**Streamlining:**

**Projected Energy Savings**

**from the Use of Natural Gas**

Considerable progress is now being made on several fronts with respect to the development of natural gas as a significant source of energy for Maine. A major part of this thrust is the placement of new natural gas infrastructure connecting the Augusta and Rockland areas to the existing natural gas pipeline that draws its supply from Canadian facilities and already passes through Maine.

One company proposes to construct an 8-inch line connecting to the main gas pipeline as it passes through the Town of Windsor, one branch extending 10 miles due west to Augusta, the other 35 miles east-southeast to Rockland. This project is entirely a private-sector initiative. The company will shortly begin the process of contacting potential major energy users in both markets and could conceivably be ready to begin pipeline construction in 2012.

Under current market conditions, natural gas is available for about $9 to $11 per million BTU (MMBTU), whereas heating oil currently costs approximately $25 per MMBTU. A quick calculation reveals possible savings *at least* a 2:1 savings in energy costs.

The state’s interest in this project is the availability of natural gas to provide heat and electricity several state facilities, including the Maine State Prison complex in Warren; the Ferry Terminal in Rockland; the East Campus complex of state buildings in Augusta; and, of course, the State Capitol Building, the Cross Office Building and other state office complexes throughout the Augusta area. Some sites will require a conversion to natural gas capability that could cost several hundred thousand dollars, but this would be a one-time conversion cost.

Currently,

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |   | **FY12** | **FY12** | **FY12** |   |
|  | **Fuel Oil** |   | **Annual** | **Equivalent** | **Possible** |
|  | **Usage** | **Fuel Oil** | **Fuel Oil** | **Natural Gas** | **Future** |
|  | **Gal/year** | **Price/Gal** | **Cost** | **Cost\*** | **Savings\*** |
| **Maine State Prison** | 440,000 | $3.11 | $1,370,000 | $685,000 | $685,000 |
| **Augusta Area State Facilities** | 1,200,000 | $3.21  | $3,850,000 | $1,925,000 | $1,925,000 |

*\*Based on the cost of natural gas being 50% of the equivalent energy-equivalent of fuel oil.*

 *NOTE that these projections are based upon current FY12 figures, but that natural gas will most*

 *likely not be available in most locations until FY14*

* If natural gas was *now* available to serve all State facilities in the Augusta/Hallowell area and at the Maine State Prison, the savings to the State of Maine would be on the order of $2.5 million to $3.0 million in FY12 based upon current consumption patterns and pricing. Gas will most likely not be available in most of these locations until FY14.

The Bureau of General Services is now drafting an RFP to identify companies capable of supplying natural gas to these state facilities. It is expected to be issued in January, 2012 in anticipation of natural gas being possibly available at some locations in 2013.

The Maine State Prison is of particular interest because it has a system capable of using natural gas (but requiring a $10,000 - $25,000 retrofit). Moreover, is possible to supply the prison with natural gas in the near-term via truck. This strategy would require the installation of gas-storage equipment at the prison site for use until the pipeline has been completed, at which time the gas-storage equipment would be removed and the site would be connected permanently to the new gas pipeline.

Assuming the all-in cost of supplying trucked natural gas is 75% of the energy-equivalent of fuel oil, the savings at the prison complex for FY13 would be:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |   | **FY13** | **FY13** | **FY13** | **FY13** |
|  | **Fuel Oil** | **Fuel Oil** | **Annual** | **Trucked** |   |
|  | **Usage** | **Price** | **Fuel Oil** | **Natural Gas** | **Possible** |
|  | **Gal/year** | **per Gal** | **Cost** | **Cost\*** | **Savings\*** |
| **Maine State Prison** | 440,000 | $3.11 | $1,370,000 | $1,030,000 | $340,000 |

*\*Based on the cost of trucked natural gas being 75% of the equivalent energy-equivalent of fuel oil*

* If the Maine State Prison converts to trucked natural gas during the period prior to the completion of a natural gas pipeline to the Rockland area, the possible savings for FY13 could be between $275,000 and $400,000.