



HECO IGP Technical Advisory Panel: TAP Structure and Progress Update

Presentation to IGP Stakeholder Council

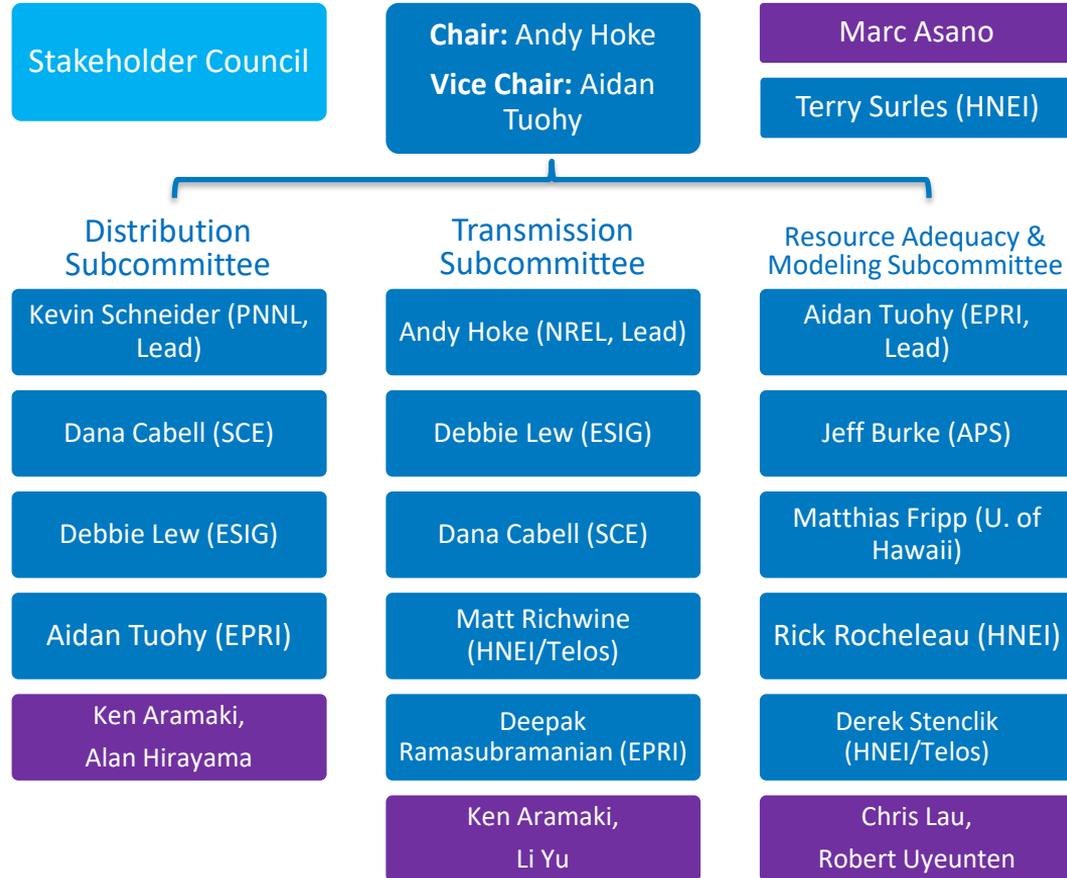
October 28, 2021

Andy Hoke, NREL, IGP TAP Chair

With input from Aidan Touhy (EPRI) and Kevin
Schneider (PNNL)

IGP TAP Structural Changes

- TAP divided into three subcommittees
 - Distribution
 - Transmission
 - Resource Adequacy and Modeling
- Allows each TAP member to focus on area(s) of expertise
- Each subcommittee has **HECO POCs**
- Some ad hoc TAP members brought in by existing members; more SMEs may be consulted as topics arise
- New TAP chair (Andy Hoke) and vice chair (Aidan Tuohy)
- Big ***mahalo*** to outgoing TAP chair Rick Rocheleau for >2 years of leadership!



IGP TAP Feedback Process



- New process for TAP feedback summarized above
 - TAP open to input to improve process
- TAP attempting to balance need for detailed technical review with need to move IGP process forward in a timely manner
- TAP now groups feedback into three categories:
 1. Informational – no action necessarily needed
 2. **Suggest revising before PUC review point**
 3. **Consider revising in future steps or iterations of the IGP process**
- TAP requests to know as far in advance as possible about upcoming topics and review points
- As always, TAP’s role is to provide recommendations and feedback (but not to direct)

TAP Distribution Subcommittee

- Reviewed Distribution Planning Methodology
 - All comments non-urgent or editorial
 - Forecast and analysis stages were well documented; TAP suggests more detail in solution stage in future
 - TAP noted need for consideration of protection in distribution planning
- Reviewed Non-Wires Opportunity Evaluation Methodology
 - All comments non-urgent
 - TAP suggested the NWA document could become more detailed in future
 - TAP noted need for consideration of protection in NWA evaluation

Kevin Schneider (PNNL,
Lead)

Dana Cabell (SCE)

Debbie Lew (ESIG)

Aidan Tuohy (EPRI)

Ken Aramaki,
Alan Hirayama

TAP Transmission Subcommittee

- Reviewed transmission planning criteria
 - TAP suggests combining several criteria into an overall “system stability criteria” before submission. T-planners should retain flexibility to use judgement
 - TAP suggests clarifying that IBR-based fast response can help meet needs for “inertia and frequency response” before submission
 - TAP recommended some wording changes before submission
 - Several other longer-term comments
- Reviewed initial REZ analysis
 - Recommend evaluating of more MW integration levels before submission if possible
 - Several other longer-term comments
- Reviewed system security study plans
 - High priority comment: Recommend not relying only on PSSE even if IBR models become available; study key cases in EMT domain (e.g. PSCAD)
 - May need to study more dispatch scenarios than in the past until we learn which are the critical high-IBR cases
 - Several other longer-term comments
 - Industry is still figuring out the best ways to do this for high-IBR grids
 - Just sent feedback this week...

Andy Hoke (NREL, Lead)

Debbie Lew (ESIG)

Dana Cabell (SCE)

Matt Richwine
(HNEI/Telos)

Deepak
Ramasubramanian (EPRI)

Ken Aramaki,
Li Yu

TAP Resource Adequacy & Modeling Subcommittee

- To be presented to the TAP for review next week:
 - HECO ERM and HDC analysis (as previously presented to the STWG)
 - HNEI/Telos independent analysis of ERM and HDC
- Prior to TAP subcommittee creation:
 - TAP reviewed the modeling framework (how HECO will use the different modeling tools)
 - TAP made recommendations on how to further analyze ERM and HDC (now completed)

Aidan Tuohy (EPRI,
Lead)

Jeff Burke (APS)

Matthias Fripp (U. of
Hawaii)

Rick Rocheleau (HNEI)

Derek Stencik
(HNEI/Telos)

Chris Lau,
Robert Uyeunten

Summary

- Newly reorganized TAP has three subcommittees and new leadership
- Most past TAP members retained; new members added
- Since September, TAP has reviewed five topics and provided feedback to HECO
- Feedback is categorized into
 1. Informational – no action necessarily needed
 2. Suggest revising before PUC review point
 3. Consider feedback for future portions of the IGP process
- Trying to balance urgency/timeliness with level of detail in review
- TAP open to SC and PUC feedback to refine process

Questions?

Andy.Hoke@NREL.gov

www.nrel.gov



This work was authored by the National Renewable Energy Laboratory, operated by Alliance for Sustainable Energy, LLC, for the U.S. Department of Energy (DOE) under Contract No. DE-AC36-08GO28308. Funding provided in part by U.S. Department of Energy Office of Energy Efficiency and Renewable Energy Solar Energy Technologies Office. The views expressed in the article do not necessarily represent the views of the DOE or the U.S. Government. The U.S. Government retains and the publisher, by accepting the article for publication, acknowledges that the U.S. Government retains a nonexclusive, paid-up, irrevocable, worldwide license to publish or reproduce the published form of this work, or allow others to do so, for U.S. Government purposes.

Funding also provided in part by Hawaiian Electric under CRADA 20-16630.

