**VGI WORKING GROUP**
**WORKSHOP #2, 9/26/2019**
**Brainstorming and Consensus-Building Results**
**(Sticky Notes on the Wall)**

**Brainstorming question: To further clarify the methodology, or develop how we employ it during the Working Group, we could....**

Note: (*) indicates the three clusters for which the Joint IOUs were going to consider further revisions to the methodology.

**(*) Clarify (Cost-Benefit Related) Points in Methodology, Including Using Cost Proxies or Assumptions**

What if costs are not available?
Incremental costs vs. absolute costs vs. rankings only
Use cases which include or depend on providing grid services should comprehend "participation" costs
Opportunities for cost sharing (e.g., between IOUs and EVSPs)
What (costs) are incremental for VGI vs. what costs are for transportation electrification more broadly?
Can you optimize net benefits (in Step 4) by changing vehicle parameters (e.g., larger EV battery)?
Standardizing benefits inputs (in Step 4)
Simplify costs qualitatively, like "low" "medium" and "high"

**(*) Update Definition of "Implementation"**

Is "implementation" defined? Guidelines for easy or hard.
Use case ranking can benefit from including a "risk" factor for each use case

**(*) Elaborate Utility Assumptions and Clarify Dispatch Mechanisms/Instructions**

Direct (active) vs. indirect (passive) approach
Ground rules for direct vs. indirect (customer behavior, technology)
Need better clarity on how "dispatch" is defined and how it provides value to the methodology

**Include but Not Stack the Two Separate Values (System and User)**

System value vs. user benefits
System and customer benefits overlap
Clarify perspective e.g., participating customer, system costs (TRC), etc.
Also always calculate system benefits for customer applications?
Valuation considering non-energy benefits
Remain agnostic to business model for compensation
How do we address coincident/stacked use cases?
How to preclude "oversubscription", i.e., excessive stacking of use cases

**Consider in Step 3**

Customer ability to opt-out in Screen 3
Screening out use cases if no market rules (vs. suggesting new market rules)?
Screening out uses with low adoption (can we be sure about our low-adoption assumptions)?
Qualitative not black and white in Screen 3
Market rules should not be limited to ISO rules, also includes rate design
Include retail rates and regulations as part of market rules
Don't screen out solutions that could be imported to CA (Step 3)
Merge Screen 3a into 3b, Screen 3a is a subset of Screen 3b (low customer adoption)

**Consider in Steps 3 and 4 and Err on Side of Simplifying**

Greater granularity service stack in MUA framework
How granular is granular enough?
How to reconcile evaluating a use case for system-average benefits vs. high-value opportunities?
Value distribution curve
Role of "situational awareness"
How do we assess impact of ignoring complexity/poor fit of use cases on value stage & prioritization?

**Consider in Subgroup D**

Do we do Steps 4-6 for 2023-2030 use cases (that don't pass Step 3 for now)?
Definition of "now"
Screening out as "not now"
Multi-year benefits

**"We're Good"**

Technology recommendations for CARB in Step 6
Propose new market rules in Step 6 that would allow Screen 2 to pass
Identify gaps for policy recommendations in Step 6

**Possibly Use in Subgroup B?**

Are we already capturing public charging in MD/HD Sector (e.g. truck stops)?
Consolidate sectors and applications
Example use cases for workplace / fleets
How to address advanced inverter functions with AC V2G same as DC V2G

**Resolve on 10/3 Working Group Call?**

Trucks subsectors distribution vs. transport