

CCE Questions for Service Providers

Governance

G1. The possible cities that may comprise North County Energy (NCE) vary widely in population size and energy load. How would a governance structure take this diversity into account?

G2. Is Encinitas large enough to form a CCE without partners?

G3. If we form a partnership (possibly a Joint Powers Authority), what operational structure can assure that all parties are able to meet their goals and objectives overtime given that conditions and needs may change, and given the diversity in population size and energy load among the potential participating cities?

Public Outreach and Feasibility Study

P1. How would you propose to educate and engage the public? At what point should public outreach start?

P2. What are the biggest challenges to gaining community acceptance of a CCE?

P3. What should be included in the Feasibility Study scope of work to guide the consultant, streamline efforts, and produce a robust report?

Technical and Energy Services

T1. What mix of short- and long-term contracts do you recommend and why? How many suppliers do you recommend using?

Financial

F1. Are there any grants that may be available to help with seed money?

F2. Aside from the possibility of lower rates, do you have any advice regarding value-added programs that may provide some benefit to the community?

F3. Suppose that the NCE comprises six cities with a million ratepayers. What do you suggest is the approximate amount of seed money necessary? How about the working capital?

Risks

R1. What do you consider to be the major risks in starting a CCE and how do you propose handling risks?



June 15, 2016

Ms. Crystal Najera
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Dear Ms. Najera,

Subject: TEA Response to CCE Questions for Service Providers

Outlined below are TEA's responses to the questions that the City posed in its June 8th email. In submitting its answers, TEA is relying on its direct experience working with other CCAs in California, as well as its experience working in service to public power utilities throughout the nation for the past approximately 20 years.

Governance

G1. The possible cities that may comprise North County Energy (NCE) vary widely in population size and energy load. How would a governance structure take this diversity into account?

The question of how best to establish a well-functioning organization comprised of entities of different sizes is a challenge facing new CCEs in California; but it is also a challenge that has faced public power organizations throughout the nation for a number of years as public utilities have joined together to realize greater economies of scale. TEA has found that successful multi-entity power enterprise governance structures include provisions for: 1) formal decision making protocols; 2) input and feedback from participants; and 3) often (although not required), proportional voting rules.

Assuming a JPA structure is utilized, voting could be based on "one entity / one vote" with majority carrying a particular action, and/or if requested by any participant, a vote based on proportional shares of the enterprise (e.g., average annual energy consumption) could be held. The MCE Clean Energy JPA, for example, provides for board decisions weighted 50% on "one entity / one vote" plus 50% weighted on proportionate share of energy usage. TEA's own decision making structure provides each "large" member with 3 voting shares and each "medium" member with 1 voting share; however, in TEA's case, the voting share has never been exercised in actual practice, although it has at times resulted in votes being delayed in order for a consensus position to be reached.

Ultimately, JPA participants should devise a decision structure believed to be most applicable to the given enterprise, attempting to assure that requisite decisions can be attained in a timely and orderly fashion and that all parties can support the decisions made.

G2. Is Encinitas large enough to form a CCE without partners?

The Energy Authority (TEA) recently completed a comprehensive CCE evaluation for the City of Davis and Yolo County that assessed, in part, the likely economic viability of a City of Davis “stand-alone” CCE, as well as a joint Davis/Yolo CCE. The TEA study concluded either configuration was viable. The City of Davis’ Community Choice Energy Advisory Committee, utilizing, in part, TEA study results, recommended first that a combined Davis/Yolo CCE be established, and second, in the absence of Yolo County participation, Davis should equally consider establishing a Davis-only CCE or possibly joining an existing CCE. The final decision was to be based on factors including the trade-offs between greater local control versus the risks associated with setting up a new enterprise.

The City of Encinitas is similar in size and electricity consumption characteristics to the City of Davis. Combining these similarities with the current analogous and relatively stable power market conditions prevailing during TEA’s study period, suggests that the City of Encinitas could successfully establish a stand-alone CCE. Adding the scale of other similarly situated and regionally connected cities would likely improve expected CCE economic results and spread associated new enterprise risk more broadly.

Without partners, Encinitas may consider establishing a CCE similar to the City of Lancaster and operate the CCE as a municipal enterprise, utilizing technical, legal and financial expertise present within staff of city departments. This approach can be augmented, as necessary, by third party companies to achieve economies of scale in areas such as risk management, scheduling, procurement and data management. In this scenario, governance and control would likely be exercised by the City Council or perhaps a special CCE board or commission appointed by the City Council to govern and administer CCE business. The latter approach is utilized by the City of Alameda to operate Alameda Municipal Power.

G3. If we form a partnership (possibly a Joint Powers Authority), what operational structure can assure that all parties are able to meet their goals and objectives overtime given that conditions and needs may change, and given the diversity in population size and energy load among the potential participating cities?

There are three key elements to positioning a new CCE to realize the greatest likelihood of meeting the objectives outlined in this question: 1) early development of vision/mission/strategic goals, 2) establishment of durable governance structure and 3) selection of senior management team.

Like any successful business enterprise, a CCE should be formed, launched and operated under a compelling and agreed upon vision, mission statement and set of strategic goals to align participants from the outset and provide a framework for decision making. Agreement to questions such as the following examples is critical to early and long-term alignment of all participants:

- Is the purpose of the CCE to increase the use of renewable generation relative to SDG&E? Develop local renewables and/or programs? Lower GHG emissions? Create living wage paying jobs? Other? What is the relative weighting of each?
- How important is it to pass-on rate savings to rate-payers versus accumulating financial reserves to quickly build creditworthiness, increase the potential to fund power supply investments and create a tool for risk mitigation (e.g., market and PCIA rate risks)?

After establishing a common vision, mission and set of strategic goals, a second critical step is to establish the JPA governance structure in a manner that provides for representative voting by participating entities and that will result in decisions that all participants can support. A JPA structure

offers two advantages for creating an organization built for long-term success: 1) separation of power related decision making from typical city government decision responsibilities; and 2) legal separation of CCE financial and operating risks from the sponsoring and participating public agencies.

As referenced in this question, power industry conditions can change significantly, requiring CCE Board and senior leadership to respond in kind. The leadership team of the CCE must have the requisite nimbleness and authority to respond to such changes in a timely and effective manner. Establishing a senior management team for the CCE sufficiently competent and experienced in wholesale and retail power matters is the third critical factor to ensure long-term success. Clear delegations of authority, as well as financial and risk management policies (among others) are a partial list of policies to be implemented early-on by the Board and leadership team. The ability of the leadership team to then execute board policy, advise the board of changing conditions and other factors which may affect CCE operations, and attain Board input and direction is crucial.

Public Outreach and Feasibility Study

P1. How would you propose to educate and engage the public? At what point should public outreach start?

Although community input is not a prerequisite to establishing a CCE, public outreach and support will significantly enhance respective city councils' confidence in making the necessary decisions and will likely contribute to greater CCE subscription (i.e., lower opt-out rates) from local residential and business customers. Building "ownership" and brand awareness is important to long-term CCE success.

It typically takes about 12 months from beginning work on a feasibility/technical study through actual launch of CCE operations. Ideally, the public should be engaged early-on in this process; and in fact, public outreach has already started by way of the City establishing a Subcommittee on Community Choice Energy ("SCCE") that has already had several public meetings including the one scheduled for June 20, 2016.

At the May 16, 2016 meeting, multiple entities and individuals attended from the various interested nearby cities, along with representatives from several local and state-wide environmental organizations. If the City remains interested in establishing a CCE, it should continue to work with this existing base of support and reach out to new local and regional organizations as well. The incipient CCE should also establish contact with local media (newspaper, radio and television organizations) to introduce the CCE concept and provide a conduit to disseminate information and respond to questions. Social media should also be used as a resource to spread the news about CCE and to solicit input from the public. Depending upon the skill set of existing city staff, the City should consider engaging a third-party firm to advise and assist with community outreach and networking. Communication strategies for elected officials, other key community stakeholders and the general public are needed.

The City should also consider contacting existing CCE's to discuss approaches taken by each of these organizations prior to, and during, the early stages of CCE implementation. In addition to sharing lessons-learned regarding the successes and failures of different marketing/outreach strategies, the existing CCEs can provide recommendations on third-party consultants and marketing firms that may be able to assist formation efforts.

Closer to actual launch of operations, CCE regulations require a minimum of two formal notices to potential CCE customers within 60 days prior to the CCE “going-live” and two additional formal notices to potential CCE customers within 60 days following the CCE actual service start date (four notices total to each customer). These notices are to inform customers that the CCE is commencing or has commenced operations and provides information regarding such customers’ rights to “opt out” of participating in the newly established CCE.

P2. What are the biggest challenges to gaining community acceptance of a CCE?

Based on the experiences of existing CCEs, and those communities considering establishing a CCE, community acceptance can be influenced by a number of factors including:

- Confidence and trust in existing local government officials and staff;
- Assurance that the new CCE can provide electric power supply at rates at or below the existing investor owned utility (“IOU”, SDG&E in this case);
- Assurance that the CCE will be able to procure and/or develop power supplies and local programs that meet the vision and wants of the local community;
- Confidence in the ability of those involved to start and operate a new and complex business enterprise;
- Public outreach from the onset to create “buy-in” to the vision/mission of the CCE;
- Creation of a mechanism for the local community to have input into decision making on an ongoing basis;
- Outreach to and support from key community stakeholders such as business, industrial, agricultural and union leaders.

P3. What should be included in the Feasibility Study scope of work to guide the consultant, streamline efforts, and produce a robust report?

With four CCEs currently operating in California, conducting a “full feasibility” study that assesses economic viability may be unnecessary and add both more cost and time. CCE is feasible at present. A study that generally addresses CCE economic viability through a review of current and near-term expected power market conditions versus current and projected IOU generation and PCIA rates can establish a projection of available “headroom” for investment in meeting high-level goals and objectives for the CCE. The balance of the technical study can then concentrate on business structure, JPA governance, JPA staffing and technical support options, financial requirements, and customer contact/relations. The benefits of more rather than less JPA members can also be assessed. The overall objective should be to have a recommendation to decision-makers within a 3-4 month period, including adoption of formal CCE implementation timeline that will guide formation activities moving forward. A preliminary staff plan, as well as estimated initial funding requirements, will also be useful.

Technical and Energy Services

T1. What mix of short- and long-term contracts do you recommend and why? How many suppliers do you recommend using?

There is no one “right” answer, although generally, a CCE should seek diversity in resource mix, contract terms and counterparties. The ultimate power supply mix should be well diversified and predicated upon factors such as current and future projected load size and shape, availability of local resources (physical and contract), targeted power supply mix, clearly defined rate and financial goals/objectives, clearly defined strategies for managing market and counterparty risk, and recognition of, and plan for

managing, regulatory risks, including IOU generation rate and PCIA rate risks. Approaches will be further influenced by the CCE's legal and technical staffs' capabilities to enter into and administer power supply contracts with potential suppliers, as may be augmented by third-party experts.

A CCE's power supply procurement strategy should be adopted by its Board with input from senior management operating in the capacity of a "Risk Management Committee".

This is one area where greater CCE size will enable risk reduction through greater diversification. There is a vibrant wholesale power market available to newly launched CCEs that enable multiple procurement strategies to be executed simultaneously. There exist in wholesale markets the ability to transact in hourly, daily, balance of month, monthly, quarterly, annual and longer periods of time. A CCE's technical staff and or consultants should review CCE loads, current and forecast market conditions, available resources and counter-parties and then work with CCE management and staff to make supply recommendations and implement procurement options consistent with CCE policy on an ongoing basis.

It is important to remember that all load will be met regardless of the CCE's contracts/resources portfolio as the CAISO retains responsibility for reliability (and will correspondingly invoice the CCE for the cost of its services and products).

Financial

F1. Are there any grants that may be available to help with seed money?

TEA is unaware of any specific grant funds available to provide seed capital. The existing CCEs should be contacted to discuss how each received initial program funding dollars as they each benefited from different sources of seed capital ("angel investors" and loans from sponsoring agencies). The City should also consider other national, state-wide and local groups and individuals that may be financially supportive of the CCE effort. The Monterey Bay Community Power group, for example, has to-date raised over \$400,000 to fund its CCE investigatory efforts from non-general fund sources.

Another alternative that is being explored and implemented by some CCEs (e.g., Humboldt County) is a "turnkey" solution that seeks a third-party provider (or team) willing to bundle up-front feasibility, marketing and implementation activities with ongoing operational services. Included in the "turnkey" solution is deferral of fees until the operational phase, as well as a credit solution supporting initial procurement requirements.

F2. Aside from the possibly of lower rates, do you have any advice regarding value-added programs that may provide some benefit to the community?

This question gets to the heart of the need for community outreach early in the feasibility and implementation phases. It is critical to design a CCE to meet the vision of the local community with respect to power supply. The overriding benefit of CCE is the ability to exercise local control and invest in those generation resources and programs that meet the wants and needs of the local community. Generally, TEA has found the following are important to communities launching CCE:

- Lower rates;
- A power supply portfolio with substantially greater environmental benefits (i.e., lower GHG content and higher renewable content) versus the existing IOU;
- Local management and direction of public benefits monies collected via IOU tariff structures;
- Enhanced and/or more flexible NEM (net energy metering) tariff;

- A FIT (feed in tariff) that encourages and augments the development of locally available renewable resources;
- Additional programs to assist low income and elderly electric customers;
- Grants to local individuals and organizations to improve energy efficiency.

F3. Suppose that the NCE comprises six cities with a million ratepayers. What you suggest is the approximate amount of seed money necessary? How about the working capital?

With regard to establishing a new CCE there are generally three “distinct” periods and the resultant expected costs incurred during those periods primarily will be a function of CCE size, the length of the time period, and the business and financial structures utilized. A “million resident” CCE service territory will likely have total annual electric energy usage in the range of 800 aMW, with corresponding annual CCE power procurement and operating costs in the \$600 million range.

The periods and likely notional cost ranges for a “million resident” service territory:

- PRE CCA ORDINANCE (“FEASIBILITY PHASE”): this period covers all time and effort expended to study and report on CCE possibilities and projected feasibility by one or more communities and develop a recommendation for city/county board consideration. The North County communities are currently “in” this period and the cost to reach a point of final recommendation to potential CCE participants should be in the \$200,000 - \$400,000 range; subject to the interest and motivation levels of potential participants, this process could be concluded within 6 months.
- CCA ORDINANCE PASSED – SERVICE START DATE (“IMPLEMENTATION PHASE”): this period covers the time from council decision to implement a CCE and the actual delivery of power to CCE customers (“service start date”). This will be a busy time period establishing a JPA (if several entities involved), hiring needed CCE staff, obtaining office facilities, establishing a business relationship with the incumbent IOU, completing CPUC submittals and certification, arranging for needed customer and technical utility services, procuring initial power supplies, and noticing customers regarding opt out timelines. This phase will likely require \$2 - \$3 million over a six month period if JPA participants proceed deliberately. The sources of funding are most likely in the form of loans from the largest or all participating JPA members, with such loans scheduled for repayment from subsequent CCE operating revenues.

This amount does not include any financial support that may be needed for initial power procurement activities. Credit requirements for procurement will be a function of how power supply contracts are structured and number of entities participating in the CCE. There are accepted practices being adopted in the marketplace that bundle procurement and credit solutions providing power suppliers with a security interest in financial reserves as they are accumulated by the CCE after operations commence.

- CCE FULL OPERATIONS: this period starts on the date of initial power service to CCE customers and continues thereafter. The CCE will have established its commercial banking partner by this time and will have access to the corresponding range of checking and credit capabilities. The CCE will have prepared by this time its expected annual non-power supply operating budget (likely in the \$3-\$5 million annual range) together with projected power procurement costs for

the same period --- again, subject to size but for a million resident service territory, in the range of \$600 million per year.

Risks

R1. What do you consider to be the major risks in starting a CCE and how do you propose handling risks?

- **OPT OUT:** customers electing to remain with the incumbent IOU is likely the largest single risk (no customers = no revenues). The mitigation of this risk will be a function of establishing rates at least competitive with the SDG&E, increasing the environmental attributes of power supply resources, and creating and maintaining communication and support from local citizens.
- **MARKET:** this is one of the two largest risks a CCE must manage. This risk can be mitigated by establishing a documented and board approved power risk management program and attaining technical support and expertise to measure and suggest management strategies (“hedge”) power procurement exposure and counter-party performance. This will likely involve a relationship with an organization capable of supporting and augmenting the CCE’s staff efforts in this area.
- **REGULATORY:** this is the second of the two largest risks a CCE must manage. CCEs are created by legislation and are subject to subsequent regulatory changes initiated by the legislature and the CPUC. This item includes risk associated with changing IOU generation and PCIA rates set by the CPUC. This risk may be mitigated, in part, by establishing a CCE sooner rather than later to take advantage of current favorable market conditions and long-term renewable pricing relative to IOU generation rates, and in so doing, begin accumulating financial reserves. Early launch also enables a CCE to work with other CCEs in their political and regulatory efforts to protect and support CCA activities
- **OPERATIONAL:** a CCE is a business enterprise, and as such, there is some possibility of ineffective or poor management resulting in CCE failure. This can be mitigated by JPA participants appointing dedicated and knowledgeable board members (and alternates) and hiring qualified senior management to lead the CCE and hire staff and/or consultants to plan and implement board policies and conduct business operations. There are many skilled utility and legal professionals, public power organizations and consultants available with particular experience in CCE business areas, as well as wholesale power procurement and operations.
- **ESTABLISH JPA:** the JPA must be established and staffed prior to commencing power procurement activities. This can be mitigated by using one of the existing CCE JPAs as a model with particular adaptations to serve North County entities.
- **FUNDING:** attaining requisite loans/funds from JPA participants prior to service start date. This can be mitigated with participants pledging and transferring such funds to the JPA in a timely fashion.
- **COMMERCIAL BANK RELATIONSHIP:** this is a relatively minor risk as existing CCEs’ established track records provide information to reduce the uncertainty of the proposed CCE venture. CCE staff can move quickly to establish the needed commercial banking relationship with a North County local institution or possibly work with a bank already providing such services to an existing CCE.

I hope the above responses are helpful to the City as it continues investigating CCE; and thank you, again, for providing us an opportunity to present our responses to the City’s questions. Please contact

June 15, 2016

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me at (425) 460-1110 or jfuller@teainc.org if you require additional information. We look forward to participating in your June 20th workshop.

Sincerely,

Jeff

Jeff Fuller

Director, Client Services



Encinitas CCE Questionnaire



PILOT POWER GROUP, INC. response to
CCE QUESTIONS FOR SERVICE PROVIDERS

6/15/2016

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**PILOT POWER GROUP'S RESPONSE TO
CCE Questions for Service Providers
June 15, 2016**

Governance

G1. The possible cities that may comprise North County Energy (NCE) vary widely in population size and energy load. How would a governance structure take this diversity into account?

To address the diversity of potential membership, NCE governance may be structured in a number of ways. The approach utilized by operational CCEs Sonoma Clean Power (SCP) and Marin Clean Energy (MCE) provides one vote per membership for everyday decision making but allows for a load or population-based vote for items of unusual importance.

The NCE structure need not, however, follow the SCP/MCE format. CCE laws and regulations dictate very little in this regard, leaving the decision to the CCE membership. Strictly by way of example, another approach could instead provide for load or population-based voting for most issues while ensuring specific protections for smaller municipalities.

Ultimately, the key to developing a governance structure that is durable and well serves the needs of all NCE members is to first perform a robust, public vetting of the goals of each member. This vetting should be accompanied by expert review, analysis and recommendations regarding policies that will balance potentially competing goals while ensuring the long-term viability of NCE.

G2. Is Encinitas large enough to form a CCE without partners?

Yes, the Encinitas forecasted electric load is large enough to form a CCE without aggregating with partner load. As discussed in response to question G3, *below*, overhead costs, rather than the per se cost of electricity, drive CCE sizing requirements. Overhead CCE costs, spread over the population of Encinitas electric customers, should still yield CCE rates that are competitive with utility rates.

G3. If we form a partnership (possibly a Joint Powers Authority), what operational structure can assure that all parties are able to meet their goals and objectives over time given that conditions and needs may change, and given the diversity in population size and energy load among the potential participating cities?

Contrary to some commonly held perspectives, very small power purchases are not necessarily more expensive per MWh than large purchases. In fact, depending on the circumstances, small purchases may be less expensive on a per MWh basis. Thus, in theory, a very small municipality is just as able to launch and operate a successful CCE as a larger municipality or an aggregation of municipalities.

Overhead costs, such as staffing, credit and other administrative and general expenses, are relatively fixed regardless of the size of the CCE. The ability to spread overhead costs over larger loads is the real driver behind aggregating many municipalities in order to build a larger CCE load.

The downside to aggregating is the loss of autonomy. If all CCE members are in general agreement regarding CCE goals, models such as those utilized by SCP and MCE work well to spread relatively fixed overhead costs over greater load. Spreading overhead costs over greater load results in lower overhead cost allocation per customer, which in turn lowers rates. If, however, the ability to meet diverse CCE goals



is important, other innovative approaches should be considered. Strictly by way of example, NCE could provide overhead services to members to leverage economies of scale, while leaving specific procurement and programmatic decisions to individual members. A similar approach would be to offer overhead services a la carte.

In any event, overhead costs may amount to 10% or less of total CCE revenue requirements, while energy can comprise 90% or more of total CCE revenue requirements. Even if a municipality can meet a minimum load size to justify spreading overhead costs solely over its own load, the real cost control resides in the procurement of energy. To remain competitive with utility rates, CCEs must employ best practices at all times and in all facets of operations, but energy pricing discipline clearly yields greater results than overhead pricing discipline.

Whether a Joint Powers Authority (JPA) is utilized will not directly limit or enhance the possibility of utilizing innovative options for both CCE governance and operational structures. In many cases, similar to the way a corporation protects the owners of private sector businesses, a JPA ultimately serves to protect the members from financial and legal liability. Beyond this protection, the powers of the JPA are essentially identical to, and derivative of, the powers of the CCE and the powers of the individual CCE members.

As is the case with the CCE governance structure, the key to developing an operational structure that is durable and well serves the needs of all NCE members is to first perform a robust, public vetting of the goals of each member. This vetting should be accompanied by expert review, analysis and recommendations regarding policies that will balance potentially competing goals while ensuring the long-term viability of NCE.

Public Outreach and Feasibility Study

P1. How would you propose to educate and engage the public? At what point should public outreach start?

To avoid official CCE related decision making without community input, public outreach should begin as soon as possible and proceed in parallel with CCE development efforts. Following strategy sessions with municipal Staff and technical advisors, key groups of stakeholders, such as non-profits and the business community, should be identified. General public meetings as well as stakeholder-targeted, but still public, meetings should be held to provide information, answer questions, and receive feedback from the community.

P2. What are the biggest challenges to gaining community acceptance of a CCE?

The vast majority of community opposition to CCE is based on a lack of understanding of CCE. Consistent with the need for robust and early community outreach, education is key to CCE acceptance. Education must include a balanced presentation of the benefits and risks of CCE.

Another area of contention is CCE goal setting. Competing or conflicting CCE goals will likely surface. Robust community outreach combined with superior technical advice will address these issues to the best possible extent.

A small percentage of CCE opponents both clearly understand yet do not support CCE for a variety of reasons. This group comprises approximately less than 20% of all potential CCE customers and are reflected in the 20% average CCE opt-outs observed in default CCE programs.

P3. What should be included in the Feasibility Study scope of work to guide the consultant, streamline efforts, and produce a robust report?

A Feasibility Study should provide an operational analysis, a definition of requirements, an evaluation of alternatives, and recommend options for a course, or courses, of action. Specifically, a best practices based Feasibility Study should include:

- a) CCE Organizational Structure Options – identify and analyze CCE structures (e.g. Public-Private Partnership, Joint Powers Agency, etc.), outlining the strengths, opportunities, and weaknesses of each structure.
- b) Load Analysis and Forecast – A key component of any Feasibility Study, the load analysis, and forecast must provide a forecast of customer accounts, customer class, and an expectation of the opt-out rate for each rate class. The analysis should include projected future annual load requirements, develop load curves that include peak and off-peak demand across rate classes, and account for existing Direct Access customers.
- c) Energy Supply Scenarios and Options – The heart of the Feasibility Study reviews potential energy portfolio scenarios. A CCE portfolio should consider the incorporation (or exclusion) of California Renewable Portfolio Standard (RPS) compliant energy, GHG-free energy, local energy, energy from new resources, fossil energy, nuclear energy and storage. The portfolio scenarios should reflect CCE goals and objectives which may include Climate Action, economic and programmatic impacts. Furthermore, the Feasibility Study must provide a baseline scenario to allow for comparison to utility performance.
- d) Energy Cost Analysis – The largest component of a CCE cost structure will be the energy the CCE will need to procure. The Feasibility Study should provide a cost analysis of energy markets and forward curves. The Feasibility study should provide the structure of energy contracts in the short and long-term, as well as the structure of the energy risk management program the CCE should implement.
- e) Rate Analysis – The Feasibility Study should, at a minimum, analyze fiscal impacts and outcomes assuming rate structures similar or identical to utility rate structures. Consideration of alternative rate structures should include an in-depth review of the consequences of decoupling energy commodity rate structures from energy delivery rate structures.

- f) Power Charge Indifference Adjustment (PCIA) – The respondent should provide a thorough presentation of the PCIA methodology and inputs. The presentation should include the potential range of the PCIA charge over the next several years and an analysis of the influences the inputs have on the PCIA charge.
- g) Financial Analysis or Pro Forma Statement – The financial analysis or pro forma statement is where the rubber meets the road; in essence, at the end of the day what does CCE do for the community? Like any enterprise, the CCE needs to know if it’s going to make (or save) money, determining if it’s a go or no go. The CCE should expect from the respondent several pro forma statements, a base case, expected, and an energy supply scenario outlined. The statement should include, similar to any business income statement, revenues, COGS, startup costs, the cost of capital, operating and maintenance costs, uncollected account (bad debt reserve), bonds fees, PCIA costs, and utility surcharges.
- h) Sensitivity Analysis – To date, this section is poorly understood and presented in publicly available and commissioned CCE Feasibility Studies. Unlike the current state of Feasibility Studies, the next evolution of Feasibility Studies must include probability in stress-testing study variables. To make informed and durable decisions, officials and the community need to know the probability of any CCE outcome. A sensitivity analysis should include, but is not limited to:
 - a. Market prices
 - b. Generation rates, exit fees, surcharges
 - c. Rate analysis due to higher renewable energy
 - d. Rate analysis due to local renewable energy generation, energy efficiency and demand reduction programs
 - e. Customer opt-out rates
 - f. PCIA changes

These components become pro forma statement variables and will result in a range of outcomes. The CCE needs to know the probability of positive outcomes to select the optimum mix of a renewable/GHG free energy strategy, fee structure, and other customer options. On the other end of the spectrum, the CCE needs to know the probability of negative outcomes to understand the overall risk of pursuing CCE or, potentially, not pursuing CCE. The sensitivity analysis can only be achieved effectively using a Monte Carlo simulation or similar analysis.

- i) Economic Analysis – Outlining the impact to the community and economic development is key to effective community outreach. The analysis should include the impact of union and non-union jobs, direct and indirect job creation and investment of the surplus funds to the CCE.
- j) Risk Analysis – As discussed in section R1, the Feasibility Study should provide analysis to the potential risks associated with CCE and provide mitigation strategies to offset the risk.

Not only should the Feasibility Study contain sufficient detail to carry on to the next succeeding phase in the CCE endeavor, but it should also be used for comparative analysis when preparing the final Project



Audit. The Project Audit will analyze what was delivered versus what was proposed in the Feasibility Study.

Technical and Energy Services

T1. What mix of short- and long-term contracts do you recommend and why? How many suppliers do you recommend using?

NCE's power portfolio mix may be dependent upon the selected organizational structure discussed under Governance. Should the NCE elect to launch under a Public-Private Partnership, with the option to switch to a JPA structure at a later date, at launch, it may be desirable to contract with short-term contracts to avoid long-term commitments that may be difficult to unwind at a later date.

In general, most energy industry Risk Managers recommend an appropriate blend of both short-term and long-term contracts, with the ratio depending on current and expected market conditions. Usually, a certain portion of the later years' need is left open to allow flexibility for potential changes in load (including opt-outs) or market conditions and is "filled in" or contracted for in a layered approach.

Some Energy Service Providers (ESPs) may require an Exclusive Power Supply arrangement and do not provide for contracting from multiple sources for core power needs. To preserve the procurement flexibility that is essential to optimizing CCE performance, Pilot Power Group strongly recommends that NCE contract with an ESP that allows contracting with multiple parties. By retaining this flexibility, NCE ensures the power pricing discipline needed to maintain the lowest possible CCE procurement costs.

Financial

F1. Are there any grants that may be available to help with seed money?

No formal, permanently established program exists to assist with seed money either for technical work or power purchase financing. However, innovative approaches to CCE operations, including turn-key, no upfront cost partnerships with entities such as Pilot Power Group remove the need for seed money. Limited, case-by-case funding for technical work has been offered by various organizations such as environmental groups.

F2. Aside from the possibility of lower rates, do you have any advice regarding value-added programs that may provide some benefit to the community?

In general, avoid re-creating programs that the utility or another organization already performs well. Otherwise, identify programs that are not offered or are under-supplied and are consistent with the needs and desires of the community. This exercise relates closely to the question of governance and operational structure. If the whole of NCE membership has consistently held goals, developing programming will be fairly easy. Strictly by way of example, because funding for rooftop solar programs has either been depleted or will soon be depleted, funding a new program may be of NCE wide benefit.



Alternatively, a special demand response or time-shifting rate program may be of special interest to communities with load, particularly commercial load that will benefit from such a program. CCEs may also consider offering customers access to energy efficiency products through innovative programs such as on bill financing. Again, regardless of the nature of the programming, the combination of robust outreach paired with superior technical advice will ensure the best programmatic approach.

F3. Suppose that the NCE comprises six cities with a million ratepayers. What do you suggest is the approximate amount of seed money necessary? How about the working capital?

For existing and planned CCE's, Start-Up costs have ranged from \$1.7MM for Sonoma Clean Power (SCP) to an estimated \$3.3MM for the planned CCE for Alameda County. Working Capital is the money required to fund operations before the CCE begins to receive customer revenue from the utility, typically as much as a 90 Day lag. As much as 90% or more of the CCE's budget is for buying power. Industry standard Power Purchase Agreements provide that payment is due on the 20th day following the power delivery month. Assuming power flows on the 1st of the month, industry practice provides for an 80 Day float. The CCE may be able to negotiate additional float from the ESP or energy supplier. To be conservative, the CCE should have Working Capital sufficient to support 45 to 90 days of Operation. For Alameda County, 90 days of CCE revenue or \$51MM in Working Capital is anticipated.

SDG&E's service territory comprises approximately 1.4 million total electric customers. The total population of San Diego County in 2010 was estimated at 3.1 million and was projected by the US Census to grow to 3.26 million by July 2014. As reported by the California Energy Commission (CEC), San Diego County's electric consumption was 19,908,786 MWh in 2014. This equates to a San Diego County annual per capita energy consumption for 2014 of 6.1 MWh or 508 KWh per month. Assuming NCE cities comprise a population of one million and an average opt-out rate of 20%, monthly CCE revenue would be approximately \$30 million. Thus required Working Capital to support 45 to 90 days of Operation could be as high as \$45 - \$90 Million.

Alternatively, as discussed in response to F1, an innovative public-private partnership could obviate the need for raising any seed/start-up funding.

Risks

R1. What do you consider to be the major risks in starting a CCE and how do you propose handling risks?

CCEs face three major risks:

- (1) **Financial.** A major impediment both historically and currently for fledgling CCEs is obtaining financing for start-up costs and credit to back power purchases. Small CCEs are particularly exposed to this concern, which is a good explanation as to why aggregation of many entities has been the dominant CCE structural paradigm. Nevertheless, as discussed, *above*, even a small CCE can avoid this risk by utilizing a public-private partnership. A CCE can also avoid this risk by securing funding prior to moving too far into the CCE process.



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- (2) **Market.** Energy markets are unpredictable and expert energy procurement requires specialized technical skills. If a CCE is not properly operated, market forces can result in CCE rates that are considerably higher than SDG&E's rates. In a worst case scenario, market forces could be severe enough to impact CCE liquidity. As discussed in the response to T1, Market risks can be significantly mitigated through the use of industry-wide risk management strategies, maintaining price discipline over energy suppliers, and employing the best technical advice and practices throughout all operations.
- (3) **Legal and Regulatory.** CCE is subject to a myriad of legal and regulatory risks. Expert technical advice, however, can mitigate these risks considerably or, potentially, turn them into advantages. Strictly by way of example, PG&E's recent PCIA increase was forecasted and predictable – when power prices fall, the PCIA increases and vice versa. If a CCE is locked into too many long-term contracts, the CCE will be less able to respond to these market movements. For 15 years Pilot Power Group has provided clients with technical advice and procurement strategies that maximize market and legal/regulatory responsiveness while minimizing risk. Deeply strategic planning that can only come from years of experience in California's retail energy markets is the best way to handle these risks.



CCE Questions for Service Providers

Governance

G1. The possible cities that may comprise North County Energy (NCE) vary widely in population size and energy load. How would a governance structure take this diversity into account?

Response:

There seem to be two primary alternatives. In a “one-size-fits all” approach where the CCE provides the same portfolio of services, power supply mix and rate structure to all communities, the cities could consider a governance structure that weights voting power according to the size of the load and/or number of accounts in each community relative to the total served by the CCE to make decisions for the entire CCE. Alternatively, the CCE theoretically could provide a community-specific set of services, power supply mixes and rate structures formulated to fit each community’s unique size, load characteristics and preferences. It is significantly more complex to implement, but in that type of diversified approach, each community could select its preferred supply portfolio, and the design of rates could be structured so that prices recognize the relative cost to serve various customers, given that some communities are likely to have customers with higher load factors (lower cost to serve) than others. In addition, rate designs that are cost-based create incentive for customers to make changes in usage patterns that continue to lower cost to serve and that are more environmentally friendly.

G2. Is Encinitas large enough to form a CCE without partners?

Response:

The City of Encinitas itself likely is not large enough to form a JPA-based CCE on its own, without partners. There is likely a minimum efficient scale (e.g., about 250 to 500 MW of load) that is required to manage the wholesale procurement and supply function for a retail customer base efficiently and effectively. The City could achieve this minimum efficient scale by adding partners or by adopting an outsourced services model where the service provider has achieved that minimum efficient scale already through service to other customers.

G3. If we form a partnership (possibly a Joint Powers Authority), what operational structure can assure that all parties are able to meet their goals and objectives overtime given that conditions and needs may change, and given the diversity in population size and energy load among the potential participating cities?

Response:

The communities can explore goals and objective up front, and create a common mission and core objectives together at the start of the CCE formation. There is a great deal of experience in California and other communities upon which Encinitas can draw to understand its options and form a cohesive set of objectives. With a common set of clearly-defined and quantified objectives, and a workable governance structure for managing its daily operations to achieving those objectives and modifying

them when necessary, the JPA would have the tools necessary to achieve those goals over time and adjust as needed to changing circumstances and priorities.

Alternatively, the JPA could be set up to allow individual communities to determine their own environmental, rate setting and other objectives. More than one supply and rate portfolio could be created to allow communities to pick the structure they believe to best fit their individual community's needs and preferences.

Public Outreach and Feasibility Study

P1. How would you propose to educate and engage the public? At what point should public outreach start?

Response:

In our experience, citizens and stakeholders should be involved at the start. A formal stakeholder process for providing education and solicitation of public input should be implemented for determining the mission and objectives for the CCE at the outset. This can be accomplished through a structured set of public input meetings, where foundational goals and aspirations, study plans and timelines, and interim/final results can be presented and discussed. This should be combined with a parallel process for public presentations of findings and determination of next steps conducted in open meetings before the appropriate City government and community organizations, in order to demonstrate the clear linkage and alignment between the two processes. Additionally, there needs to be significant advance notice/publication, media coverage and broad public distribution of the detailed data, analysis and reports that result from these processes so that there is clear evidence of openness and transparency throughout the entire process.

P2. What are the biggest challenges to gaining community acceptance of a CCE?

Response:

Preliminarily we believe that the key barriers to community acceptance would include concerns about: 1) perceptions among the residents that the City is rejecting and/or replacing the local utility that residents have come to trust and rely on for utility service for many years, when in fact the local utility will continue to provide many key functions supplemented by a community-focused power supply function; 2) skepticism among the residents that the CCE can perform any better (or even as well as) the incumbent local utility at providing utility service, especially the highly complex and risky power supply function; and 3) skepticism among the residents about whether City leaders and government staff will in fact create and operate the CCE in a way that truly meets residents' needs and priorities, rather than using the CCE to further the objectives of the City and government staff or increase its size/control over residents lives.

P3. What should be included in the Feasibility Study scope of work to guide the consultant, streamline efforts, and produce a robust report?

Response:

Early exploration of the CCE's mission and goals with the community and its residents will highlight specific areas that should be explored in the feasibility study and help define the scope. In addition, several California communities have undergone feasibility studies and could provide insight into what should be included. In our view, the overarching goal of the study is to understand the potential costs, benefits and risks to the community in going forward with CCE in the manner dictated by the individual

community's goals and objectives. The study therefore needs to: 1) carefully review the costs the City faces to establish a CCE, the benefits it could expect to accrue from a CCE, and the risks that need to be managed in a CCE; 2) detail the various options available for CCA development, governance, and implementation; and 3) provide the information, analysis, and insight that are needed to help clarify for the City whether CCE is a good choice, and if so, how it should be pursued.

We believe that a thorough and rigorous analysis is needed to weigh fully the opportunities and risks of pursuing a CCE. The City needs a robust quantitative risk assessment of CCE including a forecast of the plausible range of likely results under various conditions and a realistic appraisal of the likelihood of these conditions. This analysis should provide the community with a rigorous quantitative basis for assessing whether and how various CCE implementation options can help the City achieve the goals it has set out, and ultimately whether it should implement CCE, and if so how. It should assess the long-term financial viability and risks to operating a CCE organization, including an evaluation of potential governance models and risk control frameworks. Finally, it should analyze the impacts of various clean energy and greenhouse gas (GHG) reduction scenarios and also whether, and under what conditions, the CCE's electricity rates are likely to be competitive with those offered by the incumbent utility.

Technical and Energy Services

T1. What mix of short- and long-term contracts do you recommend and why? How many suppliers do you recommend using?

Response:

Current CCEs are taking on significant risks for their communities by making very long term commitments to power supplies, despite the tenuous commitment of the CCE's customer base to continue purchasing those supplies over time. While laddering the length of term for various supply contracts can be helpful, the individual structure of each CCE will determine the appropriate composition and term of the supply portfolio. What is most important in structuring the supply portfolio (and what is missing from the structure of the current CCEs' procurement processes and risk management frameworks) is to match the term and level of commitment for the load to that of the supply elements in the portfolio. In our experience, neither the existing CCEs nor their service providers are engaging in active management of the supply portfolio to adequately mitigate these risks.

Financial

F1. Are there any grants that may be available to help with seed money?

Response:

We are not aware of any specific grants that are available for the formation of CCEs. There may be third party service providers that would be willing to reimburse the City for its start-up funds under a long-term service agreement for CCE services.

F2. Aside from the possibility of lower rates, do you have any advice regarding value-added programs that may provide some benefit to the community?

Response:

We believe that the primary value drivers that CCEs typically offer beyond potential rate discounts are local self-determination and control over: 1) environmental stewardship (more renewables or lower GHG emissions in the community's power supply mix through a greener power procurement program);

2) local power supplies (renewable distributed generation located in the community that may provide local economic development, stability of supply availability/cost and locational generation benefits; 3) potential to increase ancillary electricity uses or substitutions, such as electric vehicle charging capabilities; and 4) demand side programs and smart grid/pricing programs that are not offered by the incumbent utility or other service providers.

F3. Suppose that the NCE comprises six cities with a million ratepayers. What you suggest is the approximate amount of seed money necessary? How about the working capital?

Response:

We haven't prepared a detailed estimate for NCE but would speculate that at least several million dollars could be needed for start-up of a North County CCE of this scale. Liquidity to support ongoing working capital for operations, and credit support for long-term power supply contract commitments, could easily be an amount for liquidity that is 5-10 times this amount or more. That said, we would anticipate that bank loans, lines of credit or customer accounts receivable could be used to provide some or all the start-up funds, working capital and credit support liquidity rather than funded directly by the communities.

Risks

R1. What do you consider to be the major risks in starting a CCE and how do you propose handling risks?

Response:

Preliminarily, these are the major risks that we see in a CCE:

- Loss of customer base through switching back to the incumbent utility, other suppliers and/or deployment of on-site generation;
- Inadequate management of the CCE's commodity supply portfolio to mitigate market risk and volatility;
- errors in estimating the costs, revenues and rates required to operate the CCE and maintain ongoing financial viability; and
- shortfalls in billing, customer service and other operations required to ensure ongoing customer satisfaction and loyalty.

Residents can move freely between the CCE and the utility for their electric service and there is no guarantee that they will continue to purchase power from the CCE. CCE service in California is structured as an "opt-out" program, which means that unless a customer actively chooses not to participate in CCE, the CCE becomes the default provider of last resort for that customer. This opt-out mechanism lowers the risk of load loss from the CCE, but it does not automatically mitigate any of the key risks listed above. Doing so requires defining the organization, management and staffing, commercial arrangements and incentive mechanisms to adequately and competently manage a CCE to mitigate these risks.