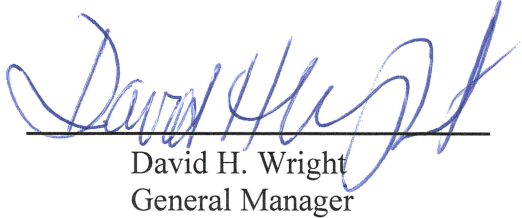


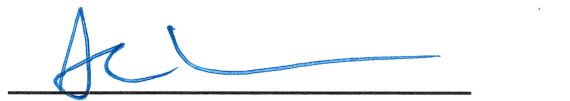
CITY OF LOS ANGELES
DEPARTMENT
OF
WATER AND POWER
2018 RETAIL ELECTRIC SALES AND DEMAND FORECAST




David H. Wright
General Manager



Ann M. Santilli
Interim Chief Financial Officer



Andrew C. Kendall
Senior Assistant General Manager -
Power System
Construction, Maintenance, and Operations



Reiko A. Kerr
Senior Assistant General Manager -
Power System
Engineering, Planning, and Technical Services

November 5, 2018
Load Forecasting, Room 956
Financial Services Organization

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2018 Retail Electric Sales and Demand Forecast

Overview

The 2018 Retail Electric Sales and Demand Forecast (Forecast) supersedes the 2017 Retail Electric Sales and Demand Forecast as the City of Los Angeles Department of Water and Power's (LADWP) official Power System Forecast. The Forecast is the basis for LADWP Power System planning activities including but not limited to Financial Planning, Power Strategic Long-Term Resource Planning (SLTRP), Transmission and Distribution Planning and Wholesale Marketing.

The Forecast is a public document. Only publically available information is used in the Forecast development. (This practice has become a standard among California electric utilities.) Being public data means all data sources are auditable. LADWP Planners developing alternative scenarios using their own proprietary data should adjust the Forecast accordingly. The Load Forecast Group (LFG) is available for consultation on making adjustments to the Forecast. The Forecast includes unpublished working papers to aid Planners in developing alternative scenarios.

Data Sources

1. Historical Sales reconciled to the Customer Care & Billing (CCB) Consumption and Earnings Report through June 2018.
2. Historical NEL, Peak Demand and Losses reconciled to the Wholesale Energy Resource Management website (WERM) database maintained by the Energy Reconciliation Group.
3. Historical weather data is provided by the National Weather Service and Los Angeles Pierce College.
4. Historical Los Angeles County employment data is provided by the State of California Economic Development Division using the March 2017 Benchmark.
5. Historical population estimates and projections are provided by the State of California Department of Finance Demographic Unit.
6. The long-term Los Angeles County economic forecast with quarterly short-run updates is provided by UCLA Anderson Forecast.
7. The construction activity forecast is provided by Dodge Data and Analytics.
8. The Electric Vehicle forecast is consistent with the 2017 SLTRP.
9. The LADWP program energy efficiency forecast is based on the AB 2021 goals adopted by Board Resolution and is consistent with 2017 SLTRP. Historical installations are provided by the Efficiency Solutions Group.
10. The forecasted impacts of the Energy Independence Security Act (EISA) and the Huffman Bill on residential lighting rely on the Energy Efficiency Potential Study prepared in 2017 .
11. Projected solar rooftop installations are consistent with the 2017 SLTRP. Historical installations are provided by the Solar Energy Development Group.
12. Electric prices are based on FYE 2018 Power System Case 3 developed by Financial Services Organization.

Five-Year Sales Forecast

The Forecast represents total sales that will be realized at the meter incorporating future savings from known energy efficiency technologies and future loads expected to be served by distributed generation. The Forecast does not include changes in sales that may result from emerging technologies. Private enterprise and government are both currently funding new research mainly in the pursuit to slow man-made climate change. For example, the State of California has adopted an ambitious Energy Action Plan that includes four “Big Bold Strategies” for significant energy savings. The Energy Action Plan requires all new residential construction to be zero net energy by 2020; all new commercial construction to be zero net energy by 2030; Heating, Venting and Air Conditioning (HVAC) industry to be re-shaped to deliver maximum performance HVAC systems; and all eligible low-income customers be provided with all cost-effective energy efficiency measures in their residences by 2020.

The historical accumulated energy efficiency and solar savings reported in the Forecast are from 1999 forward. Historical Codes and Standards savings for the years 1999 through 2011 are based on California Energy Commission (CEC) analysis. After 2011, LADWP calculates its share of total saving from Codes and Standards from reported California savings. True accumulated energy efficiency would more likely be dated back to 1974 when the Warren-Alquist Act passed in California but accurate records are not available. In the Forecast, projected energy efficiency and solar savings are expected to occur uniformly throughout the year as a simplifying assumption.

The LADWP billing system underwent a conversion in September 2013. It is the opinion of the Load Forecast Group that sales in FYE 2014 and 2015 are under-reported. Also in 2017, bills include legal settlements from the billing system conversion. These billing system anomalies create noise when performing statistical analysis on historical data.

Estimated sales for FYE 2019 will stay at the same level compared to recorded sales in FYE 2018. The compounded growth rate for sales is also estimated to be flat over the five-year budget period. This result is mainly attributed to accelerated incremental savings from LADWP’s energy efficiency and solar distributed generation programs, and expected increases in real electric rates. In the Forecast, electric rate increases are lagged one year to allow for customer behavior to change.

Recently electricity consumption per capita and economic growth have been negatively correlated in the LADWP service area and throughout the United States. Commentators are divided whether this is a temporary or permanent change. Those who argue for a temporary change point out that most of the recent gains in energy efficiency have come from lighting technology. Lighting technology changed from incandescent lamps to compact florescent lamps to light-emitting diode lamps very rapidly. Thus the change is unsustainable because there is less potential for improvement in the future. Those who believe that economic growth and per capita energy consumption will remain negatively correlated assert that innovations in energy efficiency technology will continue the trend.

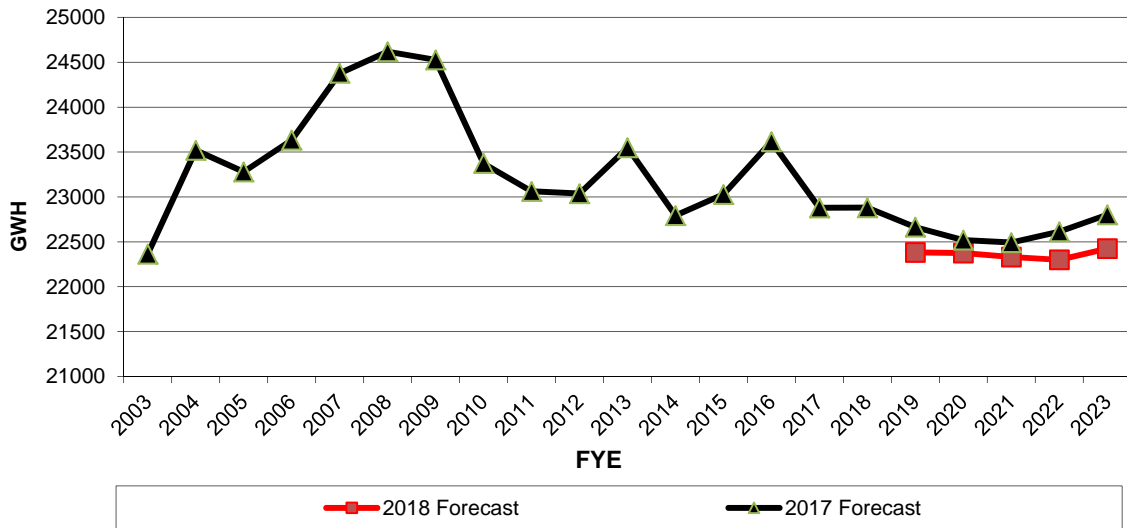
Historical and future retail sales would be significantly higher absent LADWP energy efficiency and solar distributed generation programs. Based on installed savings, sales have been reduced by 2912 GWH since FYE 2000 through LADWP-sponsored

programs. LADWP is accelerating these savings programs and retail sales are expected to be reduced by another 1852 GWH over the next five years.

Short-Run Growth

Fiscal Year	Retail Sales	YOY Growth Rate	Accumulated EE & Solar Savings	Estimated Sales wo Codes & Standards	YOY Growth Rate
Ending June 30	(GWH)	Rate	(GWH)	(GWH)	Rate
2017-18	22383		2912	25296	
Forecast					
2018-19	22382	0.0%	3257	25639	1.4%
2019-20	22375	0.0%	3575	25950	1.2%
2020-21	22332	-0.2%	3932	26264	1.2%
2021-22	22300	-0.1%	4343	26643	1.4%
2022-23	22425	0.6%	4764	27189	2.1%

Retail Sales Net of Energy Efficiency and Distributed Generation



Peak Demand Forecast

Growth in annual peak demand over the next ten years is 0.3 percent.

Long-Run Growth

Fiscal Year End June 30	Base Case Peak Demand (MW)	Growth Rate Base Year 2017-18	One-in-Ten Peak Demand (MW)
2017-18	5854 ¹		6347
2018-19	5820 ¹		6347
Forecast²			
2022-23	6016	0.5%	6520
2027-28	6039	0.3%	6544
2037-38	6551	0.6%	7112
2040-41	6744	0.6%	7326

¹Weather-normalized. Actual peak was 6432 MW in 2017-18 and 6195 MW in 2018-19.

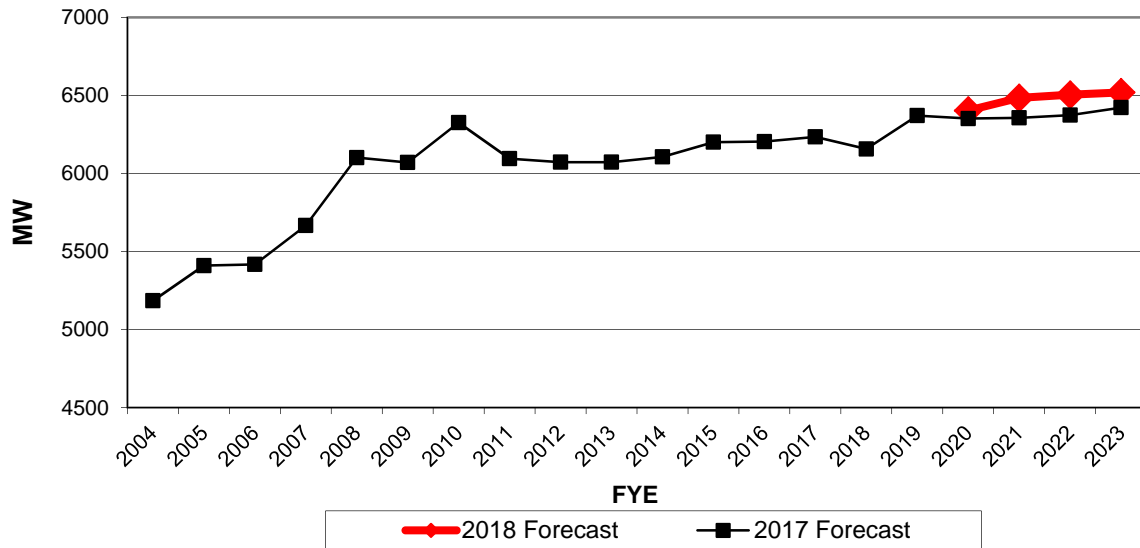
²Forecast has been modified to include 2018 summer through August 31, 2018.

The System set its all-time high peak at 6432 MW on August 31, 2017, a 1-in-12.6 weather event. The weather-adjusted One-in-Two peak for 2018 is 5820 MW. Included in the weather-adjusted peak are normalized DC line losses from the Nevada-Oregon border (NOB). NOB DC line losses at the peak hour on August 31, 2017 were 224 MW, which is higher than the average loss of 183 MW used in the peak weather-normalization calculation.

The system annual peak-to-date for 2018 is 6195 MW set on Friday July 6, 2018 during a 1-in-6 weather event. NOB DC losses at the peak hour were 262 MW which is at the very high-end of the historical range. Demand Response savings at the peak hour are estimated to be 35 MW from the peak shift program and 10 MW from the real-time pricing rate.

The following graph of the One-in-Ten Peak Demand Forecast is used for the Power Strategic Long-Term Resource Plan (SLTRP). Peak demand growth generally has been growing faster than sales. In the last 17 years, annual percentage change for Total Sales was -0.14%, compared to 1.15% for Peak Demand. To incorporate this, in the 2018 Forecast, LADWP used a slightly reduced System load factor while keeping its assumption of future peak being a constant load factor relative to NEL. Adjustments are also made for the Huffman Bill, energy efficiency, electric vehicles and solar distributed generation.

One-in-Ten Peak Demand Forecast Comparisons



In general, system load factors are trending down. Given a constant energy production, a lower load factor means a higher peak. Four considerations are generally thought to be contributing to the lower load factor: 1) customers are making greater efforts to conserve energy but during extreme weather events safety and comfort predominate over conservation causing the peak to spike; 2) the majority of the historical and forecasted energy efficiency effort is oriented toward reducing consumption rather than peak; 3) solar distributed generation production peak is non-coincident with system peak and 4) climate change means extreme weather events occur at a greater frequency.

In contrast to the trend listed above, future load factor may increase if LADWP sees greater demand forward use of electric vehicles.

The impacts from Demand Response programs including XRT Rates and Summer Shift are not included in this Forecast.

The Peak Demand Forecast is primarily used in the following areas:

1. Power Strategic Long-Term Resource Planning
2. Wholesale Energy Marketing
3. Distribution Planning
4. Transmission Planning

For most planning, LADWP uses the One-in-Ten Case Peak Demand forecast rather than the Base Case forecast. LADWP's policy is to ensure reliability in times of volatility by controlling its own generation capacity. Planning at the One-in-Ten level has proven over the years to be an effective tool in ensuring system reliability. The One-in-Ten case is based on historical peak day weather events.

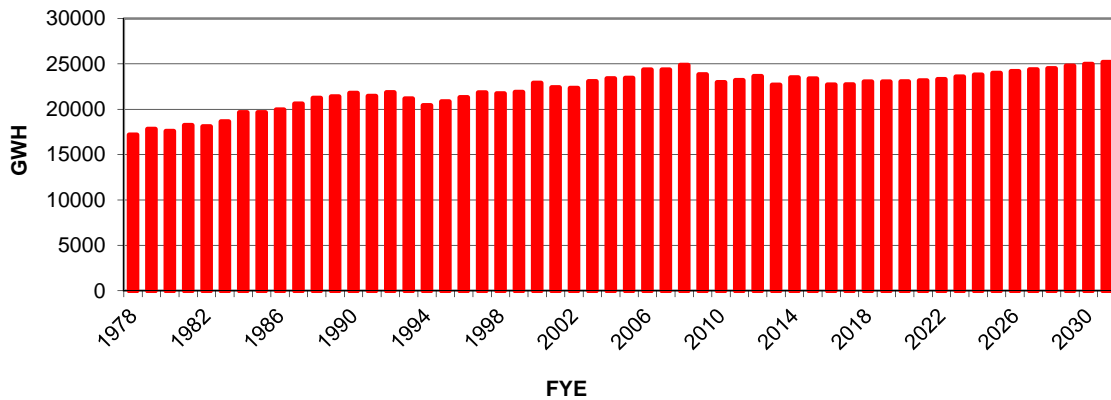
Plausibility

To measure plausibility of our sales forecast, LADWP assumes that growth in energy efficiency, distributed generation and electric vehicle consumption, negative or positive, is in a steady state and then compares the 2018 Forecast prior to adjustments to historical periods. The forecast prior to adjustments for program initiatives is called the unmitigated forecast. In the unmitigated forecast, the change variables are employment, personal income, construction activity and retail electric prices.

The 2008 recession coupled with historically ambitious energy efficiency and distributed generation programs implemented between 2000 and 2017 lowered the trajectory of electric sales significantly. Without the growth in electric vehicles, based solely on the economic variables in the Forecast and assuming energy efficiency Codes and Standards remain in a steady-state; sales will not reach 2008 levels until 2035.

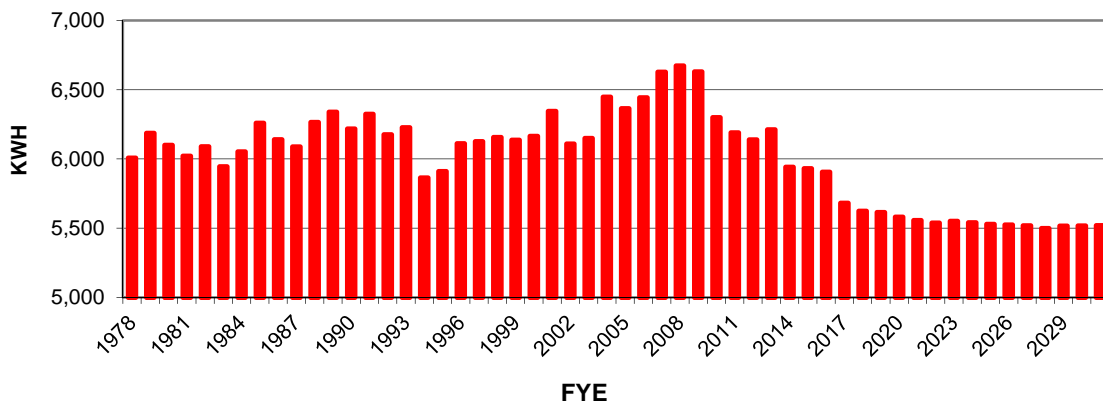
The following table shows the long-term perspective.

Retail Sales before Regulatory Impacts



An alternative way to look at historical and forecasted sales is on a per capita basis. Sales on a per capita basis peaked in FYE 2008 at 6671 KWH per capita. On a per capita basis, sales will be well below this level at the end of the forecast period.

Per Capita Sales before Regulatory Impacts



On a per capita sales basis, very low numbers were recorded in FYE 2014 through 2018 compared to what was recorded in the five years previous. The lower per capita sales are probably a combination of billing changes and lower sales due to distributed generation, energy efficiency, conservation and higher electric rates. In general, higher electric rates encourage increased distributed generation, energy efficiency and conservation.

The economic outlook is positive in the 2018 Forecast. On the Federal level, the current Administration's proposed budget is calling for higher deficit spending in the near term through tax cuts as a part of tax reform bill coupled with higher spending on military and infrastructure. The risk in the economy is the possibility of a trade war. The ports of Los Angeles and Long Beach are fundamental backbones to the Southern California economy.

As we write, the current expansion is into its 113th month versus the average historical expansion of 60 months. The longest expansion since World War II has been 120 months. Full employment is sustainable for a long period but the next recession is likely now somewhere on the horizon. Faster growth would require positive growth in net migration as the large cohort of baby boomers are nearing the stage when they are most likely to retire and leave the labor force rather than continue working.

In 2018, net migration was a negative 3,000 people in Los Angeles County. The last positive year for net migration in Los Angeles County was 2011. Population growth has been due to natural increase (the difference between the number of live births and the number of deaths).

Variables in the Forecast

Population: The State relies on birth-death records and driver license data to estimate population between censuses, which may introduce a large variation in the electricity sales forecast. The 2010 United States Census reported 3,792,621 residents in the City of Los Angeles. This number was well below the previous 4,094,764 estimated by the State of California Department of Finance Demographic Unit at the time. The 2000 United States Census reported a population of 3,694,742 for the City of Los Angeles. The population growth rate was 0.26 percent per annum in the first decade of the 21st century. Since the 2010 census, Department of Finance has estimated an increase in population for the City of Los Angeles of 271,195 people or 1.0 percent a year. As these differences show, the estimate of population can vary significantly between censuses. Additionally, two changes may be affecting the count the number of residential accounts. The Billing System is counting billing adjustments differently since the implementation of CCB. Also LADWP may no longer be individually metering all the units in large apartment buildings especially if the buildings include solar distributed generation.

Retail Electric Prices: Retail Electric prices in this Forecast are based on Power System FYE 2018 Financial Plan Case 3. Some costs are recovered through pass-through rates which vary over time and are a potential source for variance in the Forecast. Nominal price changes are deflated using the Consumer Price Index and the Gross State Product Deflator forecasted by UCLA Anderson Forecast. Price elasticities are statistically derived from the sales models based on historical interactions within the LADWP service area. The derived price elasticities are at the upper bounds of national and international historical research. In LADWP's view, price elasticities are overstated since they are highly correlated with LADWP energy savings programs and LADWP's billing system changeover. LADWP is working with outside contractors to study and resolve these issues but results may not be available for two years because the proposed models are more data intensive and lack history in the more detailed data.

Sector	Price Elasticity (%)
Residential	-.13
Commercial	-.36
Industrial	-.82

Customer Care & Billing System: The Customer Care & Billing System (CCB) replaced the TRES system in September 2013. From a forecasting perspective, the reported data was inconsistent and erratic as adjustments were made to the billings. In the 2016 Forecast LADWP used smoothing techniques in its modeling of data to account for the changeover since in the Load Forecast Group's opinion the sales data was normalizing. The smoothing techniques once again led to sales underperforming the Forecast so that the techniques were not included in the 2017 and 2018 Forecast. The billing conversion settlement caused erratic sales reporting in 2017.

Sustainable Communities and Climate Protection Act (SB 375): SB 375 layers statewide guidelines onto local planning decisions. The goal is to reduce vehicle miles traveled thereby reducing emissions, and to encourage more compact, complete, and efficient communities for the future. SB 375 favors redevelopment areas near

transportation centers over new development. In LADWP service territory, many apartment complexes are being built in downtown and vacant industrial land has been replaced with residential and commercial buildings. In 2017, workshops are being held to evaluate whether or not targets are being met. New policies could arise out of these workshops.

Zero Net Energy Policy: Current state law states that all new residential building will be zero net energy by 2020 and all new commercial buildings will be zero net energy by 2030.

Emission Allowances: AB 32 program seeks to reduce greenhouse gas emissions to 1990 levels using a cap-and-trade approach. In 2016, AB 32 was replaced by SB 32. SB 32 sets new targets for the State of California to reduce greenhouse emissions to 40 percent below 1990 levels.

SB 100 was signed into law in September 2018, the bill sets a 100 percent clean electricity goal for California. Under the bill the State is aiming to source half of its grid power from renewable by 2026, 60% by 2030 and 100% by 2045.

Both SB 32 and SB 100 impact the Forecast mainly through the retail price forecast. In addition SB 32 will also influence the Forecast through increase in electricity consumed by electric vehicles. Potential changes in SB 32 and SB 100 policy and program design add an element of uncertainty to the Forecast.

Large Construction Projects: Most construction activity currently is concentrated in large projects and this trend is forecasted to continue. The last of the small developers left the market during the 2008 recession, ending a trend that began in the 1990s. Having development concentrated in larger projects could potentially lead to faster and bigger swings in construction activity since each project is a larger percentage of overall construction activity. During the last recession, many large projects were deferred or abandoned.

Uncertainty in Economic Forecast: This Forecast uses the UCLA Anderson long-term economic forecast. The new Administration has very different view of fiscal policy. Tax cuts, tax reform, military spending, infrastructure spending and immigration policy could all change the trajectory of the economy. As this Forecast is being written, there are many proposals on the table and outcomes are unclear.

Electric Vehicles: Electric vehicles are a key strategic initiative for LADWP. The 2018 Forecast adopts the EV forecast approved in the 2017 SLTRP and uses the same load shape that was first revised in the 2016 Forecast.

Energy Efficiency: The Forecast uses the Recommended Strategic Energy Efficiency Case in 2017 SLTRP. The recommended case is from Navigant Consulting Inc's 2017 Energy Potential Study. The case incorporates an increased level of energy efficiency, which includes 15% from 2017 through 2027 in addition to 15% from 2010 to 2020.

The 2018 Forecast continued to include all the energy efficiency savings adopted in 2017 SLTRP. This new methodology was adopted in the 2017 Forecast. In Forecasts prior to

2017, energy efficiency savings were only included through the five-year program window. Final decisions on energy efficiency savings are made in the Power Strategic Long-Term Resource planning process.

One finding from the Energy Efficiency Potential Study is that energy efficiency in the LADWP service area is more effective in reducing energy consumption and less effective in reducing coincident peak demand.

Demand Response: Demand Response (DR) is an important energy management tool that facilitates the reduction in energy use over a given time period. LADWP's goal is to obtain 100 to 200 MW by 2020 and 200 to a maximum of 500 MW by 2026. The Department is experimenting with several different Demand Response programs.

LADWP has had a voluntary load curtailment program in place for many years, however the full potential curtailment has not been needed because capacity has not been constrained. This can be largely attributed to the existing successful conservation efforts of LADWP customers culminated by the various energy efficiency programs and outreach in place for many years.

In summer 2017 and 2018, LADWP continued the Summer Shift program which reduced peak demands in July, August and September.

As in previous forecasting cycles, Demand Response effects are accounted for in the SLTRP instead of the Forecast. As such, to the extent Demand Response programs are employed in the future, some of the forecasted demand will not be realized at the meter.

Distributed Solar Generation: In the 2018 Forecast, impacts to future sales from the installation of distributed solar are modeled over the entire forecast period based on 2017 SLTRP. This methodology was first utilized in the 2017 Forecast. Previous forecasts only included change in sales and peaks through the Budget program years.

The 2017 SLTRP Recommended Case is consistent with the Mayor's sustainability pLAn. The goal is to achieve 900 MW local solar by 2025 and a potential extension up to 1,500 MW by 2035. The 2025 goal targets 50 MW of FiT installations per year and a gradual growth of customer net metered solar after incentive tax credit expiration.

A unique characteristic of LADWP's residential sector is that over half the population are renters living in large apartment complexes containing five or more units. Because of this fact, LADWP Board voted to launch a pilot Shared Solar Program (SSP) in January 2019. SSP allows multifamily dwelling residents to purchase blocks of solar power at a 10-year fixed SSP rate and use this solar energy to offset a portion of their energy usage. SSP will help to expand the benefits of solar to renters and improve the geographic solar diversity in Los Angeles.

Smart Grid Investment Program: LADWP is conducting a smart grid demonstration project. Outcomes are yet to be determined. All future impacts from the project are detailed in the SLTRP. Smart Grid is an integrated strategy which will affect future LADWP policy regarding Demand Response, Electric Vehicle, Customer Behavior and Cyber Security.

Port of Los Angeles: In 2016, the Port set a new record when cargo volumes reached 8.8 million TEUs, marking the busiest year ever for a Western Hemisphere Port. With the opening of newly expanded Panama Canal in June 2016, there will be increased competition for cargo wharfage and increased pressure on the Port of Los Angeles. Ultimate impacts on electric sales are unknown. At this point in the business cycle, the Port of Los Angeles does not expect a large slowdown due to the Panama Canal expansion. If there is a recession, the eastern ports in combination with the Panama Canal might compete for a larger share of a potentially smaller market. Los Angeles leads in total dollar value of shipments through its ports while Gulf of Mexico and Eastern seaports lead in tonnage. The most obvious reason for this difference is the transportation of oil and other fuels.

In June 2017, the Mayor announced that the Port of Los Angeles will strive to become a zero greenhouse emission facility. Incremental electric sales that may result are not included in this Forecast.

Losses in NEL: The loss factor used to calculate NEL after FYE 2018 is 12 percent. For a two-year period after the change in billing systems in FYE 2014 and FYE 2015, rolling twelve-month losses were higher than 10-year average loss factor. This may be attributed to that fact that sales were being under-reported in this time frame due to the conversion of CCB. The loss factor is starting to normalize in Forecast Group's opinion.

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2018 ENERGY AND DEMAND FORECAST
NET ELECTRICITY SALES BY CUSTOMER CLASS AND SYSTEM PEAK DEMAND WITH REGULATORY IMPACTS

Fiscal Year	Page 20		Page 21		Page 22		Page 19			Page 18			Page 16			
	SECTOR SALES					Total Sales to Ultimate Customers (GWh)	LOSSES			Net Energy for Load (GWh)	Customer Self-Generation (GWh)	Service Area Load (GWh)	Peak Demand (MW)	Customer		Service Area Peak (MW)
	Residential (GWh)	Commercial (GWh)	Industrial (GWh)	Miscellaneous* (GWh)	Electric Vehicles (GWh)		Total (GWh)	Percentage (%)	DC Line (GWh)					Self-Generation (MW)	Peak (MW)	
2000-01	7,542	12,247	2,754	391		22,934	2,753	10.7%	407	25,688	1,294	26,982	5,299	184	5,483	
2001-02	7,282	11,978	2,496	393		22,149	2,755	11.1%	350	24,903	1,059	25,962	4,805	181	4,986	
2002-03	7,358	12,229	2,383	394		22,363	3,006	11.8%	444	25,370	1,069	26,439	5,185	184	5,369	
2003-04	8,061	12,557	2,485	416		23,520	3,181	11.9%	239	26,701	1,081	27,782	5,410	187	5,597	
2004-05	7,907	12,501	2,447	424		23,279	3,059	11.6%	216	26,338	1,081	27,420	5,418	187	5,605	
2005-06	8,052	12,698	2,451	433		23,634	3,194	11.9%	482	26,828	1,083	27,911	5,667	187	5,854	
2006-07	8,495	13,127	2,332	423		24,378	3,125	11.7%	377	27,502	1,084	28,586	6,102	188	6,290	
2007-08	8,540	13,268	2,366	442		24,617	3,311	11.9%	425	27,928	1,086	29,014	6,071	188	6,260	
2008-09	8,578	13,209	2,303	436		24,526	2,921	10.6%	350	27,447	1,089	28,536	5,647	189	5,836	
2009-10	8,300	12,581	2,073	418		23,373	3,153	11.9%	262	26,526	1,096	27,622	5,709	191	5,899	
2010-11	8,068	12,428	2,189	378		23,062	3,191	12.2%	598	26,252	1,111	27,364	6,142	194	6,336	
2011-12	8,162	12,600	1,924	350		23,037	3,515	13.2%	886	26,552	1,137	27,689	5,907	201	6,108	
2012-13	8,441	12,844	1,947	315		23,548	3,606	13.3%	888	27,154	1,181	28,335	5,782	219	6,000	
2013-14	7,964	12,700	1,827	269		22,760	3,996	14.8%	836	26,756	1,266	28,022	5,862	230	6,092	
2014-15	8,145	12,913	1,720	240		23,018	3,674	13.7%	506	26,692	1,307	27,999	6,343	240	6,583	
2015-16	8,313	13,073	1,630	263		23,279	3,378	12.6%	615	26,657	1,358	28,015	6,234	253	6,487	
2016-17	8,099	12,550	1,591	251		22,490	3,966	12.6%	1074	26,456	1,430	27,886	5,762	270	6,032	
2017-18	8,076	12,563	1,501	243		22,383	3,450	12.0%	1074	25,833	1,488	27,321	6,432	285	6,716	
2018-19	8,018	12,495	1,491	265	113	22,382	3,154	12.1%	822	25,535	1,567	27,102	6,195	304	6,500	
2019-20	7,983	12,478	1,446	266	202	22,375	3,093	12.3%	822	25,468	1,615	27,084	5,907	316	6,223	
2020-21	7,888	12,365	1,448	267	364	22,332	3,063	12.1%	822	25,395	1,657	27,052	5,983	327	6,309	
2021-22	7,792	12,222	1,453	267	566	22,300	3,090	12.0%	822	25,390	1,698	27,088	6,002	337	6,339	
2022-23	7,761	12,135	1,451	268	809	22,425	3,008	12.0%	822	25,433	1,741	27,174	6,016	348	6,364	
2023-24	7,675	12,007	1,450	269	1,051	22,452	3,135	12.2%	822	25,587	1,782	27,370	6,030	358	6,388	
2024-25	7,580	11,867	1,449	269	1,294	22,459	3,085	12.0%	822	25,544	1,832	27,376	6,077	370	6,447	
2025-26	7,489	11,713	1,453	270	1,455	22,380	3,065	12.0%	822	25,445	1,904	27,349	6,049	388	6,437	
2026-27	7,410	11,594	1,456	271	1,617	22,348	3,038	12.0%	822	25,386	1,951	27,337	6,031	400	6,431	
2027-28	7,336	11,570	1,460	271	1,738	22,376	3,196	12.2%	822	25,571	1,992	27,563	6,039	410	6,449	
2028-29	7,373	11,740	1,460	272	1,840	22,685	3,075	12.0%	822	25,760	2,033	27,793	6,095	420	6,516	
2029-30	7,374	11,888	1,464	273	1,939	22,937	3,127	12.0%	822	26,064	2,074	28,139	6,135	430	6,565	
2030-31	7,380	12,035	1,467	273	2,040	23,196	3,164	12.0%	822	26,360	2,116	28,475	6,183	441	6,624	
2031-32	7,383	12,179	1,471	274	2,140	23,446	3,275	12.2%	822	26,721	2,157	28,878	6,238	451	6,688	
2032-33	7,393	12,326	1,474	275	2,240	23,708	3,223	12.0%	822	26,931	2,198	29,129	6,298	461	6,759	
2033-34	7,400	12,463	1,477	275	2,340	23,956	3,233	12.0%	822	27,188	2,239	29,428	6,334	471	6,805	
2034-35	7,362	12,565	1,483	276	2,440	24,126	3,332	12.0%	822	27,458	2,281	29,738	6,364	482	6,846	
2035-36	7,461	12,785	1,482	277	2,540	24,546	3,365	12.2%	822	27,911	2,315	30,227	6,427	490	6,917	
2036-37	7,439	12,912	1,488	278	2,640	24,757	3,421	12.0%	822	28,178	2,320	30,498	6,527	491	7,019	
2037-38	7,450	13,075	1,491	278	2,740	25,035	3,385	12.0%	822	28,420	2,320	30,740	6,551	491	7,042	
2038-39	7,422	13,202	1,496	279	2,840	25,240	3,482	12.0%	822	28,722	2,320	31,042	6,592	491	7,083	
2039-40	7,481	13,407	1,498	280	2,940	25,605	3,544	12.2%	822	29,149	2,320	31,469	6,663	491	7,154	

Table updated through December 2017

Electric Vehicle Sales before December 2017 included in Residential and Commercial Sales

Intradepartmental sales, historically included in Miscellaneous, are now included in Commercial sector

Annual Percent Change

1993-2003	0.46%	0.67%	-1.17%	-4.36%		0.27%				0.37%		0.34%	-0.18%		-0.11%
2001-18	0.40%	0.15%	-3.51%	-2.76%		-0.14%				0.03%		0.07%	1.15%		1.20%
2018-23	-0.79%	-0.69%	-0.68%	1.99%		0.04%				-0.31%		-0.11%	-1.33%		-1.07%
2018-28	-0.96%	-0.82%	-0.28%	1.11%		0.00%				-0.10%		0.09%	-0.63%		-0.40%
2018-38	-0.40%	0.20%	-0.03%	0.68%		0.56%				0.48%		0.59%	0.09%		0.24%
2018-40	-0.35%	0.30%	-0.01%	0.65%		0.61%				0.55%		0.64%	0.16%		0.29%

Miscellaneous includes Streetlighting, Owens Valley.

**PEAK DEMAND - MW
2018 ENERGY AND DEMAND FORECAST
2001-2002 THROUGH 2039-2040
FISCAL YEAR**

HISTORICAL

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	MAXIMUM
2001-02	4799	4805	4681	4604	3694	3626	3632	3576	3421	3599	4177	4493	4805
2002-03	4910	4874	5185	4463	4039	3735	3878	3724	3932	3860	4782	4522	5185
2003-04	5337	5410	5273	4159	3825	3887	3632	3606	4080	5161	5316	4448	5410
2004-05	5402	5123	5418	4087	3701	3956	3848	3698	3583	3815	4629	4524	5418
2005-06	5667	5405	5093	4692	4040	3732	3709	3702	3677	3592	4587	5498	5667
2006-07	6102	5305	5656	4529	4406	3965	4023	3694	4214	4059	4840	4729	6102
2007-08	5341	6071	5917	4557	4052	3908	3908	3778	3868	4769	5303	6006	6071
2008-09	5128	5384	5472	5647	3997	4176	3707	3672	3706	5064	4761	4304	5647
2009-10	5569	5553	5709	4510	3794	3918	3925	3756	3597	3523	3818	4322	5709
2010-11	5511	5592	6142	4900	4457	3786	3766	3628	4114	4246	4518	4387	6142
2011-12	5340	5348	5907	5039	3591	3887	3575	3525	3457	4071	4288	4343	5907
2012-13	5009	5782	5775	5477	4111	3807	3854	3546	3620	3712	5222	5305	5782
2013-14	5300	5856	5862	3964	3892	3798	3472	3458	3637	4320	5612	4576	5862
2014-15	5517	5327	6343	4838	3887	3616	3448	3496	4148	4212	4040	5090	6343
2015-16	4946	5821	6234	5529	3481	3614	3610	3858	3532	3917	3597	6052	6234
2016-17	5762	5406	5761	4376	4285	3551	3715	3568	3775	3847	4297	5413	5762
2017-18	5639	6432	6426	5584	3877	3535	3490	3498	3438	3831	3618	4294	6432

FORECAST

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	MAXIMUM
2018-19	6195	5864	5606	4587	3701	3616	3500	3503	3626	3924	4219	4722	6195
2019-20	5194	5907	5543	4535	3661	3578	3503	3650	3628	3923	4218	4721	5907
2020-21	5194	5983	5543	4534	3664	3580	3499	3502	3625	3916	4210	4713	5983
2021-22	5185	6002	5534	4526	3660	3576	3502	3504	3627	3912	4206	4709	6002
2022-23	5182	6016	5531	4523	3663	3579	3512	3514	3638	3916	4212	4716	6016
2023-24	5190	6030	5540	4529	3673	3589	3525	3671	3651	3925	4221	4727	6030
2024-25	5203	6077	5554	4539	3687	3603	3518	3520	3644	3911	4207	4712	6077
2025-26	5187	6049	5538	4525	3680	3595	3497	3499	3622	3882	4176	4679	6049
2026-27	5150	6031	5499	4492	3657	3574	3503	3506	3629	3885	4179	4683	6031
2027-28	5156	6039	5505	4496	3664	3581	3530	3676	3656	3910	4206	4714	6039
2028-29	5190	6095	5542	4525	3692	3607	3576	3579	3704	3958	4258	4772	6095
2029-30	5255	6135	5611	4581	3740	3655	3613	3615	3743	3995	4298	4818	6135
2030-31	5305	6183	5665	4625	3779	3693	3658	3661	3789	4041	4348	4874	6183
2031-32	5368	6238	5732	4679	3826	3739	3693	3833	3825	4075	4386	4916	6238
3032-33	5415	6298	5783	4719	3862	3774	3736	3738	3870	4119	4433	4970	6298
2033-34	5474	6334	5846	4770	3907	3818	3763	3765	3898	4145	4461	5002	6334
2034-35	5509	6364	5884	4801	3936	3846	3811	3814	3948	4195	4515	5063	6364
2035-36	5577	6427	5957	4859	3986	3895	3869	4004	4008	4255	4580	5136	6427
2036-37	5658	6527	6044	4930	4047	3954	3903	3905	4043	4288	4616	5177	6527
2037-38	5703	6551	6092	4968	4082	3989	3936	3938	4077	4320	4651	5217	6551
2038-39	5748	6592	6140	5007	4116	4022	3987	3990	4130	4373	4709	5282	6592
2039-40	5820	6663	6217	5069	4170	4075	4034	4163	4179	4421	4760	5340	6663

**MINIMUM DEMAND - MW
2018 ENERGY AND DEMAND FORECAST
2001-2002 THROUGH 2039-2040
FISCAL YEAR**

HISTORICAL

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	AVERAGE
2001-02	1933	1944	1985	1927	1879	1988	2010	1936	1881	1932	1879	1942	1936
2002-03	2009	1986	2015	1940	1917	1984	1996	1996	1913	1858	1892	1996	1959
2003-04	2140	2187	2163	1808	1982	2030	2107	2103	1931	1926	1912	2095	2032
2004-05	2071	2171	2161	2061	2057	2108	1984	2083	1982	1944	1925	2035	2049
2005-06	2100	2187	2043	2083	2085	2128	2109	2074	2114	2041	2068	2122	2096
2006-07	2406	2246	2196	2093	2088	2242	2276	2170	2080	2036	2050	2152	2170
2007-08	2287	2289	2173	2146	2106	2114	2229	2190	2121	2125	2078	2192	2171
2008-09	2262	2347	2229	2182	2091	2155	2131	2135	2117	2022	2062	1997	2144
2009-10	2041	2172	2155	2049	2050	2170	2142	2107	2047	2015	2000	2066	2085
2010-11	2084	1925	1981	2029	2045	2091	2126	2151	2094	2061	2031	2055	2056
2011-12	2114	2207	2134	2056	2062	2144	2033	2042	2016	2108	2058	2150	2094
2012-13	2039	2244	2176	2091	2024	2101	2077	2037	2020	2039	2116	2024	2082
2013-14	2189	2108	2034	2086	2053	2076	2108	2044	2149	2087	2201	2230	2114
2014-15	2354	2327	2174	1848	2032	2061	2081	1983	2018	2036	2010	1977	2075
2015-16	2110	2231	2206	2143	2030	2109	2071	2001	2027	2069	2059	2096	2096
2016-17	2241	2186	2087	2068	2104	2133	2110	2079	2123	2008	2071	2121	2111
2017-18	2210	2241	2063	2052	1937	2027	2036	1974	1993	1954	1991	2014	2041

FORECAST

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	AVERAGE
2018-19	2020	2102	2143	2035	2024	2056	2008	1960	2091	2072	2100	2179	2066
2019-20	2134	2080	2120	2013	2002	2034	2009	2039	2092	2073	2101	2180	2073
2020-21	2135	2081	2121	2015	2004	2036	2007	1960	2090	2071	2099	2178	2066
2021-22	2133	2079	2119	2013	2002	2034	2008	1961	2091	2072	2101	2180	2066
2022-23	2135	2080	2121	2014	2003	2035	2014	1967	2097	2078	2107	2186	2070
2023-24	2141	2086	2127	2020	2009	2041	2022	2051	2105	2086	2115	2194	2083
2024-25	2149	2094	2135	2027	2016	2049	2018	1970	2101	2082	2110	2190	2078
2025-26	2145	2090	2131	2023	2012	2045	2005	1958	2089	2069	2098	2176	2070
2026-27	2132	2077	2118	2011	2000	2032	2009	1962	2093	2073	2102	2181	2066
2027-28	2136	2081	2122	2015	2004	2036	2024	2054	2108	2089	2117	2197	2082
2028-29	2152	2097	2138	2030	2019	2051	2051	2003	2136	2116	2145	2226	2097
2029-30	2180	2125	2166	2057	2045	2078	2072	2023	2158	2138	2167	2249	2122
2030-31	2202	2146	2188	2078	2067	2100	2098	2049	2185	2165	2194	2277	2146
2031-32	2230	2173	2216	2104	2092	2126	2118	2145	2206	2185	2215	2298	2176
2032-33	2251	2194	2237	2124	2112	2146	2142	2092	2231	2211	2241	2325	2192
2033-34	2277	2219	2263	2148	2137	2171	2158	2107	2247	2227	2257	2342	2213
2034-35	2294	2235	2279	2164	2152	2187	2186	2134	2276	2255	2286	2372	2235
2035-36	2323	2264	2308	2192	2180	2215	2219	2244	2311	2290	2321	2408	2273
2036-37	2359	2299	2343	2225	2213	2249	2238	2186	2331	2310	2341	2429	2293
2037-38	2379	2318	2364	2244	2232	2268	2257	2204	2351	2329	2361	2450	2313
2038-39	2399	2338	2384	2263	2251	2287	2287	2233	2381	2359	2392	2482	2338
2039-40	2431	2369	2415	2293	2281	2317	2313	2336	2409	2387	2420	2511	2373

**NET ENERGY FOR LOAD- GWH
2018 ENERGY AND DEMAND FORECAST
2000-2001 THROUGH 2039-2040
FISCAL YEAR**

HISTORICAL

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2001-02	2206	2338	2138	2109	1965	2044	2100	1830	1972	1966	2068	2168	24903
2002-03	2391	2324	2306	2096	2005	2076	2077	1854	2069	1957	2104	2111	25370
2003-04	2581	2621	2352	2262	1983	2139	2119	1964	2136	2069	2253	2221	26701
2004-05	2460	2444	2440	2175	2051	2187	2166	1912	2101	2020	2209	2172	26338
2005-06	2582	2572	2232	2221	2076	2154	2141	1927	2143	2015	2238	2527	26828
2006-07	2935	2589	2398	2187	2142	2227	2178	1972	2200	2091	2267	2318	27502
2007-08	2664	2760	2420	2267	2119	2222	2251	2079	2144	2132	2288	2580	27928
2008-09	2701	2703	2528	2406	2115	2240	2187	1962	2131	2069	2253	2152	27447
2009-10	2597	2523	2542	2176	2030	2201	2151	1917	2087	1985	2078	2239	26526
2010-11	2373	2424	2311	2171	2069	2165	2193	1953	2185	2068	2157	2183	26252
2011-12	2514	2570	2333	2201	2038	2164	2094	1916	2084	2111	2264	2262	26552
2012-13	2449	2845	2600	2280	2032	2178	2163	1885	2048	2077	2293	2303	27154
2013-14	2534	2523	2436	2160	2017	2124	2077	1860	2157	2118	2398	2353	26756
2014-15	2691	2631	2621	2331	1993	2104	2081	1845	2152	1994	2012	2239	26692
2015-16	2442	2701	2659	2448	1959	2024	2051	1927	2040	2003	2033	2368	26657
2016-17	2639	2604	2362	2138	2054	2101	2123	1875	2089	1995	2143	2333	26456
2017-18	2724	2681	2417	2270	1922	2026	2029	1836	1968	1878	1980	2101	25833

FORECAST

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2018-19	2486	2540	2445	2213	1922	1993	1966	1784	2010	1936	2038	2204	25535
2019-20	2460	2513	2419	2189	1902	1972	1967	1855	2011	1937	2039	2205	25468
2020-21	2462	2514	2420	2191	1903	1973	1965	1783	2009	1935	2037	2203	25395
2021-22	2459	2512	2418	2189	1901	1971	1967	1784	2010	1936	2038	2204	25390
2022-23	2461	2514	2420	2190	1903	1973	1972	1789	2016	1942	2044	2211	25433
2023-24	2468	2521	2426	2196	1908	1978	1980	1866	2024	1949	2052	2219	25587
2024-25	2477	2530	2436	2205	1915	1986	1976	1792	2020	1945	2048	2215	25544
2025-26	2472	2525	2431	2200	1911	1982	1964	1782	2008	1934	2035	2201	25445
2026-27	2457	2510	2416	2187	1900	1970	1968	1785	2011	1937	2039	2205	25386
2027-28	2462	2515	2421	2191	1904	1974	1982	1868	2026	1952	2054	2222	25571
2028-29	2480	2534	2439	2208	1918	1988	2008	1822	2053	1977	2082	2251	25760
2029-30	2513	2567	2471	2237	1943	2015	2029	1841	2074	1998	2103	2274	26064
2030-31	2539	2593	2496	2260	1963	2035	2054	1864	2100	2023	2129	2303	26360
2031-32	2571	2626	2528	2288	1988	2061	2074	1951	2120	2042	2149	2325	26721
2032-33	2595	2651	2552	2310	2006	2080	2098	1903	2145	2066	2174	2352	26931
2033-34	2625	2682	2581	2336	2030	2104	2113	1917	2160	2081	2190	2369	27188
2034-35	2644	2701	2600	2353	2044	2120	2140	1942	2188	2107	2218	2399	27458
2035-36	2678	2736	2633	2384	2071	2147	2173	2041	2221	2139	2252	2436	27911
2036-37	2719	2777	2673	2420	2102	2180	2192	1988	2241	2158	2272	2457	28178
2037-38	2743	2801	2697	2441	2120	2199	2210	2005	2259	2176	2291	2477	28420
2038-39	2766	2825	2719	2461	2138	2217	2239	2031	2289	2205	2321	2510	28722
2039-40	2802	2862	2755	2494	2166	2246	2265	2125	2316	2231	2348	2539	29149

**TOTAL SALES TO ULTIMATE CUSTOMERS- GWH
2018 ENERGY AND DEMAND FORECAST
2001-2002 THROUGH 2039-2040
FISCAL YEAR**

HISTORICAL

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2001-02	1971	1948	2055	1903	1845	1794	1827	1798	1738	1724	1657	1888	22149
2002-03	1977	1932	1977	2037	1819	1918	1849	1872	1678	1755	1691	1860	22363
2003-04	1948	2164	2200	2110	2027	1891	2006	1810	1735	1852	1843	1933	23520
2004-05	1991	2120	2116	2070	1895	1977	1969	1852	1778	1798	1756	1956	23279
2005-06	1998	2176	2151	2055	1874	2038	1985	1863	1831	1828	1781	2053	23634
2006-07	2234	2390	2304	2137	1953	1959	1983	1932	1852	1853	1850	1932	24378
2007-08	2147	2253	2365	2187	1986	1979	2005	2015	1896	1899	1855	2031	24617
2008-09	2383	2143	2300	2270	2079	1964	2007	2002	1799	1819	1836	1926	24526
2009-10	1982	2127	2253	2289	1867	1881	1947	1925	1760	1745	1712	1884	23373
2010-11	1944	1988	2069	2110	1892	1961	1958	1941	1789	1826	1780	1803	23062
2011-12	1981	2043	2176	2074	1885	1895	1881	1814	1745	1798	1813	1932	23037
2012-13	1951	2079	2322	2294	2031	1940	1921	1879	1760	1717	1770	1884	23548
2013-14	2017	2088	1893	1953	1902	1861	1858	1879	1831	1743	1836	1899	22760
2014-15	2048	2178	2132	2270	1921	1861	1822	1805	1750	1730	1715	1787	23018
2015-16	1957	2185	2233	2359	3114	879	1894	1823	1636	1747	1679	1772	23279
2016-17	1959	2222	2125	1982	1955	1872	1807	1767	1663	1635	1704	1799	22490
2017-18	2002	2238	2256	2106	1933	1769	1759	1685	1651	1649	1612	1722	22383

FORECAST

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2018-19	1980	2115	2162	2122	1915	1800	1804	1742	1649	1661	1648	1785	22382
2019-20	1971	2103	2156	2108	1893	1824	1798	1773	1672	1656	1642	1779	22375
2020-21	1962	2093	2147	2120	1906	1811	1802	1765	1633	1650	1645	1797	22332
2021-22	1974	2107	2165	2128	1871	1798	1792	1736	1647	1655	1639	1789	22300
2022-23	1968	2104	2165	2130	1918	1809	1813	1737	1663	1669	1653	1796	22425
2023-24	1975	2117	2174	2138	1883	1796	1829	1764	1674	1671	1646	1784	22452
2024-25	1969	2110	2173	2129	1910	1841	1817	1775	1643	1656	1650	1787	22459
2025-26	1974	2108	2175	2133	1911	1828	1810	1770	1628	1639	1634	1770	22380
2026-27	1955	2092	2157	2133	1914	1817	1812	1784	1622	1641	1635	1786	22348
2027-28	1966	2106	2177	2143	1882	1809	1806	1746	1652	1660	1639	1790	22376
2028-29	1972	2119	2192	2160	1945	1849	1861	1753	1664	1684	1670	1815	22685
2029-30	1999	2152	2219	2186	1970	1851	1862	1794	1690	1703	1683	1827	22937
2030-31	2019	2169	2240	2198	1973	1903	1881	1810	1717	1723	1709	1853	23196
2031-32	2050	2195	2268	2228	1999	1916	1927	1816	1721	1738	1718	1871	23446
2032-33	2068	2218	2282	2256	2027	1929	1923	1853	1750	1760	1741	1902	23708
2033-34	2092	2241	2313	2279	2053	1938	1943	1874	1767	1776	1763	1915	23956
2034-35	2109	2266	2334	2301	2030	1939	1977	1872	1777	1797	1785	1939	24126
2035-36	2132	2293	2359	2325	2098	1973	1984	1955	1844	1824	1804	1956	24546
2036-37	2161	2313	2385	2345	2106	2019	2003	1937	1831	1840	1831	1985	24757
2037-38	2188	2339	2404	2379	2140	2033	2027	2000	1824	1845	1843	2013	25035
2038-39	2211	2367	2437	2402	2116	2036	2033	1974	1873	1885	1867	2038	25240
2039-40	2238	2395	2464	2427	2188	2066	2071	2003	1894	1906	1895	2057	25605

RESIDENTIAL SALES - GWH
2018 ENERGY AND DEMAND FORECAST
2001-2002 THROUGH 2039-2040
FISCAL YEAR

HISTORICAL

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2001-02	608	659	640	661	582	622	653	654	568	559	520	557	7282
2002-03	600	673	670	678	595	618	652	647	560	560	530	576	7358
2003-04	639	773	787	746	641	682	701	688	596	595	578	635	8061
2004-05	630	726	745	731	620	680	724	687	600	606	552	606	7907
2005-06	640	772	771	712	610	659	701	685	625	649	583	644	8052
2006-07	774	919	838	750	629	669	724	733	631	624	576	628	8495
2007-08	694	812	838	799	646	694	734	761	664	634	593	670	8540
2008-09	758	859	815	816	692	706	731	735	636	615	581	634	8578
2009-10	665	793	820	819	675	696	712	725	629	598	560	607	8300
2010-11	635	710	720	765	659	697	720	719	631	631	581	600	8068
2011-12	647	753	806	760	651	698	713	698	616	628	575	618	8162
2012-13	648	772	854	902	721	686	721	753	617	592	553	622	8441
2013-14	697	759	810	822	612	648	652	640	548	562	560	655	7964
2014-15	710	808	841	858	681	639	657	658	581	575	542	596	8145
2015-16	667	799	836	913	754	693	701	699	574	562	523	591	8313
2016-17	691	863	821	765	662	648	680	683	595	564	529	597	8099
2017-18	710	865	876	815	661	640	642	621	573	580	527	568	8076

FORECAST

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2018-19	687	814	827	837	697	652	656	655	540	549	513	592	8018
2019-20	678	807	820	829	683	653	658	660	554	547	507	588	7983
2020-21	675	803	814	829	686	644	649	652	528	526	498	583	7888
2021-22	672	800	814	827	665	624	639	633	521	529	491	577	7792
2022-23	667	796	810	823	676	630	636	629	514	526	485	569	7761
2023-24	658	792	805	817	654	607	633	635	516	521	477	559	7675
2024-25	650	784	798	808	654	623	627	624	498	496	467	551	7580
2025-26	642	777	791	803	649	612	617	618	490	486	459	544	7489
2026-27	634	769	782	799	648	604	610	618	482	475	450	538	7410
2027-28	631	766	782	798	628	585	601	596	479	486	447	536	7336
2028-29	629	766	784	798	645	603	615	598	467	485	447	536	7373
2029-30	628	769	786	799	646	596	603	603	476	485	447	534	7374
2030-31	629	771	787	798	638	605	611	598	477	485	445	534	7380
2031-32	631	774	789	803	641	603	619	600	466	483	442	534	7383
2032-33	632	776	789	806	647	601	608	601	474	482	441	536	7393
2033-34	634	776	792	808	648	599	605	604	473	481	443	536	7400
2034-35	633	780	795	810	632	582	610	599	462	481	442	536	7362
2035-36	633	782	798	812	651	598	605	621	496	489	442	536	7461
2036-37	636	785	800	815	646	605	611	603	475	481	443	538	7439
2037-38	639	787	799	818	653	604	611	621	473	465	440	539	7450
2038-39	642	790	806	822	636	587	605	600	473	482	440	540	7422
2039-40	644	793	808	824	655	602	609	609	473	482	442	541	7481

Los Angeles

COMMERCIAL SALES - GWH
2018 ENERGY AND DEMAND FORECAST
2001-2002 THROUGH 2039-2040
FISCAL YEAR

HISTORICAL

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2001-02	1099	1039	1164	992	1033	958	925	897	944	939	911	1079	11978
2002-03	1156	1000	1069	1108	1003	1079	963	980	892	967	966	1048	12229
2003-04	1039	1156	1170	1115	1097	982	1085	874	953	988	1026	1074	12557
2004-05	1096	1138	1144	1113	998	1054	1019	942	963	962	976	1095	12501
2005-06	1110	1166	1133	1126	1026	1091	1036	967	967	959	991	1126	12698
2006-07	1212	1229	1197	1148	1105	1094	1020	976	1011	1008	1051	1078	13127
2007-08	1182	1184	1268	1143	1099	1072	1061	1032	1011	1034	1060	1122	13268
2008-09	1381	1046	1239	1211	1157	1064	1039	1042	958	965	1034	1072	13209
2009-10	1109	1077	1200	1253	989	1016	1026	993	933	967	971	1047	12581
2010-11	1092	1070	1133	1128	1031	1019	1023	998	943	966	1011	1014	12428
2011-12	1132	1102	1156	1121	1047	1016	984	942	974	986	1047	1093	12600
2012-13	1115	1125	1259	1184	1129	1080	989	945	965	962	1016	1074	12844
2013-14	1129	1111	911	976	1125	1061	1032	1077	1110	1012	1102	1054	12700
2014-15	1133	1191	1145	1215	1089	1055	1015	1001	1020	998	1003	1047	12913
2015-16	1137	1221	1210	1275	1182	1035	1054	980	934	1021	999	1026	13073
2016-17	1120	1201	1143	1099	1094	1067	990	918	928	924	1019	1048	12550
2017-18	1136	1175	1212	1141	1114	998	974	945	937	950	961	1019	12563

FORECAST

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2018-19	1135	1137	1170	1125	1066	997	996	933	957	961	982	1036	12495
2019-20	1125	1125	1164	1113	1053	1017	984	958	964	957	983	1036	12478
2020-21	1119	1114	1155	1116	1052	999	983	941	931	950	971	1033	12365
2021-22	1109	1108	1151	1105	1017	990	966	915	939	940	961	1021	12222
2022-23	1097	1096	1141	1095	1037	974	970	897	938	930	954	1006	12135
2023-24	1085	1087	1129	1085	1000	963	969	901	931	922	941	992	12007
2024-25	1074	1073	1119	1068	1010	974	942	901	892	907	929	977	11867
2025-26	1062	1056	1107	1058	999	956	931	892	877	894	917	964	11713
2026-27	1046	1041	1091	1053	992	940	926	890	860	887	905	963	11594
2027-28	1039	1039	1093	1050	965	940	919	865	890	891	911	969	11570
2028-29	1046	1050	1103	1060	1006	954	953	859	902	903	926	978	11740
2029-30	1059	1066	1115	1073	1020	953	957	888	913	917	937	990	11888
2030-31	1075	1076	1129	1080	1023	990	958	899	927	926	950	1001	12035
2031-32	1091	1087	1144	1095	1037	995	989	895	936	937	958	1016	12179
2032-33	1102	1103	1151	1114	1051	1001	986	921	947	948	969	1032	12326
2033-34	1113	1114	1168	1124	1067	1003	1001	932	958	959	985	1040	12463
2034-35	1125	1129	1179	1136	1049	1013	1021	924	969	970	996	1052	12565
2035-36	1136	1143	1192	1148	1091	1022	1024	981	995	982	1009	1063	12785
2036-37	1156	1153	1209	1158	1097	1053	1027	969	993	995	1024	1079	12912
2037-38	1170	1167	1218	1179	1114	1059	1044	1007	978	1009	1032	1099	13075
2038-39	1183	1185	1237	1190	1097	1070	1047	991	1019	1022	1046	1113	13202
2039-40	1198	1200	1252	1205	1143	1076	1073	1004	1032	1036	1064	1124	13407

**INDUSTRIAL SALES - GWH
2018 ENERGY AND DEMAND FORECAST
2001-2002 THROUGH 2039-2040
FISCAL YEAR**

HISTORICAL

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2001-02	232	217	219	217	199	182	217	213	195	194	194	218	2496
2002-03	187	225	205	219	189	199	192	212	195	195	163	203	2383
2003-04	237	202	210	229	242	197	186	213	152	231	199	187	2485
2004-05	229	218	192	190	245	208	190	188	182	195	193	218	2447
2005-06	209	198	216	180	206	251	207	175	204	187	173	245	2451
2006-07	209	205	233	203	187	166	204	188	175	186	187	190	2332
2007-08	232	214	220	209	206	176	175	184	185	195	167	202	2366
2008-09	206	201	210	202	194	158	201	188	171	203	185	184	2303
2009-10	171	218	196	180	163	134	177	174	167	148	147	199	2073
2010-11	181	175	184	183	171	214	185	195	184	200	160	156	2189
2011-12	173	153	185	162	159	150	155	147	129	154	168	188	1924
2012-13	157	155	182	176	157	147	186	153	156	132	184	160	1947
2013-14	167	196	152	137	148	126	147	136	151	149	153	165	1827
2014-15	190	150	134	166	133	144	130	124	140	138	140	133	1720
2015-16	132	143	166	146	1148	-870	121	120	121	142	127	133	1630
2016-17	128	138	149	96	179	129	113	144	122	134	128	130	1591
2017-18	138	186	134	133	139	112	123	98	122	99	104	114	1501

FORECAST

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2018-19	135	139	140	133	122	117	117	119	117	116	118	118	1491
2019-20	129	133	134	127	118	112	115	115	115	115	117	117	1446
2020-21	128	133	134	128	118	113	114	115	116	115	117	117	1448
2021-22	129	133	134	128	120	113	115	116	115	115	117	118	1453
2022-23	129	133	134	128	118	114	114	117	115	115	117	118	1451
2023-24	129	133	134	128	119	114	114	116	115	115	117	118	1450
2024-25	129	133	134	128	118	112	115	115	116	115	117	118	1449
2025-26	129	133	134	128	118	113	115	115	116	115	117	118	1453
2026-27	129	134	135	128	119	114	115	115	117	115	118	118	1456
2027-28	129	134	135	129	120	114	116	117	116	116	118	118	1460
2028-29	129	134	135	129	119	114	115	118	116	116	118	119	1460
2029-30	130	134	135	129	119	115	115	117	116	116	118	119	1464
2030-31	130	134	135	130	120	114	116	117	117	116	118	119	1467
2031-32	130	135	136	130	120	114	115	119	117	117	119	120	1471
2032-33	130	135	136	130	120	115	116	118	117	117	119	120	1474
2033-34	131	135	136	130	120	116	116	118	118	117	119	120	1477
2034-35	131	135	137	131	122	116	116	120	118	118	120	120	1483
2035-36	131	136	137	131	121	117	117	118	117	118	120	121	1482
2036-37	131	136	137	131	121	116	118	119	118	118	120	121	1488
2037-38	132	136	138	131	121	117	118	118	120	118	121	121	1491
2038-39	132	137	138	132	123	117	119	120	119	119	121	121	1496
2039-40	132	137	138	132	122	117	118	120	119	119	121	122	1498

**R-1 wo LOW INCOME AND LIFE LINE SALES - GWH
 2018 ENERGY AND DEMAND FORECAST
 2001-2002 THROUGH 2039-2040
 FISCAL YEAR**

HISTORICAL

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2001-02	442	492	470	490	423	454	470	482	407	406	370	403	5308
2002-03	432	503	492	505	427	448	468	472	432	435	406	447	5467
2003-04	499	616	627	596	498	531	542	539	460	461	453	500	6322
2004-05	500	582	598	589	487	534	570	545	467	475	431	477	6256
2005-06	507	624	625	574	482	521	557	550	496	520	461	515	6430
2006-07	630	759	687	610	503	535	577	589	501	492	458	510	6850
2007-08	558	663	685	649	512	550	584	610	526	500	468	534	6839
2008-09	609	701	660	660	547	553	567	574	490	475	445	487	6767
2009-10	513	621	640	640	514	530	535	549	472	449	414	450	6326
2010-11	469	535	536	578	486	519	519	528	454	462	415	436	5938
2011-12	463	559	612	575	472	515	511	513	436	455	403	448	5962
2012-13	464	573	627	679	518	498	507	548	431	425	386	448	6105
2013-14	497	557	592	627	434	468	461	458	381	406	400	480	5760
2014-15	514	602	616	648	494	467	468	480	410	418	387	437	5942
2015-16	482	594	619	695	556	516	509	516	414	410	376	436	6123
2016-17	512	660	619	585	493	487	503	516	441	421	390	449	6075
2017-18	536	673	671	634	493	484	478	469	426	438	391	429	6122

FORECAST

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2018-19	519	616	625	633	527	493	496	496	409	415	388	448	6064
2019-20	513	610	620	627	516	494	497	499	419	413	384	445	6038
2020-21	511	607	615	627	519	487	491	493	399	398	377	441	5966
2021-22	508	605	616	626	503	472	483	479	394	400	371	436	5893
2022-23	504	602	613	623	511	477	481	476	389	398	367	431	5870
2023-24	498	599	609	618	495	459	479	480	390	394	361	423	5805
2024-25	491	593	604	611	495	471	475	472	377	375	353	416	5733
2025-26	485	588	598	608	491	463	467	468	371	367	347	411	5664
2026-27	480	582	591	604	490	457	461	468	365	359	340	407	5605
2027-28	477	580	592	603	475	443	455	451	362	368	338	405	5548
2028-29	476	580	593	604	488	456	465	452	354	367	338	405	5577
2029-30	475	582	594	605	489	451	456	456	360	367	338	404	5577
2030-31	476	583	595	604	483	458	462	452	361	367	337	404	5582
2031-32	477	585	596	607	485	456	468	454	352	365	335	404	5584
2032-33	478	587	597	609	489	455	460	455	358	364	334	405	5592
2033-34	479	587	599	611	490	453	458	457	358	364	335	405	5597
2034-35	478	590	602	613	478	440	462	453	349	364	334	405	5568
2035-36	479	591	604	614	492	452	457	470	375	370	334	405	5643
2036-37	481	594	605	616	488	458	462	456	359	364	335	407	5627
2037-38	483	595	604	619	494	457	462	470	358	352	333	408	5635
2038-39	486	597	609	622	481	444	458	454	358	364	333	409	5614
2039-40	487	599	611	623	495	455	461	460	358	364	335	409	5658

Los Angeles

LIFELINE SALES - GWH
2018 ENERGY AND DEMAND FORECAST
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FISCAL YEAR

HISTORICAL

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2001-02	30	36	32	36	29	34	33	36	30	32	26	31	386
2002-03	29	36	33	36	29	33	33	37	28	31	26	30	381
2003-04	31	40	38	38	30	36	32	35	27	30	26	31	394
2004-05	30	38	36	37	30	36	34	37	29	32	27	33	398
2005-06	30	39	36	36	28	34	36	37	29	32	26	31	396
2006-07	35	46	38	36	28	34	33	36	30	34	28	32	411
2007-08	32	41	39	40	30	35	34	38	30	31	26	31	407
2008-09	36	44	39	41	33	37	35	40	32	32	28	34	433
2009-10	34	43	43	46	38	41	37	41	33	34	30	35	456
2010-11	37	43	42	46	39	43	41	44	37	36	32	36	475
2011-12	39	47	37	38	33	38	45	47	39	40	35	38	477
2012-13	35	44	47	51	40	39	39	39	33	36	31	35	469
2013-14	39	45	46	48	35	40	42	45	36	35	30	36	478
2014-15	40	48	48	50	39	38	39	40	32	33	32	38	476
2015-16	38	47	47	52	42	40	39	41	33	34	31	35	478
2016-17	38	50	46	44	36	38	41	42	34	33	34	34	469
2017-18	40	50	50	46	38	39	38	38	34	35	31	33	471

FORECAST

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2018-19	40	48	48	49	41	38	38	38	32	32	30	35	469
2019-20	40	47	48	48	40	38	38	39	32	32	30	34	467
2020-21	40	47	48	49	40	38	38	38	31	31	29	34	462
2021-22	39	47	48	48	39	36	37	37	31	31	29	34	456
2022-23	39	47	47	48	40	37	37	37	30	31	28	33	454
2023-24	38	46	47	48	38	36	37	37	30	30	28	33	449
2024-25	38	46	47	47	38	36	37	36	29	29	27	32	444
2025-26	38	45	46	47	38	36	36	36	29	28	27	32	438
2026-27	37	45	46	47	38	35	36	36	28	28	26	32	434
2027-28	37	45	46	47	37	34	35	35	28	28	26	31	429
2028-29	37	45	46	47	38	35	36	35	27	28	26	31	431
2029-30	37	45	46	47	38	35	35	35	28	28	26	31	432
2030-31	37	45	46	47	37	35	36	35	28	28	26	31	432
2031-32	37	45	46	47	38	35	36	35	27	28	26	31	432
2032-33	37	45	46	47	38	35	36	35	28	28	26	31	433
2033-34	37	45	46	47	38	35	35	35	28	28	26	31	433
2034-35	37	46	47	47	37	34	36	35	27	28	26	31	431
2035-36	37	46	47	48	38	35	35	36	29	29	26	31	437
2036-37	37	46	47	48	38	35	36	35	28	28	26	32	435
2037-38	37	46	47	48	38	35	36	36	28	27	26	32	436
2038-39	38	46	47	48	37	34	35	35	28	28	26	32	434
2039-40	38	46	47	48	38	35	36	36	28	28	26	32	438

Los Angeles

LOW INCOME SALES - GWH
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FISCAL YEAR

HISTORICAL

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2001-02	66	62	69	62	66	62	75	67	66	56	60	56	767
2002-03	69	66	76	68	71	64	78	68	34	30	34	31	688
2003-04	40	43	50	41	42	40	47	41	39	33	32	30	477
2004-05	31	34	39	34	34	34	41	34	34	30	29	28	402
2005-06	33	35	38	30	30	29	32	27	27	25	26	25	358
2006-07	34	37	37	29	27	24	33	32	29	27	27	26	362
2007-08	31	33	37	33	30	30	34	34	32	27	28	29	379
2008-09	36	37	39	35	35	37	47	43	41	37	40	40	466
2009-10	48	52	61	55	51	49	57	52	51	43	47	48	613
2010-11	58	58	68	63	62	59	73	66	67	58	62	55	747
2011-12	70	70	83	70	73	68	85	70	72	63	68	61	852
2012-13	76	78	100	89	86	69	90	80	78	61	67	64	939
2013-14	86	80	102	87	75	69	84	68	68	58	67	67	908
2014-15	86	85	103	87	84	66	82	70	68	56	63	58	908
2015-16	77	82	96	87	86	65	80	68	62	50	55	52	860
2016-17	71	76	84	65	65	53	66	57	56	45	49	48	737
2017-18	67	72	82	63	59	48	57	47	49	42	45	40	671

FORECAST

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2018-19	57	67	68	69	58	54	54	54	45	45	42	49	663
2019-20	56	67	68	68	56	54	54	55	46	45	42	49	660
2020-21	56	66	67	69	57	53	54	54	44	43	41	48	652
2021-22	56	66	67	68	55	52	53	52	43	44	41	48	644
2022-23	55	66	67	68	56	52	53	52	42	43	40	47	641
2023-24	54	65	67	68	54	50	52	52	43	43	39	46	634
2024-25	54	65	66	67	54	51	52	52	41	41	39	46	626
2025-26	53	64	65	66	54	51	51	51	41	40	38	45	619
2026-27	52	64	65	66	54	50	50	51	40	39	37	44	612
2027-28	52	63	65	66	52	48	50	49	40	40	37	44	606
2028-29	52	63	65	66	53	50	51	49	39	40	37	44	609
2029-30	52	64	65	66	53	49	50	50	39	40	37	44	609
2030-31	52	64	65	66	53	50	51	49	39	40	37	44	610
2031-32	52	64	65	66	53	50	51	50	39	40	37	44	610
2032-33	52	64	65	67	53	50	50	50	39	40	36	44	611
2033-34	52	64	65	67	54	49	50	50	39	40	37	44	612
2034-35	52	64	66	67	52	48	50	50	38	40	37	44	608
2035-36	52	65	66	67	54	49	50	51	41	40	37	44	617
2036-37	53	65	66	67	53	50	51	50	39	40	37	45	615
2037-38	53	65	66	68	54	50	50	51	39	38	36	45	616
2038-39	53	65	67	68	53	49	50	50	39	40	36	45	613
2039-40	53	65	67	68	54	50	50	50	39	40	37	45	618

**A-1 SALES - GWH
2018 ENERGY AND DEMAND FORECAST
2001-2002 THROUGH 2039-2040
FISCAL YEAR**

HISTORICAL

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2001-02	256	253	256	253	236	227	233	224	222	218	218	234	2829
2002-03	250	258	249	245	231	300	170	235	211	254	179	238	2820
2003-04	252	271	269	251	243	233	244	218	225	226	233	241	2906
2004-05	246	260	258	244	221	239	238	215	218	218	219	239	2816
2005-06	249	268	254	246	226	240	240	221	225	219	221	251	2861
2006-07	268	276	262	244	233	236	239	222	222	225	230	213	2871
2007-08	253	264	274	243	237	232	232	227	223	229	215	238	2866
2008-09	260	264	250	250	234	232	227	225	210	209	214	226	2802
2009-10	238	252	256	348	123	224	227	224	205	214	206	226	2743
2010-11	237	238	248	244	221	227	234	225	215	215	218	224	2746
2011-12	245	252	253	247	233	235	238	224	224	224	227	244	2846
2012-13	251	265	282	276	250	241	245	236	230	229	235	254	2996
2013-14	269	263	293	242	243	237	227	236	256	230	263	276	3035
2014-15	289	303	308	285	269	250	253	245	238	237	240	253	3169
2015-16	288	287	306	332	274	268	267	261	256	270	276	280	3365
2016-17	314	343	319	311	309	268	245	242	233	232	233	258	3306
2017-18	268	278	283	263	-50	158	234	224	183	225	219	240	2525

FORECAST

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2018-19	258	266	273	265	245	230	229	218	216	217	219	233	2869
2019-20	255	263	271	262	241	233	227	223	218	216	219	233	2860
2020-21	254	261	269	262	242	229	226	219	210	214	216	232	2834
2021-22	252	259	268	260	234	226	223	213	211	212	214	230	2803
2022-23	250	257	266	258	238	224	223	210	211	210	212	227	2785
2023-24	247	255	264	256	230	220	223	211	209	208	209	223	2757
2024-25	244	252	262	252	232	223	218	210	201	204	207	220	2725
2025-26	242	249	259	250	230	219	215	208	198	201	204	217	2692
2026-27	238	245	255	249	229	216	214	208	195	199	201	217	2666
2027-28	237	245	256	248	222	215	212	202	200	201	202	218	2658
2028-29	238	247	258	250	231	219	219	201	201	203	205	220	2691
2029-30	240	250	260	253	234	218	219	207	204	205	207	222	2719
2030-31	243	252	263	254	234	225	220	209	207	207	209	224	2746
2031-32	247	254	266	257	236	226	226	208	208	209	211	226	2773
2032-33	249	257	267	261	239	227	225	213	210	211	213	229	2801
2033-34	251	259	270	263	242	227	227	215	212	213	216	231	2827
2034-35	253	262	273	265	238	228	231	213	214	215	218	233	2844
2035-36	255	265	275	267	247	231	232	225	220	217	220	235	2890
2036-37	259	267	278	269	248	237	233	222	219	220	223	238	2912
2037-38	262	270	280	273	251	238	236	230	216	221	224	242	2943
2038-39	264	273	284	276	247	239	236	226	224	225	227	245	2965
2039-40	267	276	287	278	257	241	241	229	226	227	230	247	3006

A-2 SALES - GWH
2018 ENERGY AND DEMAND FORECAST
2001-2002 THROUGH 2039-2040
FISCAL YEAR

HISTORICAL

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2001-02	327	321	383	266	302	298	264	253	285	257	303	289	3549
2002-03	314	330	328	323	289	299	292	286	262	271	274	306	3574
2003-04	342	342	345	332	312	296	291	276	270	293	307	325	3732
2004-05	325	346	345	329	293	306	296	274	282	283	288	319	3686
2005-06	327	351	340	327	300	310	302	276	283	274	288	335	3713
2006-07	357	375	349	334	310	301	309	271	289	287	297	312	3792
2007-08	344	346	365	336	314	291	294	294	281	288	302	320	3775
2008-09	356	345	361	346	326	299	289	291	270	269	294	300	3745
2009-10	301	274	317	319	291	272	267	265	246	256	259	283	3349
2010-11	287	288	303	305	279	327	269	259	244	252	264	265	3344
2011-12	295	290	297	274	249	230	227	220	257	273	292	299	3203
2012-13	276	296	317	304	277	249	259	227	234	241	252	269	3201
2013-14	280	282	245	179	322	236	251	251	258	234	280	250	3068
2014-15	264	285	272	278	243	228	220	224	247	241	230	239	2972
2015-16	270	274	294	291	1267	-768	217	220	208	225	222	230	2951
2016-17	255	268	241	252	240	227	230	215	216	221	244	247	2855
2017-18	272	272	306	281	387	272	240	238	233	237	246	260	3244

FORECAST

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2018-19	276	281	288	278	260	244	244	230	233	233	237	251	3055
2019-20	273	277	286	274	257	248	241	235	234	232	237	251	3045
2020-21	272	275	284	275	257	244	240	232	227	230	235	250	3019
2021-22	270	273	283	273	249	241	237	226	228	228	232	247	2987
2022-23	267	271	281	270	253	238	237	222	228	226	231	244	2967
2023-24	264	268	278	268	245	235	237	223	226	224	228	241	2937
2024-25	262	265	276	264	247	238	231	222	217	220	225	237	2905
2025-26	259	261	273	262	244	234	229	220	214	218	222	234	2870
2026-27	255	258	269	261	243	230	227	220	210	216	219	234	2843
2027-28	254	258	270	260	237	230	226	214	216	217	220	235	2836
2028-29	255	260	272	262	246	233	233	213	219	219	224	237	2874
2029-30	258	263	275	265	249	233	234	219	221	222	226	240	2906
2030-31	262	266	278	267	249	241	234	222	224	224	229	242	2938
2031-32	265	268	281	270	252	242	241	221	226	227	231	245	2969
2032-33	268	272	283	274	256	243	240	226	229	229	233	249	3002
2033-34	270	274	286	276	259	244	243	229	231	232	236	251	3031
2034-35	273	278	289	279	255	245	248	227	233	234	239	253	3053
2035-36	275	281	292	282	265	248	249	240	240	237	241	256	3103
2036-37	279	283	295	284	266	255	249	237	239	239	245	259	3130
2037-38	282	286	297	289	269	256	253	245	236	242	247	263	3166
2038-39	285	290	302	291	266	258	254	242	244	245	250	267	3193
2039-40	289	293	305	294	276	260	259	245	247	248	254	269	3238

A-3 SALES - GWH
2018 ENERGY AND DEMAND FORECAST
2001-2002 THROUGH 2039-2040
FISCAL YEAR

HISTORICAL

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2001-02	720	649	714	665	669	606	606	588	614	634	553	739	7758
2002-03	770	596	668	719	660	663	668	627	584	603	671	671	7900
2003-04	617	722	725	710	711	627	721	537	617	627	646	673	7934
2004-05	689	701	709	698	640	674	643	599	614	614	618	695	7894
2005-06	698	713	704	717	658	706	660	621	618	618	635	712	8061
2006-07	763	756	744	726	720	710	634	627	651	643	668	689	8330
2007-08	750	729	789	724	696	709	678	660	649	672	674	710	8441
2008-09	920	590	780	766	746	684	666	677	620	626	664	688	8426
2009-10	715	698	783	735	712	666	666	646	612	626	636	676	8171
2010-11	707	684	724	720	657	657	662	641	608	620	649	654	7984
2011-12	721	690	726	713	680	659	647	612	612	615	643	688	8005
2012-13	686	689	753	718	694	689	581	586	593	590	609	647	7832
2013-14	656	661	426	600	608	645	636	666	672	609	626	587	7392
2014-15	622	667	627	701	623	607	582	577	587	570	573	610	7346
2015-16	630	608	655	684	662	589	605	554	517	519	551	570	7145
2016-17	605	633	615	589	590	589	555	510	524	528	569	543	6851
2017-18	632	633	646	636	818	602	543	525	553	533	525	560	7205

FORECAST

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2018-19	636	641	659	634	597	560	559	527	537	538	549	579	7017
2019-20	629	633	654	626	589	568	552	539	540	536	550	578	6994
2020-21	626	627	649	627	589	559	552	530	523	532	543	577	6935
2021-22	621	624	647	622	571	554	543	517	527	527	538	571	6861
2022-23	615	618	642	617	581	546	545	508	526	522	534	563	6816
2023-24	609	613	636	612	562	540	544	510	522	518	527	555	6748
2024-25	602	606	630	603	567	546	530	509	502	510	521	547	6673
2025-26	596	597	624	597	561	537	525	504	494	503	515	541	6593
2026-27	588	589	616	595	558	528	522	503	486	499	509	540	6532
2027-28	584	589	617	593	543	528	518	491	501	501	511	543	6519
2028-29	588	594	622	599	565	536	535	488	506	507	519	548	6607
2029-30	595	602	628	605	572	535	537	503	513	515	525	554	6684
2030-31	603	608	636	609	574	554	538	508	520	519	532	560	6761
2031-32	611	614	643	617	581	557	554	507	524	525	536	568	6835
2032-33	617	622	647	627	588	560	553	520	530	531	542	576	6912
2033-34	623	628	656	632	596	561	560	526	536	537	550	580	6984
2034-35	629	636	662	638	588	566	571	522	541	542	555	586	7037
2035-36	635	643	668	645	609	571	573	551	555	549	562	592	7152
2036-37	645	648	677	650	612	587	574	545	554	555	570	600	7218
2037-38	653	655	682	661	621	590	583	564	547	562	574	611	7303
2038-39	659	664	692	667	613	596	585	556	568	569	581	618	7369
2039-40	667	672	700	674	636	599	598	563	575	576	591	624	7475

**CONTRACT RATES - ELECTRICITY SALES - GWH
2018 ENERGY AND DEMAND FORECAST
2001-2002 THROUGH 2039-2040
FISCAL YEAR**

HISTORICAL

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2001-02	97	101	99	98	88	81	114	114	84	90	95	102	1163
2002-03	79	109	98	109	80	88	98	116	97	99	70	102	1144
2003-04	135	96	113	121	145	98	92	127	61	142	104	93	1328
2004-05	134	121	96	103	158	118	109	113	100	111	110	129	1403
2005-06	116	105	125	88	119	161	119	96	116	105	87	145	1380
2006-07	109	104	150	120	101	90	120	118	96	113	107	114	1342
2007-08	141	134	137	127	133	95	111	111	116	115	105	130	1455
2008-09	129	125	135	131	121	86	139	114	102	134	114	115	1445
2009-10	96	147	116	109	98	65	122	112	107	89	85	133	1279
2010-11	113	108	116	120	117	98	125	145	131	150	108	99	1432
2011-12	118	100	140	126	117	120	107	109	86	103	125	124	1373
2012-13	134	108	168	145	142	128	173	129	137	105	173	138	1679
2013-14	167	178	169	152	167	140	134	135	143	152	147	176	1860
2014-15	219	158	146	190	151	182	157	147	157	156	160	144	1967
2015-16	152	271	194	193	196	148	158	137	138	219	135	148	2089
2016-17	143	172	189	114	202	181	142	162	139	143	163	196	1946
2017-18	168	247	184	166	168	146	152	122	155	120	135	139	1902

FORECAST

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2018-19	170	172	175	168	157	149	149	144	145	145	148	153	1874
2019-20	166	168	172	164	154	148	146	144	145	144	147	152	1850
2020-21	165	167	171	165	154	147	146	143	142	143	146	152	1841
2021-22	164	167	171	164	152	146	145	141	143	142	145	151	1831
2022-23	164	166	170	163	153	145	145	139	142	142	145	150	1822
2023-24	162	165	169	162	150	144	144	139	141	141	144	148	1810
2024-25	161	163	168	161	150	144	142	139	139	139	142	147	1797
2025-26	160	162	167	160	149	143	142	138	138	138	142	146	1785
2026-27	159	161	166	159	149	142	141	138	136	138	141	146	1776
2027-28	158	161	166	159	147	142	141	137	138	138	141	147	1776
2028-29	159	162	167	160	150	143	143	137	140	140	143	148	1791
2029-30	161	163	168	162	152	144	144	139	141	141	144	149	1806
2030-31	162	164	170	162	152	146	145	140	142	142	145	150	1821
2031-32	164	166	171	164	154	147	147	140	143	143	146	152	1836
2032-33	165	167	172	166	155	148	147	142	144	144	147	153	1850
2033-34	166	168	174	167	156	148	149	143	145	145	149	154	1865
2034-35	167	170	175	168	156	150	150	143	146	146	150	155	1876
2035-36	168	171	176	169	159	151	151	147	149	148	151	156	1896
2036-37	170	172	178	170	160	153	152	147	149	149	153	158	1910
2037-38	172	174	179	172	161	154	153	150	148	150	154	160	1926
2038-39	173	175	181	173	161	155	154	149	152	152	155	161	1940
2039-40	174	177	182	175	164	156	156	151	153	153	157	162	1959

RESIDENTIAL ACCUMULATED ENERGY EFFICIENCY SAVINGS - GWH
2018 ENERGY AND DEMAND FORECAST
2001-2002 THROUGH 2039-2040
FISCAL YEAR

HISTORICAL

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2001-02	2	2	2	3	3	3	3	3	3	3	3	3	34
2002-03	3	4	4	4	4	4	3	4	4	4	4	4	45
2003-04	4	5	4	4	4	4	4	4	4	4	5	5	53
2004-05	5	5	5	5	5	5	5	5	5	5	6	6	62
2005-06	6	6	6	6	6	6	5	6	6	6	6	7	71
2006-07	7	7	7	7	7	7	7	7	7	7	8	8	86
2007-08	9	9	9	9	9	9	9	9	10	10	11	12	115
2008-09	13	13	13	13	12	12	14	16	21	22	23	25	195
2009-10	25	26	24	24	23	22	22	22	23	23	24	26	283
2010-11	27	27	25	25	24	23	22	23	24	24	26	28	297
2011-12	29	29	27	27	26	25	24	25	26	26	28	30	322
2012-13	31	31	29	28	27	26	26	26	27	27	29	31	337
2013-14	32	32	30	30	28	27	27	28	28	29	30	33	354
2014-15	34	34	32	31	30	29	28	29	30	30	32	35	374
2015-16	36	36	34	33	32	31	30	31	32	33	34	37	400
2016-17	38	39	36	36	34	33	33	34	35	35	38	41	433
2017-18	42	43	40	39	38	37	36	38	39	40	42	46	479

FORECAST

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2018-19	47	48	45	44	42	41	41	42	43	44	47	50	534
2019-20	52	52	49	48	46	45	45	46	47	48	51	56	587
2020-21	57	58	54	54	51	50	49	51	52	54	57	62	650
2021-22	64	64	61	60	57	56	55	57	58	60	63	69	724
2022-23	71	71	67	66	63	62	61	63	64	66	70	76	800
2023-24	78	79	74	72	69	68	67	69	71	72	76	83	877
2024-25	85	86	81	79	76	74	73	75	77	78	83	90	956
2025-26	93	93	87	86	82	80	79	81	83	85	90	97	1036
2026-27	100	100	94	92	88	87	84	87	89	90	95	103	1110
2027-28	105	106	99	97	92	90	88	90	91	93	98	105	1153
2028-29	108	108	100	98	93	91	88	91	92	93	98	106	1166
2029-30	108	108	101	99	94	91	89	92	93	94	99	107	1176
2030-31	109	109	102	100	95	92	90	92	94	95	100	108	1185
2031-32	110	110	103	100	95	93	90	93	94	96	101	108	1195
2032-33	111	111	104	101	96	94	91	94	95	97	102	109	1205
2033-34	112	112	105	102	97	95	92	95	96	97	103	110	1215
2034-35	113	113	105	103	98	95	93	96	97	98	103	111	1226
2035-36	114	114	106	104	99	96	94	96	98	99	104	112	1237
2036-37	115	115	107	105	100	97	95	97	99	100	105	113	1249
2037-38	116	116	108	106	101	98	95	98	100	101	106	114	1261
2038-39	117	117	109	107	102	99	96	99	101	102	107	116	1272
2039-40	118	118	110	108	103	100	97	100	101	103	108	117	1284

Los Angeles

**COMMERCIAL ACCUMULATED ENERGY EFFICIENCY SAVINGS - GWH
2018 ENERGY AND DEMAND FORECAST
2001-2002 THROUGH 2039-2040
FISCAL YEAR**

HISTORICAL

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2001-02	26	27	26	26	26	26	27	28	30	31	33	37	343
2002-03	38	39	36	36	34	34	33	34	35	36	38	41	436
2003-04	43	43	40	39	37	37	36	37	38	38	40	44	472
2004-05	45	45	42	41	40	39	38	39	40	40	43	46	498
2005-06	47	48	45	44	42	41	40	41	42	43	45	49	525
2006-07	50	50	47	46	44	43	42	44	45	46	48	53	559
2007-08	54	55	51	51	48	47	46	48	49	51	55	62	618
2008-09	65	67	64	64	62	61	61	64	66	68	72	78	790
2009-10	82	83	78	77	74	73	72	74	77	78	85	93	946
2010-11	97	98	93	92	87	86	84	87	89	91	99	108	1112
2011-12	111	111	105	103	99	97	95	98	100	102	108	117	1246
2012-13	121	121	113	111	106	104	102	105	108	111	118	128	1349
2013-14	131	132	124	122	116	115	113	117	119	122	130	142	1483
2014-15	146	147	138	135	129	127	124	129	131	135	143	155	1639
2015-16	159	160	150	147	140	137	133	137	141	143	152	165	1763
2016-17	169	171	160	157	150	147	144	148	152	155	164	178	1893
2017-18	184	185	174	171	163	159	156	162	166	170	180	195	2064

FORECAST

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2018-19	201	203	191	188	180	177	173	179	183	187	198	215	2276
2019-20	221	223	209	206	197	193	189	196	200	205	217	235	2491
2020-21	243	245	230	226	216	212	208	216	221	226	240	260	2743
2021-22	269	271	255	251	240	236	231	240	245	250	265	288	3039
2022-23	297	299	281	276	264	259	254	263	269	274	291	315	3342
2023-24	325	327	307	302	289	283	278	287	293	299	317	343	3651
2024-25	354	356	334	328	314	308	301	312	318	325	344	372	3966
2025-26	383	386	362	355	339	333	326	337	343	350	371	401	4284
2026-27	412	415	389	382	365	357	349	359	365	371	392	423	4580
2027-28	434	436	407	398	380	371	361	371	377	382	402	433	4752
2028-29	443	443	413	404	384	374	364	374	380	385	405	436	4806
2029-30	447	447	417	407	387	377	367	377	383	388	409	440	4843
2030-31	450	450	420	410	390	380	370	380	386	391	412	443	4881
2031-32	454	454	423	413	393	383	373	383	389	394	415	447	4919
2032-33	457	458	427	417	396	386	376	386	392	397	419	450	4960
2033-34	461	461	430	420	399	389	379	390	395	401	422	454	5002
2034-35	465	465	434	424	403	392	382	393	399	404	426	458	5045
2035-36	469	469	438	427	406	396	385	396	402	408	430	462	5090
2036-37	473	474	442	431	410	400	389	400	406	412	434	466	5136
2037-38	478	478	446	435	414	403	393	404	410	415	438	471	5184
2038-39	482	482	450	439	418	407	396	407	413	419	442	475	5231
2039-40	486	487	454	443	421	411	400	411	417	423	446	479	5278

Los Angeles

CROSS CUTTING ACCUMULATED ENERGY EFFICIENCY SAVINGS - GWH
2018 ENERGY AND DEMAND FORECAST
2001-2002 THROUGH 2039-2040
FISCAL YEAR

HISTORICAL

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2001-02	17	18	17	18	17	18	18	19	20	21	23	26	232
2002-03	27	28	27	27	27	27	27	28	29	30	33	36	347
2003-04	38	39	37	37	36	36	35	37	38	40	42	46	461
2004-05	48	49	47	46	45	44	44	46	47	49	52	57	575
2005-06	59	60	57	56	54	53	53	55	56	58	62	67	689
2006-07	70	70	66	66	63	62	61	64	65	67	71	77	804
2007-08	80	81	76	75	72	71	70	73	74	76	81	88	918
2008-09	91	92	86	85	81	80	79	81	83	85	91	98	1032
2009-10	101	102	96	95	91	89	87	90	92	94	100	108	1146
2010-11	112	113	106	104	100	98	96	99	101	103	110	119	1261
2011-12	122	123	116	114	109	107	105	108	110	113	119	129	1375
2012-13	134	135	127	126	121	119	117	121	124	127	135	147	1533
2013-14	152	153	144	141	136	133	131	135	138	141	150	163	1717
2014-15	168	169	159	156	150	147	144	150	153	156	166	179	1897
2015-16	186	188	177	174	167	164	161	168	171	175	186	202	2120
2016-17	209	210	197	193	185	181	178	185	189	193	205	222	2346
2017-18	229	230	215	211	202	198	193	199	203	207	218	236	2541

FORECAST

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2018-19	242	243	228	223	213	208	203	209	213	217	229	247	2674
2019-20	254	255	238	233	222	217	212	219	222	226	239	258	2794
2020-21	264	265	247	242	230	224	219	225	229	232	245	264	2886
2021-22	271	271	253	248	236	230	224	231	234	238	251	270	2957
2022-23	277	278	259	253	241	235	229	236	239	243	256	276	3022
2023-24	283	283	264	258	245	239	233	240	244	247	260	280	3077
2024-25	287	288	268	262	249	243	237	244	247	251	265	285	3127
2025-26	292	292	273	266	253	247	241	248	251	255	269	289	3175
2026-27	296	297	277	270	257	251	244	251	255	259	272	293	3222
2027-28	300	301	281	274	261	254	247	255	258	262	276	297	3266
2028-29	304	305	284	278	264	257	251	258	262	265	280	301	3309
2029-30	308	309	288	281	267	261	254	261	265	269	283	305	3350
2030-31	312	312	291	284	269	262	255	262	266	269	284	305	3371
2031-32	312	312	291	284	270	262	255	263	266	270	284	305	3373
2032-33	312	312	291	284	270	263	256	263	266	270	284	305	3376
2033-34	313	313	291	284	270	263	256	263	266	270	284	306	3378
2034-35	313	313	291	284	270	263	256	263	267	270	285	306	3381
2035-36	313	313	292	285	270	263	256	263	267	270	285	306	3384
2036-37	313	313	292	285	271	263	256	264	267	271	285	306	3386
2037-38	313	313	292	285	271	264	257	264	267	271	285	307	3389
2038-39	314	314	292	285	271	264	257	264	267	271	285	307	3391
2039-40	314	314	293	285	271	264	257	264	268	271	286	307	3394

Los Angeles

**HUFFMAN BILL ACCUMULATED ENERGY EFFICIENCY SAVINGS - GWH
2018 ENERGY AND DEMAND FORECAST
2001-2002 THROUGH 2039-2040
FISCAL YEAR**

HISTORICAL

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2001-02	0	0	0	0	0	0	0	0	0	0	0	0	0
2002-03	0	0	0	0	0	0	0	0	0	0	0	0	0
2003-04	0	0	0	0	0	0	0	0	0	0	0	0	0
2004-05	0	0	0	0	0	0	0	0	0	0	0	0	0
2005-06	0	0	0	0	0	0	0	0	0	0	0	0	0
2006-07	0	0	0	0	0	0	0	0	0	0	0	0	0
2007-08	0	0	0	0	0	0	0	0	0	0	0	0	0
2008-09	0	0	0	0	0	0	0	0	0	0	0	0	0
2009-10	0	0	0	0	0	0	0	0	0	0	0	0	0
2010-11	0	0	0	0	0	0	0	0	0	0	0	0	0
2011-12	0	0	0	0	0	0	1	1	1	2	2	2	9
2012-13	3	3	4	4	5	6	7	8	9	10	10	9	77
2013-14	10	11	13	14	17	20	20	19	20	20	19	17	201
2014-15	18	18	21	22	25	29	29	26	27	27	25	22	287
2015-16	23	23	27	27	31	35	35	32	32	33	30	27	354
2016-17	27	27	32	32	36	41	40	36	37	37	34	29	408
2017-18	30	30	34	34	38	43	42	38	38	38	35	31	431

FORECAST

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2018-19	31	31	35	36	39	45	44	40	40	40	36	32	448
2019-20	32	32	37	37	41	46	46	41	41	42	38	33	466
2020-21	34	34	39	39	43	49	49	44	44	44	40	35	494
2021-22	36	36	41	41	45	52	51	46	46	46	42	37	518
2022-23	37	37	43	43	47	54	53	47	47	48	43	38	536
2023-24	38	38	44	44	48	55	54	48	48	49	44	39	549
2024-25	39	39	44	44	49	56	55	49	49	49	45	39	556
2025-26	39	39	45	45	50	57	56	50	50	50	46	40	566
2026-27	40	40	46	46	50	57	56	51	51	51	46	41	575
2027-28	41	41	46	47	51	58	57	51	51	52	47	41	583
2028-29	41	41	47	47	52	59	58	52	52	52	48	42	592
2029-30	42	42	48	48	53	60	59	53	53	53	48	42	600
2030-31	42	42	48	49	53	61	60	54	54	54	49	43	609
2031-32	43	43	49	49	54	62	60	54	54	54	50	43	617
2032-33	43	44	50	50	55	62	61	55	55	55	50	44	625
2033-34	44	44	50	51	56	63	62	56	56	56	51	45	634
2034-35	45	45	51	51	56	64	63	57	57	57	52	45	642
2035-36	45	45	52	52	57	65	64	57	57	57	52	46	651
2036-37	46	46	53	53	58	66	65	58	58	58	53	46	659
2037-38	46	46	53	53	59	67	65	59	59	59	54	47	667
2038-39	47	47	54	54	59	68	66	60	60	60	54	48	676
2039-40	48	48	55	55	60	68	67	60	60	60	55	48	684

Los Angeles

SOLAR ROOFTOP ACCUMULATED SAVINGS - GWH
2018 ENERGY AND DEMAND FORECAST
2001-2002 THROUGH 2039-2040
FISCAL YEAR

HISTORICAL

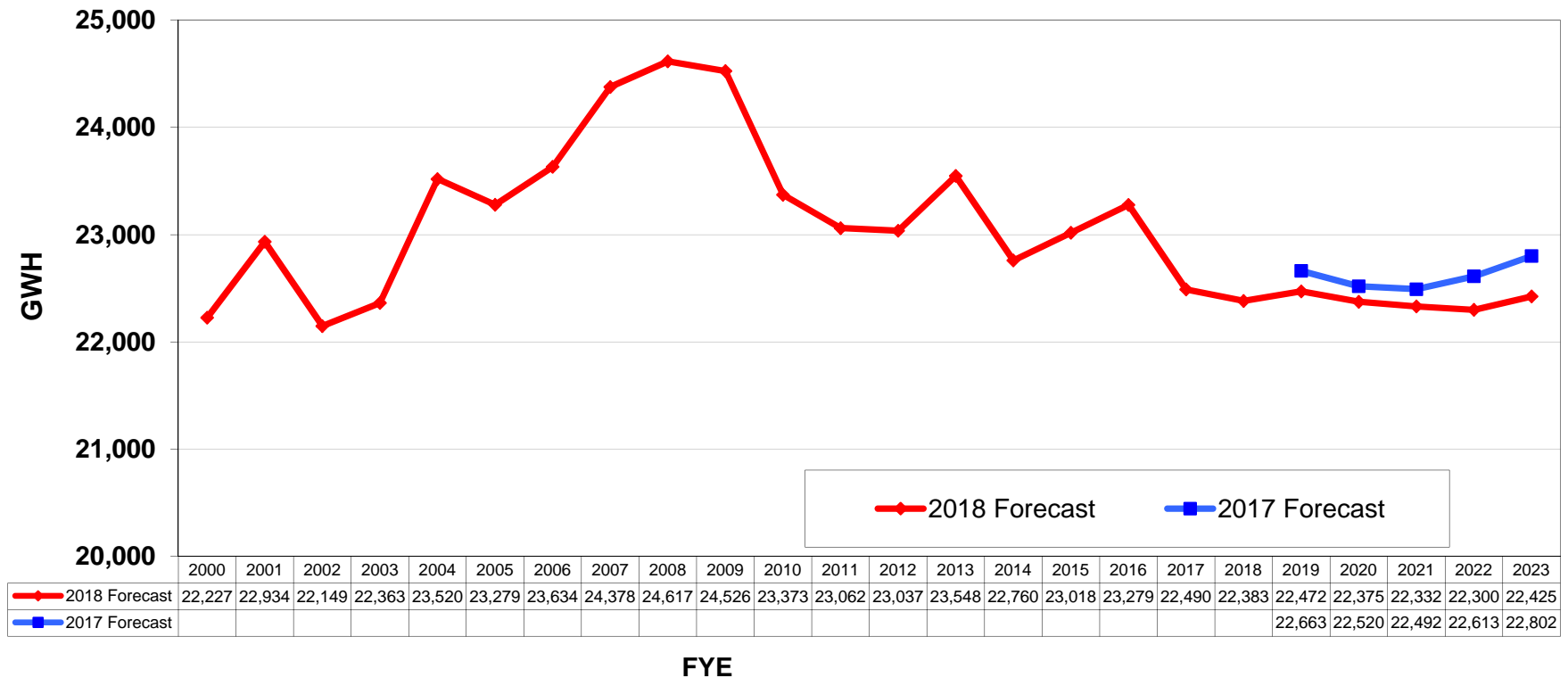
FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2000-01	0	0	0	0	0	0	0	0	0	0	0	0	0
2001-02	0	0	0	0	0	0	0	0	0	0	0	0	1
2002-03	1	1	1	1	1	1	0	0	0	0	0	0	5
2003-04	1	1	1	1	1	1	1	1	1	1	1	1	12
2004-05	1	1	1	1	1	1	1	1	1	1	1	1	12
2005-06	2	1	1	1	1	1	1	1	1	1	1	1	14
2006-07	2	2	1	1	1	1	1	1	1	1	1	1	15
2007-08	2	2	2	1	1	1	1	1	1	2	2	2	17
2008-09	2	2	2	2	1	1	1	1	2	2	2	2	20
2009-10	3	3	3	2	2	2	1	2	2	3	3	3	27
2010-11	4	4	3	3	3	2	2	3	4	5	5	5	42
2011-12	6	6	5	4	4	3	4	5	7	8	8	8	68
2012-13	10	9	9	7	6	5	6	7	9	11	11	12	104
2013-14	14	13	12	11	9	8	9	11	13	16	16	16	147
2014-15	18	18	16	13	12	10	11	14	17	20	20	20	189
2015-16	23	22	20	17	15	13	14	17	21	25	26	27	240
2016-17	31	30	26	23	20	17	18	22	27	32	33	33	311
2017-18	37	36	31	27	23	20	21	26	32	38	39	40	369

FORECAST

FISCAL YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
2018-19	45	44	39	33	28	25	26	32	39	46	46	46	448
2019-20	52	50	44	37	31	27	29	34	42	50	50	50	497
2020-21	56	54	47	40	34	29	31	37	46	54	54	54	538
2021-22	61	58	51	44	37	32	34	40	49	58	58	58	580
2022-23	65	63	55	47	40	34	36	43	53	62	62	63	622
2023-24	70	67	59	50	42	36	39	46	56	66	66	67	664
2024-25	74	72	62	53	45	39	41	49	61	72	72	73	713
2025-26	82	79	69	59	50	43	46	55	67	78	79	79	786
2026-27	88	85	74	63	53	46	48	57	70	82	83	83	832
2027-28	92	89	77	66	56	48	51	60	74	86	87	87	873
2028-29	97	93	81	69	58	50	53	63	77	90	91	91	914
2029-30	101	97	85	72	61	52	55	66	81	94	95	95	956
2030-31	106	102	89	75	64	55	58	69	84	98	99	99	997
2031-32	110	106	92	78	66	57	60	72	88	102	103	103	1038
2032-33	115	110	96	82	69	59	63	74	91	106	107	107	1079
2033-34	119	115	100	85	71	61	65	77	95	111	111	111	1121
2034-35	124	119	103	88	74	64	67	80	98	115	115	115	1162
2035-36	128	123	107	91	77	66	70	82	101	117	117	117	1197
2036-37	130	125	108	92	77	66	70	82	101	117	117	117	1202
2037-38	130	125	108	92	77	66	70	82	101	117	117	117	1202
2038-39	130	125	108	92	77	66	70	82	101	117	117	117	1202
2039-40	130	125	108	92	77	66	70	82	101	117	117	117	1202

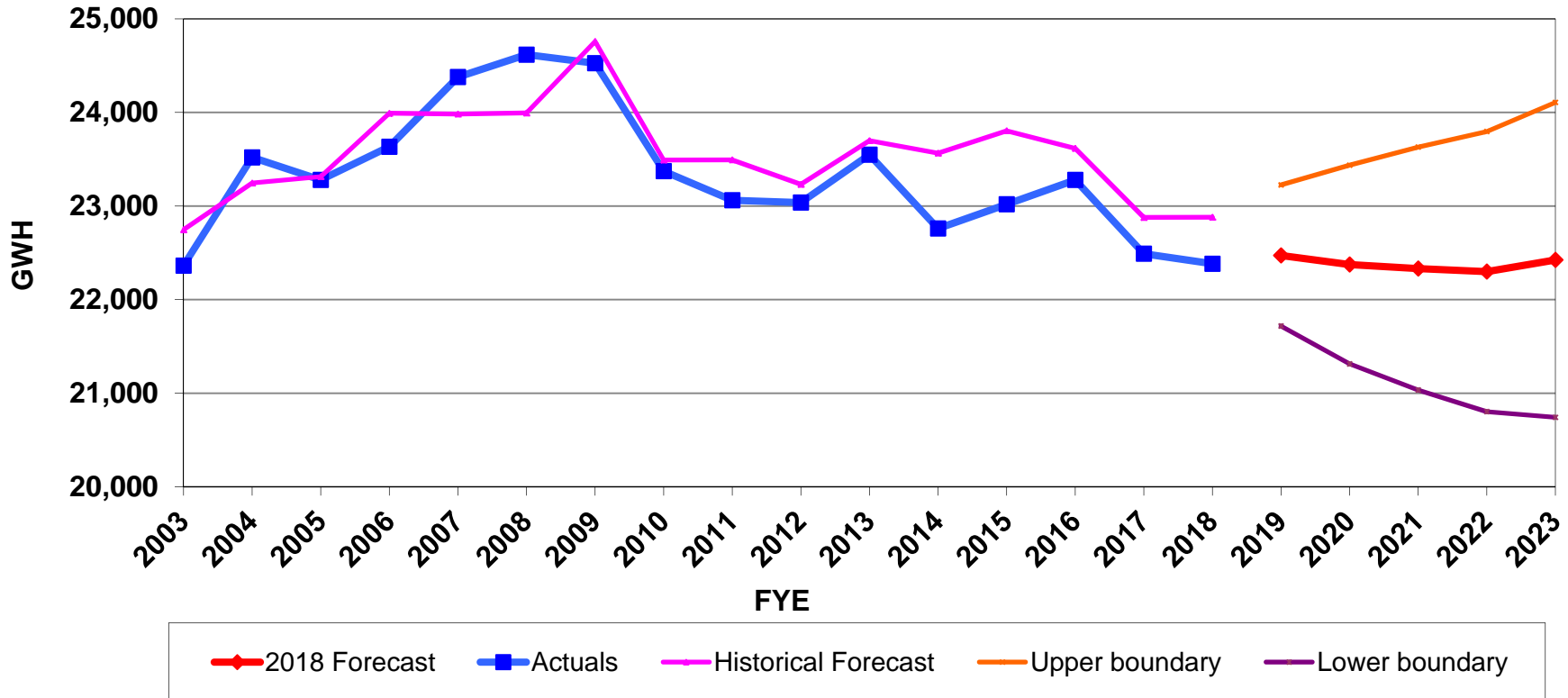
Total Sales to Ultimate Customers

- Key factors for 2018 Forecast:
 - Based on Financial Plan Case 3 of 2018.
 - Energy Efficiency, PHEV, distributed generation targets as approved in 2017 Power Strategic Long-Term Resource Plan (SLTRP).



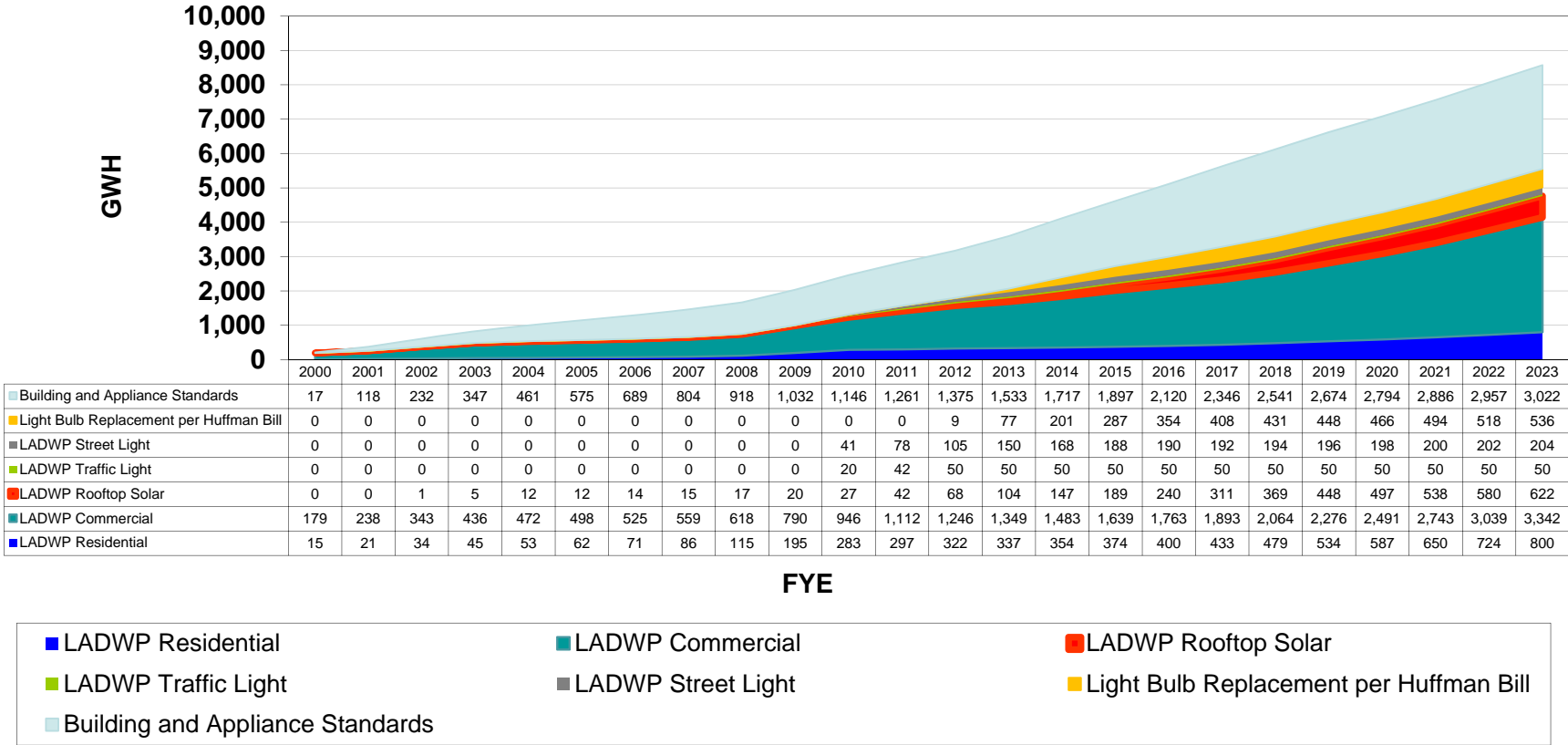
Retail Sales

- Historical average forecast variance is 0.9% with a 1.7% deviation.
- Historical variation is based on demographics, economics and weather.
- Expect larger variation in accuracy
 - Large scale utility programs tend to be affected by many exogenous factors and may cause significant variation in future retail sales.

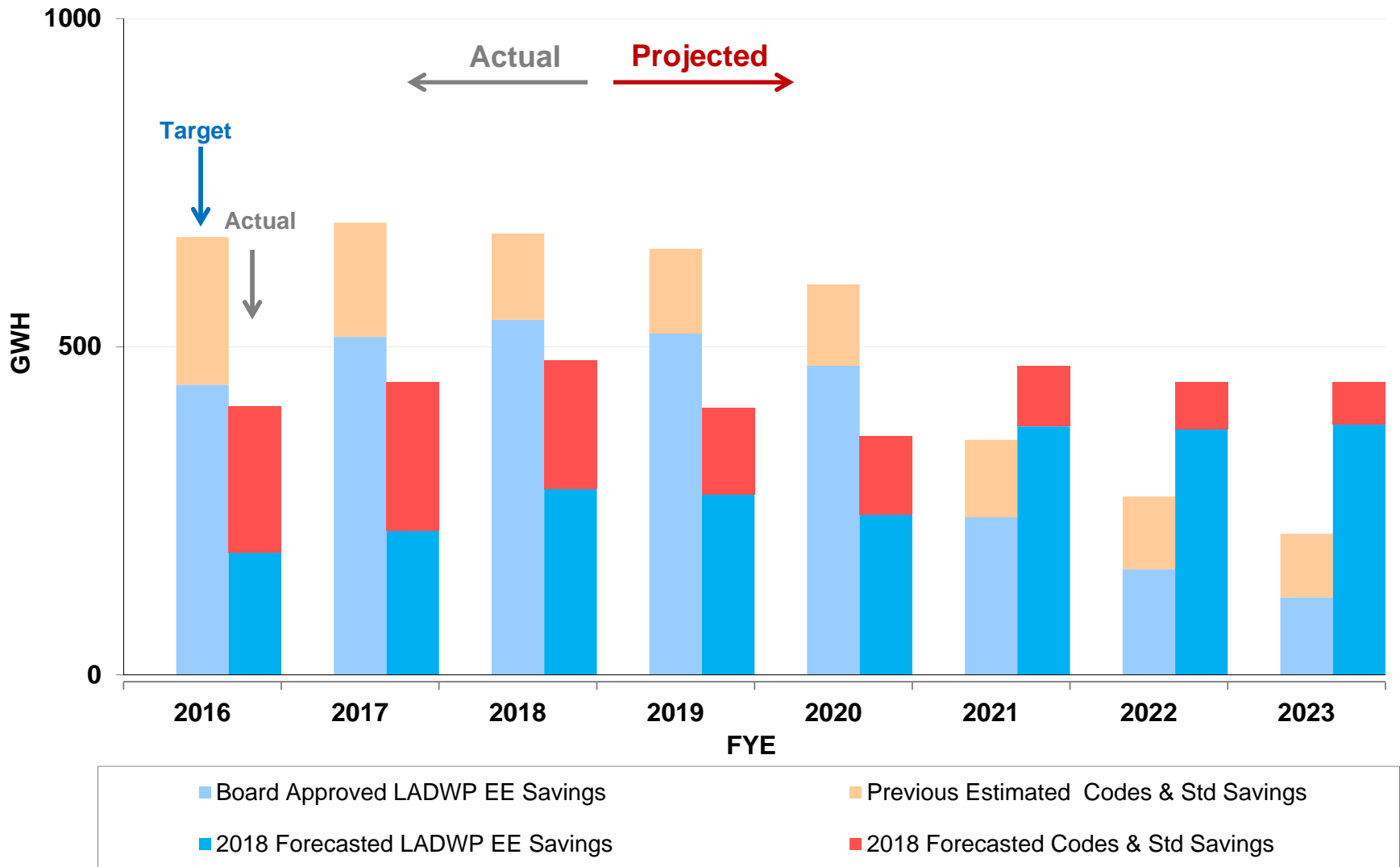


Historical and Forecasted Accumulated Savings Energy Efficiency and Solar Rooftops

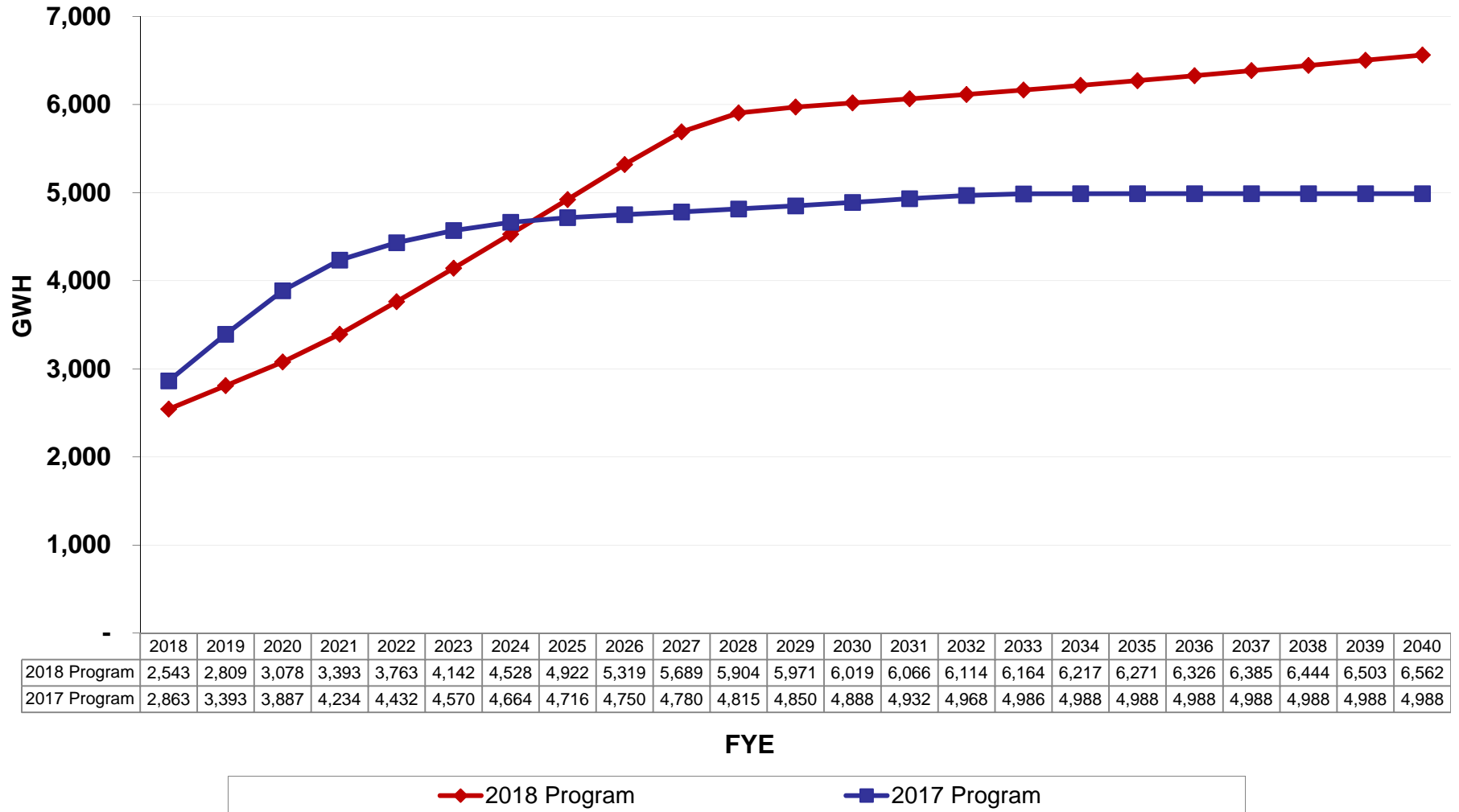
- Building and Appliance Standards now incorporated into LADWP’s EE goals.
- EE and Distributed Generation savings in 2017 SLTRP continued throughout entire Forecast timespan.



Total Installed EE Savings



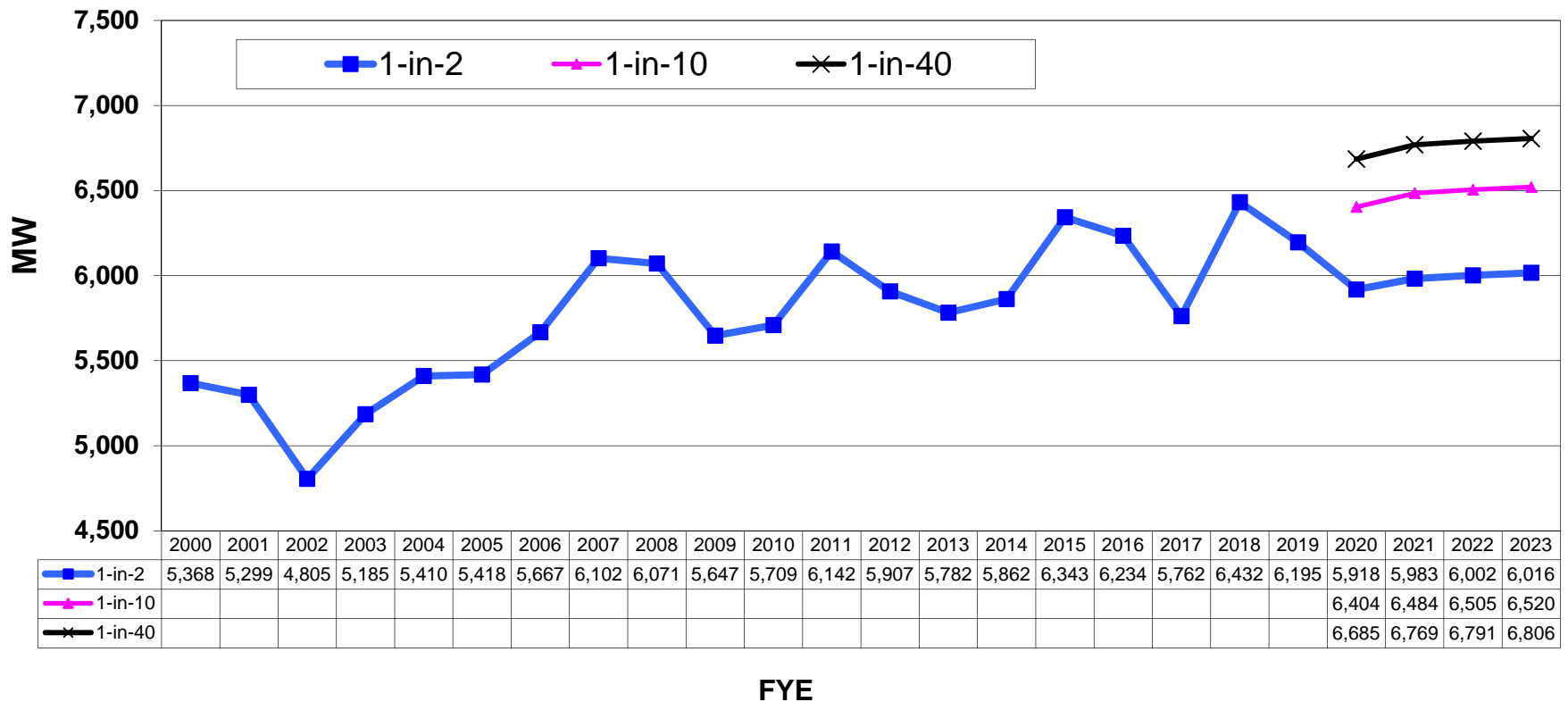
Total Programmed EE Savings



Peak Demand

Cases

- Based on the recent climate change finding that more extreme weather events of longer duration will occur in the future, it is now expected that the System will approach its potential more frequently so the difference between the 1-in-10 and 1-in-40 forecasts is compressed.



Peak Demand

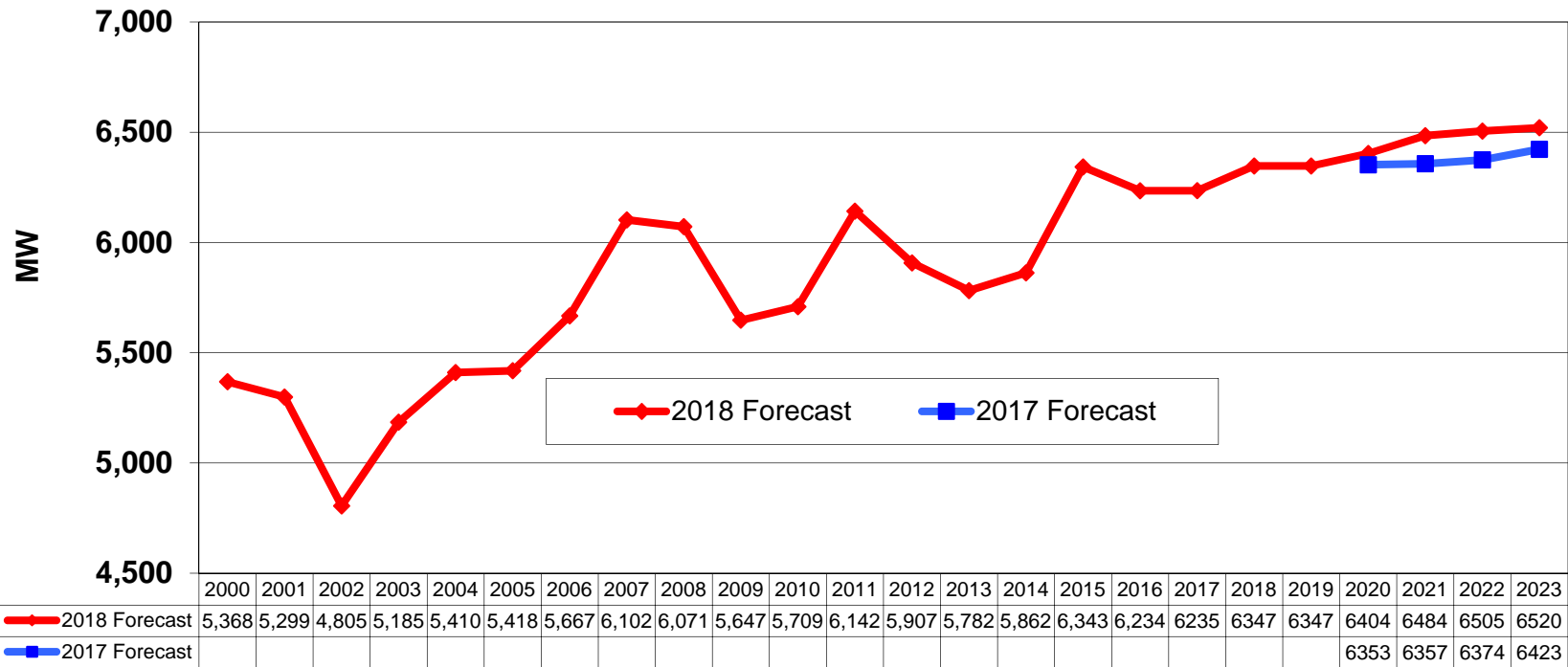
- Annual peak demand is dependent on the severity of the heat storms that are encountered during the year.
- The cases are built on the probability of a weather event occurring in a given year.

NEL (MW) Fiscal Year Annual Peak Demand

Fiscal Year	Base Case	1 in 5	1 in 10	1 in 40 Hot
2018-19	5,820	6,166	6,347	6,626
2019-20	5,907	6,221	6,404	6,685
2020-21	5,983	6,300	6,484	6,769
2021-22	6,002	6,320	6,505	6,791
2022-23	6,016	6,335	6,520	6,806
2023-24	6,030	6,349	6,535	6,822
2024-25	6,077	6,398	6,585	6,874
2025-26	6,049	6,369	6,555	6,842
2026-27	6,031	6,349	6,534	6,820
2027-28	6,039	6,358	6,544	6,829
2028-29	6,095	6,417	6,605	6,893
2029-30	6,135	6,460	6,649	6,941
2030-31	6,183	6,512	6,703	6,998
2031-32	6,238	6,570	6,764	7,062

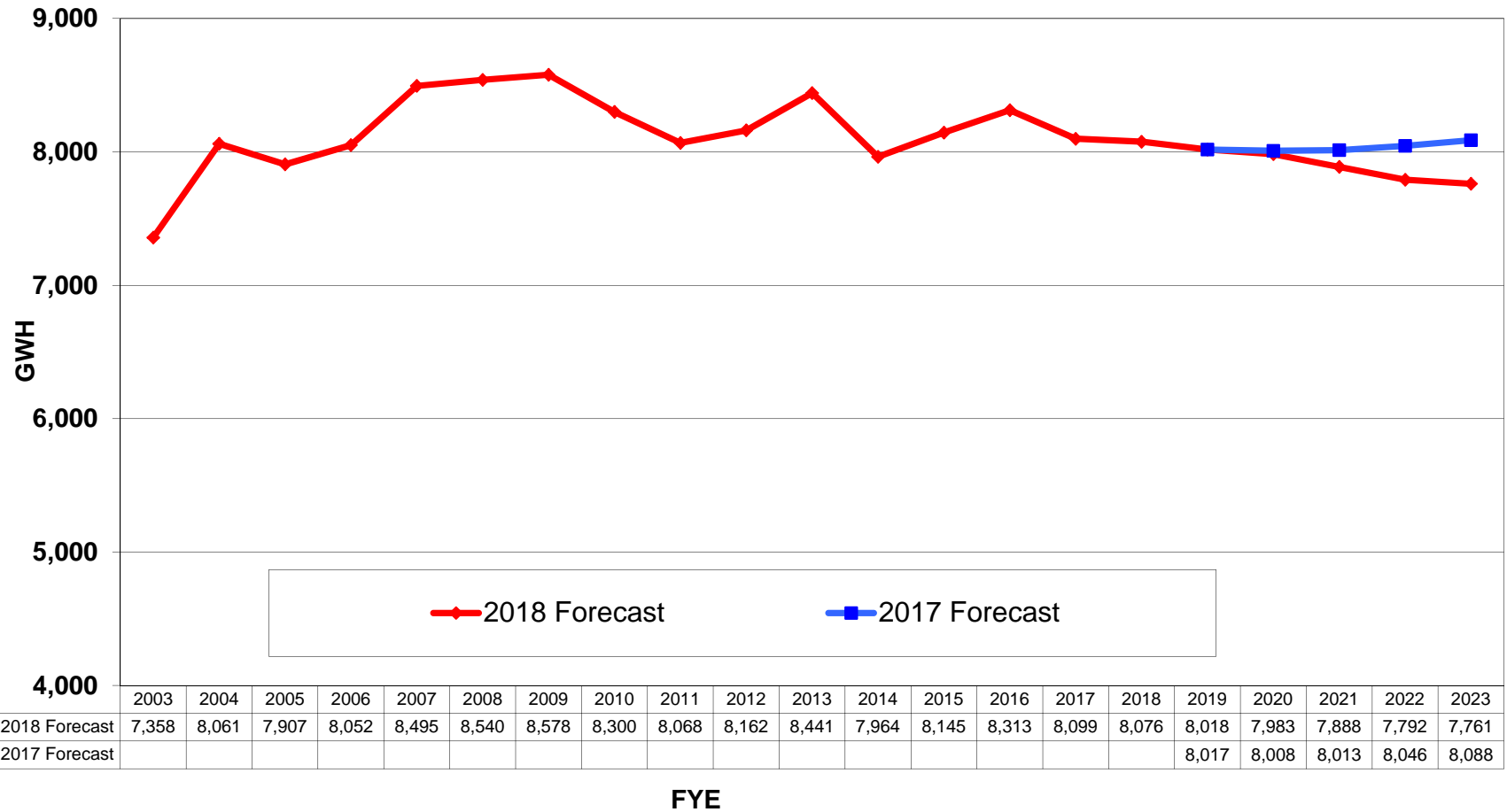
1-in-10 Peak Demand

- **Summer 2018 Actual Peak = 6195 MW (1-in-5.5 peak occurred on a 1-in-3.5 weather day)**
- **Weather Normalized Peaks for Summer 2018:**
 - Summer 2018 1-in-10 Peak = 6347 MW
 - Summer 2018 1-in-2 Peak = 5820 MW
 - Summer 2018 Forecasted 1-in-2 Peak = 5881 MW



Residential Sales

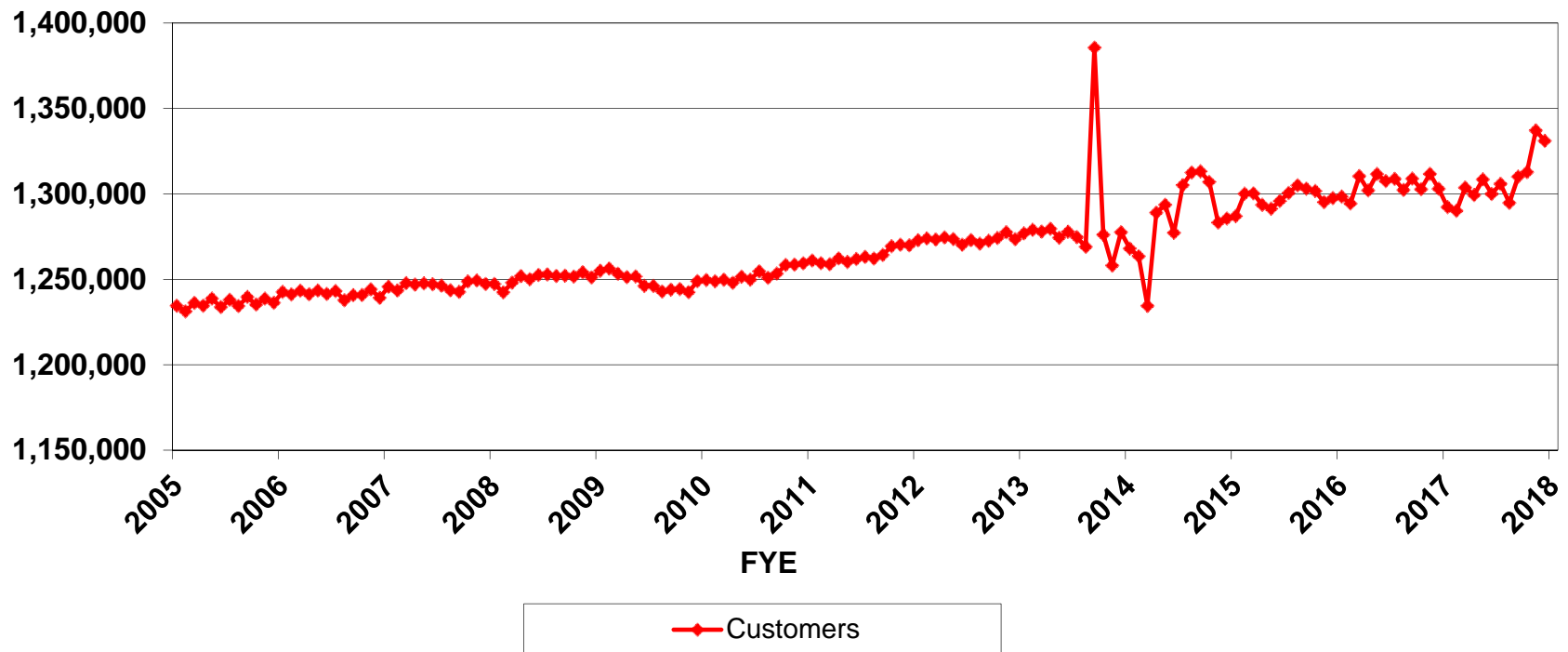
- Incorporates electric rate increases from Financial Plan Case 3 of 2018 with a 1-year lag.



Residential Energy Sales

Number of Residential Customers

- Peak-to-Trough – 13,532 customers lost between February 2009 and August 2009.
- 88,000 (7.1%) customers added since August 2009.
- Total Customers = 2 * Bimonthly Bills + 1 * Monthly Bills.
- The majority of residential customers are renters and live in multi-family units.

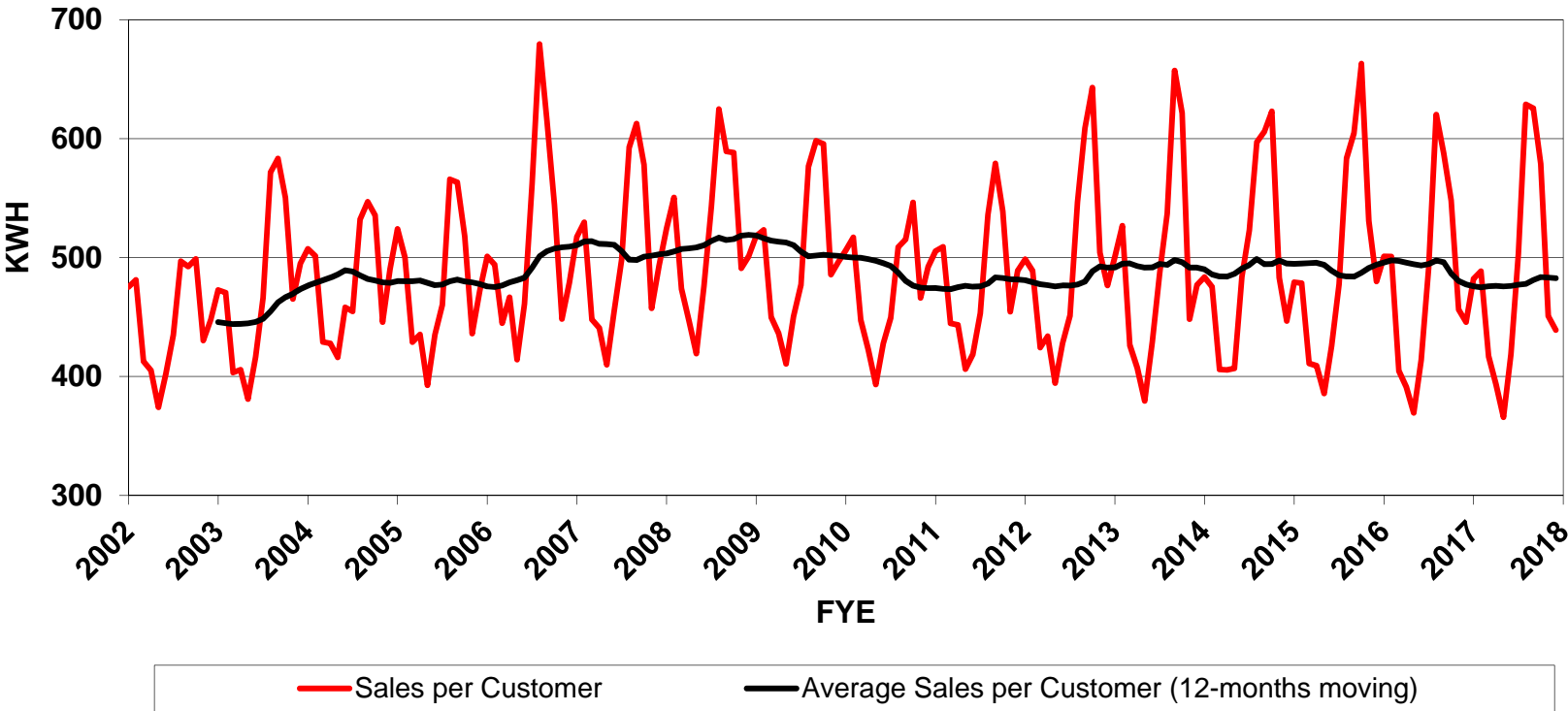


Residential Sales

Average Sales per Customer

Recent Evidence

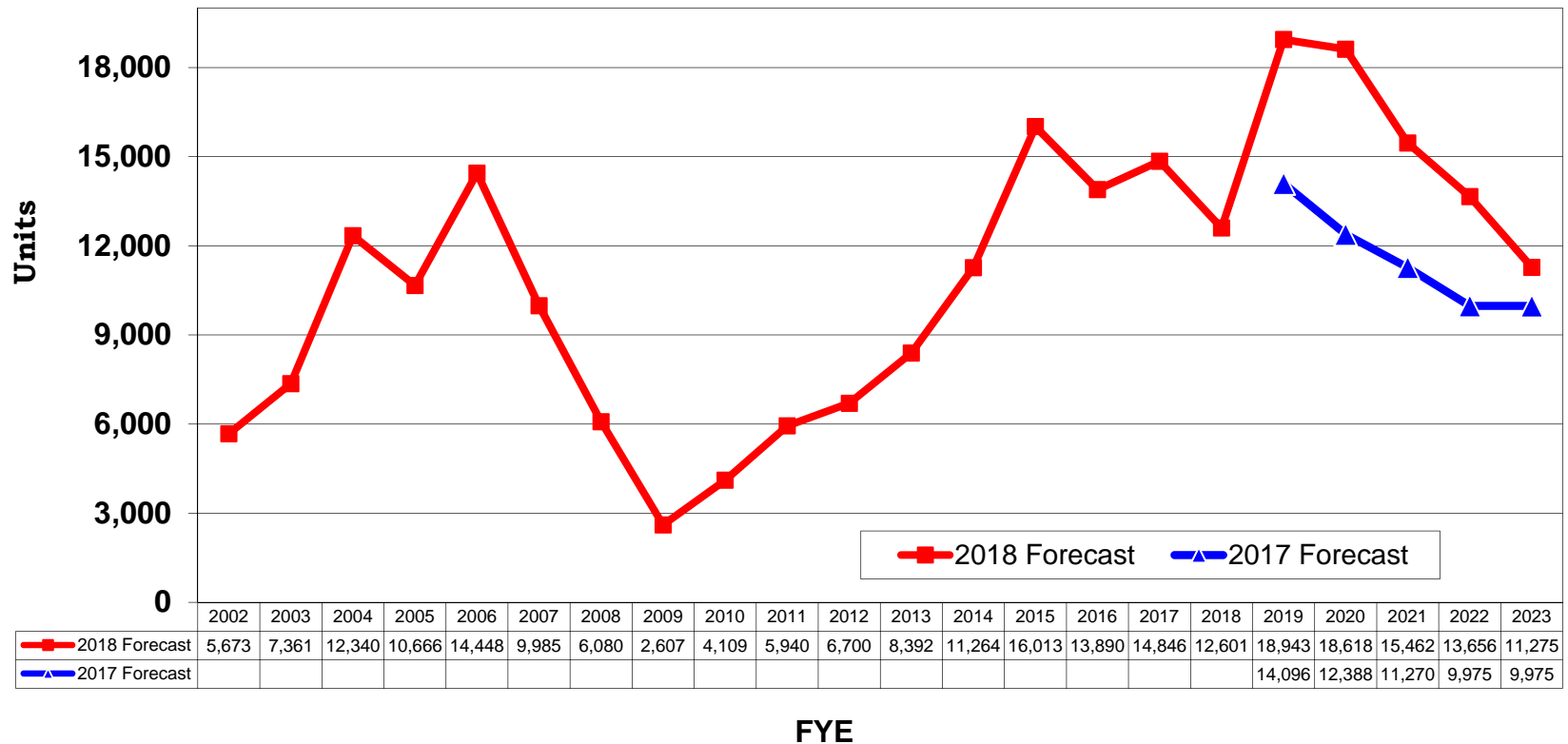
- Moving average monthly sales per customer reached an all-time high of 519 KWH per month in December 2008.
- The December 2017 moving average is 483 KWH per Month.



Residential Energy Sales

New Residential Building Units

- New units are 15% Single-Family and 85% Multi-family which lowers future average consumption per household.
- Absorption changed from positive to negative in 2015.
- Model sensitive to number of households.

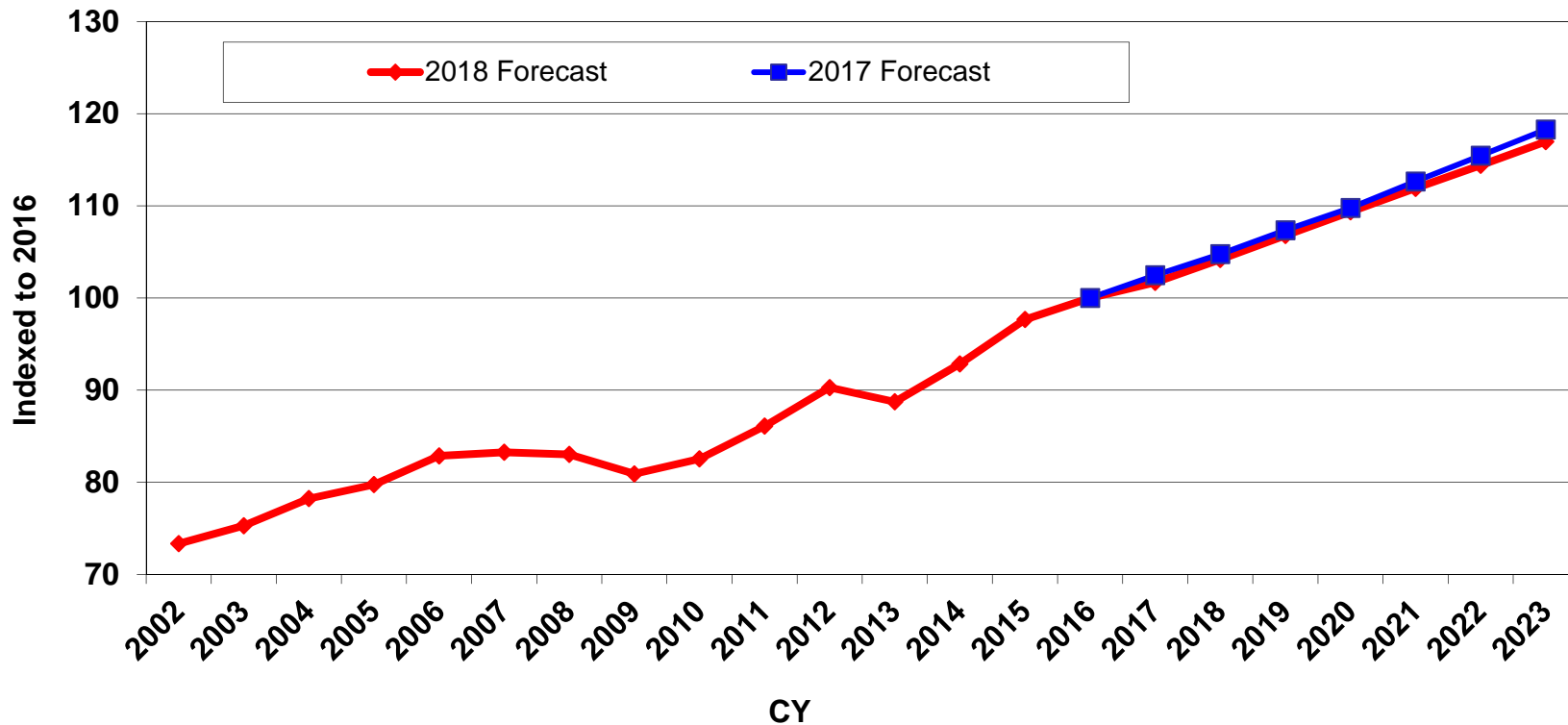


Residential Energy Sales

Recent Economic Impact

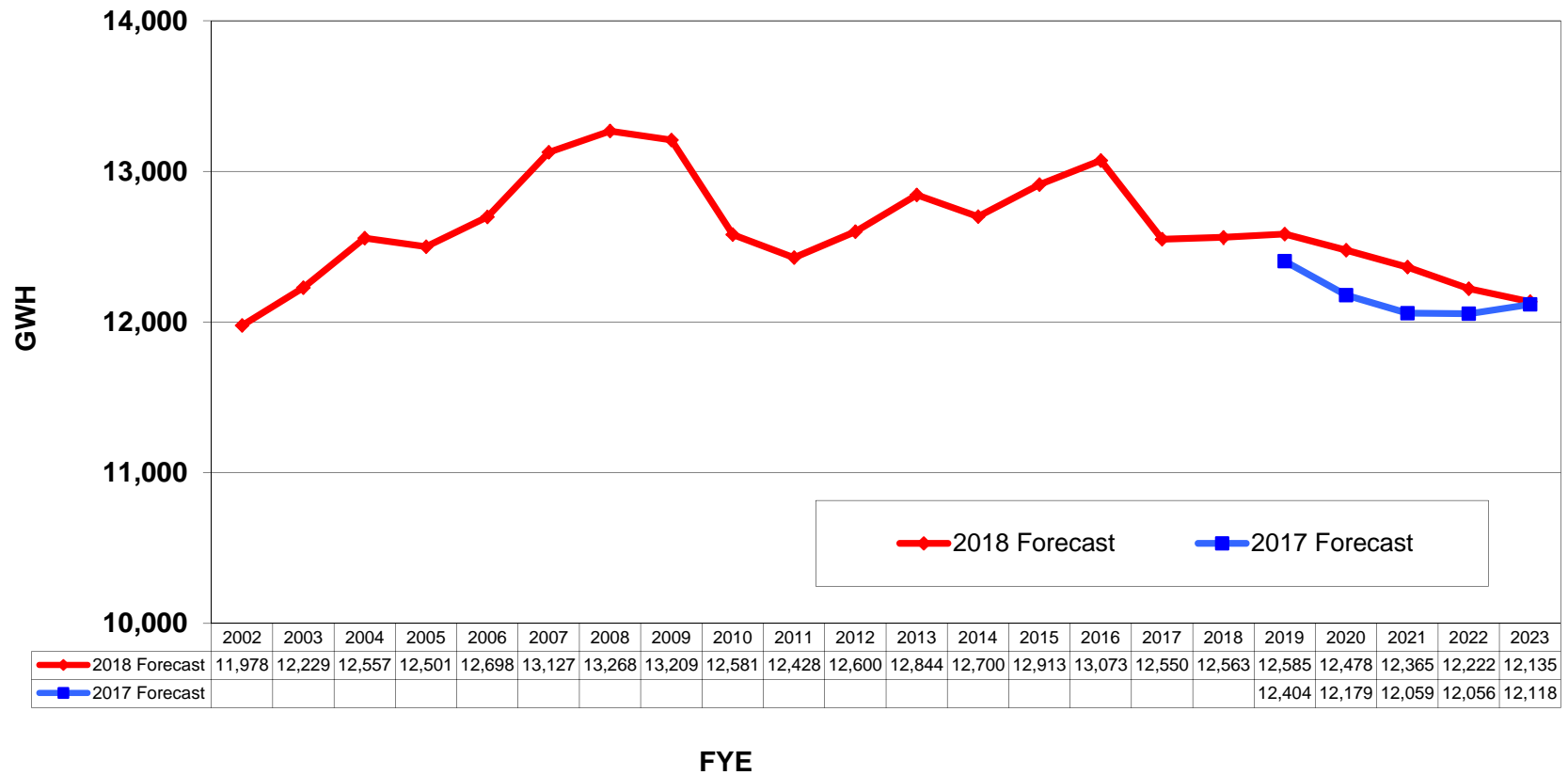
Real Personal Income:

- Change due to new fiscal policy proposed by the current Administration.
- Model sensitive to growth in Personal Income.



Commercial Sales

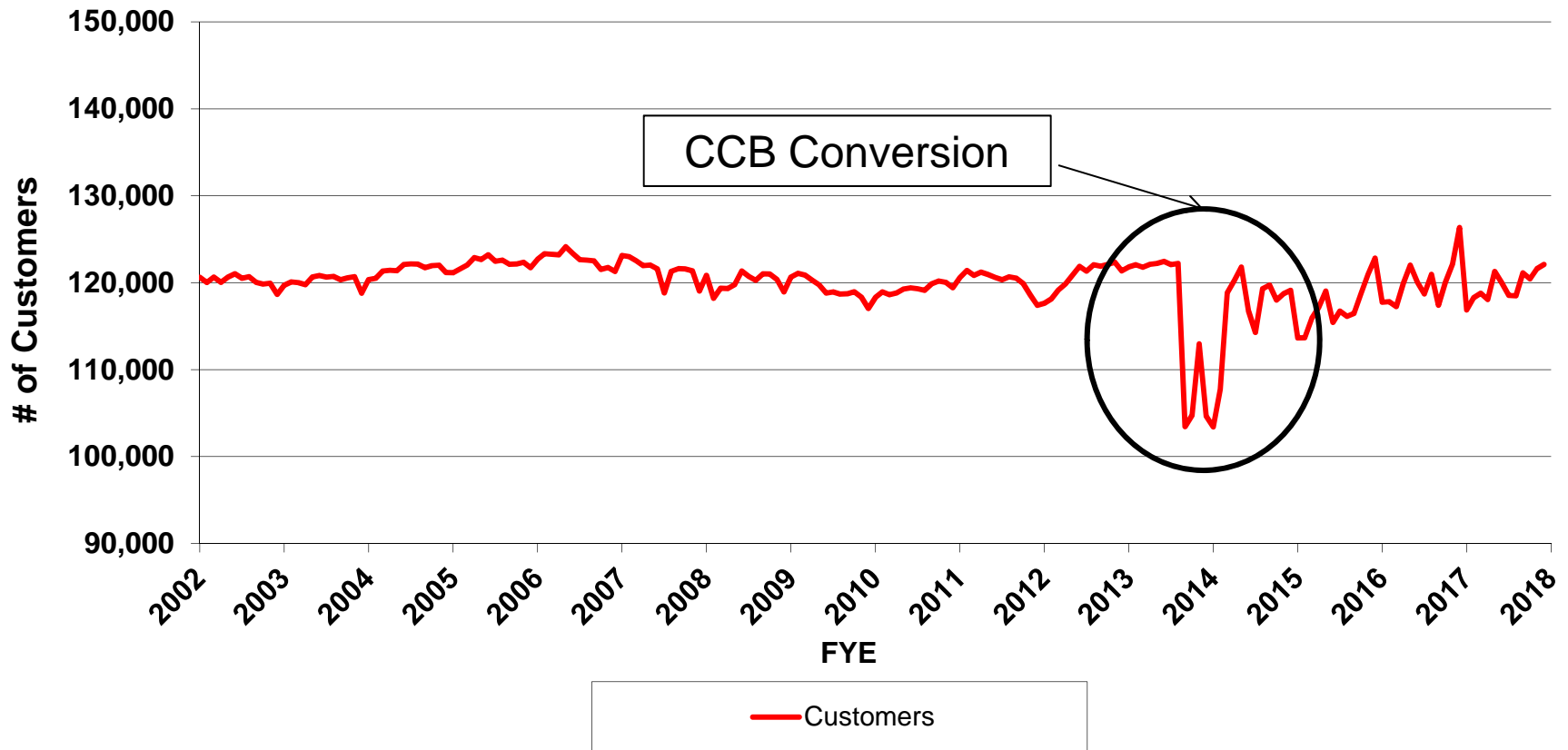
- Intradepartmental Sales included in Commercial due to CCB reclassification.
- Sectors experiencing positive growth: Education & Health, Professional Services, and Information.
- Open office trend means more employees per square foot.



Commercial Energy Sales

Commercial Customers Count

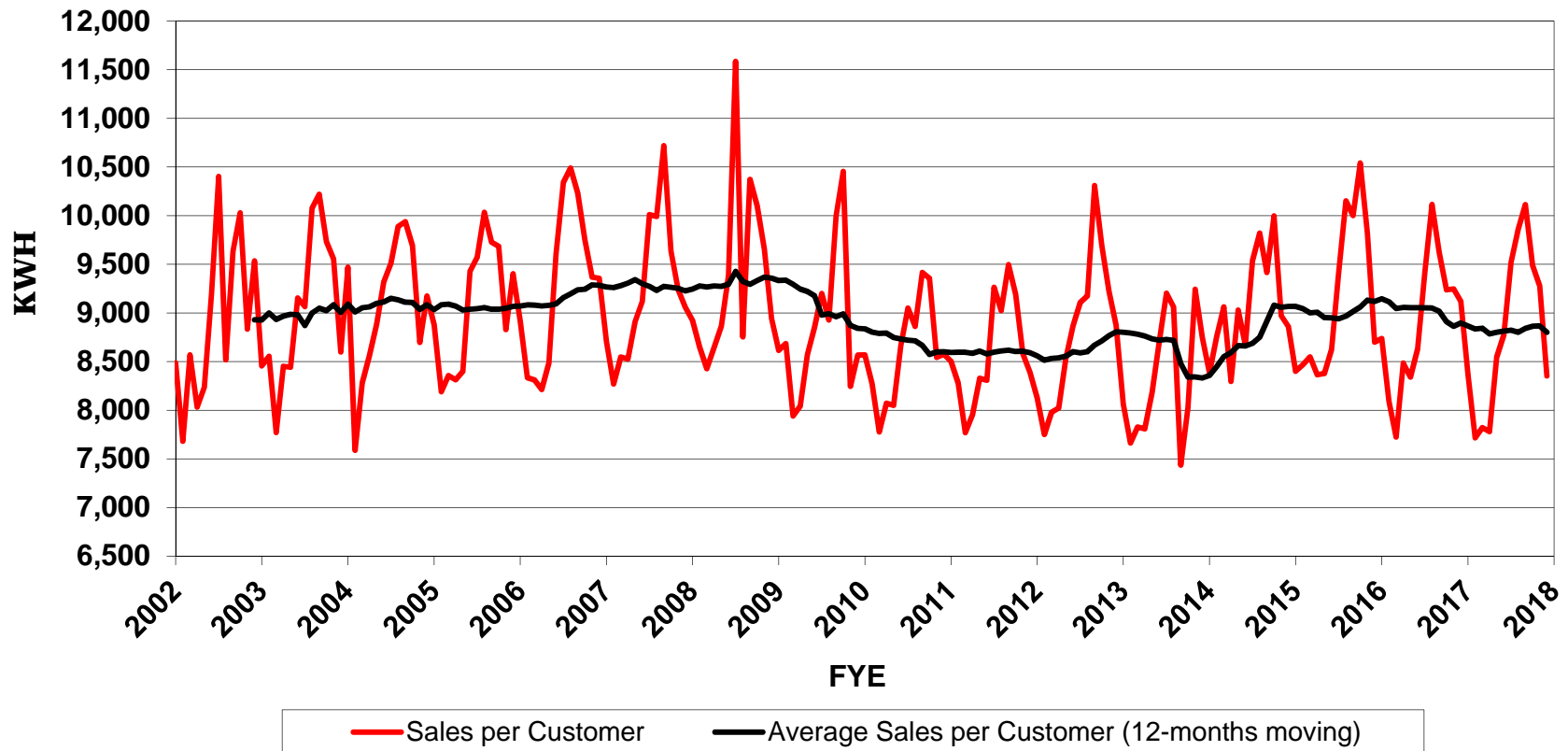
- Pre-CISCONN average ~124,000
- Last 12 months average is ~119,628



Commercial Energy Sales

Twelve-Month Moving Average Sales per Customer

- Moving average of sales per customer per month peaked in July 2008 at 9320 KWH per month.
- Currently sales per customer per month are 8802 KWH.

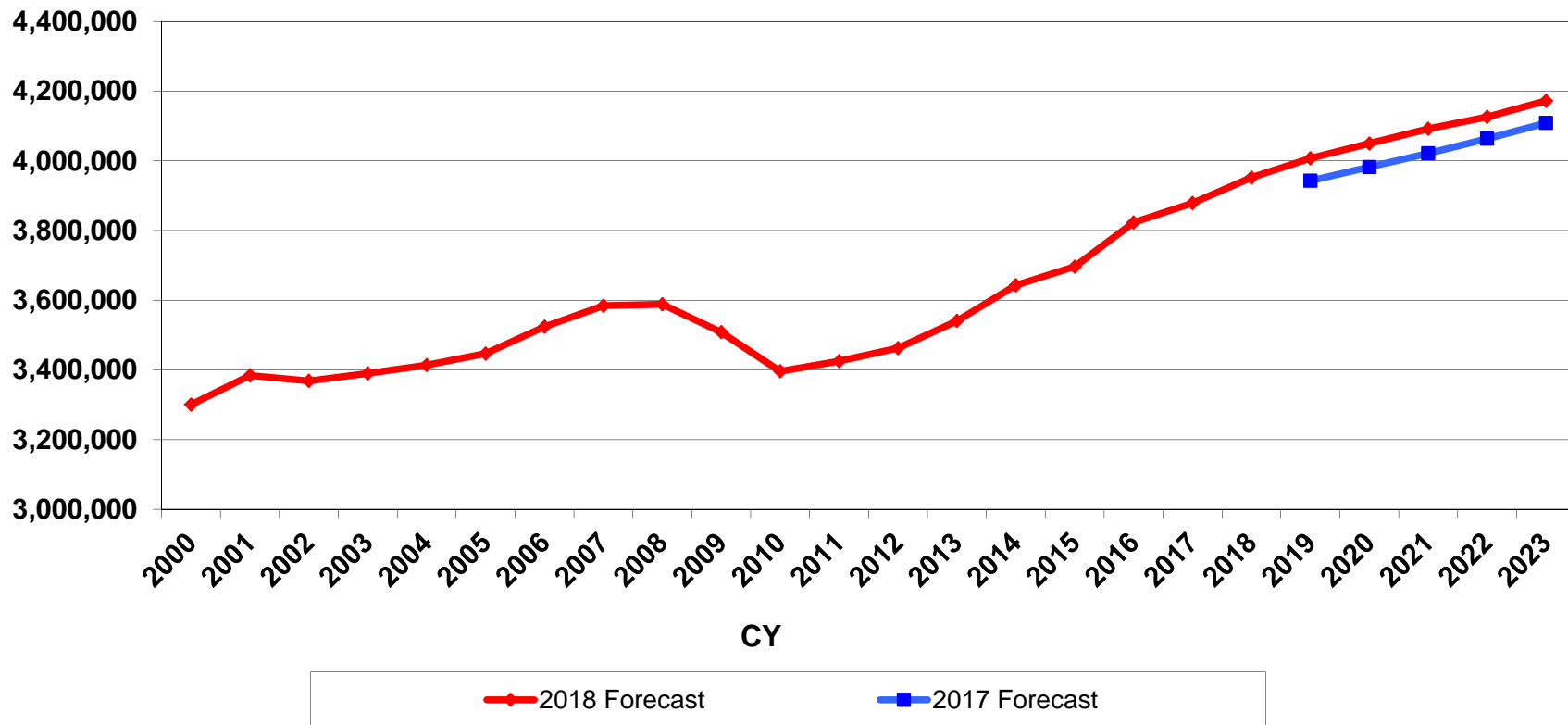


Commercial Energy Sales

Local Employment in Services Sector

LA County Commercial Services Employment

- Indexed to the March 2017 benchmark.
- Model sensitive to slopes of these curves.

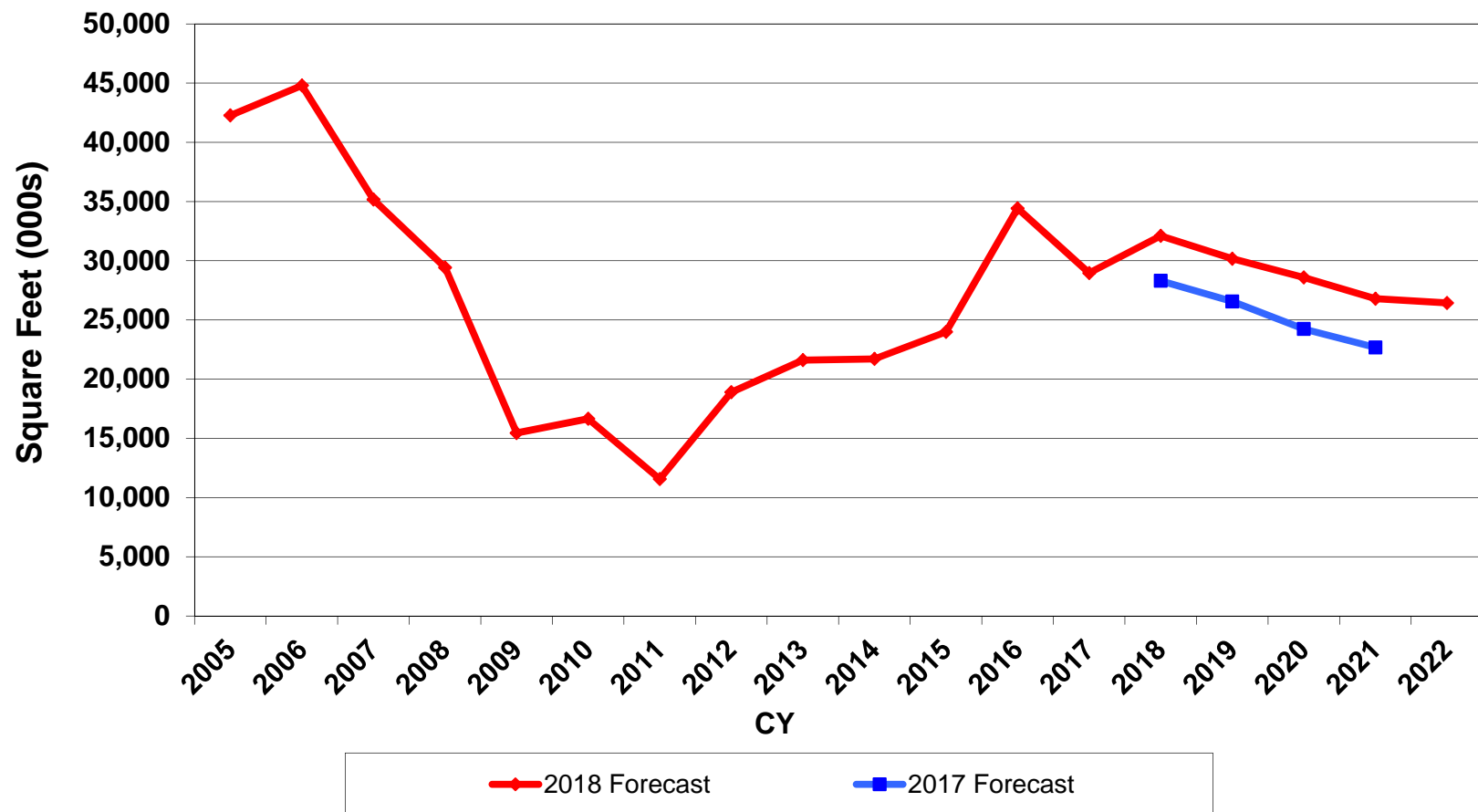


Commercial Energy Sales

Dodge Data & Analytics Forecast

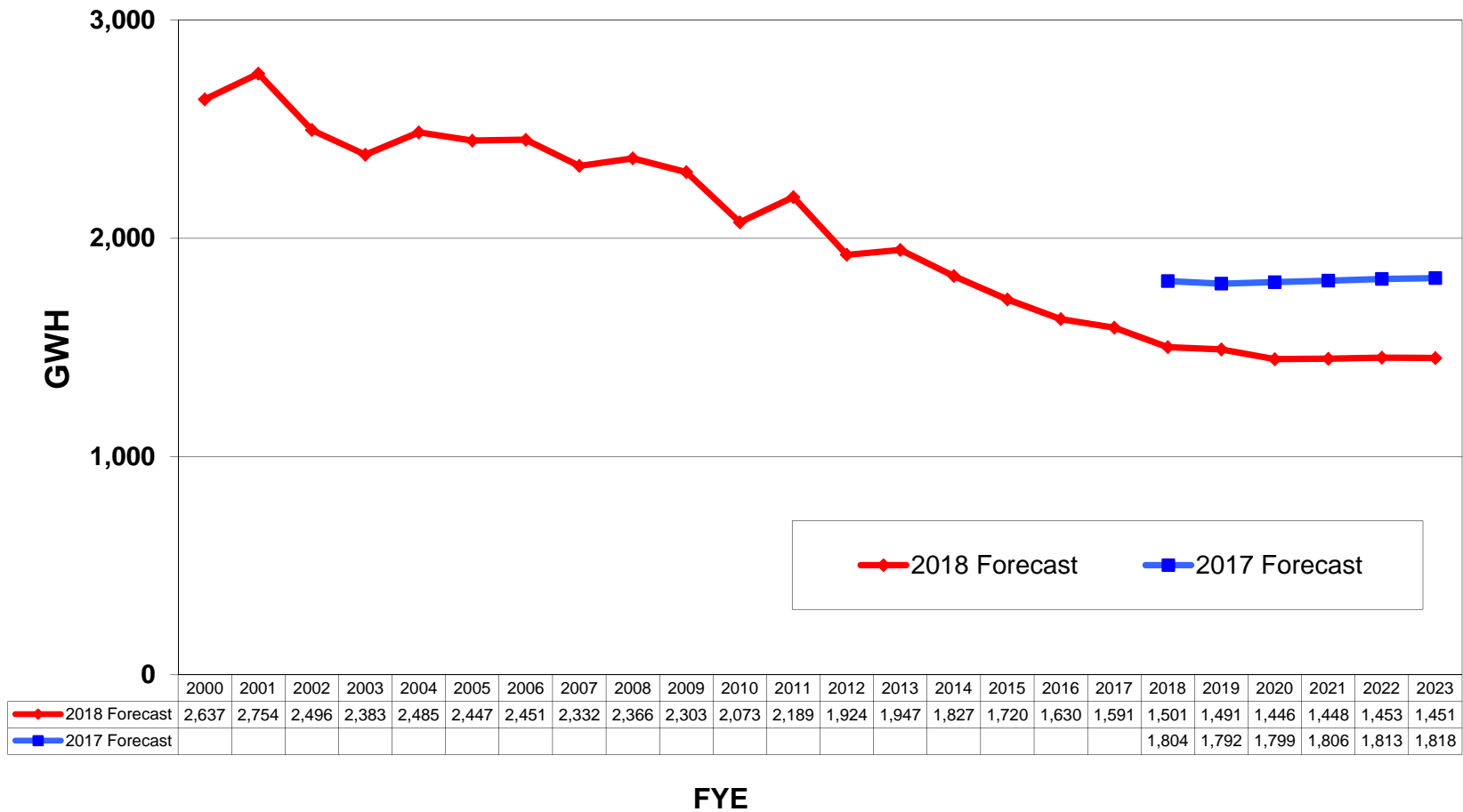
Commercial Floorspace Additions

- Model sensitive to floorspace square footage.



Industrial Sales

- No EE or rooftop solar in the Industrial Forecast. All EE and solar assigned to Residential, Commercial and Streetlight sectors.

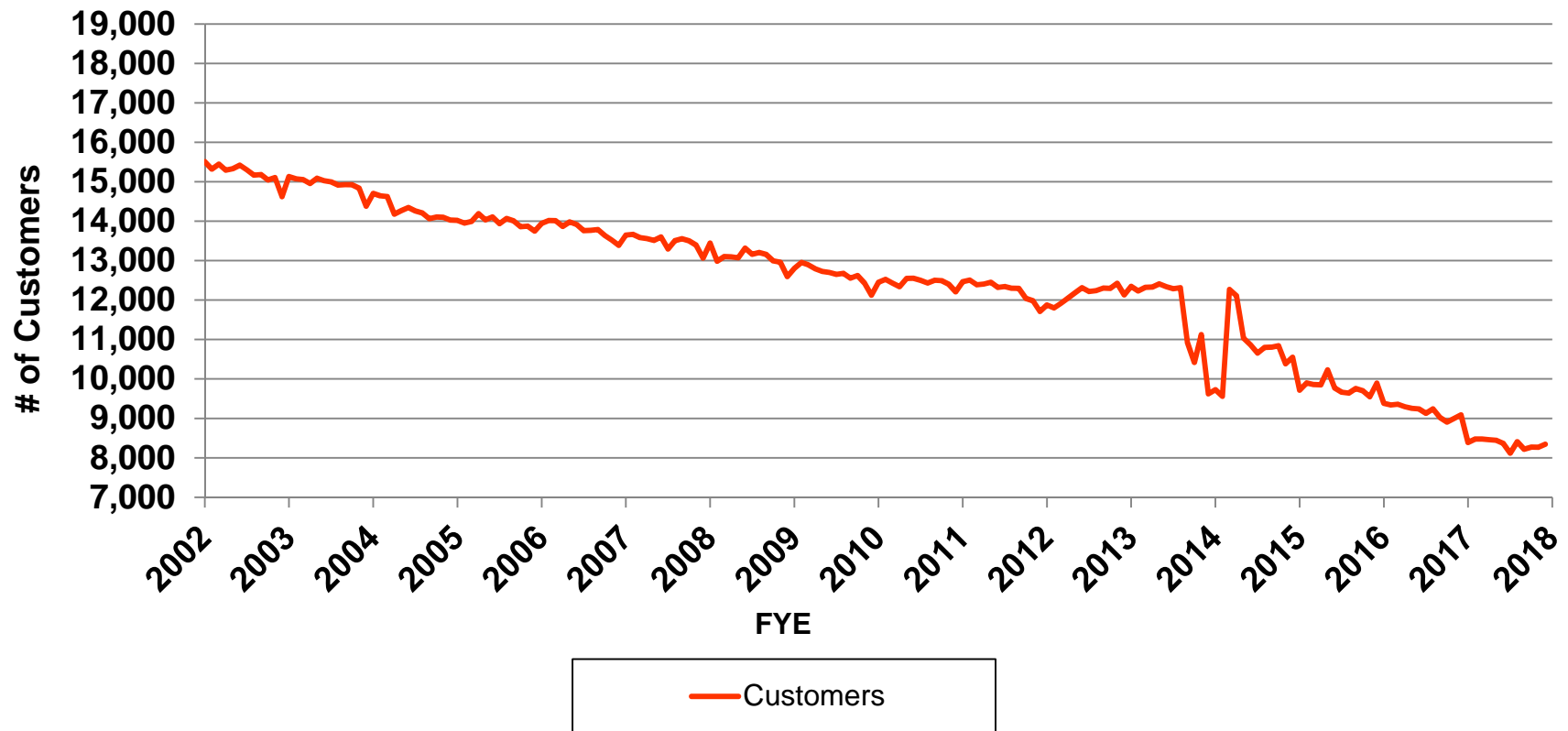


Industrial Energy Sales

Number of Customers

Recent Evidence

- The forecast is for the heavy process industries (refineries and breweries) to remain but no new heavy industry will emerge. Assembly industry customers and jobs are disappearing.

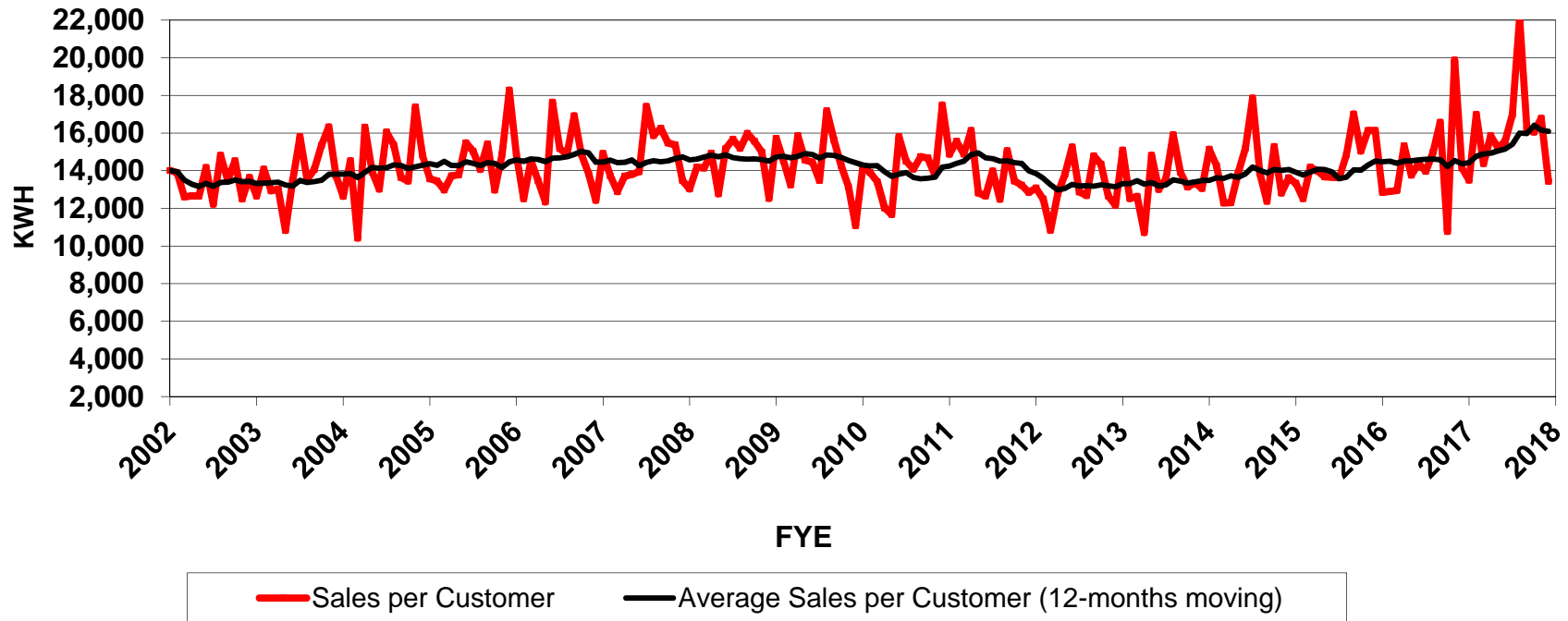


Industrial Sales

Twelve-Month Moving Average Sales per Customer

Recent Evidence

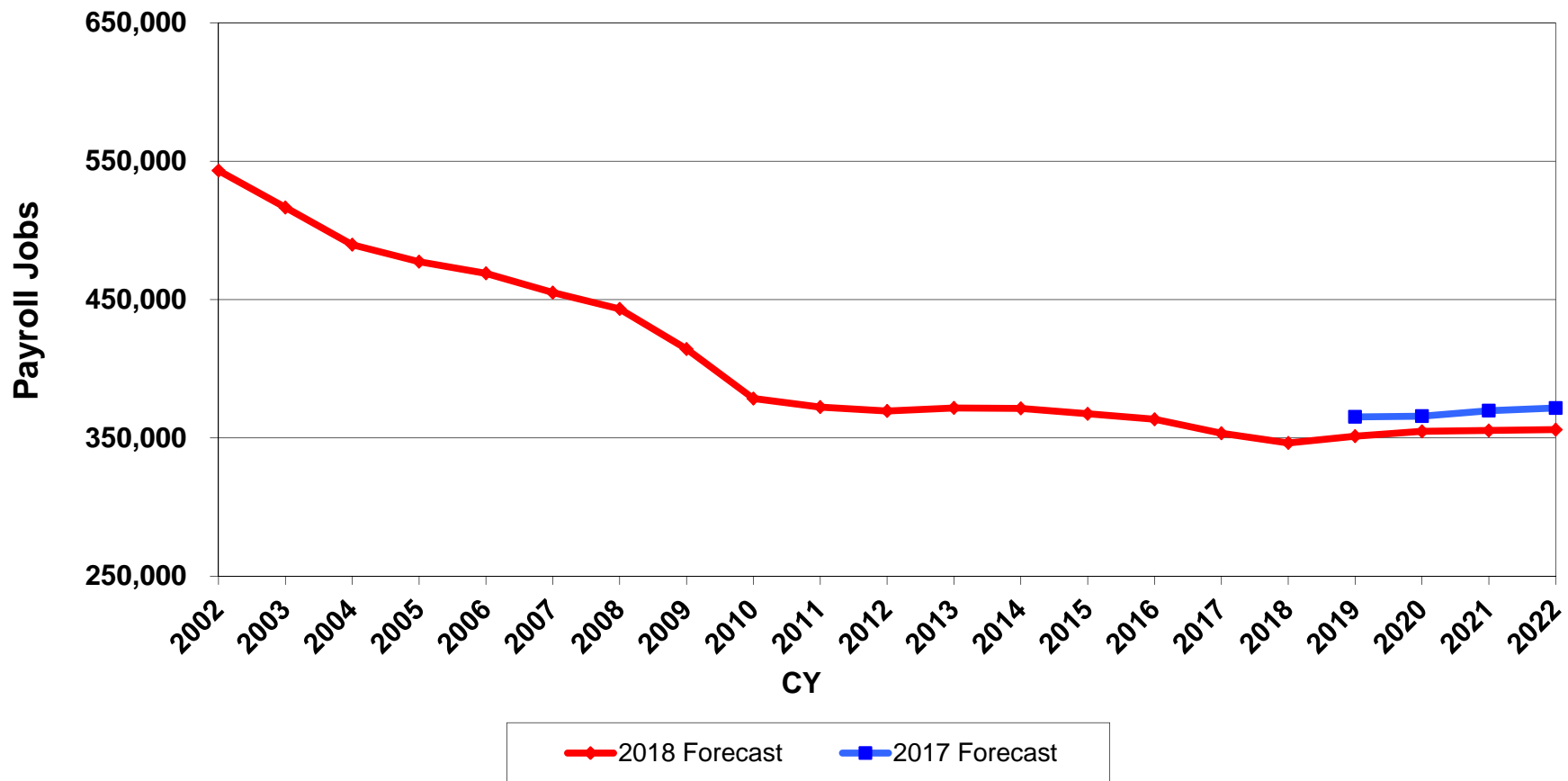
- Sales per customer per month peaked in October 2006 prior to recession at 15,026 KWH per month.
- Currently sales per customer per month are 16,095 KWH.



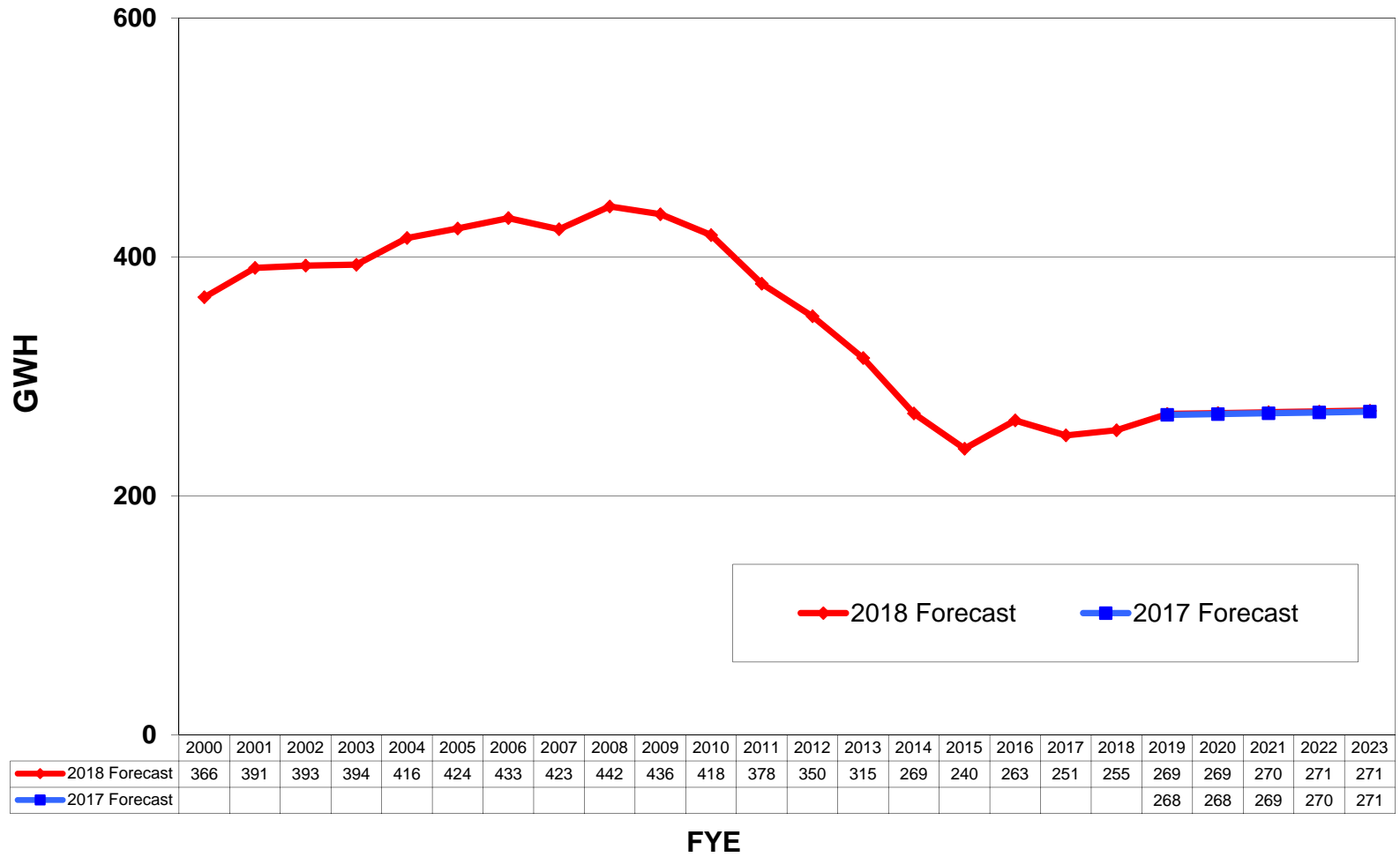
Industrial Sales Employment Outlook

LA County Manufacturing Employment

- Model sensitive to absolute number of jobs.



Miscellaneous Sales



Electric Vehicles Load Growth

- Using 2017 SLTRP EV forecast.
- Historical LADWP sales embedded in sector sales, forecast starts from 2018.
- EV charging is improving system utilization.

