

**VERMONT STATE CONSERVATION INNOVATION GRANTS**  
Quarterly Progress Report

Project Title: Fuel from the Field to the Flue: Grass pellet heating equipment combustion optimization project.
Grantee Name: Meach Cove Real Estate Trust
Project Director: Christopher W. Davis
Progress report author (if different than Director):
Period Covered by Report: 1/1/2014 to 4/30/2014
Project End Date: 9/20/2014

**Work performed during this period:**

1. The Project Director met numerous times with Adam Dantscher of Renewable Energy Resources (RER), LLC to review details for the Evo World model 350c boiler and boiler room in preparation for completion of the boiler and testing of the boiler before delivery in January.
2. The Project Director traveled to the Troy Boiler Works, in Troy, N.Y. on January 24 to inspect the boiler and 550 gallon steel pressure tank that were fabricated there. The boiler was fully operational and running on dry wood chips.
3. The contract with Vermont Mechanical, Inc. was signed and a deposit was remitted in preparation for installing the boiler and reconfiguring the building heating system following the boiler delivery in January.
4. Work by the Meach Cove Farms staff continued on the construction of the pellet bin and chip/briquette storage bins. The bins were completed and tested in April.
5. The Project Director researched suppliers for fire rated view glass and access doors for the fuel storage bins, emission testing equipment similar to the portable analyzers used by both Cornell University and SUNY in Canton, NY, and sources for used industrial conveyors to load chips/briquettes into the storage bin.
6. The Evo World model 350c boiler and a 550 gallon steel pressure tank to be used as a hot water buffer supply tank for the system was delivered and moved into the boiler room on January 29, 2014.
7. The Vermont Mechanical, Inc. plumber began work on piping the boiler on February 5. The final installation and testing of the boiler plumbing was completed by April 11, 2014.

8. The Project Director continued to speak with and corresponded with the Vermont Assistant Fire Marshal to review the design features and code compliance issues for the boiler installation and the fuel storage bins.
9. The boiler flue was ordered, delivered and installed in the building by the Meach Cove Farms staff in February.
10. The boiler was wired and test-fired in early April. The Vermont State Fire Marshal and the Hartford Steam boiler inspector inspected the boiler room and boiler installation on April 14. Several issues were identified to be resolved prior to these two authorities issuing the Certificate allowing Meach Cove to operate the boiler full time. We are continuing to press the manufacturer to complete the final items identified in the Fire marshal and Hartford Boiler inspector's reports. It is out hope to have the final boiler certification in early July so that we can begin testing the grass.
11. The Project Director has been attempting to get the testing procedures used by Professor Mike Newtown at SUNY, Canton, NY for the combustion testing of the boilers already tested there.
12. The Project Director has been working with several combustion instrument vendors to locate the appropriate emission testing equipment so that valid comparisons can be made between the grass combustion emission data collected at Meach Cove, SUNY Canton N.Y. and Cornell.
13. At this time Meach Cove is submitting a request for reimbursement for the costs to purchase the boiler and buffer tank, the flue, and the installation of the boiler by Vermont Mechanical, Inc.

**EQIP and CIG provisions:**

1. The primary EQIP-eligible producer for this project is:  
  
Meach Cove Real Estate Trust  
P.O. Box 309  
Shelburne, VT 05482
2. There are no (\$00.00) direct or indirect payments for structural, vegetative or management practices under this project.
3. The Project Director, Christopher W. Davis, certifies that there will not be any direct or indirect payments made to an individual or entity for any structural, vegetative or management practices through this grant. The AIG and HEL/WC provisions do not apply to this project.

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