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CURRENT CALIFORNIA LEGISLATIVE
AND REGULATORY ACTIVITY
IMPACTING GEOTHERMAL HYDROTHERMAL
COMMERCIALIZATION: MONITORING REPORT NO. 2

April 20, 1980

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CHAPTER ONE: CURRENT LEGISLATIVE ACTIVITY

In our first "Monitoring Report" on California's state-level governmental activities in the geothermal area,^{1/} we noted the introduction of four separate bills. Two of these - S.B. 1205^{2/} and A.B. 1961^{3/} - dealt with an overall State Energy Finance Authority and a specific State Geothermal Finance Authority, respectively.

The third - A.B. 1905^{4/} - also carried financial overtones. It provided a formula for the state-county split of California's share of Federal geothermal lease revenues. The latter would include 50% of all geothermal lease bonus, rental and royalty payments accruing to the U.S. from public lands within the state.^{5/} A fourth bill - A.B. 1219^{6/} - would have given the State Division of Oil and Gas the discretionary authority to either shut down or prevent geothermal well drilling activities that might harm the state's various hot springs. It represented a somewhat more relaxed version of an earlier hot springs protection bill that was narrowly defeated in Assembly committee in 1978. What follows is an update on the current status of those four bills.

(1) A.B. 1219: This second attempt at fashioning a legislated solution to a widely-publicized complaint against hydrothermal geothermal resources development - its possible negative impact upon hot springs - has been dropped by its author, after almost making it out of committee to the Assembly Floor in the previous session in a much tougher form, many analysts rated its

chances of success in the current 1979-1980 session as anywhere from good to excellent. But strong geothermal industry opposition led to the bill being dropped. Ultimately, the industry may wish that it had worked with the Hot Springs Protection Society and the Sierra Club in coming to some sort of agreement. In the absence of any regulatory channel for the handling of geothermal developer - hot spring owner/user disputes the only avenue of legal redress available to the latter will be via court suits. The judiciary is generally ill-equipped to deal with the highly technical aspects of issues such as this one and its decisions often reflect that dearth of expertise. Whether it would have the wiser course to set up some sort of administrative agency like D.O.G. as arbiter remains to be seen.

(2) A.B. 1905: Assemblyman Douglas Bosco's bill to allocate the state's 50% share of Federal geothermal lease revenues from public lands within California has undergone several revisions, as we reported in January. In its latest transmorgification, it foresees a 40/30/30 split of the money. The "counties of origin" (e.g., Sonoma, Lake, Imperial) would get the 40% directly, while 30% would go to Resources Agency Secretary Huey Johnson's "Renewable Resources Investment Fund" (a non-energy program) and the remaining 30% to a fund administered by the Energy Commission to finance both county of origin and "potential" geothermal counties to carry out projects related to geothermal development in their jurisdictions.

It is a measure of the strength of the non-energy priorities at the top of the Brown Administration (including those of Resources Secretary Johnson) that this formula is considered a "triumph" by the state's pro-geothermal agencies, who were at one time faced with the prospect of seeing a full 100% of the geothermal revenues go into the non-geothermal "Renewable Resources" account.

Moreover, although there is some pro-geothermal policy language in the bill, the sweeping policy pronouncements advocated by the state inter-agency group — the Geothermal Coordinating Council (G.C.C.) have been dropped, along with any legislative recognition and approval of the G.C.C. itself. It is as if the Congress refused to recognize the Federal I.G.C.C..

The Bosco bill has passed the Assembly and was the subject of a hearing in the State Senate's Natural Resources Committee on Tuesday, March 25, 1980. It is expected to pass the Senate with little difficulty.

(3) A.B. 1961: This bill was the child of a protracted inter-agency research and discovery effort led by the Department of Conservation and aimed at coming up with a state entity to finance geothermal projects. Its chances for success were described by us as dim. Primary reasons for this prognosis were the presence on the legislative calendar of a broader, across-the-board Energy Finance Authority (backed by the Energy Commission) and serious doubts among pro-geothermal state agency

staffers as to the advisability of creating a state-level geothermal financing arm which would ultimately rise or fall upon the performance of the Federal Geothermal Loan Guaranty Program (G.L.G.P.).

The Assembly Energy Subcommittee held a one day hearing on A.B. 1961 in January of this year. At the conclusion of that sampling of opinion, the bill was dropped by its author.

(4) S.B. 1205: As we noted in our January Report, the death of the State Geothermal Finance Authority envisioned by A.B. 1961 is not cause for great concern due to the fairly certain passage of State Senator David Roberti's overall "State Energy Finance Authority" bill. As presently constituted (prior to any action in the Assembly) S.B. 1205 would allocate \$150 million for loans and grants to alternate energy projects. A companion bond-measure bill, S.B. 1206, will be put up for approval by the state's voters in November. It would add \$500 million more to the Finance Authority's pot. A similar measure focusing on solar energy was defeated several years ago.

Unfortunately, yet another bond issue for alternate financing is already on the June (primary) ballot. ACA 46, co-authored by Republican Assemblyman Kapiloff and Hayes, appears to be that party's entry in the alternate energy sweepstakes. What its fate in June will do to the Roberti measure five months later is anyone's guess.

FOOTNOTES

CHAPTER ONE: CURRENT LEGISLATIVE ACTIVITY

- 1/ Delivered January 20, 1980.
- 2/ Introduced by State Sen. David Roberti (D.-Los Angeles).
- 3/ Introduced by Assemblyman Terry Goggin (D.-San Bernardino) at the request of the Dept. of Conservation.
- 4/ Introduced by Assemblyman Douglas Bosco
- 5/ 43 U.S.C. 1762, P.L. 95-479, §316.
- 6/ Introduced by Assemblywoman Leona Egeland (D.-Oakland).

CHAPTER TWO: CURRENT REGULATORY ACTIVITY

In our first "California Monitoring Report" we focused on three regulatory bodies: (1) the geothermal power plant siting activities of the California Energy Commission (C.E.C.); (2) the state and private lands geothermal exploratory well siting "lead" authority of the California Department of Conservation's Division of Oil & Gas (D.O.G.); and (3) the geothermal developmental well-siting "lead" responsibility of the state's counties, particularly Lake.

Since D.O.G. has still been processing "exploratory project" well permits and attendant environmental documents very expeditiously, we shall pass over them in this Report and focus on the other two other entities previously mentioned, as well as three more state agencies: (1) the Governor's Office of Planning and Research (O.P.R.); (2) the State Lands Commission (S.L.C.); and (3) the California Public Utilities Commission (C.P.U.C.).

(A) California Energy Commission (C.E.C.):

In our previous report, we detailed the problems facing several geothermal plants being proposed for Lake County sites, namely California Department of Water Resources (D.W.R.) "Bottle Rock" and Northern California Power Agency (N.C.P.A.) "Geothermal Unit No. 1". We stated there that these difficulties largely centered on air

quality. The building level of hydrogen sulfide (H_2S) emissions from P.G. and E.'s existing units and supply wells in Sonoma County, coupled with those already present naturally, have created an air quality "baseline" in many areas of Lake County that is either already in violation of the state H_2S standard or projects such a violation when the estimated emissions of these "new sources" of H_2S are added to it. While both D.O.E. and industry had spent large sums of money testing new and sophisticated control devices, these had yet to be proven on a scale adequate to allow Bottle Rock or N.C.P.A. 1 to pass the muster of the Lake Co. Air Pollution Control District's (A.P.C.D.) "New Source Review Rule" in an economic manner. Our proposed solutions included a tough retrofit policy on the extant P.G. and E. facilities and a C.E.C. test of its statutory authority to override local agencies like the Lake Co. A.P.C.D. by issuing siting approval for the Lake County plants anyway, conditioned upon the use of all possible H_2S control systems — surface condenser/Stretford, condensate treatment and "upstream" (E.I.C.) process.

Since the writing of our January "Monitoring Report", the situation appears to have improved. At least it has not fallen yet into the no-progress/status quo that we feared. As with other legal and institutional problems, it may have a non-legal resolution. D.W.R. Bottle Rock, its

N.O.I. approved in July 1979 by the Commission, had to suspend its A.F.C. proceeding in January while it wrestled with the air quality dilemma of "New Source Review". On March 6, 1980 (two months later) it returned to the Commission with "supplemental" data and new design features which will hopefully satisfy the Commission and the Lake Co. A.P.C.D.. The Bottle Rock plant will now employ the so-called "upstream process" developed by E.I.C. Corp. for D.O.E., as well as the surface condenser, Stretford process and treatment of the condensate with hydrogen peroxide. All of these will probably be needed to meet the Lake Co. A.P.C.D.'s emissions limit of 5 lbs/hr., set under New Source Review.

N.C.P.A. No. 1 had its N.O.I. approved by the Commission on March 12, 1980. But it has supposedly stated that it wouldn't bring in its A.F.C. for perhaps a year. This delay was not caused by air quality, however, as much as inadequate field exploration.

As you will remember, P.G. and E. Unit 16, the third plant proposed for Lake County, also delayed the submission of its final (A.F.C.) siting application for site approval for several months last year to sort out similar problems. That process, begun finally in December of 1979, is beginning to reach a crunch point. Observers feel the relatively "cleaner" steam to be used in Unit 16 will make its air

problems less onerous.

Thus all three Lake County plant sites have already run into difficulties during the C.E.C. siting approval process due to no fault of that agency. The ongoing air quality hurdle will not go away just because the Legislature passes laws, as it did in 1978, to shorten the C.E.C. siting process for geothermal power plants. Somewhere along the line either the C.E.C. or the Legislature may have to bite the bullet. But for now the E.I.C. process may bail them out of a tough political jam.

(B) Lake County Planning Dept. (L.C.P.D.)/
Lake Co. A.P.C.D.:

In our January report we focused on Lake County, noting that several full-field developmental well permits had been denied by the county in its "lead agency" role for that level. On one of those, McCulloch Geothermal Corporation's, (M.G.C.) attempt to obtain developmental clearance for the "Francisco" leasehold in order to supply steam to D.W.R.'s proposed Bottle Rock power plant. Though turned down by the Planning Commission, M.G.C.'s application was approved unanimously by the Lake County Board of Supervisors on appeal.

McCulloch's "Newfield 5" application has not fared as well, however. Denied a permit by the Planning Commission, it appealed but was rebuffed by both the Board of Supervisors

and the Lake Co. Superior Court. The geothermal resource underlying this leasehold is not yet lost, however. The original application reportedly put the wells, etc. too close to both an already-permitted subdivision and a "100 year" stream. A new application for "Newfield 4", a less sensitive site on the same leasehold, is believed to stand a much better chance of approval.

Coincidentally, M.G.C. is also involved in two other Lake County leaseholds whose development will probably result in some regulatory controversy. On the so-called "Binkley" Federal lease, a mineral-severed parcel adjacent to "Francisco", the county is asserting concurrent jurisdiction with the U.S.G.S. due to the privately-owned surface. There has never been a direct legal precedent on this matter, though a July, 1979 opinion letter of the California Attorney General's office stated that the U.S.G.S. had exclusive jurisdiction. This issue should focus more directly in the near future.

On the "Coombs" leasehold, a surface owner — lessor lawsuit against three of its members for trespassing has led the Planning Commission to pass the matter directly over to the Board of Supervisors for a decision.

On the air quality side, both D.W.R. "Bottle Rock" and P.G. and E. 16 will have to meet an H₂S emissions limit of about 5 lbs/hr.. The Lake Co. A.P.C.D. now feels that both

plants, the former by using the "upstream" method, will now be approved.

(C) Governor's Office of Planning and Research (O.P.R.):

This excellent office, headed for the past year by former P.G. and E. staffer Deni Green, is often utilized by the Governor as a source of expertise and all-around gang of trouble-shooters, particularly in the state's oft-maligned permitting processes. It was thus no accident when the much-ballyhoed "permit expediting" bill enacted by the Legislature three years ago in the wake of the celebrated "Dow" fiasco named O.P.R. as the official state permitting "policeman."^{1/} It is a role for which O.P.R. is well-suited.

O.P.R. staffers^{2/} performed virtually all of the substantive work of the 1977 State Geothermal Resources Task Force.^{3/} A year earlier, it was their study on the numerous permit hurdles confronting California's geothermal developers which provided the impetus for the Legislature's creation of the Task Force in the first place.^{4/}

Much of the subsequent geothermal-specific legislation which was passed during the 1978 Legislative Session^{5/} was honed by O.P.R. staffers. O.P.R. was one of the leading state agency players on the Technical Advisory Committee to the Geothermal Resources Board during 1978 and 1979. It also led the drive to create a new, non-Resources Agency-

based geothermal group in 1979. This led to the creation of the Geothermal Coordinating Council (G.C.C.) late last year. We have reviewed these events in detail in our earlier reports on California^{6/} and will not relive that chronology here. Suffice it to say that O.P.R. has played a leading role in improving the regulatory climate for hydrothermal geothermal resource development in California over the past four years.

O.P.R. is presently engaged in the creation of "Guidelines" to assist local government in the preparation of a "Geothermal Element" to their General Plans. This is an important activity for at least two reasons.

The presence of such an "Element", as is the case currently in only Imperial and Sonoma Counties, greatly speeds the processing of geothermal well permit applications. This, as our previously cited reports make clear, has been a major source of delay and frustration for developers. Though it is the Energy Commission provides funding for such preparation, it is O.P.R.'s "guidelines" which determine eligibility.

Secondly, the 1978 legislation noted above allows the Energy Commission to delegate its geothermal power plant siting authority to counties having such an "Element" in place.^{7/} Though no such delegation has yet occurred, this little noticed section will one day have a significant impact

upon geothermal electric utilization in California.

(D) State Lands Commission (S.L.C.):

We have elsewhere detailed our admiration for the excellent work done by the S.L.C. in fostering geothermal development in California.^{8/} This is true not only for state lands, which in truth are not that abundant in California, but also on Federal lands! The State Lands staff is constantly pressing BLM to free up its parcels for geothermal exploration when the two agencies find themselves in proximity to one another in a checkerboarded land play. The most outstanding example of this State Lands "jawboning" on behalf of geothermal has been in the North Salton Sea area.^{9/} But it is becoming increasingly true at The Geysers as well.

Recently, the S.L.C. offered three small tracts totaling 900 acres for competitive lease on the western edge of The Geysers field in northwestern Sonoma County. In stark contrast to the Federal procedures, the S.L.C. routinely employs a bidding system for state geothermal leases based upon "net profit shares". In other words, there is no "up front" bonus money. As a result, smaller firms are able to obtain potentially rich tracts which would simply be priced out of their league if offered at a BLM, bonus bid sale. Also, the money they don't put into leases can go into the ground.

Better yet, no lands are declared to be a state "K.G.R.A." until they have a discovery upon them. Only then are they leased competitively.^{10/}

It is actually a rather bold form of risk-sharing that is employed by the S.L.C.. Should the leased tracts prove "dry", the state would have no cash bonus revenue to fall back on. But if the leased areas achieve production, the State of California will reap up to 76% of the net profits. It is a technique that has already served the state well in oil and gas. The so-called "THUMS" field off Long Beach was leased for net profit shares ranging from 91% to 98% several years ago.

Yet another Geysers-area S.L.C. lease sale is scheduled for this Spring. Still more lands with high geothermal potential will be leased once land-exchange disputes with BLM are settled. On non-competitive lands, with no "commercial" discovery on them, the S.L.C. process again differs from BLM's.

Applicants submit a "prospecting program", including at least one deep hole, to the S.L.C..^{11/} If approved, the first such applicant for an area gets a two year "prospecting permit", with a possible two year extension.^{12/} If he makes a discovery under his permit he is granted a lease on terms already netotiated and made a part of the permit itself.^{13/}

S.L.C. is not shy about requiring drilling under these permits

either. One of the three tracts recently let had been taken away from a permittee which didn't want to drill it at the time.

In future reports we shall track the continued progress of the S.L.C.'s geothermal leasing program for state lands in California.

(E) California Public Utilities Commission (C.P.U.C.):

Though it has been shorn of its lead authority over the siting of thermal powerplants by the Warren-Alquist Act's creation of the California Energy Commission over five years ago, the California Public Utilities Commission (C.P.U.C.) has recently been exerting itself in another area of the energy field. The basis for this action is the ongoing C.P.U.C. authority to set the rates charged by the privately-owned electric and gas utilities which are still subject to its regulation despite the 1974 legislative switch in facility siting jurisdiction.

In an Interim Opinion^{14/} filed on February 13, 1980, the Commission dramatically revised its rules relating to the rate base allowances granted to electric and gas utilities for "extending" existing lines of service to new customers. Previously, these regulated entities were, in effect, encouraged to expand their load base by the C.P.U.C.'s rules, which rewarded them for each such extension. The rationale was to decrease the marginal cost of energy to all users by

increasing load factors. Inevitably, this increased demand resulted in the need for new power plants, gas sources, etc..

Finally recognizing this, the C.P.U.C. has now moved to reverse this costly process by restructuring its "allowance rules", and utility financial motivations, by rewarding only those residential extensions which exert an energy conservation impact. Non-residential extensions will not be rewarded at all.

Though both the goal and the method set out for achieving it are highly laudable, the C.P.U.C. nowhere mentions geothermal resources. While a great range of energy-saving devices (from the planting of "deciduous trees providing summer shade on the south"^{15/} and "fluorescent lighting"^{16/} to the orientation of houses in accord with passive solar design concepts^{17/} and insulation in excess of state and local requirements^{18/}) are included as qualifying the utility in question for "conservation point allowances", there is no mention whatsoever of any allowances for utilities which encourage new users to utilize, e.g., geothermal-driven heat pumps or direct heating with geothermal resources.

The incentive thus lost is a significant one. Each allowable device adds "conservation points" to each utility's account. These points are multiplied by \$2.50 to obtain the amount of dollars that will be added to their respective rate bases.

Beginning March 31, 1980, the C.P.U.C. is accepting comments from interested parties concerning their new rules. It is imperative that D.O.E. direct strong input to them, encouraging them to add both direct use and electric geothermal applications to the devices accruing "conservation point allowances" and their concomitant financial incentives to utility rate bases.

This pro-geothermal incentive on the utility side would then mesh with the generous tax credits now available for individual users. It would then be the utility (gas or electric) which would be out encouraging people to adopt geothermal applications by extending low interest loans to them, etc., as well as informing them of the existence of federal tax breaks.

FOOTNOTES

CHAPTER TWO: CURRENT REGULATORY ACTIVITY

- 1/ Stats. 1977, Ch. 1200, §1, CAL. GOVT. CODE §65920 et. seq.. O.P.R. is to "ensure compliance" with the new timetables. CAL. GOVT. CODE §65923.
- 2/ Bill Kirkham, Susan Brown, Judy Warburg and Ted Hannon.
- 3/ A.B. 3590 (Kapiloff), Stats. 1976, Ch. 580.
- 4/ State and Local Permit Study: An Analysis Of Administrative Factors Affecting Geothermal Development At The Geysers, O.P.R. (March 1976).
- 5/ Stats. 1978, Ch. 1271 (Goggin), Stats 1978, Ch. 1272 (Kapiloff).
- 6/ Rpt. No. 1017 (Monitoring Report No. 1 - Jan. 1980) and Rpt. No. 1016 (Review of California Activities - Dec. 1979).
- 7/ CAL. PUB. RES. CODE §25540.5, Stats. 1978, Ch. 1271, §15.
- 8/ J.M. Energy Consultants Rpt. No. 1007 (Nov. 1978).
- 9/ id..
- 10/ S.L.C.'s geothermal leasing regulations are found at 14 Cal. Admin. Code §1500 et. seq., based upon CAL. PUB. RES. CODE §6901 et. seq. as amended by Stats 1978, Ch. 1139.
- 11/ CAL. PUB. RES. CODE §6910 (a).
- 12/ ibid., at §6910(b).
- 13/ ibid., at §6910(c).
- 14/ Decision No. 91328 (Case No. 10260).

CHAPTER TWO FOOTNOTES:

15/

Case No. 10260, Decision No. 91328 at p. 33
(Feb. 13, 1980).

16/

ibid., at p. 32.

17/

id..

18/

ibid., at p. 31.