


**CITY AND COUNTY OF SAN FRANCISCO  
BOARD OF SUPERVISORS  
BUDGET AND LEGISLATIVE ANALYST**

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**TO:** Budget and Finance Committee  
**FROM:** Budget and Legislative Analyst   
**SUBJECT:** September 23, 2015 Budget and Finance Committee Meeting

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<b>Item 2</b> <b>File 15-0916</b>	<b>Department:</b> Public Utilities Commission (PUC)
<b>EXECUTIVE SUMMARY</b>	
<p style="text-align: center;"><b>Legislative Objectives</b></p> <ul style="list-style-type: none"> <li>• Authorize the San Francisco Public Utilities Commission (PUC) to issue New Clean Renewable Energy Bonds to finance the acquisition and installation of two solar energy facilities at the San Francisco Police Academy and the Marina Middle School for a not-to-exceed principal amount of \$4,100,000, with a repayment term of approximately 17 years.</li> <li>• Approve an Equipment Lease/Purchase Agreement and a Direct Purchase Agreement between the PUC and Banc of America Leasing &amp; Capital, LLC (Bank of America) for debt service payments on the costs of acquisition and installation of the solar equipment.</li> <li>• Approve a Filing Agent Agreement between U.S. Bank National Association (U.S. Bank) and the PUC for U.S. Bank to file the necessary federal forms for the PUC to receive all federal subsidies payable under the New Clean Renewable Energy Bonds.</li> </ul> <p style="text-align: center;"><b>Key Points</b></p> <ul style="list-style-type: none"> <li>• In April 2015, the PUC received an allocation of \$4,100,000 from the Internal Revenue Service (IRS) under the New Clean Renewable Energy Bond program. PUC may receive federal subsidy payments equivalent to 70 percent of the federal tax credit rate applicable to bonds issued by October 2015 for financing the two solar energy facilities.</li> <li>• The two proposed solar energy facilities were previously budgeted using the Hetch Hetchy operating revenues of the PUC's Power Enterprise on the condition that the funding source for these solar energy facilities would be replaced with bond funds if a New Clean Renewable Energy Bond allocation was granted by the IRS.</li> </ul> <p style="text-align: center;"><b>Fiscal Impact</b></p> <ul style="list-style-type: none"> <li>• Bank of America will receive an estimated \$5,926,703 in payments from the PUC over 17 years, which will be funded through the PUC's Power Enterprise operating budget.</li> <li>• The estimated \$82,000 costs of issuance will be payable from the New Clean Renewable Energy Bonds allocation and be used primarily for legal and financial advisor fees; the annual fees for the Filing Agent Agreement totaling \$4,250 over the full 17-year term will be paid from the operating budget of the PUC's Power Enterprise.</li> <li>• The PUC expects to receive a total of \$1,200,084 in federal subsidy payments, for a net cost to the PUC of \$4,726,619 (not discounted to present value) over the 17-year term of the agreements.</li> </ul> <p style="text-align: center;"><b>Recommendation</b></p> <ul style="list-style-type: none"> <li>• Approve the proposed resolution.</li> </ul>	

**MANDATE STATEMENT**

City Charter Section 9.107(8) states that the Board of Supervisors is authorized to provide for the issuance of revenue bonds to finance the acquisition, construction, installation, equipping, improvement, or rehabilitation of equipment or facilities for renewable energy.

**BACKGROUND**

In April 2015, the San Francisco Public Utilities Commission (PUC) received allocations of \$4,100,000 from the Internal Revenue Service (IRS) under the New Clean Renewable Energy Bond program, which is a federal program for local financing of renewable energy projects. This program allows a qualified bond issuer, such as a local government entity, to receive reimbursements from the federal government for the lesser of (a) interest expense payable on the bonds or (b) 70 percent of the tax credit interest rate applicable to the bonds. This \$4,100,000 allocation from the IRS to the PUC is to be used to finance the acquisition and installation of solar energy facilities at the San Francisco Police Academy and the Marina Middle School.<sup>1</sup> The solar energy facilities involve construction of a photovoltaic system, which is a power system with solar panels that absorb and convert sunlight into electricity.

Table 1 below outlines the project details for each of the two solar energy facilities to be financed with a total of \$4,100,000 from the New Clean Renewable Energy Bonds.

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<sup>1</sup> Although Marina Middle School is a San Francisco Unified School District (SFUSD) facility, the PUC selected the site because (a) SFUSD is a customer of the PUC and the PUC has installed photovoltaic systems for a variety of customer facilities, (b) the school has many roofs that are suitable for accommodating a photovoltaic system and good solar resource, and (c) this site will showcase renewable energy for students, according to Ms. Lori Mitchell, Manager of the PUC's Power Enterprise.

**Table 1. Description of Two Proposed Solar Energy Facilities**

	<b>San Francisco Police Academy<sup>2</sup></b>	<b>Marina Middle School</b>
<b>Location</b>	350 Amber Drive	3500 Fillmore Street
<b>Budget</b>	\$2,100,000	\$2,000,000
<b>Cost Estimate</b>	\$8,000 per kilowatt (kW), plus geotechnical, structural, and paving work to support project installation	\$8,000 per kilowatt (kW), plus roofing repairs to support project installation
<b>Description of System</b>	<u>Option 1</u> : 270 kW photovoltaic system on 18,500 square feet of carport structures in the parking lot <u>Option 2</u> : 200 kW photovoltaic system on 14,000 square feet of carport structures in the parking lot	15,000 square foot, 200 kW photovoltaic system installed on the main classroom and gymnasium buildings
<b>Projected Renewable Energy Generation</b>	<u>Option 1</u> : Minimum of 335,000 kilowatt hours (kWh) per year to be used on site <u>Option 2</u> : Minimum of 248,000 kWh per year to be used on site	Minimum of 266,000 kWh per year to be used on site

The proposed solar energy facilities at the Police Academy and Marina Middle School were previously budgeted using Hetch Hetchy operating revenues of the PUC's Power Enterprise with the condition that the funding source for these two solar energy facilities would be replaced with bonds, if a New Clean Renewable Energy Bond allocation was granted by the IRS.<sup>3</sup> According to Mr. Mike Brown of the PUC'S Financial Planning Division, the PUC decided to switch from using operating revenues to bond financing for these two solar energy facilities because the New Clean Renewable Energy Bond allocation allows the PUC to: (1) amortize the costs of the project over an extended period of time at a net effective interest rate that is substantially lower than the standard revenue bond interest rate, and (2) return the \$4,100,000 of operating revenues for the two solar energy facilities to PUC's Hetch Hetchy Power Enterprise fund balance for other needed purposes.

According to Ms. Lori Mitchell, Manager of the PUC's Power Enterprise, the energy generated by the solar facilities will be used at each site (the San Francisco Police Academy and Marina Middle School) and the PUC does not expect either facility to generate excess electricity because the projected energy generation is lower than current and projected usage at both sites.

The Board of Supervisors previously authorized the PUC to issue Clean Renewable Energy Bonds in October 2008 in the amount of \$6,325,000 for seven solar projects and in November 2011 to

<sup>2</sup> The PUC is currently considering two options for the configuration of the photovoltaic system at the San Francisco Police Academy located at 350 Amber Drive. According to Ms. Mitchell, the PUC will determine the specific cost of each option and which option to pursue during the design process, following geotechnical and structural evaluations of the site.

<sup>3</sup> The PUC will seek separate authorization from the Board of Supervisors to reallocate the project budget from Hetch Hetchy operating revenues to New Clean Renewable Energy Bonds debt proceeds by supplemental appropriation. The PUC intends to introduce legislation requesting authorization of the supplemental appropriation on September 22, 2015.

issue New Clean Renewable Energy Bonds in the amount of \$6,600,000 for two solar and one in-line hydro projects.

### DETAILS OF PROPOSED LEGISLATION

The proposed resolution would:

- 1) Authorize the PUC to issue New Clean Renewable Energy Bonds to finance the acquisition and installation of solar energy facilities, consisting of photovoltaic systems, at the San Francisco Police Academy and the Marina Middle School for a not-to-exceed principal amount of \$4,100,000, for a term of approximately 17 years from October 1, 2015 through April 25, 2032;
- 2) Approve an Equipment Lease/Purchase Agreement between the PUC and Banc of America Leasing & Capital, LLC (Bank of America), in which Bank of America would receive a security interest in, or the right to repossess, the solar equipment purchased in exchange for debt service payments made on behalf of the PUC;
- 3) Approve a Direct Purchase Agreement between Bank of America and the PUC, in which Bank of America would agree to purchase the PUC's lease payment debt obligations under the New Clean Renewable Energy Bond Equipment Lease/Purchase Agreement, agree to make a \$4,100,000 upfront payment to the PUC, and establish repayment terms for the debt service prior to finalizing the Equipment Lease/Purchase Agreement; and
- 4) Approve a Filing Agent Agreement, which would outline the terms under which U.S. Bank National Association would file the necessary federal forms to ensure that the PUC receives all federal subsidies payable under the New Clean Renewable Energy Bonds Equipment Lease/Purchase Agreement, including the 70 percent tax credit interest rate subsidy.

#### *Details of Financing Agreements*

In July 2015, the PUC issued a Request for Proposals to 25 firms to solicit financing services for the proposed solar energy facilities at the San Francisco Police Academy and Marina Middle School using New Clean Renewable Energy Bonds. Of the three firms that responded, the PUC selected Banc of America Leasing & Capital, LLC (Bank of America) based on its experience and the fact that Bank of America offered their services at the lowest cost. Bank of America will purchase the New Clean Renewable Energy Bonds from the PUC. The PUC will repay Bank of America for the cost of the New Clean Renewable Energy Bonds using Hetch Hetchy revenues of the PUC's Power Enterprise. The debt service payments will be budgeted from future-year PUC Power Enterprise operations, subject to Board of Supervisors appropriation approval.

The Direct Purchase Agreement between the PUC and Bank of America establishes the pricing terms, including the interest rate payable, between Bank of America and the PUC prior to finalizing the Equipment Lease/Purchase Agreement. To satisfy IRS requirements, the PUC must issue the New Clean Renewable Energy Bonds within 180 days of the allocation date, or

October 16, 2015. The PUC intends to execute the Direct Purchase Agreement and issue the bonds by the deadline of October 16, 2015.

Under the Filing Agent Agreement between the PUC and U.S. Bank National Association (U.S. Bank), U.S. Bank will file federal forms with the IRS every six months to ensure that the PUC receives all federal subsidy payments related to the New Clean Renewable Energy Bond, for an annual fee of \$250 paid by the PUC to U.S. Bank.

**FISCAL IMPACT**

The proposed resolution would authorize the issuance by the PUC of a principal not-to-exceed amount of \$4,100,000 of New Clean Renewable Energy Bonds. The final interest rate payable by the PUC to Bank of America on the Equipment Lease/Purchase Agreement interest payments to Bank of America will not be finalized until the bonds have been issued. Table 2 below summarizes the net estimated cost of \$4,726,619 to the PUC that is net of the estimated \$1,200,084 in subsidy payments that the PUC will receive from the IRS associated with the New Clean Renewable Energy Bonds.

**Table 2. Summary of Bond Financing Details**

<b>Costs to the PUC</b>	
Total Not-to-Exceed Amount for New Clean Renewable Energy Bond (inclusive of costs of issuance)	\$ 4,100,000
Estimated Interest to be Paid by the PUC to Bank of America (4.88%)	\$ <u>1,826,703</u>
<i>Subtotal</i>	\$ 5,926,703
<b>Revenues Payable to the PUC</b>	
Estimated Subsidy Payments to the PUC from the IRS	\$ 1,200,084
<b>Net Cost to the PUC under the Equipment Lease/Purchase Agreement <sup>a</sup></b>	<b>\$ 4,726,619</b>

Source: Public Utilities Commission Staff.

a/ Not discounted to present value.

As shown in Table 2 above, the PUC estimates that the taxable interest rate payable by the PUC to Bank of America will be 4.88 percent, based on the sum of the U.S. Treasury’s current ten-year swap rate of 2.28 percent and the Bank of America’s fee (or spread) of 2.60 percent. The actual interest rate will be finalized at the time of the bond issuance, which is projected to occur by October 16, 2015. Based on current projections, the estimated total interest payments of \$1,826,703 to be paid by the PUC to Bank of America is calculated as the sum of the interest before subsidy, to be paid every six months during the term of the agreement through April 2032, at a rate of 4.88 percent of the total outstanding principal balance.

Under the New Clean Renewable Energy Bond program, the federal government will subsidize 70 percent of the federal tax credit rate. The federal tax credit rate is currently set at 4.58 percent, which would result in federal subsidy payments of 3.21 percent (the equivalent of 70 percent of the federal tax credit rate), which offsets Bank of America’s 4.88 percent taxable interest rate. Therefore, the PUC will pay an estimated net effective interest rate of 1.67

percent (the equivalent of the 4.88 percent taxable interest rate minus the federal subsidy payments of 3.21 percent).

Under the proposed Equipment Lease/Purchase Agreement and Direct Purchase Agreement between the PUC and Bank of America, Bank of America would receive \$5,926,703 in principal and interest payments from the PUC, which would be funded through the PUC's Power Enterprise operating budget from Hetch Hetchy revenues. The annual fees for the Filing Agent Agreement between the PUC and U.S. Bank totaling \$4,250 over the full 17-year term would also be financed through the operating budget of the PUC's Power Enterprise from Hetch Hetchy revenues. The estimated \$82,000 cost of bond issuance for outside legal and financial advisor fees is included in the \$4,100,000 bond principal.

As noted above, the PUC would repay the New Clean Renewable Energy Bonds to Bank of America using Hetch Hetchy revenues of the PUC's Power Enterprise. The total debt service payments will be budgeted from future-year PUC Power Enterprise Hetch Hetchy revenues, subject to Board of Supervisors appropriation approval.

#### **RECOMMENDATION**

Approve the proposed resolution.