tier 2 Single Zone, Second Units paid out through HESP.

The following table provides heat pumps incentivized between January 1, 2020 and November 30, 2020 by measure[4].

Measure Code	Measure Name	Measure Qty
HPSING1T1	Heat Pump Single Zone 1st Unit Tier 1	1501
HPSING2T1	Heat Pump Single Zone 2nd Unit Tier 1	519
HPSING1T2	Heat Pump Single Zone 1st Unit Tier 2	5040
HPSING2T2	Heat Pump Single Zone 2nd Unit Tier 2	1192
HPMULT2T1	Heat Pump Multi-zone 2 or more zones	2475
HPMULT1T1	Heat Pump Multi-zone add on	241
LCHA	MiniSplit HP Property Assessed	654
LCHL	MiniSplit HP LIHEAP	121

2.3 Program Goals and Requirements

The design and administration of Efficiency Maine programs must fulfill a number of goals and requirements specified in law. These include:

- **Guiding principles –** As a program of the Trust, programs should be designed and delivered such that they are consumer-oriented; program effectiveness is maximized; program effectiveness and efficiency is maximized; and sufficient checks and balances are provided to ensure consistency, accountability and sustainability (35-A MRSA section 10104, sub-section 2). Additional principles and objectives are outlined in law for each source of funding for the Program (35-A MRSA sections 10109, 10110)

- **Cost-effectiveness –** Programs funded by the Conservation Fund, the Regional Greenhouse Gas Initiative (RGGI) Trust Fund and Heating Fuels Efficiency and Weatherization Fund are expected to be cost effective. The test used by the Trust to determine cost-effectiveness is defined in rule[5] and has been implemented in an Excel-based tool as well as the Cost Benefit Analysis Tool embedded in the Trust's Efficiency Maine Reporting & Tracking System (effRT).

2.4 Measure Tracking Database

The Trust maintains an energy efficiency program tracking database named "effRT" (Efficiency Maine Reporting & Tracking System). The database platform manages the data for all the Trust's active programs and ensures consistent and accurate estimates of energy savings.

Evaluators will be granted access to effRT to execute reports and review configuration of programs, measures, savings formulas, and adjustment factors. The following table identifies the data recorded in effRT for each project. Note that business, tax information, facility type and utility account numbers are not required or recorded for residential customers.

Field	SQL Data Type	Comments
Enrollment Date	DATETIME	Date project was submitted in effRT

[4] Between July 1, 2019 and December 31, 2020, 40 MiniSplit HP Property Assessed and 9 MiniSplit HP LIHEAP measures were rebated.

[5] https://www.efficiencymaine.com/docs/Ch3_Electric-Efficiency-and-Conservation-Programs.pdf

Account Class	CHAR(1)	Possible values - R, C, I; Definitions: R - Residential, C - Commercial, I - Industrial
Business Type	VARCHAR(255)	Possible values - Business, Government, Nonprofit, Organization
Customer Name	VARCHAR(50)	Company Name or Homeowner Name
Tax ID	VARCHAR(9)	EIN or SSN
Tax Status	VARCHAR(100)	Possible values - Corporation, Partnership, Individual/Sole Proprietor, Tax Exempt/Government
Facility Type	VARCHAR(60)	Possible values - Agriculture, College, Convenience Store, Elementary/Secondary Schools, Garage/Repair, Grocery Store, Health, Hospital, Lodging, Manufacturing, Office, Other, Restaurant, Retail, Warehouse, Multi-family Building 11+ Units, Multi-family Building 5-10 Units
Structure Type	VARCHAR(20)	Possible values - Single Family Home, Multi-Family Building, Mobile Home, Commercial, Industrial
Structure Age Type	VARCHAR(8)	Possible values - Existing, New
Square Footage	INT	Optional
Number of Units	INT	Applicable to lodging and multifamily facility types
Enrollment Comments	VARCHAR(1024)	Optional
Invoice Date	DATETIME	
Check Date	DATETIME	
Check Number	VARCHAR(20)	
Amount Paid	MONEY	
Contact First Name	VARCHAR(30)	Specific applicant for this project
Contact Last Name	VARCHAR(30)	Specific applicant for this project
Contact Email Address	VARCHAR(100)	Specific applicant for this project
Contact Primary Phone	BIGINT	Specific applicant for this project
Contact Alternate Phone	BIGINT	Optional
Contact Language	VARCHAR(50)	Optional
Service Location Description	VARCHAR(50)	Optional
Install Address Street	VARCHAR(100)	
Install Address Unit	VARCHAR(10)	
Install Address City	VARCHAR(30)	
Install Address State	CHAR(2)	
Install Address Zip	INT	
Is Mail Same As Install	VARCHAR(4)	Yes/No
Mailing Address Street	VARCHAR(100)	
Mailing Address Unit	VARCHAR(10)	
Mailing Address City	VARCHAR(30)	
Mailing Address State	CHAR(2)	
Mailing Address Zip	INT	
Gas Service Provider	VARCHAR(255)	Optional, Pre-defined list of Maine local distribution companies
Gas Account No	VARCHAR(50)	Optional
Electric Service Provider	VARCHAR(250)	Optional, Pre-defined list of Maine electric utilities
Electric Service Account No	VARCHAR(50)	Optional
Measure Code	VARCHAR(5)	
Measure Name	VARCHAR(100)	
Installed Measure Quantity	INT	Number of outdoor units installed
Measure Cost	MONEY	Incremental cost between baseline and efficient measure
Incentive Amount	MONEY	
kWh	DECIMAL(18,6)	negative values indicate increased consumption

kW	DECIMAL(18,6)	negative values indicate increased demand
Winter kW	DECIMAL(18,6)	negative values indicate increased demand
Summer kW	DECIMAL(18,6)	negative values indicate increased demand
Therms	DECIMAL(18,6)	Natural Gas savings in therms, negative values indicate increased consumption
Propane (MMBtu)	DECIMAL(18,6)	negative values indicate increased consumption
Heating Oil (MMBtu)	DECIMAL(18,6)	negative values indicate increased consumption
Kerosene (MMBtu)	DECIMAL(18,6)	negative values indicate increased consumption
Wood (MMBtu)	DECIMAL(18,6)	negative values indicate increased consumption
Water (Gallons)	DECIMAL(18,6)	

Heat pump data is collected for the following measure specific properties.

Measures	**Property Name**	**Property Control Type**	**Property Values** for Drop Down Lists **(Name|Value)**
Heat Pump Single Zone 1st Unit Tier 1, Heat Pump Single Zone 2nd Unit Tier 1	Cost	Numeric Value	
	Date Installed	Date	
	Make	Text Box	
	Model	Text Box	
	HSPF	Numeric Value	
	Type of indoor unit	Drop Down List	Wall Mounted|1; Floor Mounted|2; Ceiling Mounted|3; Unknown|0; Other|9
Heat Pump Single Zone 1st Unit Tier 2, Heat Pump Single Zone 2nd Unit Tier 2	Cost	Numeric Value	
	Date Installed	Date	
	Make	Text Box	
	Model	Text Box	
	HSPF	Numeric Value	
	Type of indoor unit	Drop Down List	Wall Mounted|1; Floor Mounted|2; Ceiling Mounted|3; Unknown|0; Other|9
Heat Pump Multi-zone 2 or more zones, Heat Pump Multi-zone add on	Cost	Numeric Value	
	Date Installed	Date	
	Make	Text Box	
	Model	Text Box	
	HSPF	Numeric Value	
	Type of indoor unit	Drop Down List	Wall Mounted|1; Floor Mounted|2; Ceiling Mounted|3; Unknown|0; Other|9
	Number of indoor units per outdoor unit	Numeric Value	
MiniSplit HP Property Assessed	Cost	Numeric Value	
	Date Installed	Date	
	Primary heating type	Drop Down List	Gas|1; Propane|2; Oil|3; Kerosene|4; Wood|5; Electric|6; Unknown|0
	DHW Fuel Type	Drop Down List	Heat Pump Water Heater|1; Electricity|2 ;Other|3
	Make	Text Box	

	Model	Text Box	
	HSPF	Numeric Value	
	Assessed Value	Numeric Value	
MiniSplit HP LIHEAP	Cost	Numeric Value	
	Date Installed	Date	
	Primary heating type	Drop Down List	Gas|1; Propane|2; Oil|3; Kerosene|4; Wood|5; Electric|6; Unknown|0
	DHW Fuel Type	Drop Down List	Heat Pump Water Heater|1; Electricity|2; Other|3
	Make	Text Box	
	Model	Text Box	
	HSPF	Numeric Value	

2.5 Utility Data

The Trust has the statutory authority to obtain customer specific billing data from the electric and natural gas utilities. The process to obtain billing data from the utilities requires a customer account number. The quality and extent of billing data and advanced metering infrastructure (AMI)/electric interval data available and the time necessary to obtain it varies by utility. Proposals recommending the use of AMI data should note any software licensing fees associated with its analysis.

2.6 Additional Sources of Information

Following are links to additional information that bidders may find helpful in preparing a response to this RFP:

TITLE	**LOCATION (link)**
Efficiency Maine Trust website	www.efficiencymaine.com
Efficiency Maine Trust Annual Reports	https://www.efficiencymaine.com/about/library/reports/
Efficiency Maine Trust – Triennial Plan	https://www.efficiencymaine.com/about/library/policies/
Evaluation, Measurement, and Verification (EM&V) requirements	https://www.iso-ne.com/static-assets/documents/2018/10/manual_mvdr_measurement_and_verification_of_onpeak_and_seasonal_peak_demand_resources_rev07_20181004.pdf https://www.efficiencymaine.com/docs/Chapter-2-Administration-of-Trust-Budgeting-Project-Selection-Criteria-and-Procedures-Monitoring-and-Evaluation-Requirements-Energy-and-Carbon-Savings-Trust.pdf
Efficiency Maine Trust Technical Reference Manual	https://www.efficiencymaine.com/about/library/policies/

SECTION 3 – SCOPE OF WORK

3.1 Overview

The Efficiency Maine Trust (the Trust) seeks a qualified bidder or team of bidders to perform an independent impact evaluation of the Trust's Residential programs' heat pump measures for the period from July 1, 2019 through June 30, 2021[6].

The evaluation is intended to fulfill the statutory requirements that the Trust:

(1) Arrange for an independent evaluation, at least once every 5 years, of each program that has an annual budget of more than $500,000, including an evaluation of the program's effectiveness in achieving goals specified in the law governing the Trust (35-A MRSA section 10104, subsection 10), and

(2) Monitor and evaluate the delivery of electric conservation programs and assess the cost-effectiveness of programs (35-A MRSA section 10110, subsection 2, paragraph F).

The primary objectives of the evaluation are to quantify and verify electric energy and demand impacts (increases and decreases), verify non-electric energy impacts (increases and decreases), and analyze program cost-effectiveness. Consistent with these objectives, the overall evaluation project will include an impact evaluation and a cost-benefit analysis, which are further described in section 3.2. The evaluation contractor must provide a rigorous evaluation of these measures, consistent with available resources, and deliver timely information and results to the Trust.

The evaluation contractor will be responsible for ensuring that the evaluation, measurement and verification of energy and demand savings conducted under this evaluation fully complies with all applicable requirements set forth in the "ISO New England Manual for Measurement and Verification of Demand Reduction Value from Demand Resources" (M-MVDR).[7] These include, but are not limited to, requirements for metering and measurement equipment, frequency and duration of metering and monitoring, and statistical significance and sampling precision. The Trust's demand resources in the ISO-NE FCM are classified as "on-peak demand resources" and the Trust must measure, verify and report demand savings accordingly.[8] Bidders should carefully review the M-MVDR and, in the proposal, provide evidence of their ability to meet these requirements.

The contractor will be responsible for adhering to safety protocols and providing all necessary safety gear and training for site visits conducted as part of the program.

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[6] Efficiency Maine introduced Tier 2 rebates for HESP heat pump in the middle of FY2020. For the HESP measures, the evaluated period will be January 1, 2020 through June 30, 2021.

[7] https://www.iso-ne.com/static-assets/documents/2018/10/manual_mvdr_measurement_and_verification_of_onpeak_and_seasonal_peak_demand_resources_rev07_20181004.pdf

[8] On-Peak Demand Resources provide their load reduction during the following hours: Summer On-Peak Hours 1:00-5:00 p.m. non-holiday weekdays in June, July, and August; Winter On-Peak Hours are 5:00-7:00 p.m. non-holiday weekdays in December and January.

3.2 Evaluation Objectives

The Trust expects the evaluation contractor to design an evaluation that fulfills the following objectives using standard evaluation practices. The Trust is particularly interested in identification of adjustments needed to make future savings estimates more accurate.

3.2.1 Impact Evaluation

The provider shall conduct in-field metering of heat pumps (HP) that received program incentives between July 1, 2019 and June 30, 2021[9]. Sampling and metering shall be sufficient to fulfill the following requirements.

A. The sample shall be statistically representative[10] of program participants considering the following characteristics:
    a. Climate zone: 2 or 3 regions based on average HDD,
    b. Year of installation,
    c. Type of home, and
    d. Measure installed[11]:
        i. Heat Pump Single Zone 1st Unit Tier 1
        ii. Heat Pump Single Zone 2nd Unit Tier 1
        iii. Heat Pump Single Zone 1st Unit Tier 2
        iv. Heat Pump Single Zone 2nd Unit Tier 2
        v. Heat Pump Multi-zone 2 or more zones
        vi. MiniSplit HP Property Assessed
        vii. MiniSplit HP LIHEAP
B. Relative precision shall be ±10% or better at 80% confidence interval at the portfolio level for savings estimates (energy and peak demand).
C. In-field measurements and/or collected utility/fuel dealer records shall be sufficient to estimate the following:
    a. Annual energy consumption (electricity, natural gas, and unregulated fuels) for heating and cooling;
    b. Annual energy impacts (changes in consumption compared to baseline);
    c. Peak summer and winter demand impacts[12];
    d. Annual load profile/energy period factors[13];

[9] Efficiency Maine introduced Tier 2 rebates for HESP heat pump in the middle of FY2020. For the HESP measures, the evaluated period will be January 1, 2020 through June 30, 2021.
[10] Participant groups representing less than 5% of the total program population do not need to be included in the sample.
[11] The multizone add on measure can be excluded from sampling given its low adoption rate.
[12] The on-peak demand periods are defined as Summer On-Peak: 1:00 to 5:00 PM on non-holiday weekdays in June, July and August and Winter On-Peak: 5:00 to 7:00 PM on non-holiday weekdays in December and January. http://www.iso-ne.com/markets-operations/markets/demand-resources/about
[13] Energy Period Factors are the percentage of annual electricity consumption that occur in each of the ISO NE defined costing periods. Summer on-peak is defined as the 16-hour block from 7:00 a.m. to 11:00 p.m., Monday–Friday (except ISO holidays), in the months of June–September (1,390 Hours, 15.9 percent of 8,760). Summer off-peak is all other hours between 11:00 p.m. and 7:00 a.m., Monday–Friday, weekends, and ISO holidays in the

e. Annual heat produced by heat pump;
f. Annual heat produced by other heating equipment;
g. Equipment usage profile by season and time of day;
h. HP coefficient of performance as a function of outdoor air temperature; and
i. HP average heat rate (btu/h) as a function of outdoor air temperature.

D. Customer surveys/interviews, desk reviews and on-site observations or other methods shall allow assessment of the following:
   a. Demographics;
   b. Free-ridership estimatation;
   c. Spill-over estimatation;
   d. Appropriate baseline;
   e. Equipment satisfaction;
   f. Reported HP use by season;
   g. Heating and cooling equipment control strategies for heat pumps and existing systems to include:
      i. On/off operation,
      ii. Temperature settings,
      iii. Integration with existing systems,
      iv. Thermostats type and location,
      v. Fan and vanes/fins settings;
   h. Perceived energy savings;
   i. Perceived increase in electricity use;
   j. Changes in other heating/cooling equipment use;
   k. Useful resources/influences related to:
      i. Purchase decision,
      ii. Installation,
      iii. Operation;
   l. Contractor satisfaction; and
   m. Program satisfaction.

E. Contractor/supplier surveys/interviews or other methods shall allow assessment of the following:
   a. Useful resources/influences related to:
      i. Sales,
      ii. Stocking practices,
      iii. Installation;
   b. Average installation price of program qualifying equipment;
   c. Average installation cost of alternative equipment;
   d. Percent of sales of program qualifying equipment;
   e. Barriors to program qualifying HP sales; and

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months of June–September (1,530 Hours, 17.5 percent of 8,760). Winter on-peak is the 16-hour block from 7:00 a.m. to 11:00 p.m., Monday–Friday (except ISO holidays), in the eight months of January–May and October–December (2,781 Hours, 31.7 percent of 8,760). Winter off-peak is all other hours between 11:00 p.m. and 7:00 a.m., Monday–Friday, all day on weekends, and ISO holidays–in the months of January–May and October–December (3,059 Hours, 34.9 percent of 8,760) https://www.iso-ne.com/participate/support/glossary-acronyms/

f. Influence of program on sales.

3.2.2 Cost-Benefit Analysis

The cost-benefit analysis will examine the cost-effectiveness of the program. The analysis will be performed using the methodology and assumptions applicable to the period under evaluation. The Trust will provide an Excel-based implementation of the approved methodology and assumptions as well as provide access to Cost Benefit Analysis Tool (CBAT) hosted in effRT[14]. A sensitivity analysis should be included that considers evaluation uncertainty and alternative methodologies for the calculation of benefit/cost ratios. The cost-benefit analysis will meet the following objectives for measures installed under the program during the evaluated period:

A. Verify benefit/cost calculations.
B. Determine for each measure type incentivized under the program the following:
    a. Verified measure costs based on the costs of installed efficiency measures and appropriate baseline costs;
    b. Lifetime benefits of verified savings (gross and net);
    c. Lifetime costs of fuel use increases (gross and net); and
    d. Measure level benefit/cost ratios (excluding program delivery and marketing costs) using prescribed and alternate methods.
C. Compile program delivery and marketing costs.
D. Determine program level benefit/cost ratio using prescribed methods and sensitivity analysis.
E. Identify key drivers of differences between the program estimated benefit/cost ratio and those calculated from verified savings and costs and sensitivity analysis.

3.3 Project Deliverables

The provider shall draft documents for review by the Trust. The Trust will provide written feedback for consideration and incorporation by the provider. Final versions are subject to approval by the Trust. Written communications to program participants (customers and contractors) must be approved by the Trust prior to distribution. Deliverables under this project shall include the following:

A. Work Plan;
B. Sampling Plan;
C. Recruiting materials;
D. Interview/survey instruments;
E. Data collection instruments;
F. Findings report; and
G. Data, analysis and results files.

Memos on interim findings in advance of the findings report can be very helpful in sharing early observations and obtaining feedback on writing style and content detail. These memos should be structured to parallel the construction of the final report. The Work Plan should include a list of the interim memos to be generated.

[14] CBAT is configured with prescribed avoided costs, discount rate and generation mark-up. Cost-effectiveness will be assessed using the Trust's values for avoided costs, discount rate and generation mark-up that were in place at the time of measure installation.

The contractor(s) must commit to completing all tasks within the time frame established in the approved Work Plan. The contractor(s) is responsible for providing the Trust with electronic copies of all deliverables in Microsoft Office software format or other appropriate format approved by the Trust.

SECTION 4 – PROPOSAL REQUIREMENTS

The Trust reserves the right to reject any proposal that does not meet the requirements set forth below.

4.1 Project Organization and Staffing Requirements

Proposals that include teaming arrangements must designate one party as the lead bidder. Personnel who are proposed shall be the actual contract performers. In accordance with Standard Agreement, Rider B, Section 3, Provider Personnel (see Attachment B), no re-deployment or replacement of any Key Personnel may be made without the prior written consent of the Trust.

4.2 Submittal Requirements

Proposals must be delivered to the Trust by the due date and time specified in section 1.3 of this RFP to the attention of the designated Contact Person specified in section 1.2. Proposals must be clearly marked, "**Response to RFP EM-009-2021 – Residential Heat Pump Impact Evaluation**."

The proposal submission must meet the following requirements:

- One (1) electronic copy emailed to the designated contact in section **1.2 Designated Contact Person for this RFP**; electronic files must be provided in Microsoft Office and/or PDF format; Attachment C must be provided in Microsoft Excel format.
- The email must have a subject line of "**Response to RFP EM-009-2021 – Residential Heat Pump Impact Evaluation**."
- Electronic files must be **received** in the inbox of the designated contact by the deadline defined in section 1.3.

Bidders may **optionally** submit hard copies for review **in addition to electronic files**. Hard copies should meet the following requirements:

- One (1) signed original document that is unbound and includes all sections, forms and appendices (electronic and stamped signatures are not acceptable);
- Two (2) hard copies of the entire original including Attachment C in the Budget/Cost Proposal section;
- Hard copies must be received and time stamped by the Trust by the deadline defined in section 1.3.

4.3 Format Requirements

The Trust will evaluate proposals for adherence to the following format requirements:

- Proposals must be typewritten.
- Each page must state the page number, the name of the bidder, and the RFP number.

- Proposals must avoid unnecessary attachments. Any attachments beyond those sufficient to present a complete, comprehensive, and effective proposal will not be considered in the evaluation of the proposal.
- Proposals must adhere to prescribed page limits specified in section 4.4. The Trust values succinct proposals; page limits define the upper bound on page count; fewer pages are acceptable and appreciated.
- Please note that each printed side counts as one (1) page.

4.4 Content and Organization Requirements

The proposal must include the following contents, which should be presented in the following order:

1. Proposal Cover Sheet Form

- Include a completed, signed Proposal Cover Sheet Form (see Attachment A).
- If the proposal involves any subcontractors, provide a completed Team Commitment page.

2. Letter of Transmittal / Letters of Commitment

- Include a brief Letter of Transmittal, on company letterhead, signed by an appropriate officer of the lead bidder who can bind the company to a contract. Include a statement certifying that the provision of services to the Trust will not result in a conflict of interest as outlined in section 1.15.
- If the proposal involves any subcontractors, include a letter of commitment from each subcontractor, signed by an appropriate officer of the subcontractor who can bind the company to a contract. Include a statement certifying that the provision of services to the Trust will not result in a conflict of interest as outlined in section 1.15.

3. Table of Contents

4. Introduction (2 pages maximum)

- Summarize understanding of the services requested in the RFP and proposed approach to fulfilling the requirements of this RFP.
- Briefly describe the proposed project team and qualifications.

5. Statement of Work (10 pages maximum)

- ***Overview:*** Provide an overview of the proposed approach. Describe how the project is to be implemented to fulfill the objectives of the evaluation, as specified by the Trust, and the requirements of the Scope of Work (section 3).
- ***Work Plan:*** Specify the proposed Work Plan for accomplishing the objectives specified in the Scope of Work. The plan should outline the approach to meeting the objectives and specify the relevant methods and deliverables. The plan should include a detailed sampling plan that will meet the requirements set forth in Section 3.

- ***Schedule and Deliverables:*** Provide a chart or outline detailing the proposed schedule for the evaluation, including proposed timelines for each task and associated deliverables or reports.

6. Staffing, Management and Qualifications (8 pages maximum)

- ***Overview:*** Briefly describe the overall staffing plan and management approach to the evaluation, including coordination with subcontractors where applicable.
- ***Organizational chart:*** Provide an organizational chart of the proposed team for the project. The chart should identify key team members, their project roles, illustrate relationships between the individual staff and the organizations (the Trust, the contractor and any subcontractors) and clearly indicate the primary point of contact for the Trust.
- ***Individual qualifications:*** For each staff member that is bid on the project, please provide a brief narrative that includes a description of the individual's role on this project and a summary of his or her relevant skills, qualifications, experience and expertise, including previous program evaluation projects completed. (Resumes must be included in a separate appendix.)
- ***Corporate qualifications:*** Describe the corporate qualifications of the lead bidder, including brief descriptions of past experience on contracts of similar scope and size. Provide a client name and contract value for each and describe how the work is relevant to the current RFP. Provide the same information for each subcontractor.
- ***Financial capability:*** Disclose and provide details regarding any bankruptcy petition (whether voluntary or involuntary), receivership, insolvency event, or similar adverse financial circumstance suffered or incurred by bidder (or any predecessor entity) within the three years preceding the date of submission of this proposal. Disclose and provide details regarding any litigation, arbitration, or administrative proceedings involving bidder within the three years preceding the date of submission of this proposal in which the amount claimed or adjudged against bidder exceeded $50,000.

7. Budget/Cost Proposal (2 pages maximum not including Project Proposal Cost Form)

- ***Cost Information:*** Provide a Time-and-Materials with a Not-to-Exceed bid for evaluating the program based on the proposed sampling plan. The bid should reflect an understanding that under the resulting contract agreement the winning bidder will be bound by the labor rates and not-to-exceed level specified in the contract and will be required to complete all tasks specified in that agreement without charges above the total agreement price.
- ***Narrative:*** Provide a brief narrative explanation of the project cost proposal, including the total price, price for each task, and any relevant assumptions.
- ***Cost Form:*** Provide a completed Project Proposal Cost Form (Attachment C) detailing the breakout of costs, including labor hours, hourly rates and costs for all personnel, including any subcontractors; other direct costs; and total costs and total costs in sufficient detail to allow assessment of the reasonableness of the basis for the not-to-exceed level proposed. All related expenses must be included and itemized on this form; any costs not included on this form will be disallowed. A hard copy of this form must be included in all copies provided but will not be counted against the page count requirements.

Appendices

- ***Appendix A – References***: Provide a list of references for the lead bidder and any subcontractors included in the bid. At least three (3) references must be provided for each organization included in the bid. For each reference, please provide current contact information (name, company, telephone number, and email address) and a brief description of the work conducted for the reference and its relevance to the current RFP.

- ***Appendix B – Resumes:*** Provide resumes of key project team members in an Appendix. Key project team members identified in the proposal must be dedicated to the proposed project at the level proposed. Any substitutions of key project team members must be approved by the Trust.

- ***Appendix C – Evaluations and Reports:*** Provide examples of independent program evaluation reports or other relevant reports, published within the past 5 years, performed by the lead bidder that are similar in nature to the evaluation requested in this RFP. Please provide URLs where the relevant evaluation reports may be accessed on-line; where on-line access is not possible, please provide electronic copies of the reports as part of the proposal submission. In Appendix C, provide a list of the submitted reports that includes the report title, author/independent evaluator, publication date, and URL (or filename if provided electronically) for accessing the report. Do not include hard copies of the example reports.

SECTION 5 – PROPOSAL EVALUATION CRITERIA

Proposals that meet the requirements established in the RFP will be evaluated by a proposal review team. The Trust reserves the right to decide whether a proposal meets or does not meet the requirements of this RFP and to accept or reject any or all proposals received.

In evaluating proposals, the Trust reserves the right to take any of the following steps, with respect to either all of the proposals received or to a subset of proposals selected as superior to the others: (1) consult with prior clients on the performance of the bidder or of particular persons proposed for this bid; (2) schedule presentations or interviews with representatives of the bidder or persons proposed for the project; (3) conduct a review of past performance, including a review of reports, analyses, or other materials that would reflect the bidder's performance; and, (4) request additional data or supporting material.

In evaluating proposals submitted in response to this RFP, the proposal review team will use the following criteria:

Scoring Category	Maximum Points
1. Statement of Work a. Does the Statement of Work present a comprehensive, sound approach for accomplishing the requirements of this RFP? b. Is the Statement of Work thorough, specific and responsive to the requirements and details specified in the RFP? c. Does the proposal demonstrate a clear understanding the Trust's expectations for this specific evaluation? d. Does the Statement of Work reflect best practices in program evaluation? e. Is the sampling plan appropriate to the goals set forth? f. Are alternate methodologies proposed appropriate and will they add value?	30
2. Staff and Organization Qualifications a. Is the proposed project staffing plan clear, well-defined, appropriate and realistic for the scope of the services requested? b. How qualified are the proposed personnel in terms of skills, expertise and experience relevant to the measures being evaluated, and to what extent will these personnel will be available to the program's tasks? c. How qualified are the proposed organizations (lead bidder and subcontractors) in terms of demonstrated experience and capacity to execute this type of evaluation?	30
3. Project Cost/Budget a. Are appropriate resources being devoted to the individual tasks and sub-tasks? b. How does the total bid compare to other comparable proposals? c. Is the proposed budget consistent with the proposed Statement of Work? d. How do the quoted rates compare to other comparable proposals? e. How does the cost per additional sample compare to the base proposal and comparable proposals?	30

Scoring Category	Maximum Points
4. Overall Quality and Responsiveness a. What is the overall quality of the proposal submission, including but not limited to: completeness, clarity, attention to detail, adherence to instructions and requirements and lack of errors? b. Does the proposal reflect and respond to the specific attributes of the Trust's priorities for the evaluation?	10
Total	**100**