Contract No. R002-007
“Development of Economically Sustainable Distributed Power From
Biomass Gasification for North Dakota”

Submitted by Energy & Environmental Research Center
Principal Investigators: Debra Pflugheft-Hasset

PARTICIPANTS

<table>
<thead>
<tr>
<th>Sponsor</th>
<th>Cost Share</th>
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<tbody>
<tr>
<td>Energy &amp; Environmental Research Center</td>
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<tr>
<td>Construction Engineering Research Laboratory</td>
<td>$50,000</td>
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<tr>
<td>North Dakota Industrial Commission</td>
<td>$50,000</td>
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<tr>
<td>Total Project Cost</td>
<td>$100,000</td>
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Project Schedule – 12 months
Contract Date – October 22, 2008
Start Date – October 1, 2008
Completion Date – September 30, 2009

Project Deliverables:
Report on results from Task 1 long-term biomass gasification demonstration
Report on Task 2 results on individual testing for interested North Dakota parties
Status Report: December 31, 2008
Status Report – March 31, 2009
Status Report – June 30, 2009
Final Report – September 30, 2009

OBJECTIVE/STATEMENT OF WORK:
The EERC will demonstrate biomass gasification in an effort to educate potential North Dakota users. The project will use an existing 50-kW gasification system in Grand Forks, North Dakota, and will demonstrate long-term operation of the system for heat and power at the existing facility and short-term testing of additional biomass fuels for interested parties. The project will make potential North Dakota gasification users aware of the environmental and economic benefits of installing and operating a gasification system to replace a portion or all their current energy consumption. The project will include long- and short-term demonstration tasks, development of educational materials, and reporting.

STATUS
Contract signed
June, 2009 - Unanticipated development issues have prevented completion of the scope of work as originally outlined. It has been mutually agreed that this project should be terminated.

06/24/09