EmPower New York Heating System Repairs and Replacements: Lessons Learned

LIFE Regional Meetings
April-May, 2015
Mid-winter heating system failures for low-income households

A health and safety risk for the family

Replacement adds a financial burden, and emergency service can be expensive

Failure to act immediately can cause further damage (bursting pipes, etc.)
The EmPower No-Heat Initiative (ENHI)

- In the winter of 2014-15, EmPower provided assistance to 668 households in no-heat situations. This initiative is now closed.
- Contractors repaired or replaced heating systems within 1-4 days.
- Additional energy efficiency measures were installed where appropriate.
- Local Departments of Social Services (DSS) assisted with referrals and temporary housing.
- QA reports from on-site inspections were generally very favorable.
Low income homeowners:

- With inefficient heating systems that meet cost-effectiveness guidelines for replacement
- In no-heat situations who are denied assistance by HERR

In rental situations, landlords are responsible for heating system services
Screening Questions before the Visit

Examples:

✓ Do you own your home?
✓ How old is your heating system?
✓ How and when did your system break down?
✓ Have you changed the batteries in your thermostat lately?
✓ Are you able to heat your home with any other heat source (space heat, wood etc.)? If not, how are you getting by?
Repairs often solve the problem: (40% of the time in ENHI)

Household maintenance training is critical

Look at entire system: chimney, fuel line, etc.

Lowest bids not always best: get the details

Include a full scope in the proposal
Workscope Proposals

- Obtain two bids whenever possible
- Require detailed specifications of the proposed work
- Take into consideration added maintenance for high efficiency boilers/furnaces
- Identify and support contractors who respond quickly and provide a reasonable price

<table>
<thead>
<tr>
<th>Customer Name:</th>
<th>Proposed Appliance(s):</th>
<th>Proposed System</th>
</tr>
</thead>
<tbody>
<tr>
<td>EmPower ID #: 00</td>
<td>Primary System</td>
<td>Secondary System</td>
</tr>
<tr>
<td>Make</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model</td>
<td></td>
<td></td>
</tr>
<tr>
<td>System Type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Efficiency Rating</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fuel Type</td>
<td>Conversion?</td>
<td>Yes</td>
</tr>
<tr>
<td>BTU In/Out</td>
<td>In</td>
<td>Out</td>
</tr>
<tr>
<td>Will water heater be shared by heating piping?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Manufacturer’s Warranty (Describe)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contractor Warranty (Describe)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment and parts in stock?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Proposed Start Date</td>
<td></td>
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<tr>
<td>Expected End Date</td>
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<td></td>
</tr>
<tr>
<td>Minor Repair Subtotal (from page 1)</td>
<td>$ 0.00</td>
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</tr>
<tr>
<td>Fuel Supply, Tank Leak(s), and repairs (Describe)</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>Fuel Pipe &amp; Chimney Repairs (Describe)</td>
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</tr>
<tr>
<td>Parts (List)</td>
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<tr>
<td>Other (Describe)</td>
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<tr>
<td>Heating System Repair Subtotal</td>
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<tr>
<td>Replacement Heating System(s)</td>
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<tr>
<td>Heating System Base</td>
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<tr>
<td>Parts (List)</td>
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</tr>
<tr>
<td>Parts (List)</td>
<td>$</td>
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<tr>
<td>Other (Describe)</td>
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<td>Heating System Replacement Subtotal</td>
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<td>Building Permits</td>
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<td>Labor Cost</td>
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<td>Labor &amp; Permit Subtotal</td>
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</tr>
<tr>
<td>Total Proposed Costs</td>
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</table>
Sizing is critical

- System must be correctly sized by the contractor. Easy Manual J calculators are available online that take about 10 minutes to complete.
- Sizing must take into consideration other measures provided to the dwelling, such as insulation and air sealing, that reduce the heat load.
- Installations must follow all local, State and Federal codes.
Agency support in no heat situations

- Confirming income eligibility and notifying the program
- Asking questions up front, (such as the screening questions listed earlier), and sharing answers with program
- Assist the household in assembling any required documentation such as a completed application, proof of ownership, etc.
- Assist in communications between the household and the program as needed
- Provide additional services as available through the Agency.
Other Considerations

• Oil Tank treatment for sludge can be included in workscope
• Distribution pressure testing is recommended if pipes have frozen
• Consider a two-stage furnace if insulation cannot be installed immediately
• Authorized repairs if less than $400 without prior approval, require appropriate documentation afterwards
• Install oil or propane systems only if household has least 100 gallons of oil or propane and the ability to purchase more
• Consider conversions to natural gas if possible
ENHI demonstrated the value of:

- Ensuring that adequate funding is available for providing services to low income households in no-heat situations
- Building cooperation between Departments of Social Services, NYSERDA, Community Based Organizations and other entities
- Ensuring quality through the use of BPI Gold Star Contractors, appropriate documentation requirements and careful Quality Control/Quality Assurance procedures
- Combining heating system services with energy efficiency services
Have all of your questions been answered?
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