

MEMORANDUM

To: Energy Efficiency Advisory Council

From: Program Administrators

Date: March 18, 2021

Re: Potential Studies – Background & Coordination Activities

Background

The Program Administrators have undertaken potential studies in 2020-2021 in order to inform the 2022-2024 Three-Year Plan. In the 2016-2018 Three-Year Plans Order, the Department of Public Utilities (“Department”) directed the Program Administrators to conduct an analysis of the remaining cost-effective energy efficiency potential in their service territories every three years. D.P.U. 15-160 through D.P.U. 15-169, at 25 (2016). In the 2019-2021 Three-Year Plans Order, the Department recognized that “each Program Administrator has a unique service territory with different customer characteristics and economic landscapes that require individualized potential studies in order to evaluate the remaining energy efficiency potential in the face of unique challenges.” D.P.U. 18-110 through D.P.U. 18-119, at 38 (2019). The Department also recognized an opportunity to enhance the value of the findings for the Department and stakeholders, and thus directed that the “individualized potential studies should demonstrate consistency among the Program Administrators in terms of timing, formatting, and definitions.” Id. To this end, the Department required:

For all future potential studies, the Program Administrators shall (1) coordinate studies to present findings using common definitions for the various levels of achievable potential, such that the study results are comparable, and (2) with input from the Council, establish a common study deadline to submit final potential study results. Finally, as part of its next three-year plan filing, each Program Administrator shall include detailed testimony and exhibits addressing how the findings of its potential study were used to inform the development of its savings goal during the energy efficiency planning process. Id.

Preparing and Coordinating

The Program Administrators have been working over the past year on preparing the potential studies for 2022-2024, including sharing scopes of work, creating common measure lists, preparing common definitions for achievable potential scenarios, comparing assumptions, and collaborating amongst the Program Administrators and their vendors. While the Program Administrators have individual studies that take into account the specific characteristics of their territories, there has been extensive coordination in order to ensure common inputs and initial assumptions.

The Program Administrators coordinated in the spring of 2020 on a measure list and shared the proposed measure list with the EEAC's consulting team on June 23, 2020. Following comments by, and discussions with, the consulting team, the Program Administrators provided a written response to consultants' comments on the measure list and incorporated changes to the measure list. The Program Administrators next collaborated on achievable potential scenarios in order to present findings using common definitions for the various levels of achievable potential. These definitions were shared with the consulting team on August 5, 2020. The common definitions are as follows:

- Business as Usual (BAU): Pre-COVID incentive levels.
- Business as Usual Enhanced (BAU+):
 - For weatherization: Incentive set to 90% of incremental cost.
 - For other measures: Raising incentive levels to 50% higher relative to existing incentive levels (to a maximum of 90% of incremental cost).
- Maximum achievable: Incentives set to 100% of incremental cost.

All Program Administrators used the same definitions of potential in their individual potential studies. While the studies use different proprietary models from various vendors (all of whom have significant background in delivering studies of potential), the results from the studies are comparable due to the consistent definitions of potential and common measure assumptions. As the studies have moved forward, the Program Administrators have continued to meet regularly to discuss methodologies, assumptions, and preliminary results.

In February and March 2021, the Program Administrators shared with the EEAC's consulting team draft results, inputs, assumptions, methodologies, explanations, and responses to questions from the EEAC consultants. The Program Administrators also provided the consulting team with a summary of statewide strategic electrification results from the potential studies in order to assist in their review. Following finalization of the 2021 Avoided Energy Supply Cost study, the avoided costs will be updated in the potential studies to reflect the most recent data. The potential studies will be finalized in advance of the April draft Plan filing.

Use of Potential Studies

The Program Administrators use the results of potential studies to gain valuable insight into the achievable, cost-effective energy efficiency potential over a period of years. The Program Administrators also use many other tools and pieces of data in setting savings goals, such as historical information, updated codes and standards, evaluations and other third-party research, cost and market data, new technologies, and updated program designs. Goal setting also takes into account many interacting considerations, including bill impacts, cost-efficiency, integrated program delivery, contractor and market infrastructure, economic and environmental benefits, efforts focused on innovation, customer experience, and changing market conditions. While potential studies are only one component of the planning process, they can help the Program Administrators understand the remaining technical, economic, and achievable energy efficiency opportunities within their service territories, which play a key role in helping Program Administrators set savings goals.

The potential studies consider a wide range of factors to estimate potential savings over time including, but not limited to, the size of the market, economic trends, modeled market penetration and saturation of specific equipment, adoption rates for efficient equipment, costs and benefits associated with efficiency upgrades, and market barriers. In general, the studies relied on the most recent Technical Reference Manual (2019 Report Version) and Net-to-Gross assumptions for the current term. In conjunction with other data sources and their experience implementing programs, the Program Administrators use the results of potential studies to approximate the remaining achievable, cost-effective potential opportunity for savings over the next three-year period. This information is a key input that helps the Program Administrators establish savings goals in the Plan that are achievable and take into account not only what is available and cost-effective, but also how willing and able customers are to adopt energy efficiency measures.

Each of the potential studies, in addition to providing technical, economic, and achievable scenarios as described above, looks at several different scenarios of achievable potential in order to understand the sensitivity of achievable savings to inputs such as increased incentive levels and higher levels of spending on marketing and program awareness. The studies generally include statements of potential that range from looking at the “business as usual” case, up to a scenario in which the Program Administrator pays 100 percent of total resource costs as customer incentives and significantly ramps up costs associated with marketing and program awareness. The Program Administrators review these scenarios with an understanding of the need to minimize customer bill impacts, and the need to maintain sustainable energy efficiency efforts over time. The Program Administrators also take into account any changes in market conditions or other information that may impact the recommendations from the potential studies. The Program Administrators share technical potential studies results with each other and are able to benefit from comparing and contrasting the work of the different study experts to ensure they are consistently informed on industry best practices and different ways of looking at complex issues. The diversity of perspectives ultimately adds to increased confidence in results.

The 2022-2024 potential studies incorporated modeling for energy efficiency for the gas Program Administrators, and for energy efficiency, strategic electrification, and demand reduction for the electric Program Administrators. These scenarios were modeled separately because some of the PA vendors, like Dunksy, have a different model specifically designed to assess heating electrification (“HE”) potential, which is more complicated and different in many respects from energy efficiency. Dunksy provides this explanation of why the results are not overlapping:

We believe the potential for double counting of savings opportunities across HE and EE is minimal for multiple reasons:

- Models were calibrated to existing programs where measures are already in competition.
- A relatively minimal amount of full replacement HE measures are being adopted.

Very few situations where EE and HE measures with similar market opportunities would truly overlap in the achievable potential.