

## Compiled Potential and Goals Study Stakeholder Comments and Commission Staff Responses

### 1. 1/30/2015 P&G EMV Incorporation Workshop

- a. NRDC comment: Staff stated that workpapers that were not affirmatively approved may not be included in the potential. We are concerned that may conflict with the CPUC policy, which is that utilities may use workpapers that were submitted if there was no response after a given time period. We recommend aligning the potential study model with PUC policy.

Staff response (Future consideration): Potential Study is calculated from Navigant's MICS database, which is primarily based on DEER and uses work papers to support the MICS in areas where DEER is outdated or is missing available data. The Potential Study must consolidate measure input assumptions, as it could not possibly include all work papers into a forecasting model. Work papers should also be based on DEER, for any data is available and up to date. Commission policy still dictates DEER as the main source of ex ante data, if available. The workpapers that have been submitted to the Commission as pass through are tentatively approved but have not been thoroughly vetted or reviewed. In addition, there is work in progress, if possible, to move measures from workpapers into DEER. Navigant has updated the MICS to reflect the best available information from the 10-12 updates. The MICS data is available for review, so the PAs should notify Navigant of any inputs that are not consistent with the best available information.

- b. NRDC comment: The presentation refers to two studies: a Consumer Electronics study and to an Itron HVAC Interactive Effects study. We would like to know specifically how and if the BCE study will be used. We would like to know what the Itron HVAC study is. We have not seen any information about the Itron HVAC study so it is impossible for us to provide any meaningful feedback about it.

Staff response (Addressed): The Navigant team will be more specific in its draft report as to the sources utilized to update the measures. The reference to the Itron HVAC study may be a typo on our part; we referenced HVAC data from DNV GL studies.

- c. PGE comment: PG&E supports a mapping of EM&V data to measures and parameters. It wasn't clear during the January 30th workshop what elements from the studies cited in the presentation were incorporated into the potential study. Better mapping what was used and how is important for ensuring that the best available data and findings are incorporated into the study.

Staff response (Addressed): The Navigant team will be more specific in its draft report as to the sources utilized to update the measures.

- d. PGE comment: PG&E requests that a review of admin costs be performed. It's not clear to us if admin costs include all non-incentive costs or just the costs associated with the admin reporting category.

Staff response (Addressed): A review of administrative costs is underway. In the 2013 study these cost included both "admin" and "marketing/outreach".

- e. PGE comment: PG&E requests that Navigant check the assumptions for IEPR planning area v. service area. PG&E has noticed that the model appears to be using planning area data instead of service area data for the IOU territories. The planning area includes the smaller POU's. The effect of using planning area data (e.g. commercial square footage) is to inflate the amount of treatable space and/or customers.

Staff response (Addressed): The source data for building stocks is indeed the IEPR which uses planning areas. We will appropriately adjust our building stock data downwards for the 2015 update using data available from the CEC.

- f. PGE comment: PG&E supports a more detailed measure-level description. This was a very useful feature in the 2008 Itron potential study. A sample description from that study on RCx is: Chiller and Ventilation System Retro-Commissioning (RCx). These measures are modeled as RET decision types. ASSET model measure identifiers are presented in Table A-56. Retro-commissioning (RCx) is the act of optimizing the operation of an existing building's HVAC, lighting, and related control systems. The per-unit costs and savings for this measure are highly variable in actual implementations. In addition, some of the measures encompassed by RCx are already discretely modeled. For example, only chiller and ventilation RCx was modeled under this measure, since lighting RCx would overlap with the other lighting control measures. As such, this study attempted to provide an aggregate, average estimate of the savings and costs for this measure that is incremental to measures already analyzed separately within the study. The claimed savings for this measure from various utility programs were examined, and the representative per unit savings decreased to eliminate the double counting of potential.

Staff response (Accepted): An expanded description of measures can be provided in the draft report.

- g. SCE comment: Requests staff to use all workpapers, including pass through workpapers, as the source for non-DEER measure level savings and costs so there is there is more consistency with EE Programs and Guidance Decision 12-05-015.

Staff response (Future consideration): Potential Study is calculated from Navigant's MICS database, which is primarily based on DEER and uses work papers to support the MICS in areas where DEER is outdated or is missing available data. The Potential Study must consolidate measure input assumptions, as it could not possibly include all work papers into

a forecasting model. Work papers should also be based on DEER, for any data is available and up to date. Commission policy still dictates DEER as the main source of ex ante data, if available. The workpapers that have been submitted to the Commission as pass through are tentatively approved but have not been thoroughly vetted or reviewed. In addition, there is work in progress, if possible, to move measures from workpapers into DEER. Navigant has updated the MICS to reflect the best available information from the 10-12 updates. The MICS data is available for review, so the PAs should notify Navigant of any inputs that are not consistent with the best available information.

- h. SCE comment: Requests further detail as to the methodology that will be deployed in estimating savings and a timeline for completion.

Staff response (Out of scope): The existing baseline discussion was addressed in the Phase II Scoping Memo. It will first be addressed through a Commission workshop on April 28, 2015, and will be considered in Phase III of the EE Proceeding 13-11-005.

- i. SCE comment: The 2013 study changed how Economic potential is calculated by applying different cost effectiveness screens for measures already in SCE's portfolio (.85 TRC) compared to Emerging Technologies (.5 TRC). By assuming Emerging Technologies (ETs) pass the cost effectiveness test at a lower threshold gives the casual reader the impression that all Economic Potential passes the TRC cost effectiveness test. This is simply not the case, and reduces the usefulness of the theoretical upper bounds of EE Potential. SCE requests that all measure cost-effectiveness be treated similarly and are consistent with CPUC program mandates and requirements.

Staff response (Addressed): The cost effectiveness screens have not changed from the previous Potential and Goals Study. While the TRC screens are below 1 in the economic potential, the market potential for these measures with low TRC is generally a smaller portion of the total market potential. Any measures that are screened out of Economic potential are not picked up at any level in the market potential. The intent of Commission policy is that the less cost effective measures are offset by the highly cost effective measures, so emerging technologies are expected to stay in the portfolio. With specific regard to emerging technologies (ET), the model requires ETs to reach a TRC of 0.85 ten years after they are introduced into the market. ETs that do not eventually become cost effective are retroactively screened out of the market potential.

- j. SCE comment: Does not believe current 2013 EE Potential and Goals study scenario outputs represent a true upper or lower bound of EE potential, and that foundational methodological changes are required.

Staff response (More information required): This comment is not particularly useful without more specifics on the changes SCE considers necessary. Staff welcomes any specific input and examples on what improvements can be made to make the model more accurate.

- k. SCE comment: Measure level changes to be accompanied by documentation of the underlying source of data used to calculate said change.

Staff response (Accepted): The Navigant team will be more specific in its draft report as to the sources utilized to update the measures.

- l. SCE comment: Recommends that Potential and Goal model add the capability to output levelized costs of the measures included in the potential analysis.

Staff response (Future consideration): The team is not able to produce this output before the 3/17 draft model release but will consider this as an output for later updates of the model. There are issues with meeting deadlines and resources to change the current scope.

- m. SCE comment: Supports a methodology proposed to estimate Whole Building EE Savings (referenced in SCE Workpaper Energy Upgrade CA - Prescriptive Whole Home Upgrade").

Staff response (Future consideration): The Navigant team will review SCE's workpaper as part of the stage 2 update and thanks SCE for providing the workpaper. The current scope of Stage 1 is to rely on data from DEER and EM&V studies where possible. Energy Upgrade CA data is sourced from the 10-12 evaluation of the EUC program. There are issues with meeting deadlines and resources to change the current scope.

- n. SCE comment: 2015 Program Decision stipulated that starting in 2015, SCE should shift the ratio of incentive dollars between CFLs and LEDs by at least 5% each year compared to the previous year and there are related shifts in savings from CFLs to LEDs.

Staff response (Addressed): The potential study will forecast the savings from CFLs and LEDs independent of this policy to capture the true market demand. The results can be used to inform discussions about this policy. LEDs are an evolving technology; the 2015 study has better data about LED prices and efficacy than the 2013 study had available.

- o. SCE comment: SCE has to curtail specific CFL products and wattages and result in removing very cost effective measures from the Upstream Lighting Program; SCE must focus heavily on new products and on models with lower customer demand due to things like fixture size limitations or brightness issues.

Staff response (Addressed): The potential study will forecast the savings from multiple CFL and LED product groups (different wattages; standard/specialty/reflector). Potential will be

reported for each measure type. The model forecasts market potential, it is up to the CPUC to set the goals and the Program Administrators to design programs to meet those goals. SCE is welcome to comment on any possible adjustments to the goals it feels necessary to account these for concerns about CFLs once the model results are released.

- p. SCE comment: Model calibration at the building climate zone: (1) Distribution Resource Planning, Load Forecasting, and Transmission Planning activities have placed unprecedented pressure on EE to disaggregate savings forecasts to areas smaller than the standard the Service Territory level, (2) Many of the Residential and Commercial model inputs (DEER, CSS, CEUS, and RASS) have a common Building Climate zone base, (3) To increase the accuracy of disaggregated EE Forecasts, SCE request the EE Potential and Goals model be calibrated at the Building Climate Zone level.

Staff response (Future consideration): The current scope of the Stage 1 update is to calibrate to the IOU/Sector/End-Use level and not at the climate zone level, there are issues with meeting deadlines and resources to change the current scope. Alternate calibration and alternate granularity of modeling will be considered in Stage 2.

- q. SCE comment: Standard Technical, Economic, and Achievable/Market Potential modeling structure: LADWP published a draft Territorial Potential Report that contains unique methodology deployed innovative and unique methodology designed to account for the aforementioned cost effectiveness methodology limitations (LADWP Territorial Potential Draft Report Volume 1, Nexant, June 24, 2014).

Staff response (Future consideration): Following the guidance provided in the 2/24 Scoping Memo, the Modeling methodology for Stage 1 is to follow the same as used in the 2013 study. Changes to modeling methodologies (as well as other methodology changes) will be considered in Stage 2. The Navigant team is utilizing the same EE Potential model used for the 2013 study. The model yields a forecast of achievable potential that falls within the boundaries of existing CPUC policy governing energy efficiency. It is within the CPUC's pursue to set goals. SCE may comment on any adjustments to the goals it feels are necessary to account for concerns about cost effectiveness.

## 2. 1/13/2015 P&G AIMS Webinar

- a. SCE comment: ED's position proposed to limit ISP measures to 11 ISP studies that lead to the current approval of ISP measures. The basis for ED's position was the 11 ISP studies had been previously "vetted and approved by ED" and suggested that new ISP research should be vetted in Stage 2 of the 2015 EE P&G study. Conversely, SCE's proposed to use a holistic approach that incorporates ISP measure from both previous ED approved ISP studies and the results of recent ISP research. The combination of currently designated ISP measure and the incorporation of new research will mimic how ISP's are treated in SCE's current EE Program designs.

Staff response (Future consideration): Staff understands the frustration about leaving certain savings in the study that may be removed due to ISP from utility portfolios in the near future. However, many of these ISPs have not been thoroughly reviewed through a stakeholder process and/or pass a as a rigorous study. This review will occur as part of the baseline analysis that will be launched at the April 28 workshop. The goals will likely to be modified with new data in another year to reflect the most up to date values.

- b. SCE comment: SCE supports the top down methodology deployed in modeling the AIMS EE Potential, but seeks easy to deploy quality control changes. SCE seeks to assure that:
- 1) The measures in the IAC data base are applicable to California EE programs
  - 2) The EE savings is consistent with current program policy requirements and constrains
- SCE requests that the AIMS measures that are derived from the national IAC database go through a quality control and applicability check to assure all measures that are modeled are applicable to California's unique EE programs designs and requirements.

Staff response (Addressed): The Navigant team is building upon its 2013 analysis that confirmed the applicability of the IAC database to the California industrial market. Please see the 2013 analysis documents, Appendix 1 (Appendices A to J), at section G.8.4: IAC Database Application to the California Industrial Sector (<http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M088/K662/88662017.PDF>). Navigant developed this section in response to similar comments received during the previous analysis. For the 2015 effort, Navigant is building on this previous exercise. The team, including ASWB Engineering team experts, conducted a review of the 275 individual IAC assessment recommendation codes (ARCs) to confirm applicability to the related California industrial markets and eligibility within related programs. Further, the team will continue to address this comment in Stage 2 (for example, through an examination of industrial customer characteristics and consideration of custom energy efficiency measures).

3. 11/7/2014 P&G Kick-off Workshop

- a. NRDC comment: How do you plan to track the Prop 39 in parallel with the study?

Staff response (Future consideration): The Navigant team has had discussions with Commission staff on how to incorporate Prop 39 into the study. At the moment, CEC is just rolling out Prop 39 projects. Once there is sufficient data, there can be a more involved discussion with stakeholders on the approach and methodology.

- b. NRDC comment: Is the locational potential going beyond current DEER climate zones level?

Staff response (Future consideration): Incorporating location impacts into the Study will change the fundamental structure of how savings are determined and how EE policy is current set on adopting goals. More discussion is needed with stakeholders and

policymakers on how to move this forward. In addition, data and research in this area is needed.

- c. SCE comment: Knowing that ETs are coming down the road and considering the spike in 2018 in the 2013 study, within SCE we started to consider ETs. ETs account for big chunk of the future savings. Is it possible to review more recent data and incorporate to the new study?

Staff response (Future consideration): The emerging technologies in the 2013 study will be carried over to the 2015 study. Stage 1 of the study will update the savings and other parameters relating to these technologies that came from 10-12 evaluations. New emerging technologies will be researched and potentially added to the study for Stage 2.