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Founded 1909

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August 30, 2013

Attorney Examiner Sarah Parrot  
Public Utilities Commission of Ohio  
180 East Broad Street  
Columbus, Ohio 43215

Re: Ormet Business Plan and Power Plant Report  
Case No. 09-119-EL-AEC

Dear Attorney Examiner Parrot and all Parties of Record:

In accordance with your instructions on August 27, 2013, Ormet has reviewed its Business Plan and Power Plant Report, both of which were filed under seal with the Public Utilities Commission of Ohio on July 15, 2013 and re-filed in redacted form on August 9, 2013.

A newly redacted version of the Business Plan and Power Plant Report is attached in accordance with your August 27, 2013 ruling and directive. The attached public version has had added page numbers on the Power Plant Report portion of the document for the reader's convenience. Ormet has redacted only information that is competitively sensitive. In particular, Ormet has redacted the figures within several financial forecasts, including income forecasts, balance sheet forecasts, and cash flow forecasts, as well as the detailed information of its strategy for a new power plant. This includes equipment, design specifications, and schedule details. Ormet has sought to keep all of this information confidential and has treated all of this information as proprietary, confidential business information. As a result, Ormet contends that the information it seeks to keep confidential constitutes a trade secret under Ohio law. *See*, Section 1333.61(D), Ohio Revised Code, and Rule 4901-1-24, Ohio Administrative Code.

Attorney Examiner Sarah Parrot

August 30, 2013

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The following will summarize the changes in the attached public version with the previous redactions:

<b>Business Plan Pages</b>	<b>Public Version filed 8/9/13</b>	<b>Attached Revised, Redacted Version</b>
Pages 2-6	Fully public (not redacted)	Fully public (not redacted)
Pages 7-12	Fully redacted	Fully public (no longer redacted)
Pages 13-21	Fully redacted	Column and Row titles are no longer redacted. All confidential future forecasted numbers remain redacted.

<b>Power Plant Report Pages</b>	<b>Public Version filed 8/9/13</b>	<b>Attached Revised, Redacted Version</b>
Page 1	Fully public (not redacted)	Fully public (not redacted)
Page 2	Partially redacted	Less information redacted. Only one forecasted figure and equipment names remain redacted.
Page 3-5	Fully public (not redacted)	Fully public (not redacted)
Page 6-7	Fully redacted	Redacted in part. Only confidential equipment names and design information remain redacted.
Pages 8-9	Fully redacted	Fully public (no longer redacted)
Pages 10-15	Fully redacted	Redacted in part. Undisclosed equipment names and project details remain redacted on page 10. On pages 11-13, Column and Row titles are no longer redacted, but all confidential schedule information remains redacted. On page 14-15, specifics of financing plans remain redacted.

# VORYS

Legal Counsel

Attorney Examiner Sarah Parrot

August 30, 2013

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<b>Power Plant Report Pages (continued)</b>	<b>Public Version filed 8/9/13 (continued)</b>	<b>Attached Revised, Redacted Version (continued)</b>
Pages 16-20	Fully public (not redacted)	Fully public (not redacted)
Page 21-23	Fully redacted	Fully public (no longer redacted)
Pages 24-29	Fully redacted	Redacted in part. Undisclosed equipment names and project details remain redacted on page 24. On pages 25-27, only the Column and Row titles are no longer redacted, but all confidential schedule information remains redacted. On page 28, specifics of financing plans remain redacted.
Pages 30-34	Fully public (not redacted)	Fully public (not redacted)
Page 35	Fully redacted	Fully public (no longer redacted)
Pages 36-40	Fully public (not redacted)	Fully public (not redacted)

If you have any questions or concerns, please let me know.

Sincerely,



M. Howard Petricoff

MHP/glp

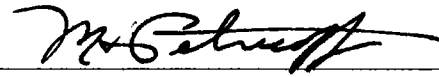
Attorney Examiner Sarah Parrot

August 30, 2013

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## CERTIFICATE OF SERVICE

The undersigned certifies that a copy of the foregoing document has been served upon the persons below via electronic mail this 30th day of August 2013.



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**Public Version**

**Ormet Business Plan and Power Plant  
Report**

**Case No. 09-119-EL-AEC**

- This forecast has been prepared in conjunction with Ormet Case No. 09-119-EL-AEC and should be treated as Confidential Information

## Restructuring/Transaction Overview

- Smelter Acquisition LLC., a subsidiary of certain private investment funds managed by Wayzata Investment Partners LLC ( collectively, the "Wayzata Funds"), has entered into an Asset Purchase Agreement to buy substantially all of the assets of Ormet Corporation and assume certain operating liabilities.
  - The sale was approved by the Bankruptcy court on June 3, 2013
  - Subject to satisfaction of closing conditions, which include a modified unique arrangement that is satisfactory to the buyer and the closing of a New Asset Base Loan Facility. The sale is expected to close no later than July 31, 2013
  - In conjunction with the acquisition of Ormet's assets, Wayzata has committed to provide additional funding to Ormet Post closing
- Three Proposals were received from major financial institutions to provide New Ormet with a \$75mm Asset Base Facility at favorable economics for five years. It is expected that the new facility will be fully documented and available prior to July 31, 2013
- The Wayzata Term sheet for the New Term loan was signed and is part of the sale documents approved by the Bankruptcy Judge on June 3, 2013 and provided for a new \$110mm Term Loan, consisting of \$50mm converted Pre-Petition Term Loan and refinancing of \$30mm DIP Delayed Draw Term Loan and \$30mm Incremental Delayed Draw Term Loan ((new money). The Term Loan will allow Ormet to Pay-IN-Kind interest at 12% or cash pay interest at 10% .
- **The Aforementioned structure provides Ormet with approximately \$53.5 million of increase liquidity. If we are unable to exit bankruptcy by the end of July we will have to curtail operations drastically immediately.**

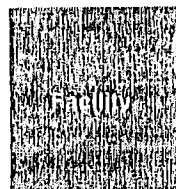

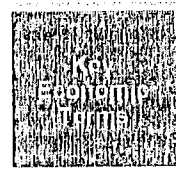
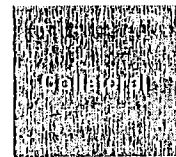

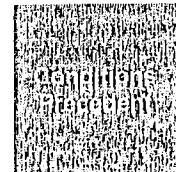
## Summary of the Asset Purchase Agreement

	Description
Structure of Purchase	<ul style="list-style-type: none"><li>Transaction is structured as an asset purchase where a newly formed subsidiary of private investment funds managed by Wayzata Investment Partners LLC, Smelter Acquisition LLC (the "Buyer") would purchase all or substantially all of the assets of Ormet Corporation and its subsidiaries ("Ormet")</li><li>Certain assets and liabilities would not be purchased or assumed (including Ormet's defined benefit plans with the exception of the de minimis Iuka Plan, various contracts that Buyer determines not to assume, and capital stock of the Ormet subsidiaries) and would be left behind in the estate</li><li>Buyer would assume certain liabilities of Ormet, specifically:<ul style="list-style-type: none"><li>Most of Ormet's operating contracts, ordinary course tax liabilities, trade accounts payable to critical vendors and to others arising in the ordinary course before and after the petition date up to a certain amount, and forgivable indebtedness under the EDLOP loan;</li><li>But not some very substantial liabilities (including but not limited to liabilities relating to the two large defined benefit plans and contingent pension liabilities for the Steel Workers Pension Trust, shareholder or employee suits, and other various liabilities)</li></ul></li></ul>
Consideration	<ul style="list-style-type: none"><li>Includes (i) the assumption of liabilities as outlined above, (ii) the payoff or assumption of all Debtor-in-Possession financing, (iii) \$2,000,000 of debt and a warrant package to be placed in a trust for the unsecured creditors, (iv) payment of professional fees and other expenses in connection with the bankruptcy case, (v) a "wind-down budget" to support an orderly wind down and dissolution of Ormet, and (vi) credit bidding of \$130mm of Wayzata's pre-petition loans to Ormet</li><li>Estimated total purchase price of approximately \$283 million</li></ul>
Closing Conditions	<ul style="list-style-type: none"><li>Relief under the current power agreement agreeable to Buyer</li><li>Entering into a New Asset Based Loan</li></ul>
Termination Fees	<ul style="list-style-type: none"><li>In the event of any termination due to inability to satisfy a requirement for which Ormet is generally responsible or the failure to achieve the Closing Conditions, Ormet will be required to reimburse the Buyer's transaction related expenses up to \$1,000,000</li></ul>

## **Wayzata Investment Partners Overview**

- At closing of the transaction, Ormet will be wholly owned by private investment funds managed by Wayzata Investment Partners LLC ("Wayzata")
- Wayzata has supported the restructuring of Ormet by:
  - Leading the balance sheet restructuring which significantly reduced debt and long-term legacy liabilities
  - Providing capital and committed financing to support the liquidity needs of the Company
- Wayzata has been involved in Ormet since 2007
- Wayzata has over \$7 billion in assets under management

## Summary of Wayzata's Financing Commitment

	Description
	<ul style="list-style-type: none"><li>Wayzata has committed to providing up to \$110mm in financing ("the Facility") to the Buyer, comprised of the following:<ul style="list-style-type: none"><li>\$80mm to be funded at closing</li><li>\$20mm to be funded at or after the closing, at the request of the Company</li><li>\$10mm to be funded at the request of the Company, provided the company achieves certain financial metrics</li></ul></li><li>The new facility will mature 6 months after the scheduled maturity date of the new ABL</li></ul>
	<ul style="list-style-type: none"><li>Borrower: Smelter Acquisition Corp.</li><li>Lender: certain private investment funds managed by Wayzata Investment Partners LLC</li></ul>
	<ul style="list-style-type: none"><li>The Facility can, at the Borrower's option, PIK at a 12.0% per annum or be paid in cash at 10.0% per annum</li><li>The Facility will carry appropriate mandatory prepayment terms, including prepayments from dispositions of Collateral that are non-ordinary course</li><li>The Facility will be pre-payable, in part or in whole, at the option of the Borrower without premium or penalty</li></ul>
	<ul style="list-style-type: none"><li>The Facility will be secured by (i) all or substantially all of the Borrower's assets and (ii) all of the stock (or other ownership interests) of the subsidiaries of the Borrower, subject to any provisions of any Intercreditor agreement<ul style="list-style-type: none"><li>Subject to carve out for ABL collateral</li><li>The Facility will have first lien on fixed assets and second lien on current assets</li></ul></li></ul>
	<ul style="list-style-type: none"><li>The Facility will include affirmative, negative, and financial covenants that are usual and customary for this type of financing</li></ul>
	<ul style="list-style-type: none"><li>Conditions precedent to closing include (i) the sale of assets to the Borrower occurs as defined in the Asset Purchase Agreement, (ii) the new ABL financing shall close with an aggregate commitment of at least \$60mm, (iii) all required fees, costs, and expenses owed to the Lender are paid, (iv) all documentation is in form and substance agreeable to the Lender, and (v) other conditions usual and customary for financings of this type</li></ul>

## Pro Forma Consolidated Capitalization

\$ in millions

	<u>Pre - Closing</u>	<u>Adjustments</u>	<u>Post - Closing</u>
Existing ABL Facility	\$ 48.3	\$ (48.3)	\$ -
New ABL Facility	-	48.3	48.3
DIP Term	30.0	(30.0)	-
Pre-petition Term Loan	144.3	(144.3)	-
New Term Loan	-	80.0	80.0
EDLOP Loan	<u>1.2</u>	<u>-</u>	<u>1.2</u>
Total Debt	\$ 223.8	\$ (94.3)	\$ 129.5
Defined Benefit Pension	144.3	(144.1)	0.2
VEBA	<u>45.6</u>	<u>(37.3)</u>	<u>8.3</u>
Total	<u>\$ 413.7</u>	<u>\$ (275.7)</u>	<u>\$ 138.0</u>

## Plan Assumptions

### Operating Assumptions

- Assume Ormet exits Bankruptcy on July 31, 2013
- Assume July 10, 2013 LME Forward Pricing through September 2013, Harbor Base Case Pricing thereafter
  - Gross Midwest Premium of 12 cents per lb and \$70 per tonne freight/off-grade discount
- Hannibal, OH operates at 4 potlines through July 2014, restarts the 5th & 6th potlines in August 2014 and operates 6 potlines thereafter with an annual run rate of 271,000 MT
- Burnside, LA continues to operate at 1 digester train and ramps up to full production of 1,340TPD starting September 2014
- Modified pensions and VEBA
- Burnside clear lake capex: \$0.25mm in 2013, \$8mm in 2014, and \$1.75mm in 2015
- Bankruptcy exit on July 31, 2013 via a \$363 sale to Smelter Acquisition LLC

### Power

- 2013: GS-4 rate pre-discount of \$57.99/MWh
  - Assumes total 2013 credit of \$66mm which would equate to \$42.63/MWh at full capacity
- 2014 and 2015: Ormet can access power in the open-market delivery
  - "Shopping credit" equal to the riders (assumed to be \$6/MWh) for the last 7 months of 2015, resulting in a delivered rate of \$43/MWh
  - \$4.5mm monthly discount from January 2014 through May 2015
- 2012 deferred power payments of \$27.2mm to be repaid in 24 months (January 2014 to December 2015)
- Economic incentive credit of \$9/MWh if 5<sup>th</sup> and 6<sup>th</sup> pot lines are operating and Ormet maintains 400 incremental jobs or a total of 1,000
- 2016: Wayzata to provide Ormet delivered power at a cost of \$40/MWh from its proposed 540MW dual cycle natural gas-fired plant

## Hannibal Cost Savings

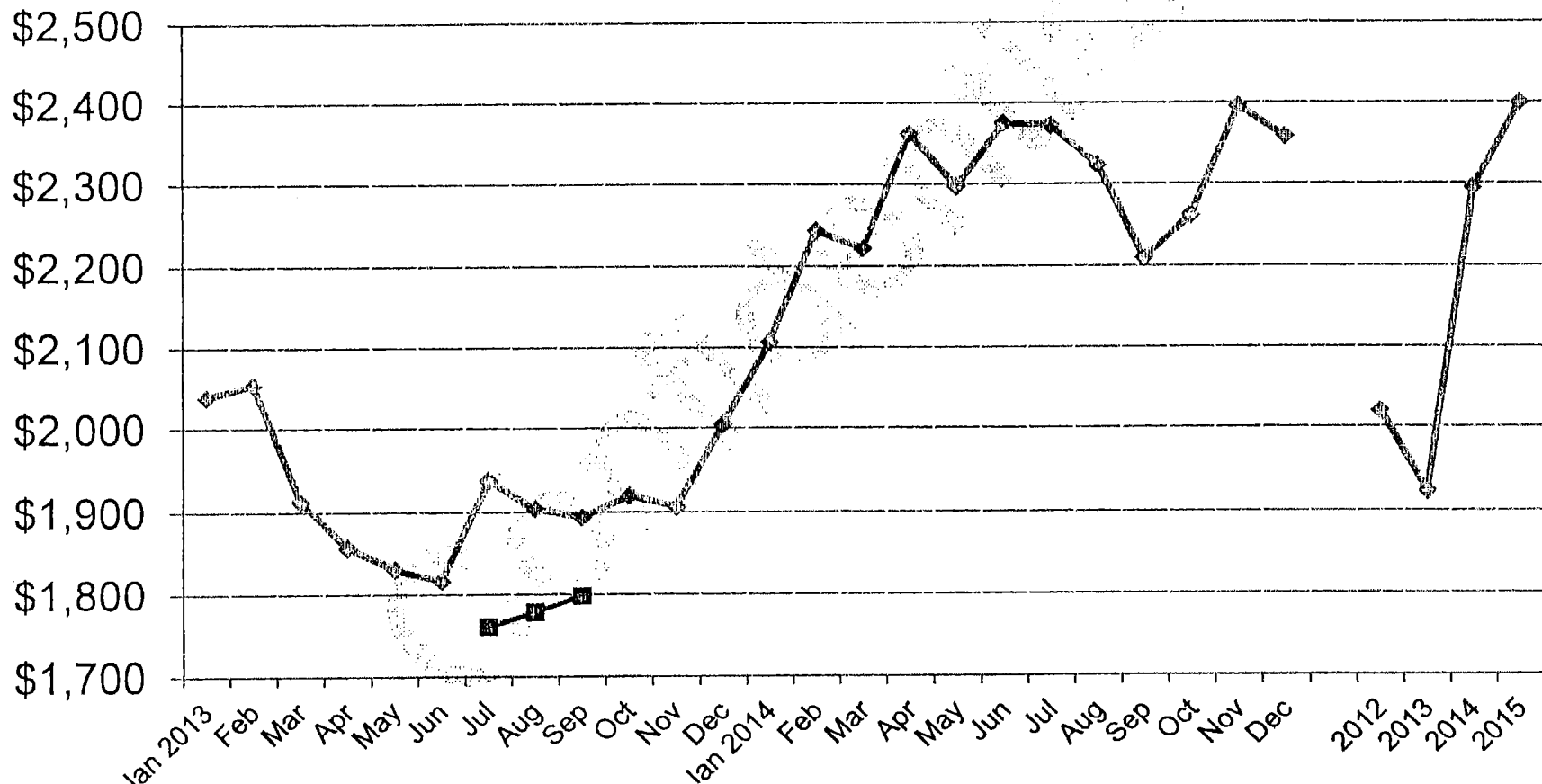
Ormet has brought it's cost down significantly since 2008

- \$15.5 million in power reductions
- \$6.0 million in pot life increase
- \$5.1 million in carbon savings
- \$1.8 million in current efficiency gains
- \$1.1 million in Casthouse scrap savings
- \$0.6 million in amperage increases



**In total, \$30 MM per  
year in sustained cost  
reductions**

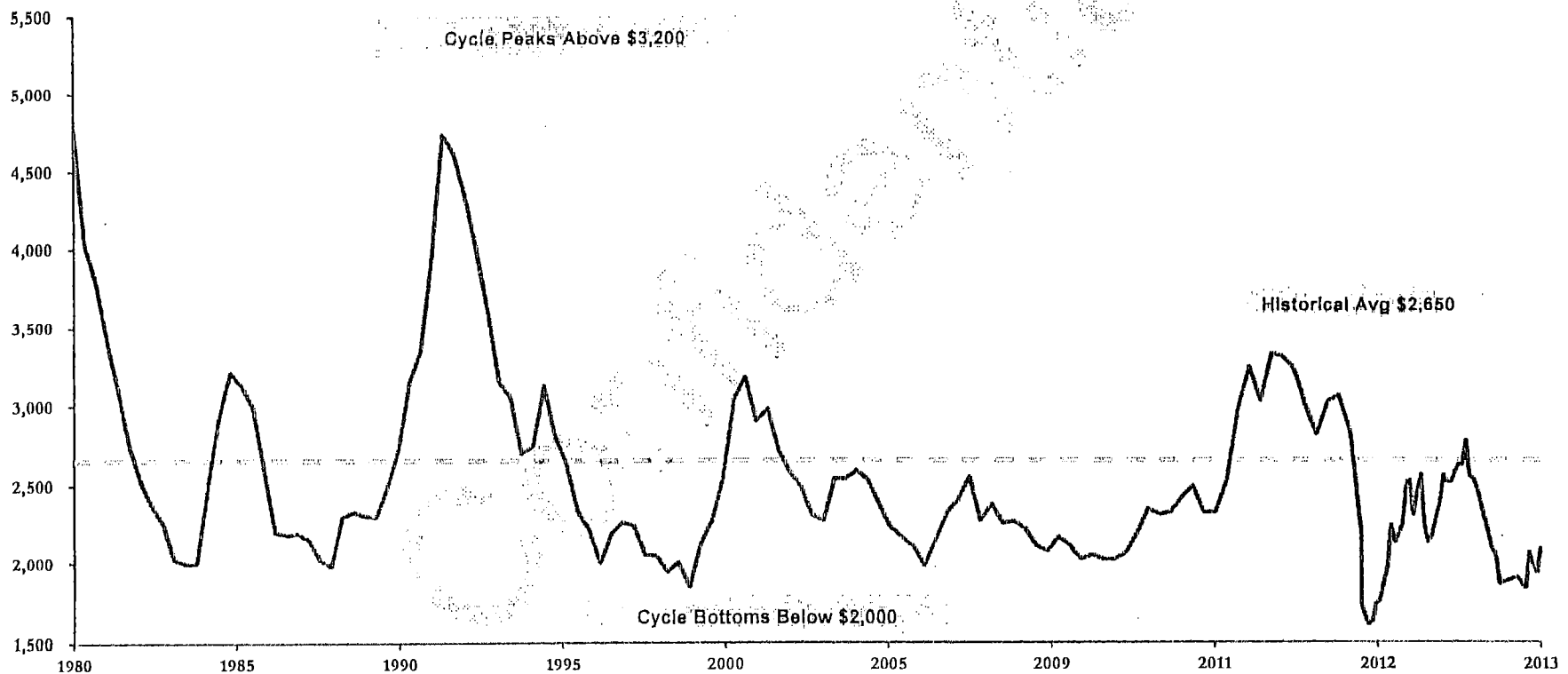
## LME Aluminum Cash Price Forecasts (averages in \$ per metric ton)



**> aluminum intelligence unit**  
the global leader in aluminum industry analysis and outlook

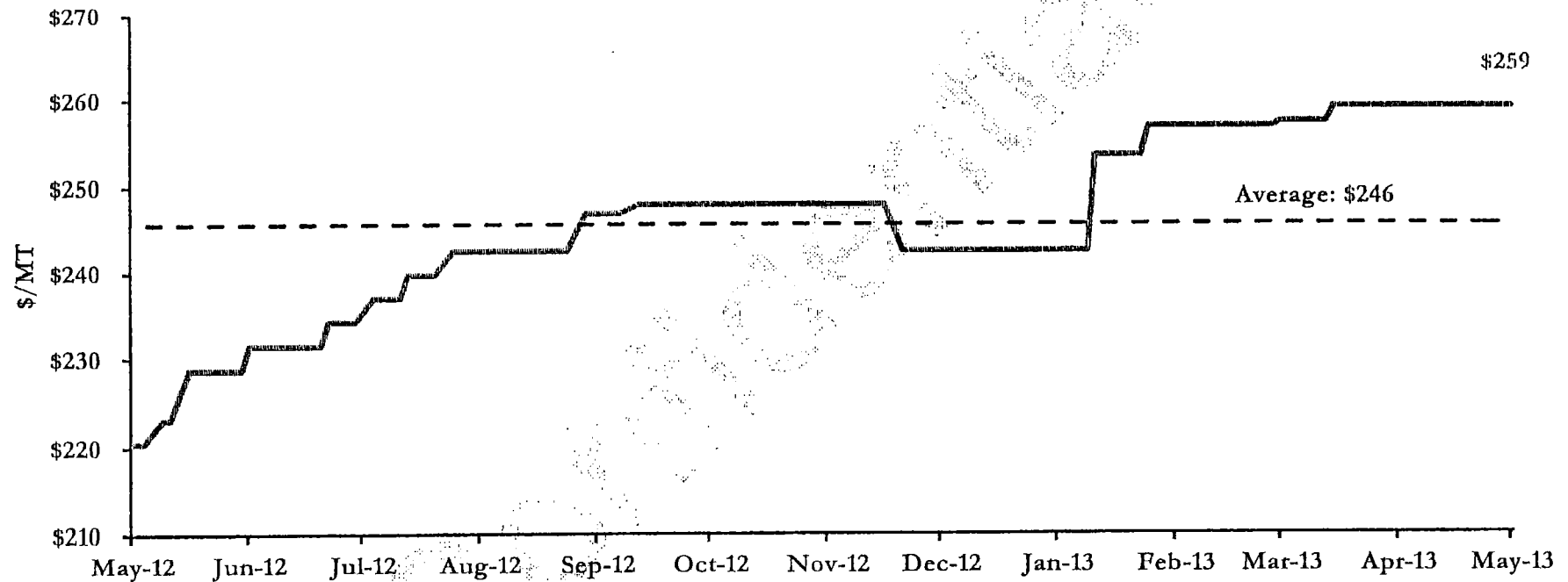
## Aluminum Prices are Trading Near Historical Lows

(\$ in millions in December 2011 terms)



Source: HARBOR Intelligence

## Midwest premiums have risen 18% over the last 12 months



Source: Bloomberg

# Income Statement Forecast

\$(Millions)

Net Sales

Cost Of Sales

Reduction

Profit Sharing

All other Costs

Total Cost Of Sales

Gross Profit

SG&A

Operating Income

Interest Expense/Fees

Other (Income) Expense

Pre Tax Income/(Loss)

EBITDA

2013

Aug-Dec

Aug

Sep

Oct

Nov

Dec

2013

Income Statement Forecast

Income Statement Forecast													2014
\$(Millions)	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>2014</u>
Net Sales													
Cost Of Sales													
Reduction													
Profit Sharing													
All other Costs													
Total Cost Of Sales													
Gross Profit													
SG&A													
Operating Income													
Interest Expense/Fees													
Other (Income) Expense													
Pre Tax Income/(Loss)													
EBITDA													

# Income Statement Forecast

\$(Millions)

Net Sales

Cost Of Sales

Reduction

Profit Sharing

All other Costs

Total Cost Of Sales

Gross Profit

SG&A

Operating Income

Interest Expense/Fees

Other (Income) Expense

Pre Tax Income/(Loss)

EBITDA

2015

2016

2017

2018

2019

Balance Sheet Forecast - \$ in Millions

Cash (incl In-Transit)  
 Restricted cash  
 Accounts receivable, net  
 Inventories  
 Prepaid expenses and other current assets  
 Total current assets

Property, plant and equipment  
 Goodwill, net  
 Intangible assets, net  
 Other assets  
 TOTAL ASSETS

LIABILITIES AND STOCKHOLDERS' EQUITY

Revolving debt  
 Accounts payable  
 Accrued benefits  
 Accrued interest & taxes  
 Accrued other current liabilities  
 Current portion, Term debt  
 Pension obligations  
 Post retirement obligations (VEBA)  
 Total current liabilities

Long Term Debt  
 Pre-petition liabilities  
 Pension obligations  
 Post retirement obligations (VEBA)  
 Other liabilities  
 TOTAL LIABILITIES

STOCKHOLDERS' EQUITY

Common stock  
 Paid-in capital  
 Retained earnings-Beginning of Year  
 Net Income Current Year  
 Accumulated other comprehensive income  
 TOTAL STOCKHOLDERS' EQUITY  
 LIABILITIES AND STOCKHOLDER'S EQUITY

07/31/13 08/31/13 09/30/13 10/31/13 11/30/13 12/31/13

Balance Sheet Forecast - \$ in Millions

Cash (incl In-Transit)

Restricted cash

Accounts receivable, net

Inventories

Prepaid expenses and other current assets

Total current assets

Property, plant and equipment

Goodwill, net

Intangible assets, net

Other assets

TOTAL ASSETS

LIABILITIES AND STOCKHOLDERS' EQUITY

Revolving debt

Accounts payable

Accrued benefits

Accrued interest & taxes

Accrued other current liabilities

Current portion, Term debt

Pension obligations

Post retirement obligations (VEBA)

Total current liabilities

Long Term Debt

Pre-petition liabilities

Pension obligations

Post retirement obligations (VEBA)

Other liabilities

TOTAL LIABILITIES

STOCKHOLDERS' EQUITY

Common stock

Paid-in capital

Retained earnings-Beginning of Year

Net Income Current Year

Accumulated other comprehensive income

TOTAL STOCKHOLDERS' EQUITY

LIABILITIES AND STOCKHOLDERS' EQUITY

01/31/14 02/28/14 03/31/14 04/30/14 05/31/14 06/30/14 07/31/14 08/31/14 09/30/14 10/31/14 11/30/14 12/31/14

**Balance Sheet Forecast - \$ in Millions**

Cash (Incl In-Transit)

Restricted cash

Accounts receivable, net

Inventories

Prepaid expenses and other current assets

Total current assets

Property, plant and equipment

Goodwill, net

Intangible assets, net

Other assets

**TOTAL ASSETS**

**LIABILITIES AND STOCKHOLDERS' EQUITY**

Revolving debt

Accounts payable

Accrued benefits

Accrued interest & taxes

Accrued other current liabilities

Current portion, Term debt

Pension obligations

Post retirement obligations (VEBA)

Total current liabilities

Long Term Debt

Pre-petition liabilities

Pension obligations

Post retirement obligations (VEBA)

Other liabilities

**TOTAL LIABILITIES**

**STOCKHOLDERS' EQUITY**

Common stock

Paid-in capital

Retained earnings-Beginning of Year

Net Income Current Year

Accumulated other comprehensive income

**TOTAL STOCKHOLDERS' EQUITY**

**LIABILITIES AND STOCKHOLDER'S EQUITY**

12/31/15

12/31/16

12/31/17

12/31/18

12/31/19

	<u>Aug-13</u>	<u>Sep-13</u>	<u>Oct-13</u>	<u>Nov-13</u>	<u>Dec-13</u>
	2013				
	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Cash Flow Forecast - \$ in Millions					
Pretax Income (Loss)					
Plus Non-Operating & Non Cash Items:					
Depreciation					
Deferred Interest Expense					
Non-cash Restructuring					
Amortization of Pension Losses					
Amortization Of Financing Fees					
Net					
Decrease (Increase) in Working Capital					
A/R					
Inventory					
A/P					
All other Current Items					
Net Change in Working Capital					
Pension & VEBA - net					
All Other Operating					
Total Operations Cash Flow					
Proceeds From Investing					
CAPX					
Investment in JV					
Total Investing Cash Flow					
Proceeds From Financing					
Net Increase (Decrease) in RCF					
Term Loan Proceeds (Repayment)					
Proceed EDLOP Loan (Debt Forgiveness/payment)					
Financing Fees					
Equity Contrib/Liquidity Shortfall					
Total From Financing					
Net Cash Flow					
Cash Beginning					
Cash Ending					

Cash Flow Forecast - \$ in Millions

Pretax Income (Loss)

Plus Non-Operating & Non-Cash Items:

Depreciation

Deferred Interest Expense

Non-cash Restructuring

Amortization of Pension Losses

Amortization of Financing Fees

Net

Decrease (Increase) in Working Capital

A/R

Inventory

A/P

All other Current Items

Net Change in Working Capital

Pension & VEBA - net

All Other Operating

Total Operations Cash Flow

Proceeds From Investing

CAPX

Investment in JV

Total Investing Cash Flow

Proceeds From Financing

Net Increase (Decrease) in RCF

Term Loan Proceeds (Repayment)

Proceed EDLOP Loan (Debt Forgiveness/payment)

Financing Fees

Equity Contrib/Liquidity Shortfall

Total From Financing

Net Cash Flow

Cash Beginning

Cash Ending

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec 2014

	2015	2016	2017	2018	2019
Net Income (Loss)					
Plus Non-Operating & Non Cash Items:					
Depreciation					
Compensation Exp. - Options					
Deferred Interest Expense					
Non-cash Restructuring					
Amortization of Pension Losses					
Deferred Taxes					
Amortization Of Financing Fees					
Net					
Decrease (Increase) in Working Capital					
A/R					
Inventory					
A/P					
All other Current Items					
Net Change in Working Capital					
Pension & VEBA - net					
All Other Operating					
Total Operations Cash Flow					
<u>Proceeds From Investing</u>					
CAPX					
Investment in JV					
Total Investing Cash Flow					
<u>Proceeds From Financing</u>					
Net Increase (Decrease) in RCF					
Term Loan Proceeds (Repayment)					
Proceed EDLOP Loan (Debt Forgiveness/payment)					
Financing Fees					
Equity Contrib/Liquidity Shortfall					
Total From Financing					
Net Cash Flow					
Cash Beginning					
Cash Ending					

**Ormet Power Plant Report**  
**(CONFIDENTIAL)**

### **Proven Technology**

The GENCO GE 7FA equipment maintains an exceptional operational track record while benefiting from the shared site common and plant common facilities. ORMET has implemented a disciplined maintenance and operating procedure focus to ensure that GENCO demonstrates a best in class operational capability. The GE 7F / FA is the preferred combined cycle technology due to its efficiency, reliability and ramping capabilities. As of early 2012, over 750 GE 7FA units were installed with 28.5 million fired hours and over 723,000 fired starts. Preference for the demonstrated performance of the GE technology is evident when compared to the Siemens G class, which has only 25 units installed and does not maintain the start reliability and ongoing operational performance history.

### **Cost Effectiveness**

The proven technology of the GE 7FA and the installed capacity of approximately 172,000 MW has substantially driven down the construction and operating costs. The availability of existing equipment eliminates lead time in procurement and creates the opportunity to negotiate extended warranties with GE. Various vendors also manufacture and repair comparable equipment that can be utilized in the equipment.

The availability of on-site infrastructure and land, as well as the proximity to existing natural gas production and electric transmission interconnection will substantially reduce the infrastructure cost for the on-site generation, as well as ongoing operating costs due to the abundant supply of natural gas in Ohio.

Wayzata currently owns and operates four power plants with the same technology and in this same configuration. The ability to share inventory and operational expertise will lead to significantly lower operating cost and higher reliability.

The projected cost for the on-site generation and energy optimization, based upon comprehensive cost modeling and current natural gas prices is approximately [REDACTED] per MWH.

### **Ormet GenCo Equipment Design**

Ormet GenCo consists of two [REDACTED] Frame 724 IF A combustion turbines ("CTs"), two [REDACTED] heat recovery steam generators ("HRSGs"), and one [REDACTED] condensing steam turbines ("STs"). The equipment is configured as a 2x1 power block (two CT/HRSG trains and one ST). To control the formation of oxides of nitrogen ("NOx"), the CTs are equipped with dry low-NOx ("DLN") combustors. Each CT is equipped with inlet foggers

to maintain inlet temperatures in the optimum range for power generation. The HRSGs include selective catalytic reduction ("SCR") system for additional control of NOx, a carbon monoxide ("CO") catalyst for control of CO emissions, and duct firing for additional steam flow to the ST to produce up to approximately 48 MW of additional power. A detailed description of the GENCO primary equipment is provided in Attachment 1.

Plant operating limits (minimum, maximum, and any restrictions or limitations)

For modeling purposes, the following rating assumptions can be utilized:

## Projected Long-Term Base-load Performance Values

	<u>Output (MW)</u>	<u>Heat Rate (Btu/kWh-HHV)</u>
Ormet GenCo		
Summer	544	7,200
Winter	566	7,200

- 1) Capacity available after reserve obligation considerations.
- 2) Base-load heat rate including duct-firing and fogger operation in the Summer and duct firing with no fogger operation in the Winter. Excludes start fuel and period of ramping.
- 3) Summer conditions shown at 95 degrees F.
- 4) Winter conditions shown at 40 degrees F.
- 5) Maximum generation is at base-load with duct firing.

## Plant Characteristics

### Low Load Turn Down Capability

The 2x1 configuration of GENCO provides significant ramping capability while maintaining efficient operations. Unique to the ORMET GENCO is the low load turn down, which is significantly below most configurations of 165 MW at minimum generation. GENCO can reduce load to 120 MW in a 1x1 mode and 245 MW in a 2x1 configuration providing for a continuous ramp of generation across the curve from 120 MW to 556 MW at 2x1 base-load. Furthermore, if necessary, GENCO can operate in SC mode while still controlling NOx emissions. While it is unlikely that such a configuration will be desired, the PB equipment is designed to accommodate.

The implementation of low load turn down capability without significant detrimental impact to heat rate efficiency and while maintaining compliance with all emissions limits enhances the ramping capability of the Project and reduces long-term maintenance costs due to fewer projected starts. ORMET will

demonstrate the low-load turn down capability and explain its attributes in detail as part of the proposed industry standard capacity test prior to acquisition.

## Foggers Maintain Peak Day Capacity

The capital investment upgrades to operate with foggers enable the unit to reliably and efficiently operate at peak periods. The southwest low relative humidity is ideal for fogger performance. The GENCO design is unique in limiting temperature degradation. As identified in the net output curve, the inlet temperature remains below 75 degrees even when the outside temperature is above 100 degree due to the fogger operations.

The ability to demonstrate low heat rate capacity performance during peak periods is a significant attribute of the GENCO unit. Meaning the foggers significantly assist in maintaining combustion turbine efficiency (net output) on hot days.

Base-load without duct firing heat rate can be demonstrated during the capacity test to be less than 7,100. Since GENCO relies mainly on combined-cycle capacity rather than duct firing to go to full load, the high end heat rate is much lower than most configurations. (GENCO duct firing is approximately 50% of most units.)

## Permitting

### No Permit Emissions limiting Operations

Ormet GenCo also benefits from extremely low NOx emissions. There are no restrictions on starts or hours of operation per year under the existing permits. The emissions from the on-site generation at Ormet will be over 65 percent less than the emissions from the current AEP fleet of generation. The water consumption will be approximately 60 percent less than AEP's fleet. Thus, the ecological benefits of the project contribute to a sustainable environment. This ecological benefit is delivered at zero costs to the Ohio rate-payers as opposed to costly upgrades proposed by AEP for their existing generation.

ORMET GenCo has engaged two environmental firms to assist in the filing of the necessary permits. GenCo is currently finalizing the necessary information related to the site and technical emissions modeling for the specific equipment and configuration design. The environmental permits required for the Project include, but are not limited to:

- Ohio Power Siting Board Permit
- Air Permits from Ohio EPA, Division of Air Quality, including a separate pre-construction NSR (PSD) permit and Title V operating permit, and a Phase II Acid Rain permit.

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- Storm Water General Permit for construction activities associated with the project.
- National Pollutant Discharge Elimination System (NPDES) Permit from Ohio EPA Division of Surface Water: Permit for discharge of point source pollutants into waters of the State of Ohio.
- U.S. Army Corps of Engineers (USACE) permits under Section 404 of the Clean Water Act (CWA) related to the placement of dredge and fill material into waters of the U.S. and under Section 10 of the Rivers and Harbors Act of the 1899 (RHA) related to placement of a cooling water intake in the Ohio River. [Pending new rules under CWA Section 316(b) will also need to be factored into the design of the cooling water intake structure.]
- Section 401 of the CWA Water Quality Certification from the Ohio EPA Division of Surface Water related to the placement of dredge and fill material into waters of the U.S.
- Isolated wetlands permit from the Ohio EPA Division of Surface Water for the placement of dredged and fill material into isolated wetlands.
- Local/municipal and or county level permits and zoning, the types and duration of which would be determined as part of the planning/coordination activities discussed later in this letter.
- Civil Engineering (Phase I)

## Interconnection

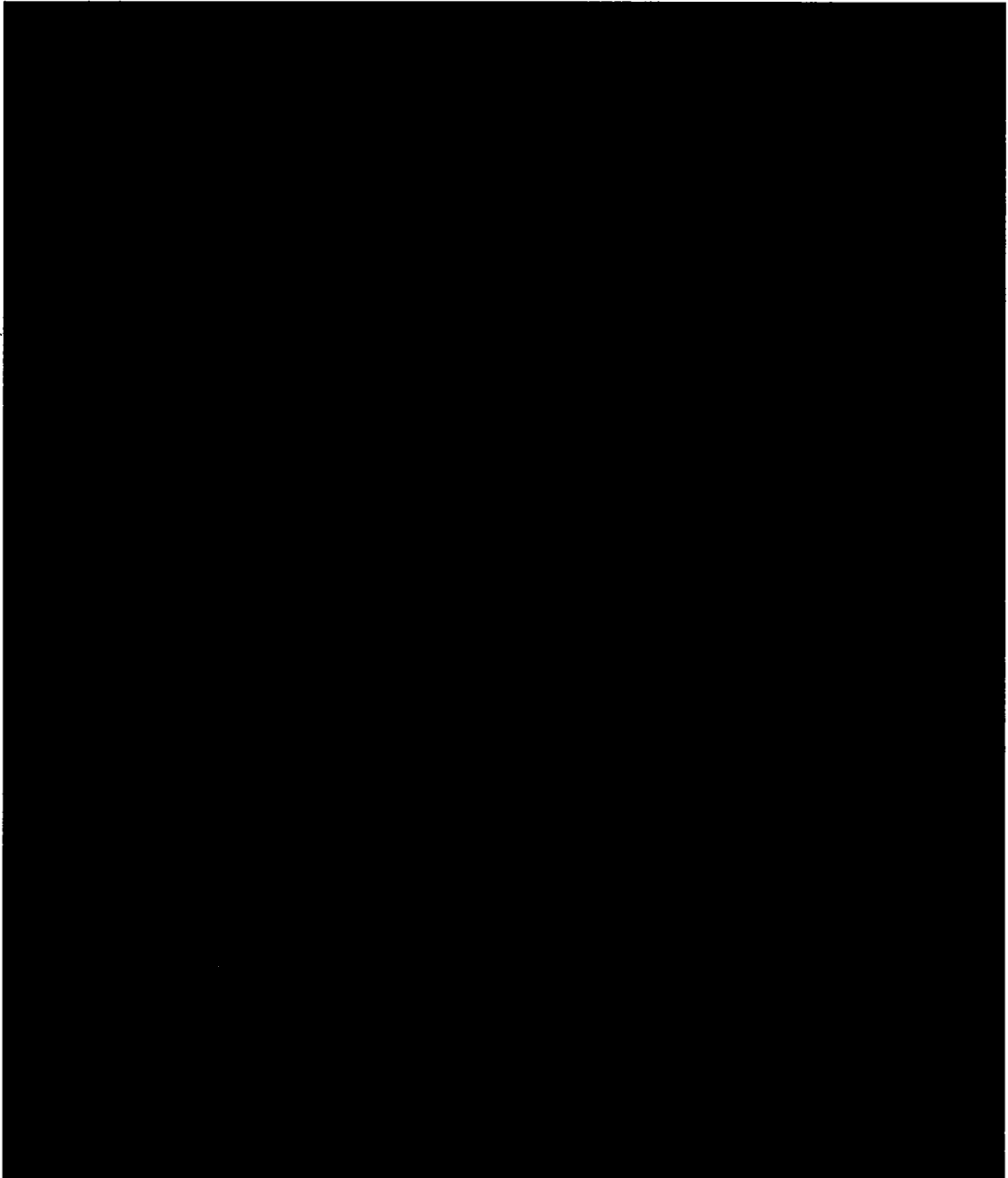
Ormet GenCo will be connected to the PJM grid through an existing 12-mile redundant circuit 138 kV line to the Kammer switchyard. The Kammer switchyard is designed with sufficient transfer capability to the grid, especially upon the shuttering of the existing facility, which is not EPA compliant. This means that the system impact study results will identify negligible impacts to the grid from the addition of the on-site generation. Ormet currently maintains ownership of part of the transmission line and maintains exclusive service on the line. The nodal price will be correlated to the AEP-Dayton pricing zone, published by PJM.

Ormet GenCo will receive natural gas supply from Dominion via a new transmission lateral from their processing station less than four miles from the site. The project is strategically located within the Marcellus and Utica shale production regions and will actually benefit producers by creating a demand for the locally produced natural gas.

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Equipment Design  
Attachment 1  
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ORMET GenCo will include the following equipment for the [REDACTED] 2x1 7FA Power Block. (This list is not exhaustive, but rather representative of the primary equipment).



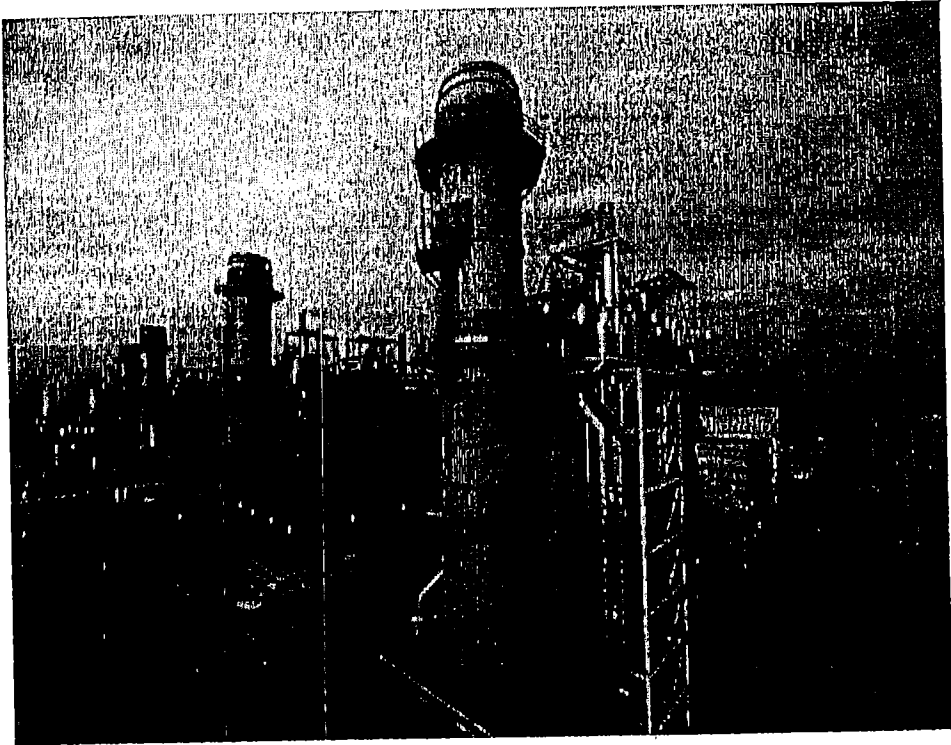
### Environmental Control Equipment

The CTs are equipped with DLN combustors to control emissions of NOx while firing natural gas. Each HRSG is equipped with a SCR system and a CO catalyst for control of NOx and CO emissions, respectively. A continuous emissions monitoring system ("CEMS") is installed for each HRSG stack to measure emission of NOx, CO, and oxygen ("O2") and generate reports in accordance with the Facility air permit requirements. The CEMS is a fully functional system including sample probe, conditioning, lines, analyzers, connections, regulators, gauges, valves, and calibration systems.

### Electrical and Control Systems

Each power block at the Facility includes two hydrogen-cooled CT generators and one hydrogen-cooled ST generator, which are all GE synchronous, three-phase units operating at 60 Hertz ("Hz"). The CT and the ST units generate electricity at 18 kV. Each generator is connected to a dedicated generator step-up ("GSU") transformer. Individual GSU transformers are used to increase the voltage level to 500 kV. One of the CTs in each power block is equipped with a generator breaker between the generator and the GSU transformer.

Start-up power is back-fed from the transmission system and the on-site switchyard. The auxiliary power required during normal operation is provided by the CTs. Black start capability is not provided. Critical auxiliary loads that are required to be operated for equipment and personnel safety during the loss of auxiliary power are fed from the 125 V direct current ("DC") electrical systems. Under normal operation, the power is supplied from two 480 volt ("V") motor control centers. There is also an uninterruptible power supply system ("UPS") that serves the entire Facility. During a loss of normal auxiliary power from both sources, the equipment associated with the DC systems and the UPS is powered from batteries. There is no emergency back-up diesel generator. The CTs are controlled by [REDACTED] control systems and the STs are also controlled by [REDACTED] control systems, while the water treatment system is controlled by a local programmable logic controller.



Low Emission, Highly Fuel Efficient  
Natural Gas-fired Combined-Cycle Generation

## Investing in our Future

is dependent upon

## Sustainable Energy Supply

which creates

## Sustainable Jobs

and Creation of New Jobs

while focusing on a

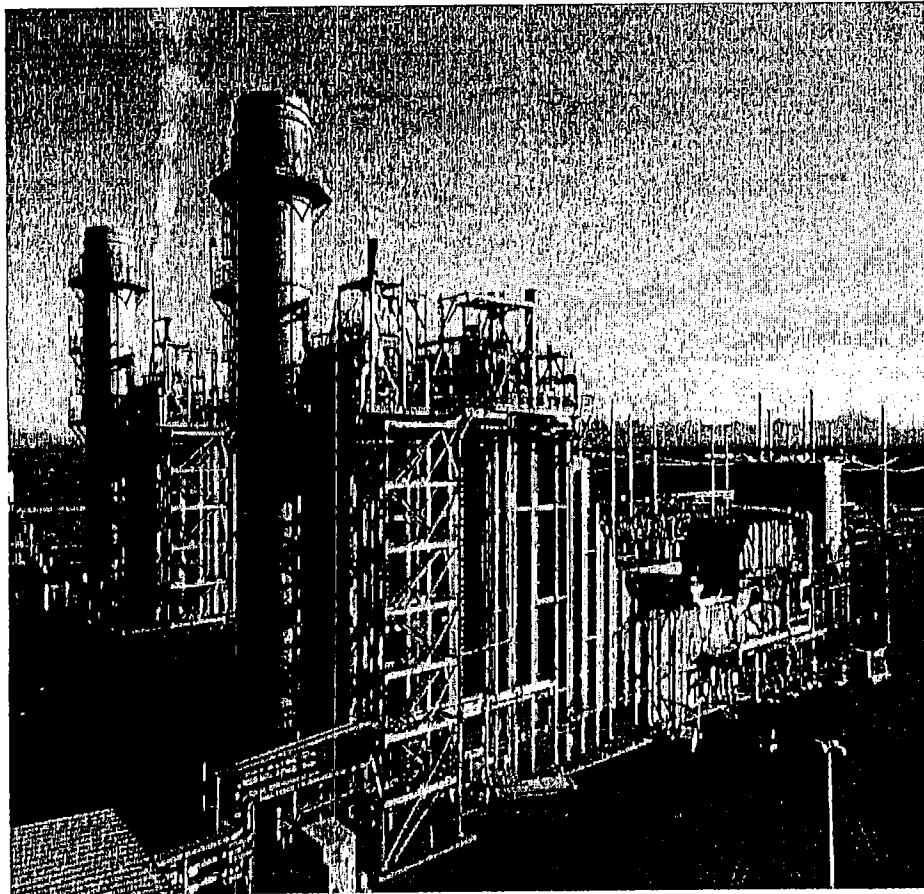
## Sustainable Environment

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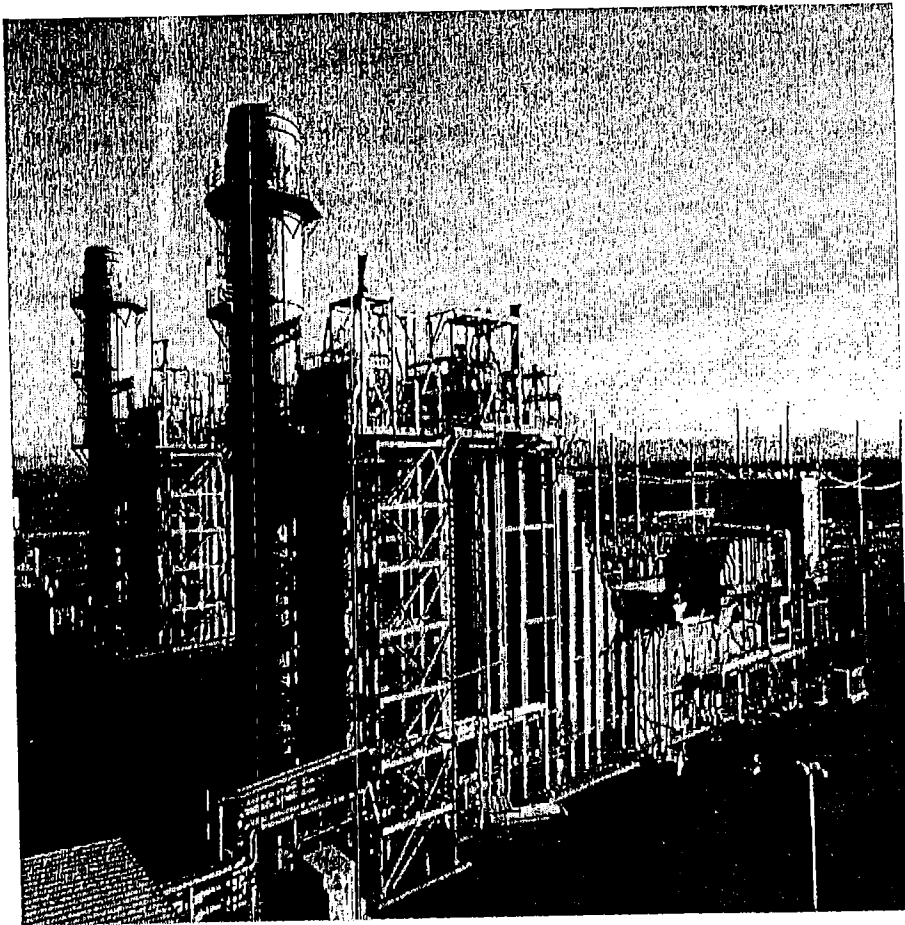
## Sustainable Future

## Investment Objective and Economic Development

Local Resources sustaining and creating local jobs



- Construction Jobs – 300 average (peaking to 600) skilled and unskilled jobs during 18 month construction
- Ongoing Operational Jobs – 28 full-time family wage power plant jobs
- Off-site service and community commercial business growth
- Local natural gas supply production, development and infrastructure jobs
- Stable Future for Core Operations – Sustainable energy costs will support core operations and secure the long-term viability of approximately 1,000 direct and indirect jobs at Ormet and potentially other major Ohio energy users



## Reliable, Efficient and Low Emissions

Project capacity will be sufficient to meet Ormet and other major users' long-term energy requirements.

Project will be designed with low NO<sub>x</sub> combustion (with SCR controls) to meet EPA BACT emissions standards.

Location:	Hannibal, Ohio
Nominal Capacity:	540 MW Base Capacity
COD:	
Heat Rate:	Btu/kWh <sup>1</sup>
NERC Region:	PJM (AEP)
Pricing Point:	AEP-Dayton
Fuel:	Natural Gas
Gas Interconnection:	Dominion Pipeline
Electric Interconnection:	Ormet 138 kV
Facility Type:	Combined-Cycle
Configuration:	2x1 Power Block (2 CT x 2 HRSG x 1 ST)
Key Equipment:	2 7FA CTs 4 HRSGs 
Site:	12- 24 acre site
O&M Provider:	Third Party O&M (41 on-site personnel)
Energy Manager:	

# On Site Generation Development Project Schedule

Task details	Q-3 2013	Q-4 2013	Q-1 2014	Q-2 2014	Q-3 2014	Q-4 2014	Q-1 2015	Q-2 2015	Q-3 2014	Q-4 2014	Q-1 2015	Q-2 2015	Q-3 2015	Q-4 2015
	J A S	O N D	J F M	A M J	J A S	O N D	J F M	A M J	J A S	O N D	J F M	A M J	J A S	O N D
<b>Permitting</b>														
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Air Permit (emissions)														
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		J A S	O N D	J F M	A M J	J A S	O N D	J F M	A M J	J A S	O N D	J F M	A M J	J A S	O
Start-up and Commissioning	Back Feed electrical power														
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	COD														
	HR and output testing to establish capacity														

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# Key Energy Investment Structuring Highlights

## Capital Investment and Financing

1

[REDACTED]

2

[REDACTED]

3

[REDACTED] will be guaranteed [REDACTED]

(Collaborative discussion regarding available programs)

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Bonds will be re-paid through a power supply agreement to Ormet / other major user(s). (This approach has been utilized to finance transmission and infrastructure upgrades in other states)

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Bond financing will support the long-term economic viability of core operations. The volatility in bundled rates has interrupted the viability of the existing power supply.

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Third party O&M services to operate and maintain in accordance with prudent industry standards.

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Project will maintain economic viability as one of the most efficient generators in PJM and will provide price stability in an uncertain market environment with substantial coal generation retirements and aging generation portfolio.

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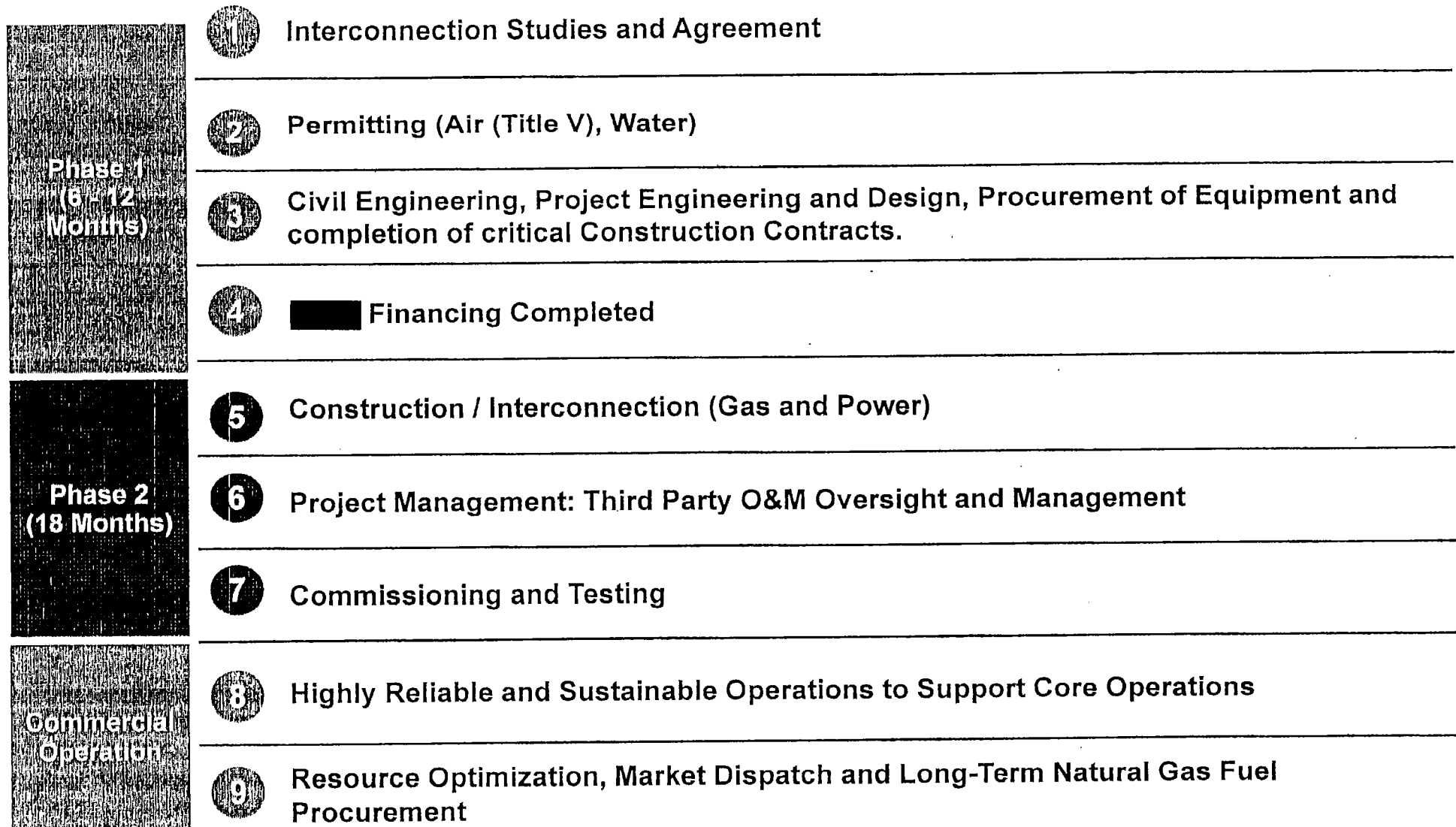
GenCo will be interconnected sell to the market if capacity not fully utilized by Owners. (Forward capacity and energy markets support the economic viability.)

## Strategic Benefits

## Project Operations

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# Project Timeline

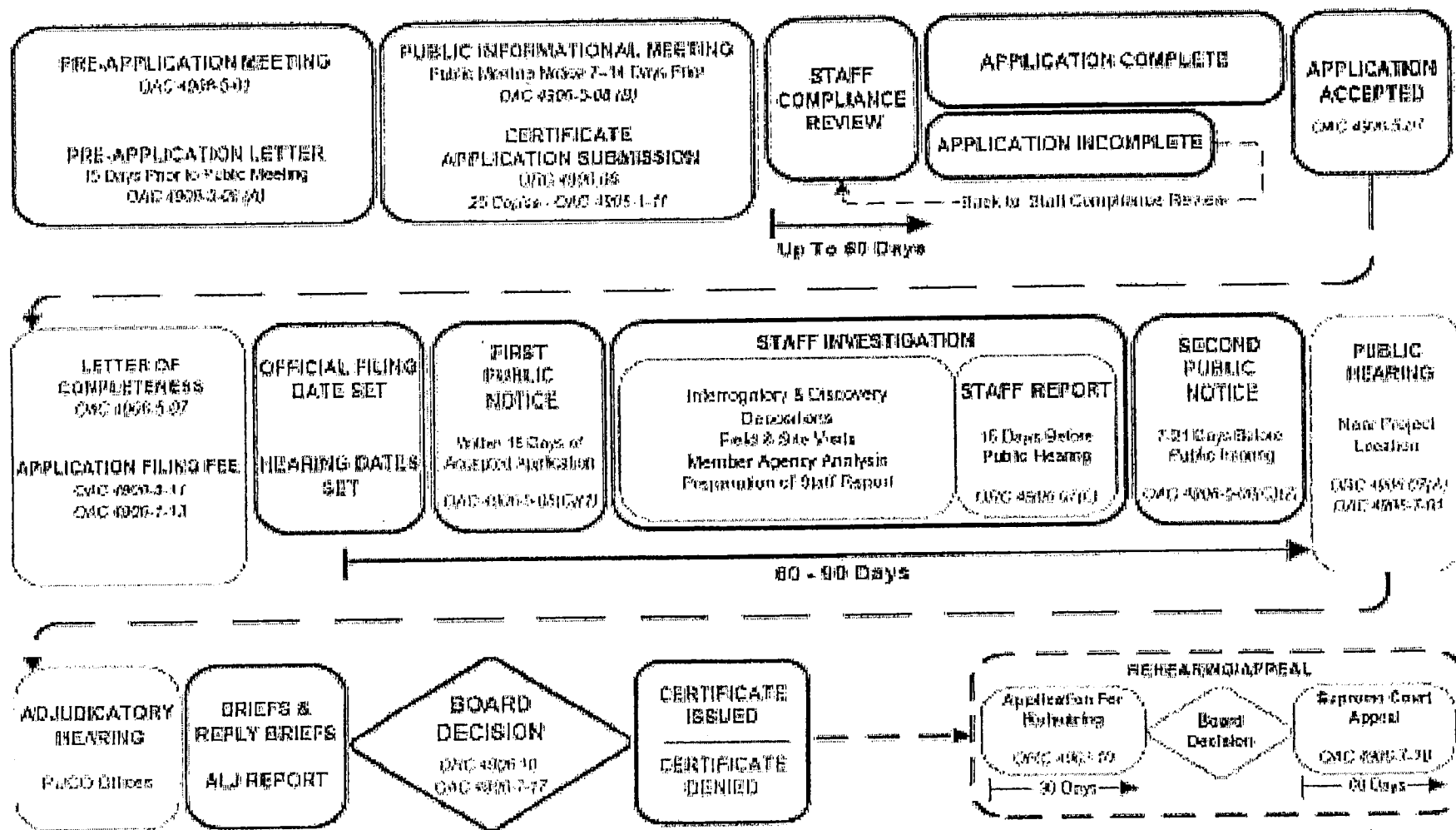


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# Air Permits

Permit/Authorization Name and Description	Required Information	Expected Agency Review Time	Contact Information
Permit-to-Install and Operate (PTIO) - required prior to the installation of any new air contaminant emissions unit or the modification of an existing emissions unit under OAC Rule 3745-31; construction must be commenced within 18 months of the PTI's issuance	<p>Application (available on web), along with all supporting documentation</p> <ul style="list-style-type: none"> <li>Includes air dispersion modeling</li> </ul>	3 to 6 months prior to construction for most sources;	<p>Ohio EPA - Division of Air Pollution Control PO Box 1049 Columbus, Ohio 43216-1049 Phone: 614.644.2270 <a href="http://www.epa.state.oh.us/dapc">www.epa.state.oh.us/dapc</a></p>
NOx Budget Trading Program, Account Certificate of Representation - determines the authorized account representative or alternate account representative, as dictated by OAC 3745-14-02	<ul style="list-style-type: none"> <li>Identification of NOx budget source, and each NOx budget unit at the source</li> <li>Complete contact information for the account representative or alternate</li> <li>List of owners and operators for the budget source and units</li> </ul> <p>Completed certification statement</p>		<p>Ohio EPA - Division of Air Pollution Control PO Box 1049 Columbus, Ohio 43216-1049 Phone: 614.644.2270 <a href="http://www.epa.state.oh.us/dapc">www.epa.state.oh.us/dapc</a></p>

## Ohio Power Siting Process Flowchart



February 2011

**BOARD MONITORS CONSTRUCTION AND FIRST TWO YEARS OF OPERATION OF FACILITY**  
Conditions of Certificate Apply for the Life of the Facility

Working Draft  
Subject to Review and  
Revision Every 6 Months

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# PJM Interconnection Feasibility Procedure and Costs

- A new generation resource or a new transmission facility to the PJM system must submit an Interconnection Request in the form of an executed Generation or Transmission Interconnection Feasibility Study Agreement (OATT at Part VI, Attachment N or Attachment S, respectively) and a study deposit

- A generation request shall include:

- ❖ Location
- ❖ Evidence of ownership
- ❖ Size
- ❖ Description of equipment
- ❖ COD

- Generation Interconnection Feasibility Study Costs:

Month of New Services Queue	Non-refundable deposit	Cost per MW of Interconnection Request	Maximum deposit
1st	\$10,000	\$100	\$100,000
2nd	\$20,000	\$150	\$100,000
3rd	\$30,000	\$200	\$100,000

- The applicant is obligated to pay the actual costs of studies conducted by PJM on its behalf, and the non-refundable deposit is applied to those costs as work is completed.
- Any remaining non-refundable deposit monies will be credited toward the Interconnection Customer's cost responsibility for any other studies

# PJM Interconnection Procedure and Costs

Activity	Duration	Cumulative Duration	Costs
Feasibility Study Agreement to PJM	Requests received in 4 cycles per year ending on January 31, April 30, July 31, and October 31.	Up to 91 days	\$10,000- \$30,000 Deposit
PJM conducts Generation and/or Transmission Interconnection Feasibility Study in coordination with each affected ITO. Complete studies in 4 cycles per year (complete by April 30, July 31, October 31, and January 31)	Up to 92 day window	Up to 183 days	
IC determines response to the Generation and/or Transmission Interconnection Feasibility Study results.	Up to 30 days	Up to 213 days	
IC submits an executed System Impact Study Agreement (with proof of application for an air permit if required for a generator installation).			\$50,000 Deposit
PJM conducts the System Impact Study and completes the Study within 120 days. (Studies in 4 cycles per year June 1, September 1, December 1, and March 1)	Up to 120 days for study	Up to 333 days	
IC determines response to the System Impact Study results.	Up to 30 days	Up to 363 days	
IC submits an executed Generation and/or Transmission Interconnection Facility Study Agreement			\$100,000 Deposit or estimated cost
PJM conducts the Generation and/or Transmission Interconnection Facilities Studies	Based on estimate of time needed	Up to 363 days +time for Facilities Studies	
IC executes and returns tendered Interconnection Service Agreement or Upgrade Construction Service Agreement		Up to 558 days + Facilities Studies	

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# Ohio Natural Gas Projects in the PJM Generation Queue

Queue	AQ	Queue Date	PJM Substation	MW	MWC	MWE	Status	Feas	Imp	Fac	ISA	CSA	St	In Service	Fuel
W1-072A_AT5		4/26/2010 12:00:00 AM	Lemoyne	640	40	40							OH	2011 Q2	
W3-128		10/29/2010 12:00:00 AM	Sporn-Waterford 345kV	652	652	652							OH	2016 Q2	
X3-051		9/27/2011 12:00:00 AM	Flatlick 765kV	1460	610	610							OH	2016 Q1	
Y1-035		3/8/2012 12:00:00 AM	Eastlake 138kV	462	462	462							OH	2016 Q2	
Y1-036		3/8/2012 12:00:00 AM	Eastlake 345kV	462	462	462							OH	2016 Q2	
Y1-069		4/27/2012 12:00:00 AM	Bay Shore-Fostoria Central 345kV	799	799	799							OH	2017 Q2	
Y2-050		8/15/2012 12:00:00 AM	Tidd-Canton Central	749	710	749							OH	2017 Q3	
Y2-053		8/15/2012 12:00:00 AM	Lemoyne 138kV	675	35	35							OH	2013 Q2	
Y2-085		10/30/2012 12:00:00 AM	Sammis-Star 345kV	1050	1050	1050							OH	2017 Q1	

MW - Maximum facility output after interconnection request  
MWC - Capacity interconnection request for the queue position (summer net)  
MWE - MW Energy for the interconnection request (winter net)

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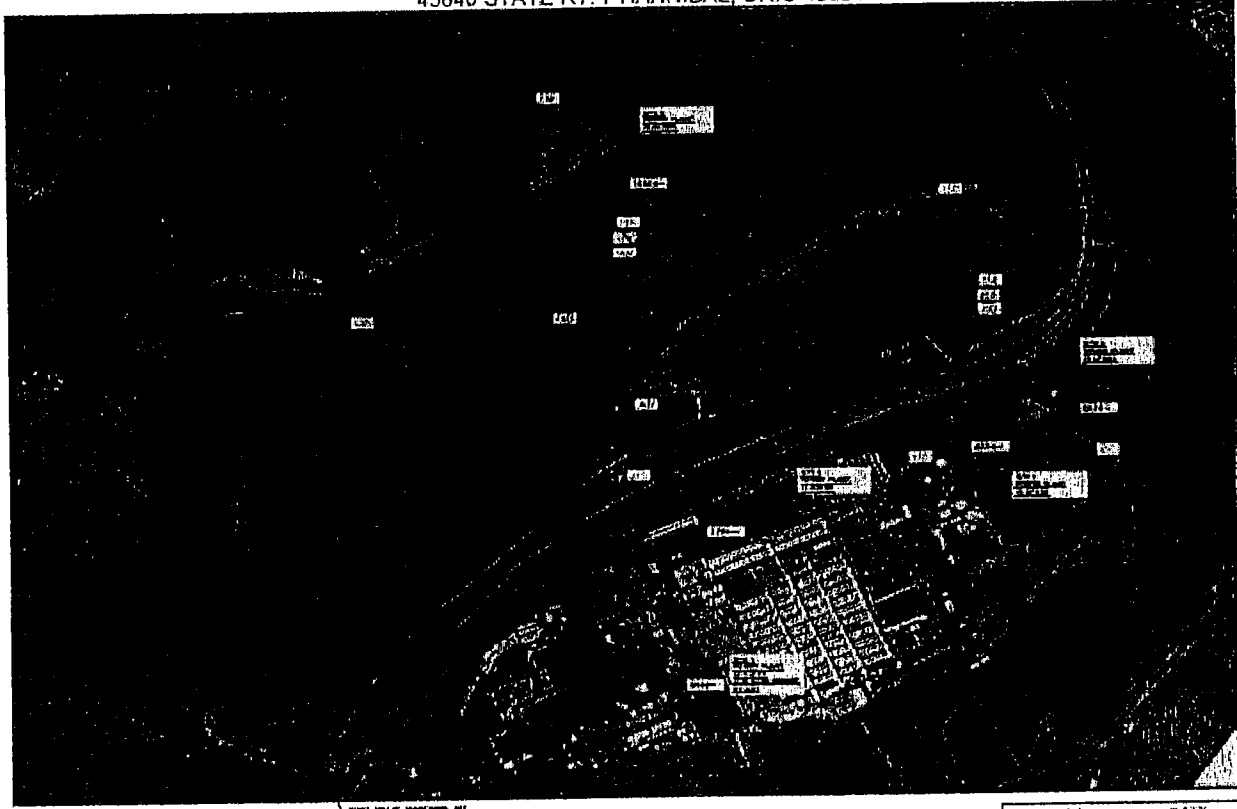
Ormet\_Plant Locations\_Self Build\_w Image.pdf - Adobe Acrobat

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ORMET PRIMARY ALUMINUM CORP.  
POTENTIAL POWER PLANT SITE OPTIONS  
43840 STATE RT. 7 HANNIBAL, OHIO 43931

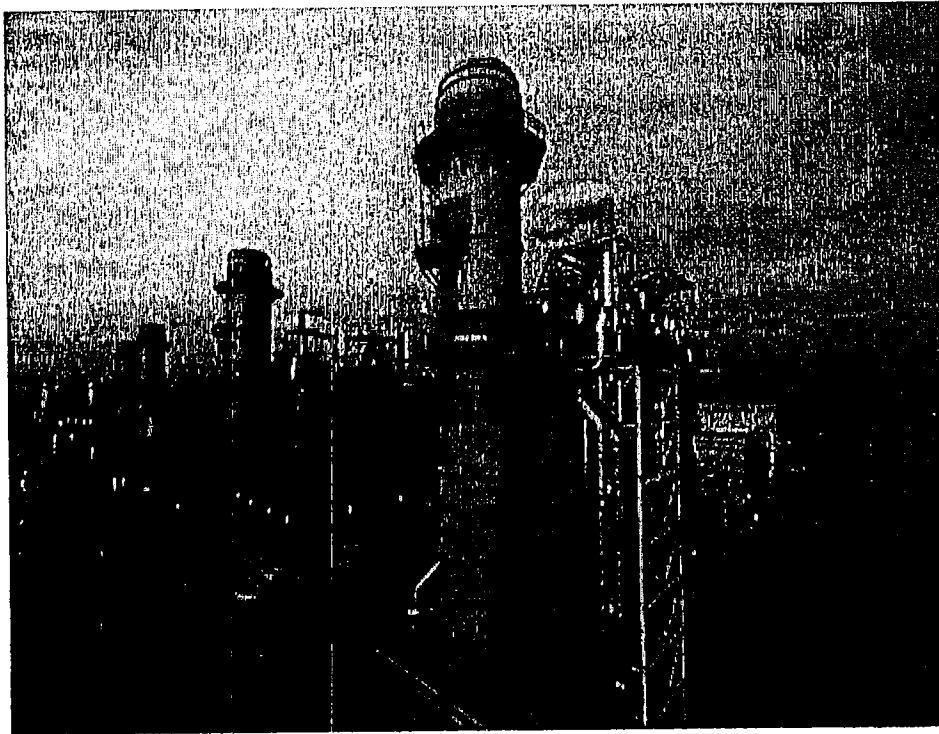


SITE PLAN  
SELF-BUILD

FORMER ALUMINUM CORPORATION INDUSTRIAL SITE	
TITLE	POTENTIAL POWER PLANT SITE OPTIONS
DATE	10/1/00
BY	J. L. HARRIS
FOR	ORMET PRIMARY ALUMINUM CORP.

SA

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**Low Emission, Highly Fuel Efficient  
Natural Gas-fired Combined-Cycle Generation**

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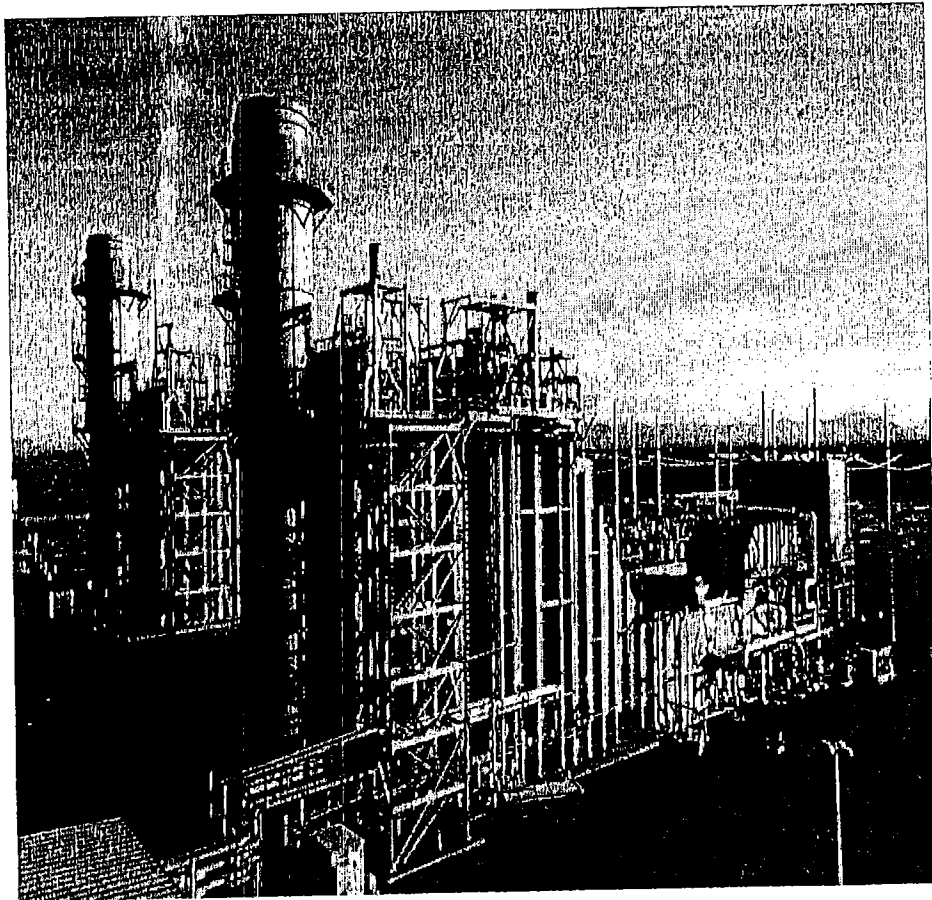
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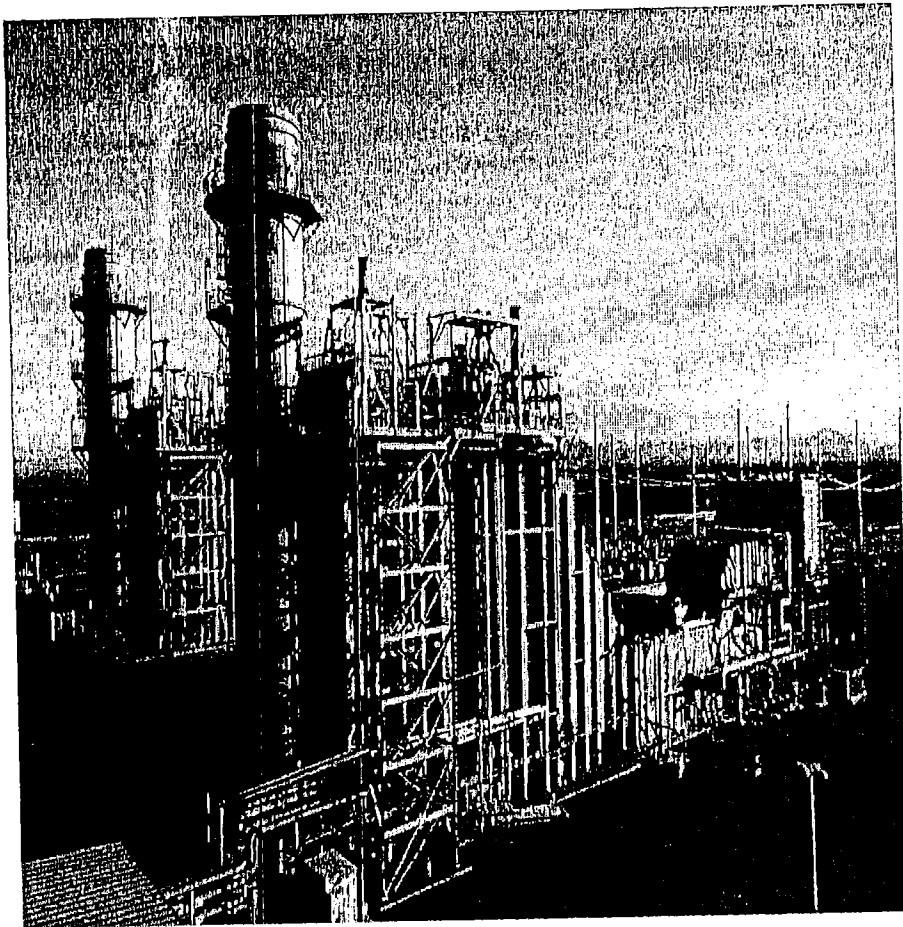
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		J A S	O N D	J F M	A M J	J A S	O N D	J F M	A M J	J A S	O N D	J F M	A M J	J A S	O N
Permitting	Total Project 2x1 CC plant														
	Certificate of environmental compatibility														
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Task	Task details	J A S	O N D	J F M	A M J	J A S	O N D	J F M	A M J	J A S	O N D	J F M	A M J	J A S	O N
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- 2 [REDACTED]
- 3 [REDACTED] will be guaranteed [REDACTED]  
(Collaborative discussion regarding available programs)
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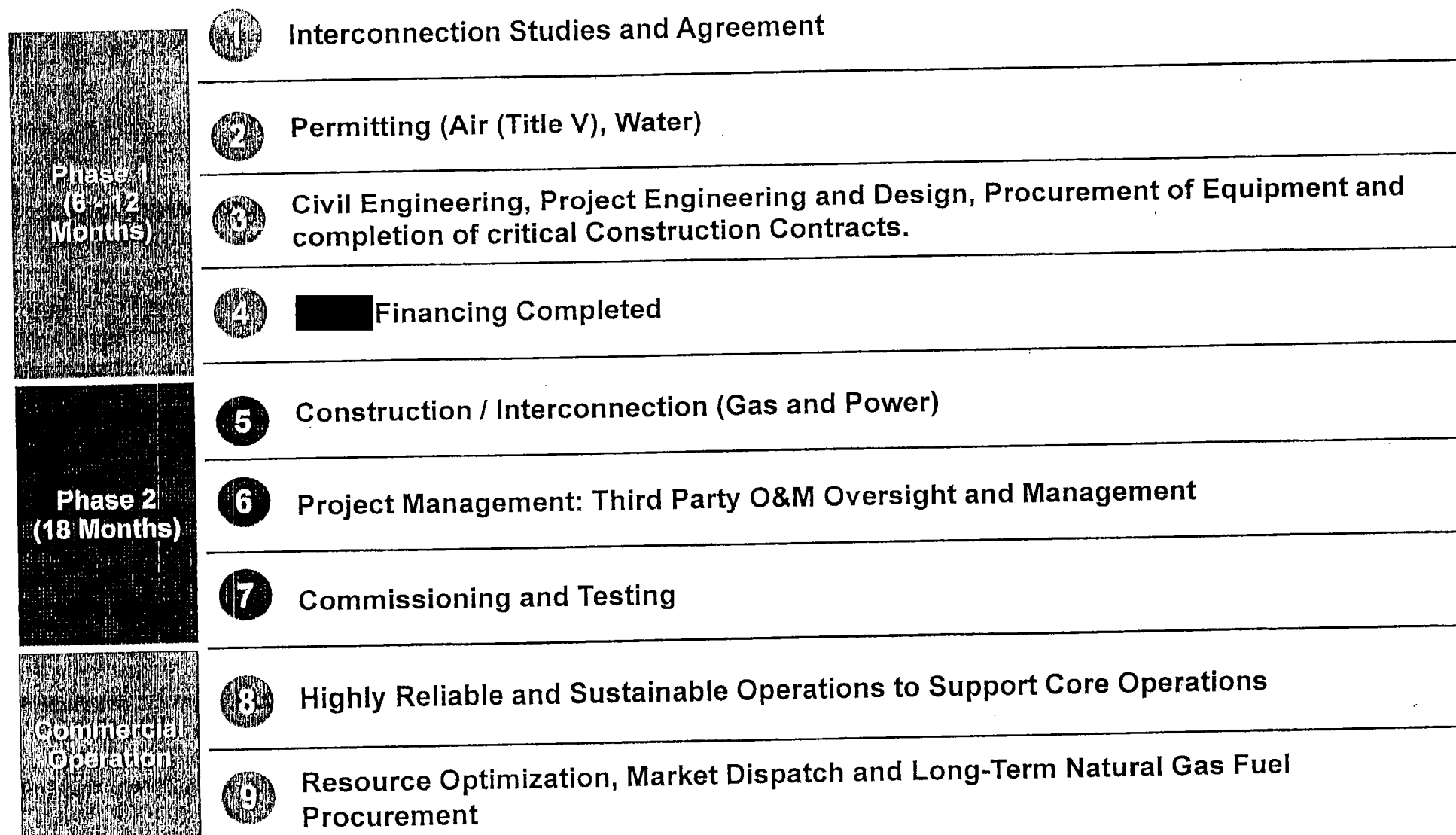
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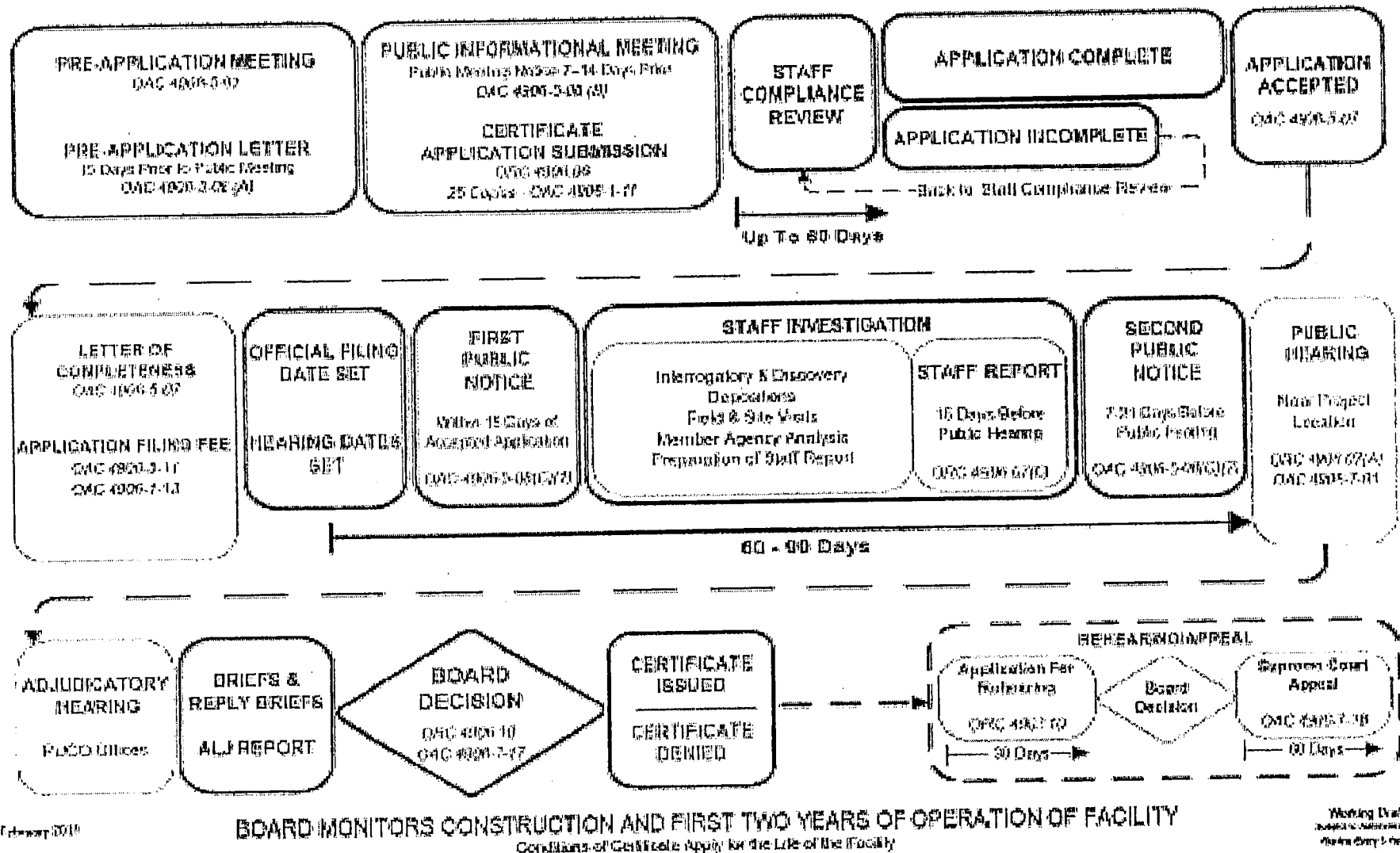
# Project Timeline



# Air Permits

Permit/Authorization Name and Description	Required Information	Expected Agency Review Time	Contact Information
Permit-to-Install and Operate (PTIO) - required prior to the installation of any new air contaminant emissions unit or the modification of an existing emissions unit under OAC Rule <u>3745-31</u> ; construction must be commenced within 18 months of the PTI's issuance	Application (available on web), along with all supporting documentation <ul style="list-style-type: none"> <li>Includes air dispersion modeling</li> </ul>	3 to 6 months prior to construction for most sources;	Ohio EPA - Division of Air Pollution Control PO Box 1049 Columbus, Ohio 43216-1049 Phone: 614.644.2270 <a href="http://www.epa.state.oh.us/dapc">www.epa.state.oh.us/dapc</a>
NOx Budget Trading Program, Account Certificate of Representation - determines the authorized account representative or alternate account representative, as dictated by OAC <u>3745-14-02</u>	<ul style="list-style-type: none"> <li>Identification of NOx budget source, and each NOx budget unit at the source</li> <li>Complete contact information for the account representative or alternate</li> <li>List of owners and operators for the budget source and units</li> </ul> Completed certification statement		Ohio EPA - Division of Air Pollution Control PO Box 1049 Columbus, Ohio 43216-1049 Phone: 614.644.2270 <a href="http://www.epa.state.oh.us/dapc">www.epa.state.oh.us/dapc</a>

# Ohio Power Siting Process Flowchart



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# PJM Interconnection Feasibility Procedure and Costs

- A new generation resource or a new transmission facility to the PJM system must submit an Interconnection Request in the form of an executed Generation or Transmission Interconnection Feasibility Study Agreement (OATT at Part VI, Attachment N or Attachment S, respectively) and a study deposit
- A generation request shall include:
  - ❖ Location
  - ❖ Evidence of ownership
  - ❖ Size
  - ❖ Description of equipment
  - ❖ COD
- Generation Interconnection Feasibility Study Costs:

Month of New Services Queued	Non-refundable deposit	Cost per MW of Interconnection Request	Maximum deposit
1st	\$10,000	\$100	\$100,000
2nd	\$20,000	\$150	\$100,000
3rd	\$30,000	\$200	\$100,000

- The applicant is obligated to pay the actual costs of studies conducted by PJM on its behalf, and the non-refundable deposit is applied to those costs as work is completed.
- Any remaining non-refundable deposit monies will be credited toward the Interconnection Customer's cost responsibility for any other studies

# PJM Interconnection Procedure and Costs

Activity	Duration	Cumulative Duration	Costs
Feasibility Study Agreement to PJM	Requests received in 4 cycles per year ending on January 31, April 30, July 31, and October 31.	Up to 91 days	\$10,000- \$30,000 Deposit
PJM conducts Generation and/or Transmission Interconnection Feasibility Study in coordination with each affected ITO. Complete studies in 4 cycles per year (complete by April 30, July 31, October 31, and January 31)	Up to 92 day window	Up to 183 days	
IC determines response to the Generation and/or Transmission Interconnection Feasibility Study results.	Up to 30 days	Up to 213 days	
IC submits an executed System Impact Study Agreement (with proof of application for an air permit if required for a generator installation).			\$50,000 Deposit
PJM conducts the System Impact Study and completes the Study within 120 days. (Studies in 4 cycles per year June 1, September 1, December 1, and March 1)	Up to 120 days for study	Up to 333 days	
IC determines response to the System Impact Study results.	Up to 30 days	Up to 363 days	
IC submits an executed Generation and/or Transmission Interconnection Facility Study Agreement			\$100,000 Deposit or estimated cost
PJM conducts the Generation and/or Transmission Interconnection Facilities Studies	Based on estimate of time needed	Up to 363 days +time for Facilities Studies	
IC executes and returns tendered Interconnection Service Agreement or Upgrade Construction Service Agreement		Up to 558 days + Facilities Studies	

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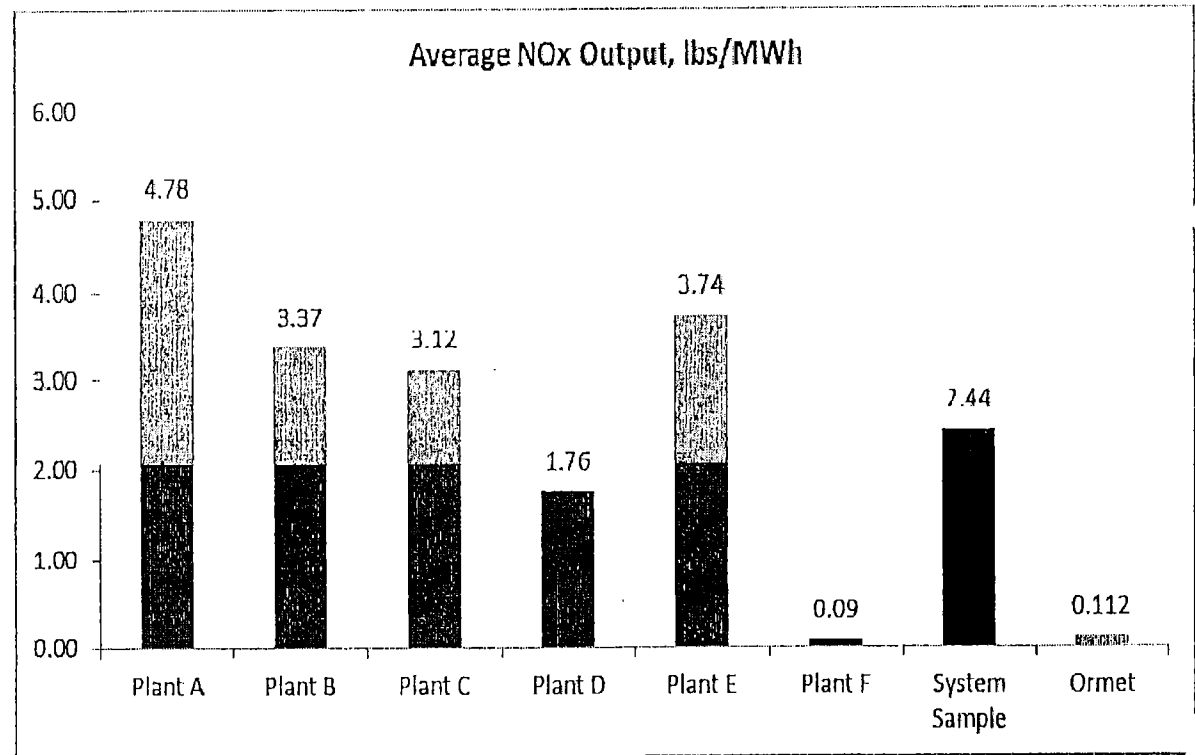
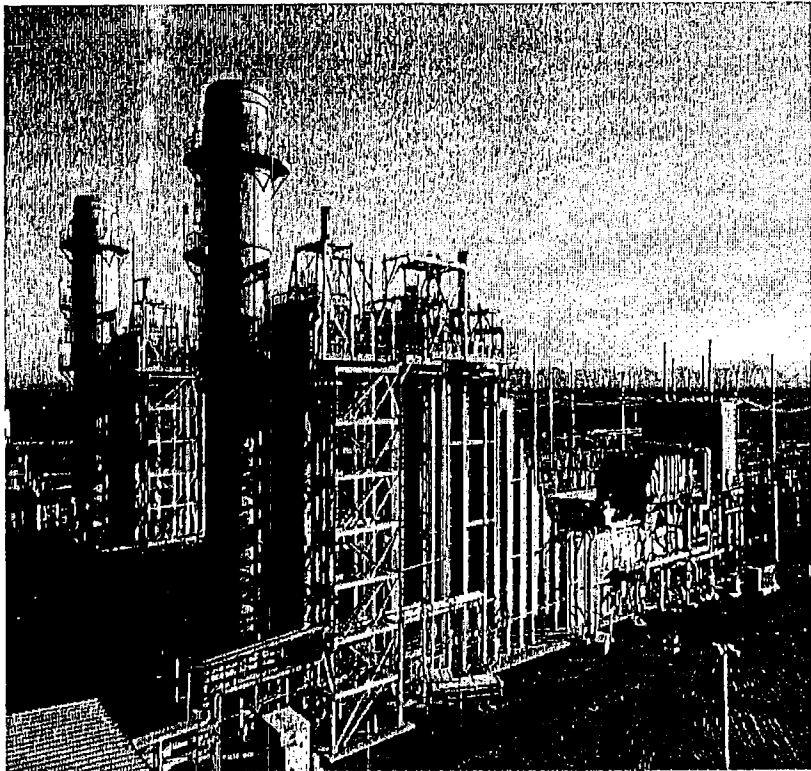
# Ohio Natural Gas Projects in the PJM Generation Queue

Queue	AQ	Queue Date	PJM Substation	MW	MWC	MWE	Status	Feas	Imp	Fac	ISA	CSA	St	In Service	Fuel
W1-072A_AT5		4/26/2010 12:00:00 AM	Lemoyne	640	40	40							OH	2011 Q2	
W3-128		10/29/2010 12:00:00 AM	Sporn-Waterford 345kV	652	652	652							OH	2016 Q2	
X3-051		9/27/2011 12:00:00 AM	Flatlick 765kV	1460	610	610							OH	2016 Q1	
Y1-035		3/8/2012 12:00:00 AM	Eastlake 138kV	462	462	462							OH	2016 Q2	
Y1-036		3/8/2012 12:00:00 AM	Eastlake 345kV	462	462	462							OH	2016 Q2	
Y1-069		4/27/2012 12:00:00 AM	Bay Shore-Fostoria Central 345kV	799	799	799							OH	2017 Q2	
Y2-050		8/15/2012 12:00:00 AM	Tidd-Canton Central	749	710	749							OH	2017 Q3	
Y2-053		8/15/2012 12:00:00 AM	Lemoyne 138kV	675	35	35							OH	2013 Q2	
Y2-085		10/30/2012 12:00:00 AM	Sammis-Star 345kV	1050	1050	1050							OH	2017 Q1	

MW - Maximum facility output after interconnection request  
MWC - Capacity interconnection request for the queue position (summer net)  
MWE - MW Energy for the interconnection request (winter net)

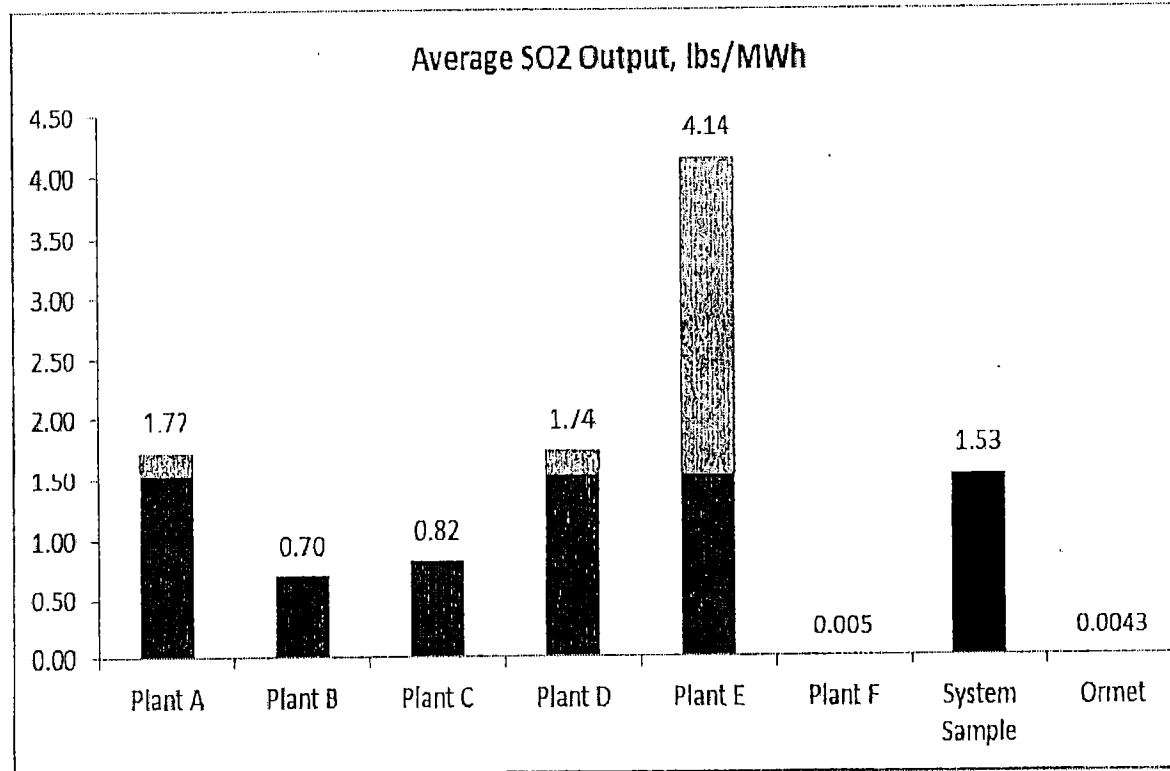
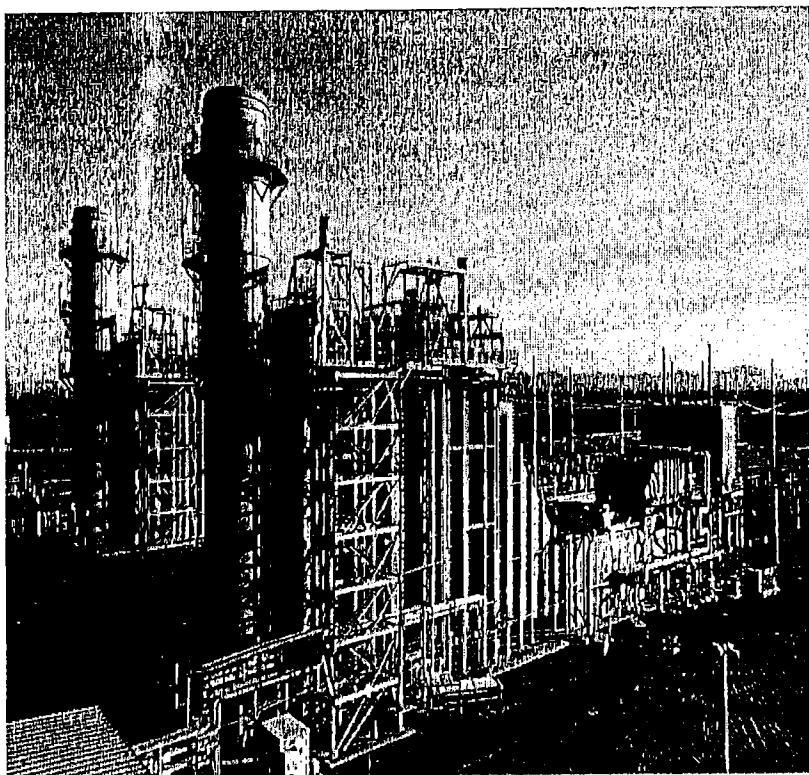


# Ormet GenCo Reduction in Emissions- NOx



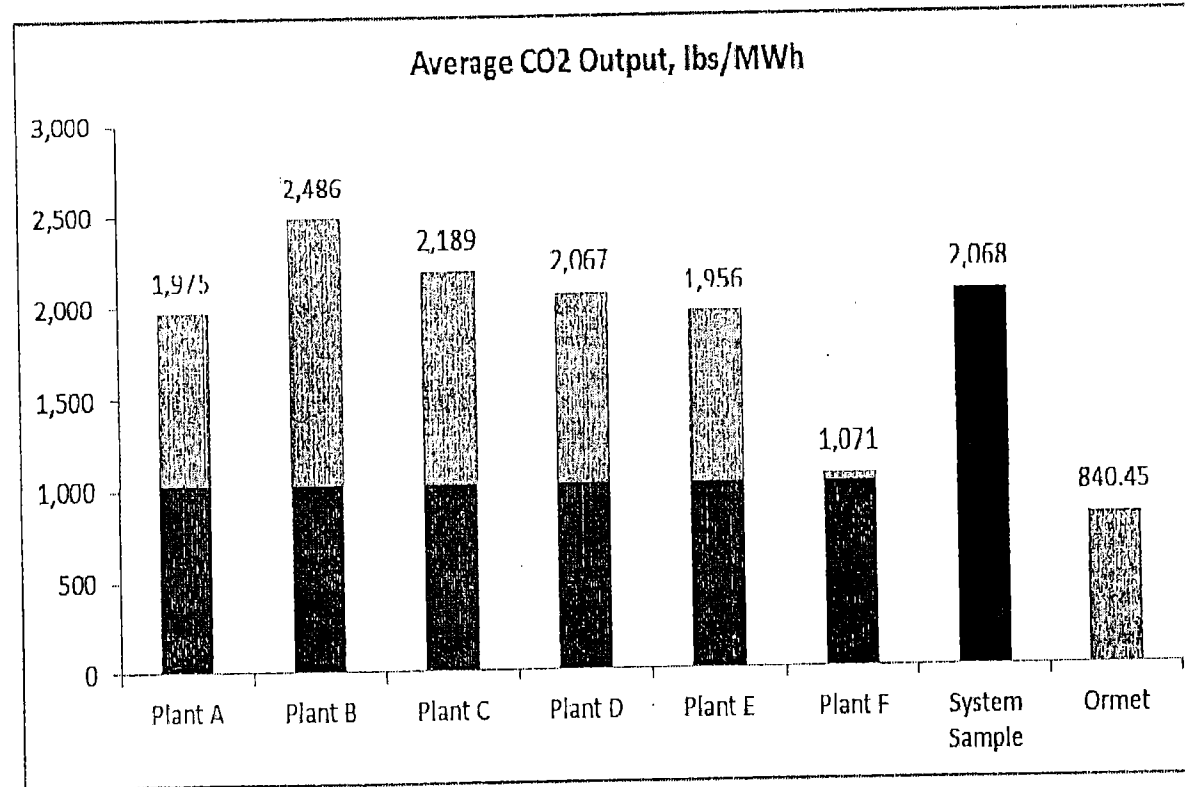
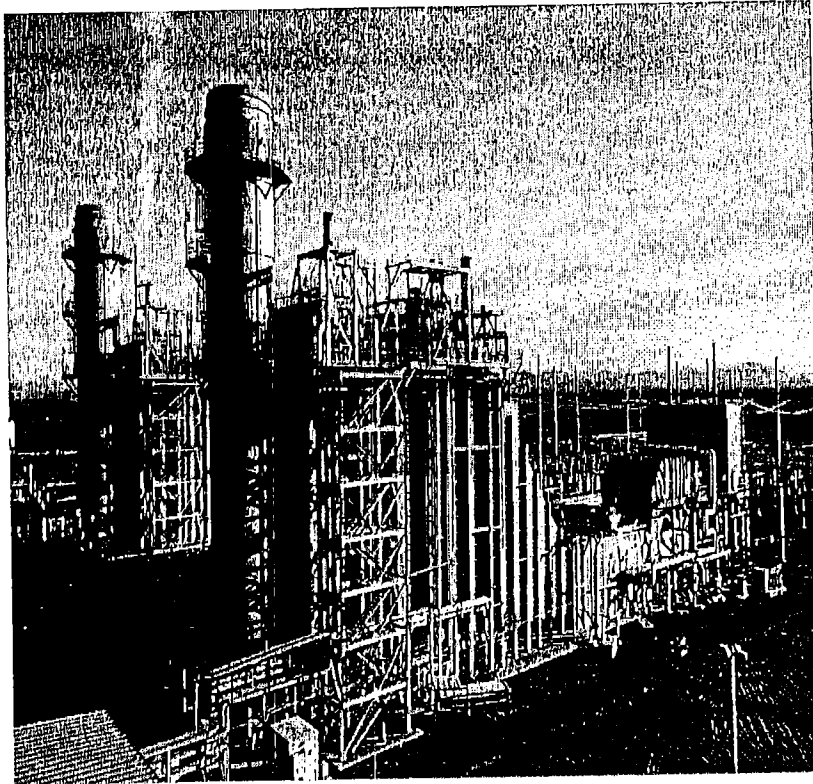
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# Ormet GenCo Reduction in Emissions – SO<sub>2</sub>



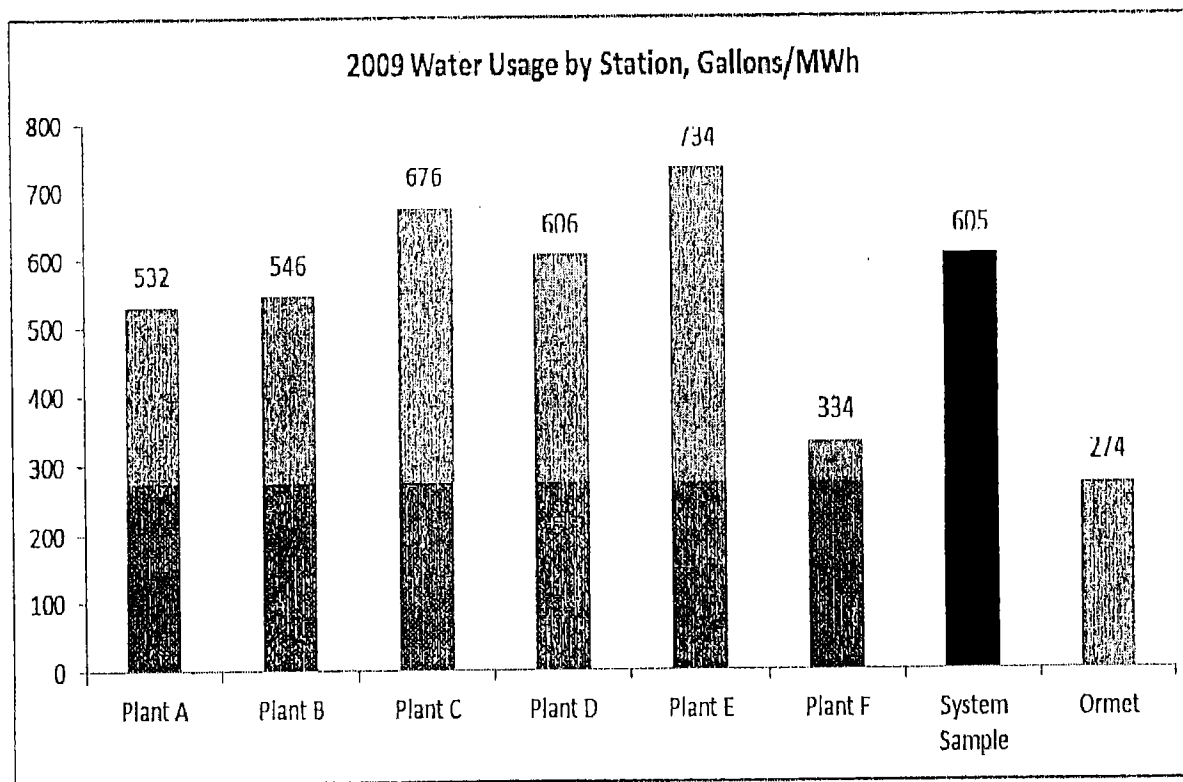
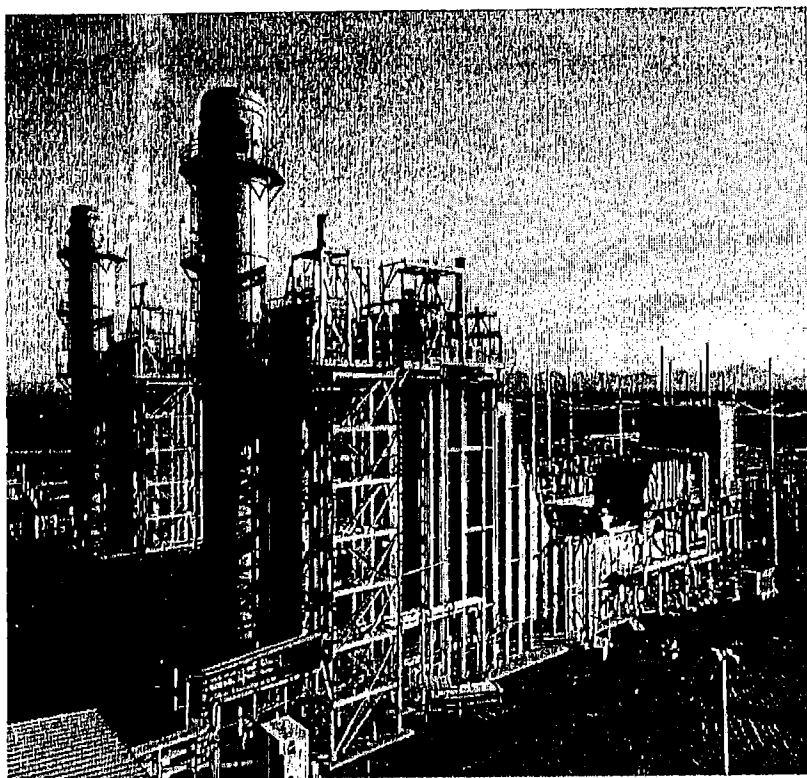
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# Ormet GenCo Reduction in Emissions – CO2

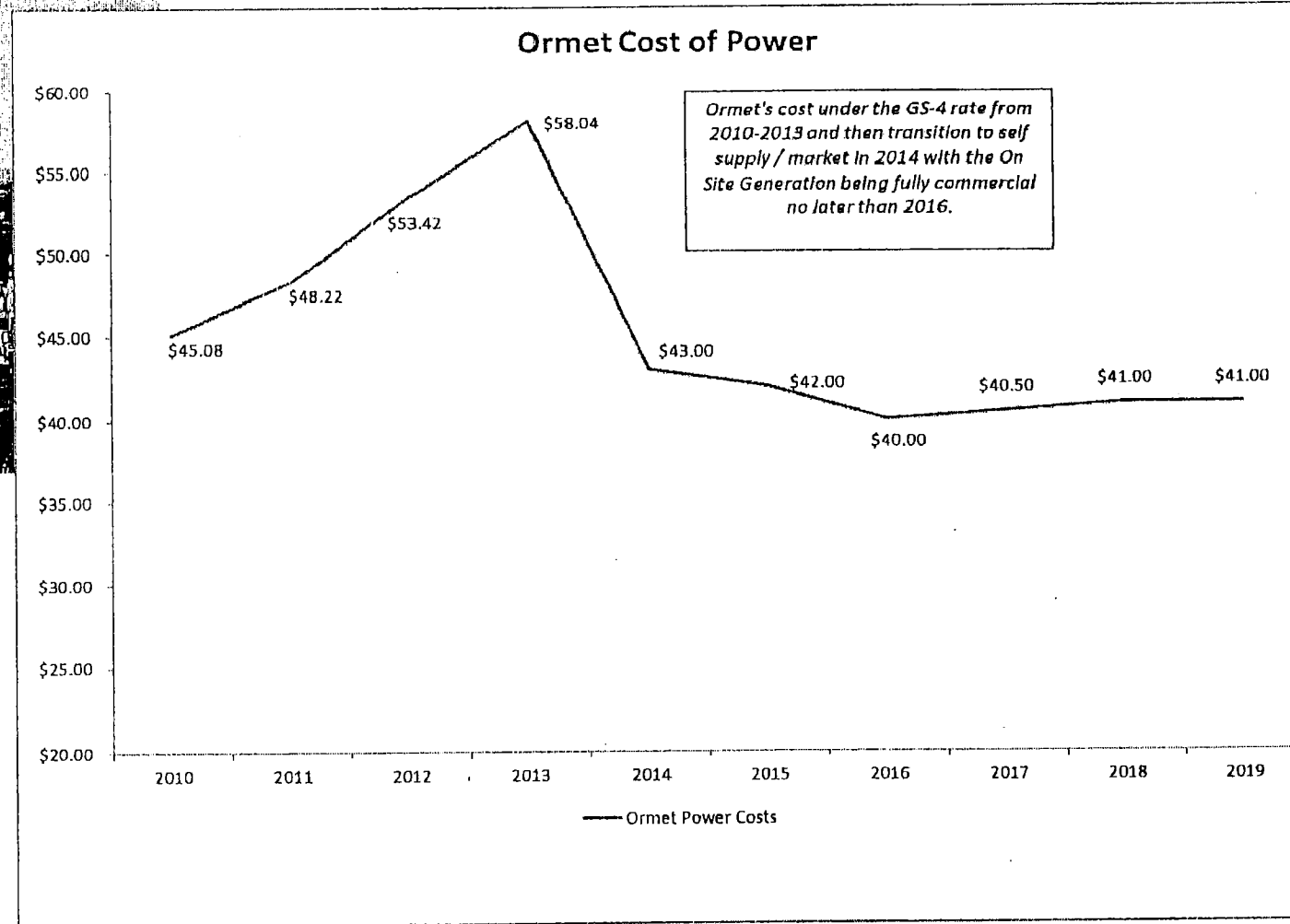
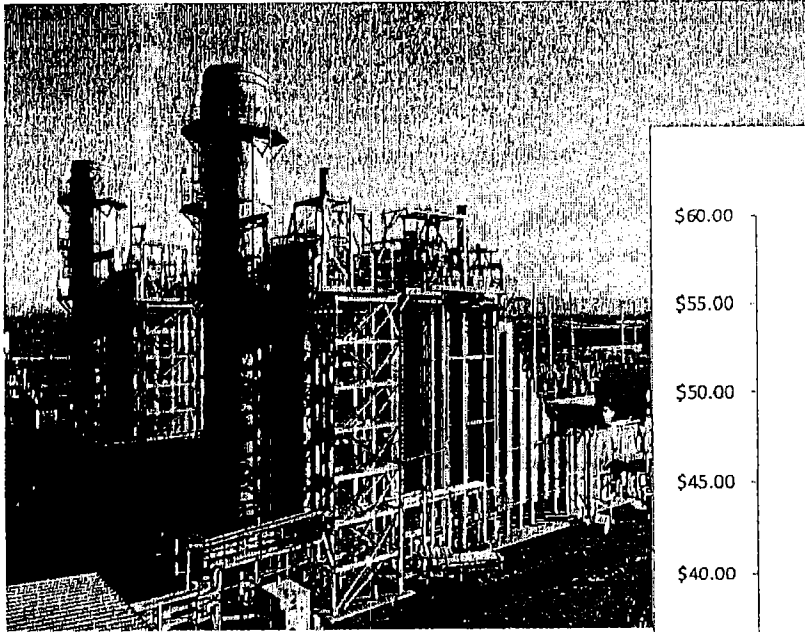


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# Ormet GenCo Reduction in Water Consumption



# Ormet GenCo All-In Power Costs



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**This foregoing document was electronically filed with the Public Utilities**

**Commission of Ohio Docketing Information System on**

**8/30/2013 5:29:02 PM**

**in**

**Case No(s). 09-0119-EL-AEC**

Summary: Response to Attorney Examiner Ruling electronically filed by Mrs. Gretchen L. Petrucci on behalf of Ormet Primary Aluminum Corporation