



● **Board of Directors**  
***Water Quality and Operations Committee***

July 14, 2009 Board Meeting

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**8-5**

**Subject**

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Approve Strategic Power Plan Policy Goals

**Description**

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This board letter requests approval of Policy Goals for the Strategic Power Plan (SPP). The objective of the SPP is to pursue energy management and carbon reduction programs in Metropolitan's distribution and Colorado River Aqueduct (CRA) systems. These programs would allow Metropolitan to implement the Board's strategic priorities as outlined in the April 2007 Board Retreat, which called for a reduction in Metropolitan's carbon footprint and mitigation against risks associated with future carbon-related fees and regulations. While the SPP effort only addresses Metropolitan-owned facilities and the State Water Project (SWP) is not in its scope, Metropolitan is working with the California Department of Water Resources (DWR) and the State Water Contractors (SWC) to develop energy and carbon management actions for the SWP to meet the objectives of California's energy policies and legislation.

Over the past year, a number of energy-related briefings were given to the Board's Water Quality and Operations Committee. The presentations provided background information on energy consumption and costs for Metropolitan's distribution system, the CRA, and the SWP; Metropolitan's activities related to the next Hoover power contract; and approval of updated Energy Policy Principles.

In September 2008, the Board received an oral report introducing the SPP effort. Background information was provided on the California Global Warming Solutions Act of 2006 (AB 32) and on other issues related to climate change and the potential impact on Metropolitan and its operations. Regulations implementing AB 32 will be developed over the next two years pursuant to the California Air Resources Board's Climate Change Scoping Plan. As these regulations are developed, staff will return to the Board to report on what, if any, specific impacts there are to Metropolitan.

At the November 2008 meeting, the Board received an oral report updating the SPP effort, and a draft report was submitted to the Board in January 2009. This update focused on four strategic options: (1) carbon reduction; (2) carbon neutrality; (3) energy independence and carbon neutrality; and (4) a No Action option. The four strategic options were assessed on key energy issues identified during the April 2007 Board Retreat. These key energy issues include: (1) price volatility; (2) system reliability; (3) environmental stewardship; (4) energy independence; (5) cost; and (6) implementation risk, including technical complexity and feasibility. In addition, the oral report included proposals for a strategic approach to implement carbon reduction and proposed SPP policy goals. The primary elements of Metropolitan's proposed strategic approach for implementing the SPP entail Metropolitan's pursuit of: carbon neutrality, cost-effective energy projects, and implementation of these actions in a phased manner. The oral report also recommended that Metropolitan forego purchasing carbon offsets at this time and instead invest in cost-effective renewable energy projects at Metropolitan's water treatment plants and other facilities.

In December 2008, Chair Timothy F. Brick established a Peer Review Committee to review the proposed strategies and actions of the SPP. This committee is led by Vice Chair Marcie Edwards. Reviewers on this committee consist of Chair Timothy F. Brick, Bill Carnahan (Executive Director of Southern California Public

Power Authority (SCPPA)), and Ronald Davis (General Manager of Burbank Water and Power). The Peer Review Committee met on February 5, 2009, to review the proposed SPP policy goals and evaluate the feasibility of accelerating renewable energy project development under the SPP. As a result of the Peer Review meeting, the following immediate actions and SPP policy goals are proposed for consideration.

### **Proposed SPP Policy Goals:**

#### Immediate Actions (By FY 2010/11):

Expedite the implementation of renewable energy and carbon reduction projects at Metropolitan's water treatment plants, Metropolitan's Headquarters Building, and along the Colorado River Aqueduct.

- Expedite renewable energy projects at water treatment plants
  - Negotiate agreements to achieve 100 percent renewable hydroelectric power use at the Diemer plant.
  - Achieve 25 percent renewable power use to meet summer on-peak energy consumption at the Skinner plant (\$10 million – board-approved project).
  - Complete design for a 1 MW solar energy facility to meet on-peak energy use at the Weymouth plant (\$1 million – request board approval September 2009).
  - Develop Request for Proposals (RFP)/Request for Bids (RFB) for additional 10 MW of solar project development at the treatment plants and execute implementation contracts.
- Develop potential renewable energy and energy efficiency projects at Metropolitan's Headquarters Building
  - Explore potential partnerships to install renewable energy facilities at or near Metropolitan's Headquarters Building with other entities, including for example, with Metropolitan Transit Authority, Amtrak, and Los Angeles Department of Water and Power.
- Pursue potential renewable energy along the Colorado River Aqueduct
  - Develop renewable energy projects located in the desert to meet CRA supplemental power requirements.

#### Short-term goal (By 2014):

- Implement renewable energy programs to achieve a 50 percent carbon reduction in Metropolitan's distribution system (retail energy facilities, including treatment plants, pumping facilities, and Metropolitan's Headquarters Building) via renewable energy projects including solar and small hydroelectric renewable energy credit use. Estimated cost of \$9 million-\$10 million per year based on annualizing total estimated costs over a twenty-year planning period.
- Establish partnership(s) with SCPPA and/or power developers to invest in renewable energy supplies that will help gain energy independence at Metropolitan's CRA pumping plants in a phased and cost-effective manner.
- Evaluate the potential for developing large-scale renewable energy projects that could meet a portion of the regional power needs, including that of Metropolitan, its member agencies, and future desalination facilities. Determine what potential changes to Metropolitan's Act, if any, would be needed to implement this goal.
- Work with DWR and the SWC on SWP energy and carbon management issues.

#### Intermediate goal (By 2020):

- Achieve 100 percent carbon reduction at all of Metropolitan's distribution facilities (retail energy facilities, including treatment plants, pumping facilities, and Metropolitan's Headquarters Building) and a 50 percent carbon reduction from non-hydroelectric energy use on the CRA (wholesale energy

facilities). Estimated cost of \$11 million-\$13 million per year for Metropolitan's distribution facilities, and an additional \$20 million-\$28 million per year for CRA renewable energy use, based on annualizing total estimated costs over a twenty-year planning period.

Long-term goal (By 2030):

- Achieve 100 percent carbon reduction at all of Metropolitan's distribution facilities (retail energy facilities including treatment plants, pumping facilities, and Metropolitan's Headquarters Building) and achieve a 100 percent carbon reduction from non-hydroelectric energy use on the CRA (wholesale energy facilities). Estimated cost of \$11 million-\$13 million per year for Metropolitan's distribution facilities, and an additional \$41 million-\$55 million per year for CRA renewable energy use, based on annualizing total estimated costs over a twenty-year planning period.

Wholesale energy use relates to Metropolitan's CRA operations, including the five pumping plants. Retail energy use relates to Metropolitan's distribution system facilities and includes the water treatment plants, pump stations (including OC-88 and Wadsworth Pumping Plant), Metropolitan's Headquarters Building, and all other local facilities.

Metropolitan's retail and wholesale energy use is the primary source of Metropolitan's greenhouse gases, as 95 percent of its carbon footprint results from electrical energy consumption. Approximately 75-80 percent of Metropolitan's carbon footprint is attributed to the non-hydroelectric components of energy consumption on the CRA system.

**Summary:**

The proposed objectives and policy goals have been developed to provide Metropolitan the flexibility to address future potential impacts to energy resources, including regulatory changes (both state and federal), contract issues (next Hoover power contract and small hydroelectric contract renegotiation), pricing issues (future electrical rate escalation), and other factors such as technology advancements that could reduce the cost of renewable energy project development. The emphasis was to achieve carbon reduction through physical changes and minimize the use of carbon offsets and credits. These objectives and policy goals will enable Metropolitan to develop options for energy management and these options will be provided to the Board for future consideration.

There are also a number of developing issues that could affect the timing of Metropolitan's renewable energy projects development. These include potential changes to federal incentive programs that may be available for Metropolitan's use, as well as utility access changes that may provide flexibility in meeting demand use at one location, with generation from another. Staff will monitor these developments and will report back to the Board should any significant change occur that could result in additional cost-effective development of renewable energy projects.

**Policy**

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Metropolitan Water District Administrative Code Section 2481: Duties and Functions of Water Quality and Operations Committee

**California Environmental Quality Act (CEQA)**

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CEQA determination for Option #1:

The proposed action is not defined as a project under CEQA because the proposed action involves continuing administrative activities such as general policy and procedure making (Section 15378(b)(2) of the State CEQA Guidelines). In addition, where it can be seen with certainty that there is no possibility that the proposed action in question may have a significant effect on the environment, the proposed action is not subject to CEQA (Section 15061(b)(3) of the State CEQA Guidelines).

The CEQA determination is: Determine that the proposed action is not subject to the provisions of CEQA pursuant to Sections 15378(b)(2) and 15061(b)(3) of the State CEQA Guidelines.

CEQA determination for Option #2:

None required

**Board Options**

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**Option #1**

Adopt the CEQA determination and approve the Strategic Power Plan Policy Goals.

**Fiscal Impact:** Depending on projects implemented, expenditures could range between \$9 million and \$68 million per year.

**Business Analysis:** This option may allow Metropolitan to mitigate future impacts of carbon-related fees and regulations, and hedge overall power costs.

**Option #2**

Provide staff with a new direction for policy development

**Fiscal Impact:** Unknown

**Business Analysis:** Without policies for carbon reduction, Metropolitan could be exposed to future carbon-related fees and regulations.

**Staff Recommendation**

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Option #1

  
James F. Green  
Manager, Water System Operations

6/29/2009  
Date

  
Jeffrey Lightlinger  
General Manager

6/30/2009  
Date