

Q.DPS.GMP.1-83: On page 13 of Mr. Eiden's testimony, it is noted that the principles of the National Standard Practice Manual (NSPM) are applied to resilience investments, via a Sandia National Lab report. The NSPM is cited at footnote 8.

- a. Does Mr. Eiden agree that one of the principles of Benefit Cost Analyses (BCA) is to "ensure symmetry" in BCA analysis between costs and benefits, where "asymmetrical treatments of benefits and costs associated with a resource can lead to a biased assessment" (see Figure 4 on page 15 of Eiden's testimony)?
- b. Does Mr. Eiden agree that discount rates reflect a particular time preference, which is the relative importance of short- versus long-term impacts?
- c. The NSPM states, on page 5-16, "a single discount rate is typically used for conducting a [Benefit Cost Analysis (BCA)]. A single discount rate is typically applied to all the benefits and costs, even though the benefits and costs are associated with energy resources with different costs of capital and risk profiles" and "a single discount rate is typically applied to a BCVA, even though different parties affected by the resources in the BCA have different time preferences." Does Mr. Eiden agree with the NSPM on this point?
- d. Does either the Sandia National Lab Report or the *EPRI ClimateREADi investment Guide: Performing a CBA* (Cited on page 22, footnote 16 of Mr. Eiden's testimony) explicitly suggest using different discount rates for the time value of money when considering costs and benefits? If yes, please specify the source and page number.
- e. On pages 62-63 of Mr. Eiden's testimony, it is indicated that costs and benefits are discounted at different valuations for the time value of money. Please describe how this is consistent with the NSPM.
- f. Footnote 55 of Mr. Eiden's testimony indicates using different discount rates is consistent with how investor-owned utilities in California screen benefit cost analyses, citing to *2025 Risk Assessment Mitigation Phase (RAMP) Report, Chapter RAMP-1, at 13*. Does Mr. Eiden agree that in the RAMP Report, the utilities provided analyses using three different discount rates - a societal discount rate for all costs and benefits, a weighted average cost of capital discount rate for all costs and benefits, and a hybrid rate?
 - i. Please describe how the hybrid rate was calculated and whether or not it was approved for use by the California PUC.
 - ii. How does the proposed discounting described on pages 62-63 of Mr. Eiden's testimony compare with the hybrid methodology?

A.DPS.GMP.1-83:

- a. Yes, Mr. Eiden agrees that ensuring symmetry is a principle for conducting BCAs under the NSPM as stated in Figure 4 of his direct testimony, but as described in the following subparts disagrees with the implication of this principle as applied in this request.
- b. Yes, a discount rate reflects the time value of money and can indicate a time-based preference.

- c. I do agree with the quoted portion of the NSPM, in that a single discount rate is “typically used” for all resource types in a BCA, and that the use of “typically” here indicates the authors of the NSPM allow for differing approaches. Related to the application of the Principles, the NSPM states, “It is up to the users of the NSPM to decide if they will adhere to all the principles in all situations or, for example, if it is necessary to make tradeoffs between certain principles in certain situations.”¹ The NSPM authors also recommend selecting a discount rate appropriate to the regulatory perspective where the investments are being considered. In determining the discount rate to apply to this analysis, a single, consistent discount rate was used for all utility-system costs and benefits (across both T&D resilience investments and the Zone 4 Battery Pilot), with a separate societal discount rate for the future monetized impacts of Customer Resilience Value as quantified by the ICE Calculator.
- d. As explained in subpart c. above and subpart e. below, all utility system costs and benefits within the same impact type (e.g., utility system impact or Customer Resilience Value) received the same discount rate and were consistently applied in the Baseline and Mitigation Scenarios. The request therefore incorrectly states that different discount rates are used for costs and benefits. The same discount rate was used for costs and benefits within categories of impacts, as explained in subpart c above. The Sandia BCA Report and EPRI ClimateReadi BCA guidebook both discuss general principles, and do not explicitly suggest either approach. Other jurisdictions use a lower discount rate for evaluating societal benefits. For instance, the New York BCA guidelines call for using the WACC for utility system impacts, but the societal discount rate for valuing the social cost of carbon in a societal cost test.²
- e. The decision to use a lower discount rate to reflect a higher preference toward future societal benefits falls within the indicated discretion of the analyst when applying these principles within a given regulatory context and is consistent with the NSPM. See subpart c above. In regard to the reference made in subpart a. of this request to Figure 4 on Page 15 of my testimony, the key sentence in the referenced part of the NSPM is “To avoid such bias, benefits and costs should be treated symmetrically *for any given type of impact.*” (emphasis added). In fact, for the case related to the discounting of the quantified Customer Resilience Value, the type of impact is the value of future avoided outage costs to a customer and this type of benefit is included under both the baseline and mitigation scenario using the same, symmetrical approach to discounting.

When viewing the overall costs and benefits included in the model, Mr Eiden determined that there was a significant amount of societal benefits that were not

¹ NSPM at 2-2.

²Case 14-M-0101, *Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision, Order Establishing the Benefit Cost Analysis Framework* (issued Jan. 21, 2016), at 27 (“There is, however, one important exception to use of WACC as the discount rate -- the discount for calculating SCC. For that valuation, the EPA assumes a 3% real discount rate in considering the ‘central value’ of damage costs of carbon over time. Following the EPA approach is appropriate in applying the SCT. The SCC is distinguishable from other measures because it operates over a very long time frame, justifying use of a low discount rate specific to its long term effects.”).

- included in the model, though there was a full treatment of possible costs associated with the baseline and mitigation cases, and therefore applied a lower discount rate to reflect a preference towards future societal benefits.
- f. Yes. Note that the comparison to the California example was included to illustrate the use of different discount rates in other jurisdictions, not to claim an exact equivalency with the format of reporting required in California.
- i. Yes, the hybrid rate was approved for use in California as required by the CPUC in Decision 24-05-064 (May 30, 2024). The “hybrid rate” refers to a scenario where a discount rate calculated as a combination of the 10-year inflation rate, the 10-year growth index of real wages, and the most recent long-term societal discount rate as established by the relevant California state agencies. This calculated discount rate is used in the numerator of the BCR to calculate the present value of safety and reliability-related benefits, while the utility WACC is used for the financial components of both the numerator and the denominator. See Decision 24-05-064 (May 30, 2024) at 103.
 - ii. The proposed discounting described on page 62-63 of my Direct Testimony differs in that the hybrid rate as used in California includes the 10-year inflation factor and the 10-year growth in real wages, in addition to the social discount rate. Both the discounting method described on page 62-63 of my Direct Testimony and the California hybrid rate apply a different discount rate to the numerator and the denominator to reflect inherent differences in the category of costs and benefits being evaluated.

Person/s Responsible for Response: Andy Eiden
Title of Person/s: Senior Manager, Current Energy Group
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