



Date: July 26, 2016

To: THE TRUSTEES

From: THE PRESIDENT and CHIEF EXECUTIVE OFFICER

Subject: **Energy Efficiency Program – Authorization to Extend
Maximum Cost Recovery Period to Twenty-Five years**

SUMMARY

The Trustees are requested to approve a modification to the finance term for projects under the Energy Efficiency Program (“EEP”) to allow for a maximum cost recovery period of up to twenty-five (25) years; currently, the maximum is twenty (20) years. The longer financing term will provide additional support to participants eligible for the Authority’s EEP, including agencies of the State of New York subject to Governor Cuomo’s Executive Order 88 (“EO 88”) by enabling them to pay for capital projects with energy savings. EO 88 requires all New York State agencies to reduce their aggregate source energy consumption by twenty percent (20%) from the 2010/2011 baseline aggregate by the year 2020. The longer finance term would be offered where the useful life of the energy saving measure(s) for a capital improvement project is equal to or greater than the amortization period of the loan.

BACKGROUND

In 1989, the Authority launched its first full-scale, nonresidential, EEP targeting the public facilities that the Authority serves electrically in the Southeast New York (“SENY”) service territory. This first program, the SENY High Efficiency Lighting Program (“HELP”), targeted lighting measures that had very short payback periods. Since that time, the Authority expanded its Energy Efficiency Program from lighting upgrades to comprehensive energy efficiency services, including heating, ventilation and air conditioning (“HVAC”), central heating and cooling plants with associated distribution infrastructure, water and waste water treatment process improvement measures, emergency generation and peak load management, controls, boiler and chiller replacements and retrofits, building shell improvements and combined heat and power (“CHP”) systems.

The Authority has offered financing to its EEP participants since it began the HELP program in 1989, when the cost recovery term was limited to five (5) years. The Trustees periodically approved increases in the cost recovery term as energy efficiency measures with longer payback periods, such as boilers, chillers and windows were routinely implemented. In 2002, the Trustees authorized financing terms of up to twenty (20) years to help participants implement more comprehensive projects and to assist school districts adapt to a change in State building aid reimbursements for capital improvements. By increasing the finance term as the Energy Efficiency Programs addressed new technologies and markets, the Authority has effectively leveraged a great deal of savings.

DISCUSSION

In December 2012, Governor Cuomo issued EO 88, the centerpiece of his Build Smart NY Initiative. EO 88 mandates a 20% improvement in efficiency performance of the States' building portfolio by 2020, based on Source Energy Use Index ("Source EUI") from the 2010/2011 Source EUI baseline. At the close of the 2014/2015 fiscal year, three years into the Governor's Build Smart NY Program, the State's six or seven largest energy consumers are estimated to be at about 4% into their 20% expected contributions. Capital investments on infrastructure that result in long-term Source EUI savings may be needed by several agencies for NYS to meet their individual EO 88 goals by 2020. Two current projects that would benefit by a longer repayment term are the Office of General Services' ("OGS") Sheridan Avenue CHP Plant and OGS's Chiller and Turbine Project Number 5, as more fully described below.

In November 2015, the Authority completed a feasibility study for a 15 megawatt CHP plant, located at OGS's Sheridan Avenue Steam Plant in Albany that would provide electricity and steam to the Empire State Plaza. Electricity from the CHP system would serve 90% of the Empire State Plaza's annual electrical needs. To improve the overall system efficiency, steam normally not used by most electrical generation plants would be recovered to deliver about 70% of the Empire State Plaza's annual heating and cooling load. This resilient CHP system would provide the Empire State Plaza with full back-up power. The cost of the OGS Sheridan Avenue CHP System is currently estimated to be \$80 million to \$100 million. Since the CHP plant is estimated to have a useful life of 50 years, a 25 year finance term would enable OGS to reduce its payments to the Authority so they would be approximately equal to the estimated project savings. The Sheridan Avenue CHP plant could be the first phase of a potential microgrid project that serves power to State and Albany County public buildings.

The Empire State Plaza Chiller and Turbine Project Number 5, estimated to cost \$66 million, will replace five 4,500-ton steam driven chillers and several electric chillers at OGS's Empire State Plaza with new equipment that uses an environmentally compliant refrigerant. New controls will be installed so equipment can operate at peak performance and lower operating costs. The driving force behind this project is to remove environmentally harmful refrigerants from systems while replacing equipment installed nearly 50 years ago that is at the end of its useful life. This project will save nearly \$1.2M annually in energy and maintenance costs. A 25 year finance term would reduce the annual repayment cost for which OGS would have to budget beyond the project savings.

These two projects will generate more than 70% of OGS's expected contribution to the State's EO 88 goal. Combined with the Source EUI reductions OGS achieved through the 2014/2015 fiscal year, OGS will have achieved over 83% of its individual EO 88 goal. OGS has numerous other projects in progress through the Authority's Energy Efficiency Programs that will contribute to their goal.

Nearly every agency across the state has made an earnest effort to implement low-cost/no-cost energy efficiency measures over the past 27 year EEP current lifetime. Agencies now require deeper retrofit projects to address their aging infrastructure and to effect meaningful improvement from their Source EUI baselines. At the same time, agencies find budgeting for capital projects, especially those with energy-efficiency premium costs, more challenging than ever.

Increasing the finance term for capital improvement projects under the Authority's EEP to a maximum cost recovery period of up to twenty-five (25) years will have a positive impact on capital projects for other agencies and eligible NYPA program participants and assist them to reach their EO 88 and other energy efficiency goals.

FISCAL INFORMATION

No increase in fiscal authorization is being requested for the Energy Efficiency Programs at this time. As in the past, the cost of offering financing will be recovered directly from EEP participants, who will be responsible for any fluctuation in interest rates during the extended repayment period. To ensure full interest rate recovery, in addition to variable rate debt instruments, financing may also be provided through fixed rate instruments having terms equal to the extended cost recovery period..

RECOMMENDATION

The Senior Vice President – Economic Development and Energy Efficiency and the Senior Director and Acting Vice President – Energy Efficiency recommend that the Trustees authorize a maximum cost recovery period of 25 years for Energy Efficiency Programs projects completed in the future, provided that the Vice President – Energy Efficiency determines that such extended cost recovery period of 25 years, or a lesser number of years, is necessary or advisable to render a proposed project economically viable, and provided further, that the equipment to be financed under such project had a useful life equal to or longer than the cost recovery period chosen. The cost of these projects, including financing costs, will be recovered directly from participants, with the participants being responsible, among other things, for interest rate costs during the repayment period. In addition to variable rate debt instruments, financing may be provided through fixed rate debt instruments having a term equal to the term of the cost recovery period.

For the reasons stated, I recommend the approval of the above-requested action by adoption of the resolution below.

Gil C. Quiniones
President and Chief Executive Officer

RESOLUTION

RESOLVED, That in support of the Authority's Energy Efficiency Program, including Governor Cuomo's Source Energy Use Index reduction goals outlined in Executive Order 88, his Build Smart NY Initiative, and to assist eligible Authority program participants to achieve their energy efficiency goals, the Trustees hereby authorize a maximum cost recovery period of 25 years for projects under the Authority's Energy Efficiency Programs completed in the future, provided that (1) the Vice President – Energy Efficiency determines that a cost recovery period of 25 years, or a lesser number of years, is necessary or advisable to render a proposed project economically viable; (2) the equipment to be financed under such project has a useful life equal to or longer than the cost recovery period chosen; (3) the cost of these projects, including financing costs, will be recovered directly from participants, with the participants being responsible, among other things, for interest rate costs during the repayment period; and (4) in addition to variable rate debt instruments, financing may be provided (i) through fixed rate debt instruments having a term equal to the term of the cost recovery period; and be it further

RESOLVED, That the Chairman, the Vice Chairman, the President and Chief Executive Officer and all other officers of the Authority are, and each of them hereby is, authorized on behalf of the Authority to do any and all things, and take any and all actions and execute and deliver any and all certificates, agreements and other documents to effectuate the foregoing resolution, subject to the approval of the form thereof by the Executive Vice President and General Counsel.