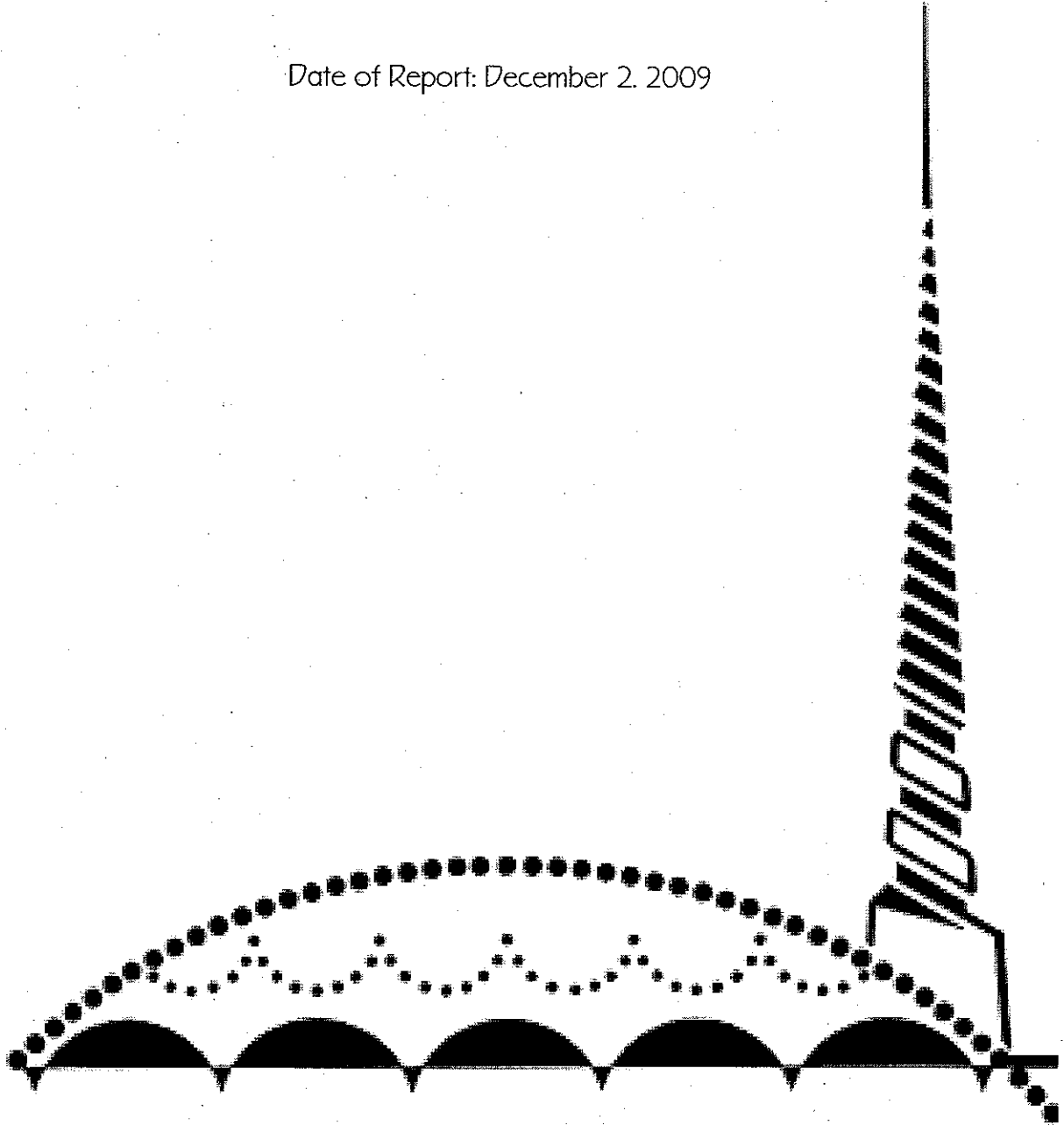
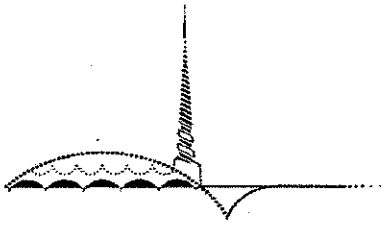


2009-2010 Marin County Civil Grand Jury

Marin Clean Energy: Pull the Plug

Date of Report: December 2, 2009





Marin Clean Energy: Pull the Plug

SUMMARY

Programs to preserve the environment clearly serve the interests of all Marin residents. The Grand Jury strongly supports the goal of achieving greater use of renewable and alternative energy sources as a means of reducing greenhouse gases. The issue explored in this report is not the need for “going green”, but rather how to achieve that goal in a manner that can be measured for success. The Grand Jury has concluded that the costs of the Marin Clean Energy (MCE) program remain undefined and the benefits are likely to be minimal. We believe there are alternative approaches that will better serve the community than the unproven and risky one now being proposed by the Marin Energy Authority (MEA).

The MEA, a recently formed Joint Powers Authority (JPA), is proposing the creation of the MCE program. The intent is to provide a higher percentage of electricity from renewable sources than is currently available through Pacific Gas & Electric (PG&E). This energy would be resold to residents, businesses and municipalities in the participating communities. The MEA Board would establish rates and policies and would eventually own and operate commercial power generating facilities. The transmission and distribution of electric power, as well as maintenance and billing, would continue to be performed by PG&E. Natural gas would not be part of this program.

The county and eight municipalities have expressed a tentative willingness to join, while the cities of Corte Madera, Larkspur and Novato have declined. The MEA Board has scheduled a final vote on February 4, 2010 regarding whether to proceed with the proposal. Unless a city council or the Board of Supervisors (BOS) decides to withdraw, that community will automatically be a participant.

According to the 2008 Community Choice Aggregation (CCA) Business Plan, the JPA plans to borrow approximately \$6.4 million during its initial year for start-up and working capital. An additional \$15.8 million of working capital will be required in subsequent years. The availability and sources of these funds have not been determined. Emphasis will be placed on providing long-term stability by eventually owning and operating renewable energy resources such as geothermal power plants, and wind and solar farms. To achieve this goal MEA plans to borrow an additional \$475 million.

The MEA Board of Directors, composed of one elected official from each of the participating jurisdictions, will have responsibility for signing contracts for the purchase of

power, setting rates for consumers, and overseeing the construction and financing of new generating facilities. MEA projects it will have approximately 100,000 customers who will be paying the costs of this new layer of bureaucracy.

Protecting the environment is in everyone's best interests. We believe there are many pathways to accomplish this, but any solution must be achievable and measurable. More stringent national and state regulations are requiring all energy producers to meet increased carbon neutral standards. PG&E will be required to meet these standards as well. In these economically challenged and difficult times, we question the decision to put the county into the business of operating commercial power generation facilities, a function not usually associated with the government of a small county.

The Grand Jury recommends that the MCE program be abandoned. We strongly urge the county and MEA to step away from their adversarial public posturing and seriously work with PG&E. No matter what has happened before, the time has come to foster cooperation. Efforts and money need to be directed toward forming a public/private partnership that will create an effective clean energy program that will help the county and cities achieve present and future environmental goals.

To PG&E we say, return to the table and work with Marin County. We support the efforts of all communities to work toward a more favorable mix of renewable energy. We also recognize that you have the expertise and the financial strength to be California's leader in protecting the environment. We ask you to partner with Marin to become a model for reducing greenhouse gas (GHG) emissions. It is a mutually beneficial goal.

Citizens of Marin are being led down a costly and extremely risky path not yet traveled by any other community in California. All costs incurred by MCE must be borne by the ratepayers as they are its sole source of revenue. An increment above the cost of power will be added to the ratepayer bill to cover all operating and financing expenses. Finally, MCE could present unforeseen legal and financial risks to the participating cities, the County of Marin, and the citizens as taxpayers. Every dollar expended by MEA must be recovered from the ratepayers. Therefore, it is the Grand Jury's recommendation that the Marin Clean Energy program be abandoned.

BACKGROUND

The passage of the CCA law in 2002, Assembly Bill 117 (AB117), enabled local governments to assume an active role in managing their electricity supplies through the selection of generation sources, investments in new power facilities, and rate setting. Once formed, a CCA is responsible for providing the energy commodity to its ratepayers. The existing utility provider, PG&E, remains responsible for the delivery, service, and billing of the electrical product as well as the supply of natural gas. To reap the benefits, the CCA will need to plan for financing, development, ownership, and operation of electric generating resources. Since passage of the law, many California communities have

investigated, researched, and/or attempted to form a CCA. As of the writing of this report, no CCA has yet been created in California.

MEA was formed in December 2008. As stated in the business plan, the county and participating cities would form a partnership to facilitate efforts to reduce greenhouse gas emissions from energy, provide more renewable energy choices, and create price stability. By June of 2009, this Authority counted among its tentative members the County of Marin and the cities of Belvedere, Fairfax, Mill Valley, Ross, San Anselmo, San Rafael, Sausalito and Tiburon. The legislation created clear off-ramps so that communities could withdraw during the study period. To date, Corte Madera, Larkspur and Novato have elected not to pursue membership.

Marin Clean Energy is the CCA program proposed by MEA to buy power directly from a contracted supplier in order to increase the percentage of renewable energy provided to participating customers. Under its current business plan, the MEA would sign a 5-year contract with an independent service provider to supply the energy. At some point, long term financing would be sought to actually begin the purchase and/or construction of renewable energy sources, i.e., wind farms, large-scale solar installations, biomass, and geothermal. According to the proposal, the MCE program would reduce Marin's greenhouse gas emissions, increase price stability, fuel small locally based green businesses, and enable local decision-making over the source, rate, and mix of electrical power used in Marin.

Legislation and executive orders are having a powerful impact on the rapid move toward carbon-neutral production. These mandates will force PG&E and all other energy suppliers to move aggressively toward renewable and carbon-free production. Energy innovation is changing daily. As a result, legislative and regulatory bodies are quickly adopting policies and procedures to take advantage of the latest technology. The most current and important legislative programs to be enacted are:

- California's landmark green legislation was signed three years ago (AB32), requiring the reduction of greenhouse gases to 1990 levels by 2020.
- California's existing Renewable Facilities Program set a goal of having 20% of retail electricity generated from renewable sources by 2010. This program is designed to establish a competitive, self-sustaining renewable energy supply while increasing the near-term quantity of renewable energy generated within California.
- On September 17, 2009, Governor Schwarzenegger signed Executive Order S-21-09, requiring that at least 33% of the state's energy creation and use by 2020 will be from renewable energy. A major purpose for this Order is to assure that utilities will have access to renewable power sources outside of California in order to meet the state's aggressive goals.

- AB 811 passed in July 2008, allows California cities and counties the ability to offer low-interest loans for energy-efficiency projects and solar panels to homeowners and small businesses. Relieved of high up-front costs, residents would repay the loans through assessments on property tax bills. If the home is sold, the outstanding loan balance is taken over by the new owner.
- Two solar bills were signed into law in California on October 12, 2009. AB 920 requires owners of solar or wind generation systems to be compensated for any surplus energy that they produce. SB32 was passed to encourage solar installations on large commercial spaces such as parking facilities and warehouse rooftops. The Bill requires utility companies to purchase excess solar electricity at a set rate over a twenty-year period.

METHODOLOGY

Like any new program or project that is in the development stage, MEA is subject to change as new information comes to light. The difficulty for the Grand Jury has been to determine what and when changes have been made. The 2008 CCA Business Plan was produced in April 2008. Since its publication, significant changes have been made. However, the documentation for these changes is absent. The business plan is an outdated document.

The Grand Jury interviewed representatives and staff of the County of Marin, representatives and committee members of the MEA, and members of the Board of Supervisors (BOS). Interviews were also conducted with representatives of several of Marin's municipalities. In addition, interviews were conducted with consultants of the firm that prepared the business plan, as well as independent consultants hired to review that plan. Representatives of PG&E, the California Independent System Operator (CAISO) and the California Public Utilities Commission (CPUC) were also interviewed.

Jurors attended council meetings of municipalities participating in MEA, meetings of the MEA Board and its working committees, and meetings of the BOS. Individuals representing opinions or organizations that support and oppose the proposed CCA also were interviewed.

The Grand Jury reviewed information including budgets, business plans and independent reviews of CCA viability, MEA studies and reports, minutes of MEA, the Board of Supervisors and municipal council meetings, and archived video and Power Point presentations from MEA and the BOS.

CCA programs considered by four other California communities were studied for applicable comparison to the proposed MCE program. A significant body of literature on the formation, risks and benefits of a CCA was also studied. For more detail on the information considered by the Grand Jury, please refer to the bibliography at the end of this report.

DISCUSSION

The following discussion is designed to enable Marin's elected officials and the citizens they represent to fully appreciate and understand the scope and implications of the decision they are about to make. Due to the complexity of the issue, most citizens have not taken the time to review the 100+ page business plan or the various alternative options.

The major questions are:

- Do consumers and municipalities understand this complex plan and what it will mean to them?
- How does the opt-out policy work?
- How many households and businesses will opt-out?
- If the opt-out number is large, will the remaining pool of customers be enough to support MEA's fixed expenses?
- Does the MEA Board have the professional expertise to compete in what has been a historically volatile and highly competitive business?
- Does it make sense to create a new level of bureaucracy by putting the county into the power business at a time when core services are being severely reduced?
- Will MCE accomplish the environmental goals outlined by MEA? What will the benefits be and at what cost? Where is the cost benefit analysis?

Organization of MEA

MEA is governed by a Board of Directors, composed of one elected representative from each of the participating jurisdictions. The primary duties of the Board are to establish program policies; set rates; provide policy direction to the Executive Director, and determine staffing, and compensation. The day-to-day operations of MCE will be under the direction of an Executive Director to be hired by the Board of Directors.

During the initial stage of the program, most of the operational responsibilities will be performed by the third party electric provider. These will include the technical functions associated with managing electric supplies and retail customer accounts. In the long-term, MEA may choose to have these functions performed by internal staff.

Where Do We Stand Today?

At this time, the MEA member cities, towns and the BOS, are in a 90-day period to review the contract that has been drafted with Shell Energy of North America, (US) PL. The MEA board is currently scheduled to vote on formation of the MCE program on February 4, 2010. The absence of a vote to withdraw would result in the wholesale transfer of all PG&E customers in those respective jurisdictions to MCE upon contract execution. Transfer of service will follow a phased approach:

- Phase I - municipal, commercial, industrial, and some residential accounts (20% of the customer base) by June 2010;
- Phase II - all remaining commercial and residential accounts (80% of the customer base) by January 2012.

As proposed, all utility customers within the unincorporated area of the County of Marin and the participating cities and towns in the JPA, will automatically have their electricity supplied by MCE instead of PG&E unless they take affirmative action not to participate (opt-out). Regardless of the consumer's election, as owner of the electric transmission and distribution network, PG&E will continue to transmit the electricity to homes and businesses, maintain all physical infrastructure, and process billing.

Resource Procurement Strategy:

In May 2009, MEA issued a Request for Proposal (RFP) for the supply of electric energy. The RFP requested that the bidders provide two fixed prices:

- Light Green with a minimum of 25% renewable energy
- Deep Green with 100 % renewable energy

Of the twelve bidders to the RFP three were deemed acceptable. Shell was selected as the prime candidate. The contract is based on the standard "Master Power Purchase and Sale Agreement" Version 2.1 (4/25/2000) developed by Edison Electric Institute. Although a good basis from which to start, this version of the Master Agreement by no means covers all of the requirements and unique Marin conditions and contingencies that would be involved in the supply of energy from renewable sources. Selected sections have been released, but a complete contract has not been available for a comprehensive review.

The objective of MEA is to provide Light Green energy (25% renewable) to the ratepayer at a price at or below PG&E's generating price. The promised rate to "meet or beat" only applies to year one for Phase I. Firm prices for Phase I will not be known until the completion of the 90-day review period, after the city and town councils have voted on their final participation in the JPA. The price for Phase II residential (80% of the program base) may not be set or known until late 2011 or early 2012. No such guarantee has been

made for Phase II customers. In making this statement MEA is comparing its probable price to the projected PG&E generating rates. Energy pricing can be very volatile, and use of historical data may not always reflect future rates.

It is purported by MEA that the firm price for Deep Green energy (100% renewable sourced) will be offered at a premium price of 5 to 10% above the Light Green option. It remains speculative how much this will actually be until the contract is executed. Based on information reviewed, the Grand Jury believes this projection to be low.

As of the publication date of this report, MEA has developed a Phase I contract with Shell Energy of North America, in first position as the energy service provider. The Phase I pricing when set in February 2010, is to be for a period of 5 years, starting June 1, 2010. In addition to this contract, the MEA must file an Implementation Plan with the CPUC. It is expected to be filed in December 2009.

MEA estimates that of those customers who do not opt-out of MCE, 80% will elect the Light Green option and 20% will opt for the Deep Green alternative. Although not revealed in available public documents, MEA representatives have stated at public meetings that customers not choosing the Deep Green option will be automatically enrolled in the Light Green option.

How Will These Goals Be Achieved?

The goal of MEA for the first 5-10 years is to provide customers of the Light Green option a rate offering at or below the projected rates of PG&E, and an estimated Deep Green rate at a 5 to 10% premium. The electrical service provider will act as a commodity broker but might not generate the power to fulfill the conditions of the contract. This power will have to be purchased from existing renewable sources. No new sources will necessarily be developed.

MEA plans to acquire and own renewable sourced generation facilities. The objective over the next 20 years is to progressively meet the demand with a mix of solar, wind, biomass, and geothermal power. Assuming that reserves can be accumulated to provide debt service, ownership or part ownership of renewable sourced power is envisioned. The belief is that ownership should help stabilize price volatility and reduce energy price risk. Renewable generation does not require a fossil fuel source.

A key aspect of the business plan is that it will benefit Marin County by bringing new jobs and employment to the local economy. The Marin County General Plan envisions the main population and business centers are to be in the City Centered Corridor along Highway 101. Open space and agricultural are to be concentrated in West Marin. Considering the size and topography of each sector, there is very little opportunity to develop large wind and solar installations. The most feasible power generating installations in the City Centered Corridor would be limited to solar panels on rooftops of businesses, parking facilities and homes. With all of the environmental restrictions in West Marin, it would be

difficult to imagine any major solar or wind project surviving the environmental review stage. The business plan states that large generation facilities may also be developed or purchased in areas outside of Marin such as Solano and the Altamont Pass. The potential for increased employment and new job opportunities in the county appears to be very limited.

The business plan that was introduced in April 2008 has become a moving target that needs updating. Since that time, some of the assumptions, dates and financials have changed due to new information and decisions. For example, the plan stated that the default plan for customers would be the 100% renewable product, now called Deep Green. As publicly stated in presentations by MEA, the default plan has subsequently been changed to the Light Green product of 25% renewable. The decision to switch default positions reduces revenue while not materially reducing expenses. In addition, the order in which customers will be added to the program was modified, and will have an impact on the timing of revenue and expenses. These adjustments may have been quantified, but they are not reflected in the plan. Presentations given to the participating cities have contained updated projections that differ from the plan.

Financing is another concern. The plan identifies approximately \$6.4 million needed for working capital to initiate the program, i.e. purchase the power to bring municipal and commercial customers on line. Traditional costs to be covered include payroll, consultants, contractors, and deposit requirements. The need for credit may increase by \$15.8 million to serve Phase II customers. This working capital provides for power purchases and overhead prior to the time MEA develops its own generation facilities. At that time, MEA plans to seek a final round of long-term financing, estimated to be \$475 million, in order to support development of renewable generation facilities.

The original "seed" money for the MEA consists of a series of grants and a January, 2009 loan from the Marin County BOS in three distributions totaling \$540,000 to date. This loan is to be repaid during the first year of operation. If the MEA does not proceed, it is unclear how the county taxpayers will be repaid. The entity will have no assets or cash flow until the actual delivery of power and the collection of the payments for that power.

If a government entity guarantees, endorses or collateralizes loans to the MEA, there is financial risk to the taxpayers. While there may be some financing alternatives available to the MEA, it would appear that it will have to rely on the credit of, or collateral from, some other entity in order to be deemed "creditworthy". On October 13, 2009, the BOS was advised that it will be asked to provide a guarantee to enable MEA to borrow \$2 million. This funding will occur prior to the planned contract execution of February 2010. Total initial credit projections indicate the need for working capital and start-up could exceed \$22 million.

Following the start-up of the program, the long-term intent of the MEA is to develop and own renewable generation capabilities. Financing appears to be more feasible since that event would not occur until the program had an established ratepayer base in addition to

having built up some reserves during the early years of operation. With proven cash flow and the ability to use the developed generation sources as collateral, the MEA would find receptivity in the markets and would probably be able to accomplish long-term financing to build the sources of power and repay the earlier incurred debt. The burden of repayment will be on the ratepayers. This may be reflected in higher monthly utility bills. If financing fails, MEA will be in the business of purchasing power indefinitely.

Opt-Out Provision

Once operational, all participating cities and the county will be transferred to the MCE program. As noted by multiple studies, this project is dependent upon the automatic transfer of all customers. The participation level that is critical to success may not be achieved if the consumer is required to opt-in. AB117 allows the nine members of the MEA Board to vote for formation. Consequently, all customers within the participating jurisdictions would automatically be transferred to MCE without customer or voter approval.

A recent *New York Times* article (November 17, 2009) explains that the sign-up rate for alternative renewable programs run by utilities is only about 2%, despite growing public interest. Solar and wind power generally are more costly than power generated by fossil fuels. The article goes on to say that while many people support alternative energy in principle, they personally may not want to spend hundreds of dollars more for electricity, especially in the current economic environment.

The burden of choice, therefore, is placed upon the individual customer. Residents will be required to respond to the MCE opt-out notification if they prefer to stay with PG&E. MCE plans to send out four such notifications over a 120-day period; beginning 60 days prior to automatic transfer. The following attributes of the opt-out provision remain to be addressed in public documents:

- How much will the ratepayers pay in penalties and exit fees if they opt-out after the 120-day period?
- How will ratepayers be notified of the opt-out process and the effective dates of withdrawal?

Benefits

MEA sees implementation of the MCE program as the best tool available to achieve significant progress toward its goals. MCE continues to be perceived as the major driving force to reduce greenhouse gas emissions in Marin County. Benefits may include:

- **Customer Choice:** The cities and county will have the ability to choose different renewable energy levels and benefit from long-term cost competition.

- **Cost Stability:** Costs may be locked in through power purchase agreements and owned generation assets.
- **Focus on Customer Needs:** The MCE program will bring value to customers by setting rates that are tailored to local needs.
- **Local Control:** Policy direction and rate setting will be the responsibility of the MEA board.
- **Greenhouse Gas Reduction:** The MCE program will aid in reducing GHG levels and help reduce potential compliance costs of AB32. MCE can help by increasing local consumption of renewable energy.

Risks

The business plan explicitly states that a quantitative risk analysis will be included in a future revision or supplement. Two independent reviews of the business plan repeatedly referred to the need for specific areas to be studied in such a review. The Grand Jury has requested the risk analysis on multiple occasions; it has not yet been provided. Consultants have informed the Grand Jury that further analyses of the contract and pricing may be performed immediately before and after contract execution. The specifics of these reviews are not outlined; whether these reviews will cover the depth of risk analysis suggested by peer reviews is unknown.

In an effort to better inform their elected officials, the participating city managers and the County Administrator contracted for an additional review of the service contract. Released by MRW and Associates on November 20, 2009, this report highlights significant risks to MCE customers. The report explores the volatility of energy pricing and encourages MEA to clarify that it may not “meet or beat” PG&E rates going forward. It recommends that MEA develop and publicize their proposed rate structure, identify and address unknown costs in the contract and potential rate discrepancies as Phase II customers are brought on-line. The Grand Jury strongly urges all participants in MEA to review this report and all others available on the MCE website.

The following risks have been identified by the Grand Jury through its research and are categorized as either near-term or long-term. The Grand Jury recognizes that there may be ways to mitigate these risks, but they should be made clear to all involved. With a few exceptions, the risks of MEA are actually risks to the ratepayers who are its sole source of revenue.

Near-Term Risks

The Contract. The timing of the contract with a supplier may result in a price that does not meet the commitment of MEA to be at or below PG&E’s price. As a result, if the MCE program does not go forward, all costs incurred to date will remain with the county. If the contract does deliver the promised price, then additional ratepayer concerns will be:

- How do the Deep Green rates compare to the current utility rates?
- How will termination fees be determined in the event MCE customers opt-out?
- How are uncertainties about the number of participants being addressed?
- Will a deposit be required?
- Have all potential costs been delineated in the contract?

Competitive Action. PG&E may take aggressive action to prevent the loss of customers to the MCE program. Such action might include customer outreach; legislative, regulatory and legal challenges, and the introduction of innovative public/private programs. The challenges could significantly impact MCE if ratepayers elect to remain with PG&E. The cost incumbent in combating such competitive action has not been quantified, and could be significant.

Market Movement. Energy costs are subject to volatile changes. MEA, along with all other buyers and sellers, will be subject to market volatility. PG&E may find it possible to ameliorate the effects of volatility as a high percentage of its generation costs have been fully amortized. With the intensity of legislative activity in this area, costs for renewable energy will likely increase with demand; therefore, long-term contracts may not prove advantageous for MEA. The Grand Jury has been told by various sources that the firm price for Deep Green energy (100% renewable sourced) will be offered at a premium cost over Light Green energy. It remains speculative as to how much this premium will be until the actual fixed contract prices are known.

Credit Availability. As already noted elsewhere, MEA will need to borrow money for start up and working capital before selling any electricity or owning any assets. The county has loaned funds thus far which, according to recent MEA presentations, total \$540,000. Repayment is expected during the first year. Larger sums will require more formal credit accommodations, which may be available only with some assistance from the county, or one or more cities. On October 13, 2009, county staff informed the BOS that if the program goes forward, MEA may need to request guarantees from the county and participating cities in order to secure credit. It should be noted that even if the cities do not guarantee MEA credit, it is possible that they would be exposed to future legal action.

Reduced Ratepayer Base. The CCA legislation provides that all ratepayers in participating cities and the county will be included in the MEA unless they take specific action to opt-out. Once a contract is signed for a specific amount of power, any reduction in the number of ratepayers will mean the MEA will have excess power that must be sold at the current market price. For this reason the business plan states that a "termination fee" will be charged to those that elect to return to PG&E after the initial opt-out period. Neither the amounts nor the calculation formula has been determined. The composition of the ratepayer base is highly skewed to the small business and residential ratepayers, a significant benefit to MEA. Marin demographics include few large users such as the Marin Municipal Water District (MMWD) that would pose risk if they elect to opt-out and return to PG&E.

Legislative and Regulatory Changes. The CCA concept has yet to be activated in California. Any start-up assumes risk that the rules may change. In the *New York Times* article previously cited, an example of regulatory risk is illustrated with a Florida Power and Light green power program called "Sunshine Energy". The program was terminated last year by the Florida State Public Service Commission, after an audit discovered that promised solar power facilities were far behind schedule and approximately 76% of homeowners' payments went to administrative and marketing expense instead of providing renewable energy.

Organization and Staffing. The appointed members of the MEA Board have little or no professional experience in the management of an electric utility company. It is essential that the key managers and staff members should, in addition to managerial and leadership abilities, have knowledge and prior experience in the electric utility business. Expertise in the procurement of power, rate setting, load forecasting, planning, risk management, and customer service will be essential. According to the Business Plan, key positions such as the Executive Director, Policy Analyst, and Sales and Marketing Manager were to be hired prior to the completion of the negotiations of the power supply contract(s). At this time, MEA has not identified individuals ready to step into these positions. Significant risk exists if there is a lack of personnel possessing proven track records.

Long-Term Risks

The business plan envisions MEA reducing its reliance on a contract from a single supplier by purchasing or constructing facilities to produce renewable energy. Any look into the future must include the possibility that this industry will be substantially different. Some of the short-term risks remain, and some additional considerations are apparent.

Technology Change. New technology will almost certainly alter the energy markets. More efficient solar and wind driven energy production is under development. Tidal and other concepts may be perfected. Tools, such as smart meters that focus on managing the demand side for energy, are already being implemented. This rapidly changing landscape calls for experienced and highly qualified experts to monitor and anticipate changes. For example, such an undertaking as purchasing or building a large scale production facility that is less than state-of-the-art would pose far-reaching consequences for MEA. Failure to anticipate large-scale changes in technology or markets could be devastating.

Market Dynamics. As in the near-term, the demand for renewable energy may cause market disruption. Compliance requirements to increase renewable content could drive major suppliers to buy up large segments of the market either by contracting for power or outright purchase of sources. MCE may find it challenging to get into this market and meet the 100% Deep Green option. It should also be recognized that the supply and procurement of renewable sourced energy requires special attention. The energy production profiles of solar and wind sourced generation are quite different from those of the conventional sourced generation. The production curve of solar, for example, is not a flat production curve even during full sunny days. The production could vary as much as

20 to 30% in a day due to atmospheric conditions. Similarly, wind sourced generation can vary during the day due to variations in wind speed, wind direction and ambient temperature. Consequently the MCE 100% Deep Green plan could be flawed because large hydroelectric, nuclear, and gas-fired generating capacity may be part of the power mix during certain times. Since solar and wind cannot be provided 24 hours a day, MCE would have to purchase Renewable Energy Credits (RECS) to off-set these non-renewable power sources.

Construction Feasibility. Current interest rates and construction costs are low due to a slow market. That could change before the MEA is in a position to take advantage of favorable market conditions. Environmental, neighborhood forces and litigation may delay or prevent the approval process and require that production facilities be located far from Marin County, thereby eliminating many of the benefits of local employment and local control.

Execution Risk and Accountability. The short and long-term plan for MEA is dependent on the ability to keep abreast of a series of moving targets. The elected officials who will comprise the Board of Directors will need to find highly qualified staff to run MCE on a day-to-day basis. Identification, compensation, and retention will be major elements in staffing MCE. A hiring mistake or a poor business decision will cost both ratepayers and politicians. MCE will not be a primary concern for the Board as the members are elected to govern other local entities. This is not to say that they will not be diligent, but it does say that their already busy schedules will become busier. The design and concept of a CCA does not provide much transparency for either the ratepayers or the voters (taxpayers) to determine accountability for the successes or failures of MCE.

It's All About the Ratepayers

The business plan and presentations have emphasized that the cities and county will have no liability for debts incurred by the MEA. However, the ratepayers will. All of the following expenditures will be added to the ratepayer's bill:

- Salaries and benefits
- Consultants and legal costs
- Marketing and servicing
- Contract revision costs
- Interest and amortization expense for debt
- Bonding obligation
- Customer exit fees
- All other overhead

In addition, in a slow-growth county such as Marin, the number of ratepayers will not grow significantly, and no one really knows how many will choose to opt-out. Coupled with a continued emphasis on energy efficiency, conservation, and the expansion of solar facilities, a scenario similar to what was recently experienced by the MMWD can be

envisioned. Successful conservation efforts reduced the demand for water, yet rates were increased to cover the built-in overhead costs. Demand for electricity may fall if more and more customers install solar and conserve through smart meters. However, the fixed costs of MCE, which include costs for salaries, benefits and debt service, are likely to remain static or increase. For example, the interest cost alone on the \$475 million is \$19 million per year at a 4% interest rate. Again, the ratepayers will be the only source of revenue for MCE.

Claims by MCE and PG&E as to the reductions of GHG are difficult to reconcile. A primary cause for the difficulty is that the definitions of qualifying renewable energy do not include nuclear or large hydroelectric plants, neither of which, once constructed, contributes to GHG. When these sources are included, along with solar and wind, the emission-free content of PG&E generation is already in excess of 50%. In contrast, the emission-free content of MCE for the first year will be close to 25% for an estimated 20% of their ratepayers. At the outset MCE renewable energy will not be new, but purchased from existing sources. No net reductions of GHG will occur until new production comes on line either from their supplier or through the purchase or construction of new facilities.

Other Approaches

Proponents of MCE have attempted to convince planners and elected officials that the purchase of renewable energy will lessen the need for the difficult task of addressing energy efficiency and the impacts of transportation. The Grand Jury finds that the degree of commitment to MCE has distracted from efforts to reduce the carbon diet of Marin residents. Communities throughout California are aggressively and creatively exploring programs to meet the goal of greenhouse gas reduction. The Grand Jury found innovative and targeted efforts directed at a wide range of improved methods of energy consumption. These include:

- ***Expand cleaner transportation options:*** 62% of Marin's GHG emissions come from gasoline-powered vehicles. Addressing this issue calls for trip reduction; increased use and availability of public transportation; bicycling; electric and plug-in hybrid vehicles; a shift to alternative fuel vehicles; alternative fuel infrastructure.
- ***Improve building efficiency:*** Support and promote existing green building standards and programs for residential, commercial, industrial, and governmental structures, and conduct energy audits and require energy efficiency efforts for buildings.
- ***Increase community resource efficiency and reuse:*** Encourage efficient water use and reuse efforts; promote waste recycling and energy generation; support efficient public and private land use strategies.
- ***Grow renewable energy use:*** Provide financial incentives, regulatory streamlining, and related efforts to promote rooftop solar systems; support utility shifts to renewable energy sources; support legislative efforts to reach renewable goals.

- ***Transform business products and practices:*** Encourage private sector efforts to move to new green product lines in established industries; shift to new materials and more efficient technology.
- ***Energy infrastructure:*** Encourage efforts to build a smart grid, which is a combination of transmission lines and information networks that allows for seamless integration of distributed, renewable sources of electricity, provide better information about usage and pricing (via "smart metering") that can improve energy efficiency.

The efforts described above approach goals in a realistic order. Transportation is the major contributor to GHG emissions in Marin. Energy efficiency is also ranked high. Eliminating the need, or reducing the demand for energy, equates to a savings of never having to produce the energy in the first place. Sonoma and Berkeley, two equally environmentally conscious communities, have already implemented other less costly and risky alternatives to achieve reductions in GHG emissions.

The Grand Jury notes the efforts of the City of Berkeley as a forerunner in the development of local energy efficiency management. The County of Sonoma and the Silicon Valley Joint Venture have engaged in equally aggressive planning, and have seriously targeted cleaner transportation. Most of these communities include all of the above options and have some form of partnership with PG&E. They have moved ahead without forming new bureaucracies. We found little evidence that either MEA or MCE has fully or seriously explored alternatives, including the partnerships offered by PG&E

In addition, the Grand Jury did find evidence of PG&E's willingness to work with county departments through a variety of cooperative relationships to support green energy and to create the basic components of the MCE program without the above-described risk to ratepayers and taxpayers. That offer was followed by a detailed proposal presented to county staff and the Board of Supervisors in November 2008. At that meeting, the board voted to discontinue pursuing efforts with PG&E and approved the formation of MEA

FINDINGS

- F1. The formation of the Marin Clean Energy Community Choice Aggregation creates a new level of government while the county and local communities are experiencing reductions in basic municipal services.
- F2. The Marin Energy Authority is not required to submit the Marin Clean Energy program to a vote of the public; although legal, this process runs contrary to transparent governance and consumer protection standards.
- F3. Unless a participating city, town or the County of Marin votes to withdraw from the Marin Energy Authority, residential and business customers will be transferred to the Marin Clean Energy program.

- F4. The opt-out option means that all consumers in the participating jurisdictions will automatically become subscribers to the new Marin Clean Energy program, unless they decide to take affirmative action not to participate.
- F5. Neither the Board of Supervisors nor the Marin Energy Authority has fully explored or tried to negotiate partnerships offered by PG&E.
- F6. The 2008 Community Choice Aggregation Business Plan is outdated and lacks sufficient detail, including current pro-forma data, updated market analysis, load projections, customer exit fees and the specified quantitative risk analysis.
- F7. The construction of owned facilities is a requirement for the success of the Marin Clean Energy program. Due to community resistance and planning constraints, it is highly unlikely that the Marin Energy Authority will succeed with local construction of sufficient large-scale renewable energy sources within Marin County.
- F8. Neighboring communities have successfully implemented a wide variety of efforts to target energy efficiency and greenhouse gas reduction within their communities through partnerships with local agencies, foundations and PG&E.
- F9. The degree of commitment to Marin Clean Energy has distracted local agencies from the pursuit of the wide range of other options available to reduce greenhouse gas emissions.
- F10. The risks of this venture are far too great to ignore in spite of repeated assurances from the Marin Energy Authority. Multiple reviews have identified significant ratepayer risks.
- F11. The service contract recently approved by the Marin Energy Authority Board is incomplete and only covers Phase I and excludes pricing.
- F12. The actual rates Marin Clean Energy will charge the majority of its customers, most of whom are residential, may not be known until late 2011 or early 2012.
- F13. The Grand Jury finds that most monies spent to date have been for professional services of attorneys, consultants and outside peer reviews. The Grand Jury believes that these expenses are indicative of the highly complex nature of this undertaking.
- F14. Placing this complex, expensive and volatile business venture in the hands of rotating city/county elected officials charged with other obligations, presents the Marin taxpayers with an unacceptable risk.

RECOMMENDATIONS

The Grand Jury recommends:

- R1. That the Marin Clean Energy program be abandoned.
- R2. That the county and all participating municipalities of Marin Energy Authority should step away from their adversarial public posturing and seriously work with foundations, federal, state and local agencies and PG&E to foster cooperation. Moreover, rather than create a costly and very risky new county bureaucracy, efforts and resources should go forward to form public/private partnerships that will enable the county and all of the cities to achieve their present and future environmental goals
- R3. That in the event the Marin Clean Energy program is not abandoned, the Board of Supervisors and all participating municipalities review all available documentations and demonstrate their confidence, understanding and commitment to this project by voting at a publicly noticed meeting prior to committing their respective jurisdictions to final membership.
- R4. That the full contract, including all terms, conditions, and pricing be provided to all parties prior to the final opportunity to withdraw.

REQUESTS FOR RESPONSES

Pursuant to Penal Code Section 933.05, the Grand Jury requests responses from the following governing bodies:

- Marin County Board of Supervisors: **All Findings and Recommendations 1, 2, & 3**
- The city and town councils of Belvedere, Fairfax, Mill Valley, Ross, San Anselmo, San Rafael, Sausalito and Tiburon: **All Findings and Recommendations 1, 2 & 3**
- The Marin Energy Authority Board of Directors: **All Findings and Recommendations 1, 2 & 4**

The governing bodies indicated above should be aware that the comment or response of the governing body must be conducted in accordance with Penal Code Section 933 (c) and subject to the notice, agenda and open meeting requirements of the Ralph M. Brown Act.

California Penal Code Section 933 (c) states that "...the governing body of the public agency shall comment to the presiding judge on the findings and recommendations pertaining to matters under the control of the governing body." Further, the Ralph M.

Brown Act requires that any action of a public entity governing board occur only at a noticed public meeting.

Disclaimer

This report was voted on and approved by the Grand Jury with the exception of one member who abstained from final deliberations and voting because of ownership of publicly traded stock in one of the companies mentioned in this report.

Reports issued by the Civil Grand Jury do not identify individuals interviewed. Penal Code Section 929 requires that reports of the Grand Jury not contain the name of any person, or facts leading to the identity of any person who provides information to the Civil Grand Jury. The California State Legislature has stated that it intends the provisions of the Penal Code 929 prohibiting disclosure of witness identities to encourage full candor in testimony in Civil Grand Jury investigations by protecting the privacy and confidentiality of those who participate in any Civil Grand Jury investigation.

BIBLIOGRAPHY

California Solar Resources: California Energy Commission, April 2005. California Energy Commission 500-2005-072-D

Community Choice Aggregation: The Viability of AB 117 and its Role in California's Energy Markets – An Analysis for the California Public Utilities Commission. The Goldman School of Public Policy, University of California, Berkeley, June 13, 2005.

Community Choice Aggregation Pilot Project PIER Final Project Report. California Energy Commission, February 2009, 500-2008-091

Customer Credit Renewable Resource Account: Report to the Governor and Legislature. California Energy Commission, Commission Report, April 2003, 500-03-008F

The Economics of Community Choice Aggregation: The Municipalization of Local Power Acquisition and Production. Bay Area Economic Forum: A Partnership of the Bay Area Council and the Association of Bay Area Governments, June 2007. Print.

Final Opinion and Recommendations on Greenhouse Gas Regulatory Strategies. California Energy Commission and California Public Utilities Commission, October 2008. Print.

Galbraith, Kate. *Shorted: Paying for Green Power, and Getting Ads Instead*. New York Times, 17 November, 2009.

Increasing Renewable Energy Resources in the County of Marin, Jody London Consulting, November 2007.

Marin-California Community Choice Aggregation Plan. Navigant Consulting, April, 2008. Print.

Marin Community Choice Aggregation Project – Local Government Task Force Update. Navigant Consulting, March 6, 2008. Print.

Marin County Greenhouse Gas Reduction Plan. October 2006. Web.
<http://www.co.marin.ca.us/depts/CD/main/comdev/advance/Sustainability/susinitiatives/Climate/Climate.cfm>

Marin County-PG&E Renewable Energy Program. August 2008. Web.
<http://marincleanenergy.info/newMCE/updates.cfm>

Marin-PG&E Partnership Proposal. November 2008. Web.
<http://marincleanenergy.info/newMCE/updates.cfm>

Marcus, William B., *Review of the (Draft) Business Plan for the Marin County Choice Aggregation Program.* JBS Energy, Inc., February 29, 2008. Print

McGinn, Daniel. "The Greenest Big Companies in America." *Newsweek*, 28 September, 2009: 34. <http://www.newsweek.com/id/215577> Print.

Monsen, William and Fulmer, Mark, MRW & Associates; Marcus, William, JBS Energy, Inc. *Review of Navigant Consulting's Community Choice Aggregation Feasibility Studies.* August 17, 2005. Print.

Monsen, William and Fulmer, Mark. *Community Choice Aggregation Review.* MRW and Associates, October 15, 2008. Print.

Monsen, William and Fulmer, Mark. *Analysis of Service Agreements and Financial Risk to MEA,* MRW and Associates, November 20, 2009. Print.

PG&E and Marin: A Green Community Partnership. November 2007. Web.
<http://marincleanenergy.info/newMCE/updates.cfm>

PG&E Proposal. May 2008. Web. <http://marincleanenergy.info/newMCE/updates.cfm>

PG&E Proposed Greenhouse Gas Reduction and Renewable Energy Partnership Plan. December 2008. Web. <http://marincleanenergy.info/newMCE/updates.cfm>

Renewable Resources and the California Electric Power Industry: Systems Operations, Wholesale Markets and Grid Planning: California ISO, July 20, 2009.

Rodgers, Connie. "MEA: Ever Changing and Extraordinarily Expensive" NorthBaybiz, August, 2009.

Solar & Energy Efficiency District (SEED), Draft Program Implementation Plan – MEA, June 2009.

Sustainable Marin Nature, Built Environment, and People, Marin Countywide Plan – Marin County Community Development Agency, October 2008

WEBSITES:

Air Resources Board of California: www.arb.ca.gov

Bill Documents. Sacramento, CA: State of California. <http://www.leginfo.ca.gov>

Center for Resource Solutions: www.resource-solutions.org

California Energy Commission: www.energy.ca.gov

California Independent System Operator: www.caiso.com

California Natural Resources Agency: <http://ceres.ca.gov>

California Public Utilities Commission: www.cpuc.ca.gov

California Solar Initiative: www.californiasolarstatistics.ca.gov

City of Berkeley, Energy and Sustainability Development: <http://www.ci.berkeley.ca.us>

County of Marin, BOS Meetings: <http://co.marin.ca.us/depts/BS/Archive/Meetings.cfm>

Environment California: www.environmentcalifornia.org

Green Marin: www.greenmarin.org

Marin Clean Energy: <http://www.marincleanenergy.info>

Marin Community Development: <http://www.co.marin.ca.us/depts/CD/Main/index.cfm>

Marin Energy Authority: <http://www.marinenergyauthority.org/>

Pacific Gas and Electric: www.pge.com

Sierra Club of the Bay Area: <http://sfbay.sierraclub.org>

Sonoma County Energy (SCEIP): <http://www.sonomacountyenergy.org/>

Wikipedia: <http://en.wikipedia.org>

Glossary

- AB 32** Assembly Bill 32 (2006), the California Global Warming Solutions Act
- AB 117** Assembly Bill 117 (2002), the Community Choice Aggregation Law
- AB 560** Assembly Bill 560 (proposed), would increase the cap on "net metering" from 2.5% of peak demand in the utility's system to 10% (net metering gives solar customers credit on electric bill for surplus they transfer to the utility)
- AB 811** Assembly Bill 811, allows land-secured loans for homeowners and businesses that install energy-efficiency projects and clean-energy generation systems to be paid back through assessments on individual property tax bills.

- AB 920** Assembly Bill 920, requires utilities to pay for credits on any electricity left over at the end of the year (at present leftover credits are zeroed out at the end of the year)
- Berkeley FIRST:** Financing Initiative for Renewable and Solar Technology: Berkeley FIRST is a solar financing program operating in the City of Berkeley which provides property owners an opportunity to borrow from the City's Sustainable Energy Financing District to install solar photovoltaic electric systems and allow the cost to be repaid over 20 years through an annual special tax on their property tax bill.
<http://www.ci.berkeley.ca.us/ContentDisplay.aspx?id=26580>
- Berkeley Solar America:** Through its Solar America Cities partnership with the Department of Energy, Berkeley's goal is to develop a "turn-key" solar installation program in its municipality. The city also plans to increase local capacity for solar energy installations by working with local suppliers, installers, trade associations, and financiers.
- Biomass Energy:** Energy generated from plants and plant-derived materials such as trees, agricultural products, and other living plant materials.
- CAISO** **California Independent System Operator:** Agency charged with operating the majority of California's high voltage wholesale power grid.
- CCA** Community Choice Aggregation enables local governments to assume an active role in managing electricity supplies, investing in new power facilities and setting rates.
- CEC** California Energy Commission, State energy policy and planning agency.
- CPUC** California Public Utility Commission
- CSI** California Solar Initiative
- CTC** Competition Transition Charge
- ESP** Energy Service Provider
- Geothermal energy:** Energy generated from the heat of the earth usually from geothermal water, steam, or other hot fluids brought up to the surface from wells.
- GHG** Greenhouse Gas emissions, any of the atmospheric gases that contribute to the greenhouse effect by absorbing infrared radiation produced by solar warming of the Earth's surface. They include carbon dioxide (CO₂), methane (CH₄), nitrous oxide NO₂), and water vapor.
- IOU** Independent Owned Utility
- IPP** Independent Power Producer
- JPA** Joint Powers Agreement
- KW** Kilowatt, unit of electric power output or consumption.
- KWh** Kilowatt hour, unit of electric generation or consumption measure during one hour. The average annual energy consumption of a household in the United States is about 8,900 KWh
- LARS** Local Area Reliability Service

Marin Climate and Energy Partnership: A group of representatives from all Marin municipalities, Marin County, the Marin Municipal Water District and the Transportation Authority of Marin to assist municipalities assess, prioritize and implement greenhouse gas (GHG) reduction activities in their greenhouse gas reduction programs.

Marin Clean Energy Initiative - MCE: A program initiated by MEA calls for MEA to compete with PG&E as retailer of electricity to Marin customers in order to boost usage of renewable energy

Marin Energy Authority – MEA: A JPA established in 2008 and made up of Marin County and 8 cities and towns

MW Megawatt, equivalent to 1000 KW

MWh Megawatt hour, equivalent to 1000 KWh

NCPA Northern California Power Agency

PG&E Pacific Gas and Electric

PPP Public Purpose Program, energy efficiency program that provides rebates for energy efficiency

RAR Resource Adequacy Requirements, requirements by CAISO to (a) establish appropriate levels of reserve margins, and (b) ensure adequate resources are committed to the region

Renewable Resources: Power generated from resources that can be replenished.

Eligible Renewable Resources: Renewable resources meeting specific requirements as determined by the California Energy Commission. To qualify a generation must use one or more of the following renewable resources: biodiesel, biomass, fuel cells, geothermal, landfill gas, ocean wave, ocean thermal, tidal currents, photovoltaic solar, thermal solar, small hydroelectric (30 megawatts or less), wind.

RFP Request for Proposal

San Rafael BERST: Green Building, Energy Retrofit and Solar Transformation Collaboration. The Marin Green BERST collaborative was recently initiated by San Rafael as an effort to study and pursue policy and model program options for green building regulations and energy efficiency retrofitting for existing buildings.

SB 32 California Senate Bill 32, increases the size of generation facilities eligible for California's feed-in tariff program from 1.5 megawatts (MW) to 3 MW, increases the statewide cap from 500 MW to 750 MW, and expands the program to include municipal utilities.

SCEIP The Sonoma County Energy Independence Program, Sonoma County's Energy Independence Program is a new opportunity for property owners to finance energy efficiency, water efficiency and renewable energy improvements through a voluntary assessment.

www.sonomacountyenergy.org.

SJVPA San Joaquin Valley Power Authority

Smart Grid: Using wireless technology to improve the ability to analyze the grid and manage power transmission and delivery of electricity in the most efficient manner.

Smart Meter: A wireless electric meter that identifies consumption in more detail than a conventional meter and transmits that information to the local utility for monitoring and billing purposes.