PERFORMANCE CONTRACTING
McKinstry's Rocky Mountain team partners with Fort Lewis College on $9.4 million project

April 2012

A project win as big as the Rockies

McKinstry’s Rocky Mountain Region recently won a $9.4 million project – the largest one in their history. They have partnered with Fort Lewis College located in Durango, Colo., to implement energy-saving improvements to its 247-acre campus including libraries, recreation and aquatic center, student center and residence halls and apartments. The star of the project is a central boiler plant that will be installed in one dorm to serve four dormitory facilities. This will reduce the number of independent boilers from 10 with no redundancy to three with full redundancy.

Fort Lewis College has long been dedicated to sustainability, and recognized McKinstry as a trusted partner that could help it quickly achieve its goals to increase student and staff satisfaction, decrease energy expenditures and decrease its carbon footprint. McKinstry performed an energy audit to identify a number of facility improvement measures (FIMS) that could save the college $360,418 annually.

Said Dan Gacnik: “This project has been a true collaborative partnership. The College will be utilizing future utility and operational savings, along with a $3 million capital contribution, to replace aging mechanical infrastructure and drastically improve the learning and working environment for the students, faculty and staff.”

The climb toward success

The project pulls from McKinstry’s extensive expertise to showcase the company’s strength in the integrated delivery of construction, energy and sustainability services.

The facility improvement measures McKinstry is implementing include:

- Boilers
- Demand Controlled Ventilation
- Dorm Boiler Plant Consolidation
- Electric and Gas Sub metering
- HVAC
- Interconnection of Chiller Plants at Reed Library
- Lighting Controls
- Pipe Insulation
- Retro-commissioning
- Outside Air Flow Reduction
- HW Coil Pump Reprogramming
- Snow Melt System Reprogramming
- Variable Flow Hot Water Systems

The project is currently underway and is slated to be substantially completed by the end of the year.

To learn more, please contact Dan Gacnik

MEDIA

FLC OK’s $9.5M for energy plan
Durango Herald
Status Report on Performance Contracting

December 8, 2011

What is Performance Contracting?

• Performance Contracting is a process established and supported through the Governor’s Energy Office to aid facilities owners such as Fort Lewis College in implementing energy savings projects and funding them through future energy savings
The actual Performance Contract is an agreement between a facilities owner, the College, and an energy services company, commonly referred to as an ESCO, whereby the energy services company provides design and construction services for energy savings projects for an agreed upon price with a guaranteed energy savings

– Utility and maintenance savings generated from the improvements are used to fund the lease payments
FLC Annual Utility Budget and Expense

<table>
<thead>
<tr>
<th></th>
<th>Budget</th>
<th>Actual 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water:</td>
<td>$75,000</td>
<td>$71,000</td>
</tr>
<tr>
<td>Sewer:</td>
<td>$80,000</td>
<td>$71,000</td>
</tr>
<tr>
<td>Natural Gas:</td>
<td>$492,000</td>
<td>$387,000</td>
</tr>
<tr>
<td>Electricity:</td>
<td>$957,000</td>
<td>$966,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$1,604,000</td>
<td>$1,495,000</td>
</tr>
</tbody>
</table>

Volatility of Natural Gas Pricing

- 2006 average cost was $10.79/mcf with a high of $12.66/mcf
- 2009 average cost was $8.27/mcf
- 2010 average cost was $4.77/mcf
- In 2008 the College spent $702,000 for natural gas
- Current cost is $5.70/mcf
- Energy savings measures use $5.70 to estimate saving with a 1.09% cost escalation
Need or Opportunities:

- Old, obsolete, inefficient boilers in many buildings and residence halls
- T-12, incandescent and other inefficient light fixtures in many buildings that are being phased out (bulbs and ballasts)
- Lack of or insufficient insulation in some residence halls
- Inefficient plumbing fixtures
- HVAC improvements
Progress to Date:

- McKinstry was selected this spring from the GEO’s list of 14 pre-qualified ESCOs
- This summer and fall they have been conducting an energy audit of campus facilities
- They have presented us a list of potential Facility Improvement Measures (FIMs) for us to consider

FIMs Identified

- Identified $14.6M+ of facility improvement measures (FIMs)
- $5M of energy conservation FIMs – under 25 year payback
- $9.6M of capital FIMs – over 25 year payback
- Can currently fund approximately $5.9M of improvements from savings over a 15-20 year term at 3% interest rate
- Additional capital needed to fund additional measures
- Guaranteed costs, savings and performance
Details of Recommended Project

- Consolidate 10 residence halls boilers into central plant

<table>
<thead>
<tr>
<th>Building</th>
<th>MSL</th>
<th>Age</th>
<th>Redundancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crofton N</td>
<td>35</td>
<td>55</td>
<td>None</td>
</tr>
<tr>
<td>Crofton E</td>
<td>25</td>
<td>39</td>
<td>None</td>
</tr>
<tr>
<td>Crofton S</td>
<td>35</td>
<td>55</td>
<td>None</td>
</tr>
<tr>
<td>Camp N</td>
<td>35</td>
<td>55</td>
<td>None</td>
</tr>
<tr>
<td>Camp E</td>
<td>25</td>
<td>39</td>
<td>None</td>
</tr>
<tr>
<td>Camp S</td>
<td>35</td>
<td>55</td>
<td>None</td>
</tr>
<tr>
<td>Escalante N</td>
<td>35</td>
<td>51</td>
<td>None</td>
</tr>
<tr>
<td>Escalante W</td>
<td>25</td>
<td>39</td>
<td>None</td>
</tr>
<tr>
<td>Escalante N</td>
<td>35</td>
<td>54</td>
<td>None</td>
</tr>
<tr>
<td>Cooper</td>
<td>35</td>
<td>49</td>
<td>None</td>
</tr>
</tbody>
</table>

PROPOSED BOILER PLANT
WEST (possible future addition) COOPER ESCALANTE

Dorm Boiler Plant Consolidation
Details of Recommended Project

• Replace boilers in other buildings:
  – Aquatics Center  $237,000
  – Centennial Hall  $403,000
  – Mears Apartments $538,000
  – Snyder Hall     $396,000
  – Theatre        $332,000
  Total             $1,906,000

Existing Boiler Conditions – Replacements

<table>
<thead>
<tr>
<th>Building</th>
<th>MSL</th>
<th>Age</th>
<th>Redundancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatics</td>
<td>25</td>
<td>23*</td>
<td>None</td>
</tr>
<tr>
<td>Centennial</td>
<td>25</td>
<td>33</td>
<td>None</td>
</tr>
<tr>
<td>Mears</td>
<td>25</td>
<td>28</td>
<td>100%</td>
</tr>
<tr>
<td>Snyder</td>
<td>25</td>
<td>43</td>
<td>None</td>
</tr>
<tr>
<td>Theatre</td>
<td>25</td>
<td>54</td>
<td>None</td>
</tr>
<tr>
<td>Whalen</td>
<td>35</td>
<td>41</td>
<td>None</td>
</tr>
<tr>
<td>Noble</td>
<td>25</td>
<td>24</td>
<td>None</td>
</tr>
<tr>
<td>Reed</td>
<td>35</td>
<td>44</td>
<td>None</td>
</tr>
</tbody>
</table>

*Note: heat-exchanger replaced twice due to corrosion
Details of Recommended Project

- Lighting Upgrades $2,600,000
- Reed Chiller Plant Interconnect $172,000
- Domestic Water Conservation Measures $334,000
- Domestic Water Heater Replacement $164,000
- Residence Hall Insulation $909,000
- Berndt Hall HVAC Improvements $158,000
- Building Envelope Improvements $279,000
- Misc HVAC, controls, etc. $400,000

Preferred or Recommended Project

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Project Cost</td>
<td>$9.5 million</td>
</tr>
<tr>
<td>Total Annual Savings</td>
<td>$380K</td>
</tr>
<tr>
<td>Estimated Capital Contribution</td>
<td>($3 million)</td>
</tr>
<tr>
<td>Financed Amount</td>
<td>$6.5 million</td>
</tr>
<tr>
<td>Simple Payback</td>
<td>17 years</td>
</tr>
<tr>
<td>Estimated Financing Rate</td>
<td>3% - 3.5%</td>
</tr>
<tr>
<td>Financing Term</td>
<td>17 – 20 years</td>
</tr>
<tr>
<td>Annual Utility Escalation</td>
<td>3%</td>
</tr>
</tbody>
</table>
Why Invest $3M in the Performance Contract?

• Capital measures include replacement of equipment far beyond service life (40-60 year old boilers vs. 35 year service life)
• Future avoided capital and maintenance costs = $6.9M
• Savings of approximately $1.2M vs. piecemeal replacement
• Partially funded from savings

Why Invest $3M in the Performance Contract?

• Planned replacement instead of emergency
• Achieve 100% redundancy for boilers and pumps
• Historic low financing rates
• Good bidding climate
• An investment of $3M now addresses over $9M of deferred maintenance needs
Progress Towards Sustainability Goals:

- Electricity: save 2,642,100 kwh/year – 22% reduction
- Natural Gas: save 22,213 mcf/year – 41% reduction
- Water/Sewer: save 5,177,000 gal – 15% reduction
- Reduce overall campus energy consumption (electricity and gas) by 33%
  - Governor’s Executive Order goal of 20%
- Reduce CO2 emissions by 3,464 metric tons – 26% reduction

Questions?