

CHAPTER 3  
ENERGY POLICY AND ADMINISTRATION  
BY THE GOVERNMENTS OF THE BAY AREA REGION  
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Historically, local government has played a minor role in developing energy policies. Until now, as was described in the preceding section, federal and state regulations, together with the State Public Utilities Commission as monitor, have controlled the energy industry. However, as energy becomes less available, the providers and distributors are prone to manipulate their market. Private industry has the means to counter unfavorable price trends. Investment and marketing policy is based on technical and economic information. Legislation generally protects business interests, in the interest of maintaining a 'healthy' economy. Increases in production and distribution costs are passed on to the consumer. And, finally, due to accumulated profits, industry has the flexibility to convert to more energy efficient modes of production.

Those of the private sector who live on fixed incomes cannot absorb increases in product and energy cost, let alone acquire the capital to upgrade the energy efficiency of their habitats. Scarcity enhances the inequities of our present capitalist economy; increased government regulation is traditionally the most acceptable solution to the majority.<sup>37</sup>

The government of the San Francisco Bay Area is basically three-tiered; regional associations, county governments, and city governments. Within each of these tiers there are agencies which deal with energy matters, but are independent of one another. For example, at the regional level the Coastal Commission, Air Resources Board, Regional Air Quality Control Board and the Department of Water Resources,<sup>9</sup> and at the city and county level the Departments of Buildings and Grounds, Public Works, Local Agency Formation, Parks and Recreation, Planning Agency and Building Inspection all encounter energy policy considerations.<sup>10</sup>

A survey by the Association of Bay Area Governments (ABAG) in 1975 revealed that no local energy policy existed in the Bay Area.<sup>11,28</sup> Although individuals in all aspects of local government were aware of the urgency and complexity of the energy problem, there was no obvious position in the structure of local government to place the responsibility and authority to implement energy policy. ABAG is the most centralized government body, but again, within the organization there are many divisions, none of which were mandated responsibility for energy policy. Funds are available to ABAG only in connection with federal and state programs, which further inhibits its ability to initiate its own programs.

Since 1975 there seems to be a growing interest in establishing local policy in the Bay Area. The major roles local government can play have been outlined in two papers by ABAG<sup>1</sup> and the Contra Costa County Planning Department.<sup>10</sup> They both agree that, first of all, local governments must give support to federal and state action programs, and utilize all available grant and loan programs. Secondly, local governments must assume responsibility for energy efficiency in local government-owned property; buildings equipment, vehicles, and maintenance of facilities. Expert assistance may be required to determine cost effective measures. Thirdly, County Planning Agencies must recognize their influence over energy consumption patterns. Through the authority of the Planning Agency's General Plan, local government controls how much land is converted from agriculture to urban uses, zones areas for density and intensity of uses, and designates roadways, parks and public

By determining the type of development to be undertaken, the Planning Agency influences the energy requirements of areas both in the initial development phase and over the lifetime of the area. Many communities in the Bay Area (e.g., Contra Costa County, Santa Clara County, Fremont) are currently expanding residential areas and typically are committed to low density housing. Individual houses on separate lots require more energy to build and maintain over their lifetime than small individual lots or attached apartment houses. In addition, it is expensive to provide low density suburban communities with adequate public transportation. These areas benefit most from strict building codes that require efficient use of energy.

However, new building codes will affect only 100,000 houses this year as compared to the 9 million houses already in existence in the Bay Area.<sup>14</sup> The developed areas of the region will benefit from efficient administration of retrofit insulation to reduce energy demands.

California as a whole and the Bay Area in particular are becoming less industry-intensive; i.e., oriented toward providing services and increasing dependence on imported manufactured goods.<sup>28</sup> With the exception of Contra Costa's petro-chemical plants, the existing industry in the Bay Area is generally low energy-intensive; e.g., manufacture of electrical machinery and technical instruments.<sup>4</sup>

For any type of development, the Planning Agency can require that Environmental Impact Reports include both long and short-term energy considerations, encourage energy self-sufficiency devices (solar energy, wind energy, on-site waste management) and consider saving open spaces for wind or sun-generated power installations.

There are specific policies that can be incorporated into local ordinances, such as a requirement that site design, building orientation and landscaping ensure against excessive use of energy for heating, cooling, and lighting, and protect future applicability for solar systems. Possible active programs at the local level include information and education services, employment of experts to administer energy technology, provision of loans and grants to the private sector for insulation and conversion to solar energy, and provision of transportation and public recreation facilities (e.g., there is no need for every home to have a pool). However, any energy policy is superficial without adequate financial commitment. Funding is perhaps the most difficult aspect of formulating an effective policy, even if the bureaucracy can be motivated to adjust. To generate funds for implementation of local policy, funds must be withdrawn from existing programs, local government must request that federal or state government do the same, or new revenue must be collected from the community in various ways. Availability of funds is largely dependent on the relative wealth of each community.

#### Examples of Existing Policy in the Bay Area

Since 1975, several local governments have incorporated energy-related projects into their General Plan. The scope and intentions of the projects vary. Funding, and hence access to expert advisors and technicians, seems to be the most common limitation.

##### Contra Costa County

A comprehensive research project created by the Board of Supervisors has recently completed a paper outlining the options open to local governments for instituting an energy policy. The major points of the paper are: 1) review EIR guidelines to include energy consumption considerations, especially with respect to building costs and lifetime energy use on the site, 2) utilize all grant and loan programs available through federal, state and PUC channels, 3) institute conservation efforts on county-owned property, with expert advice and assistance, 4) incorporate an energy policy into the County General Plan.

Some objections to including energy policy in the General Plan are listed in the report. For example; energy measures are too specific for the intentions of the Plan; many agencies are involved in energy policy considerations, but do not conform to any countywide directives (County assessor, Public Works, Social Welfare); County General Plans have no authority in incorporated cities, and may run into conflicts among cities, public agencies, and the power companies. The paper recommends that the state not mandate energy policy to the county level, but local governments should establish community policy where appropriate. The conclusions are ambiguous and the general tone is conservative. It emphasizes that it would be a mistake to develop too formal an energy policy now that would be unresponsive to changing attitudes and energy technology. The Board of Supervisors is scheduled to receive the paper this spring.

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#### Santa Clara County

Santa Clara County has developed a county wide energy management program which includes education of public officials and a mailing list to distribute information to the public. The Board of Supervisors has appointed a 20 member Energy Task Force advisory council. The council was recently awarded a \$20,000 grant by the State Energy Commission to work on energy-relevant aspects of the General Plan, currently being updated for Santa Clara County, and to explore the feasibility of utilizing potential geothermal sites in the area. The group has already developed a model local ordinance as a result of its research, entitled Legal Alternatives, Implications and Finance of Solar Heating and Cooling by a Municipal Corporation. It gives the local government authority to require that builders comply with regulations that "protect the opportunity for the utilization of solar collectors at all available locations." This includes orientation of lots, structure of buildings and landscaping.

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#### City of Santa Clara

The city of Santa Clara has become a focal point in the nation for applicability of solar energy devices. The city has funded the conversion of 5 model homes to solar energy, the municipal recreation center and pool is solar heated and cooled, and a central solar utility is maintained for heating private pools. Attention has been given to conserving energy in all city-owned buildings. A program was recently begun to retrofit low-income homes with weatherstripping and insulation.

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#### City of Berkeley

The city is currently in the process of appointing a nine member Commission on Energy Conservation and Alternative Energy. The commission will advise the city council on energy conservation techniques and monitor and 'influence' legislation under study by other local governments, state and federal agencies. This will entail research into current city government and private consumption patterns, a review of city building codes and other codes and ordinances relevant to energy consumption, and analysis of the impacts of the proposed City Master Plan. The commission intends to provide relevant information for the public, act as liaison with other levels of government and encourage research in energy conservation and alternate energy in the city. Ideally, the commission will develop a funding plan to insulate buildings, assist the community in implementing solar energy production and small-scale electricity generation where appropriate.

It is too early to tell how effective the commission will be. The city found it impossible to provide funding. This will greatly limit the scope and depth of the activities envisioned. Funding will be sought from public and private grants, public employment programs, revenue sharing, tax credits, small business loans, and the Community Development Corp.

## City of Palo Alto

Palo Alto is one of the few cities in the area that has municipally-owned gas and electricity which it buys from PG&E. Since the city has already taken measures to persuade residents to conserve energy, there is some concern that the city will be penalized if PG&E should alter rates as an incentive to conserve energy. Currently operating programs include energy conservation in public facilities (insulation, new lighting standards, solar heated municipal pool,) and a major effort to educate and provide technical assistance to industry and the residential sector to implement energy conservation. The city policy for the future includes hiring technical experts to assist implementation and guide research and development experiments that receive approval of the city council.

## UC Campus and Stanford University

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Energy for the Universities is supplied by PG&E. Their systems are adjustable to fuel oil on request of PG&E during peak loads, or longer range shortages of gas.

In 1973 UC President Saxon directed all campuses to cut back energy consumption by 15%. Thermostats were set back to 68°, lighting in corridors and offices was adjusted, and buildings were shut down when not in use. Thermostats were set back further to 65° by a directive from President Carter this year. Unfortunately, lowering thermostat settings only saves energy in unairconditioned buildings; air conditioners come on to cool buildings to 68° in warm weather. Currently building heat and lighting is monitored by time clocks and manual switches. Should the current UC budget for energy conservation pass, the University will acquire a computer system in about 1½ years to maintain the heating and lighting schedules of the buildings.

Stanford University's energy policy has been quite similar to UC's. It has also cut back energy consumption by 15% of 1973 levels and already depends on computerized monitoring of heating and lighting schedules.

## Discussion

There are limitations to depending solely on local organizations to implement energy policy. One must account for the variability in sophistication of local governments and the availability of expert advice and technology. Berkeley has a highly motivated populace and an abundance of technical advice. More remote rural areas lack funds and availability of researcher's advice.

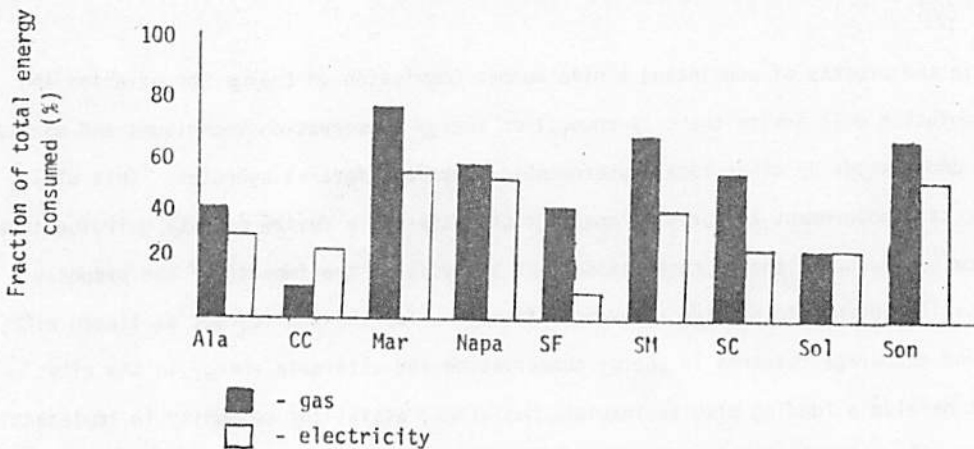


Figure 1. Proportion of total PG&E sales to residential sector by county.<sup>6a</sup>

No community in the Bay Area is entirely independent of the rest. Residents of Marin, Napa, Sonoma and San Mateo use more than 50% of the total energy consumed in their area (fig.1) and are supported by production services and employment opportunities of the more urban and industrial areas. Urban areas rely on attracting residents, taxpayers and business. The General Plan of any city or county will ultimately have an effect on the rest of the Bay Area.

The most difficult aspect of energy policy is the inequitable distribution of resources and wealth. Marin, Contra Costa, and Napa consume more than the average amount of electricity. Marin consume more than the average amount of gas (fig. 2). One can see the diversity of energy consumption per household. These inequities reflect differences in income (wealthy homes have more appliances, are larger, have heated pools, new, less efficient appliances, e.g., frost-free refrigerators), and type of housing (AEK kitchens, in new housing developments, apartments vs. single family dwellings as mentioned before.) Clearly, any energy policy must take into account a larger picture of energy consumption than these local patterns. For example, requirements for decreases in consumption should be in relation to the area average, industrial areas must concentrate on industry more than residential use, and vice versa.

Ideally, in addition to a general federal and state policy, a uniform policy pertaining to local planning is needed, to be administered by local institutions, responsive to rapidly changing needs of the particular area, but held accountable to a larger framework. One plausible format for such a policy is an Energy Extension Service, currently under consideration in California and other states.<sup>21</sup> The purposes of the service would be identical to those listed by the Commission on Energy Conservation and Alternate Energy of Berkeley, but would be coordinated by the federal and state government, along the lines of the Agricultural Extension Service. Should the current proposals before the state legislature be approved, all local governments would be supplied with sufficient criteria to establish an organized energy policy in the near future.

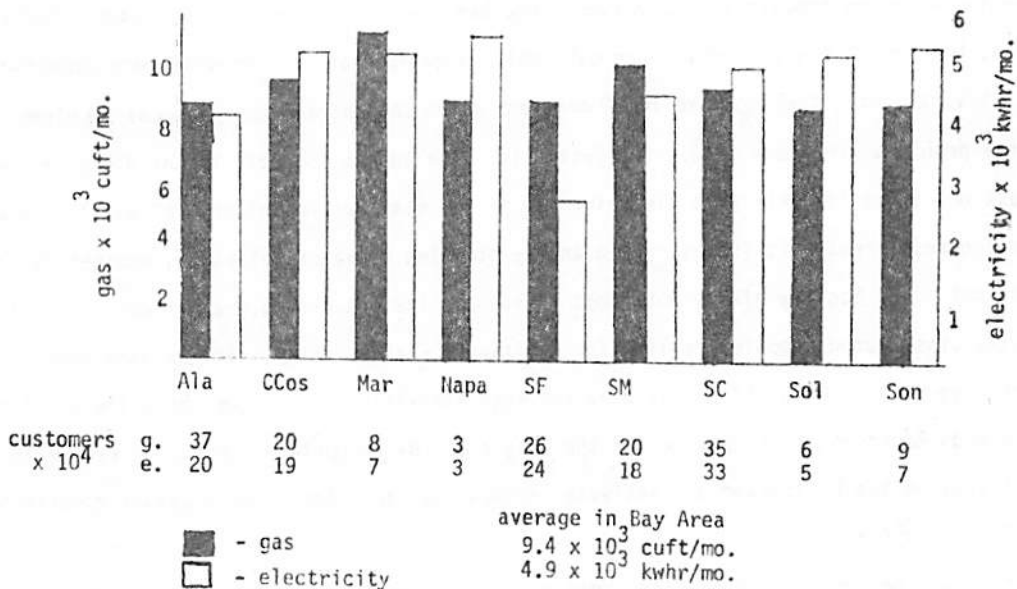


Figure 2. Average consumption of gas and electricity per residential customer by county.<sup>6a</sup>

CHAPTER 4  
BAY AREA ORGANIZATIONS

Ronald Hammer

This paper deals with the goals of various environmental organizations and the means through which they achieve these goals. The Bay Area groups which I have investigated are the Golden Gate Audubon Society, League of Environmental Voters, Save San Francisco Bay Association, Sierra Club, Friends of the Earth and Bay Area Energy Action. I have concentrated on these groups because information was difficult to find for smaller groups, whose members referred me to the larger, more prominent organizations.

The basic manpower of all the active groups in the Bay Area concerned with the energy question is comprised of both volunteers and paid workers. The individual groups obtain money to support these employees and other working costs by contributions and fund raising events. The contributions may be taxable or exempt from taxes, depending on what the purpose of the gift. The Sierra Club accepts contributions for political activities (taxable), and education and research funds (tax exempt). The fund raising activities are very diverse and include selling posters, T-shirts, bumper stickers and buttons.

Many of these groups have existed for many years. For instance, the Sierra Club has been around for about 75 years. However, it is difficult to establish when a group actually started. Most organizations began as a few people working for a specific purpose and belief and later expanded on this notion.

The main groups in the Bay Area consist of the Sierra Club and the Friends of the Earth. These groups contain the largest numbers of members and have "roots" in all aspects of government, both local and federal levels. This will be discussed in more detail later. All of these groups look as if they will continually involve themselves with matters which affect the environment. They appear to have a tendency to involve themselves in matters which have great public awareness.

All of the mentioned groups concern themselves with the Bay Area. The Sierra Club, Audubon Society and Friends of the Earth, however, are groups which are nationally organized and, in general, are concerned with all of the nation. Nevertheless, they do have local chapters which concentrate on the local problems and issues.

But, what energy problems are these groups interested in? The Audubon Society is not directly concerned with the energy question, since its interests lie primarily in the conservation of natural wildlife and the protection of the wilderness areas. It is interested in the stopping of water pollution, whether it involves energy production or not. The Society offers workshops to educate its members on these ideas. It also has published a nationally distributed pamphlet calling for a National Energy Policy. It has made some conscientious efforts to conserve on the amount of energy used for such activities as bird watching field trips.

According to Kennedy Anderson, spokesperson for the League of Environmental Voters, the League is mainly concerned with the issues on the ballot and are activated around election time. These issues concern the environment of the local Bay Area.

The Save San Francisco Bay Association is concerned with the increasing numbers of chemical plants, oil refineries, pipelines, piers restaurants and hotels built at the edge of the Bay. Steven McAdam, their spokesperson, referred me to the other larger groups, saying that they weren't really involved directly with the energy question, but only the protection of the San Francisco Bay. However, they are indirectly involved with the energy question.

One of the larger groups in the Bay Area, the Friends of the Earth is a quite active group. The publicity department of their San Francisco headquarters provided me with some pertinent material on energy and its alternatives. The one major activity which they are involved with now is the solar energy question. They publish an article entitled "Sun Spot" in their monthly newsletter. They say that there are many forms of energy available and that legislation should be enacted to encourage use of these forms. Such legislation has occurred in 22 states by providing tax incentives for change to solar energy. However, the question arises as to who should provide such services. As it stands now, the utilities companies are possessors of the solar energy business. But the Friends of the Earth believe that local governments don't want to get involved and thus the utilities companies become involved. They believe that private companies should handle solar energy. In the East Bay, the Friends of the Earth are beginning to insulate low income housing with solar energy. They spread their beliefs to the public by publishing material and answering telephone calls. The Friends of the Earth members attend hearings and government committee meetings to find out information on current events and to express their views.

The other major group in the Bay Area is the Sierra Club. This group concerns itself with many factors concerning the environment, such as the whales, baby seals and the multifaceted energy question. There are many people involved with different problems, and I spoke with Dick Schnieder, spokesperson, who was very informative on the Sierra Club activities. Since there are not any nuclear plants in the Bay Area, they are concerned with areas in the state, such as San Diego and San Luis Obispo where nuclear plants are present. They are involved with the plant being proposed in the San Joaquin Valley. The State Energy Commission has been analyzing the plans. On the state level, the Energy Commission decides if a plant is needed and if the power is needed. The Sierra Club sends representatives to influence the commission; they also attend local hearings on various energy issues. One example of this is the combined cycle plant PG&E wants to build on San Francisco Bay. The local chapters of the Sierra Club will become involved with the hearings. The main activity in progress now is a study for Alameda County on the amount of energy used, and they will give suggestions to the administrators. This study includes automobile usage, freeways and gasoline consumption. The Sierra Club works to provide the public with material to inform them as to the questions at hand regarding the energy question. As far as the energy question as a whole, the Sierra Club has many people involved with each of their special interests. There are local group meetings held every month to discuss the energy issue and the strategy that should be used. Then the people of the specific areas will carry the common strategy.

Bay Area Energy Action is involved in many aspects of the energy question as well as the alternative energy question. This is a rather small group which is now beginning. There are scheduled conferences in the future which will be seeking to teach teachers (grades 6 through 12) to be facilitators. According to Theo Ferguson, their spokesperson, there is a great need to have this information passed on to as many people as possible. She is also involved in the establishment of jobs for college graduates who are interested in the energy field.

It appears to me that these above mentioned groups are involved with many of the different aspects of the energy question. There is much activity present in the Bay Area to make the public very aware of energy usage and consumption in particular. However, it is the job of the groups themselves to constantly make the public aware of the hazards involved with changes in the energy production of the Bay Area. It seems that only when a particular subject is greatly publicized will any groups actually "move into action". As

Kennedy Anderson of the League of Environmental Voters admitted, you will find many groups to be filled with people having different special interests, which makes it difficult to find a common ground to stand on. Such was the case with the Audubon Society and their support on the coastal initiative on the past ballot; a common view was difficult to construct. These groups must publicize their activities in order to get others involved and create a common way of thinking. What all this amounts to is to have everyone interested in the energy issues to decide on a strategy and then carry it out. In this manner, the public will be the beneficiaries.



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