



reVision
heat

Professional design, installation and service of alternative heating systems to eliminate oil consumption

Proposal for Tarm Solo Plus 60 KW Wood Boiler

Client: Stephen Reynolds Jr.
Deliverance Church
Location: 1008 Congress Street
Portland, ME 04102
Date: November 19, 2012



Project Summary

ReVision Heat proposes the installation of one Tarm Solo Plus 60 KW wood gasification boiler with 1200 Gallon thermal storage tank to augment the existing heating system.

Specializing in alternative heating technology: pellet boilers, pellet stoves, wood boilers & oil boiler efficiency optimizations

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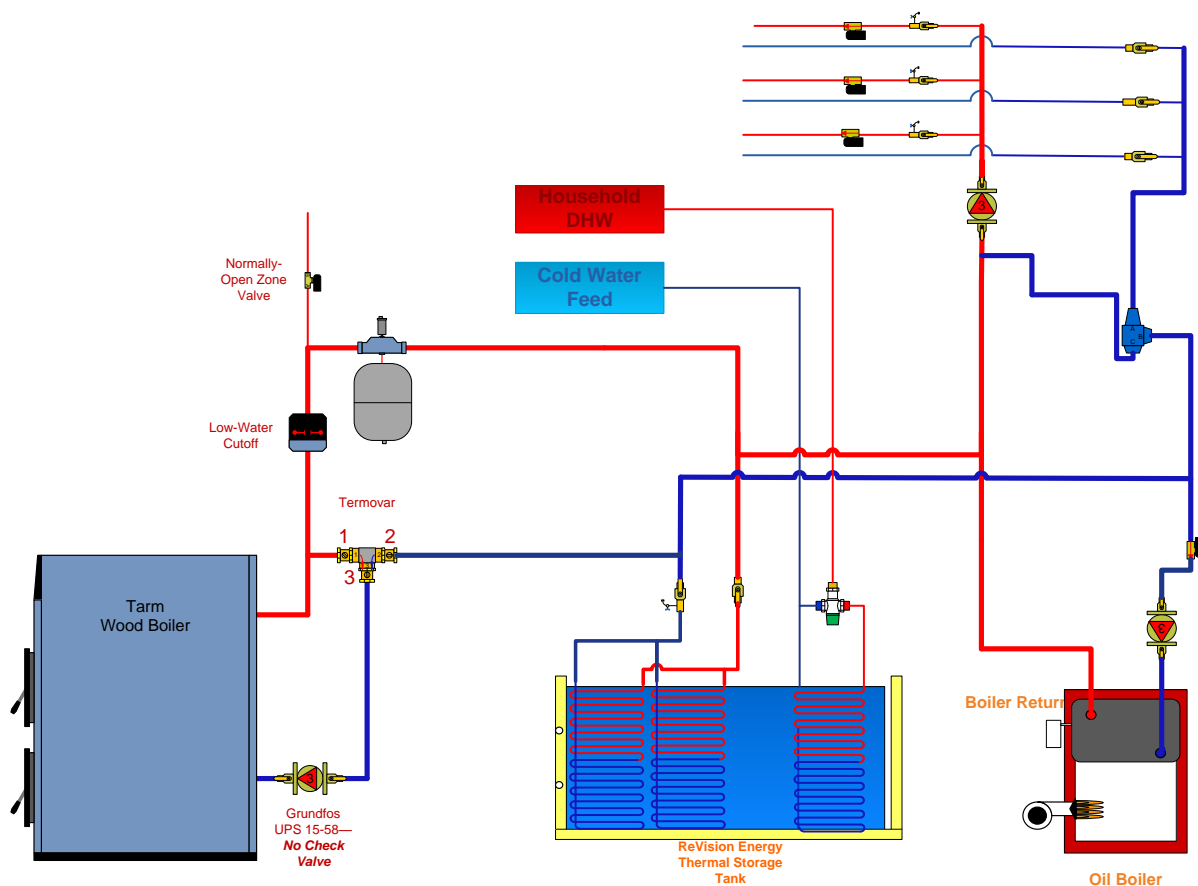
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System Design

Whenever the thermal storage tank is below 120-150 degrees, the wood boiler could be fired. When the wood boiler is hot, the circulator piped to the wood boiler turns on. Heat is delivered either to the heating loads in the home or to the storage tank. Domestic hot water will be provided by a dedicated coil which also draws heat from the storage tank. Whenever the storage tank cools down to the point where there is no more usable heat, the backup boiler will fire. When the tank has reached the programmed limit, the boiler will shut off. If there is a call for heat during the backup boiler cycle, the demand will be satisfied directly by the backup boiler and prioritized over sending heat to the thermal storage tank.

The system is equipped with two types of overheat safety controls: an overheat dump zone and a “no power” dump zone. In the unlikely event that the boiler exceeds its high temperature limit, excess heat will automatically be circulated to the largest heating zone in the building. In the event of a power failure, a valve opens automatically and allows boiler heat to circulate via thermal convection to a gravity dump zone, located above the boiler.

Following is a schematic illustrating the basic layout of the proposed system.





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Component Specification

- 1 Tarm Solo Plus 60 KW Gasification Wood Boiler
- 1 1200 gallon thermal storage tank
- 1 fluid power valve
- 1 120 foot copper coil for DHW
- 2 180 foot copper coils for Heat into and out of the system
- 1 Honeywell mixing valve for domestic hot water
- 2 Termovar Valves
- 7 Caleffi Zone Valves
- New Zone Valve Controller

Price to include the following:

- Purchase and installation of one Tarm Solo Plus 60 KW boiler
- Move existing oil boiler to the left
- Integrate flue wood boiler vent connector with oil boiler vent connector
- Delivery and placement of boiler
- Purchase and installation of 3 ReVision Heat copper coils for DHW and heat
- Installation of all peripheral components listed above
- Installation of “no power” dump zone valve
- Installation of new distribution manifold including new zone valves and pumps
- System commissioning
- Integration with hot water system
- Removal of exterior oil tank
- Connecting oil boiler to interior oil tank

Price does not include the following:

- Removal of oil boiler and all other obstructions in the thermal storage tank room
- Removal of all obstructions from room adjacent to active oil boiler
- Any work not included in the section above (“Price to include the following”).

Important notes:

- Non-contract labor is billed at \$85 an hour. This rate also applies to unanticipated additional travel time and additional office time beyond the scope of this proposal.

Project Cost: \$29,000

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Payment Terms:

- One Third due on acceptance
- One Third due on arrival of materials to site
- Balance due on completion

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