Resource-to-Busbar Mapping of 2019 IRP Portfolios for 2020-21 TPP

Methodology - Staff Proposal
October 8, 2019
Outline

• IRP and TPP – busbar mapping context
• Methodology for busbar mapping
• Timeline to meet TPP deadline
• Process for stakeholder vetting of Methodology
IRP and TPP – busbar mapping context

• Resource-to-busbar mapping (“busbar mapping”): process for translating geographically-coarse portfolios to plausible network locations for Transmission Planning Process (TPP) modeling

• IRP develops a Reliability Base Case, Policy-Driven Base Case and Policy-Driven Sensitivity(ies) every year
  – Upon formal CPUC adoption, these IRP portfolios are transmitted to the CAISO to be used as inputs to the TPP

• Busbar mapping scope: utility-scale generation resources that are not already in the baseline
Busbar mapping in 2017-18 IRP

• Process has been performed twice; for each of 2017 and 2018 IRP portfolios

• Learnings and questions for 2019 include:
  – Engaging the CAISO, as well as the CEC, in the busbar mapping process can address issues iteratively during the IRP portfolio formation process, rather than later, during TPP
  – How to validate that the theoretical resource potential estimates in RESOLVE are sufficiently representative of commercial interest?
  – How to ensure that gen-ties are feasible, economically and from a land-use perspective?
  – What other success criteria should be used to determine whether allocations are appropriate?
Methodology for 2019-20 busbar mapping

- Improvements for 2019-20 busbar mapping
  - Publishing Methodology for stakeholder vetting upfront
  - Identifying specific steps performed by each agency’s staff, enabling iterative refinement of IRP portfolios
  - Introducing validation of resource potential with commercial interest
  - Articulation of guiding principles and criteria for effective mapping
Timeline to meet TPP deadline

- 2019-20 busbar mapping focused on meeting TPP deadline of February 2020, for TPP 2020-21
  - Deep decarbonization (to meet SB 100 goals by 2045 and 80% emissions reductions below 1990 levels by 2050) likely to require update to methodology for 2020-21 or later busbar mapping, to address need to co-optimize economic, land use, transmission and interconnection issues

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<tr>
<th>Activity</th>
<th>Timing</th>
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<tr>
<td>Document Methodology and receive informal comments</td>
<td>August – October 2019</td>
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<tr>
<td>Set up process with draft portfolio</td>
<td>September – October 2019</td>
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<td>Map proposed RSP</td>
<td>October 2019</td>
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<td>Ruling: Proposed RSP (incl. mapping) and TPP Sensitivity options - release &amp; receive comments</td>
<td>November 2019</td>
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<td>Map TPP Sensitivity and re-map proposed RSP if needed</td>
<td>December 2019 – January 2020</td>
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<td>PD: Proposed RSP and TPP Sensitivity (incl. mapping if time allows, otherwise delegated to staff to release) – release &amp; receive comments</td>
<td>January – February 2020</td>
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<td>Informally transmit IRP portfolios to TPP</td>
<td>Mid-February 2020</td>
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<td>Formally transmit IRP portfolios to TPP, following CPUC Decision</td>
<td>End-February 2020</td>
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Process for stakeholder vetting of Methodology

• Draft Methodology to be sent to Service List post Workshop
• Staff seek parties to focus on:
  – Questions raised in draft Methodology
  – Effective mapping of 2019 IRP portfolios, noting future opportunities to further improve Methodology in future
• Informal comments requested within 1 week
Questions or Comments?

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