TONIGHT'S AGENDA

Introductions
Summary of Existing Conditions
Overview of New England Energy Market
Development Challenges
Development Opportunities
Final Report
Public Comment
Closing Remarks
SUMMARY OF EXISTING CONDITIONS
DESIGNATED PORT AREA

- Designated Port Landside Area
- Turning Basin
- Federal Channel
- Designate Port Waterside Area
New England power markets were restructured in 1999 and wholesale competition was introduced.....
ISO – NEW ENGLAND

- ISO – NE is the Independent System Operator of New England

- A regional transmission organization (RTO) serving the six New England States

- An independent, not for profit organization
ISO - NE RESPONSIBILITIES

• RELIABILITY - minute to minute reliable operation of New England’s bulk electric power system

• MARKET ADMINISTRATION - development, oversight and fair administration of New England’s wholesale electricity marketplace

• PLANNING - establishing and monitoring a process to address New England’s electricity needs well into the future
ENERGY MARKETS

- ENERGY MARKET
- FORWARD CAPACITY MARKET
- ANCILLARY MARKET
RECENT DEVELOPMENTS

Salem Harbor Power Station

• FCA5 – Units 1 and 2 non-price retirement; no capacity obligations

Units 3 and 4 non-price retirement and Dominion refuses Cost of Service; no capacity obligations
CURRENT STATUS

- Salem Harbor Power Station will be shut down by June, 2014.
- ISO-NE establishes transmission upgrade cost estimate.
- ISO-NE establishes transmission upgrade schedule.
DEVELOPMENT CHALLENGES
## SITE CLEARING AND PREPARATION

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated Site Clean-up Cost</td>
<td>$20,000,000</td>
</tr>
<tr>
<td>Estimated Demolition Cost of Power Station Structures</td>
<td>TBD</td>
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</tbody>
</table>

*(final demolition budget to be determined after on site observation and detailed survey. Similar facilities typically contain significant amounts of asbestos and lead paint.)*

<table>
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<tr>
<th>Description</th>
<th>Cost</th>
</tr>
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<tbody>
<tr>
<td>Total Estimated Cost</td>
<td>TBD</td>
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CHAPTER 91 SUMMARY

Massachusetts General Law Chapter 91 (Public Waterfront Act)

- Ensure that “tidelands are utilized only for water-dependent uses” or “serve a proper public purpose which provides greater benefit than detriment”.

- Applies to tidelands which are defined by the historic high tide line (“the farthest landward tide line which existed prior to human alteration by filling, dredging, impoundment or other means”)

CHAPTER 91 WATER-DEPENDENT USES

- Marinas
- Facilities for fishing & water-based recreation
- Parks and boardwalks
- Aquariums & marine research, training & education
- Passenger transportation
  (ferries, taxis, shuttles, cruise ships)
- Waterway public safety & law enforcement
- Shore protection related structures
- Marine industrial facilities
11 Designated Port Areas in Massachusetts.

- Prevents development that excludes water-dependent industries

- Promote water-dependent (marine) industrial uses: infrastructure facilities dependent on marine transportation or large volumes of water for cooling, process or treatment

- Allowable Supporting Uses may occupy 25% of property
DPA WATER-DEPENDENT INDUSTRIAL USES

- Marine terminals for transfer/storage of goods transported by ship
- Facilities associated with commercial vessel operations
- Manufacturing facilities relying on goods shipped by water
- Commercial fishing & processing
- Boatyards, dry docks (construction, maintenance, service & repair)
- Industrial & infrastructure facilities dependent on water
- Promote water-dependent (marine) industrial uses
**DPA SUPPORTING & EXCLUDED USES**

**SUPPORTING USES**
- Shops operated by self-employed tradespersons
- Eating and drinking establishments
- Storefront retail & service facilities
- Small scale administrative offices

**EXCLUDED USES**
- Residential
- Hotels & motels
- Recreational boat facilities
- Large sport complexes
DESIGNATED PORT AREA (DPA)

PROCESS FOR AMENDING DPA DESIGNATION

Precedent - Gloucester

Changes initiated through Gloucester’s Municipal Harbor Plan

2009 Gloucester Municipal Harbor Plan achieved more flexibility within DPA - increased % of supporting uses.

Approval of - Energy and Environmental Affairs (EOEEA)
- Mass. Dept of Environmental Protection (DEP)
- Coastal Zone Management (CZM)
• **Existing Zoning Ordinance**
  Currently Zoned Industrial Plan Unit Development

• **Derby Street Local Historic District**
AREA ZONING CONTEXT

- Residential Conservation (RC)
- Residential One Family (R1)
- Residential Two Family (R2)
- Residential Multi-Family (R3)
- Business - Neighborhood (B1)
- Central Development (B5)
- Industrial (I)
DEVELOPMENT OPPORTUNITIES
REDEVELOPMENT PRECEDENTS

• ALTERNATIVE POWER
  Bartow Power Plant, St. Petersburg, Florida
  Fore River Station, Weymouth, Massachusetts
  Mystic Station, Everett, Massachusetts

• RENOVATION AND CHANGE OF USE
  The Power Plant, Baltimore, Maryland
  Seaholm Power Plant, Austin, Texas

• DEMOLITION AND REDEVELOPMENT
  Edgewater, Webster, Texas
REDEVELOPMENT PRECEDENTS

The Power Plant, Baltimore Maryland
UNDERSTANDING SCALE
62 ACRE INDUSTRIAL SITE ON SALEM’S WATERFRONT
UNDERSTANDING SCALE
53 ACRES OF DEVELOPMENT

EASEMENTS +
50 FT BUFFER
UNDERSTANDING SCALE
SITE VS. SALEM COMMON

SALEM COMMON
9 ACRES

DEVELOPMENT SITE
53 ACRES

NEW SITE COULD FIT OVER 5 SALEM COMMONS
UNDERSTANDING SCALE
SITE VS. TWO SALEM NEIGHBORHOODS

CBD
52 ACRES

DEVELOPMENT SITE
53 ACRES

DERBY ST NEIGHBORHOOD
52 ACRES
LAND USE OPTIONS

- Marine Industrial (port-related, cruise terminal, supporting retail)
- Alternative Energy (wind, solar, natural gas)
- Higher education / research
- Park / open space
- Tourism (resort, hotel)
- Commercial / Office / Retail
- Residential (single family, multi-family, townhouses, condos, apartments)
SITE DEVELOPED AS A NEW MIXED-USE "DOWNTOWN" WOULD REQUIRE 54 YEARS FOR THE MARKET TO ABSORB

LAND USE OPTIONS
1,900,000 SQUARE FEET OF NEW COMMERCIAL/OFFICE DEVELOPMENT

1,900,000 SF

DEVELOPMENT SITE
53 ACRES

CBD

WEBB ST

SALEM COMMON

Salem

BRIDGE ST

FORT AVE

WASHINGTON ST

NORTH ST

ESSEX ST

Washinton

DEVELOPMENT SITE
53 AC RES

SITE DEVELOPED AS A NEW MIXED-USE "DOWNTOWN" WOULD REQUIRE 54 YEARS FOR THE MARKET TO ABSORB
LAND USE OPTIONS
900 NEW HOMES (SMALL-SCALE RESIDENTIAL)

A NEW NEIGHBORHOOD THE SIZE OF DERBY STREET NEIGHBORHOOD WOULD TAKE 34 YEARS FOR THE MARKET TO ABSORB
LAND USE OPTIONS

MARINE USES

- Uses to support Blaney Street terminal
- Include up to 100 parking spots
- Ferry and cruise supporting retail
- Boat repair and storage

Hingham marina. Source: BoatingLocal.com

MARINE USES
5 ACRES

DEVELOPMENT SITE
53 ACRES
LAND USE OPTIONS
A WIND POWER PLANT ON THE SITE COULD GENERATE UP TO 10 MW OF ENERGY

- 300-foot spacing for 2MW towers
- Height range: 200-300 feet
- Local noise impacts within 0.6 miles
- Site suitability and impact analysis required
- 1MW of wind power could supply electricity to 240-300 homes per year*

ON-SITE WIND ENERGY GENERATION

* source: American Wind Energy Association

2 MW turbine in Lewes, Delaware (Source: Flickr user J3[Photo])

Up to 10 MW (pending site analysis)

EXISTING

745 MW
LAND USE OPTIONS

A SOLAR ENERGY PLANT ON THE SITE COULD GENERATE APPROXIMATELY 11 MW OF ENERGY

WMEC’s South Lake solar facility in Pittsfield, MA (Source: American Capital Energy)

ON-SITE SOLAR ENERGY GENERATION

53 ACRES

DEVELOPMENT SITE

53 ACRES
LAND USE OPTIONS
AS A NATURAL GAS POWER PLANT, THE SITE COULD GENERATE UP TO 750 MW OF ENERGY

Fore River Station, Weymouth, MA (Source: Patriot Ledger)

ON-SITE NATURAL GAS ENERGY GENERATION
10 ACRES

EXISTING
745 MW

DEVELOPMENT SITE
53 ACRES

NATURAL GAS
750 MW
LAND USE OPTIONS
SCENARIO: MARINE USES AND NATURAL GAS POWER GENERATION

CHAPTER 91
38 ACRES REMAIN
MARINE USES TO COMPLEMENT BLANEY STREET TERMINAL
LAND USE OPTIONS
SCENARIO: MARINE USES, NATURAL GAS POWER GENERATION, AND SESD EXPANSION

MARINE USES TO COMPLEMENT BLANEY STREET TERMINAL

33 ACRES REMAIN

MARINE USES TO COMPLEMENT BLANEY STREET TERMINAL
LAND USE OPTIONS
MULTI-FAMILY APARTMENT BUILDINGS

JEFFERSON APARTMENTS
SALEM, MA
15 ACRES,
266 UNITS

Source: Jefferson at Salem Station

33-38 ACRES REMAIN
LAND USE OPTIONS
RESORT HOTEL

WENTWORTH BY THE SEA RESORT
NEW CASTLE, NH
12 ACRES, 161 ROOMS

33-38 ACRES REMAIN
LAND USE OPTIONS
HIGHER EDUCATION/ RESEARCH

WOODS HOLE
OCEANOGRAPHIC INSTITUTE
FALMOUTH, MA
62 ACRES

33-38 AC RES
REMAIN
Tax Revenue and Land Use
# Revenue by Use

<table>
<thead>
<tr>
<th>Use</th>
<th>Revenue</th>
<th>Land Area</th>
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<tbody>
<tr>
<td>Existing Site</td>
<td>$4.75M</td>
<td>53 AC</td>
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<tr>
<td>Commercial/Office/Marine</td>
<td>$4.1M</td>
<td>53 AC 1.9M</td>
</tr>
<tr>
<td>Small Scale Residential</td>
<td>$4.25M</td>
<td>53 AC 1,050 DU</td>
</tr>
<tr>
<td>Apartments</td>
<td>$4.75M</td>
<td>44 AC 1,307 DU</td>
</tr>
<tr>
<td>Higher Education/Research</td>
<td>$600K</td>
<td>12 AC</td>
</tr>
<tr>
<td>Resort</td>
<td>$4.75M</td>
<td>53 AC</td>
</tr>
</tbody>
</table>
Site Uses and Impacts
Cost considerations and other potential impacts:

- Residential service costs
- Public safety
- Fire / rescue
- Public buildings (e.g. libraries)
- Parks and recreation

- Additional school spending
- Average annual residential property tax bill is between $4,000 and $5,000
- Annual school spending per pupil is approximately $13,000

- Compatibility of residential use with adjacent land uses
- Potential expansion of SESD wastewater treatment facility
- Potential on-site alternative energy generation
- Marine industrial uses
Cost considerations and other potential impacts:

- **Site infrastructure**
  - Water and sewer demands for new development may exceed available capacity

- **Traffic and roadway improvements**
  - 1,000 new units of housing would increase the existing traffic on Derby Street by three times
  - Office and retail uses could further increase traffic impacts

- **Site remediation**
  - Different types of land uses require different levels of environmental remediation
  - Residential uses demand the highest level of site cleanup
FINAL REPORT

BACKGROUND/ ANALYSIS

History
New England Energy Market
Cost for Demolition/ Clean up
Market Analysis/ Potential Uses
Development Precedents

DEVELOPMENT OPTIONS
Public Comment
**Ground Rules for Public Comment**

- **Identify yourself** - state your name and address
- **Be brief** - be clear and quick - no speeches
- **Respect others' contributions** - no debates
- **Avoid repetition** - no piling on
- **Let others speak** - no hogging the floor
- **Speak in turn** - raise your hand to attract a microphone
- **Use the index cards to comment**
QUESTION 1

What are your priorities for redevelopment of the Salem Harbor Power Station site?

Please rank each item below in order of priority with #1 representing your highest priority.

- Generating significant tax revenue to the City
- Clearing the site and remediating soil contamination
- Minimizing impacts from traffic or noise on the nearby residential neighborhoods
- Providing waterfront access for the public
- Other
QUESTION 2

What use would you like to see?

Please rank each use below in order of preference with #1 representing your strongest preference.

- Highest market value
- Tourism-related activity
- Natural gas power generation facility
- Renewable energy related
- An expanded port
- Marine facility
- An activity that will generate many jobs
- Residential
- Commercial
- Open space
- Other