

CITY HALL

CITY of MONTPELIER

Vermont

THE CAPITAL CITY OF THE STATE OF VERMONT

MEMO

TO: Notified Bidders – Montpelier Community Renewable Energy Project
FROM: City of Montpelier/Department of Planning and Community Development
RE: Technical Amendment and Time Extension to the RFP for District Energy Center and District Heat Distribution System Design, Permitting and Construction
DATE: September 2, 2010

The following memo describes changes the City of Montpelier is making to the RFP for the District Energy Center and District Heat Distribution System Design, Permitting and Construction. It includes technical amendments to clarify answers to some of the questions we have received, to add clarity and detail to the required information, and a time extension to October 20, 2010, to allow contractors to address the information required. We are not publishing this amendment beyond the bidders who have submitted the Letter of Intent to bid on August 23rd under RFP Timeline item ii), page 19 of the August 5, 2010 RFP.

The City is also posting new documents with information about the project on the city web site on a regular basis as we move through the environmental assessment process and get new information from the State of Vermont. Bidders are advised to check the web site regularly – it is possible to subscribe to it using the RSS feed feature so that you are notified when changes are made. At this point, the changes include the draft Memorandum of Agreement with the SHPO on the plant, which has been determined to be a contributing structure, a CAD file of the floorplan for the current state plant, and a memo from our Public Works department on the possible use of the bridge over the North Branch River for piping.

Technical Amendments

- 1) All bidders shall include in their response a base proposal that provides for the following:
 - a. System Peak Heating Loadings by Phase (see tables and charts below)
 - i. The District Heat values represent the peak demand on the user side of the user interface module and do not account for network losses.
 - ii. For the purposes of the base proposal assume that the expansion of the State Buildings will be new hot water hookups, rather than steam.
 - b. Electrical Generation Capacity = 400 kW in Phase 1. It is assumed that bidders will provide alternatives for electrical generation. The DOE grant stipulates 1.8 million kWh per year. It is assumed that the sizing and phasing will continue to be evaluated during the design phase.

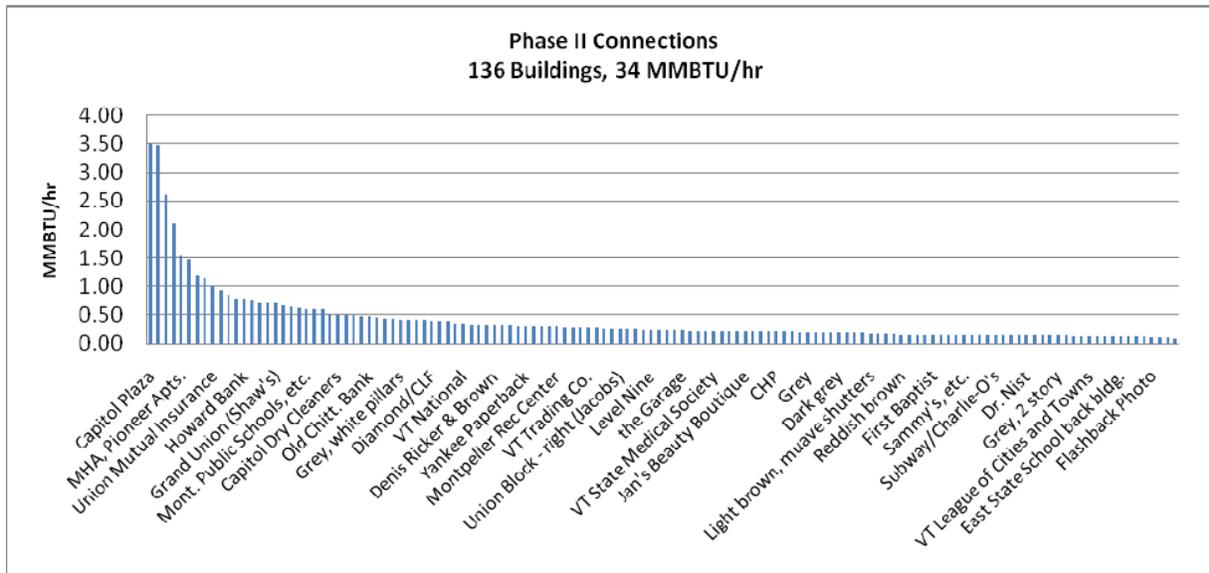
- c. During the engineering it is assumed that the Team will fully evaluate the system sizing and work with Montpelier to appropriately size it. As part of this they will look what is connected and the phasing of it to optimize the project.
- d. For the base proposal bidders shall use the distribution routing provided in the RFP.

Base Proposal	Phase 1	Phase 2	Square Feet	Note
Existing State Buildings	25 MMBTU		544,102 SF	Existing Steam Distribution
Expansions of State Buildings		5 MMBTU	240,000 SF	Assumes high energy efficiency and on-going energy use reduction throughout State Buildings
City Buildings on District Heat	7 MMBTU		192,624 SF	
136+ Buildings on District Heat		34 MMBTU	800,000 SF	
TOTAL	32 MMBTU	39 MMBTU	1,776,726 SF	DOE Grant targets 1.8 million SF

- e. For the purposes of the base proposal Phase 1 shall include:

Building Owner	Building Location	Building Area (sq. ft.)	Est. Heat Load (MMBTUH)
State of Vermont	State House	68,700	4.95
State of Vermont	Supreme Court	42,000	1.48
State of Vermont	120 States St.	76,500	2.61
State of Vermont	133 State St.	104,700	5
State of Vermont	6 Baldwin St.	32,750	0.82
State of Vermont	116 State St.	2,500	0.4
State of Vermont	110 State St.	11,675	1
State of Vermont	109 State St.	124,880	5.73
State of Vermont	128 State St.	9,250	0.22
State of Vermont	126 State St.	5,900	0.15
State of Vermont	132 State St.	3,950	0.12
State of Vermont	118 State St.	4,400	0.13
State of Vermont	4 Aiken Place	5,700	0.2
State of Vermont	2 Western St.	9,500	0.31
State of Vermont	136 State St.	3,525	0.24
State of Vermont	134 State St.	3,000	0.19
State of Vermont	112 State St.	35,172	1.5
City of Montpelier	City Hall/Fire Dept.	42,450	0.8
City of Montpelier	Police Station	3,000	0.08
City of Montpelier	Union Elem. School	58,000	3
City of Montpelier	Montpelier High School	89,174	3
TOTALS		736,726	31.93

f. For the purposes of the base proposal Phase 2 shall include:



- 2) The base proposal district heating system shall be sized, priced, and evaluated to provide domestic hot water. Where it can be demonstrated that providing domestic hot water is not practical, an alternate base proposal without hot water is expected.
- 3) Extent of the District Heating System Work: The work of this RFP includes the design, purchase and full installation of the “Consumer Interface.” Bidders are not required to include the cost of modifying existing heating systems within the user buildings as part of this bid. During the first phase of the design phase the Team will be asked to develop a preliminary construction cost estimate for the cost of making the necessary modifications to the user heating systems to make them compatible with the district heat system.
- 4) Bidders are free to provide an **additional** response that they believe and can document to be a superior alternative to any of these base proposal requirements. This additional response can consider a proposer’s best design for meeting or exceeding the criteria set out in the DOE grant. For example consideration of sizing of the electrical generating capacity of the project up to 1,000 kW might beneficially improve the project’s revenue streams.
- 5) Additionally bidders shall present a response for a ‘beyond the base’ analysis that represents their best design to achieve a minimum of 1.8 million square feet of heated space and a minimum of 1.8 million kWh of electrical energy generated per year, as provided in the DOE grant.

Maps/GIS data

Several bidders have requested enhanced maps and GIS data of the City staff. Efforts are underway to expeditiously compile this information and post it on the City’s District Energy web page. Bidders should check the web site and its sub-pages at the bottom of the page regularly for postings.

<http://www.montpelier-vt.org/group/99.html>

Existing Structure/Boiler Plant

As provided in the RFP, this project is located in the Historic District of Montpelier. Since issuance of the RFP, Vermont State Historic Preservation Office (SHPO) has been reviewing the existing structure and has concluded that it is a 'contributing structure.' This places an ever greater emphasis on the desire for its continued use or re-use. The DOE is in continuing discussion with SHPO and developed a draft Memorandum of Agreement (MOA). This draft document will be posted on the City's web site and should be reviewed by all bidders. As provided in the RFP ((e) xxxvi), page 13), the City has retained the services of an historic preservation expert and this expert is to be consulted during the development of the building(s) design. Contact information for the historic preservationist is:

Liz Pritchett
Liz Pritchett Associates
46 East State St.
Montpelier, VT 05602
802.229.1035 phone
802.229.1630 fax
liz@lizpritchettassociates.com

Evaluation and consideration of the existing structure is an essential element of the Environmental Assessment (EA) required under NEPA. In order for the EA to be able to support a conclusion of a Finding of No Significant Impact (FONSI), the issues identified by the SHPO must be addressed in a manner acceptable to the SHPO and the DOE.

Details of Project Timeline

The RFP provides at 'Project Schedule' (page 18/19) that "Bidders shall submit a detailed project timeline that is task based and linked to cost ..." Detailed time-based information that relates outcomes to cost is important in understanding how the project will progress and for the City to develop its expenditure plan. The information is requested to be presented at no less resolution than month by month of outcomes and associated costs.

Extension of RFP Response Date

In light of this Technical Memorandum and other considerations, the due date for responses to the RFP is extended to **October 20, 2010, 3 PM Eastern Time.**

Extension of Bond Vote

The extension of RFP response date, together with the City being informed that timing events prevent the City from applying to the Vermont Municipal Bond Bank for low-interest Economic Recovery Act bonds before the end of 2010. As such the City has decided to advance the amendments to the City's Charter on November 2, 2010. On Town Meeting March 1, 2011 the bonding for the project will presented to the

voters of Montpelier. It is anticipated that the low-interest Economic Recovery Act bonds that are scheduled to expire on December 31, 2010 will be extended to December 31, 2011.

Proposed Contract

Please include a draft design/build contract for the project. If alternate ownership configurations are proposed, please also provide information about the proposed legal structure and contractual arrangements involved.

Cost Proposal Information

Please explain the impact of schedule or other factors on changes in costs and propose a process at all the various stages to evaluate and agree on any changes required in the cost proposal.

Proposal Summary Table

Please use this revised Summary Table in the Proposal:

Proposal Summary Table -- Energy Center

Proposer:

Date:

Description of Technology for the Energy Center and Distribution System (this sheet should be developed for each alternative):

<i>Element</i>	<i>Units</i>	<i>Value</i>
Energy Center Total Annual Fuel Input	MMBTU	
Energy Center Total Annual Energy Output thermal and electric	MMBTU	
Energy Center overall system efficiency	%	
Energy Center Peak Thermal Output	MMBTU/h	
Energy Center Backup System Thermal Output	MMBTU/h	
Primary Fuel	Type	Green Wood Chips
Primary Fuel assumed unit cost	\$/ton	
Primary Fuel characteristics assumed		Fuel Higher Heating Value = 8200 BTU/oven dry pound of fuel @50% moisture content wet basis
Primary Fuel Storage Volume		
Days of operation at peak output on primary fuel with no fuel delivery	days	
Primary Fuel Storage Method	describe	
Secondary Fuel	Type	
Secondary Fuel assumed unit cost	\$/XXX	
Secondary Fuel Storage Volume	gallons	

Days of operation on backup heating system with no fuel deliveries	days	
Secondary Fuel characteristics assumed		
Secondary Fuel Storage Method	describe	
Primary Fuel input @ Energy Center rated thermal output	MMBTU/h	
Heat Storage Provisions	describe	
Annual System Energy Demand	MMBTU	
Annual Primary Fuel Use	Tons	
Annual Secondary Fuel Use		
Energy Center Electrical use at peak output including District Heating Pumping	MW	
Annual Energy Center electrical use not including District Heat Pumping	MW	
Annual District Heating Distribution electrical use not including District Heat Pumping	MW	
Energy Center Generator Design Power Output	MW	
Energy Center Generator Annual Net Power Output	MWH	
Assumed power Sell Rate	\$/KWH	
Annual revenue from power sales to the grid	\$	
Energy Center and Distribution System Design Cost	\$	
Energy Center and Distribution System Permitting Cost	\$	
Energy Center Construction Cost	\$	
Distribution System Construction Cost	\$	
Energy Center and Distribution System Design Permitting and Construction Cost amortized over 10 years at 3.5%	\$/year	
Energy Center and Distribution System Annual Operation and Maintenance Cost	\$/year	
Annual Green House Gas Emissions reduction		

Questions and Answers

All bidders should submit questions regarding this Technical Amendment in writing. Please write to the Project Manager, Harold Garabedian at harold.garabedian@gmail.com no later than September 8, 2010. Answers will be posted to the city web site by September 15, 2010.

* * End of Addendum * *