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October 15, 2008

Ms. Peggy Curran
Town Manager
Town of Tiburon
1505 Tiburon Boulevard
Tiburon, CA 94920

Subject: Community Choice Aggregation Review

Dear Peggy:

As requested by the Towns and Cities in Marin County, MRW & Associates Inc. (MRW) has reviewed the “Marin-California Community Choice Aggregation Businesses Plan” (Business Plan) prepared by Navigant Consulting, dated April 2008. Overall, we found no fatal flaws in the Business Plan. It creatively proposes a workable path to providing green power to those in Marin who want it while offering rates comparability and predictability to those who need it. Nonetheless, we found one gap that we believe should be addressed before the communities make a final, binding decision commitment to the CCA: the lack of a quantitative risk analysis and a plan to address issues that arise from that analysis. In this letter, we discuss our rationale for recommending the risk assessment, comment on some of PG&E’s criticisms of the Business Plan, as well as point out a number of relatively minor clarifications that we feel would enhance the Business Plan.

In performing this review, we considered the following documents:

- “Marin-California Community Choice Aggregation Businesses Plan” prepared by Navigant Consulting, dated April 2008 (Business Plan);
- “January 2008 Draft CCA Business Plan for the Marin Communities Assumptions Underlying Projected Operating Results,” (Assumption Sheet);
- “Review of the Business Plan for the Marin County Community Choice Aggregation Program,” prepared by William B. Marcus, dated February 29, 2008 (Marcus February 29 review);
- PG&E’s Comments on January 2008 Marin CCA Business Plan, dated March 5, 2008 (PG&E Comments);

- “Review of PG&E’s March 5, 2008 Comments on the Business Plan for the Marin County Community Choice Aggregation Program,” prepared by William B. Marcus, dated March 31, 2008 (Marcus Response to PG&E); and
- “Community Choice Aggregation Update and Risk Analysis,” a presentation by Navigant Consulting prepared For Marin County, May 16, 2006

We also had telephone conversations and/or e-mail exchanges with you, Tim Rosenfeld, and John Dalessi of Navigant Consulting, Inc. to obtain clarification of certain aspects of the Business Plan.

We found that the key underlying assumptions made in the Business Plan (e.g., opt-outs, PG&E rates, renewable costs, gas prices, other procurement costs such as firming-up wind power) fall within expected ranges. But the Business Plan does not explore the financial outcomes under sets of other equally reasonable estimates for those values. Forecasts for these variables are better expressed in ranges with probabilities of occurrence. Both the Marcus February 29 review and the PG&E Comments point this out, with PG&E proffering alternative assumptions that, by its calculations, result in CCA costs exceeding PG&E’s retail generation costs. While many of the assumptions used by PG&E may be construed as self-serving, it illustrates the point that different assumptions can lead to a radically different outcome.

Prior to the first draft of a Marin CCA business plan, Navigant Consulting conducted a Monte Carlo risk assessment for a hypothetical Marin CCA, which was summarized in a presentation dated May 16, 2006. While that risk assessment assumed a different buying strategy than the Business Plan and was based on now-outdated costs, it illustrates the kind of analysis that is needed to evaluate the Business Plan.

The minimum key elements that should be included in such a risk assessment include:

- Natural gas and wholesale power costs
- Nature of “fixed” bids from third party provider, including the premium above spot power prices required to obtain a fixed price, full requirements contract with the creditworthy third party provider bearing all customer attrition risk.
- Cost and performance of the renewable power developed by the CCA in the fifth year
- Customer-opt out assumptions
- Customer migration between the 100% Green and the Light Green options.

It is important that the risk assessment treat PG&E rates, the CCA Cost Responsibility Surcharge (CRS, or exit fee) and CCA procurement costs as interrelated; all three all linked to underlying wholesale power costs, natural gas prices and the cost of renewable energy, including renewable energy credits. For example, low wholesale power costs will not only reduce the cost of PG&E power, it will increase the CCA CRS. If one does not acknowledge that the CCA CRS and wholesale market prices are inversely related, then the risk assessment may miss important feedbacks and understate risks faced by customers. It is our understanding from conversations with Tim Rosenfeld and staff at Navigant that the 2006 risk assessment included the links between these key factors.

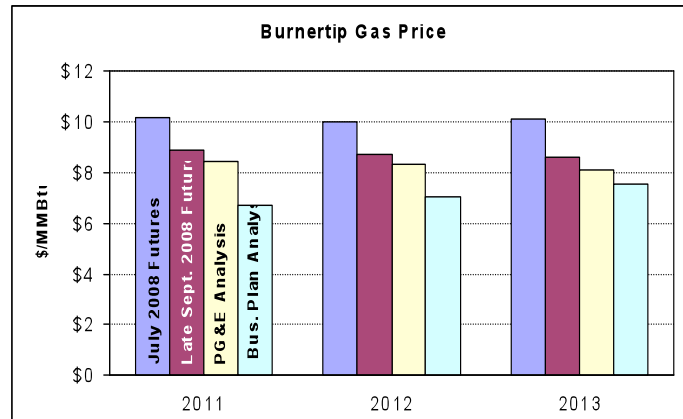
Along those same lines, it will be important to ensure that the quantitative risk assessment properly characterizes the assumed linkage (or lack of linkage) between the CCA's retail rates and underlying market costs. It is our understanding that one option being considered for the Light Green rate option is to provide power at a rate that is discounted relative to comparable service from PG&E and then to escalate the rate at a fixed rate. If this is the case, then the Light Green rate option will not reflect future changes in natural gas or power prices. The quantitative risk assessment should reflect whatever rate design the CCA plans to pursue.

With respect to specific issues raised in the PG&E Comments, we find some to be valid while others are not. The concerns raised by PG&E that we feel should be considered are:

- **Resource assumptions.** PG&E's points out that the Plan may not have included the full cost of generation, (e.g., resource adequacy, ancillary services, renewable interconnection costs, etc.). We note that the Assumption Sheet accompanying the January 2008 draft of the Business Plan included assumed values for these variables. For that reason, we assume that the Plan reflected those factors.
- **Renewable assumptions.** PG&E argues that the renewable cost and performance assumptions presented in the plan are wrong, or at least overly optimistic. Based on our familiarity with the cost and operational characteristics of renewable resources considered in the Business Plan, we find that, while the Business Plan's assumptions are perhaps optimistic (e.g., biomass power available at \$65-80/MWh), PG&E's suggested alternative costs are at the high end of the published spectrum of renewable power costs while PG&E's performance assumptions for those resources are the low end.¹ We further note that there are two countervailing trends in renewable costs, particularly for wind turbines: market demand and materials costs are keeping installed costs high, to the point they have increased significantly since 2006, while manufacturing economies of scale and competition among providers is exerting downward pressure. We cannot tell which of these factors will dominate over the next five years, further illustrating the need of the risk analysis.
- **Gas prices.** PG&E argues that the gas prices used in the Business Plan are wrong while the Marcus Response to PG&E argues that PG&E's gas price forecast is low compared to the (at the time) current NYEMX futures prices. It is our understanding from Navigant that the April 2008 Business Plan used a gas price forecast that is lower than that assumed in PG&E's review.² In the past year the futures prices for gas delivered in 2009 and beyond has swung by over \$5/MMBtu. The following figure presents the variability of forecasted burnertip gas prices for 2011-2013 over the past 9 months.

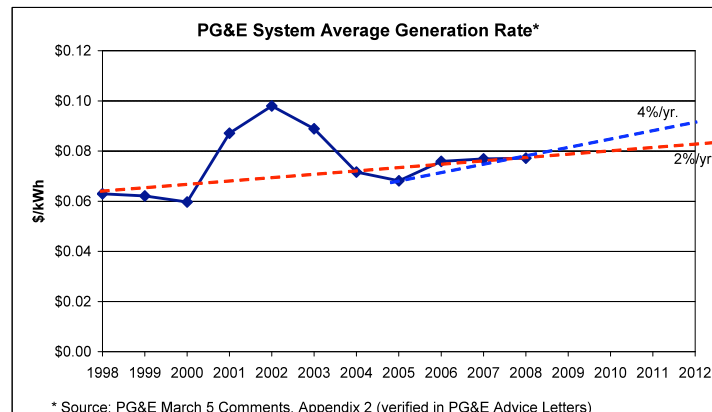
¹ For example, it is doubtful that a developer would even install a wind turbine with the capacity factor recommended by PG&E (23%).

² Burnertip gas prices (i.e., the price paid by the end user, including all commodity and gas transportation charges) were not included in the Business Plan. Rather, MRW received these from John Dalessi of Navigant Consulting, Inc.



As can be seen, burnertip gas prices assumed in the Business Plan are significantly lower than the other data series, showing that the Business Plan used conservative gas prices. However, this does not obviate the need for a more structured risk assessment. The point is not that PG&E's or the Business Plan's gas prices are right or wrong, but that gas price volatility (and its impact on wholesale power prices, PG&E's generation rates, and exit fees that customers of the CCA will have to pay when they join the CCA) must be acknowledged and addressed in future CCA planning materials.

- PG&E retail rate escalation.** The rate at which rates have, on average, escalated "over the past few years" is highly dependent upon the period over which one is looking and, as pointed out by Marcus, what factors are included in the generation rate. Using PG&E's data, over the past 10 years, from 1998 to 2008, rates have escalated on average at 2% annually, while over the past 3 years (2005-2008) the escalation rate is 4%. As the following figure shows, generation rates have been volatile, and a single simple historical escalation rate is insufficient to capture the whole story. This is particularly true with such new factors as RPS and greenhouse gas compliance issues not reflected in the historical trends. This volatility supports the need for the risk assessment recommended above.



- **Cost of Renewable Energy Purchases.** On a smaller matter, PG&E questions whether the CCA would be able to purchase renewable power at cost from tax-exempt publicly owned utilities (POUs), hence capturing the benefit of tax-free financing. While the Marcus Response to PG&E accurately points out that POUs, given their tax-free status, are limited as to how much power they can sell to for-profit entities, we doubt that a POU with excess renewable power would not want to maximize the benefit of the renewable asset on behalf of its ratepayers. As such, we find the assumption that the CCA could acquire renewable power at cost from a POU to be questionable unless the CCA had a financial stake in the POU's development of the renewable resources. Follow-up conversations with Tim Rosenfeld and the final Business Plan suggest this latter option—partnering with POUs early in the development process—was what was envisioned for the CCA.
- **CCA CRS.** As noted by PG&E, the Business Plan includes a discussion of the CCA CRS, but does not consider what it might be under adverse conditions (e.g., low wholesale prices). This should be addressed in future planning documents.
- **Opt out uncertainty.** PG&E questions the CCA opt-out rates assumed in the Business Plan, particularly for medium and larger customers. There are no California precedents for a CCA opt-out rates. Furthermore, given Marin's unique marketing plan, which emphasizes green power elements over offering discounted electric pricing, the national precedents for CCA opt-outs—Ohio and Massachusetts—are of limited usefulness. Therefore the sensitivity of the financial viability of the CCA must be explored with respect to large-scale opt outs, particularly for the larger customers, in future planning documents.
- **Termination Charges.** The Business Plan calls for a Cost Recovery Charge (CRC) to be paid by CCA customers who, after the opt-out period has ended, elect to take service from PG&E or via direct access. We agree with PG&E that this CRC was not well explained in the Business Plan. We recommend that future planning documents provide a more in-depth discussion of this issue, and perhaps even quantitatively bracket possible Termination Charges. An unknown, vaguely described termination charge adds unneeded uncertainty for price-sensitive customers.

Finally, we note several other areas in the Business Plan that could benefit from clarification:

- **The expected pricing for Light Green power.** We understand from Tim Rosenfeld that initially the pricing for this product is expected to be at or below PG&E's generation rate and will escalate with a fixed escalator. This should be made clear in the future CCA planning documents, since this is not the same as rate parity with PG&E's generation rate (which is implied in the Business Plan);
- **Clarify the meaning of "100% Green" product.** The Business Plan's description of "100% Green" power conforms to industry standards for green power: that the correct

number of green-generated kilowatt-hours (or RECs) have been purchased or generated by the CCA to cover the green kilowatt-hours sold. However, that may not necessarily be clear to CCA participants selecting the 100% Green option (i.e., that the CCA will require some amount of fossil-fired generation (for ancillary services, system balancing, and resource adequacy) but on an accounting basis, the CCA will have produced or purchased renewable power to fully cover the 100% green customer's energy use).

- **Customer risk associated with the Transition Charge.** As discussed above, this aspect of the CCA operation needs to be more clearly defined and even quantified. Future planning documents should address the CCA's position regarding the potential for customers to face a Transition Charge if they were to install onsite generation.³
- **“Switching” rules regarding migration between the 100% Green and Light Green rate options.** It is not clear whether such migration will be allowed and, if it is, under what conditions. This should be clarified in future CCA planning documents.
- **Date of financial closing for MCE-owned renewable generation.** We note a minor typo on page 71, which states that the closing date is late 2010. The correct anticipated closing date in the Business Plan is late 2011.

Any new business must plan not only a pathway to success, but also have a thorough understanding of the challenges it faces and how it can meet those challenges. The Business Plan has outlined its pathway to success. Future CCA planning documents need to also illustrate that the management has an appreciation of the challenges the CCA will likely face as well as the CCA management's plans to address those challenges.

We understand that the Towns and Cities in Marin County are not financially committed to the JPA and still have a number of “offramp” opportunities after the JPA is formed. Given the upside potential of the Marin Clean Energy CCA presented in the Business Plan and the offramps still available to the Towns and Cities of Marin, we recommend that they continue in their participation in the planning and development of the CCA. Following the issuance of the quantitative risk assessment recommended here and the results of the third party bid, the Towns and Cities of Marin will be well positioned to make an informed decision whether to move forward with participation in the CCA or not.

Please feel free to give us a call at (510) 834-1999 if you have questions about this matter.

Best regards,

William Monsen
Principal

Mark Fulmer
Principal

³ In the PG&E service territory, customers might be charged an exit fee if they install onsite generation.