

IMPERIAL COUNTY

PLANNING & DEVELOPMENT SERVICES

PLANNING / BUILDING INSPECTION / ECONOMIC DEVELOPMENT / PLANNING COMMISSION / A.L.U.C.

JURG HEUBERGER AICP, CEP, CBO
PLANNING & DEVELOPMENT SERVICES DIRECTOR

CERTIFIED MAIL No. 7007 1490 0003 4072 7504

November 30, 2009

California Energy Commission
Dockets Office, MS-4
Re: Docket No. 09-Renew EO-01
1516 Ninth Street
Sacramento, CA 95814-5512

DOCKET	
09-RENEW EO-1	
DATE	<u>NOV 30 2009</u>
RECD	<u>DEC 07 2009</u>

Subject: Comments on the CEC's Proposed Best Management Practices (BMP Manual) for "Desert Renewable Energy Projects"

Dear Commissioners and Staff:

On October 5, 2009, the County received the proposed "Draft Best Management Practices (BMP) and Guidance Manual: Desert Renewable Energy Projects" for review and comment. Pursuant to the Governors Executive Order S-14-08, the BMP Manual is scheduled to be finalized on December 31, 2009.

The following are comments on the BMP Manual as it relates to renewable energy projects and permitting in the County of Imperial:

- 1) The strategy of the BMP Manual is to "...accelerate the permitting of renewable portfolio standard projects (RPS) in the California desert region..."

Comment: Since 1971, the County of Imperial has prepared for development of its indigenous and natural geothermal energy resources by analyzing its development impacts on various resources and has prepared mitigation measures for these impacts (reference the following sections). If there has any been lengthy delays in RPS projects in other desert areas, this has not been the case for County review and approvals of renewable energy projects.

- 2) Page iii, the BMP Manual states "...The recommendations propose guidance..." and are not considered mandates and are "...suggestions...to facilitate the issuance of required permits..." Since the BMP Manual is "...offered to project developers...Local and Tribal jurisdictions, when reviewing and permitting renewable energy projects, are encouraged to use the guidance and BMPs when appropriate..." Page 8, subparagraph 2) The

project will not use fresh groundwater or surface water for power plant cooling...” Page 28, 3rd paragraph, “...BMP’s are too general to be project specific mitigation measures...”

Comment: Since the proposed BMP’s are only recommendations, provides guidance, suggestions and not mandatory for affected agencies, the above BMP restriction on water use is not applicable to Imperial County.

The County continues to work very closely with the local irrigation district, Imperial Irrigation District (IID), which provides Colorado River water for use by local municipal, commercial and industrial users. For renewable “green energy” projects, the County requests that a “Water Supply Assessment (WSA)” be completed by the developer in a coordinated manner with the appropriate IID staff members. This close cooperation for water usage between the County, IID and renewable energy developers assists in reducing time delays for project approvals.

The County is in favor of tighter regulations on use of water for cooling towers to reduce water conception and feels that the MBP needs to be more specific with its language requiring operators to use hybrid or air cooled systems. Additionally, seasonal and climate factors need to also play a part in cooling towers. Such as in desert climate during hot weather periods allowing the limited use of water for cooling towers in a dual or hybrid system that uses air or other non-water related cooling systems during non hot weather periods.

- 3) Page 54, it states that “...Imperial County notes that contamination of groundwater aquifers could be caused by upflow through a fault or by leakage of the injected fluid behind the casing due to a poor cement bond or through a casing damaged by corrosion or mechanical causes...”

Comment: Since the BMP Manual does not identify who made this statement, please be advised that the groundwater within the greater irrigated area of the County is considered “non-potable” water by the Colorado River, Regional Water Quality Control Board, Region 7. If groundwater is used by future renewable energy projects, treatment of such groundwater may be necessary prior to use in the project’s facilities.

- 4) Page 55, Water Supply BMPs, it states “...The use of surface or groundwater for cooling a geothermal facility...will result in lengthy delays of permitting timeframes...Use degraded or reclaimed water sources for geothermal-source water supplies, as much as possible. Minimize the use of fresh water supplies...” Since 1971, the County’s processing of a Conditional Use Permit (CUP) Application for geothermal exploratory or power plants has been well established (reference the following sections). A CUP Application for drilling a fresh water well or groundwater well is part of

the initial permit process. There have been no noticeable “lengthy delays” in the County’s review, permitting or regulatory activities regarding geothermal development. Whenever possible the County processes discretionary permits concurrently, in order to reduce the processing time and to comply with CEQA’s “whole of the project” requirements.

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If the IID staff reviews and approves the WSA, the developer pays the industrial rate, and complies with all IID regulatory standards, the renewable energy project approval process is handled in a timely and efficient manner.

- 5) Page 70, it states that “...DOGGR delegated its exploratory geothermal well-permitting authority to Imperial County for such wells drilled in the county’s jurisdiction...” The County provides “Quarterly Reports” to the California Division of Oil, Gas and Geothermal Resources (DOGGR) for all exploratory well projects as well as geothermal power plant projects that are proposed for development in the County. This has been done since the early 1980’s with no problems found to date in the County and State permitting process.
- 6) Page 77, Geothermal, it states that “...Geothermal energy is an enormous heat and power resource that emits little or no greenhouse gases and is reliable (average system availability of 95%)...” Page 79, it states, “...For projects where water cooling is essential to the plant’s operation, use of nonfresh water is preferred...”

Comment: As discussed previously, the County is in an extremely hot and dry desert climate and for this reason water has historically been used for cooling towers. The source of this water, typically has come from the IID. The water has also come from, treated river water, drain water and/or groundwater, or from a local municipality’s wastewater treatment plant. The determination of the particular source of water for cooling tower purposes is part of the County’s CUP application process. The use of water for cooling towers during hot periods of the year may be ultimately be the only solution, but a hybrid or dual cooling system that would reduce the facility’s dependence on water would be amore ideal solution.

- 7) Page 80, it states "...In Imperial County, the Monofill Facility is dedicated to receiving non-hazardous solid waste from eight nearby geothermal power plants..." CalEnergy Operating Corporation who operates the Monofill facility has ten plants that utilize the Monofill for disposal of their geothermal filter cakes, drilling mud, and scale from existing operations.

Comment: Please make this correction in the final BMP Manual.

Background:

Imperial County is in the process of updating its "***Geothermal/Alternative Energy and Transmission Element***" as part of an update of the entire General Plan. Due to the uniqueness of the numerous renewable energy sources in the County, the development of our indigenous renewable energy resources must be reviewed, analyzed, and be treated differently than other areas in the State.

The County and the BLM, El Centro Field Office have been approached by a number of alternative renewable energy proponents for development locations throughout the County. For example, recently proposed "green energy" developments include new geothermal plants, solar, wind, micro-algae, bio-fuels, carbon capture, natural gas, bio-mass, and ethanol projects, to name a few.

In 1971, the County developed the "Terms, Conditions, Standards and Application Procedures for Initial Geothermal Development" which outlined measures to minimize impacts to productive agricultural lands and environmental resources, e.g. listing minimum separation distances (buffer zones) between a geothermal well and various facilities.

In 1977, Imperial County was the first County in the State of California to prepare a "***Geothermal Element***" as part of its General Plan. The "***Geothermal Element***" was prepared with funding initially provided from the National Science Foundation. In 1985, the California Energy Commission funded the revision of the 1977 Element to include the adopted "***Transmission Corridor Element (1980)***" into the document. At that time, California Energy Commission and its staff participated in the revision and have been involved in the other five revisions of the County's "***Geothermal and Transmission Element***".

The 1977 Element estimated that 4500 megawatts of electricity could be generated by the year 2020 from four identified anomalies, i.e. Salton Sea, Heber, Brawley and East Mesa. In 1985, the estimated geothermal resource available was 3,000 MW's and in 2009, the total estimated renewable energy resources that could be developed in the County is approximately **2,810 MW's**. The vast majority of future geothermal development will be in the Salton Sea anomaly. The original estimate in 1977 for this area was 2,000 MW's, and now CalEnergy has estimated future development at **2,330 MW's**. Currently, there are four geothermal Master EIR's that encompass the Salton Sea, North Brawley, South Brawley and Heber, that presented the various existing conditions at the time, impacts of

geothermal development and the mitigation measures necessary to mitigate such impacts.

For example, geothermal energy is a "green energy resource" and has many distinct advantages over other renewable energy resources/facilities as follows:

(1) **Environmentally Clean Technology:** Scientists have recently warned of the need to reduce the emissions of "greenhouse gases", i.e. carbon dioxide, sulfur dioxide, nitrogen oxides, methane gas, and other pollutants from certain fossil-fueled power plants which have become a major environmental issue because of the multi-national effect of "acid rain" and the warming "greenhouse effect". No significant "greenhouse gas emissions" are present from operation of geothermal power plants, i.e. the binary technology (which is essentially a closed system) or the higher-temperature flash technology.

(2) **Reliability:** Geothermal energy can provide an available and reliable base load power source for CAISO and public utilities, especially in Southern California which is experiencing increasing requests for "green energy". As was stated above in the BLM Manual, geothermal power plants can operate reliably at baseload capacity of about 95 percent. This highly reliable baseload into the grid system is due to the many technological breakthroughs and inherent stability of the geothermal resource. Geothermal facilities are not subject to disruptions in sunlight, oil/diesel supplies, gasoline supplies, green waste/bio-mass supplies, natural gas supply, or wind fluctuations, to name a few.

(3) **Indigenous Power Source:** Geothermal energy is literally "underfoot", and lower temperature geothermal resources can be utilized through the use of the "binary" technology. By the full development of our natural geothermal resource, California can improve its energy portfolio and security by its reducing dependence on foreign oil sources, such as OPEC or other fossil-fuel sources. As a nation, we must plan ahead for the time when oil, gas, and/or strategic metal sources overseas for any reason "dry up" or no longer are available or not a cost-effective fuel source.

(4) **Permitting/Regulatory Acceptance:** Geothermal energy development and approval on federal, state, military, tribal lands, and private lands in Imperial County occurs simultaneously in a timely and non-controversial manner. For example, geothermal power plants are compatible with other land uses because they can be built in cooperation with the landowner and other affected landowners/agencies. Within a relatively short permitting and construction time of approximately one and a half years, small modular units with components built at the factory insures less on-site construction and minimizes environmental impacts. Thus, farmers can grow crops directly next to geothermal power plants while receiving royalty and lease payments for development of their underlying indigenous geothermal resource.

(5) **Protection of Sensitive, Rare or Endangered Species:** Since geothermal power plants can be situated on relatively small land areas, the power plant, wells, well

pads, and brine pipelines can avoid rare and endangered species and their habitats, or mitigation measures can be built into the project's design, and are jointly reviewed by the U.S. Fish and Wildlife Service, the California Department of Fish and Game, military, tribes, and other environmental agencies, and local/concerned residents in order to avoid any significant impacts on the local flora/fauna that may need special protection.

(6) **Revenue Source for Local Government:** With dwindling federal/state resources to local governments, the full development of our natural renewable resources can assist in producing local employment, additional tax revenues, related commercial/industrial developments, and other secondary purchases of goods and services. At this time, this is particularly necessary due to the deepening economic crisis that the State of California and the Nation is experiencing.

(7) **Future Renewable Energy Technologies:** In defining the future mix of renewable energy technologies, the State and Federal agencies should be particularly aware of the benefits of our local renewable development. The U.S. Department of Energy continues to be supportive of the efforts to fully develop the County and the country's indigenous and natural "green energy" resources. The County and the BLM, El Centro Field Office, are currently reviewing and processing numerous applications for future solar, wind, and geothermal development proposals.

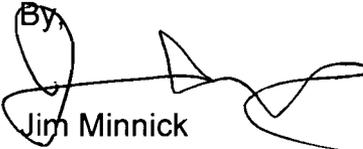
We urge the State and Federal agencies, to continue to allow the permitting of the County's renewable "green energy" projects in a timely manner, promote renewable energy tax incentives, and continue to work with the County to inform the public about the distinct advantages in fully developing our unique and natural renewable energy resources.

If you have any questions please contact Jim Minnick at (760) 482-4236 extension 4278 or by email at jimminnick@co.imperial.ca.us.

Sincerely,

Jurg Heuberger, AICP, CEP
Imperial County Planning & Development
Services Director

By


Jim Minnick
Imperial County Planning & Development
Planning Division Manager

CC: Jurg Heuberger, AICP, CEP Planning Director
Darrell Gardner, Assistant Planning Director
File 10.101. 10.105. 10.130, 10.133.

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