City of Roseville
Public Utilities Commission
February 28, 2012
7:00 P.M.
Council Chambers
311 Vernon Street

AGENDA

1. **Roll Call**

2. **Pledge of Allegiance**

3. **Approval of the January 24, 2011 Minutes**

4. **Oral Communications/Public Comment**

5. **New Business**

   a. Environmental Utilities Monthly Update
   Report by Environmental Utilities Director Derrick Whitehead summarizing monthly status of Environmental Utilities issues, for information.

   b. Stormwater Management Program's Adopt-A-Creek Program
   Presentation by Environmental Utilities Senior Engineer Delyn Ellison-Lloyd on the Adopt-A-Creek Program, for information.

   c. Stormwater Permit Update
   Presentation by Environmental Utilities Engineering Manager Kelye McKinney on the Stormwater Permit, for information.

   d. Roseville Electric Utility Monthly Update
   Report by Electric Utility Director Michelle Bertolino summarizing monthly status of Electric issues, for information.

   e. Roseville Electric Utility Infrastructure Rehabilitation Policy
   Presentation by Electric Engineering Manager Scott Vaughan on the Electric Infrastructure Rehabilitation Policy, for recommendation.

6. **Reports – Commission/Staff**

7. **Adjournment**

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CITY OF ROSEVILLE CALIFORNIA

MINUTES
Public Utilities Commission
January 24, 2012
7:00 p.m.

Council Chambers
311 Vernon Street
Roseville, CA 95678

1. Roll Call

PUC Commissioners Present: Gretchen Hildebrand
Bruce Houdesheldt
Joe McCaslin
Tom O'Meara
Bruce Scheidt
Jim Viele

PUC Commissioners Absent: Tom Barrington

Chair Viele excused the absence of Commissioner Barrington.

Chair Viele excused Commissioner Scheidt's absence at the November 22, 2011 meeting

Staff Present: Derrick Whitehead, Environmental Utilities Director
Cathy Lee, Environmental Utilities Senior Engineer
Terri Shirhall, Environmental Utilities Administrative Analyst
Mark Morse, Environmental Coordinator
Ed Kriz, Water Utility Manager
Kelye McKinney, Environmental Utilities Engineering Manager
Jim Mulligan, Environmental Utilities Principal Engineer
Michelle Bertolino, Electric Utility Director
Mike Wardell, Power Supply Manager
Shannon McCann, Electric Analyst
Dave Brown, Assistant Electric Utility Director, Distribution
Mike Bloom, Assistant Electric Utility Director, Planning & Services
Joseph Mandell, Deputy City Attorney

2. Pledge of Allegiance

3. Minutes of November 22, 2011

The minutes of November 22, 2011 were approved as amended.

4. Oral Comments/Public Comment

None.

5. New Business

a. Environmental Utilities Monthly Update

Report by Environmental Utilities Director Derrick Whitehead summarizing monthly status of Environmental Utilities issues, for information

b. Aquifer Storage and Recovery Draft Environmental Impact Report (DEIR)
Public Hearing to accept public comments on the DEIR. Presentation by Environmental Utilities Director Derrick Whitehead on the Aquifer Storage and Recovery Draft EIR, for recommendation.

Derrick Whitehead presented the staff report and responded to questions.

Chair Viele opened the public hearing and invited comments from the audience.

Buck Taylor, 7120 Firefly Green Lane

Mr. Taylor asked if water injected into the well would be used during critically dry years and following a 20% conservation level.

Derrick Whitehead confirmed that ASR would be used in critically dry years and would also be used to fill any shortfall in water supply (during a drought or emergency) after 20% conservation levels have been met.

Mr. Taylor asked if ASR water would be used to meet peak demands and also after a 20% conservation level.

Derrick Whitehead explained that when using wells for peaking, surface water injected into the aquifer is stored for a significantly shorter duration of time prior to extraction. In essence it is like storing treated surface water in tanks not acquiring the characteristics of groundwater.

Commissioner Discussion:

- Possibility of financial option with other cities for water supply
- Impact on East Roseville versus West Roseville
- Peaking – timing and notification
- ASR not the primary source of water
- Suggested that information on Chromium 6 be added to record for Council
- ASR schedule beyond PUC Approval
- Sun City Well
- Treatment of groundwater and ASR injected water

MOTION

Commissioner McCaslin made the motion, which was seconded by Commissioner Scheidt to accept comments received during the 46 day comment period, both oral and written, on the draft environmental impact report for the Aquifer Storage and Recovery Project, and to direct staff to incorporate all comments, with appropriate responses, into a final environmental impact report to be forwarded with Public Utilities Commission recommendation to the City Council for their review and approval.

The motion passed with the following vote:
Ayes: Hildebrand, Houdesheldt, McCaslin, O'Meara, Sheidt, Viele
Noes:
Abstain:

c. Roseville Electric Utility Monthly Update
Report by Electric Utility Director Michelle Bertolino summarizing monthly status of Electric issues, for information.

d. Roseville Electric Utility Deep Well Injection Update
Presentation by Power Plant Manager Russ Nichols on the status of the Deep Well Injection Project, for information.

This item was continued to the next meeting

e. Roseville Electric Utility Integrated Resource Planning
Presentation by Power Supply Manager Mike Wardell and Electric Analyst Shannon McCann on the Integrated Resource Plan, Description Situational Analyses and Recommendations, for information.

6. Reports – Commission/Staff

None.

7. Adjournment

Commissioner Hildebrand moved for adjournment of the November 22, 2011 Public Utilities Commission meeting. Commissioner O'Meara seconded the motion. The motion passed unanimously at 8:35 p.m.

Jim Viele
Chair

Karen Sainsbury
Recording Secretary

City of Roseville
Roseville Electric Infrastructure Rehabilitation Plan Policy

Purpose

The purpose of this policy is to establish guidelines and procedures for the Roseville Electric Infrastructure Rehabilitation Plan (RP) for the replacement of generation, distribution and other electric assets and equipment. The plan will provide a financial funding and replacement strategy that will assist in maintaining high service levels at stable and low life cycle cost.

Policy

The RP policy establishes an asset replacement funding strategy as well as a replacement decision making methodology that evaluates age, equipment conditions, risk of failure, utilization factors and criticality to determine the need for replacement of an existing asset. Equipment evaluation will be performed on a two year cycle as described in Section 6 of the RP policy. Roseville Electric will follow this policy and associated procedures to provide sustainable infrastructure and maintain safe, reliable, effective and efficient electric utility services for the City of Roseville.

1. Assets Covered by the Plan

Assets have been grouped into three categories based on their operational environment:

- *Generation*—Assets in this group include the Roseville Energy Park (REP) and Roseville Power Plant No.2 (RPP2).

- *Distribution*—Assets in this group include the Dispatch Control Center and all 230-KV Receiving Substations, Sub-transmission Lines, Distribution Substations and Distribution Equipment serving Roseville customers.

- *Other Electric Assets*—Assets in this group include the main Office Building, Operations Building, Office Furniture, Computer & IT equipment and all other City wide shared equipment required to support Roseville Electric's operations.

1.1 Assets Excluded from Rehabilitation Plan

The generation assets of Roseville Energy Park (REP) are divided in two groups. The Generator and prime mover group (Power Island) and the auxiliary or Balance of Plant (BOP) systems.

The prime movers at the REP are the two gas combustion turbines, similar to jet engines used in the large commercial aircraft. The units will be refurbished a number of times during their 25 year life and may have limited salvage value at the end of their designed

operation. In addition, as is typical in the electric industry, financing for the Roseville Energy Park was amortized over the life of the plant via the issuing of bonds. Additional rehabilitation funding for the replacement of these assets would therefore, require the current Roseville Electric customers to, in essence, pay for the asset twice. Thus, the generator and prime mover group is not included in the RP. This portion of the REP will be maintained under a Long Term Service Agreement or LTSA with Siemens.

Vehicle replacement policies are established and managed on a City wide basis by the Central Services Department and are not included in Roseville Electric's RP. The land and landscaping are also not included in the RP.

1.2 Assets Included in the RP

The REP auxiliary equipment (BOP-Balance of Plant) is included in the RP. This includes all the electrical, mechanical and water filtration support systems at the facility. The life expectancy of the major BOP equipment ranges from 40 years for the switchgear and transformers, to 10 years for a number of the electrical control components.

Other assets included in the rehabilitation programs are:

1) Plant and substation assets for the Distribution System – this includes all the substation equipment, transformers, switchgear, and control and protection equipment.
2) Roseville Electric's Other Assets – Including the main administration and operations buildings as well as all of the office equipment, furniture, computers and communication equipment.
3) Distribution network assets including all 60-kV lines, 12-kV lines, distribution transformers and other low voltage distribution equipment required to deliver electrical service.

2. Estimated Useful Life

The estimated life of electric utility equipment is based on industry standards, manufacturers' recommendations, user group surveys, research undertaken by other agencies, and the experience of Roseville Electric's operations and engineering staff. The actual useful life is dependent on the utilization factor, level of maintenance, environmental conditions, and historical performance of each particular asset. These factors are evaluated to determine the estimated useful life for each type of equipment. The estimated useful life is used to predict the anticipated replacement budget and associated equipment evaluation cycle.

Roseville Electric has defined a standard or estimated useful life for each class of asset identified in their system inventories as well as those specifically called out in Roseville Electric's Standard Operating Procedures.

3. Asset Replacement Methodology

Assets identified to be at a high risk of failure based on the evaluation criteria will be considered for replacement during the two year review cycle. Assets will be evaluated for replacement based on a Replacement Justification Score (RJS).

The system will use a five point scale with a 1 representing a new asset and a 5 representing an asset in poor condition or near its end of life. The overall equipment RJS will be determined through a comprehensive analysis of the following factors:

1) Age of equipment
2) Past failure history
3) Equipment demand
4) Equipment performance
5) Criticality to the system
6) Previous maintenance and repair costs
7) Physical Condition of the Asset
8) Risk of failure and safety issues
9) Consequential cost of catastrophic failure
10) Technology Obsolescence

The maximum combined score of the above ten factors will be 50 points.

If the total evaluated score is between 32 and 38 points, the equipment will be considered for replacement during the next two year rehabilitation evaluation cycle. However, if the total evaluated score is 39 points or greater, the equipment will immediately be considered for replacement.

4. Funding Projection Strategy

There are numerous ways to fund a Rehabilitation Program. Methods include utilizing a single sinking fund based on replacing all assets in the program at the end of their estimated useful life or utilizing a cash funding method to review and adjust funding levels on a two-year basis. Funding requirements for both methods include all material, direct, indirect and associated costs for asset replacement.

In order to operate the utility within existing budgetary levels, the proposed plan uses the cash funding method. This is sometimes known as the "just in time" approach and results in lower fund requirements than the simple sinking fund approach.

The assigned rehabilitation project funds shall only be used for RP expenditures. Criteria used to determine qualified infrastructure asset rehabilitation or replacement costs shall include the following:

- The RP shall include existing electric infrastructure and all future infrastructure once it has been placed in service.
- The RP budget shall be approved by the City Council
- Rehabilitation or replacement is necessary to maintain levels of service and reliability consistent with City Council Policy.
- The RP may include technological updates necessary to maintain current capabilities of the electric system.
- RP funds may be used on projects to comply with changes in regulatory requirements that affect the electric utility.

5. Funding and Contingency

The proposed budget for the next five years will be used to assess the program's capital needs. The impacts on cost of service and rates will be assessed to determine the level of funding that is available.

The RP will not budget for unexpected major equipment failures. Large emergency equipment replacements will be funded by the Rate Stabilization Fund.

6. Assessment of Plan

Every two years, asset rehabilitation and replacement needs will be evaluated. Evaluation criteria will include, but is not limited to, the following:

- Asset life expectancy by class of asset;
- Inflation rates for both operating and rehabilitation funds;
- Unit costs for asset replacement;
- Condition, criticality and operational usefulness of assets;
- Utilization factor;
- Risk of asset failure and contingency backup;
- Consequences of asset failure;

Funding will be adjusted based on these factors to reflect changes in rehabilitation and replacement requirements.

7. City Council Adoption and Future Revisions

The RP as adopted by the City Council will be reviewed and revised as necessary. Any changes shall be approved by the City Council.