

Southern California Edison
Circle City and Mira Loma-Jefferson PTC A.15-12-007

DATA REQUEST SET A1512007 ED-SCE-18

To: ENERGY DIVISION
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Dated: 08/10/2018

Question 18.05:

Page A1-40 of SCE's comments on the Draft EIR recommend changing the costs for Alternatives C1 and D1 identified in Table 5-3 from \$100 to \$120 million to \$120 to \$150 million. The cost amounts presented in Draft EIR Table 5-3 are based on the direct costs with contingencies from SCE's response to CPUC Data Request 16, Question 10 (Attachment 1 of 1) with battery revenue amounts identified in SCE's response to CPUC Data Request 16, Question 12 (Attachment 2 of 2), subtracted from the total amounts, plus an addition of \$1.7 million to represent the undergrounding that would be associated with Alternative C1. Please include an analysis of how the recommended revised costs were calculated, including how energy revenues that would result from the battery are handled.

Response to Question 18.05:

In SCE's comments to the Draft Environmental Impact Report, SCE stated that Alternatives C1 and D1 are estimated to range from \$120 to \$150M (see DEIR comments dated July 20, 2018, at page A1-40). Subsequent to SCE's response to CPUC Data Request 16 Question 10 (attachment 1 of 1), SCE refined the cost estimate to capture the following changes: 1) undergrounding 0.4mi of subtransmission line, 2) adding a second telecom route due to elimination of a source line, 3) increase in the corporate security estimate to an appropriate level, and 4) assumed Real Properties and Environmental cost the same as proposed project. The impact to the cost estimate ranges from \$9 to \$10M higher for each Battery alternative. The break down of the cost impact is shown in the next table (below).

	Estimated Cost ¹
1. Undergrounding 0.4mi of subtransmission line	\$2M
2. Add a second telecom route due to elimination of source line	\$1M
3. Increase corporate security estimate to appropriate level	\$1M
4. Assumed Real Properties cost the same as proposed project	\$2M
5. Assumed Environmental cost the same as proposed project	\$2M
6. Contingency increased	\$1M
	\$10M

¹Direct Costs in millions of Constant 2018 dollars, excludes corporate overhead and cost of financing
Numbers may not add exactly due to rounding

The cost roll-up for each battery alternative is presented in the following table.

Battery only Alternatives¹

Project Element	Option A	Option B	Option C
	10MW Battery	15MW Battery	20MW Battery
Substation ²	\$ 1	\$ 1	\$ 1
Battery Installation	14	23	33
Subtransmission	24	24	24
Licensing	10	10	10
Distribution	16	19	21
IT	1	1	1
Trans Telecom (ECS)	2	2	2
Corp. Security	2	2	2
Real Properties	26	26	26
Environmental	11	11	11
Direct Cost:	\$ 108	\$ 119	\$ 132
Contingency ³ :	11	13	14
Direct Cost w/ Contingency:	\$ 119	\$ 132	\$ 146

¹Direct Costs in millions of Constant 2018 dollars, excludes corporate overhead and cost of financing
Numbers may not add exactly due to rounding

²Substation costs include upgrades of substations due to Mira Loma-Jefferson line operation

³Contingency percentage for the traditional project elements is 15% of the to-go direct cost
Contingency percentage for the Battery is 35% of fixed cost & development cost, and 10% of storage power & energy related cost

While SCE had not previously considered the details of how energy revenues that might result from a battery installation on this project would be handled from a ratemaking perspective, it seems reasonable to assume that such revenues would be netted against the cost of the batteries and used to reduce the "net cost" that is ultimately recovered from customers. The battery storage solution under review and analysis for the Circle City project appears to fit within what the CPUC considers "dual-use" energy storage (i.e., storage that serves a reliability function and has a potential opportunity to earn revenues as well). Pursuant to D.14-10-045 and D.15-11-041, any revenues that the dual-use batteries earn would be netted against the cost of the batteries and the "net cost" is recovered from customers through the appropriate balancing account based on the service/regulatory function provided. Because the Circle City project will obviate the need for a new substation, the net costs should be recovered through the Distribution Base Revenue Requirement Balancing Account ("BRRBA"). Specifically, SCE would request and receive authorization for the capital costs associated with the battery installation(s) in its General Rate Case ("GRC") proceedings and those GRC-approved costs would be recorded in the Distribution BRRBA, and SCE would record the annual revenues the batteries earn as a credit to the Distribution BRRBA. These activities would be reviewed annually in SCE's Energy Resource Recovery Account Review of Operations proceeding.

Draft EIR Table 5-3 is entitled "Construction Cost Estimates for the Proposed Project and Environmentally Superior Alternative". As such, SCE recommends that the data in the table be limited to just capital construction costs. The footnote could be used to indicate that a portion of the capital cost recovery would be offset by the revenue that the battery would generate by providing ancillary services when the battery was not supporting the grid reliability function.