



City of Palo Alto

City Council Staff Report

(ID # 5716)

Report Type: Consent Calendar

Meeting Date: 5/18/2015

Summary Title: Modifications to Electric Special Project Reserve Guidelines

Title: Utilities Advisory Commission Recommendation to Adopt a Resolution Modifying the Electric Special Project Reserve Guidelines

From: City Manager

Lead Department: Utilities

Recommendation

Staff and the Utilities Advisory Commission (UAC) recommend City Council adopt a resolution (Attachment A) modifying the Electric Special Project Reserve Guidelines as follows:

1. Change the date by which the funds must be committed to the end of FY 2017, instead of by the end of FY 2015; and
2. Change the date by which any uncommitted ESP Reserve funds will be transferred to the Electric Supply Operation Reserve and the ESP Reserve closed to the end of FY 2022, instead of FY 2020.

Executive Summary

The Calaveras Reserve was first established in 1983 to help defray costs associated with the Calaveras Hydroelectric Project. Since its inception, Council has changed the purpose of the reserve several times, always ensuring that the funds must be used for the benefit of the City of Palo Alto Utilities (CPAU) electric ratepayers.

In November 2011 Council changed the name of the Calaveras Reserve to the Electric Special Project (ESP) Reserve and adopted ESP Reserve Guidelines to ensure the reserve funds were spent to benefit electric ratepayers. The guidelines established a goal of designating how the ESP Reserve funds were to be spent by end of FY 2015.

Since the guidelines were developed in 2011, staff has made progress towards the development of two substantial projects: smart grid deployment and transmission upgrades to improve reliability. Both projects are potentially good candidates for use of the ESP Reserve funds, however neither project is developed sufficiently for staff to recommend committing the ESP Reserve funds at this time. More time is needed to determine merits of those, or other, projects to benefit electric ratepayers. Therefore, the UAC and staff recommend a two-year

extension to the timing in the ESP Reserve Guidelines for identifying and committing ESP Reserve funds, to ensure sufficient time to fully evaluate projects that may be candidates for funding from the reserve.

Background

The Calaveras Reserve was first established in 1983 to offset costs associated with the Calaveras Hydroelectric Project. Council changed the purpose of the Calaveras Reserve in 1996 (CMR:214:96), and authorized collecting funds from electric ratepayers to cover the amount that certain electric assets' costs were projected to be above their value, or "stranded", in anticipation of electric deregulation in 1998 and the possibility of "direct access" (i.e., electric customers could receive commodity services from another energy supplier). Additionally, Council approved a new Calaveras Reserve policy linking the reserve balance to an amount sufficient to cover potential stranded costs.

When the Calaveras Reserve balance reached \$71 million in 1999, stranded costs were deemed fully collected and Council ceased the collection of funds for these stranded costs and established the Calaveras Reserve Guidelines (CMR 222:99). The guidelines included a schedule to draw down the funds through the end of FY 2033 so that each year's stranded costs were transferred into the electric fund's operating budget.

On June 15, 2009, Council approved new guidelines to manage the Calaveras Reserve (CMR:275:09) which included setting the minimum transfer to the electric utility's operating budget based on an annual calculation of short-term stranded costs. In addition, the updated guidelines stated that any funds in excess of long-term stranded costs should be used for projects that benefit electric ratepayers.

In 2011, the potential that Palo Alto would have stranded costs as a result of direct access was over and Council expressed concerns about the rate at which the funds were being depleted, given the prospect of several capital intensive projects facing electric ratepayers—including the possibility of spending \$20 million to fund smart grid initiatives and \$30 million or more in transmission investments to improve the reliability of electric supply for Palo Alto. In November 2011, Council adopted Resolution 9206 which:

- 1) Changed the purpose of the Calaveras Reserve from partially funding above market electric costs and partially funding projects that benefit electric ratepayers, to entirely funding projects that benefit electric ratepayers;
- 2) Renamed the Calaveras Reserve as the Electric Special Project (ESP) Reserve; and
- 3) Set the following ESP Reserve guidelines:
 - a) The purpose of the ESP Reserve is to fund projects that benefit electric ratepayers;
 - b) ESP Reserve funds are to be used for projects of significant impact;
 - c) Projects proposed for funding must demonstrate a need and/or value to electric ratepayers. The projects must have verifiable value and not be speculative, or risky in nature;

- d) Projects proposed for funding must be substantial in size, requiring funding of at least \$1 million;
- e) Set a goal to commit funds by end of FY 2015; and
- f) Any uncommitted funds remaining at the end of FY 2020 will be transferred to the Electric Supply Operation Reserve and the ESP Reserve will be closed.

When the ESP Reserve Guidelines were adopted, the ESP Reserve balance was approximately \$50 million. This included a \$2 million transfer made in 2009 to fund a four-year pilot program for zero-interest energy efficiency loans for commercial customers. Demand for the pilot program was low and after four years the program was terminated. Approximately \$1.5 million has since been returned to the ESP Reserve. The current balance in the ESP Reserve is \$51.8 million.

Discussion

The ESP Reserve Guidelines approved by Council in 2011 were established to guide in the evaluation of projects and set deadlines for committing the funds, to ensure progress was made in expending the funds and returning benefits to the electric ratepayers. Consistent with the guidelines, funds have been used for several initiatives including funding studies and pilot programs in support of bigger initiatives.

Staff continues to evaluate the merits of smart grid deployment and transmission line upgrades. Both of these initiatives are complicated and require long lead times to develop. The exact costs and benefits are not currently known; however, the two projects combined are expected to cost more than \$50 million. At the opportune time in the coming years, staff will provide an assessment and recommendation outlining the costs, benefits and requirements for each project. An update on the current status of the two projects follows.

Implementation of Smart Grid Systems

A consultant study, *The Assessment of Smart Grid Applications Relevant to Palo Alto*, was undertaken to look at smart grid applications specific to Palo Alto. Key findings from the study presented in February 2012 (Staff Report 2443) include:

1. Advanced meter-based sensors can provide granular and timely energy and water consumption information to customers to more optimally use utility services, and enables CPAU to offer varied retail rates to customers based on individual needs.
2. Voltages sensed by the advanced meters enable the electric utility to manage the distribution system voltage at a more optimal level and enables CPAU to detect and respond to electricity outages faster.
3. Deployment of sensor technology in the electric distribution system enables better utilization of distribution system assets to optimally facilitate a greater adoption of electrification technologies such as electric vehicle and distributed generation technologies, including photovoltaics.

The 2012 assessment also found the benefit stream associated with such a large capital investment was not compelling enough, and the technology not mature enough, to warrant a full scale deployment at that time. Based on the consultant's recommendation, staff has instead undertaken a number of pilot scale projects to better assess the costs, benefits and hurdles associated with smart grid deployment and to provide advanced meters to CPAU's "early adopter" type customers.

Early results from the pilot projects and technology advancements in the past 3 years now suggest full implementation of smart grid systems will be economical for Palo Alto. As a first step in this regard, CPAU along with the City's Information Technology Department is considering a new Utilities Customer Information System (CIS) to store and process the increased amount of data associated with the advanced meter sensors. This initiative is being undertaken in conjunction with the City's effort to migrate to a new Enterprise Resource Planning (ERP) system. Expectations are that a new ERP/CIS system will be implemented in the 2018-2020 timeline with full implementation of a smart grid system, if found to be cost-effective, to begin immediately thereafter.

The assessment estimated the cost of implementing smart grid systems at \$20-\$25 million. The portion of the cost attributed to the gas and water utilities is approximately \$5 million with the remaining \$20 million attributed to the electric utility.

Transmission Upgrades

Staff continues its efforts to diversify the transmission routes to the City to improve the reliability of electric power delivery to the City. Currently the City's power is delivered over Pacific Gas and Electric's (PG&E) transmission system at its Colorado substation near Highway 101. PG&E uses three 115 kilovolt (kV) transmission lines to serve CPAU, but all three lines run in a common corridor on the bay side of the City. These lines are susceptible to single events that can affect all three lines, as happened in February of 2010 when a small aircraft hit the power lines resulting in a city-wide power outage. Since 2010, the City has been actively involved in the regional transmission planning efforts conducted by the California Independent System Operator (CAISO). This has resulted in two alternatives to diversify the transmission routes to the City that are currently under consideration.

One alternative is an electric transmission interconnection between the City and the SLAC National Accelerator Laboratory (SLAC). The project would construct a new transmission line from SLAC's substation to one of the City's distribution substations. This project would increase reliability of service for SLAC and the City by providing redundant transmission; it would also reduce the City's cost of transmission service by avoiding low voltage transmission charges, since the new connection to the transmission grid would be at 230kV. Preliminary project cost estimates are around \$45 million. Staff has been involved in discussions and negotiations with the key stakeholders, including SLAC, Stanford, the Department of Energy (DOE), and the CAISO for the past few years. Currently Stanford and the City are waiting for the results of further studies, which are anticipated to be completed this spring.

The second alternative for diversifying the transmission routes to the City is for PG&E to build a new transmission access point extending from the City's receiving station to a PG&E site at NASA Ames within the same bay side electric transmission system as the City's existing access point. Under this plan the City's share of the cost has yet to be determined, but should be limited to the incremental costs of upgrades on the City's side of the connection. While this alternative would improve reliability for the City at a lower initial cost, it will not provide long-term transmission cost relief to the City and is a less diverse electric source from the corridor on the western side of the Peninsula.

The preferred alternative will be contingent upon feasibility, cost, reliability, diversity, and agreement between stakeholders. Staff anticipates that a final decision will occur by the end of 2015. Should the City move forward on the SLAC project, construction may take from 3-5 years after a decision is made. A project of this size will require environmental review followed by engineering design, manufacture of specialized equipment and, finally, construction.

Recommendation

Not designating the ESP Reserve funds at this time to specific projects will allow staff to continue to evaluate the two projects identified above, while also evaluating alternative projects. Additionally, staff and the UAC recommend extending the dates provided for in the existing ESP Reserve Guidelines by two years. Provided Council approves the recommended changes, the ESP Reserve Guidelines shall be modified to read as follows:

- a. The purpose of the ESP Reserve is to fund projects that benefit electric ratepayers;
- b. ESP Reserve funds are to be used for projects of significant impact;
- c. Projects proposed for funding must demonstrate a need and/or value to electric ratepayers. The projects must have verifiable value and not be speculative, or risky in nature;
- d. Projects proposed for funding must be substantial in size, requiring funding of at least \$1 million;
- e. Set a goal to commit funds by end of FY 2017; and
- f. Any uncommitted funds remaining at the end of FY 2022 will be transferred to the Electric Supply Operation Reserve and the ESP Reserve will be closed.

Alternatives

Alternatives to the recommendation to delay the deadlines in the ESP Reserve guidelines by two years include the following:

1. Designate the \$51.8 million in the Electric Special Project (ESP) Reserve by the end of 2015, as follows:
 - a. Use up to \$20 million for smart grid deployment initiatives;
 - b. Use remaining funds of approximately \$32 million for transmission upgrades
2. Close the ESP Reserve effective immediately, and transfer the current balance of the ESP Reserve to the Electric Supply Operation Reserve.

The first alternative is staff's original recommendation to the UAC. While the recommendation meets the Council approved guidelines and provides some level of certainty for how these projects may be funded, allocating the funds to the projects now is premature as the projects have not yet been sufficiently evaluated.

The second alternative, transfer the ESP Reserve funds to the operating reserve now, would defer electric rate increases planned for the next two to three years, thus providing immediate benefit to electric ratepayers in the form of rate relief. Should a substantial project materialize and the funds were no longer available, staff would need to seek rate increases and/or bond financing to pay for the projects at that time. Staff recommends against using reserves to defer addressing long-term structural financial issues. Reserves are generally ineffective at deferring structural deficits more than a few years, and the deferred rate increases are typically higher.

Other alternatives may exist, including reexamining how to use ESP Reserves outside the context of the current Council-approved guidelines. One option is to leave the funds in the reserve in anticipation of Council's adoption of a broader set of reserve guidelines. Examination of this alternative would require extensive review and discussion with the UAC and Council, and is not recommended at this time.

Commission Review and Recommendations

At the April 1, 2015 UAC meeting, staff recommended designating reserve funds to smart grid initiatives and transmission line upgrades as described in the first alternative above. Staff's intent was: 1) to be consistent with the ESP guidelines, which require that ESP Reserve funds be dedicated by June 2015; and 2) to set aside ESP Reserve funds for the two projects while recognizing that ultimate commitment of the funds would be subject to a complete review of the merits of the two projects, assessment of funding mechanism alternatives, and Council approval.

The UAC rejected staff's recommendation on the basis that there was not sufficient information about the merits of the two projects; therefore earmarking the funds to those projects now is premature. The UAC voted unanimously (6-0 with Commissioner Chang absent) to recommend that Council:

1. Not designate the funds for specific projects now;
2. Change the ESP guidelines to defer the date by which the funds must be committed to the end of FY 2017, instead of by the end of FY 2015; and
3. Change the ESP guidelines so that uncommitted funds be returned to the Electric Supply Operation Reserve and the ESP Reserve be closed by the end of FY 2022, instead of FY 2020.

Staff agrees with the UAC's logic and subsequently amended its recommendation accordingly. The excerpted draft notes from the UAC's April 1 meeting are provided as Attachment B.

Resource Impact

Changing the ESP Reserve funds to extend the dates for commitment and expenditure of funds will not impact resources. Resource impacts will be identified as projects are proposed for funding from the ESP Reserve.

Policy Implications

The City's electric ratepayers have been the source of the funds since Council established the Reserve in 1983. In 1996, California's electric industry deregulation law, AB 1890, authorized both investor-owned and municipal utilities to collect a Competition Transition Charge (CTC), on electric customer bills. The City opted to collect the CTC from electric ratepayers and further fund the Calaveras Reserve. The City Attorney's Office has advised that Calaveras funds continue to be spent to benefit those who contributed: the City's electric ratepayers.

The recommendation modifies the Council-adopted ESP Reserve Guidelines and meets the intended use of the original Calaveras Reserve to benefit Palo Alto's electric ratepayers.

Environmental Review

Amending the Electric Special Project Reserve Guidelines does not meet the definition of a project pursuant to Public Resources Code Section 21065, thus no California Environmental Quality Act review is required.

Attachments:

- Attachment A: Resolution to Modify the Electric Special Project Reserve Guidelines (PDF)
- Attachment B: Excerpted Draft Minutes of April 1, 2015 UAC Meeting (PDF)

ATTACHMENT A

*****NOT YET APPROVED*****

Resolution No. _____

Resolution of the Council of the City of Palo Alto Modifying the Electric Special Project Reserve Guidelines

A. In 1983 the City of Palo Alto (“City”) first established the Calaveras Reserve to help defray cost associated with the Calaveras Hydroelectric Project.

B. In 1997 Council authorized the collection of a competitive transition surcharge from the City’s electric customers to cover stranded costs in the event customers elected to receive electric supply services from other providers.

C. In 1999 Council stopped the collection of the competitive transition surcharge as the Calaveras Reserve was fully funded at \$71 million, and established the Calaveras Reserve Target and Guidelines with a schedule to draw down funds.

D. In 2009 Council approved new Calaveras Reserve guidelines which required the annual calculation of short-term stranded costs to determine the minimum transfer to the electric utility’s operating budget based on the annual calculation of the electric utility’s long-term stranded costs, and the identification of funds available for special projects to the benefit of electric ratepayers.

E. In 2011 (Resolution 9206) Council changed the name of the Calaveras Reserve to the Electric Special Project (ESP) Reserve and the purpose from partially funding above market electric costs and partially funding projects that benefit electric ratepayers, to entirely funding projects that benefit electric ratepayers. New ESP Reserve Guidelines were also approved, including a provision to commit the funds for preferred projects by end of FY 2015.

F. At the end of FY 2015, the ESP Reserve balance is expected to be approximately \$51.8 million, with no commitments yet identified for the use of funds.

G. The ESP Reserve Guidelines set a goal to commit the funds by the end of FY 2015 and to return any uncommitted funds to the Electric Operating Reserve and close the ESP Reserve by the end of FY 2020.

H. Staff has determined that several projects, including smart grid deployment efforts and transmission related reliability upgrades are good candidates for future funding from the ESP Reserve, but the projects have not been sufficiently evaluated to recommend committing the funds to those projects at this time.

I. At the April 1, 2015 Utilities Advisory Commission (UAC) meeting, the UAC voted unanimously (6-0 with Commissioner Chang absent) to recommend that the Council not designate the funds for specific projects now and that the ESP Reserve Guidelines be changed to defer the date by which the funds must be committed to the end of FY 2017, instead of by the end of FY 2015, and to defer the date for which uncommitted funds are returned to the Electric Supply Operating Reserve and the ESP Reserve is closed to FY 2022, instead of FY 2020.

The Council of the City of Palo Alto does hereby RESOLVE as follows:

SECTION 1. Council hereby amends the Electric Special Project Reserve Guidelines, codified in Subpart 3 of Section 1 of Resolution 9206, adopted by Council on November 1, 2011, to extend the deadlines to commit funds and close the ESP Reserve, as follows:

- A. The purpose of the ESP Reserve is to fund projects that benefit electric ratepayers;
- B. ESP Reserve funds are to be used for projects of significant impact;
- C. Projects proposed for funding must demonstrate a need and/or value to electric ratepayers. The projects must have verifiable value and not be speculative, or risky in nature;
- D. Projects proposed for funding must be substantial in size, requiring funding of at least \$1 million;
- E. Set a goal to commit funds by end of FY 2017; and
- F. Any uncommitted funds remaining at the end of FY 2022 will be transferred to the Electric Supply Operation Reserve and the ESP Reserve will be closed.

SECTION 2: While Council has, via its adoption of this resolution, modified the ESP Reserve Guidelines, Staff will seek Council approval for specific projects only after staff's complete assessment and recommendation on the costs, benefits and requirements for any project. Any expenditure of ESP Reserves shall require Council approval as part of the annual operating budget approval process.

//

//

//

//

//

SECTION 3: The Council finds that the adoption of this resolution modifying the ESP Reserve Guidelines does not meet the California Environmental Quality Act's definition of a "project" under Public Resources Code Section 21065, thus no environmental review is required.

INTRODUCED AND PASSED:

AYES:

NOES:

ABSENT:

ABSTENTIONS:

ATTEST:

City Clerk

Mayor

APPROVED AS TO FORM:

APPROVED:

Senior Deputy City Attorney

Utilities Director

ATTACHMENT B



EXCERPTED DRAFT MINUTES OF THE APRIL 1, 2015 UTILITIES ADVISORY COMMISSION MEETING

ITEM 3: ACTION: Staff Recommendation that the Utilities Advisory Commission Recommend that the City Council Adopt a Resolution Identifying Projects to be Funded by the Electric Special Project Reserve

Senior Resource Planner Monica Padilla provided a brief history of the Electric Special Projects (ESP) Reserve, which was originally named the Calaveras Reserve and then used to collect stranded costs associated with certain assets including the Calaveras Hydroelectric Project. In 2011, Council changed the name to the ESP Reserve and changed the purpose to fund large projects. Padilla stated that the ESP Reserve has about \$52 million and staff recommends that the funds be earmarked for smart grid and transmission upgrades. She noted that these projects would return to the UAC and Council prior to committing the funds to those projects and that they would not be funded if they did not make sense.

Commissioner Melton asked if there would be an impact from changing the guidelines to move out the dates. Padilla said that would not be much different from the recommendation in terms of flexibility as to how the money could be used, but that the staff recommendation is consistent with the Council-approved guidelines. Commissioner Melton said that if we earmark funds now to the two projects, and one came to fruition, and the other had not yet, how easy would it be to make a change if the funds are earmarked. He asked if we would be able to move funds from one project to another, or add a third project. Padilla said that any expenditure of the funds would require Council approval and it could change depending on the merits of the projects.

Public Comment

Resident Jeff Hoel preferred that the dates be pushed out rather than the funds being earmarked for projects that haven't yet been proven to be cost-effective. He suggested another alternative that the funds be there perpetually for projects that may be needed and that the funds could be borrowed (and paid back to the fund) when needed. He said that before any money is earmarked for smart grid, there needs to be a report to explain exactly what the money will pay for and the same logic is true for a transmission line.

Resident Herb Borack does not support earmarking the funds for projects that have not yet been shown to be beneficial. He said that there may be other projects that may prove to be more beneficial and it may be difficult to change the projects if they are not earmarked. He noted that the transmission line cost is unclear and the smart grid project may not make sense

without fiber-to-the-premise if the point is to affect peoples' behavior in their use of energy. He said that earmarking \$20 million for smart grid without knowing how much the project may cost is ill advised.

Commissioner Hall says that although the two projects identified sound pretty good, the UAC has not had the opportunity to evaluate either of the projects and he suggested deferring the decision until the end of FY 2017, rather than FY 2015.

Commissioner Eglash commended staff for trying to be faithful to the deadlines in the guidelines, but did not agree with staff's recommendation and noted that we should not commit the funds to projects that have not yet been evaluated. He said that, completely irrespective of whether smart grid is a good idea now or in the future, and regardless of whether you think an alternative transmission line is a good idea, we don't know enough now to make a recommendation for either project.

Commissioner Cook prefers that the funds in the reserve remain uncommitted at this time and he doesn't support committing the funds now to the two projects recommended.

Commissioner Eglash supports pushing out the date to commit funds, or even to remove the deadline altogether.

Commissioner Foster wondered if there was support to not have a deadline or to use the funds as a loan source for many projects that arise.

Commissioner Eglash supported establishing a timeline to be consistent with the idea of eventually returning these funds to ratepayers rather than removing the deadline altogether.

Commissioner Melton said that we should stick with the original plan to have a deadline, but supported pushing out the timeline to commit funds for a few years when more information on the projects will be available. He said that he likes the alternate transmission project, but making no designation now and pushing the respective deadlines that were set previously out two years and giving these big, important projects time to gel is the right thing to do.

ACTION:

Commissioner Hall made a motion that the UAC recommend that the Council change the ESP guidelines by: 1) changing the date when commitment of funds must be determined to the end of FY 2017 (instead of the end of FY 2015); and 2) changing the date when any uncommitted funds remaining will be transferred to the Electric Supply Operation Reserve and the ESP Reserve to the end of FY 2022 (instead of the end of FY 2020). Commissioner Cook seconded the motion.

Commissioner Eglash offered a friendly amendment to add that the UAC recommends that Council not designate the funds for specific projects now. He said that this amendment would make clear that not just the dates in the guidelines should be changed, but that the funds not

be earmarked for any projects at this time. Commissioners Hall and Cook (maker and seconder of the motion) accepted the amendment.

The motion carried unanimously (6-0 with Commissioners Cook, Eglash, Hall, Melton, Foster, and Waldfoegel voting yes and Commissioner Chang absent).