

PCC Renovations

**Building Addition for New Data Center,
Control Room Upgrades and Newly
Refurbished Office space**

Prepared for:

Budget & Priorities Working Group
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Draft – For Discussion Only

PCC Current Status

- ◆ Completed in 1969 as the NY Power Pool Control Center
- ◆ Electric heat throughout
- ◆ 30 year old infrastructure (HVAC, electrical, emergency generators, mechanical systems)
- ◆ 30 year old Control Room
- ◆ Data center at maximum capacity
- ◆ Overcrowded office space
- ◆ Asbestos in basement and first floor areas

PCC Past and Current Initiatives

- ◆ Security and site enhancements completed in 2005
- ◆ Data Center UPS and HVAC upgrades completed in 2005
- ◆ Fire alarm system phase I upgrades completed in 2007
- ◆ Fire alarm system phase II upgrades to be completed in 2008
- ◆ 2nd floor interior finish upgrades to be completed in 2008
- ◆ Lighting upgrades completed in 2008
- ◆ Main chiller plant upgrades completed in 2008
- ◆ Gas heat and energy efficiency improvements to be completed in 2008
- ◆ Phase I design for Control Center modernization to be complete in 2008
- ◆ West wing temporary offices to be removed in the fourth quarter of 2008 (Guilderland City Planning Approval expires 2009)
- ◆ New Addition Data Center design and existing building office space design to be completed in the first quarter of 2009

PCC – “State of the Art” Renovations

New Data Center Addition



**Accessible equipment racks
with overhead cable trays**



New Control Room



New Digital Screen



PCC Addition & Renovations

Benefits

- ◆ New Data Center
 - Sized to match Alternate Data Center (6500 sq ft)
 - New facility will support high availability and more robust disaster recovery
 - New facility will include staging capacity for new equipment and provide space for data storage expansion
- ◆ New Control Room
 - Control Room upgraded with “State of the Art” Network Board, computerized equipment and furniture
 - Existing workstations for staff other than Operations Center relocated to another part of the building for security (*current space limitations do not allow relocation of these workstations*)
- ◆ Building Infrastructure Upgraded as part of Addition & Renovation
- ◆ New Office Space
 - New and Existing Office Space upgraded similar to KCC Standards (*Current furniture is aging and space is crowded*)
 - Includes space for Simulator Room, Training Rooms, Seryery with seating & 60 seats for Corporate Continuity (*Current space limitations prohibit this*)
 - Provides 31+ new seats at KCC, based on above relocations

PCC Addition & Renovations

Costs

- ◆ New Data Center
 - \$11-14 Million
 - Includes Data Center portion of New Addition construction, infrastructure upgrades associated with New Data Center and IT migration costs
- ◆ Control Room Renovations
 - \$4-6 Million
 - Includes construction renovations, infrastructure upgrades associated with Control Room renovations, new 13 ft x 52 ft digital screen and 7 new consoles
- ◆ New and Renovated Office Space
 - \$4-6 Million
 - Includes office portion of New Addition construction, renovation of existing office & old Data Center into new office space
- ◆ NERC CIP Requirements
 - \$1-2 Million
 - Includes construction costs associated with 60 seats for Corporate Continuity, relocation of non essential staff seated in Control Room and sealing Control Room openings above the ceiling & below the raised floor
- ◆ Total Costs
 - \$21- 28 million dollars
 - Includes design services, planning board approval, building permits, construction management, construction, and commissioning
 - NYISO will pursue long-term financing options with expectation of securing such financing by mid-2009 (2009-2011 budgets would contain interest only; principal repayment to begin in 2012)

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Cost Comparisons

- ◆ NYISO
 - \$21 - \$28 million
 - Includes new Data Center, Control Room renovations, new and renovated office space and NERC CIP requirements. Includes migration costs
- ◆ ISO-NE
 - \$32 million
 - Includes construction costs for a new combined Data and Control Center up to migrating hardware and software (in operation)
- ◆ PJM
 - \$33 million
 - Includes construction costs for a new combined Data and Control Center up to migrating hardware and software (just completed)
- ◆ ERCOT
 - \$42 - \$47 million
 - Includes construction costs for a new combined Data and Control Center up to migrating hardware and software (proposed)

PCC Addition & Renovations

Schedule

- ◆ 2008
 - Begin design
- ◆ 2009
 - Complete design & bid documents, bid, Planning Board approval, building permits
 - Site work, foundations, structural steel, begin building shell for New Addition
 - Order all long lead equipment, doors, windows and furniture
 - Replace Emergency Generators and selected portions of HVAC, plumbing, electrical & fire alarm / protection systems (not already upgraded)
- ◆ 2010
 - Complete building shell for New Addition including all HVAC, plumbing, electrical, elevator and fire alarm / protection systems
 - Relocate Data Center to New Addition (State of the Art) Data Center facility
- ◆ 2011
 - Renovate old Data Center space & existing office space to provide new office space similar to KCC standards
 - Renovate Control Room with new (State of the Art) equipment & furnishings
 - Add Simulator Room, Training Rooms, Server room with seating area and 60 seats for Corporate Continuity