GDS Associates, Inc.
ENGINEERS & CONSULTANTS

MEMORANDUM

TO City of Riverside

FROM GDS Associates, Inc.

DATE February 15, 2021

RE 2020 CMUA Energy Efficiency Potential Forecasting Study

INTRODUCTION

This memo provides the City of Riverside with the results of the California Municipal Utilities Association (CMUA) Energy Efficiency (EE) Potential Forecasting Study conducted in 2020 by GDS Associates, Inc. (GDS). The results described here are specific to the Riverside service territory and account for unique characteristics of the service area, customer base, climate zone, economic conditions, and other relevant factors. This memo provides a summary of potential, and a description of the data provided in a detailed results spreadsheet file.

SUMMARY OF POTENTIAL

This potential study provides a roadmap for Riverside as they develop strategies and programs for energy efficiency. The development of market potential estimates for a range of feasible measures is useful for program planning and modification purposes.

The Riverside energy efficiency program target for the next 10 years (2022 to 2031) is set at 137,276 MWh. This results in an average annual target of 0.59 percent of total projected energy sales. Figure 1 provides the market potential for the residential and non-residential sectors, as well as the total incremental potential as a percentage of total sales for the 10-year period of 2022 to 2031.

FIGURE 1. NET INCREMENTAL MARKET POTENTIAL BY SECTOR (MWH) AND PERCENT OF SALES

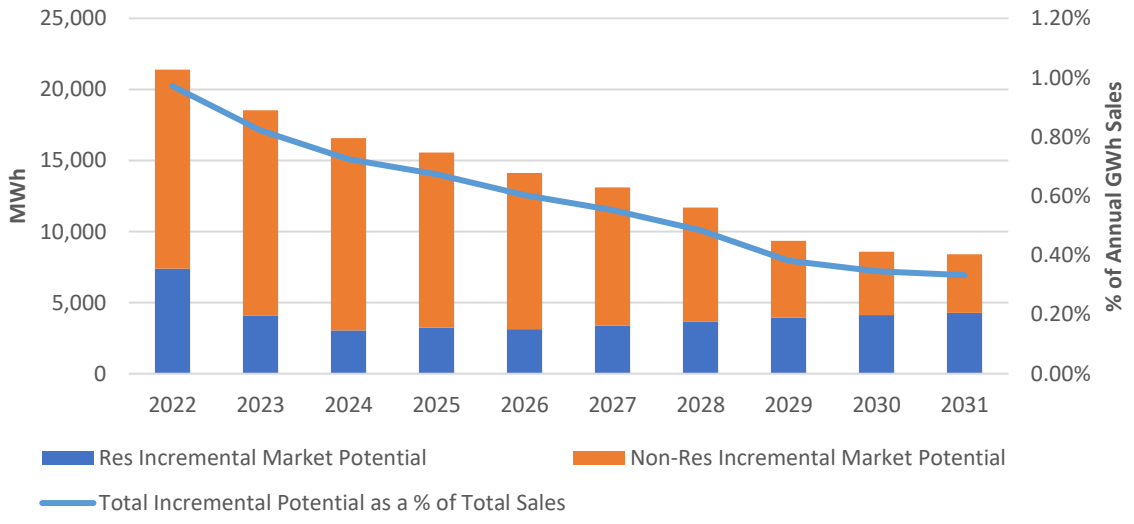


Table 1 below includes the specific inputs used to create Figure 1. The annual energy and demand impacts are provided. The energy impacts are shown as a percentage of forecasted sector-level and total sales. Incremental annual savings range from 8,394 MWh to 21,383 MWh, which corresponds to 0.33% to 0.97% of forecasting sales.

TABLE 1 NET INCREMENTAL MARKET POTENTIAL BY SECTOR – ENERGY AND DEMAND

10 Year Energy Goals (Incremental Net MWh)										
ALL Sectors (MWh)	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**
Total Market Potential	21,383	18,523	16,569	15,551	14,120	13,117	11,694	9,340	8,584	8,394
Res Market Potential	7,383	4,099	3,045	3,253	3,142	3,385	3,684	3,934	4,123	4,276
Non-Res Market Potential	13,999	14,425	13,524	12,298	10,978	9,732	8,010	5,407	4,461	4,118
Total Potential as a % of Total Sales	0.97%	0.82%	0.72%	0.67%	0.60%	0.55%	0.48%	0.38%	0.35%	0.33%
Res Potential as a % of Res Sales	1.04%	0.57%	0.42%	0.45%	0.43%	0.46%	0.50%	0.53%	0.55%	0.56%
Non-Res Potential as a % of Non-Res Sales	0.94%	0.94%	0.86%	0.78%	0.68%	0.59%	0.48%	0.32%	0.26%	0.23%

10 Year Demand Goals (Incremental kW)										
ALL Sectors (kW)	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**
Total Market Potential	5,261	4,453	3,982	3,714	2,978	2,638	2,301	1,763	1,590	1,539
Res Market Potential	2,510	1,616	1,351	1,348	891	836	866	906	952	998
Non-Res Market Potential	2,752	2,837	2,631	2,366	2,087	1,801	1,434	857	638	541

At a glance, Riverside's results include:

- A 2022-2031 average annual gross savings target of 0.59% of forecasted retail sales
- A 2022-2031 average annual net savings target of 0.59% of forecasted retail sales
- No claim of savings from codes and standards (C&S)

Detailed Results

GDS has provided Riverside with a detailed results file which includes the summary information described above, as well as additional detailed results. The results file includes the following information:

- 10-yr gross incremental and cumulative annual energy and demand savings
- 10-yr net incremental and cumulative annual energy and demand savings
- 20-yr cumulative annual technical, economic and market potential by sector – energy and demand
- 20-yr incremental annual market potential by sector – energy and demand
- 20-yr market potential by program
- 20-yr market potential by end-use
- 20-yr costs by program
- Comprehensive measure mapping list