TO: HONORABLE CITY COUNCIL
FROM: CITY MANAGER DEPARTMENT: UTILITIES
DATE: AUGUST 9, 2004 CMR:370:04
TITLE: LONG-TERM ELECTRIC ACQUISITION PLAN IMPLEMENTATION UPDATE

This is an informational report and no Council action is required. A Council study session to discuss aspects of this report is currently scheduled for October 12th.

BACKGROUND
City Council approved the implementation of the Long-Term Electric Acquisition Plan (LEAP) in August 2003 (CMR: 353:03). The plan was approved in preparation for the energy deficits the City expects as a result of the new Western Base Resource Contract that begins in January 2005. The plan was based on Council-approved LEAP Objectives and Guidelines (CMR: 425:01 and CMR: 398:02). This report also provides information regarding the electric supply portfolio plans of a sample of municipal electric utilities in California in accordance with Recommendation #22 of the July 2002 City Auditor report on Utility Risk Management Procedures.

DISCUSSION
Since the approval of the LEAP implementation plan in August 2003, staff has provided Council updates on several facets of the implementation plan. This report provides a comprehensive update within the context of the 15 elements of the implementation plan. Attachment A provides the complete implementation plan, and the following table provides a status summary.
## Summary of the Status of the 15 Elements of the Implementation Plan

<table>
<thead>
<tr>
<th><strong>Short-Medium Term Implementation Plan</strong></th>
<th><strong>Status</strong></th>
<th><strong>Completion Date</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Block Energy Purchases</td>
<td>Energy purchases made</td>
<td>June 04</td>
</tr>
<tr>
<td>2. EMA Approval &amp; Delegation of Authority</td>
<td>EMA with 4 suppliers completed, Council has delegated authority</td>
<td>February 04</td>
</tr>
<tr>
<td>3. Development of Short-term Hedging Strategies</td>
<td>STEAM Guidelines Implemented</td>
<td>June 04</td>
</tr>
<tr>
<td>4. Evaluation and Design of Demand Response Program</td>
<td>Program economic evaluation, Customer survey, Expand the installation of interval metering, and evaluation of control equipment</td>
<td>July 04, September 04, Fiscal 05/06</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th><strong>Long-Term Implementation Plan</strong></th>
<th><strong>Status</strong></th>
<th><strong>Completion Date</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Renewable Resource Acquisition Targets</td>
<td>In negotiations for wind and landfill gas energy contracts for Renewable Resource Implementation Plan Tier 1</td>
<td>Fall 2004</td>
</tr>
<tr>
<td>6. Implementation of Palo Alto Green Program</td>
<td>Continue to implement a nationally recognized program</td>
<td>On going</td>
</tr>
<tr>
<td>7. Implementation of Public Benefits Program</td>
<td>Continue to implement existing program</td>
<td>On going</td>
</tr>
<tr>
<td>8. Implementation of Cost Effective Energy Efficiency Programs</td>
<td>A comprehensive study to begin shortly</td>
<td>Spring 2005</td>
</tr>
<tr>
<td>9. Investment on Natural Gas Fired Generation</td>
<td>Assessment of local generation options underway</td>
<td>Phase I result Spring 2005</td>
</tr>
<tr>
<td>10. Distributed Generation</td>
<td>Valuation project nearly complete, Integration study initiated – also supports LT Plan #4</td>
<td>Fall 04, Fall 05</td>
</tr>
<tr>
<td>11. Investigation of New Risk Management Tools</td>
<td>Tool to manage transmission cost under evaluation</td>
<td>2006</td>
</tr>
<tr>
<td>12. Pursue Low-Cost, High Value Supply Opportunities</td>
<td>On going portfolio optimization activity – no new high value supply opportunity identified</td>
<td>Ongoing</td>
</tr>
<tr>
<td>13. Continue to Refine Analytical Tools</td>
<td>Portfolio models, analytical tools updated; new deal capture database created</td>
<td>June 04, ongoing</td>
</tr>
<tr>
<td>14. Influence Legislative and Regulatory Initiatives</td>
<td>Influenced the creation of load aggregation zones in the new transmission markets being formulated. Continue to be actively involved with other Bay Area municipalities</td>
<td>On going</td>
</tr>
<tr>
<td>15. Maintenance of Adequate Rate Stabilization Reserves</td>
<td>Council approved new financial reserves guidelines</td>
<td>December 03</td>
</tr>
</tbody>
</table>
Short- and Medium Term Portfolio Implementation Plan Update

Outlined below is the status update of the four elements of the Short-and Medium Term Portfolio Implementation Plan.

1. Execution of 3 block energy purchases within approved parameters (Block Purchases)

Council authorized the purchase of up to 586 GWh over a three year period 2005-2007 for a total cost not to exceed $35.7 million, with the authorization expiring on June 30, 2004. Total purchases made under this authority were 310 GWh as of June 30, 2004, at a total cost of $16 million and an average price of $51.76/MWh. Though the market price for electricity at the time the transactions were executed was relatively high, the purchases were executed within parameters established by Council and these purchases will help achieve the City’s objectives for rate stability. The table below is a summary of the block purchases executed categorized by both energy blocks and by calendar year.

### Summary of Council Approved Block Energy Purchases versus Actual Purchases

<table>
<thead>
<tr>
<th>Council Approved</th>
<th>Block 1</th>
<th>Block 2</th>
<th>Block 3</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy MWh</td>
<td>381,675</td>
<td>81,600</td>
<td>122,800</td>
<td>290,825</td>
<td>168,025</td>
<td>127,225</td>
<td>586,075</td>
</tr>
<tr>
<td>Max Weighted Average Price $/MWh</td>
<td>$59</td>
<td>$67</td>
<td>$65</td>
<td>$63</td>
<td>$61</td>
<td>$59</td>
<td>$61</td>
</tr>
<tr>
<td>Maximum Cost $M</td>
<td>$22.34</td>
<td>$5.40</td>
<td>$7.98</td>
<td>$18.22</td>
<td>$10.24</td>
<td>$7.51</td>
<td>$35.72</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Actual Purchases</th>
<th>Block 1</th>
<th>Block 2</th>
<th>Block 3</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy MWh</td>
<td>229,005</td>
<td>56,960</td>
<td>24,160</td>
<td>192,185</td>
<td>67,050</td>
<td>50,890</td>
<td>310,125</td>
</tr>
<tr>
<td>% of Council Approved Energy</td>
<td>60%</td>
<td>70%</td>
<td>20%</td>
<td>66%</td>
<td>40%</td>
<td>40%</td>
<td>53%</td>
</tr>
<tr>
<td>Weighted Average Price $/MWh</td>
<td>$50.71</td>
<td>$54.68</td>
<td>$54.91</td>
<td>$50.28</td>
<td>$55.27</td>
<td>$52.74</td>
<td>$51.76</td>
</tr>
<tr>
<td>Cost $M</td>
<td>$11.61</td>
<td>$3.11</td>
<td>$1.33</td>
<td>$9.66</td>
<td>$3.71</td>
<td>$2.68</td>
<td>$16.05</td>
</tr>
<tr>
<td>% of Council Approved Cost</td>
<td>52%</td>
<td>58%</td>
<td>17%</td>
<td>53%</td>
<td>36%</td>
<td>36%</td>
<td>45%</td>
</tr>
</tbody>
</table>

Staff continues to make additional purchases under the authority delegated to the City Manager when Council approved the Electric Master Agreements in February 2004. Northern California Power Agency (NCPA) member cities such as the cities of Roseville, Lodi, and Lompoc also undertake their purchases in a laddered fashion over multiple years.
2. Seek Council approval of Electric Master Agreements (EMAs) with suppliers and delegation of authority to City Manager to transact under the agreements for terms of up to 3 years.

In June 2003, staff issued a request for proposal for EMAs with electric commodity suppliers. Through this process, staff negotiated EMAs with four suppliers: BP Energy Company, Duke Energy Marketing America, Sempra Energy Trading and Coral Power. Council approved and executed the EMAs through Ordinance 4812 in February 2004 (CMR:510:03). The ordinance provided for the delegation of authority to staff to execute purchases under the EMAs for transactions of up to three years in term and the aggregate transaction amount not to exceed $75 million per supplier. The EMAs are effective through December 2011.

The EMAs were used to facilitate the block energy purchases outlined above. Council will be provided an update of all transactions on a quarterly basis as part of the Risk Management Quarterly report.

A detailed table comparing the authorization levels delegated to staff at different Northern California municipal utilities is shown in Attachment D. This information is also being provided in accordance with Recommendation #22 of the July 2002 City Auditor report on Utility Risk Management Procedures (“CPAU should conduct a peer study to provide the City Council with background information comparing CPAU commodity supply strategies with other municipal utilities.”). Additional information related to the overall commodity supply strategy of various public power utilities is also provided in Attachment D. A number of utilities such as Southern California Edison, Pacific Gas & Electric, and the State of California tend to use the same type of EMA as the City does (EEI Master Agreement). However, most public power agencies such as Roseville, Redding, and Northern California Power Agency tend to use the WSPP Master Agreement format. The governing Boards of most utilities have also delegated authority to staff to transact regularly with suppliers. Sacramento Municipal Utility District (SMUD) staff has authority to transact up to 5 years out, while the City of Roseville has authority to transact up to 3 years out. The City of Santa Clara has authority to transact up to 1 year out with no dollar limit.

3. Development of Short-Term Hedging Strategies

Staff developed the Short-Term Electric Acquisition Management (STEAM) plan to establish parameters to ladder electric purchases to meet retail load within parameters established by the LEAP Objectives and Guidelines. A detailed information report
was provided to the Council in June 2004 [CMR:331:04]. STEAM, together with LEAP Guidelines, the Risk Management Policies, Guidelines and Procedures, and supply contract limits all specify the operating tolerance bands for the electric supply portfolio in the 0 to 36-month time horizon.

The STEAM strategy proposes that staff maintain the monthly energy supply position within 80% to 120% of forecasted load in the near 12 months; 70% to 110% of forecasted load for 13 to 24 months out, and 60% to 100% of forecasted load for 25 to 36 months out, and to maintain 15-17% capacity reserves for the near 12 months. The STEAM target ranges strike a balance between keeping costs low and stable and guarding against assuming excessive risk from having too much supply in a wet year or not enough in a dry year. The analysis includes deviations in hydro generation, load uncertainty, and market price fluctuations. Staff expects to manage the portfolio based on this strategy in a streamlined and efficient manner to minimize overhead and within the guidelines established by the Risk Oversight Committee.

All municipal utilities surveyed tended to avoid having to buy energy in the short-term market to serve load. For example, the City of Roseville has a guideline “not to buy or sell electricity such that there is greater than 10% market exposure on a 12 month rolling basis.” It expects to expand this guideline to ladder purchases and track positions up to 5 years out. SMUD is gearing to procure 20-30 year natural gas reserves in the ground to meet up to 50% of natural gas needs to fire its power plants.

All electric utilities in California are also gearing up to acquire resources to conform to the State’s ‘Resource Adequacy’ regulations that requires load serving entities to contract for energy supplies and 15-17% reserves in advance of the consumption period to ensure sufficient generation is built and system reliability is maintained. The STEAM guideline conforms to these utility best practices.

4. Evaluate and Design a Pilot Customer Demand-Response Program

Staff evaluated the potential for and economics of a Demand Response Program, where by retail loads will reduce demand in real-time when market prices are high or in the event of system emergencies. The analysis focused on large (E7) customers and concluded that there was a potential of 1MW – 4MW of demand response capability in this customer group. A pilot test was conducted with large customers on June 9 which resulted in a demand response of 2MW – 4MW depending on the hour.
A review of existing demand response programs in California was also conducted. With the exception of SMUD and the City of Anaheim, California muni’s currently do not have active demand response programs. Some have voluntary mechanisms in place, similar to the City of Palo Alto, to call on their large customers to reduce demand during Stage III emergency, in order to avoid a black-out. The IOU’s, on the other hand, offer a menu of programs targeting various customer groups and load control technologies.

Staff’s conclusion is that economics for a demand response program for both the utility and the customer is not favorable for the time being, given wholesale electric price levels observed in 2003 and projections for the next four to six years.

Staff plans to continue with the following activities:

- Continue to monitor the market conditions and prices; and should market conditions improve, accelerate program development.
- Conduct a customer survey in September to gather feedback regarding customer readiness and barriers to implementation.
- Expand the deployment of interval metering to increase awareness and readiness.
- Continue investigation and testing of control technologies.

Long Term Portfolio Implementation Plan Update

Outlined below is a brief status update of the eleven Long-Term Portfolio Implementation Plans, a more detailed update is provided in Attachment B.

5. Acquisition of Renewable Resources to meet 10% of load by year 2008 and 20% of load by year 2015

The renewable energy implementation plan was provided to Council as an information report in March 2004 [CMR:168:04]. CPAU is implementing renewable energy procurement in two phases: power purchase agreements for the near term (2005-2008), and exploring new resource development opportunities for the longer term (2008-2015).

CPAU participated in a Request for Proposals (RFP) issued in conjunction with the Northern California Power Agency (NCPA) for renewable energy supplies to meet Long-Term Electric Acquisition Plan (LEAP) Guideline #6, Renewable Portfolio Investments. The RFP was issued on March 11, 2003. Resources being pursued for
the near term are 20 MW of wind energy from Solano County with deliveries beginning in 2005, and 3-10 MW of electricity from landfill gas from various locations in and around the Bay Area, with deliveries beginning in 2006-2007. Agreements with NCPA (second and third phase agreements) to negotiate power purchase agreements for wind and landfill gas energy were approved by Council in March 2004 [CMR:174:04].

The contract negotiations are nearing completion. A report describing the forthcoming renewable energy contracts, basic structure, key contractual terms, the products being delivered, and next steps was presented to the UAC on July 7, 2004 (Attachment B). These contracts will provide 8-12% of the City’s projected electric load. Staff expects to present these contracts to Council for its consideration and approval over the next few months. Staff will begin to evaluate longer term opportunities for Tier 2 renewables following adoption of the Tier 1 renewables contracts.

California Senate Bill 1078 passed in 2002 requires retail electricity sellers, including investor-owned utilities (IOUs) but not publicly owned utilities, to increase the eligible renewable energy content of their electricity deliveries by one percent per year over a baseline level determined by the CPUC. Retail sellers must meet a target of 20 percent renewable content in their electricity portfolios by December 31, 2017. The IOUs are starting from an existing level of eligible renewable energy content of approximately 11%. New legislation is being considered by the state to accelerate the 20% target from 2017 up to the year 2010. The CPUC intends to allow the IOUs to issue RFPs to begin the solicitation process for meeting these goals during July of this year. Staff expects to monitor these developments and implement programs for the City as appropriate.

6. Implementation of Palo Alto Green Program (PAG)

As of 7/6/2004 PAG has approximately 2,527 active participants or 9.2% of all electric accounts. PAG continues to be the second highest subscribed program in the nation based on the percentage of utility customer enrollment. PAG purchased 1,178 MWh for the month of June 2004, approximately 1.5% the month’s total retail energy sales. A more detailed program description was provided to Council in April 2004 (CMR:196:04).
7. Continued Implementation of Public Benefits Program

The Public Benefits Program is funded at 2.85% of electric retail sales revenues, or, FY 03-04, at approximately $1.8 million. The City offers various incentive and educational public benefit programs to residential, commercial and public/institutional customers.

Residents receive rebates for installing efficient lighting, appliances, windows, insulation and other measures. Commercial and public sector customers receive subsidized energy efficiency studies and rebates for efficient lighting, motors, heating and air-conditioning and process equipment. All customers are eligible for rebates to install solar electric (photovoltaic) systems. Other programs include research and demonstration of new technologies such as geothermal heating and cooling systems, low income rate assistance, public art showcasing energy themes, and targeted tree planting.

The following is a list of program accomplishments for fiscal year 2003-04. Some programs are funded from both electric and gas public benefit budgets. These programs are similar to those offered by other local utilities such as PG&E, Silicon Valley Power and Roseville electric.

Energy Efficiency Programs

Approximately 50% of the Public Benefits funds are expended on energy efficiency programs listed below, providing an energy savings of approximately 0.4% of City’s annual energy load.

- **Smart Energy Program**: Provide incentives for a variety of residential energy savings measures. $330,000 in rebates was paid, saving 900,000 annual kilowatt-hours.
- **Eichler Home Program**: Provide incentives for a variety of energy savings measures tailored to the unique needs of Eichler-type homes. $17,000 in rebates was paid, saving 3,500 annual kilowatt-hours.
- **Appliance Rebate Program**: Provide incentives to residents for purchase of efficiency appliances. $133,000 in rebates was paid for 915 appliances, saving 400,000 annual kilowatt-hours.
- **Commercial Advantage Program**: Provide incentives to implement various efficiency projects (lighting, motors, air-conditioning, controls) at commercial
facilities. 75 energy saving measures were installed, saving 700 kW and 3,000 MWh per year for a cost of $222,000 in rebates.

- **Consultant Assistance for Resource Efficiency**: Provide incentives for commercial energy audits. 24 studies were performed for a cost of $184,000.

**Photovoltaic, R&D, Education, and Rate Assistance Programs**

- **PV Partners Program**: Provided $75,000 in rebates to 8 residential customers for installing solar electric systems (23 kW, generating 40,000 kWh/yr.). Palo Alto now has 85 systems totaling 266 kilowatts, generating 450,000 kWh per year.

- **Research, Demonstration and Development**: Research a variety of new efficient technologies. A $50,000 grant was paid to demonstrate the effectiveness of ground-source heat pumps in comparison to standard air-cooled equipment.

- **Consumer education**: This is an ongoing effort to provide education to residential and commercial customers about energy efficiency and renewable energy. Marketing tactics include: utility bill inserts, advertising in local newspapers, point of purchase displays, direct mail, workshops, special events, tours, and working with community groups such as neighborhood associations, retail associations and the Chamber of Commerce. The City’s largest commercial customers receive tailored information from their assigned account representative.

- **Schools Education Grant**: Provided $50,000 to the Palo Alto Unified School District for tailored educational programs and professional development related to energy efficiency, water conservation and renewable energy.

- **Residential Rate Assistance Program**: $5,000 in assistance was budgeted for the 271 residents on the discounted electric rate.

8. Evaluation of Additional Opportunities for Cost Effective Energy Efficiency Program

Evaluation of additional opportunities for cost-effective energy efficiency programs will be done in conjunction with the Rocky Mountain Institute (RMI) project. Staff is working with RMI, a leading planning and analysis organization, to implement an integrated approach for a robust energy resource portfolio to meet balanced objectives and reliable service at low and stable cost/rates in an environmentally responsible manner. RMI has developed state-of-the art resource planning principles called the Energy Resource Investment Strategy (“ERIS”) which is directly applicable to CPAU.
RMI received a grant from the William and Flora Hewlett Foundation to apply these unique ERIS principles to utilities resource planning. RMI will apply $30,000 of this grant to Palo Alto’s proposed project. Palo Alto’s cost is $75,600. The specific goal of the project is to refine the local resource elements of CPAU’s electric portfolio implementation plans to meet the objectives and guidelines reflected in the long-term plans, with particular attention to (1) local generation alternatives, and (2) demand-side resources.

9. Monitor Opportunities to Invest in Natural Gas Fired Generation

Two major initiatives were implemented to address the gas-fired electric generation component of the electric portfolio plan. First, the City participated in an RFP initiated by Northern California Power Agency (NCPA) on behalf of its Bay Area members to evaluate opportunities for Bay Area generation from the all interested suppliers. The City has also, as a follow-up, initiated a feasibility study to evaluate local generation alternatives.

The objective of the NCPA RFP was to seek interest from suppliers to meet electricity demands of Bay Area members of NCPA (Palo Alto, Alameda, and Port of Oakland) with gas fired thermal plants. Types of suppliers targeted were:

- Existing power plant owners
- Power plants in construction, ready for construction, or in a conceptual stage
- Other supply methods (e.g. as power purchase for an initial period with option for equity ownership and/or tolling arrangement)

Multiple proposals were received from 17 suppliers by the November 10, 2003 RFP deadline. Highlights of the proposals were:

- None of the 17 proposals were from existing generator owners willing to sell a part of their plant
- Duke and Calpine were the only two responding entities that owned thermal generators in the Bay Area – these entities were proposing tolling or pre-pay type transactions
- TID proposed a must-take type arrangement for its new plant and did not provide any flexibility associated with operating the plant
- A number of entities were only interested in being a contractor if NCPA chose to build a plant
• Coral, Sempra, Duke (3 of the 4 Palo Alto EMA suppliers) responded to the RFP with a variety of tolling agreement and fixed price proposals
• Some of the proposals had terms of up to 20 years, but most of them were for 5-15 year duration

While the RFP proposals were competitive with generic market purchases, internal generation has unique advantages related to reliability, local control, and high benefit to cost ratios due to avoidance of transmission costs. None of the proposals received could meet these unique advantages. Hence, it was decided that it is prudent for the City to explore Palo Alto customer interest to site a local generation plant. City of Alameda and Port of Oakland also decided not to commit to any of the supplier proposals.

Attachment C provides a detailed description of the process to undertake the Local Generation Feasibility Study.

While the City is exploring local generation options in the 25-50 MW range, other municipal entities are also designing power plants to meet their own community needs. Plant being built by SMUD (500 MW), City of Santa Clara (150MW), and Turlock Irrigation District (250 MW) are expected to come on-line in the 2005-06 timeframe. The City of Roseville is also planning a 150 MW plant and is expected to come-online in 2007. These new generation projects are expected to meet 25-50% of these entities’ projected loads over the next 10 years. Further detail is provided in Attachment D.

10. Monitor Local Opportunities to Site Small Renewable and Cogeneration Projects

Distributed generation (DG) provides electric supply very close to the end user, which can reduce the strain on the transmission and distribution systems, reduce power losses, and enhance reliability. DG can be modular, providing implementation and operational flexibility unavailable to centralized generation, and may be able to offset or defer investments in transmission and distribution infrastructure. Many DG technologies can also produce either steam or hot and chilled water, referred to as “cogeneration” or “combined heat and power” (CHP), which achieves higher overall energy efficiency compared to generating electric power only. Because of the many potential benefits, DG may have an important role to play in contributing to meeting a portion of Palo Alto’s electricity needs.
CPAU is currently undertaking two distributed resource (R&D) projects: Distributed Generation Valuation Methodology, and Local Resource Integration. These applied research projects dovetail well with the local generation alternatives feasibility study.

The first project is nearly complete, focused on evaluating the value of distributed generation, particularly renewable DG, specific to Palo Alto as a case study in a California Energy Commission funded Public Interest Energy Research (PIER) project. The CPAU case study is one task of a larger project being conducted in cooperation with several other municipal utilities. This project is expected to be competed by the end of the year. The initial results indicate that there are several potential locations in Palo Alto where small-scale supply resources could reduce system losses, enhance reliability, and avoid costs such that DG may be cost-effective in some locations.

The second project is just getting underway, applying state-of-the art resource planning principles directly applicable to CPAU electric resource planning. These principles, Energy Resource Investment Strategy (“ERIS”), were developed by the Rocky Mountain Institute and are described under implementation plan #4 above. These projects continue to examine and learn from similar projects implemented by other utilities.

11. Continue to Investigate New Tools to Manage Portfolio Risk and Seek Council Approval if Required

Staff continues to investigate new tools to manage electric portfolio risk. One of the tools being proposed as part of the State’s transmission market design proposal is Congestion Revenue Rights (CRRs) to manage the transmission-basis risk between point of generation and location of load. Siting of local generation provides some protection in the portfolio against this risk. However, the City expects to participate in the CRR allocation process to hedge the transmission basis cost risk from CPAU’s generation resources (CVP generation projects, Calaveras generation projects, energy contracts with suppliers) to the City meter. With the expectation that the CRR proposal will be solidified in the 2005/06 timeframe, a more complete assessment will be provided to Council at that time. All risk management tools have to undergo the review and approval process of the Risk Oversight Committee as outlined in the August 2002 Council-approved Risk Management Policies (CMR: 400:02).
12. Pursue any Low-Cost, High Value Prospects to Acquire Supply Related Resources

No specific, executable high value supply opportunity has arisen to this point. Staff continues to optimize available supply resources and contracts to maintain low and stable retail rates. An example is the new 2005 Western Base Resource Contract. Though Palo Alto, along with other Western customers who operate electric utilities (such as SMUD and other NCPA members) has not subscribed for a bundled Western product after 2005, the City continues to participate in various ways to enhance the value of the CVP hydro projects and transmission systems.

13. Continue to Refine Analytical Tools used to Manage the Electric Portfolio

Staff has revamped and upgraded the existing electric portfolio models in recent months with additional tools to closely model newly created ancillary services markets. Under the new Western contract, the City will be obliged to make additional ancillary capacity purchases. A new database has been created to closely track the increased volume of market transactions staff is undertaking to fill the energy hole arising in 2005 and beyond. Staff is also closely working with Western to better model the hydro production variability to better respond to cost variation caused by hydro production uncertainties.

14. Monitor and Participate in Regulatory and Legislative Initiatives

City and NCPA staff continues to actively participate in the California Independent System Operator (CAISO) workgroups and Federal Energy Regulatory Commission (FERC) technical conferences to influence the proposals to redesign California’s transmission markets (called MD02 by the CASIO) expected to be in place in the 2006-07 timeframe. Palo Alto, along with the City of Santa Clara and City of Alameda were successful in advocating for a ‘load aggregation’ settlement under the CAISO’s proposed Locational Marginal Pricing (LMP) model under MD02. This will considerably reduce the cost exposure of Palo Alto loads from having to pay potentially high cost for transmitting electricity from City-owned generation projects in the Central Valley to City loads along congested transmission paths in to the Bay Area and the SF Peninsula.

There are also a number of ongoing procedures and initiatives relating to Bay Area transmission planning and upgrades that staff, either directly or via the Bay Area Municipal Transmission Group (BAMx) is monitoring and participating in with the...
goals to maintain grid reliability, promote a streamlined planning process, and support economic and reliability driven transmission projects.

15. Maintain Adequate Rate Stabilization Reserves

In December 2003 Council approved a Revised Utility Reserves Guidelines (CMR: 483:03) to keep up with the changing nature of the electric supply portfolio in 2005. The guidelines specifically sets aside approximately $10-20 million dollars (min-max guidelines) to make additional energy purchases in the event of 2 consecutive dry hydro seasons without having to increase retail electric rates to customers. Since commodity budgets are set based on average hydro conditions, staff expects to seek budget increases and draw down from reserves in mid-year if the actual hydro production turns out to be below average.

RESOURCE IMPACTS

This is a plan update. Resource requirements to implement elements of the plan have been included in the Council adopted budget. Specific contracts required to implement individual elements of the plan will be brought to Council at the appropriate time.

POLICY IMPLICATIONS

LEAP Implementation plan conforms to the Council approved LEAP Objectives and Guidelines. The plan is also in accordance with the Utilities Strategic Plan and Energy Risk Management Policies.

ATTACHMENTS

B: Long Term Implementation of Plan #1: UAC report of July 7, 2004 on Forthcoming Renewable Resource Contractual Terms
C: Long Term Implementation Plan #5 – Feasibility Assessment of Local Generation Alternatives
D: Summary of Electric Commodity Portfolio Strategy Survey
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