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# Review of CCA Business Plan

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- William B. Marcus
  - Principal Economist, JBS Energy, Inc.
  - 30 years of energy experience
  - Clients largely comprised of consumers, environmental groups, and government agencies
  - Largest clients are TURN, UCAN, Attorneys General of Arkansas and Nevada

# Overall Review of Navigant Report

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- PG&E rate projections appear generally reasonable – based on more detailed study previously done by Navigant.
- Expectation of higher rates for renewable power built into the report.
- Renewable ownership using tax-exempt financing likely to be beneficial in long term.
- Several minor clarifications are needed to business plan regarding customer deposits and exit fees.
- Risk assessment

# Risks

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- The big risk is gas prices.
- Marin would indeed be taking a risk that the CCA won't be a good deal if natural gas ends up 14% cheaper in 2020 than it is today and cheaper in 2018 than in 2011, as PG&E claims.
- Gas futures today about 7% above PG&E estimates in 2011-12 and 12-20% above 2013-2020 estimates.
- Recent gas industry dynamics suggest that at prices below \$6 (2007 \$) exploration is curtailed.
- Hydro affects PG&E costs +/- 6% from dry or wet to average years.

# PG&E Generation Rates

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- PG&E claims that its generation rates have only increased by 1 to 2 percent per year.
- If PG&E's generation rates have increased only 1-2% then why does it seem that PG&E's rates increased so much more?
- Answer: Look at the start date in PG&E's analysis—1998. PG&E can claim that its generation costs have not risen much since 1998 only because its costs were already unusually high in 1998.
- In 1998, PG&E had accelerated depreciation for Diablo Canyon (which stopped in 2000) and expensive Qualifying Facility contracts (with automatic cost reductions in 1999-2001). These non-recurring cost reductions offset other price increases.

# PG&E's Generation Rates: The Future

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- Likely to rise significantly unless, of course, gas prices fall.
- CDWR Calpine contract renegotiation will cost PG&E \$200 million (net) this year alone, according to PG&E's CPUC pleadings.
- New expensive powerplants replacing CDWR purchases and aging generators.
- Same factors that PG&E alleges are raising Marin's renewable costs are also raising PG&E's costs of renewables and conventional powerplants.
- PG&E is buying renewables – Marin is proposing to build them and lock in costs for long term.

# PG&E Generation Rates – But Aren't Nuclear and Hydro Cheap?

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- YES, BUT GETTING MORE EXPENSIVE
- Over \$1 billion in capital investments at Diablo Canyon from 2007-2012.
- Nuclear O&M has been rising in real terms and rising uranium prices will greatly increase cost of future nuclear fuel.
- Significant escalation in operating and capital costs of hydro facilities is occurring.
- The elephant under the rug for 2020 – future new nuclear plants built or bought by PG&E.

# Rate Design

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- Residential tiered rates not a real issue – whether tiers include generation or not has impact of \$1/MWh.
- Rate Reallocation to raise residential rates likely in 2011. Would raise PG&E generation costs to Marin with its larger proportion of residential load.
- Advanced Metering Risk
  - PG&E may offer subsidized critical peak pricing rates that CCA can't match.
- Advanced Metering Opportunity
  - Residential loads no longer tied to system-wide load profile but tied to Marin's own use.

# Greenhouse Gases

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- PG&E Uses Inconsistent Calculation Methods, Improperly Making the CCA Look Bad
  - System approach to calculating GHG avoided by CCA incorrectly assumes that if CCA is adopted, PG&E will turn off its cheapest hydro and nuclear plants along with natural gas and other power purchases.
  - We know that PG&E won't REALLY spill water at its hydro plants or turn down Diablo because of the Marin CCA.
  - Correctly (but inconsistently) assumes that its (or the CCA's) Energy Efficiency programs entirely reduce fossil fuel use