TO: HONORABLE CITY COUNCIL

FROM: CITY MANAGER                                      DEPARTMENT: UTILITIES

DATE: MAY 15, 2006                                          CMR: 221:06

SUBJECT: ADOPTION OF A RESOLUTION APPROVING THE FACILITIES
STUDY AGREEMENT WITH PACIFIC GAS AND ELECTRIC
COMPANY IN AN AMOUNT NOT TO EXCEED $220,000 TO
DETERMINE THE FEASIBILITY AND DEVELOP A COST ESTIMATE
OF CONVERTING THE PALO ALTO TO RAVENSWOOD
ELECTRICAL TRANSMISSION LINE FROM 115 KV TO 230 KV

RECOMMENDATION

Staff recommends that the City Council adopt the Resolution approving the Facilities Study
Agreement with Pacific Gas and Electric Company (PG&E) in an amount not to exceed
$220,000 to determine the feasibility and develop a cost estimate of converting the Palo Alto to
Ravenswood electrical transmission line from 115 kV to 230 kV, including the amount of
$200,000 for the study and $20,000 for unforeseen additional services.

BACKGROUND

The electrical transmission charge assessed by the California Independent Systems Operator
(CASIO) for the use of the electrical transmission grid is based on the voltage at which
electricity is delivered to the City. At present the City pays a Transmission Access Charge (TAC)
of approximately $6 for every Megawatt-hour (MWh) of electricity delivered to the City. This is
equivalent to an annual cost of approximately $6 million.

If the City upgrades the connection voltage from the present 115 kV level to the 230 kV level,
the annual TAC cost to the City is expected to drop from $6 million/year to approximately $3
million/year.
DISCUSSION

The connection voltage upgrade from 115 kV to 230 kV will require PG&E to upgrade its 115 kV double circuit transmission line from PG&E’s Ravenswood substation to a PG&E-owned substation adjacent to the City’s Colorado substation. In order to study the upgrade of the line and undertake the necessary reconfigurations, the City and PG&E have developed a Facilities Study Plan (Attachment C).

The Study Plan has the following elements:

1. Assessment of the feasibility of converting the lines.
2. Cost estimates and work scope for converting the lines from 115 kV to 230 kV.
3. Cost estimates and work scope for modifying PG&E’s Ravenswood Substation to accommodate the new 230 kV lines and for removing PG&E’s Palo Alto Switching Station.
4. Cost estimates and work scope to maintain reliable transmission service during the conversion.
5. Construction schedule.

Terms and conditions for the City’s electrical interconnection with PG&E are outlined in the NCPA/City Interconnection Agreement with PG&E (CMR:298:02 of July 15, 2002). The Facilities Study Agreement will be governed by terms and conditions outlined in this Federal Energy Regulatory Commission (FERC)-approved Interconnection Agreement.

Staff is also studying an alternative to this project by evaluating the potential of connecting to the 230 kV electrical grid on the west side of town through the 230 kV substation at the Stanford Linear Accelerator Center (SLAC). A contract to study this option will be brought to Council in the coming months.

RESOURCE IMPACT

The estimated cost of the study is $200,000 and this amount has been included in the Utilities Department budget (Capital Improvement Program Project EL-06001). The full $200,000 payment will be made to PG&E upon Council approval of the agreement. Since it is a cost-based study, if the actual cost incurred by PG&E in conducting this study is less than $200,000, the unspent amount will be returned to the City. There is also a possibility that actual costs may be higher. An additional $20,000 to cover such unforeseen events has also been included in the project budget.

The decision whether or not to implement the upgrade will depend on the study assessment of the cost of the upgrade versus the cost of the SLAC alternative upgrade, compared with a potential cost savings of $3 million per year.
POLICY IMPLICATIONS
This study supports Strategy 1 of the Utilities Strategic Plan, to ensure a high level of system reliability in a cost effective and timely manner.

ENVIRONMENTAL REVIEW
Execution of the Agreement does not constitute a project for the purposes of the California Environmental Quality Act (CEQA).

ATTACHMENTS
A: Resolution Approving the Facilities Agreement with Pacific Gas and Electric Company
B: Facilities Study Agreement with PG&E
C: Facilities Study Plan

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