

FUTURE ENERGY COSTS

AN IN-DEPTH LOOK AT PROJECTED FUTURE ENERGY COSTS FOR CALIFORNIA BUSINESSES, SO THEY CAN PLAN FOR THE FUTURE.





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HOW MUCH WILL YOU SPEND ON ELECTRICITY IN 5, 10, OR 20 YEARS?

Electricity prices will continue to rise, 95% of recently surveyed California business owners and operators agree. The question is how fast and how can businesses plan for this growing cost. Revel Energy traced back the average Commercial and Industrial energy costs back to 1990 and data shows an average of at least 3% year over year growth, this is a conservative estimate.

If you look at only IOU providers (i.e. SCE, SDG&E, and PG&E) the average is higher. For example, SDG&E commercial customers have suffered year over year growth of 4.7% recently. Considering our conservative average of 3% annual growth, businesses have a serious cost issue in need of attention.

Most California businesses will likely spend a total of \$2,000,000 (cumulative) or higher on electricity costs over the next two decades. High electricity bills lessen a business' competitiveness and ability to reinvest.



2011 - 2020 RISING ELECTRICITY RATES

How much will your business spend on electricity over the next 5, 10, 20 years? The table below offers an idea based on your average monthly electricity cost for 2020. Pick the column that is closest to your average monthly electricity bill for 2020. Keep in mind, summer months are much higher than winter months. For closest estimates use an average.

\$??,???	\$3,000	\$5,000	\$7,500	\$10,000	\$15,000	\$20,000	\$50,000
Month Total	</th <th><u> </u></th> <th>~~</th> <th></th> <th><</th> <th>~/</th> <th>~ ></th>	<u> </u>	~~		<	~/	~ >
2021	\$36,000	\$60,000	\$90,000	\$120,000	\$180,000	\$240,000	\$600,000
2022	\$37,080	\$61,800	\$92,700	\$123,600	\$185,400	\$247,200	\$618,000
2023	\$38,192	\$63,654	\$95,481	\$127,308	\$190,962	\$254,616	\$636,540
2024	\$39,338	\$65,564	\$98,345	\$131,127	\$196,691	\$262,254	\$655,636
2025	\$40,518	\$67,531	\$101,296	\$135,061	\$202,592	\$270,122	\$675,305
2026	\$41,734	\$69,556	\$104,335	\$139,113	\$208,669	\$278,226	\$695,564
2027	\$42,986	\$71,643	\$107,465	\$143,286	\$214,929	\$286,573	\$716,431
2028	\$44,275	\$73,792	\$110,689	\$147,585	\$221,377	\$295,170	\$737,924
2029	\$45,604	\$76,006	\$114,009	\$152,012	\$228,019	\$304,025	\$760,062
2030	\$46,972	\$78,286	\$117,430	\$156,573	\$234,859	\$313,146	\$782,864
2031	\$48,381	\$80,635	\$120,952	\$161,270	\$241,905	\$322,540	\$806,350
2032	\$49,832	\$83,054	\$124,581	\$166,108	\$249,162	\$332,216	\$830,540
2033	\$51,327	\$85,546	\$128,318	\$171,091	\$256,637	\$342,183	\$855,457
2034	\$52,867	\$88,112	\$132,168	\$176,224	\$264,336	\$352,448	\$881,120
2035	\$54,453	\$90,755	\$136,133	\$181,511	\$272,266	\$363,022	\$907,554
2036	\$56,087	\$93,478	\$140,217	\$186,956	\$280,434	\$373,912	\$934,780
2037	\$57,769	\$96,282	\$144,424	\$192,565	\$288,847	\$385,130	\$962,824
2038	\$59,503	\$99,171	\$148,756	\$198,342	\$297,513	\$396,683	\$991,709
2039	\$61,288	\$102,146	\$153,219	\$204,292	\$306,438	\$408,584	\$1,021,460
2040	\$63,126	\$105,210	\$157,816	\$210,421	\$315,631	\$420,841	\$1,052,104

This table is based on an average electricity rate cost growth of 3% annually for California C&I businesses





A CLOSER LOOK

A business that spends an average of \$10,000 a month in electricity today is projected to spend \$135,061 in 2025, \$156,573 in 2030 and \$210,421 in 2040. These costs are substantial and will severely affect operating expenses which already run high for California businesses.



CUMULATIVE ELECTRICITY COSTS YEAR-TO-YEAR



This business will spend over \$3,000,000 in electricity from 2021 to 2040. Even with inflation, this expense will be tough to recover. The money lost could have either added to net profit or reinvested in the business.

There are thousands of businesses like the one described above. How can California businesses manage these rising expenses?

CAUSE AND EFFECT

Why are electricity rates increasing? There are several factors at play here. For California IOU's, maintenance costs of an old, run-down grid continue to mount.

California's electrical infrastructure recently received a D- grade from the American Society of Civil Engineers (ASCE). The cost of this work is passed through to customers. Read more here about ASCE's report.

In 2018 California Governor Jerry Brown signed SB100 into effect. Under the bill, it mandates California energy must be at least 50% sourced through renewables by 2025. Further, the state must be 100% by 2045.

Some communities, like San Diego, have set higher goals of 100% in a much shorter timeframe. This is a large contributor to San Diego's record-breaking energy rates.

California not only has one of the highest electricity rates in the US, but it also has the most aggressive plan for going carbon natural.

This policy is in effect on both the state and local level. One of the ancillary effects is rising costs which force businesses to use less electricity, through energy saving technologies like LED Lights or supplementing with renewables.

SOLUTIONS

Renegotiate your electricity rates - check with your electricity provider to make sure you are paying on the best rate plan that fits your business needs. If your business has high demand charges perhaps switch to a plan that accommodates those factors.

Contact Revel Energy to learn more about your electricity bill and how solutions like commercial solar + storage might create substantial savings for your business.





Rével

UPGRADE TO ENERGY-SAVING LED LIGHTING

Upgrading your lighting to energy efficient LED bulbs is a fast and simple way to cut your electricity usage. Aside from the energy saving benefits, LED light bulbs last significantly longer than other types. This will greatly reduce your replacement frequency and costs.

USE COMMERCIAL SOLAR + ENERGY STORAGE TO SUPPLEMENT YOUR ELECTRICITY USAGE.

California is one of the most solar rich states in the US. This free source of electricity is being rapidly adopted by California businesses looking to lower their electricity costs and carbon footprint.

Businesses that use commercial solar also gain a competitive advantage over their competitors by lowering operating costs, thus improving margins or lowering the pricing of their goods and services.

CASE STUDY

Hokto Kinoko, a grower and producer of mushroom superfoods in California, utilizes a Revel Energy commercial solar installation to reduce energy costs by approximately 60%. One of many California businesses lowering energy costs and raising net income.

Researchers at Hokto Kinoko believe mushrooms are the ultimate superfood, packed with health benefits yet to be fully realized by the American public. Their state-of-the-art facility in San Marcos, CA, is used for production and research. Before Revel Energy installed a comprehensive commercial solar power system, the building uses over 2,710,000 kWh per year.





Hokto was spending a significant portion of operating costs on electrical usage and demand charges. Adding to expenses, the facility needed a new commercial roof. "They were consuming a lot of electricity," explains Martin Brix, Revel Energy VP of Solutions. "Solar power alone was not going to drastically lower their power bill." Brix determined there was a need to add an Energy Storage System to knock off peak demand charges.

A total of 2,960 360W monocrystalline solar panels and a 285 kW – 405kWh energy storage system were installed. Hokto will supplement their energy consumption from San Diego Gas & Electric with 60% renewable energy.

"They were essentially able to save a major portion of their power bill with this solution," Brix explained. "By taking advantage of the savings, 30% Federal Tax Credit and accelerated depreciation, they offset the cost of their new roof. Solar was the vehicle to offset a major expense... in this case, it was a new commercial roof."

ΗΟΚΤΟ ΚΙΝΟΚΟ COMPANY				
LOCATION:	SAN MARCOS, CA			
SYSTEM CAPACITY:	1.065 MW			
SYSTEM SIZE:	2,960 SOLAR PV MODULES			
SOLAR PANEL:	360W MONOCRYSTALLINE			
SOLAR OFFSET:	59.8% ENERGY SAVINGS			





FINANCING

Commercial solar and other renewable technologies are more affordable than ever. Installed solar costs have decreased on average 10% each year since 2001. With a 26% Federal Tax Credit, accelerated depreciation, bonus depreciation, and other incentives, investing in solar is a fraction of the upfront cost compared to 15 years ago.

For businesses that don't want to make an upfront investment, smart financing options are available.

PACE: Property Assessed Clean Energy financing is growing in popularity with more and more states offering the option. Commercial PACE is tied to the property and does not rely on the owner's creditworthiness. The transferability of PACE financing is enticing for an owner looking to sell. Payments generally transfer to new owners without issue. PACE financing and its payments are kept off the balance sheet. This is nice especially for property owners looking to borrow more money for other investments.

PPA: Power Purchase Agreement where a 3rd party, such as a financing company, purchases and constructs the system. This developer then sells the power back to the facility at a fixed, discounted rate.

Self-Financing: Another option for the right borrower. Owners with strong financials self-finance through bank backed debt.

Ownership Program: Also known as "lease-to-own" this bank financing alternative conserves more cash while obtaining similar after-tax cost of ownership. Using a traditional equipment operating lease, this 7-year path to ownership lease doesn't accumulate interest and the monthly payments are 100% tax deductible as a rental expense.

Owners with strong banking history may have more options for financing with more attractive terms.

Financing is a great option for companies that wish to not layout capital. Consulting a financing professional is highly recommended.

INCENTIVES

The Solar Investment Tax Credit (ITC) is the most well known incentive for solar investors. For 2021, businesses that invest in solar earn a 26% tax credit based on the gross price of their system. This dollar-for-dollar tax credit soon faces a step-down schedule that reduces the overall value of the credit.



State and Federal bonus depreciation is an incentive that allows purchaser to deduct the depreciation of the unit over 5.5 years. Federal depreciation offers either a one-time Depreciation or schedule over 5.5 years. State offers a net depreciation over 5.5 years.

The Self-Generation Incentive Program (SGIP) provides incentives to support existing, new, and emerging distributed energy resources, but is most commonly used on energy storage systems. However, available rebates for qualifying distributed energy systems installed on the customer's side of the utility meter are limited.

The decision to go solar is a big move for California businesses. The cost saving technology increases cash flow while providing a competitive advantage. Investing in solar is heavily dependent on incentives and programs to make payback periods as short as possible (often between 2-5 years).

Businesses that wait lose out on valuable dollars paying for electricity that could be free. They also extend their payback period due to pending reductions in incentives and frankly every month without solar is one more month added to payback periods.





CASE STUDIES

CARAN PRECISION Brea, CA

967.75 kW roof-mounted solar PV system 250 kW / 548 kWh energy storage system 2,500+ solar PV modules Estimated 25 year savings: ~\$10 million Estimated electricity offset: 94%



K&M VISSER DAIRY Pixley, CA

771 kW system
2,000+ solar PV modules
Estimated 25 year savings: ~\$8 million
Estimated electricity offset: 97%





CORPORATE BUSINESS PARK Irvine, CA

335.16 kW system
931 solar PV modules
Estimated 25 year savings: ~\$2.4 million
Estimated electricity offset: 21%



LONG LIFE FARMS Thermal, CA

897 kW roof-mounted solar PV system
2,400+ solar PV modules
Estimated 25 year savings: ~\$6 million
Estimated electricity offset: 70%





COMMERCIAL SOLAR + STORAGE

Commercial solar + storage is more affordable than ever. With the Solar Investment Tax Credit, Bonus Depreciation and other local incentives, businesses can expect an ROI on their renewable technology as fast as 2 years (in some cases).

In most cases, commercial solar alone will drastically lower energy bills. If a business often experiences a spike in energy demand, like in the graph below, energy storage systems can significantly increase savings by offsetting demand during peak events.



This graph illustrates a business that experiences spikes in energy usage each day. Energy storage shaves that demand, lowering demand charges. A thorough energy audit by Revel Energy would uncover a business's energy profile.

CONCLUSION

Electricity costs will continue to rise into the foreseeable future. How California businesses adapt, will play heavy on their future success. Businesses that plan now for the future position themselves for greater savings creating higher profits.

For businesses that receive electricity from SDG&E, SCE or PG&E the need to act is much greater. IOU's are expected to incur significant maintenance costs for their dilapidated grid. These costs will more than certain be passed on to their customers. Businesses can take the first step towards lowering these costs by contacting a commercial energy expert, like Revel Energy. A brief consultation can unearth several options for lowing costs and usage.



ABOUT REVEL ENERGY

Revel is on a mission. Dedicated to renewable energy solutions since 2009, Revel Energy was formed to provide Commercial, Industrial and Agricultural businesses with alternative energy beyond solar. Revel stands out from the competition by paying attention to what makes good business sense to each individual client, implementing a wider range of technologies to free up capital and make businesses sustainable and more profitable.

Learn how much your business could save, contact a Revel Energy specialist today!



EPC & Project Developer CSLB #1038433

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PROTECT YOUR BUSINESS AGAINST RISING ENERGY COSTS



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