

CAPITAL COMMITTEE
MEETING AGENDA

March 14, 2018

10:00 AM

125 Worth Street, Room 532
5th Floor Board Room

CALL TO ORDER

Mark Page

- ADOPTION OF MINUTES – December 7, 2017
- VICE PRESIDENT'S REPORT

Mark Page

Roslyn Weinstein

ACTION ITEMS

- **Resolution** **Ebone Carrington**
Authorizing the New York City Health and Hospitals Corporation ("NYC Health + Hospitals") to approve a Capital Project for an amount not to exceed \$15,965,345 for pre-construction, design, construction, asbestos abatement, and construction management services necessary for the reconstruction of the exterior façade and the re-roofing of the Martin Luther King (MLK) Pavilion (the "Project") at NYC Health + Hospitals / Harlem (the "Facility").

INFORMATION ITEMS

- **Presentation** – Electric Power Management Plan

OFD/Finance

OLD BUSINESS

NEW BUSINESS

ADJOURNMENT

CAPITAL COMMITTEE MEETING MINUTES

December 7, 2017

MINUTES

Capital Committee

Meeting Date: December 7, 2017

Time: 10:00 A.M.

Location: Board Room

Board of Directors:

Members of the Capital Committee

Mark Page, Committee Chair
Gordon Campbell, Vice Chair, Acting Chairman of the Board
Josephine Bolus, RN, NP, BC
Emily A. Youssouf
Stanley Brezenoff, Interim President, Chief Executive Officer

HHC Staff:

PV Anantharam – Senior Vice President, Finance
Jordana Bailey – Deputy Executive Director, NYC Health + Hospitals / Jacobi
Jeremy Berman – Deputy General Counsel, Office of Legal Affairs
Robert DeLuna – Communications & Marketing
Colicia Hercules – Chief of Staff, Office of the Chairman
Louis Iglhaut – Assistant Vice President, Office of Facilities Development
Mahendranath Indar – Senior Director, Office of Facilities Development
Patricia Lockhart – Secretary to the Corporation, Office of the Chairman
Chris Mastomano – Executive Director, NYC Health + Hospitals / Jacobi
Dean Moskos – Director, Office of Facilities Development
Brenda Schultz – Senior Assistant Vice President, Finance
Cyril Toussaint – Director, Office of Facilities Development
Roslyn Weinstein – Vice President, President's Office
Dion Wilson – Director of Real Estate, Office of Legal Affairs
Elizabeth Youngbar – Assistant Director, Office of Facilities Development
Frank Zanghi – Audit Manager, Office of Internal Audits

Outside Representatives:

Jessika Gaterol – NYC Office of Management and Budget (OMB)

CALL TO ORDER

The meeting was called to order by Mark Page, Committee Chair, at 10:10 A.M.

On motion, the Committee voted to adopt the minutes of the November 8, 2017, Capital Committee meeting.

VICE PRESIDENT'S REPORT

Roslyn Weinstein, Vice President, advised that there would be just one action item on the agenda, for continued use and occupancy of space at NYC Health + Hospitals / Jacobi, to operate an optical store. She noted that the Office of Facilities Development, and their Energy team, had been working diligently to complete our thorough presentation of the energy strategy for the system. The final result is expected to show a real economic view of related savings and project costs. She explained that research had lead them to discover that the Office of Management and Budget (OMB), had completed a Value Engineering (VE) for the cogeneration plant at Riker's Island, and they had requested information on the results of that. She said the team was also looking into emergency generator power and how that is supplied and utilized throughout the system.

Mr. Page said that he was aware of the Riker's Island cogeneration plant VE and would be interested in knowing if information obtained from the results was helpful.

Ms. Youssouf said she looked forward to seeing the final presentation.

That concluded her report.

ACTION ITEMS

- **Authorizing the New York City Health and Hospitals Corporation (the "System") to execute a five year revocable license agreement with General Vision Services/Cohen Fashion Optical (the "Licensee") for its continued use and occupancy of 675 square feet of space to operate an optical store on the campus of Jacobi Medical Center (the "Facility") at an annual occupancy fee of \$46,951, or \$69.55 per square foot to be escalated by 3% per year for a five year total of \$249,267.**

Christopher Mastromano, Executive Director, NYC Health + Hospital / Jacobi, read the resolution into the record. Mr. Mastromano was joined by Jordana Bailey, Deputy Executive Director, NYC Health + Hospital / Jacobi.

Mr. Page asked for hours of operation at the site. Ms. Bailey said they were open Monday – Thursday, 8:30 AM – 5:00 PM, and Friday from 8:30 AM – 4:30 PM but they were willing to discuss evening hours, in order to accommodate the clinic.

Mr. Page said that he trusted the facility's determination that this service is valuable to the system and its patients and said he wondered whether a larger, system wide, agreement for services should be investigated.

He asked for explanation of the charges for service. Mr. Mastromano said that for patients that do not have insurance the vendor will charge \$19.95 for frame, lenses, etc. They are very accommodating and helpful. Mr. Mastromano recalled a recent instance when an inpatient had broken their glasses and the consultant replaced them at no charge.

Ms. Youssouf asked if there was similar service at Bellevue. Ms. Weinstein said yes, Gouverneur, and Kings County, and there are a number of facilities that do not have the services on site but would like to. Ms. Weinstein said that information would be forwarded to procurement for possible contracting on a system wide basis.

There being no further questions or comments, the Committee Chair offered the matter for a Committee vote.

On motion by the Chair, the Committee approved the resolution for the full Board's consideration.

There being no further business, the meeting was adjourned at 10:19 A.M.

CAPITAL PROJECT APPROVAL

EXTERIOR FAÇADE & RE-ROOFING

**NYC HEALTH + HOSPITALS / HARLEM
MARTIN LUTHER KING (MLK) PAVILION**

RESOLUTION

Authorizing the New York City Health and Hospitals Corporation ("NYC Health + Hospitals") to approve a Capital Project for an amount not to exceed \$15,965,345 for pre-construction, design, construction, asbestos abatement, and construction management services necessary for the reconstruction of the exterior façade and the re-roofing of the Martin Luther King (MLK) Pavilion (the "Project") at NYC Health + Hospitals / Harlem (the "Facility").

WHEREAS, the Martin Luther King (MLK) was constructed in 1968. Currently, this building is listed as unsafe and an extensive side walk shed has been installed until the rehabilitation work is completed; and

WHEREAS, the marble stone panels have exhibited warping, shifting, cracking and spalling creating unsafe conditions; and

WHEREAS, there is bulging and cracking of face brick of the East Elevations due to missing wall ties at spandrels; and

WHEREAS, there is ageing and falling of all sealants around stone cladding and windows leading to water infiltrations; and

WHEREAS, in order to comply with the requirements of Local Law 11, and to maintain a safe environment for staff, patients and the surrounding community, the above referenced reconstruction must be completed as soon as possible; and

WHEREAS, completion of the exterior façade reconstruction will remove the listed unsafe condition; and

WHEREAS, in conjunction with the code correction project, the facility's 56,500 sq. ft. roof has not been replaced for over 20 years, and has been deteriorated to a state that must be replaced; and

WHEREAS, the revision of Operating Procedure 100-5 requires that construction projects with budgets of \$3 million or more shall receive approval of the Board of Directors through Capital Committee; and

WHEREAS, the proposed total project budget, inclusive of all contingencies, is estimated to be \$15,965,345 million; and

WHEREAS, the overall management of the construction contract will be under the direction of the Vice President - Facilities Development.

NOW THEREFORE, be it

RESOLVED, the New York City Health and Hospitals Corporation ("NYC Health + Hospitals") to approve a Capital Project for an amount not to exceed \$15,965,345 for pre-construction, design, construction, asbestos abatement, and construction management services necessary for the reconstruction of the exterior façade and the re-roofing of the Martin Luther King (MLK) Pavilion (the "Project") at NYC Health + Hospitals / Harlem (the "Facility").

EXECUTIVE SUMMARY

REHABILITATE EXTERIOR FAÇADE AND RE-ROOFING OF THE MLK PAVILION AT NYC HEALTH + HOSPITALS / HARLEM

OVERVIEW: NYC Health + Hospitals is seeking to reconstruct the exterior façade of the Martin Luther King (MLK) Pavilion, and, in addition, re-roof the MLK Pavilion at NYC Health + Hospitals / Harlem. The exterior façade rehabilitation project was designed, estimated and bid in accordance with the NYC Health + Hospitals Operating Procedure 100-5, and the re-roofing project will be bid in accordance with OP 100-5. The combined project cost is not-to-exceed \$15,965,345.

NEED: The Martin Luther King (MLK) Pavilion was constructed in 1968. Currently, this building is listed as unsafe and an extensive side walk shed will need to be installed and maintained until the rehabilitation work can be completed. The MLK Building is a steel framed building with concrete floors. The exterior wall is faced with blue glazed brick and accented with thin marble panels stacking on each other at the column lines. The east façade is devoid of windows and is just face brick. The building has a lower section of 6 floors that occupies almost the entire foot print of the lot. The 7 to 18th floors are located in a central “tower” of the building set back from the lower portion of the building on all four sides. The subject building has a history of various repair campaigns related to problems with brick work on the east wall and marble stone cladding at the column lines around the rest of the building. Completion of the exterior façade reconstruction will remove the listed unsafe condition and will meet the requirements of Local Law 11.

In addition, the roof of the MLK Pavilion has not been replaced for over 20 years. The facility has done a number of extensive repairs, but the 56,500 sq. ft. roof has been deteriorated to a state where it must be replaced. As the building is to start the reconstruction of the exterior façade, this is an opportune time to also replace the roof.

SCOPE: The scope of work for the combined project includes the following:

- ❖ Provide site and roof protection
- ❖ Replace marble panels
- ❖ Mitigate window leakage
- ❖ Perform localized masonry repairs
- ❖ Remove all membrane base flashings, pitch pockets, drain flashings, and walkways, and install new roof
- ❖ Bid construction work as required by NYC Health + Hospitals Operating Procedure 100-5.
- ❖ Review all bids for completion, award and start construction.

Page Two – Executive Summary
Project Approval – Harlem MLK Pavilion

COSTS: \$15,965,345 (\$14,277,562 for the Exterior Façade Rehabilitation, and \$1,687,783 for the re-roofing of the MLK Pavilion)

FINANCING: General Obligation Bonds

SCHEDULE: The combined project is scheduled for completion by June 2019.

PRESENTATION

ELECTRIC POWER MANAGEMENT PLAN

OFD / FINANCE

Electric Power Management Plan

Date: March 14, 2018
Time: 10:00 a.m.
Location: 125 Worth Street,
5th Floor Board Room
New York, NY 10013



Electric Power Goals

- **Environmental Responsibility**
 - ❖ Reduce Greenhouse Gas emissions by 80% by 2050;
 - ❖ Adopt and commit to the principles and goals set forth by Mayoral Climate Change Executive Order No. 26.

- **Financial Viability**
 - ❖ Decrease grid electric consumption by 50% over the next 10 years;
 - ❖ Increase electric efficiency and conservation, and reduce peak demand.

- **Dependable Service**
 - ❖ Design and install on-site electric power generation to support continued operations in the event of a disaster or grid disruption by continuing to provide reliable electricity.



Background



- **21 Million Square Feet of Realty Portfolio, includes 15 Major Campuses;**
- **Import all electrical needs from grid power provided by New York Power Authority (NYPA)/Con Edison (Con Ed);**
- **FY 2017 Peak Demand: 85 Megawatts (MW);**
- **FY 2017 electricity consumption: 420,000 megawatt hours (MWh);**
- **Electric power usage comprises 60% of Greenhouse Gas (GHG) emissions and makes up about 71% of annual energy expenditure;**
- **All facilities have emergency generators as back-up systems to provide electric power during grid power system outages.**



Current Electric Power Supply Challenges and Risk

- **Con Edison's Electric Grid Supply**
 - ❖ Aging electric grid and transmission infrastructure;
 - ❖ Increasing population which impacts the demand for electric grid power in neighborhoods;
 - ❖ Retirement of the Indian Point Nuclear Power Plant in 2021;
 - ❖ Potential natural and man-made disasters.

- **Facilities' Emergency Generators***
 - ❖ Back-up diesel generators are costly to purchase, maintain and operate;
 - ❖ Diesel fuel deliveries can be difficult or impossible to arrange during a widespread disaster;
 - ❖ Storing large quantities of fuel results in high costs and risks of fuel leakage or fuel degradation;
 - ❖ Diesel engines used for back-up service typically have high emissions and are permitted only for limited use.

Note: NYC Health + Hospitals has 62 MW of emergency generators capacity as back-up systems across the facilities. Annual cost to maintain these generators totals \$2.4 million (PS \$1.0M & OTPS \$1.4M) .



Vision: Increase Electric Independence from Con Ed/NYPA Electric Grid

- **Install on-site electric power generation systems across the public health care system.**
- **Reduce the public health care system's electric consumption through the retro-fitting of existing infrastructure.**
- **Ideal state is to produce sustainable on-site electric power independent of the utility grid.**



On-site Electric Power Sources

Technology	Advantages	Constraints
Cogeneration	<ul style="list-style-type: none"> •Low investment cost •Low emissions •No cooling required •High power efficiency •Fast start-up •Low maintenance required 	<ul style="list-style-type: none"> •Natural/Biogas required •Limited to lower-temperature applications •Requires substantial foundation
Battery Storage	<ul style="list-style-type: none"> • Environmentally friendly •Demand charge reduction •Emergency backup- resilience •Maximize time-of-use rates •Low maintenance required 	<ul style="list-style-type: none"> •High investment cost •Large footprint require •Requires substantial foundation •Parasitic losses
Solar Photovoltaic	<ul style="list-style-type: none"> •Environmentally friendly •Demand charge reduction •Low maintenance required •Renewable energy source •Sustainable •Reduces electricity costs 	<ul style="list-style-type: none"> •High investment cost •Large footprint require •Solar energy is an intermittent energy source •Energy storage is expensive
Fuel Cell	<ul style="list-style-type: none"> •Low emissions •High power efficiency •Low noise •Modular design 	<ul style="list-style-type: none"> •High investment costs •Natural/Biogas require •Low durability •Low power density



On-site Electric Power Sources



Cogeneration



Fuel Cells



Battery Storage



Solar Photovoltaic



**Hybrid Solar and
Battery Storage**



Electric Power Reduction Measures

- **Retrofit antiquated lighting with Light Emitting Diodes (LEDs) throughout our facilities;**
- **Install occupancy and vacancy sensors ensuring that lights are turned off in unoccupied spaces;**
- **Upgrade all facilities with efficient Building Management Systems (BMS);**
- **Utilize BMS software to accurately monitor electric consumption and performance of facility equipment;**
- **Replace control valves and install premium efficiency motors in air handling units (AHU).**



Moving Closer To Electric Power Independence

<i>FY 2017 Peak Electric Grid Demand</i>	85.0 MW																
On-site Electric Generation Projects	(10.7) MW																
<table border="1"> <thead> <tr> <th><u>Facility</u></th> <th><u>Output</u></th> <th><u>Source</u></th> <th><u>Completion</u></th> </tr> </thead> <tbody> <tr> <td>KCHC</td> <td>4.7 MW</td> <td>Co-Gen, Fuel Cells</td> <td>2018</td> </tr> <tr> <td>Bellevue</td> <td>4.2 MW</td> <td>Co-Gen</td> <td>2020</td> </tr> <tr> <td>6 Facilities</td> <td>1.8 MW</td> <td>Solar Panels</td> <td>2019</td> </tr> </tbody> </table>		<u>Facility</u>	<u>Output</u>	<u>Source</u>	<u>Completion</u>	KCHC	4.7 MW	Co-Gen, Fuel Cells	2018	Bellevue	4.2 MW	Co-Gen	2020	6 Facilities	1.8 MW	Solar Panels	2019
<u>Facility</u>		<u>Output</u>	<u>Source</u>	<u>Completion</u>													
KCHC		4.7 MW	Co-Gen, Fuel Cells	2018													
Bellevue	4.2 MW	Co-Gen	2020														
6 Facilities	1.8 MW	Solar Panels	2019														
Electrical Conservation & Efficiency Measures by 2020																	
(Install LED lighting, space vacancy sensors, efficient building management systems, etc at Woodhull, Kings, Jacobi, Harlem, Lincoln, Bellevue and Queens)	(11.3) MW																
<i>Adjusted Electric Demand</i>	63.0 MW																

OPTIONS

- Install a 20 MW Co-generation system which will reduce reliance on Electrical Grid Demand to a peak of 43 MW
- Install a 63 MW Co-generation system which will eliminate reliance on the Electrical Grid



ELECTRIC POWER COGENERATION COMPARISON
CASH FLOW ANALYSIS (\$ in millions)

SCENARIOS

- **Status Quo – Health + Hospitals is expected to pay \$1.53 billion over the course of 20 years to Con Ed/NYPA for 8.4 million MWh of electricity**
- **A 20 MW Co-Generation system would result in \$82 mill net cash savings after maintenance, operating expenses and debt service costs are taken into account**
- **A 63 MW Co-Generation system would result in \$253 mill net cash savings after maintenance, operating expenses and debt service costs are taken into account**

20 Megawatts 63 Megawatts Cogeneration: Partial vs Full Capacity <i>\$s in millions</i>	20 YEARS	
	20 MW	63 MW
Capital Investment (Principal Only)	\$126	\$400
Total Electricity Generated (MWh)	2,666,667	8,400,000
A Total Value of NYPA/Con Ed Electricity (at \$182/MWh)	\$486	\$1530
Total Gas Consumption (Therms)	293,040,571	923,077,800
Less: Useable Waste Heat (Therms)	(100,109,048)	(315,343,500)
Net Natural Gas Consumption (Therms)	192,931,524	607,734,300
B Natural Gas Cost (at \$0.94/Therm)	\$181	\$571
C Total Operating & Maintenance	\$49	\$156
Total Cash Savings Excluding Debt Service		
D $D=[A-(B+C)]$	\$255	\$803
Less: Total Debt Service Payment (20 years)*	(\$173)	(\$550)
E Net Cash Savings (F=D-E)	\$82	\$253
F NET PRESENT VALUE	\$58	\$178
<i>Projected Net Annual Cash Savings After Debt Service Repayment</i>	\$4.1	\$12.7

*Projected average annual Medicaid reimbursement over 20 years would be \$4.7M for 20MW Cogeneration option and \$15.9M for 63MW Cogeneration option.

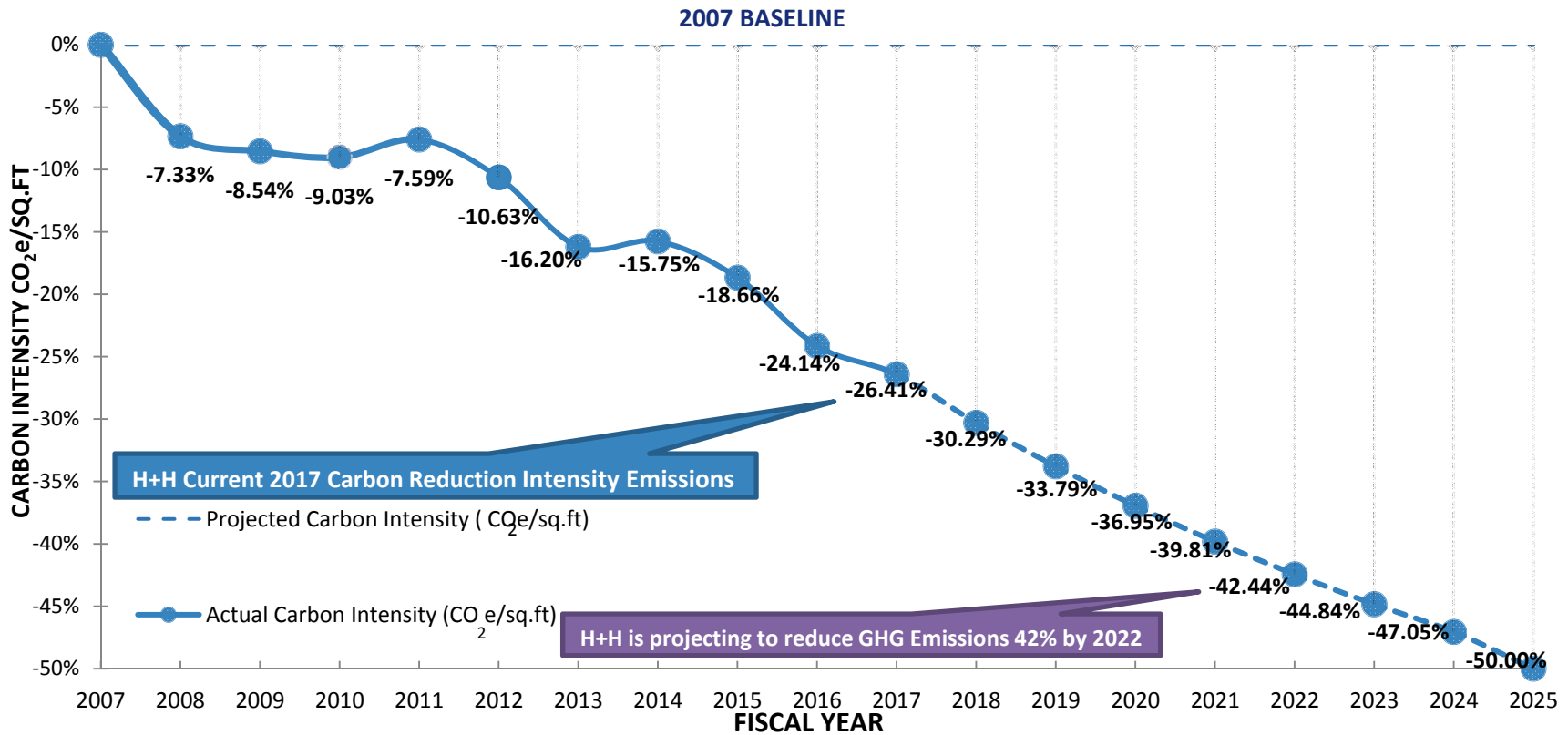


Benefits of On-Site Generation

- **Greenhouse Gas (GHG) Emissions Reduction**
- **Security and Reliability**
 - ❖ Natural Disaster Response
 - ❖ Cyber attacks
 - ❖ Con Ed's aging utility infrastructure
- **Clean and Renewable Sources**
 - ❖ Enhancing "green" image
- **Financial Viability**
 - ❖ Decreases grid electric dependency
 - ❖ Reduces operating and maintenance costs
 - ❖ Results in annual energy savings for the public health care system
 - ❖ Potential to meet alternative on-site generation.



Actual & Projected Carbon Intensity (CO₂e) Emissions



* University & Hospital Carbon Challenge Reduction in GHG of 50% by 2025

* Mayor's Interim Goal is Reduction in GHG 35% by 2025



Thank you.

