



RIVERSIDE PUBLIC UTILITIES

Board Memorandum

BOARD OF PUBLIC UTILITIES

DATE: MAY 10, 2021

SUBJECT: ENERGY EFFICIENCY AND DEMAND REDUCTION TEN-YEAR TARGET

ISSUE:

Consider the approval of the updated Energy Efficiency and Demand Reduction ten-year target.

RECOMMENDATION:

That the Board of Public Utilities recommend that the City Council approve the Riverside Public Utilities updated Energy Efficiency and Demand Reduction ten-year target of 1% of annual projected retail energy sales for the period beginning 2022 through 2031.

LEGISLATIVE HISTORY:

Assembly Bill (AB) 1890 (Brulte, 1996) requires that 2.85% of electric revenue be utilized to fund public benefits programming and must be used in at least one of four areas: demand side management (energy efficiency), renewable energy, low-income assistance, or research, development, and demonstration.

Senate Bill (SB) 1037 (Kehoe, 2005) is a comprehensive package that sets ambitious energy conservation policies and goals. SB 1037 requires publicly owned utilities (POU's) when procuring energy to serve their customer load, to "first acquire all available energy efficiency and demand reduction resources that are cost effective, reliable, and feasible" and to report kilowatt hour (kWh) savings to the California Energy Commission annually. This Senate bill also requires POU's to report results annually to its customers and the Energy Commission on its energy efficiency and demand reduction programs.

AB 2021 (Levine, 2006) requires POU's to identify, target and achieve all potentially cost-effective electric savings and establish 10-year energy efficiency targets. Riverside Public Utilities (RPU) has set an ambitious 10-year energy efficiency target of 1% of annual retail energy sales.

Assembly Bill 2227 (Bradford, 2012) changed the frequency of the 10-year energy efficiency potential studies from once every three years to once every four years to be consistent with the State's Integrated Energy Planning process.

SB 350 (De Leon, 2015) establishes annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas by January 1, 2030. The bill requires local POU's to establish annual targets for energy efficiency savings and demand reduction consistent with this goal.

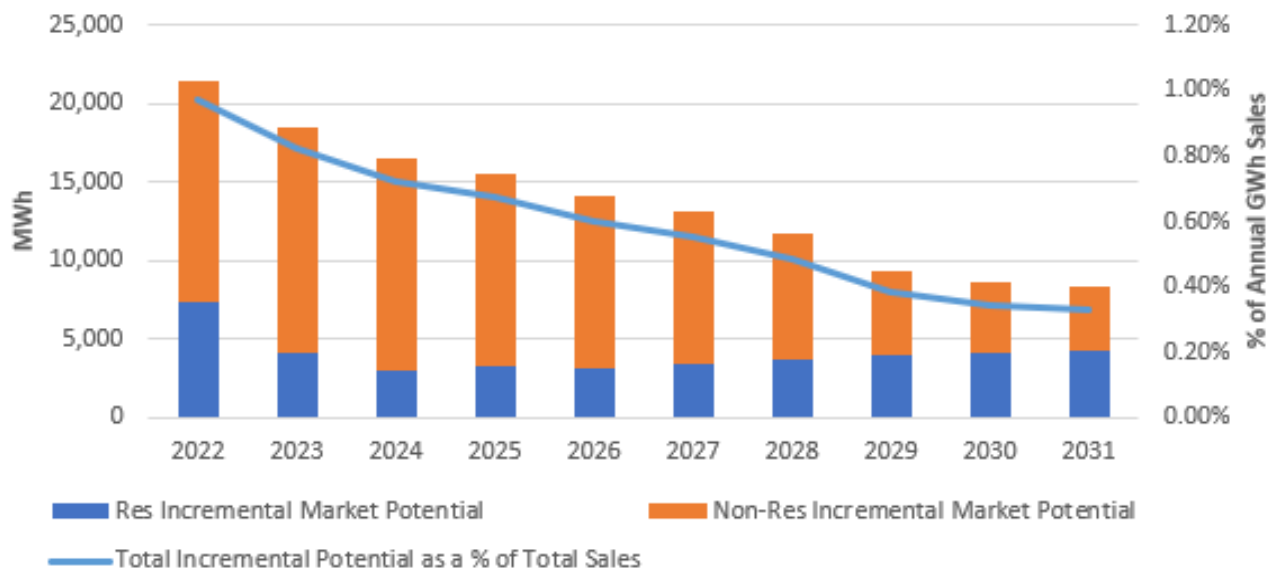
BACKGROUND:

To measure and track energy efficiency savings, POU's throughout the state use the Technical Reference Manual, which provides methods, formulas, and default assumptions used for calculating energy savings and peak demand impacts from energy efficiency measures and projects in a clear and open format. The Technical Reference Manual replaced the Database for Energy Efficiency Resources in 2014 as it was more representative of actual energy savings results, and the Database for Energy Efficiency Resources methodology was opaque and complex. The Technical Reference Manual (<http://cmua.org/energy-efficiency-technical-resource-manual-2016/>) includes both residential and commercial measures, and allows for custom and semi-custom calculations, which is essential in many commercial and industrial energy efficiency projects.

DISCUSSION:

The California Municipal Utilities Association, the Northern California Power Agency, and the Southern California Public Power Authority, and their respective member agencies collaborate on the development of individual utility energy efficiency savings and demand reduction targets every four years as required by AB 2021 and AB 2227. Through this collaboration, GDS Associates, Inc. was retained to prepare individual utility potential studies and assist the POU's in establishing these ten-year targets. GDS is a utility industry consultant with recognized expertise in energy efficiency and demand reduction analysis. GDS prepared a ten-year model of energy efficiency savings projections for each POU based upon several factors including technical potential, economic potential, cumulative market potential, and incremental market potential for the residential, commercial, industrial, and agricultural customer segments. This statewide potential study model is referred to as the Electricity Resource Assessment Model (ELRAM). Based on applying the Electricity Resource Assessment Model to RPU's service territory, GDS has identified a potential of 0.59% of forecasted retail sales as a recommended kilowatt hour (kWh) savings target for RPU over a ten-year period (Attachment 1).

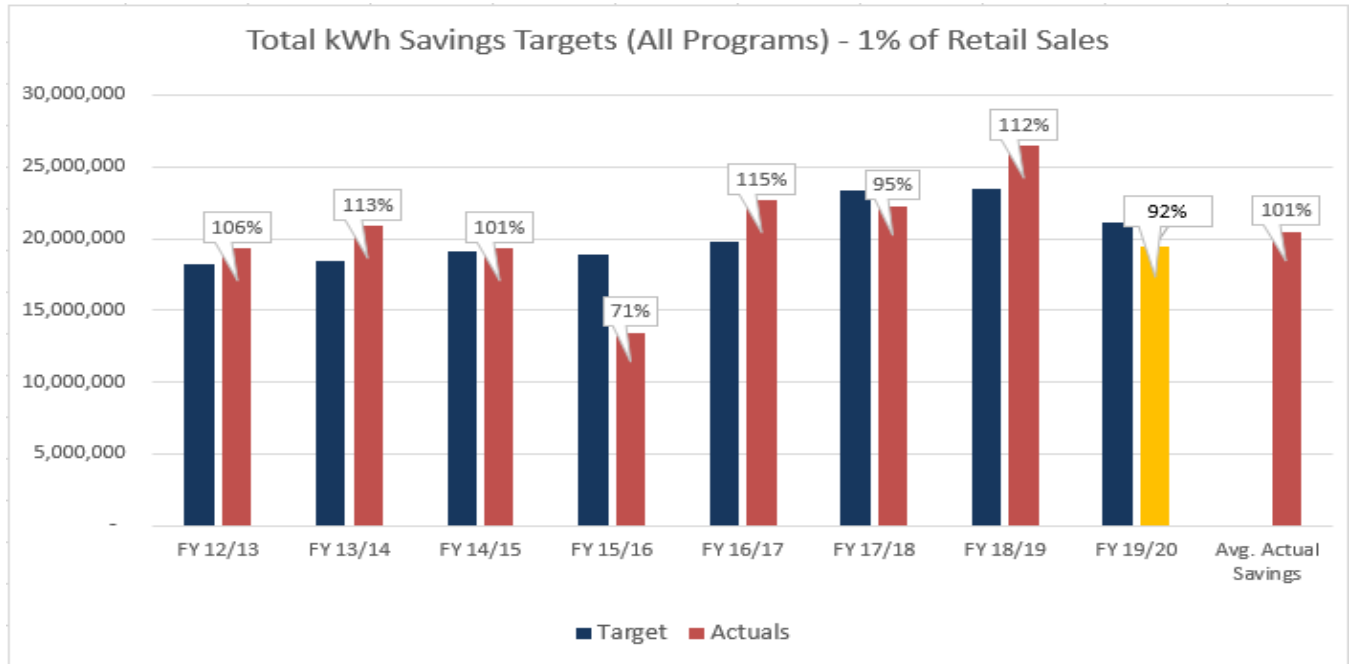
The following table illustrates RPU's gross energy efficiency potential identified by GDS. This data does not capture kWh savings from projects outside the scope of RPU's rebate programs. RPU is only able to claim kWh savings for those energy efficiency and demand reductions measures which can be reasonably verified and for which RPU has provided a monetary incentivization, resulting in kWh savings. To achieve these targets, RPU Key Accounts staff are in regular communication with customers regarding energy efficiency and rebate opportunities. RPU's large commercial customers comprise 10% of RPU's total customer base and represent approximately 65% of all energy consumed. These large electric load customers are responsible for achieving the largest kWh savings. Developing strong relationships and communicating information regarding RPU's range of Energy Efficiency programs is a critical function of RPU's Key Account Management Program in helping to achieve the kWh savings goal.



The market potential identified starts at 0.97% of retail sales in 2022, declining to 0.33% in 2031. This represents market penetration of rebate programs, as well as a projected decrease in allowable savings due to the increased baseline of statewide codes and standards for energy efficiency.

After examining the performance of RPU programs and past results, the staff recommendation is to maintain the 1% savings target, instead of the GDS identified market potential of 0.59%, for the 2022 through 2031 period. This higher target is anticipated to be achieved with an increase in outreach and continued direct installation programs in both the residential and commercial sectors once Covid-19 related restrictions are lifted. The higher target demonstrates RPU's ongoing commitment to contributing to the statewide goal of doubling energy efficiency by 2030 as established under SB 350.

The potential study will be undertaken again in four (4) years to reassess market potential and any technological changes. At that time RPU will review the 1% savings target to determine if it is still appropriate going forward for the next ten-year period. Shown below is RPU's historical performance in relation to the 1% target over the past seven (7) years.



RPU's Power Resources Division has also reviewed the GDS Associates, Inc. potential study and concurs with the staff recommendation in this report to adopt the 1% target. Additionally, the Customer Engagement and Power Resources Divisions will be jointly evaluating the energy efficiency savings rebate programs as part of the RPU's Integrated Resource Planning efforts in support of the 2022/23 process. The results from this joint project will be further used to refine and update our 1% annual saving target during the next energy efficiency savings target setting cycle.

FISCAL IMPACT:

There is no fiscal impact associated with this report.

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 Approved as to form: Kristi J. Smith, Interim City Attorney

Certifies availability of funds: Edward Enriquez, Chief Financial Officer/City Treasurer

Attachments:
 1. GDS Associates, Inc. 10 Year Market Potential Study
 2. Presentation