

Submission by:

- **Karim Farhat, Pacific Gas and Electric Company (PG&E)**
- **Mauro Dresti & Jordan Smith, Southern California Edison (SCE)**
- **Taylor Marvin, San Diego Gas and Electric (SDG&E)**

Clarification 1: Agreement on Big Picture

- A. Based on the WG Call on 10/03, it is the IOUs' understanding that stakeholders agreed to the following: this WG will not be capable of, and therefore will not proceed with, quantifying the monetary (\$\$) costs and benefits of VGI use-cases, due to the limited amount of time for execution in Subgroup B as well as to the complexity of the task. One implication of this challenge is that, due to scaling, costs may not be directly compared / contrasted to benefits.
- B. Based on the WG Call on 10/03, it is the IOU understanding that stakeholders have agreed to proceed with simpler ranking/scoring/scaling of VGI use-cases in Step 4, based on three metrics:
 - a. Benefits
 - b. Costs
 - c. Implementability
- C. Each VGI use-case that passes the screens in Step 3 will be assigned three scores, one for each of the metrics (a) through (c) above. The process on how each use-case will be scored/ranked/scaled using each metric will be resolved as part of Sub-group B.
- D. The IOUs are providing suggested detailed guidelines on the definition and scope of each metric in an updated Version 2 of the methodology, *Updated V2 Joint IOU Proposal on VGI Valuation Methodology*, to be issued to the Working Group by end-of-day 10/11. These detailed guidelines are summarized in Clarification 2 below.

Clarification 2: The scope of “benefits”, “costs”, and “implementability”

- A. Per the *Updated IOUs Joint Proposal on VGI Valuation Methodology (9/24 version)*: for every use-case, the benefits and costs should be seen from the perspective of the entity identified in the Application dimension
 - a. For Customer-Application use-cases: Benefits and costs to participating Customer
 - b. For System-Application use-cases: Benefits and costs to California overall
- B. Per the *Updated IOUs Joint Proposal on VGI Valuation Methodology (9/24 version)*: because of the different perspectives, the benefits/costs of Customer-Application use-cases shall not be compared to the benefits/costs of System-Application use-cases.
- C. Definition and scope of Benefits:
 - a. As explained in the *Updated IOUs Joint Proposal on VGI Valuation Methodology (9/24 version)*, evaluating benefits focuses on the three dimensions Sector, Application, and Type
 - b. For a specific combination of Sector, Application, and Type, Benefits refer to the “total addressable market”, which accounts for two elements:

- Benefits per EV
 - Total available population of EVs
- Example: For a use-case that involves {Residential – Single Family Home; System – Real-time Energy; V1G}, the score/scale/rank allocated should take into account two considerations: (i) how high are the benefits per EV likely to be? and (ii) how many EVs likely fall under this category? For some use-cases, the benefits per EV might be relatively small, but the total population of EVs might be large. The opposite might also be true. The score/rank/scale on Benefits should balance both considerations to account for the total addressable market.

D. Definition and scope of Costs:

- a. As explained in the *Updated IOUs Joint Proposal on VGI Valuation Methodology (9/24 version)*, evaluating costs considers all five dimensions: Sector, Application, Type, Approach, and Resource Alignment
- b. At minimum, Costs should account for the following elements:
 - Hardware
 - Software/IT
 - Admin
 - Operations and maintenance
 - Marketing and sales

E. Definition and scope of Implementability:

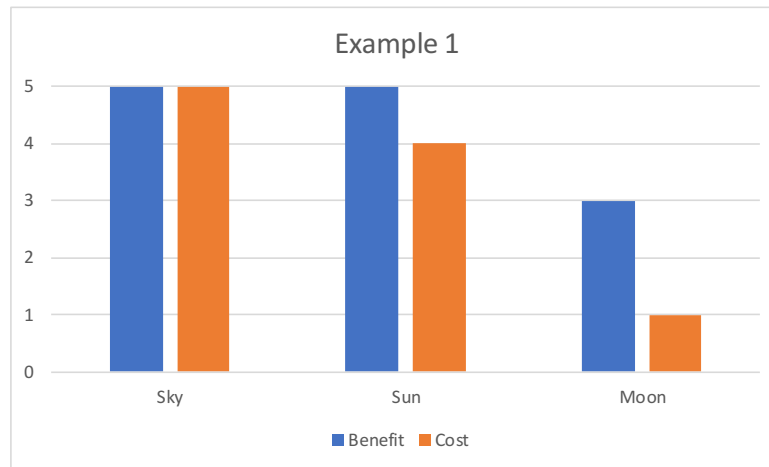
- a. Implementability is defined as “difficulty and risk associated with implementing and scaling up” a use-case.
- b. Effectively, Implementability accounts for four interrelated and subjective elements:
 - Difficulty of implementation
 - Difficulty of scaling up
 - Risk of implementation
 - Risk of scaling up

Clarification 3: Why costs are important

- A. Costs are important because they heavily impact recommendations on prioritization of VGI use-cases. We illustrate this point in Example 1 below.

Example 1:

- Assume three VGI use-cases: *Sky, Sun, and Moon*
- The benefit and cost of each VGI use-case is scored on a 1-5 scale
 - 1 is lowest benefit/cost
 - 5 is highest benefit/cost



If the three VGI use-cases are ranked/scored/scaled based on benefits only:

- **Sky** and **Sun** seem the most attractive and get prioritized, whereas Moon might get deprioritized
- **Sky** and **Sun** seem equally attractive, so they might be equally prioritized

If the three VGI use-cases are ranked/scored/scaled based on benefits and costs:

- **Sun** and **Moon** seem the most attractive, since they result in higher benefits and lower costs. In this case, Sky might get deprioritized
- **Moon** has lower benefits but much lower costs than **Sun**; **Moon** might get prioritized over **Sun**.

IOUs position 1: The IOUs maintain that is critical to account for costs in order to make informed recommendations regarding VGI value

Clarification 4: Cost to Buyer = Price by Seller

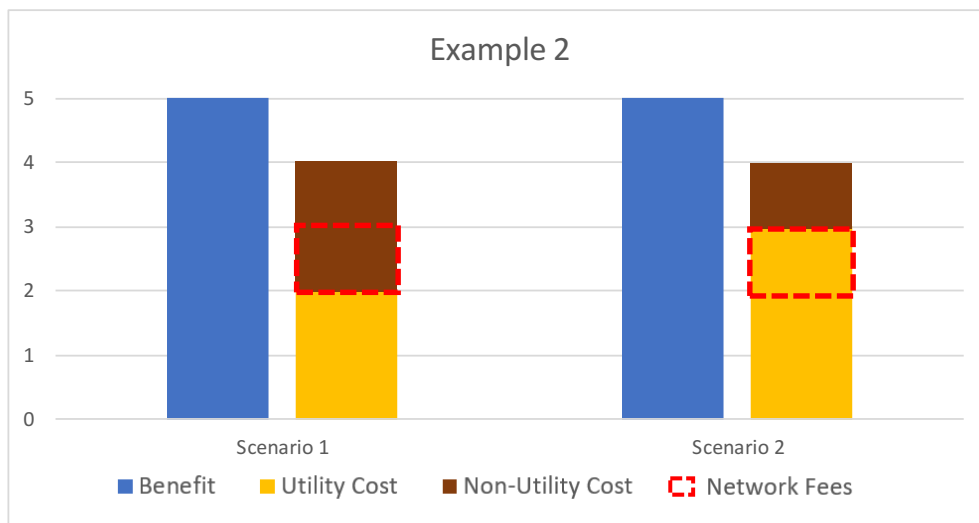
- As explained already, the costs in this methodology refer to the cost to the participating Customer or California overall. In other words, they are meant to be the costs to the buyer. The cost to the buyer is the same as the price charged by the seller. This methodology does NOT require identifying private or internal costs borne by service or equipment providers for providing services or producing components. Instead, it requires identifying prices typically charged by those service or equipment providers to offer the same or similar service or equipment.
- This methodology requires a high-level, aggregate, scaled characterization of prices or charges typically set by the seller, which are the expenses incurred by the buyer. This would also be within a specific Timeframe (i.e. 2019-2022 for evaluation within the “now” timeframe).
- The IOUs note that a rich reservoir of cost data is already publicly available, in the form of prices for products and services by their providers/sellers ([example 1](#), [example 2](#)). Among other forms, this data is sometimes published directly by the vendors, in regulatory filings, or in public reports.
- The aforementioned A-C considerations above may help resolve the anti-trust concerns expressed by some OEMs on the 10/03 WG call.

Clarification 5: “Utility” and “Non-Utility” cost components

- A. During the 10/03 WG call, some suggested that there might be an opportunity to document the “utility” costs only. This is based on the premise that the costs can be decomposed into two components:
 - a. Utility costs: expenses charged by utility to Customer or System (i.e. California)
 - b. Non-utility costs: expenses charged by non-utility to Customer or System (i.e. California)
- B. IOUs believe that the notion of splitting the total cost into utility cost and non-utility cost contradicts the attempt to keep use-case definition “business-model neutral”. A specific cost item may be accounted for as utility cost or non-utility cost, depending on exact design of a VGI program or project. Let’s consider use-case Sun in Example 2 below.

Example 2:

- For use-case Sun: Assume that Benefits = 5 and Costs = 4
 - Specifically, let’s assume that this use-case requires networked chargers to deliver the intended service. Let’s further define the specific cost item of Network Fees, with cost = 1
- Scenario 1: The utility program requires a contractual agreement with a 3rd party to provide the service, and the 3rd party is responsible for doing whatever it takes to deliver that service. This means that the 3rd party will also take care of the networking requirements, so the network fees are not documented as “utility cost”.
 - Based on Scenario 1, the use-case benefits and costs are documented as:
 - Benefits = 5
 - Utility costs = 2; Non-utility costs = 2
- Scenario 2: The utility program involves a contractual agreement directly with the customer to deliver the service, and the customer requires networked chargers to deliver that service. The utility gives the customer a rebate to cover the network fees, so the network fees are now documented as “utility cost”.
 - Based on Scenario 2, the use-case benefits and costs are documented as:
 - Benefits = 5
 - Utility costs = 3; Non-utility costs = 1



- C. If only utility costs are documented in the analysis, Scenario 1 and Scenario 2 will yield different cost-benefit valuation results for the same Sun use-case under consideration. This is problematic. In the graph for Example 2, we see how the real cost remains the same, but sub-categories of cost are not exposed to evaluation using this construct.
- D. We recognize that for a stand-alone assessment of use-case Sun: Scenario 1 and Scenario 2 could be reconciled in the amount of incentive that the utility would pay as a compensation for the service. The incentive would be up to the net-benefit = benefits less costs.
 - a. In Scenario 1, the utility may pay more Incentive
 - b. In Scenario 2, the utility may pay less Incentive
- E. HOWEVER, the task of this Working Group is not to assess each use-case individually, but to score/rank a pool of use-cases relative to one another, to then judge which use-cases provide the highest value and which provide the least value. The relative attractiveness of the Sun use-case would be different under Scenario 1 than under Scenario 2, and therefore the recommendations on how to prioritize Sun would be different. This is highly problematic. To avoid that, all real costs should be accounted for as they represent the total cost for delivering the service, regardless of whether they are “utility” or “non-utility” costs.
- F. As regulated businesses, the IOUs must take into account the cost impact of any potential DER program – VGI use-cases included – on our participating customers, our ratepayers, and society at large. That is well-documented in the Standard Practice Manual¹ and the associated cost-effectiveness tests for DERs². This is not a novel concept to VGI; it’s the standard practice.
- G. The IOUs note that a rich reservoir of cost data is already publicly available, including what may be considered “non-utility” cost items (e.g. prices of network fees, charging hardware, etc.). Among other forms, this data is sometimes published directly by the vendors, in regulatory filings, or in public reports. This serves as an additional reason to consider all costs, without the need for artificially labelling or excluding “non-utility” cost items. The IOUs emphasize the importance of using all available cost data to inform the effort of this Working Group.

IOUs position 2: The IOUs believe that costs should not be decomposed into “utility cost” and “non-utility cost”, since the latter decomposition is artificial and highly dependent on the business-model, and is therefore not business-model neutral.

IOUs position 3: For this WG policy effort, the IOUs believe that the stakeholders should collaborate on assessing the total real costs associated with a VGI use-case, in an aggregate, high-level, and scaled fashion. This can be done in several ways, including via a neutral party, to avoid any potential anti-trust concerns.

¹ [https://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Energy - Electricity and Natural Gas/CPUC STANDARD PRACTICE MANUAL.pdf](https://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Energy_-_Electricity_and_Natural_Gas/CPUC_STANDARD_PRACTICE_MANUAL.pdf)

² <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M293/K833/293833387.PDF>