

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: 7/1/14 – 9/30/14
Project End Date: 9/20/2015

Work performed during this period:

1. The Evo boiler received the UL certification on 9-22-14. The boiler was re-inspected and passed by the Hartford Steam Boiler inspector on September 26, 2014. The State Fire Marshal who is the Electrical Inspector is scheduled to return on October 6, 2014 to perform a final inspection of both boilers and the boiler room installation. Once he issues his final approval for the boiler installation the boilers may be operated to heat the building and we may proceed with the combustion testing under this GIG grant.
2. Meach Cove purchased three tons of premium softwood pellets to fuel the Evo boiler prior to beginning the combustion testing with grass pellets and then the switch grass pucks.
3. The Project Director received additional information on the types of data collected by Professor Mike Newtown at SUNY, Canton, NY. The Project Director will design an Excel spreadsheet that should allow the data being collected during the boiler combustion testing to be entered directly into the spreadsheet.
4. Meach Cove entered into a contract with Renewable Energy Resources, Inc. (RER) to manufacture five tons of 2.25 inch diameter “pucks” with switch grass grown by Meach Cove.
5. The Project Director researched and located vendors that sell bulk storage bags suited to storing the switch grass pucks. We requested samples of several types of bulk storage bags with bottom spouts to evaluate which would be best suited to store and transfer the switch grass “pucks” that RER will manufacture using their smaller capacity BHS Slugger machine.

6. The Project Director tested 300 pounds of “pucks” in the bulk bags received to ensure that they would flow out of the bottom spout. Based on this test and consultation with RER the Project Director ordered twenty 38 cubic foot capacity bulk bags with duffel tops and 16” x 18” bottom spouts (@ \$11.00 each plus freight) to hold the 5 tons of “pucks” that RER will manufacture.
7. The Project Director has been communicating 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.
8. RER has been making repairs and modifications to their smaller capacity BHS Slugger machine so they can manufacture the switch grass pucks for Meach Cove to test in the Evo boiler.

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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