From: Redacted

Sent: 5/22/2013 1:58:41 PM

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Subject: Info on Cost

In the beginning, the need for these types of projects was explored. Generally, it was felt that the consequences of not addressing the apparent issues underscored in CES-21 were very significant in terms of impacts on the California economy and future impacts on rate payer costs. There was a great demand for immediate work in many areas of research. Thus, the challenge was finding criteria to limit the projects to the most important issues and costs.

Two limiting lines of thought developed:

- There is reference (in IOU testimony in the hearings at the CPUC on this matter) that compared the level of R&D funding that had been applied to problems such as these before R&D funding began to be dropped from the utilities budgets;
- And there was the determination that no less than \$30/M/year devoted to this type of research would be needed in the four topic areas for there to be a real impact on needed changes in the 5 year life of the project.