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Model Business Plan Outline

The draft SCE Public Sector Business Plan (BP) chapter seems to be missing some key sections that are usually included in business plans. NAESCO offers the following outline of the first sections that are typically the foundation of a plan and which we think would enable other stakeholders to better evaluate the SCE draft. We recognize, as the SCE draft states, that much of the data required to finalize the plan is not currently available. But we respectfully suggest that a plan that lacks these sections is like a building that relies on “sky hooks” rather than resting on a foundation, because without these sections it is virtually impossible for other stakeholders to judge whether the SCE plan is even “in the ballpark.” So we suggest that the SCE draft begin with the following sections. Our comments apply to the other IOU business plans, too. We suggest that the IOUs use the information described below to create a common template for all their business plans. A common template will greatly facilitate stakeholder review and the Commission’s analysis which is necessary for approval of Business Plans.

1. Define the potential market, using best available information

The first step in writing a business plan is the definition of the potential market size. SCE does not attempt to provide an overall market size estimate, saying instead that this subject needs a lot of additional research. NAESCO respectfully suggests that it is incumbent on SCE to offer a placeholder best estimate of the available market size, based on the best available information, and subject to refinement as more and better data becomes available. SCE has been managing energy efficiency plans for more than 35 years and should have reasonable starting point estimates. Without a market size estimate, it is virtually impossible for readers to judge whether the business plan is useful or not, as the proposed market approaches could be significantly out of scale with the size of the market opportunity.

NAESCO further suggests that information is available to SCE from public sources to begin to size the market. In response to a request from the moderator during the March 30 CAEECC meeting, NAESCO submitted the following rough estimate of the size of the potential public sector market in a memo to the CAEECC on April 15. Only one piece of this information was included in the SCE draft chapter (SCE at 4).

The placeholder potential market size, which is the sum of the size of the potential market segments that NAESCO was able to quickly identify, approaches \$50 billion, with significant market segments missing from this estimate.

Market Segment – Colleges and Universities -- A 2014 report from the UC Office of the President estimates that the UC system alone will need between \$536 and \$767 million of investment (with a simple payback of about 11 years) for its deep energy efficiency and cogeneration plan.¹ According to a page on the PG&E website,

¹ “Deep Energy Efficiency and Cogeneration Study Findings Report,” September 12, 2014

California colleges and universities can save about 30% (about \$650 million) of their \$2 billion annual energy expenditures.² Assuming an average simple payback of 10 years for comprehensive projects, the investment requirement is about \$6.5 billion.

Market Segment -- Community Colleges -- According to a 2014 presentation from a representative of SCE, a representative of the California Community Colleges (CCC) Chancellor's Office and two representatives from Southern California Community Colleges, the 10-year facility needs of California Community Colleges are about \$35 billion.³ Since about 67% of the CCC buildings are more than 25 years old and 46% of the buildings are more than 40 years old, we can assume that a significant portion of these investment needs are energy-related (the federal General Services Administration estimates up to 40%).⁴ For the sake of discussion, we can conservatively assume 20%, or about \$7 billion in required investment.

Market Segment -- K-12 Schools -- According to a 2012 report from the California Department of Education, K-12 schools need about \$117 billion of infrastructure investment between 2013 and 2023.⁵ Repeating the same rough calculation described above, that means that the schools need about \$23 billion of energy efficiency improvements.

Market Segment -- State Facilities -- California state government facilities need at least \$750 million of energy efficiency improvements.⁶ Using the calculation method above, the state needs about \$188 million in incentives to implement comprehensive projects.

Market Segment -- Federal government facilities -- (Not covered in NAESCO April 15 memo) A national average is that federal facilities are about 10% of the square footage of Municipal, University, Schools and Hospital (MUSH) facility square footage, and often more energy intensive (e.g., military bases).

Market Segment -- Local Government (without K-12) -- NAESCO suggested in its April 15 memo that the RENs and LGPs are in a better position to offer estimates of this market segment size.

Market Segment -- Hospitals -- Not covered in NAESCO April 15 memo.

Market Segment -- NFP Institutions -- museums, community centers, outpatient health centers, etc. -- Not covered in NAESCO April 15 memo.

² See <http://www.pge.com/en/mybusiness/save/rebates/bybusiness/colleges.page>

³ "The CCC/IOU Partnership and Proposition 39," presented to the Construction Management Association of America, SoCal Chapter, June 25, 2014

⁴ D Gilligan notes from a GSA National Deep Energy Retrofit pilot program workshop

⁵ "California's K-12 Educational Infrastructure Investments: Leveraging the State's Role for Quality School Facilities in Sustainable Communities," Center for Cities and Schools, US Berkeley, 2012

⁶ Private correspondence with H. Sacks, California DGS

2. Define the target market

In a business plan, the next section usually defines the portion of the potential market that the firm aims to capture -- its target market share. For the purposes of the SCE business plan, California state policy for the last decade has defined the target market share as all cost-effective energy efficiency and SB 350 NAESCO suggests that the market size estimates given above represent the estimates by various stakeholders of cost-effective energy efficiency, and as such should be taken as the initial target market for the SCE business plan, subject to refinement as better data becomes available. So NAESCO suggests that the placeholder for the target market is \$50 billion. SCE offers a summary of its target market in the form of GWh and MW goals (SCE at 25), but those goals are not converted into the relevant target market estimates, which should be in dollars, not units of energy, because dollars are a necessary metric for the evaluation of the plan.

3. Define the required investment and potential returns

The next section of a business plan usually defines the amount of investment that a business requires to reach its target market, along with a summary of the potential benefits to investors. In a private business, this information is usually presented in the form of the gross investment required in the Return on Investment (ROI or IRR) that the business projects for the investors. This information is usually presented in a form that is designed to whet the appetite of the potential investor, to quickly make the case that it is worth the investor's time to plow through the details of how the business will achieve its target market share.

In the case of the SCE plan, this number is SCE's estimate of what ratepayers will have to invest to reach the target market. SCE's estimate is that the ratepayers will have to invest less than \$200 million (SCE at 32). This would clearly be a world-beating financial return for ratepayers, if a \$200 investment captured a \$50 billion market.

Unfortunately, these numbers do not seem to be supported by SCE's program management experience. NAESCO's understanding of California utility experience is that comprehensive projects in public sector buildings historically have required incentives of 20% or higher. Policy makers have hoped that these incentive levels will decrease over time, but NAESCO suggests that these hopes are based on extrapolating the experience in certain technology markets to whole building comprehensive retrofits. While the evidence for decreasing incentives in certain technology markets (e.g., LED lighting) is convincing, the evidence for whole building retrofits is not convincing. The Upgrade California program, like similar programs in other states, has achieved only a tiny fraction of its desired project uptake. And CEC reports indicate that the vast majority of the Prop 39 funds in K-12 schools is going into lighting projects, not comprehensive building retrofits.

So if we assume, again as a placeholder, that the historic experience of the utilities should be the basis of future planning, then in order to achieve the \$50 billion target market, we will need about \$10 billion (roughly \$1 billion per year or 50 times the budget SCE proposes) in ratepayer incentives. This is still a very attractive return for ratepayers, but it would greatly increase the current budget for California EE programs of about \$1 billion per year.

NAESCO suggests that we must address annual budget requirements for the remainder of the 10-year rolling average portfolio to achieve the state's requirements of achieving all cost-effective energy efficiency and doubling the energy savings in buildings (SB 350). NAESCO offers a couple of points to begin the discussion of budgets.

- First, the level of energy efficiency spending in California is about one-fifth, on a per capita basis, of the spending in Massachusetts, which has recently been confirmed as a reasonable target by the state Department of Public Utilities (DPU) under a Republican Governor.
- Second, as more of the benefits of energy efficiency become known, both to policy makers and to customers, it seems reasonable that customers will increasingly expect additional programs to capture the value of energy efficiency that accrues to all ratepayers, and not just to customers who participate in programs. This value includes electric system capacity, reduced T&D investments, wholesale energy market price effects, ancillary services, and the value of all emissions reductions (GHG, SO₂, NO_x, MAC, etc.).
- Third, it seems reasonable to assume that the “early adopters” have already implemented whole building energy efficiency projects, and that the remaining market will, if it follows the trajectory of other markets, require more incentives than the early adopters.

Finally, it is worth noting that the SCE draft chapter omits any discussion of the potential benefits of achieving its target market. SCE may well assume that the other stakeholders in the proceeding are familiar with the benefits – energy and water savings, emissions reductions, employment, modernization of public buildings, etc. – but it is worth the effort to present summary placeholder values for these benefits for policy makers and others who are not energy efficiency experts.

4. IOU Business Plan Requirements

NAESCO suggests that after SCE and the other utilities set their draft business plans on the foundation outlined above, they should then describe how they will fulfill the requirements that the Commission has mandated for the portfolio in D16-08-019 because these requirements prescribe the way that SCE can approach achieving the target market goals. NAESCO believes that in D.16-08-019 the Commission intended to guide SCE, and the other IOUs, to frame their business plans in the context of the Commission mandates, rather than, as SCE has done, framing its plan in the context of its historical approach to the public sector. NAESCO thinks that these mandates are quite clear in two areas (1) statewide program administration, and (2) use

of third parties. Relevant statements from the Decision with respect to these issues are excerpted below.

Statewide Programs

The program administrators shall present, in their business plans, their approach for each of the above programs or subprograms to be delivered (at a minimum, along with any others they deem appropriate) and the proposed assignment of statewide lead administrator for each. (p. 64) ...we will require the business plans to include specific information about solicitation strategies and functional areas that could be performed on a statewide basis. (p. 67)

Third Party Programs

We clarify our definition of third party that to be designated as a third-party program, the program must be primarily designed and presented to the utility by the third party, in addition to delivered under contract to a utility. (emphasis added) (p. 70)

...we will ask the utility program administrators (and other program administrators, as desired) to present to us in their business plans a proposal for transitioning the majority of their portfolios to be outsourced as described by the CEEIC, with the transition completed by the end of 2020. Basically, all program design and delivery would be presumed to be conducted by third parties, unless the utility specifically made a case for why the program activity must be conducted by utility personnel. (emphasis added) (p. 73)

Instead, we will set a minimum target of 60 percent of the utility's total budgeted portfolio, including administrative costs and EM&V (up from the previously target of 20 percent) to be third party designed and delivered by the end of 2020. Utility program administrators shall present their transition plans to effectuate at least this minimum level of third party delivery in their business plans for the Commission's consideration. In cases where utilities propose to continue staffing program design and/or delivery functions with utility personnel, they should explain why this continues to be necessary. (p. 74)

The utility program administrators should be required to present in their business plan filings a plan to transition to a majority of third party or "outsourced" programs by the end of 2020. In cases where utility program administrators propose to continue staffing program design and/or delivery functions with utility personnel, they should explain why this continues to be necessary. (Conclusion of Law 58)

Planning to Achieve the 60 Percent Minimum

NAESCO believes that the Commission's requirements for statewide administration and third party implementation are very clear. In their October 19 presentations, SCE and the other utilities should describe overall bidding plans, including programs not specifically identified in

the decision, for 2017, 2018, 2019 and 2020. Those plans should include bidding timelines from issuance of RFPs to contract signing for every program to be bid out.

For each year, the utilities should list the programs implemented in their service territories, broken out by utility-implemented and third party implemented programs.

In order to meet the Commission's requirement of filing a plan that demonstrates their achieving the Commission's minimum of 60 percent third party program spending as a percent of the total portfolio spending, each utility's Business Plan filing should include annual budgets for the years 2017 through 2020 broken out by major category: administration; Implementation (further broken out into utility-implemented programs versus third party programs); marketing (also broken out by utility program-related versus third party program-related) and EM&V.

Utility Program Implementation

The Commission has established third party program design and implementation as the default assumption in implementing the new portfolio. The Commission did allow for some utility program implementation when the utility specifically makes the case that program activity must be conducted by utility personnel.

Prior to any utility program implementation, the utilities, working with the CAEECC and other stakeholders, should (1) establish an objective framework with clear criteria that must be applied in determining that a utility must deliver a program, and (2) show how those criteria are met in the case of utility implementation of a particular program. The utilities Business Plans should describe this process and how outcomes were achieved.

Open Solicitations

A key driver for the increased use of third parties in energy efficiency program design and implementation is the desire for innovation. It has been many years since the California IOUs issued large, open solicitations in defined market areas. The public sector and the residential sector are two markets that are served by a large, sophisticated community of implementers. The end use technologies used in these sectors have seen significant technological improvements in recent years (advanced lighting, energy management systems, smart thermostats, heat pumps, etc.). For both the MUSH and residential markets, SCE and the other utility administrators should establish meaningful budgets for truly open solicitations that allow third parties to propose new, innovative program designs.