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**MEMORANDUM ON RESULTS  
ECOMAINE-UNUM PIPELINE ECONOMIC ANALYSIS**

Date: May 20, 2010

To: Kevin H. Roche, General Manager, ecomaine  
Robert G. Adams, Plant Engineer, Unum

By: Brian Richardson, PE & Arthur Birt

Project: ecomaine-Unum Pipeline Interconnection

Subject: Summarize results and basis for return-on-investment (ROI)  
calculations

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**A. Executive Summary**

This project proposes to construct a pipeline to connect the Unum campus with the ecomaine plant and to provide related necessary equipment, resulting in Unum using ecomaine steam-heated water for building space heating and for domestic hot water. Unum consumption of electric power and general maintenance associated with their facilities' natural gas boilers and associated equipment will decrease.

As a result of using steam to heat pipeline water, ecomaine will generate less power for sale into the grid. Some power will be consumed in pumping energy, and the turbine-generator will have less steam available for power generation. The project will result in an increase in ecomaine O&M costs. However these costs will be covered by the savings in energy at the Unum Campus.

Phase 1 of this study confirmed that the project is permissible without major hurdles, and crossing of the Maine Turnpike and Portland Pipeline is feasible.

The preliminary estimate of the project construction cost is \$2,200,000, which includes 20-25%<sup>1</sup> for undeveloped-details/contingency and 10% for engineering. It includes \$400,000<sup>2</sup> for interconnection of Unum HO3 with HO1 & 2. (Interconnection of HO3 with the HO1 & 2 piping system will be required to effect the estimated project savings.) It does not include overheads for either party, taxes<sup>3</sup>, or interest on money during construction.

Unum savings resulting from the project total \$258,900/yr. Overall incremental impact on ecomaine operating costs totals \$(103,000)/yr. Total project net savings is estimated to be \$155,900/yr.

An economic analysis of the Base Case using 20 years, which is detailed in Section C, yields the following results:

- Internal Rate of Return (IRR) - %: 3.1
- Modified IRR (MIRR)<sup>4</sup> - % 4.1
- Net Present Value discounted (NPV) at 4.5% - \$000's: \$(247)
- Payback (discounted at 4.5%) – years: N/A
- Simple payback, (Capital investment, \$, divided by savings, \$/yr) years: 14.1

Assuming the Base Case is modified to include a matching grant for capital and an annual escalation of 3%/yr, yields the following results:

- Internal Rate of Return (IRR) - %: 16.1
- Modified IRR (MIRR) - % 7.3
- Net Present Value discounted (NPV) at 4.5% - \$000's: \$853
- Payback (discounted at 4.5%) – years: 7.5
- Simple payback, (Capital investment, \$, divided by savings, \$/yr) years: 7.1

The conclusion of the team is that the project is not economically viable without a way to reduce capital investment. It becomes viable if ecomaine were to receive a significant grant.

Given the host of potential benefits, including improved energy efficiency, conservation of resources, and reduction in green-house gas emissions, the team recommends pursuit of a major grant.

<sup>1</sup> This contingency is fairly large because of the preliminary nature of the feasibility study.

<sup>2</sup> This estimate was prepared for Unum by Allied Engineering as part of an earlier separate study. Pipeline construction cost was estimated by a major Maine construction firm.

<sup>3</sup> Ecomaine investments are exempt from taxes.

<sup>4</sup> A standard IRR assumes ability to reinvest the earnings from the project at the same rate of return as the project, and the higher the return, the less likely that becomes. The MIRR assumes that the earnings are reinvested at the more modest rate of the cost of capital, in this case, 4.5%.



## B. Construction Cost – Pipeline & Associated Interface Systems

In preparation of the engineer's estimate of probable construction cost, the general approach was to be conservative. Conceptually, the intent is for the estimate accuracy to be in the range, +5/-25%. Perhaps the most significant unknown that could increase construction costs beyond the estimate is if borings identify large amounts of ledge to be removed.

Table – Cost Estimate Summary

<b>System</b>	<b>Cost Estimate, \$</b>
<b>Pipeline</b>	1,000,000
<b>Pipeline Contingency @20%</b>	200,000
<b>Property ROW allowance</b>	100,000
<b>Unum Interface</b>	90,000
<b>HO3 Interconnection Allowance w/contingencies &amp; engineering</b>	400,000
<b>Ecomaine Interface</b>	224,000
<b>Ecomaine Interface Contingency @25%</b>	56,000
<b>Engineering design, \$1,224,000 x 10%</b>	120,000
<b>Total (Rounded up):</b>	<b>\$2,200,000</b>

## C. Unum-ecomaine Pipeline Financial Analysis

### 1. ROI Analysis Bases

The basis for estimates of project costs savings for Unum is summarized in Appendix 1 - Unum Energy Costs Offset. The basis for estimates of project operating costs for ecomaine is summarized in Appendix 2 - Ecomaine Project Operating Costs.

Appendix 3 is a copy of the Excel spread sheet summary tab. The cash flow / income schedules for the base case and each of the sensitivities are included in a separate spreadsheet that is available for perusal.

### 2. Base Case

For purposes of the return-on-investment (ROI) analysis, a base case has been assumed, and a number of sensitivities have been developed, all benched off the base case.

The Base Case yields the following results:

- Internal Rate of Return (IRR) - %: 3.1
- Modified IRR (MIRR) - %: 4.1
- Net Present Value discounted (NPV) at 4.5% - \$000's: \$(247)
- Payback (discounted at 4.5%) – years: N/A
- Simple payback, (Capital investment, \$, divided by savings, \$/yr) - years: 14.1

3. Base Case Assumptions<sup>5</sup>

- a. Capital – \$2,200,000 will be expended during the summer of 2011, with a project startup date of Oct 1, 2011.
- b. Grants – none in base case.
- c. Operating Cost impact to Unum:
  - i. Natural Gas – reduced natural gas usage by 26,000 MMBtu at \$9.73 will reduce cost by \$250,000 annually.
  - ii. Electricity – for the operation of the Unum natural gas boilers and associated electrical equipment will decrease by \$6,900 annually.
  - iii. O&M – covering parts and outside services on the boilers are expected to decrease by \$2,000 annually.
  - iv. Overall – incremental income impact to Unum – 100% of Unum net savings to be passed along to ecomaine monthly, Fav/(UnFav).

Natural Gas	\$250,000
Electricity	\$6,900
O&M	<u>\$2,000</u>
Total	<u>\$258,900</u>

- d. Revenue & Operating Costs impact to ecomaine:
  - i. Sales of electric power – will decrease by an average of 1,600 MWh annually at \$60 per MWh, for total lost revenue of \$96,000 annually.
  - ii. O&M – will increase by \$7,000 annually, covering chemicals, water treatment, and parts.
  - iii. Incremental income impact to ecomaine, Fav/(Unfav).

Sales of Electricity	\$(96,000)
O&M	<u>\$(7,000)</u>
Total	<u>\$(103,000)</u>

- iv. Project Net Savings \$155,900
- f. Project Upgrades - In addition to routine O&M, to maintain this 20-year life, \$50,000 in lump-sum increments will be spent on the pipeline and equipment at the end of years 5, 10, and 15.
- g. Project Life – equipment to be obsolete at the end of 20 years with no salvage value.
- h. Inflation – all costs (including project) & savings will increase at 0% annually.
- i. Income Taxes – no material Impact on income or property taxes.
- j. Working Capital – no material change.
- k. Cost of Capital – assumed to be 4.5%.
- l. Interest on Loans During Construction – Zero.

<sup>5</sup> All in 2010 \$s.

#### 4. Sensitivities – all Benched off Base Case

Each of the following sensitivities is summarized in the spreadsheet included as Appendix 1:

- a. Project Life – reduced to 10 years.
- b. Major Expenditures – Double those of base case to \$100,000 at the end of years 5, 10, and 15.
- c. Project Cost – 100% of grant (\$1,100,000) is not available.
- d. Cost of Capital – is 3.5% instead of 4.5%.
- e. Operating income – net revenue /costs favorably impacted by 10% (\$15,600 annually) over entire life.
- f. Inflation – increases at 3%/yr for all incremental income items.
- g. Inflation – all items increase at 3%/yr, except lost electrical energy sales by ecomaine, which increase at 4%/yr.
- h. Grants – \$750,000 received in summer of 2011.
- i. Grants – \$1,100,000 received in summer of 2011.
- j. Combination – project grant of \$1,100,000 received in summer of 2011 & inflation impacts incremental income by 3% annually.

### **D. Project Benefits and Risks**

#### 1. Project Benefits

- a. The hot-water pipeline between ecomaine and Unum improves cycle efficiency, thereby reducing heat waste. By creating a closed-loop mechanism, the exchange of hot-water reduces impact on the environment from waste stream pollutants. The project has minimal negative environmental impact and is, instead, “green”.
- b. The hot water pipeline, also known as “district heating”, is a concept characterized in Industrial Ecology - *The Science of Sustainability*. Modeled on natural ecosystems, the exchange of energy and waste materials in an industrial ecosystem is optimized, as in nature, with producers, consumers, decomposers.
- c. By connecting the ecomaine and Unum thermo systems, the release of pollutants is minimized, and the triple bottom-line of sustainable developed is achieved – via environmental stewardship, economic benefits, and corporate social responsibility.
- d. The pipeline results in reduction in Unum costs for space heating, domestic hot water, power, and O&M.
- e. There is a return on investment for ecomaine and Unum.
- f. Displacing natural gas as the energy source, results in reduction of green-house-gas (ghg) emissions (carbon dioxide, CO<sub>2</sub>).
- g. Exporting heat energy results in increased overall ecomaine plant efficiency.
- h. Decreasing import of natural gas equals reduction of State of Maine’s export of funds.



- i. Lowering their energy costs improves Unum's Maine operation profitability, contributing to Unum's propensity to employ Maine workers.
- j. Initial pipeline installation sets ecomaine up with an anchor customer to facilitate future pipeline connections.

## 2. Project Risks

- a. The economics of the pipeline were to change in an unanticipated way such that the district heating concept becomes obsolete and the project life is significantly shortened.
- b. The underground pipeline system were to fail.
- c. The Maine Turnpike Authority were to make a major change such that the pipeline would have to be rerouted.
- d. Electric power revenue rates for sale to the grid were to escalate significantly faster than the escalation of natural gas cost.
- e. Either ecomaine or Unum were to shutdown.

## **E. Conclusions & Engineer's Opinion**

The pipeline project is not economically viable. The most feasible change to make the project viable is to obtain a significant grant.

The project is attractive for a host of benefits summarized above. Because of its benefits to the environment as well as other benefits, we recommend that ecomaine/Unum identify and pursue grants that will make the project economically attractive.

## APPENDIX 1 – Unum Energy Costs Offset

### 1. Basis of Natural Gas Purchase Offset Estimate

Unum provided records of natural gas consumption for the years 2008 and 2009. These were composed of invoiced amounts from the supplier, Hess, and the distributor, Unitil. The consumption amounts invoiced by each of the two companies were for slightly different periods. Hess invoices are based on million Btu (MMBtu) delivered, and Unitil invoices based on ccf<sup>6</sup> of gas. Presumably, Hess adjusts the metered ccf amount for the heating value of natural gas, which varies over time. Assuming 100,000 Btu/ccf, the delivered amounts of energy seemed comparable. Therefore, only the Hess amounts in MMBtu were used for estimating consumption.

There is some natural gas consumption by Unum for non-heating purposes, primarily kitchen use in HO1 and HO3. Domestic hot water is required all year for:

- HO1 showers in fitness center locker rooms, bathrooms, kitchen;
- HO3 bathrooms and kitchen; and
- HO2 showers in locker rooms, bathrooms.

HO3 is out of heating mode by June 1 and back into heating mode in October. Unum is out of heating mode when ambient temperatures are above 50F.<sup>7</sup>

The estimate of pipeline heat offset of natural gas is based on the following:

- Buildings HO1, HO2, and HO3 consumption amounts for the years 2008 and 2009 were totaled and averaged by month.
- The pipeline is to be shutdown during the months of June, July, and August, so no offset was used for those months.
- Offset for heating months, was calculated using the 2008 and 2009 average, and 400 MMBtu/mo was subtracted for kitchen and miscellaneous use.
- These calculations assume that about 300 to 500 MMBtu/mo is included in the offset for domestic hot water.

The calculated total net offset of natural gas energy for the three buildings is ~26,000 MMBtu/yr.<sup>8</sup>

### 2. Pipeline Energy Transport

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<sup>6</sup> A ccf is 100 cubic feet of natural gas. At the nominal 1000 Btu/cf, a ccf (100 cf) is 100,000 Btu or one therm.

<sup>7</sup> Generally- the HO1/HO2 boilers are available year round. Unum has some areas in the buildings (HO1 ground floor) that may require reheat based on space conditions. If there is no call for heat, the boilers and circulators will be shut down.

<sup>8</sup> This amount assumes that 95% of natural gas space heating will be supplied by the pipeline and that 5% of the current total of purchased natural gas will continue to be supplied by the Unum boilers for miscellaneous pipeline outages, etc.

Because the Unum boilers operate at a routine efficiency of approximately 75%, including standby period losses, the pipeline will not be required to supply 25% of the gross natural gas energy purchased by Unum. The net energy supplied by ecomaine via the pipeline loop is estimated to be ~19,000 MMBtu/yr.

### 3. Natural Gas Cost

Unum has recently negotiated a contract for natural gas. Projection on natural gas cost price for 2010 gas supply (Shell) is \$7.20/MMBtu. Delivery (Unitil) will remain about the same as 2009. Therefore, adding the two together, the price used for calculating current cost savings is \$9.73/MMBtu.

On this basis, total current Unum natural gas cost savings is \$250,000/yr.

### 4. Offset of Power and O&M Costs

The calculation of savings assumes that Unum power demand will be less at a total of 26 kW, at an annual motor load factor of 30%. Unum average cost of electric power, including energy plus delivery, is ~\$0.102/kWh (\$102/MWh). On this basis, Unum will save 67.9 MWh/yr. At the current Unum power rate, this savings is estimated to be \$6,900/yr.

It is assumed that there will be no change to Unum staff for operation and maintenance of the boilers. Decrease in furnace/boiler parts and outside services is assumed to be \$2,000/yr.



## APPENDIX 2 – Ecomaine Project Operating Costs

### 1. Power Generation Offset

The proposed system for heating water of the pipeline primary loop at ecomaine is to utilize the Elliott steam turbine boiler feed pump (BFP) drive exhaust steam and the existing dump condenser. Currently, the steam-driven BFP is normally on standby. During periods of pipeline operation for supply of heated water to Unum, high-pressure superheated steam will be supplied to the BFP turbine. This steam is exhausted from the BFP turbine at about 17 psig. The exhaust steam will be diverted to the existing dump condenser (shell side), which will be used as a heat exchanger to heat the pipeline water (tube side). After extraction of the mechanical energy to drive the boiler-feed pump, the net total available energy remaining in the BFP turbine exhaust steam for heating pipeline water is estimated to be ~10 MMBtu/hr.

Allied Engineering's analysis resulted in an estimated range of peak heating demand between the result of the energy model, 8.8 MMBtu/hr, and, assuming the Unum boilers need to run at 100% capacity in order to meet the peak, 13.0 MMBtu/hr. For purposes of this preliminary analysis 11.0 MM Btu/hr was used as the peak in these calculations.<sup>9</sup> Available steam energy exhausted from the BFP turbine approximately matches the Unum pipeline peak load.<sup>10</sup>

Using Elliott turbine performance curves, the estimated shaft horsepower output is ~300 hp at a steam input of 8,900 lb/hr. During operation of the turbine-driven BFP, an electric-motor-driven pump will not be required. Assuming a motor efficiency of 88%, the resulting savings in power demand is 254 kW.

Approximately 9,900 lb/hr of steam is required for the pipeline use at peak Unum heating load. On this basis, the gross peak loss in main-steam-turbine power generation is ~1,150 kW. This amount is offset by the power saving equivalent of approximately 254 kW for the BFP motor.

The peak-heating load pipeline flow is estimated to be 1,100 gpm at a 20 F  $\Delta T$ . As net elevation change is zero, pipeline static head balances out, and the friction resistance is estimated to be ~90 ft. Pipeline circulating water pump consumption is ~37 hp or ~31 kW. The transport of the dump condenser condensate back to the ecomaine steam cycle will be by means of the main condenser vacuum.

Net ecomaine peak power generation capacity-decrease at peak pipeline load is estimated to be ~925 kW.

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<sup>9</sup> The energy model is a "schematic" model, not an exhaustive investment-grade model. During the design phase it will be necessary to narrow these concept numbers.

<sup>10</sup> The balance of the BFP turbine exhaust not needed for pipeline heating displaces main turbine extraction no. 1 steam that supplies the deaerating heater.

Because the Unum heating load varies daily and seasonally, decrease in power sales was proportioned based monthly Unum heating load. Ecomaine power generation loss is calculated to be 0.08 MWh/MMBtu supplied to the pipeline. Total annual power-generation decrease is estimated to be 1,600 MWh.

## 2. Power Generation Revenue Offset

Ecomaine current average energy sale rate is \$0.077/kWh.<sup>11</sup> A decline of about \$0.015 to \$0.02 per kWh is projected for the near future. Ecomaine power sales average rate used is \$60.00/MWh<sup>12</sup>.

Total annual loss in power generation revenue to ecomaine is estimated to be ~\$96,000.<sup>13</sup>

## 3. Operations and Maintenance Offset

It is assumed that there will be no change in the number of ecomaine operating personnel.

It is assumed that there will be no net change in maintenance of the Elliott BFP turbine.

For increase in pump, motors, valves, and controls parts, the calculations assume \$2,000/yr.

For ethylene glycol purchase and disposal, and water treatment, annual costs are assumed to be \$5,000/yr.

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<sup>11</sup> The component for capacity is \$4.10 per kWh Month, and ecomaine is currently at a net capacity of 11.6 MW.

<sup>12</sup> This rate is a consolidated average price for sale of energy, \$/MWh, plus demand, \$/kW.

<sup>13</sup> A conceptual design and an extensive analysis of the system controls and thermodynamic cycle will be required in the next phase.

**ECOMAINE / UNUM PIPELINE ANALYSIS -- CASE SUMMARY**

Case	Project Cost - \$000's			Total Incremental Income - \$000's	Project Life - Years	Cost of Capital - %	Undiscounted		Discounted at Cost of Capital		Project	
	Initial	Grants	Major Expenditures				Cash Flow - \$000's	Payback - Years	Cash Flow - \$000's	Payback - Years	IRR - %	MIRR - %
Base	\$ 2,200		\$ 150	\$ 3,118	20.0	4.5%	\$ 768	14.7	\$ (247)	N/A	3.1%	4.1%
Sensitivity A - Project life 10 years	\$ 2,200		\$ 50	\$ 1,559	10.0	4.5%	\$ (691)	N/A	\$ (993)	N/A	N/A	2.6%
Sensitivity B - Five year period costs double	\$ 2,200		\$ 300	\$ 3,118	20.0	4.5%	\$ 618	15.8	\$ (346)	N/A	2.5%	3.9%
Sensitivity C - Cost of Capital Drops	\$ 2,200		\$ 150	\$ 3,118	20.0	3.5%	\$ 768	14.7	\$ (72)	N/A	3.1%	3.4%
Sensitivity D - Incremental Income up 10%	\$ 2,200		\$ 150	\$ 3,430	20.0	4.5%	\$ 1,080	13.2	\$ (42)	N/A	4.3%	4.4%
Sensitivity E - Project costs drops 10%	\$ 1,980		\$ 150	\$ 3,118	20.0	4.5%	\$ 988	13.1	\$ (27)	N/A	4.3%	4.5%
Sensitivity F - Annual inflation at 3% except lost power sales at 4%	\$ 2,266		\$ 203	\$ 4,066	20.0	4.5%	\$ 1,597	12.6	\$ 192	17.9	5.4%	4.8%
Sensitivity G - Annual inflation at 3%	\$ 2,266		\$ 203	\$ 4,412	20.0	4.5%	\$ 1,943	12.0	\$ 383	16.6	6.2%	5.0%
Sensitivity H - project grant of \$750,000	\$ 2,200	\$ (750)	\$ 150	\$ 3,118	20.0	4.5%	\$ 1,518	9.5	\$ 503	12.7	8.4%	5.5%
Sensitivity I - project grant of \$1,100,000	\$ 2,200	\$ (1,100)	\$ 150	\$ 3,118	20.0	4.5%	\$ 1,868	7.1	\$ 853	8.7	12.7%	6.4%
Sensitivity J - project grant of \$1,100,000, inflation at 3%,	\$ 2,266	\$ (1,133)	\$ 203	\$ 4,412	20.0	4.5%	\$ 3,076	6.4	\$ 1,516	7.5	16.1%	7.3%





DATE: May 19, 2010

**Owner Communities**

Bridgton  
Cape Elizabeth  
Casco  
Cumberland  
Falmouth  
Freeport  
Gorham  
Gray  
Harrison  
Hollis  
Limington  
Lyman  
North Yarmouth  
Ogunquit  
Portland  
Pownal  
Scarborough  
South Portland  
Waterboro  
Windham  
Yarmouth

**Associate Members**

Baldwin  
Hiram  
Naples  
Parsonsfield  
Porter  
Saco  
Standish

**Recycling Members**

Andover  
Cornish  
Monmouth  
Old Orchard Beach  
Poland  
Readfield  
Sanford  
Wayne

TO: Chair and Members of the Board

FROM: Kevin H. Roche, General Manager

SUBJECT: **ecomaine** Electricity Contract Proposal with the  
Maine Public Utilities Commission

**ecomaine** submitted a "Preliminary Proposal" to the Maine Public Utilities Commission (MPUC) in response to the Commission's *Request for Proposals for Long-term Contracts for Capacity and Associated Energy*. **ecomaine's** current power sales contract with Integrys Energy Services, which was acquired by Macquarie Energy LLC, is set to expire on January 31, 2011. **ecomaine's** staff has begun the process of identifying possible options for entering into a new multi-year power sales agreement. While we first looked into extending our agreement with Macquarie Energy LLC, it became apparent the existing rate agreement, which nets **ecomaine** approximately 7.8 cents per KwHr, may not be possible as the market is less favorable than it was when we signed the last agreement. The forecast for electricity prices in 2011, 2012 and 2013 show prices dropping. In addition, the revenue we receive for capacity will most likely be dropping as well. Since each 1 cent per KwHr translates to approximately \$800,000 in annual electrical revenues for **ecomaine**, locking in favorable pricing over a reasonable period is critical.

MPUC's proposal is appealing to us from the standpoint of revenue stability; it may enable **ecomaine** the ability to "lock in" a rate structure that we believe is fair (like our current contract averaging 7.8 cents/KwHr) over a period of several years (we proposed 3 to 5 years in the Initial Proposal). There are, however, no guarantees that MPUC will agree to such a rate until we begin contract discussions. Assuming we could lock in our present rate over a period of several years, this would help us remove some budgetary uncertainty compared with a shorter-term contract.

**ecomaine** will be notified shortly if our initial proposal has been "short listed" and therefore a candidate for additional contract talks with the MPUC. However, should we make it to the next round, **ecomaine would then need to** provide MPUC with a signed "Statement of Commitment" (see attached) authorized by **ecomaine**. Thus, if **ecomaine** is invited to participate in the next round of this process, providing we determine it is prudent to move forward, I would then seek approval on the Statement of Commitment document.

At this point, we're not locked into anything, just positioning ourselves to see what options we have available to us. However at some point between now and February, I expect that we may need to make a fairly quick decision in order to take advantage of our best alternative for electrical sales.

Please feel free to contact me at 773-1738 should you have any questions.

KR/lct  
Enc.

## STATEMENT OF COMMITMENT

The Bidder hereby represents that if it submits any firm bid price proposal(s) in response to this Request for Proposals for Long-term Contracts for Capacity and Associated Energy (RFP), such bid price proposal(s) are a firm offer for the resources offered in the Bidder's proposal. Bidder further represents that if its proposal is chosen by the Maine Public Utilities Commission (Commission), Bidder will supply such resources (1) in accordance with Maine law and regulations and the provisions of the RFP; (2) at the prices and pursuant to all terms of Bidder's proposal; and (3) subject only to contingencies and conditions agreed upon between Bidder and the Commission.

In addition, the Bidder hereby represents that if its proposal is chosen by the Commission, Bidder will accept, abide by and fulfill all obligations and terms of its proposal; all applicable obligations and terms and conditions of Maine law and regulations, and all applicable obligations, requirements, terms and conditions of the RFP, and that Bidder will submit to the jurisdiction of the courts of the State of Maine and the Commission in matters relating to the provision of capacity and energy, and that Bidder agrees that all legal proceedings relating to Bidder's provision of capacity and energy will be conducted before Maine courts or the Maine Public Utilities Commission.

The Bidder hereby certifies that all of the statements and representations made in its proposal are true to the best of the Bidder's knowledge and belief.

**Company submitting proposal:**

\_\_\_\_\_  
**(exact legal name of company)**

**Bidder Name:**

\_\_\_\_\_  
**(if different than above)**

**Signature of an Officer of Bidder:**

\_\_\_\_\_

**Print or type name of Officer above:**

\_\_\_\_\_

**Officer Title:**

\_\_\_\_\_

**Date Signed:**

\_\_\_\_\_





## Non-Union Employee 403(B) Plan

### Description

- Non-union plan
- Both union and non-union employees can make elective contributions

### Participation

- 35 participants

### Revisions to Regulations Covering 403(b) Plans

- Comprehensive revisions to regulations covering 403(b) plans to make them similar to 401(k) plans effective for 2009 plan years
- Ecomaine filed a revised prototype plan in December 2009
- Employer must designate a fiduciary to be responsible for participant direct investment program
- Adopt an investment policy and periodic review of investment choices
  - Employer has a continuing obligation to prudently select and monitor the investment options offered including performance and diversification
  - Investment choices have diverse risk and return characteristics
  - Investment options perform in the top two quartiles of their peer group
  - Fees are reasonable and report to participants all direct and indirect fees
  - Participants are provided with sufficient information necessary to make an informed, affirmative investment decisions. Default investment option for participants who fail to provide affirmative instructions

## Current Plan and Provider – MetLife

- Variable annuity contract
- Specifically states that Employer is the plan administrator and fiduciary (not MetLife)
- Investment options – 48 funds
  - MetLife acts as an intermediary and purchases mutual funds for the annuity contract (and receives a fee for doing so)
  - “Veil” obscuring the mutual fund investment to the participant
  - Disguises the additional fees they charge and prohibits employees from tracking 5 digit mutual fund code to compare fund performance
- Fees are higher than normal
- Limited web site in terms of employee education and investment information.

## Alternative Options

- A. Keep current plan
  - High fees
  - Hire an investment advisor which will be an additional cost
- B. Establish a new provider and move funds
  - Lower fees and but will have to pay a 5% termination fee to MetLife
  - Alternative ways to fund termination fees
  - Investment advisor will receive a fee as part of the overall fees
- C. Establish a new provider and leave funds at MetLife for 5 years
  - Lower fees and will avoid termination fees
  - Double administrative filings
  - Long transition period and difficult managing money for people who retire or leave during the five year period
  - After 5 years transfer of funds to new plan not automatic

**Fees**

	<u>MetLife</u>	<u>New</u>
Average fund expense	0.75%	0.50%
Platform fee	1.25%	0.90%
Administration	0.04%	0.06%
Total fees	<u>2.04%</u>	<u>1.46%</u>
Total annual cost	\$ 61,050	\$ 43,800

Platform fee in New plan includes cost of fiduciary



## **Resolve, Regarding Waste-to-energy Power**

**Sec. 1 Waste-to-energy power; examination. Resolved:** That the Executive Department, Governor's Office of Energy Independence and Security shall examine the issue of qualifying certain waste-to-energy power for renewable energy credits and renewable resource portfolio requirements. The examination must include, but is not limited to:

1. Relevant legislative proposals and actions in the United States Congress and in other states, with particular attention to other states within New England;
2. Appropriate qualifying criteria and technologies, including but not limited to advanced pyrolysis technology;
3. Potential implications of allowing certain waste-to-energy power to qualify for renewable energy credits and renewable resource portfolio requirements, including but not limited to impacts on the market for renewable energy credits and the environment; and
4. Consideration of the renewable resource portfolio requirements specified in the Maine Revised Statutes, Title 35A, section 3210 and the solid waste management hierarchy specified in Title 38, section 2101.

In carrying out the examination under this section, the Governor's Office of Energy Independence and Security shall, at a minimum, consult with the Passamaquoddy Tribe, the Department of Environmental Protection, the Public Utilities Commission and the Efficiency Maine Trust; and be it further

**Sec. 2 Report; legislation. Resolved:** That, by February 15, 2011, the Executive Department, Governor's Office of Energy Independence and Security shall submit a report of its findings and recommendations under section 1, together with any necessary implementing legislation, to the joint standing committee of the Legislature having jurisdiction over utilities and energy matters. After its review of the report, the joint standing committee may submit a bill to the First Regular Session of the 125th Legislature relating to the report.