### Kevin Beal

| From:        | Evan Coleman <ecoleman@clear-energy.us></ecoleman@clear-energy.us>       | 3  |
|--------------|--|----|
| Sent:        | Monday, April 13, 2015 4:58 PM   |    |
| То:          | abell@ci.rockland.me.us  |    |
| Subject:     | Presentation to City Council - Attached                                  | 1  |
| Attachments: | Rockland Energy Center - General Project Overview for City of Rockland.p | df |

Hi Audra,

Attached is a copy of the presentation in PDF format that we will be making tonight. I will have a handout regarding safety etc.

Best,

Evan

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Evan Coleman

CLE^R 241 Boston Post Rd W. Marlborough, MA 01752 207.217.8908 ecoleman@clear-energy.us

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# **Rockland Energy Center**



General Project Overview April 2015

### Key Terms & Definitions

REC – Rockland Energy Center

Central Maine Power ("CMP") – a privately owned utility servicing electric customers in the State of Maine and a subsidiary of Iberdrola.

CHP – a facility that produces electricity and waste heat is captured for beneficial use within a process or for space heating.

M&N - Maritimes & Northeastern Pipeline

PNGTS – Portland Natural Gas Transmission Pipeline

Megawatt – a unit of measurement representing 1,000 kilowatt hours.

MW-Megawatt

MMBtu - One Million British Thermal Units

# **Executive Summary**

- 74 79 MW CHP Engine Plant in Rockland, Maine
- Fuel Pricing Stability & New Firm Pipeline Capacity 13,000 DTH/Day
  - The project will have 100% firm pipeline capacity on M&N back through TransCanada to Dawn
  - Dawn is the 2<sup>nd</sup> largest natural gas trading hub in North America and is the largest gas storage hub in Canada with over 157BCF of natural gas storage capacity.
  - Dawn Index does not experience the price spikes of New England Gas Indexes (TZ6 & Algonquin)
- Proven Technology
  - □ Thousands of Jenbacher Engines operate reliably in New England and across the world
  - One of the highest combined reliability and efficiency rates in its class
- Reduction in Greenhouse Gas Emissions
  - Low emissions generation coupled with BACT creates electricity with 20% less emissions than average gas fired plants in Maine
  - □ The supply of steam to FMC will actually result creating a net reduction in permitted Greenhouse gas emissions in the State of Maine
- Low Cost Energy Supply to Mid-Coast Maine
  - □ Competitive steam supply to FMC Biopolymer in Rockland, Maine
  - □ Additional steam supply available for Dragon Cement & Fisher Industries
  - D Thermal hot water supply creates the possibility for district heating within the Rockland City Center
  - □ Natural gas now becomes available to coastal communities ranging from Belfast to Wiscasset

# **Project Description**

- 74 79 MW CHP Plant
- Multiple Jenbacher Engines or Gas Turbine
- Located on Industrial City Property
- Natural Gas Fueled
- Substation within 0.5 Miles of Plant
- Gas Supply from M&N Gas Transmission Line – 1400 PSI
- New 25 Mile Gas Pipeline Lateral
- Reduction in Permitted Greenhouse Gas Emissions



### Energy Management, Inc. Proven Track Record

### **EMI Facilities/Projects**

- Combined cycle:
  - o Tiverton, RI 265 MW
  - Rumford, ME 265 MW
  - o Dighton, MA 170 MW
  - o Dartmouth, MA 68 MW
- Co-generation:
  - Pawtucket, RI 62 MW
  - Pepperell, MA 40 MW
- Biomass:
  - Alexandria, NH 15 MW
  - Nacogdoches County, TX 100 MW
  - Gainesville, FL 100 MW
- Solar:
  - o Dartmouth Solar, MA-6 MW



**Dighton Power** 

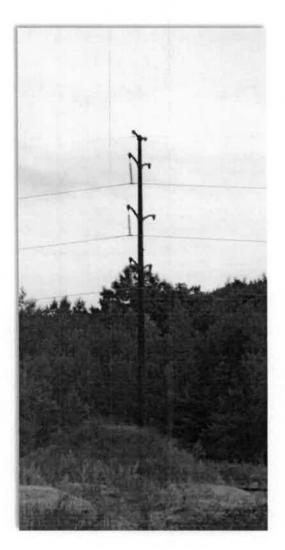
## Site Overview



- Rockland, Maine
- Large Multi Acre Site
- Close Proximity to FMC Biopolymer
- Close Proximity to Dragon Cement

- Close Proximity to 115KV Transmission Corridor
- Industrial Property City Owned

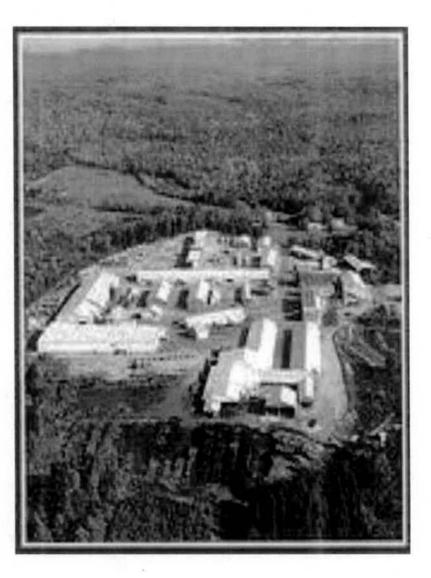
### **Electrical Interconnection**



- REC will Connect Directly into the CMP Substation on Park Street in Rockland
- Interconnect will be Constructed by CMP
- Preliminary evaluation suggests that the substation is more than ample to handle the full 79MW full load potential of the facility.

### Gas Pipeline Interconnect

- New Meter & Regulation Station to be Constructed in Searsmont near the Robbins Lumber Mill.
- Pipeline Lateral will be less than 25 Miles.
- Location of the Lateral will make Natural Gas Available to many other Large Industrial Users interested in CHP
- REC will Contract for 100% Firm Pipeline Capacity to the Dawn Index
- REC will Own & Operate the Meter / Regulation Station on M&N



#### Kevin Beal

| From:        | Craig Olmsted <colmsted@emienergy.com></colmsted@emienergy.com>                     |
|--------------|---|
| Sent:        | Monday, April 13, 2015 4:23 PM  |
| То:          | abell@ci.rockland.me.us   |
| Cc:          | jchaousis@ci.rockland.me.us; Evan Coleman; Jack Arruda; Wendy DeWolf                |
| Subject:     | Fwd: Potential utility routes   |
| Attachments: | GoogleEarth_Placemark.kmz; ATT00001.htm; GoogleEarth_Placemark.kmz;                 |
|              | ATT00002.htm; All routes.pdf; ATT00003.htm; electric-steam.pdf; ATT00004.htm; Steam |
|              | Line to FMC.pdf; ATT00005.htm   |

Hi Audra,

Thanks again for taking so much time with us last week. As promised, Jack prepared some preferred utility routes/corridors and alternatives for the City to look at. Please see the attached. I'm sure there will be some comments and suggestions. We will be happy to discuss.

We are all looking forward to taking the next steps.

Regards, Craig

Craig Olmsted – Vice President – Projects +1 617 904 3100 x119 – office +1 617 943 9743 - mobile

Begin forwarded message:

From: Jack Arruda <<u>jarruda@emienergy.com</u>> To: Craig Olmsted <<u>colmsted@emienergy.com</u>> Date: 13 April, 2015 at 3:59:51 PM EDT Subject: Potential utility routes

Craig

Take a look at the attached. They are a first pass and I'm sure the town will have suggestions that may better meet all our needs. Not knowing who owns what I have suggested some alternatives trying to minimize public street impacts.

Electric through rail  $\approx$  .52 Miles Electric through public street and rail  $\approx$  .62 miles Steam line  $\approx$  1.61 miles

I'm also attaching the KMZ files.

Happy to discuss.

Jack

Jack Arruda Energy Management Inc. 20 Park Plaza, Suite 320 Boston, MA 02116 508-942-4078

From: Jack Arruda <<u>jarruda@emienergy.com</u>> To: Jack Arruda <<u>jarruda@emienergy.com</u>> Date: 13 April, 2015 at 2:46:10 PM EDT Subject: Google Earth Placemark

Google Earth streams the world over wired and wireless networks enabling users to virtually go anywhere on the planet and see places in photographic detail. This is not like any map you have ever seen. This is a 3D model of the real world, based on real satellite images combined with maps, guides to restaurants, hotels, entertainment, businesses and more. You can zoom from space to street level instantly and then pan or jump from place to place, city to city, even country to country.

Get Google Earth. Put the world in perspective.

(http://earth.google.com)

#### Kevin Beal

From: Sent: To: Subject: ecoleman@clear-energy.us Thursday, April 09, 2015 3:08 PM Audra Bell Re: Potential Plant in Rockland

Hi Audra,

Could we all meet at 9am on Monday at your office in Rockland?

Thank you for putting us on the agenda.

Best,

Evan Sent from my Verizon Wireless BlackBerry

-----Original Message-----From: "Audra Bell" <abell@ci.rockland.me.us> Date: Thu, 9 Apr 2015 14:39:55 To: <ecoleman@clear-energy.us> Subject: RE: Potential Plant in Rockland

Hello Evan,

I just spoke with John Ferraiolo and he's available anytime on Monday before 3pm.

We also have you on the agenda for an executive session which will start on Monday night after the Council meeting (9pm).

Please let me know if there is anything I can do between now and Friday.

Kind regards, Audra

-----Original Message-----From: ecoleman@clear-energy.us [mailto:ecoleman@clear-energy.us] Sent: Wednesday, April 08, 2015 3:29 PM To: Audra Bell Subject: Re: Potential Plant in Rockland

Hi Audra,

We'll see you at 8:30am tomorrow - should we meet first at your office and if so what is the address?

It looks like the public works site is the most ideal, but we look forward to evaluating all of the potential locations.

I spoke with Maine Water and set up a meeting with them as well. Could we set up a meeting with Terry Pinto for 12:00 to 12:30?

Best,

Evan Sent from my Verizon Wireless BlackBerry

-----Original Message-----From: "Audra Bell" <abell@ci.rockland.me.us> Date: Wed, 8 Apr 2015 09:52:56 To: <ecoleman@clear-energy.us> Subject: RE: Potential Plant in Rockland

Hi Even,

An 8:30 start tomorrow is fine by me. Terry Pinto has a big meeting with FMC in the morning so he won't be available until noon.

Thank you,

Audra

-----Original Message-----From: ecoleman@clear-energy.us [mailto:ecoleman@clear-energy.us] Sent: Tuesday, April 07, 2015 5:08 PM To: Audra Bell Subject: Re: Potential Plant in Rockland

Hi Audra,

I will reach out to Maine Water - thank you for the contact.

If we could talk to Terry Pinto on Thursday morning as well that would be great.

Would 8:30 be too early to start on Thursday?

Best,

Evan Sent from my Verizon Wireless BlackBerry

-----Original Message-----From: "Audra Bell" <abell@ci.rockland.me.us> Date: Tue, 7 Apr 2015 16:55:58 To: <ecoleman@clear-energy.us> Subject: RE: Potential Plant in Rockland

Hello Evan,

I can make time on Thursday morning to look at sites.

In regards to the water department - all of Rockland's water is through Maine Water which is a private utility. The best people to contact at Maine Water are Judy Kelley and Rick Knowlton. You can reach both by calling:

#### (207) 282-1543.

Dragon Cement is still in Thomaston (they rent a site on Rockland's Harbor for access to the water). They have been asked about converting to natural gas in the past but apparently the by-product of their current fuel to operate the plant is part of their cement mix so they are reluctant to convert. However, it still may be worthwhile to have a conversation with them.

Another potential large customer for natural gas in Rockland is our wastewater treatment plant. The Director (Terry Pinto) would be more than happy to speak with you. I can set up a time for you to speak with Terry either on Thursday or Friday if you would like.

Aside from the above I will have a list ready of many of the businesses in town with large facilities (such as Fisher Plow, Backcove Yachts, etc.) that may be interested in heating with natural gas. In the past the City has canvassed many of our businesses about their interest in natural gas so much of this information is available.

Kind regards, Audra

-----Original Message-----From: ecoleman@clear-energy.us [mailto:ecoleman@clear-energy.us] Sent: Tuesday, April 07, 2015 4:00 PM To: Audra Bell Subject: Re: Potential Plant in Rockland

Hi Audra,

FMC wants to meet Friday morning, so I didn't know if it would be possible to look at the potential sites with our engineers Thursday morning?

Would it be possible to meet with someone from your water department for 15-20min just to ask some general availability / water quality questions?

Is Dragon Cement still operating in Rockland?

We would be interested in discussing facilities in town that have an interest in gas service for heating. In our discussions with the state expanding gas service is a priority.

Thank you for all of the coordination on this.

Best,

Evan -----Original Message------From: Audra Bell To: ecoleman@clear-energy.us Subject: RE: Potential Plant in Rockland Sent: Apr 6, 2015 8:32 AM

Hello Evan,

Jamie Logan asked me to forward you contact details for FMC. The Plant Manager is Joey Hamlin and his contact details are:

Joseph.Hamlin@fmc.com (207)226.3225 (207)975.1217

Let me know if you need any help setting something up.

Also - are you only interested in looking into companies such as FMC that need natural gas for production purposes or would you also be interested in knowing more about large businesses who are potential customers for using natural gas to heat their facilities?

Kind regards, Audra

-----Original Message-----From: ecoleman@clear-energy.us [mailto:ecoleman@clear-energy.us] Sent: Friday, April 03, 2015 9:52 AM To: Audra Bell Subject: Re: Potential Plant in Rockland

That would be great - could you call me on my cell at 207.217.8908?

Best,

Evan -----Original Message-----From: Audra Bell To: ecoleman@clear-energy.us Subject: RE: Potential Plant in Rockland Sent: Apr 3, 2015 9:34 AM

Hello Evan,

I would be more than happy to speak with you this afternoon to talk about your plans for a facility in Rockland.

Would 2:30 work for you?

Kind regards, Audra

-----Original Message-----From: ecoleman@clear-energy.us [mailto:ecoleman@clear-energy.us] Sent: Friday, April 03, 2015 8:41 AM To: abell@ci.rockland.me.us Subject: Potential Plant in Rockland

Hi Ms. Bell,

I would like to touch base about a facility in Rockland our firm is considering building.

Do you have anytime this afternoon or early next week to talk by phone?

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#### Best,

Evan Coleman 207.217.8908 Sent from my Verizon Wireless BlackBerry

Sent from my Verizon Wireless BlackBerry

Sent from my Verizon Wireless BlackBerry

### Clear Energy – Potential sites

The following map provides all the sites in Rockland with potential for development by Clear Energy.



Figure 1: Sites in Rockland with Development Potential

The following provides an overview of each site including information on the development potential.

### 1. 60 Merrill Drive

Site Description: Located in the Rockland Industrial Park

Zoning: Industrial

**Ownership: City of Rockland** 

Parcel Size: 30.48 acres (6.42 acres of developable land).



Site 1: 60 Merrill Drive

Comments:

See attached Gartley and Dorsky Development Feasibility Study.

This site is the only undeveloped area within the Rockland Industrial Park. The Industrial Zone allows for "Quasi-Public Uses", which, depending on ownership of the Plant, under the definitions in Rockland's code could include a natural gas plant.

#### 2. 262 Pleasant Street, 270 Pleasant Street & 9 Burrows Street

Site Description: Two adjacent parcels – one is the City of Rockland's Public Works Department and the other is a ready-mix concrete plant owned and operated by Ferraiolo Construction. Zoning: Industrial

Ownership: Ferraiolo Construction (262 Pleasant) & City of Rockland (270 Pleasant & 9 Burrows) Parcel Size: 262 Pleasant Street = 13.55 acres

9 Burrows Street = 5.25 acres

270 Pleasant Street = 15.66 acres



Sites 2, 3 & 4: 262 Pleasant Street, 270 Pleasant Street & 9 Burrows Street

Comments:

These sites have easy access to US 1 and as above allow for "Quasi-Public Uses".

### 3. 400, 358, 324 & 328 Limerock Street

Site Description: 400 Limerock Street is currently where the Rockland Solid Waste Facility is located. 358 is directly adjacent to the Solid Waste Facility. 324& 328 Limerock Street are adjacent to residential area on Limerock Street.

Zoning: 400 Limerock Street – Business Park, 358, 324 & 328 Limerock Street – Transitional Business 1 Ownership: City of Rockland (400 Limerock), Randall Brooks (358 Limerock), Ferraiolo (324 & 328 Limerock)

Parcel Size: 400 Limerock Street = 63.06 acres

358 Limerock Street = 4.61 acres

324 & 328 Limerock Street = 6.33 acres



Sites 5, 6 & 7: 400, 358, 324 & 328 Limerock Street

Comments:

Both Business Park and Transitional Business 1 zones allow "Quasi Public Uses".