Ms. Cody Hooven

Chief Sustainability Officer

City of San Diego

Re: CCA Feasibility Study Comments and Questions

Dear Cody;

Firstly, thanks to you and your entire team for the tremendous work being done to further San Diego’s sustainability goals. As someone firmly committed to reducing society’s dependence upon fossil fuels, my strong bias is to enthusiastically support any initiative that advances that goal. I have been actively involved in energy policy and technological innovation for over ten years. Because of all I have learned during that time, my optimism that our society can dramatically reduce fossil fuel usage continues to grow. It is from that perspective that I reviewed the City of San Diego’s July 2017 Community Choice Aggregation Feasibility Study. (All references in this comment letter, unless otherwise identified, are to the July 2017 Feasibility Study).

The Feasibility Study is a complex document, full of graphs, tables, assumptions, risk analysis and narratives. I am going to focus on a few points, which to me are important to the final decision by the City Council and Mayor. I am not going to enter the PCIA debate, even though that CPUC number may be critical to the viability of the CCA. I am also not going to comment on the economic multiplier discussion, other than to say there is no reason to think the Feasibility Report’s projections are any more reliable or actionable than those the City has seen for the likes of Super Bowl subsidies or new NFL stadium deals.

Fundamentally, the City Council and Mayor are deciding whether the City of San Diego should enter the energy procurement business. The numbers are significant. Getting the CCA up and running will cost over $4,000,000 in startup expenses (Table 20, Page 59), plus require a bond issuance of over $409,000,000. (Table 22, Page 63). And this is all before any power is procured (discussed below), and revenue is generated to support over $5,000,000 of annual staffing expenses (Table 17, Pages 54,55).

Whether the City Council and Mayor should commit our City to these large investments must depend upon a fact-based analysis of whether these expenditures and commitments will, at a prudent level of risk for a government entity:

* Materially reduce GhG emissions, and
* Will do so at a lower cost to consumers.

Based upon my review of the Feasibility Study the answer to both points is, unfortunately, no.

**GhG emissions**. Feasibility Study Figure ES 10 (Page 17) shows a 100% renewable portfolio will lower City generated GhG emissions by 1.4 million metric tons (MMT). Assuming this highly ambitious 100% target can be met, what does this number mean in context? In 2015 the City commissioned a study involving the potential redevelopment of Qualcomm Stadium. That study included a GhG analysis, which estimated total GHG emissions in San Diego County in 2012 were 32.9 MMT. Therefore, even if the 1.4 MMT reduction is achieved, it will represent only 4.2% of regional GhG production. While there is nothing wrong with a 4.2% reduction, the question for the City Council and Mayor is whether that relatively nominal reduction is worth the cost and risks as outlined in the Feasibility Study.

The GhG report also noted that transportation is the largest emissions sector in our County, accounting for approximately 14 MMT of GhG, or 41% of total emissions. Energy consumption, including electricity and natural gas use, is the next largest source of emissions, at 32% of the total. The natural gas component is important in several respects.

For as long as I have been involved in energy issues, I have repeatedly asked for a definition of “100% renewable energy” for a grid connected electricity customer. If the City Council and Mayor ask the City’s consultant or people in the industry, including the renewable industry, whether it is currently feasible, absent hydro or geo-thermal, to deliver 100% renewable to a grid connected customer, the answer will be “no”. Energy is a 7/24 365 demand commodity, and no amount of wind and solar capacity can deliver the electrons with that reliability. This doesn’t mean renewable generation capacity shouldn’t be maximized. It simply means all energy procuring agencies, including a City CCA, will need contracts with natural gas producers to balance loads and assure on demand supply. This production will necessarily reduce the 1.4 MMT reduction projection.

**Lower costs to consumers**. The Feasibility Study, Table ES 4 (Page 14) calculates that with 50% Renewable Portfolio content the average customer will save 1.67 cents per KwH through the CCA verses SDGE rates. Table ES 5, calculates that with 100% Renewable Portfolio content the average CCA customer would pay the CCA 1.97 cents more verse SDGE. This is important, because based upon these Feasibility Study numbers it is cheaper to achieve 100% renewable energy, and therefore realize the target 1.4 MMT reduction, with SDGE procured electricity rather than through the CCA. Assuming consumers generally make economically driven decisions, shouldn’t the City expect its citizens would chose the cheaper price? And based upon the numbers in the Feasibility Study, should the City use its franchise agreement renegotiations with SDGE to realize more renewables in the service area?

There is another point that struck me as I studied these numbers. All the margins – for plus or minus – are based upon 1 to 2 pennies of variation. The aggregate numbers get large because these pennies are applied to hundreds and hundreds of millions of KwHs. Applying basic risk – reward analysis to this fact, is it wise for the City Council and Mayor to make such a huge, long-term investment in the expectation that a volatile commodity like energy will over time break a penny here or there in the City’s favor? And even if the penny or two benefit could be assured, should the City assume a significant expense and new responsibility to achieve it?

Lastly on this point, the spread analysis in the Feasibility Study is based upon an assumption that SDGE’s prices will increase, while the CCA’s will stay flat. Table ES 8 (Page 15). Without question, SDGE does a horrible job of explaining to its customers why our rates increase as they do. Their (and the other IOUs) lack of rate transparency is a huge part of the fuel driving the CCA fire throughout our state. But ultimately energy is a commodity, produced by a third party, whether sold to SDGE or the CCA. Given this fact, how can the City reliably assume it will be able to purchase this commodity over time at a cheaper price than the utility?

**New Production**. The goal of CCAs is to reduce GhG emissions by increasing the use of renewably produced energy. That primary goal can only be achieved if the supply of utility scale renewable energy is increased significantly. If new generation is not developed, and all the states CCAs are competing for existing production, meaningful net GhG reductions will not occur. New production is imperative to achieving the GhG reduction goals.

Energy projects are large, very difficult to site within California and expensive to build. I was an active advocate during SDGE’s initial efforts to reach California’s initial 33 1/3% RPS. (Note: The RPS has been increased to 50%, and as technologies improve there is political pressure to further increase the RPS.) To incentivize project developers to raise the capital and borrow the money (hundreds of millions of dollars for most projects), SDGE guaranteed, and the CPUC approved, power purchase agreements (PPAs) the purchase of all the energy produced at fixed price for terms of 10 to 20 years. SDGE took the revenue risk off the table for the developer, making the project financeable.

I am unclear how the City plans to meet its mandated long-term contract (10 years or more) requirements for the CCA. Does the City intend to contract for dedicated renewable power from new projects? It is critical that the City Council and Mayor meet with renewable project developers to understand exactly what the developers will require from the City before a developer will undertake the construction of any new, renewable energy project for the City. The key questions include:

* Must the City contractually agree to purchase all the power produced, even during periods where the energy produced is not needed to meet demand?
* How long must the term of the PPA be?
* What level of guarantee, if any, must the City provide.
* Where will these projects be built?
* What, if any, impact would a PPA have on the City’s overall bonding capacity?

The City Council and Mayor cannot truly assess CCA procurement commitment risks without answers to these questions. These are potentially pension size, long-term obligations which must be clearly identified and quantified in advance.

At the beginning of this comment letter I said I was optimistic society can dramatically reduce its fossil fuel dependence. The primary reason is the exciting progress being made in battery technology. Experts predict that battery storage within the next 5 to 10 years will be so affordable that many homeowners with roof-top solar will also have batteries, either linked to the grid as on demand supply or as a reserve for non-solar production times. These changes will make the roof-top business even better than it is today, while causing huge disruptions to the traditional energy business. This likely future matters to prospective CCAs, since the technology could (and hopefully will) significantly reduce the need for utility scale produced power at approximately the same time CCAs are starting to make the guaranteed power purchase payments pursuant the their own PPAs.

Again, thank you for this opportunity to share my perspectives. These comments are my own. I am not affiliated with any company or organization.

Jim Waring