Business/Finance Committee Meeting  
Monday, February 2, 2009  
5:30 p.m.

**AGENDA**

<table>
<thead>
<tr>
<th><strong>TOPIC</strong></th>
<th><strong>TIME/PRESENTER(S)</strong></th>
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</thead>
</table>
| I. Pittsburgh Green Innovators/ Connelley | (40 Minutes)  
Urban Redevelopment Authority |
| II. Bellefield Boiler Plant | (20 Minutes)  
Joseph W. Fink  
Associate Vice Chancellor  
Facilities Management  
University of Pittsburgh |
| III. Feasibility Study Timeline | (10 Minutes)  
Chris Berdnik  
Vidya Patil |
Pittsburgh Green Innovators

ENVIRONMENTAL LIVING, LEARNING AND EARNING COLLABORATIVE

JANUARY 13, 2009
CHANGE - Yes We Can ... An Obama Administration is poised to move from Energy Politics to a true Energy Policy.

The U.S. had tallied more than 750,000 green jobs in 2006

Shifting political landscape will put greater emphasis on the Green Economy

4.2 million new jobs in the US by 2038\(^1\)

- 1.23 million in renewable electricity production
- 1.5 million in alternative transportation fuels
- 1.4 million in engineering, legal, research and consulting
- 81,000 in commercial and residential retrofits

Green Energy should create 20 million jobs worldwide by 2030\(^2\)

\(^1\)U.S. Conference of Mayors and Global Insight, 2008
\(^2\)Reuters, September 24, 2008
Green economy is projected to account for roughly 10% of new jobs over the next 20 years. 

Forbes.com ranks Pittsburgh as the #10 Hottest Green Job Market in the U.S.

WILL WE SEIZE THE OPPORTUNITY FOR OUR REGION?

1 U.S. Conference of Mayors and Global Insight, 2008
• Pittsburgh is #3 among U.S. cities by green buildings and space
• Diversified Green-oriented Workforce
• Green Technology Network
• Expertise in Brownfield Redevelopment
• Solar Cities funding and Solar companies
• Re-discovering our riverfronts
• Sustainability Coordinators
• Green Government Task Force
• Biodiesel / alternative fuels initiatives
• Keystone Innovation Zones / R&D
• Urban Forestry/Landscape Architecture/TreeVitalize
• Pittsburgh hosts the National Green Jobs Conference
• 500+ companies in region producing green products
25 Stakeholders attended Kickoff Dinner meeting
February 2008

International Union of Operating Engineers Local 95
  Bill Cagney
Penn State Extension and Metro Outreach Center
  Deno DeCiantis
Pittsburgh Gateways entrepreneurial incubators
  Bob Meeder; Doug Skowron
Mascaro Center for Sustainability Innovation
  Eric Beckman; Gena Kovalcik
CMU Center for Building Performance and Diagnostics in the
  School of Architecture
  Steve Lee

LEVERAGING LOCAL TALENT INTO A POWERFUL COLLABORATION
Pittsburgh will lead SW Pennsylvania achieving a clean, green, vibrant, innovative and productive economy, fortifying its place as a global leader in sustainability.

With the Pittsburgh Green Innovators as a catalyst, our Region will become the center with the tools and talents needed to meet the challenges of achieving a more sustainable economy by combining the best of our legendary work ethic and skilled labor, along with our emerging strengths in higher education and revolutionary technologies.
Create the megaplex that allows stakeholder collaboration, helping SW PA to maximize the opportunity to strengthen the economy through green jobs.

MISSION
Applying sustainability principles, leverage the intellectual, financial, labor and community resources and the governmental leadership of our City and our Region to:

Waste not…want not … lead by example

Develop a trained green collar workforce

Educate and engage the community

Create K-12 learning experiences

Promote and showcase new technologies

Build and convert businesses

Become financially sustainable

GOALS
PGI Project Team
Bill Cagney, International Union of Operating Engineers
Local 95
Deno DeCiantis, Penn State Center
Doug Skowron & Bob Meeder, Pittsburgh Gateways
Bernie Lynch, Fundraising & Business Partnerships
(partial listing)

Mascaro Design Build Team
Jack Mascaro, Mascaro Construction
Dennis Astorino, DL Astorino Horizon Architects
Alan Traugott/John Wilhelm, CJL Engineering
Dina Klavon, Klavon Design
Public and Private Sector Engaged
[ partnerships created ]

Narrowed site selection to two finalists
[ 20 city sites evaluated ]

WHERE WE ARE
Workforce Development

Advocacy

Community Resource

Business Development/Incubator

Tech Transfer and Product Demonstration

“STEM” Support (Science/Tech/Engineering/Math)

Research and Development

HOW IT WILL WORK
Former Connelley Trade School

Engagement of the Design-Build Team

Funding

THE SITE
CONNELLEY SITE

CONNELLEY SITE
270,000 SF

LETSCHE SCHOOL
60,000 SF

RESIDENTIAL UNITS

EXISTING PARKING
Pittsburgh is poised to be an important center in the Green Economy. We need your support to make it happen.

LUKE RAVENSTAHL
Mayor

DAN ONORATO
County Executive

MIKE DOYLE
US Congressman

JIM FERLO
State Senator
Proposed Transfer of Steam Supply from Bellefield Boiler Plant to Carrillo Street Steam Plant

Presentation to:
School District of Pittsburgh
Business and Finance Committee
February 2, 2009
Transfer of Steam Supply from Bellefield Boiler Plant to Carrillo Street Steam Plant

- Bellefield Boiler Plant Status
- Carrillo Street Steam Plant (CSSP)
- Steam/Condensate Distribution System
- Work Requested within Frick International Studies Academy
- Financial Considerations
Bellefield Boiler Plant Status

• Age and status of Boilers
  – Boiler 1  51 years, Coal and Gas
  – Boiler 3  31 years, Coal and Gas
  – Boiler 5  43 years, Coal and Gas
  – Boiler 6  35 years, Gas
  – Boiler 7  15 years, Gas
  – Boiler 8A Temporary Gas Boiler
Bellefield Boiler Plant Status

• The BBP has committed to cease burning coal by July 1, 2009. When this occurs, the capacity of the plant will be reduced.
• Current Plant Firm Export Capacity (Coal and Gas, including 70 Mlb/hr temporary boiler) - 565 Mlb/hr.
• Plant Firm Export Capacity after conversion to all gas (including 70 Mlb/hr temporary boiler) - 479 Mlb/hr.
Bellefield Boiler Plant Status

• January 2009 System Peak (BBP & CSSP) - 550 Mlb/hr.
• Had the CSSP not been operating during this peak, the BBP may not have been able to meet the demand.
• Under this scenario, the plant has no redundancy.
• After converting to all gas, the BBP will not have sufficient capacity to meet peak demand.
# Bellefield Boiler Plant Status

- **Plant Ownership Percentages:**

<table>
<thead>
<tr>
<th>Owner</th>
<th>Current BBP Ownership % (Per Operating Agreement)</th>
<th>Estimated Future BBP Ownership % (Post Pitt/UPMC Exit)</th>
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</thead>
<tbody>
<tr>
<td>Carnegie Library</td>
<td>2.42%</td>
<td>3.86%</td>
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<tr>
<td>Carnegie Institute</td>
<td>5.66%</td>
<td>17.57%</td>
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<tr>
<td>Carnegie Mellon</td>
<td>15.22%</td>
<td>73.07%</td>
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<tr>
<td>Phipps Conservatory</td>
<td>1.76%</td>
<td>3.36%</td>
</tr>
<tr>
<td>School Dist. of Pittsburgh</td>
<td>1.43%</td>
<td>2.14%</td>
</tr>
<tr>
<td>University of Pittsburgh</td>
<td>45.60%</td>
<td>0%</td>
</tr>
<tr>
<td>UPMC</td>
<td>27.90%</td>
<td>0%</td>
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</tbody>
</table>
Carrillo Street Steam Plant

• What is the CSSP?
  – State-of-the-art plant with total capacity of 600,000 lb/hr
  – Six 100,000 lb/hr boilers equipped with ultra-low-NOx burners designed to emit less than 9 parts per million NOx.
  – Currently in final commissioning phase with operation expected to begin in fall, 2009.
What is the CSSP?

- Expected to reduce Pitt/UPMC steam-related greenhouse gas emissions by 46% when production is transferred from the BBP.
- To Pitt’s knowledge, the CSSP is the only university plant in the nation to be permitted at these ultra-low NOx limits.
Carrillo Street Steam Plant

• Why Was the Plant Constructed?
  – The University and UPMC foresaw the future limitations to the BBP’s capacity.
  – The BBP had no plans for expansion of the plant to meet future needs.
  – Concerns about the ability of the BBP to meet future environmental requirements.
  – Desire to improve environmental stewardship.
Steam/Condensate Distribution System

• The condensate return system is being redesigned to return condensate to the CSSP (condensate currently flows via gravity back to BBP).

• Much of the distribution system has been replaced or upgraded by Pitt/UPMC and/or the Commonwealth and is in excellent condition.
Steam/Condensate Distribution System

• The South Loop project design includes an interconnection within the BBP to allow either plant to provide future back-up service.

• Steam line maintenance is performed and managed by Pitt FM personnel. This arrangement will continue with CSSP operation.

• The University and UPMC do not yet have an approved exit agreement from the BBP.
Work Requested within Frick International Studies Academy

• Installation of a new 7,500 gallon condensate storage tank in the former coal storage room
• Installation of three 60 HP condensate pumps
• Installation of electrical service required for the pumps (electric service to be provided by the University)
Work Requested within Frick International Studies Academy

• Connection to two 8” pumped condensate lines in pre-insulated underground conduit (lines will run under parking lot and through existing vault.)

• Demolition of certain masonry walls within the storage area.

• Installation of steel support beams.
Area of Work

- Remove existing brick encased storage shed in its entirety.
- New condensate storage tank and condensate pumps.
- New 8" PC (two lines) approx. 4'-0" below grade in pre-insulated conduit.
- Exist 4" HPS and 1 1/2" PC in direct buried piping.
- New 8" PC from existing 2" HPR.
Work Requested within Frick International Studies Academy

• University will provide normal/emergency power for all equipment.
• Operational access will be through manhole – no building access required for normal operations.
• Building access will be required during construction phase.
Financial Considerations

- Total Cost, Plant and Distribution System Construction Projects: $45,994,558
- Project Cost Allocation
  - Pitt (77.06%) $35,430,317
  - UPMC (21.63%) $9,948,623
  - BOE (1.31%) $615,618
- BOE Consideration for License ($100,000)
- BOE Cost per year, 2010-2013 $128,904
- Estimated Steam Rate/MIlb $15.45
Carrillo Street Steam Plant

“The era of one central steam plant for Oakland is ending, but the air quality will be benefiting from really clean natural gas fired boilers......The Allegheny County Health Department commends the University for its new installation.”

Eco-Currents Newsletter
Allegheny County Health Dept.
July-November, 2007
The table below lists the dates and activities associated with development of School District of Pittsburgh’s Long-Term Facilities Needs and Utilization Planning Process. This is a draft for discussion purposes only. Exact dates will be determined after the contract is fully executed and the DeJONG/Kimball Team conducts meetings with individual Board of Public Education members and facilitates the Plan for Planning Meeting.

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
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<tbody>
<tr>
<td>February 2009</td>
<td><strong>Meet with the Board of Public Education members individually</strong></td>
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<tr>
<td>February 2009</td>
<td><strong>Plan for Planning Meeting</strong></td>
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<tr>
<td>February 2009</td>
<td>Steering Committee Formation and Meeting #1</td>
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<tr>
<td>February 2009</td>
<td>Data Collection and Review of District Reports</td>
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<tr>
<td>February 2009</td>
<td>Facility Review/Assessments Begin</td>
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<tr>
<td>February 2009</td>
<td>GIS, Enrollment Projections, Capacity Study</td>
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<tr>
<td>March 2009</td>
<td>Steering Committee Meeting #2</td>
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<tr>
<td>March 2009</td>
<td>City-Wide Community Dialogue #1</td>
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<tr>
<td>March 2009</td>
<td>Steering Committee Meeting #3</td>
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<tr>
<td>March/April 2009</td>
<td>Facility Review/Assessments Ends</td>
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<tr>
<td>March/April 2009</td>
<td>Develop Facility Options</td>
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<tr>
<td>April 2009</td>
<td>Steering Committee Meeting #4</td>
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<tr>
<td>April 2009</td>
<td>Four Area Community Dialogues #2</td>
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<tr>
<td>April 2009</td>
<td>Steering Committee Meeting #5</td>
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<tr>
<td>May 2009</td>
<td>Develop Plan</td>
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<td>May 2009</td>
<td>Steering Committee Meeting #6</td>
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<tr>
<td>June 2009</td>
<td>Board of Education Work Session</td>
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<td>July 2009</td>
<td>Final Plan</td>
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