



Holland Energy Park

2015 Ottawa County Water Quality Forum

Ted Siler, Operations Director

November 13, 2015

Background

Community Energy Plan

- Initiated in 2010 to address long term (40 years) sustainability plan



Background

- CEP – High Level Goals
 - Competitive in our energy supply
 - Attractive to business
 - Protective of the environment
- Seven Strategies Being Vetted by Task Forces
 - Generation Supply is one

Current Baseload Generation

James De Young

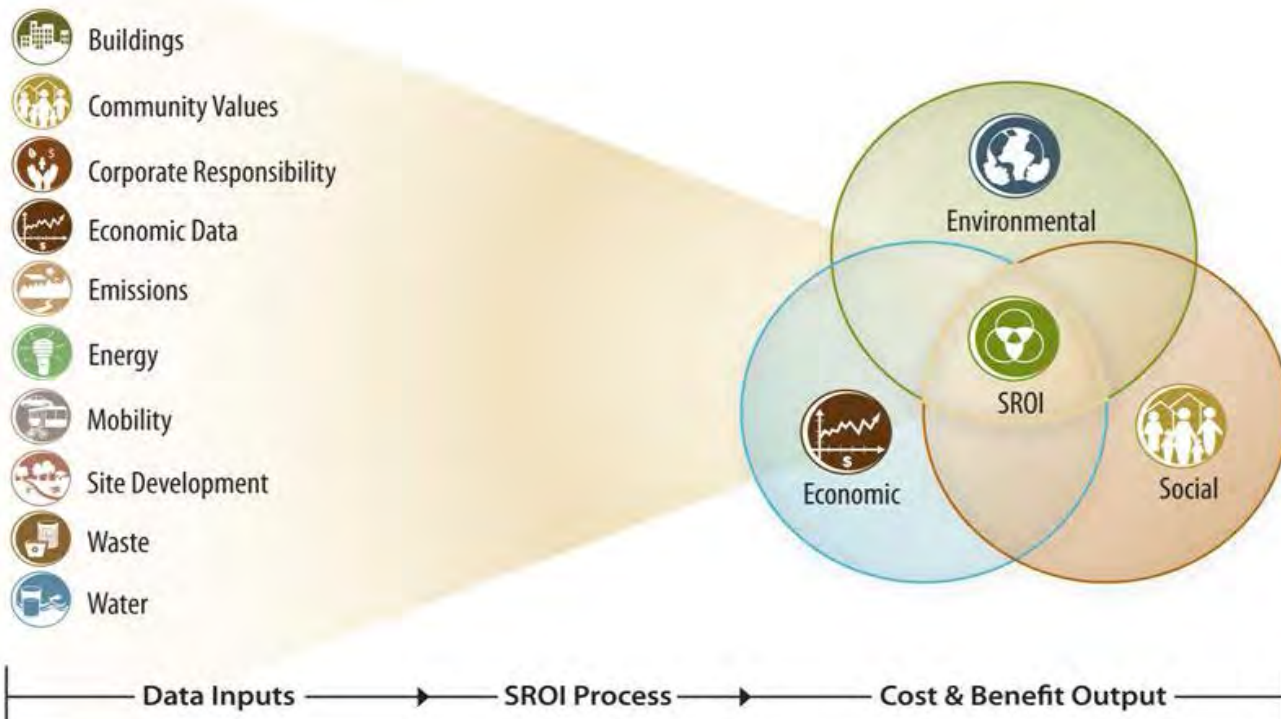
- Coal fired - 50-60 years old
- New regulations affect viability



Generation Evaluation

Sustainable Return on Investment

It's best practice in Cost-Benefit Analysis and Financial Analysis over a project's entire life-cycle, augmented by:



Holland Energy Park

Environmental Performance

- SO_x and Mercury – essentially zero
- CO_2 – 50% less than coal
- NO_x – Permit limit = 3ppm
- CO – Permit limit = 4 ppm
- Closed cycle cooling system – no Lake Macatawa water used for cooling
- Eliminate coal ash and associated processes (ash ponds, coal pile, landfill, etc.)
- 50% more efficient than current facility

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Site Selection (Build other than the waterfront)

- Eight sites reviewed in Holland / Holland Township
- Considerations included proximity to electric transmission lines, gas pipeline route availability, traffic impacts, neighborhood impacts, overall projected costs
- Selected a site North of 8th St. on Fairbanks behind Verhage Automotive.
- Originally a combined City of Holland and Holland Township location (PA 425 Process)

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Envision™

- Institute for Sustainable Infrastructure (ISI) rating system
- Similar to LEED but for infrastructure projects
- 60 Credits in 5 categories
 - Quality of Life – Purpose, Community, Wellbeing
 - Leadership – Collaboration, Management, Planning
 - Resource Allocation – Materials, Energy, Water
 - Natural World – Siting, Land & Water, Biodiversity
 - Climate and Risk – Emission, Resilience

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Site Preparation

- 1 industrial facility
- 8 commercial structures
- 27 homes
- 11.58 tons of asbestos waste
- Recycled:
 - Fluorescent lamps, ballasts and capacitors
 - 590 tons of scrap metal
 - 300 tires
- Reused:
 - Household appliances and hardware
 - Soil stored at the site
 - 25,000 cubic yards of crushed concrete



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Holland Board of Public Works
November 13, 2015



Holland Energy Park



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Resource. Destination. Gateway.



COMING 2017

OWNER:



Holland Board of Public Works

EPC CONTRACTOR:

**Barton
Malow**

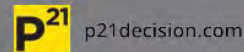
PROCESS ENGINEER:

ZACHRY

ARCHITECT/ENGINEER:

progressive|ae

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Questions?

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