

A Summary of:

Hedging Against Utility Rate Fluctuations with a Solar PPA: A Tioga Energy Report

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1. **Summary.** The costs of electricity from solar power purchase agreements (PPA) are most often lower than probable future utility electricity rates. This study uses thirty years of California utility rates to predict future electricity rates and then compare those rates to a comparable PPA.
 2. **Solar PPAs.** Under a PPA, customers pay only for the electricity generated by the solar system on their property. The system's design, installation and maintenance are paid for by a power provider. A PPA is typically a 15- to 25-year service contract. An annual PPA rate increase is called an *escalator*.
 3. **California.** The costs of electricity in California have risen steadily since 1970. Since coal- and nuclear-powered electricity plants have been halted by legislation, the cost of electricity is driven primarily by the cost of natural gas. Dependence on natural gas has both increased its price and decreased its availability. Investor Owned Utilities are not price sensitive: when the cost of producing electricity rises, the utility passes along the cost to the consumer in the form of rate increases. Carbon legislation will soon make natural gas – which emits 56% as much carbon as coal – more expensive. Building new plants and transmission lines has become more costly and now takes longer.
 4. **Rate increases.** Between 1970 and 2004, electricity costs in California grew at a compound annual growth rate (CAGR) of 6.8%. Legislative changes in 2000-2001 led to a spike in electricity prices. Price increases for investor owned utilities serving large businesses were even higher, with a CAGR of 7.2%. In three cases, electricity rates increased by more than 40% in a single year.
 5. **Modeling the future.** Tioga's model predicts a 25% chance of electricity prices rising less than 4.8%, a 50% chance of prices rising 4.8 to 8.7%, and a 25% chance of prices rising 8.7% or more. A PPA negotiated at today's rates would then have the same savings: a 25% chance of saving 4.8%, a 50% chance of saving 4.8 to 8.7%, and a 25% chance of saving 8.7% or more on the cost of electricity. If the PPA agreement included a 5.5% escalator, the customer would still have a 65% chance of saving money.
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McBreen eNote: Weak. PPAs may be the best option for many businesses, but this flawed report is not compelling enough to demonstrate that fact. The study is incomplete and selective: (1) The California data cannot be extrapolated to other states, (2) Price history charts do not state if they have been adjusted for inflation, (3) The possibility of lower utility costs was not examined, and (4) PPA options were not examined – only the fixed 5.5% escalator was discussed. Any company contemplating a PPA would do far more due diligence than this report represents.