

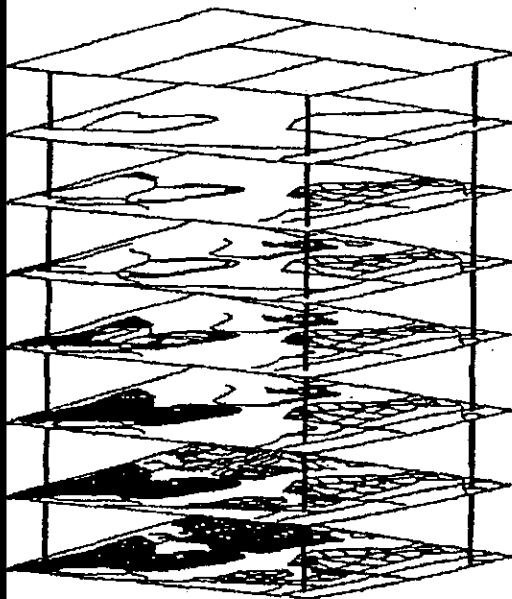
HOW TO IMPROVE PUBLIC INVOLVEMENT IN FACILITY PLANNING

Building public acceptance of energy facilities is an important challenge for government at all levels. Although they are indispensable to communities, energy facilities are often locally unwanted because of legitimate citizen con-

cerns over aesthetics, land use compatibilities, the public health and safety effects of facility operations, and environmental justice concerns. These public concerns make it increasingly difficult to install needed projects in a timely, efficient, and economical manner. (See the insert *Environmental Justice* on the next page.)

A major benefit of local planning is the opportunity it creates to reduce these barriers through public education and involvement in advance of actual facility permitting and development. If the public is involved in long-range planning that recognizes the necessity and benefits of reliable energy supplies, as well as local efforts to maximize the efficient use of energy, it will

ENERGY FACILITY PLANNING WITH A GIS



Sample GIS Database

- Land ownership (private, state, federal)
- Existing power plants (fuel type, capacity, age)
- Electric transmission and gas pipeline corridors
- Industrial areas with cogeneration potential
- Renewable resource areas (hydro, wind, geothermal)
- Nonrenewable resource areas (oil, natural gas)
- Sensitive environmental areas (wildlife, noise, floodplains)
- Community growth areas requiring new energy services

Many local jurisdictions are now using computerized geographic information systems (GIS) to compile and analyze natural resource and land use data. Energy facility planning is an ideal application for GIS in cases where linear facilities, such as transmission lines, cross extensive terrain with varying environmental sensitivities. Power plant siting can also be strengthened through suitability analyses that identify locations with the least amount of environmental disturbance. In 1993, Siskiyou County used its GIS to help prepare a general plan Energy Element that promotes renewable power generation and the use of existing electric transmission and gas pipeline corridors. The GIS was populated with an inventory of renewable energy sites that were geographically plotted against environmental sensitivities such as seismic hazard areas and critical wildlife habitat, to identify locations where energy facilities should be encouraged or discouraged. As the County's GIS database expands over time, these suitability analyses can become more comprehensive and detailed; and can be readily available for use in general plan updates.

For additional information on Siskiyou County's use of GIS for energy planning, contact the Siskiyou County Planning Department, (916) 842-8202.

ENVIRONMENTAL JUSTICE

Local governments should be aware of potential environmental justice issues in relation to the possible location of energy facilities and the process for permitting these facilities. Failure to consider the patterns of siting polluting or toxic facilities and the process used for obtaining public input in decision-making may result in inequities as well as long and expensive legal confrontations.

Some studies suggest that certain racial, cultural, and socio-economic groups bear a disproportionate share of our society's environmental burden, such as exposure to landfills, toxic dumps, freeways, and industrial facilities. Various groups have charged that corporations and government place polluting industry in minority or poorer neighborhoods because real estate is less costly and residents historically tend to be less out-spoken, vote less often and contribute less money to political campaigns. They also feel that low-income or minority groups are excluded from permit decisions, notices are not published in other languages despite large numbers of non-English speaking residents, and hearings are scheduled when residents cannot attend. Lawsuits have been filed based on these charges and environmental justice principles.*

Environmental justice, as defined by the U.S. Environmental Protection Agency, is the fair treatment of people of all races, cultures, and incomes with respect to the development, implementation, and enforcement of environmental laws, regulations, programs, and policies. The two primary goals of environmental justice are:

- 1) Equal protection of the health, safety and environmental quality of all people, and
- 2) Equal access and participation of all people in the environmental decision-making process

On February 11, 1994, President Clinton signed an Executive Order on Environmental Justice. Its purpose is to protect Americans, particularly those who can least afford it, from pollution and to help provide safe, clean communities. It calls on federal agencies to prevent disproportionate environmental equities, collect and analyze information on environmental and human risk, and increase public participation in the decision-making process. Section 1-103 of the Order requires all federal agencies to develop an environmental justice strategy to identify and address disproportionately high and adverse health and environmental effects on minority and low-income populations of its programs. It specifically requires each agency's strategy to:

- 1) Promote enforcement of all health and environmental statutes;
- 2) Ensure greater public participation;
- 3) Improve research and data collection relating to health and environment; and
- 4) Identify differential patterns of natural resource consumption.

While the Order was directed to federal agencies, some groups contend that it also applies to any agency that receives federal funding.

Local governments can play a role in ensuring equal protection of all communities and equal access to the decision-making process. Some of the actions they may take include:

- 1) Hold public meetings or hearings on projects in the local community and at times that will allow all the public to attend.
- 2) Consider a full range of possible alternative sites, not just those evaluated by the project developer.
- 3) Establish a compliance monitoring program that ensures enforcement of permit conditions and provides a clear public complaint response and resolution process.
- 4) Thoroughly assess cumulative impacts of previous, present and likely future projects on all environmental concerns, particularly those related to public health.

* Cases in California include: *Padres Hacia Una Vida Mejor v. County of Kern*, California Superior Court, Fresno County, 1/13195. The same group filed an administrative complaint with the EPA in *Padres Hacia Una Vida Mejor v. Laidlaw, Inc.*, U.S. EPA Docket #1R-95-R9, 1219195.

likely be more accepting of facilities when and where they are eventually needed. (See the box, *Winning Public Support...* on the next page.)

An effective public involvement program will have the following characteristics:

■ **Inclusion of all stakeholders.** It is important for all affected interests to participate in energy facility planning so they can share consistent information and establish dialogue among disparate groups. In addition to local electric and natural gas utilities and the general public, these efforts should also

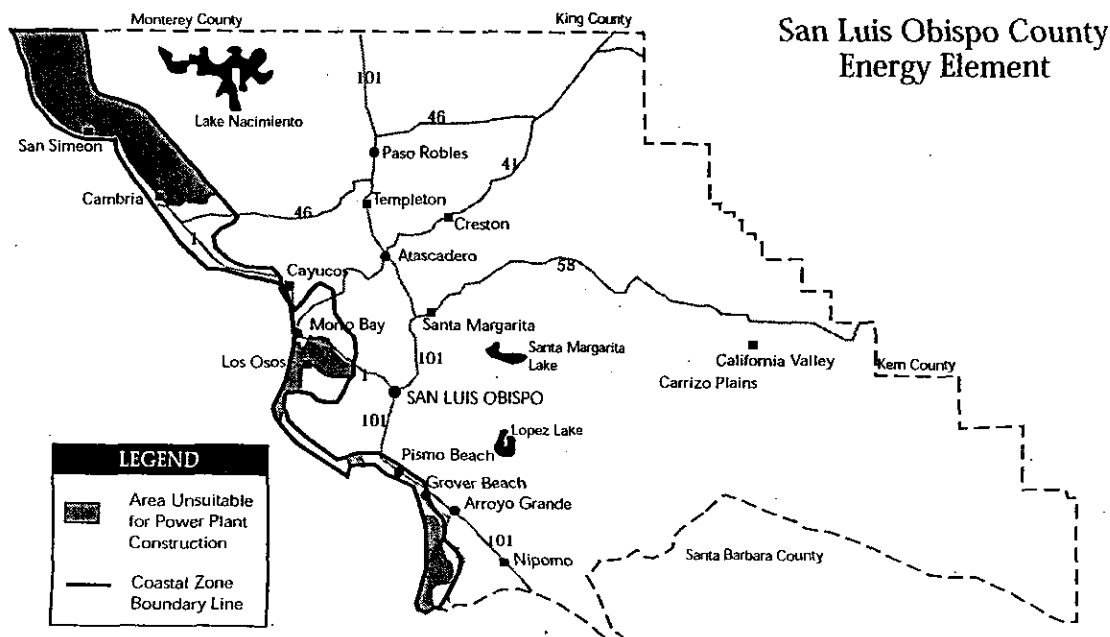
involve local elected officials, independent energy industry representatives, environmental interest groups, and relevant regulatory agencies. An effective method of involving these stakeholders is their appointment to a special energy facility planning advisory committee or task force. Such groups can

PROGRAMMING THE ENVIRONMENTAL PROCESS

Section 15168 of CEQA offers local governments a two-tiered approach to environmental review of energy planning that can help identify potential long-range or cumulative problems in advance of specific development proposals. This approach uses a Program EIR to evaluate broad environmental concerns first, followed by project-specific EIRs later that can be streamlined to the extent that issues have already been addressed by the Program EIR.

San Luis Obispo County used this approach in preparing its general plan Energy Element in 1994. The program EIR that accompanies the county's Energy Element is focused on jurisdiction-wide and cumulative energy facility impacts, and identifies program mitigation measures for future facility development. Citizens and facility developers alike can use the Program EIR to determine what environmental issues may apply to a project, where projects may be sited (as shown in the map of the county's coastal area), and what mitigations may be required. This type of broad environmental analysis is also helpful in increasing public awareness of long-range energy facility issues, rather than merely coping with public reactions to specific projects after they have been proposed. The 1993 California Legislature reinforced this approach to environmental review by amending CEQA to also authorize "Master" and "Focused" EIRs that can offer similar two-tiered benefits.

Additional information on San Luis Obispo County's environmental review process can be obtained from David Church, Planning and Building Department, (805) 781-5620.



contribute valuable technical input to the planning process, and serve as a sounding board for proposed local policies and standards.

❑ **Developer participation in public involvement activities.** As previously discussed, an important part of a local energy facility plan is the guidance it gives developers before they prepare specific projects. One component of a local plan can be guidelines for developer participation in public involvement during facility permitting. Such guidelines can ensure developer presence at local meetings, convenient access to proposal documentation, and dependable responses from developers to public questions and comments. The existence of such assurances will help build public confidence in the planning process and consensus about energy facility issues.

❑ **Information sharing.** The information base described previously should be widely and thoroughly disseminated, and the public should be invited to help expand and refine the information. Facility planning processes should be publicized at their outset, and outreach efforts made to the stakeholders listed above. Publicity should clearly describe the planning process, the location and availability of planning data, and specific opportunities for public input. In addition to meetings and printed material, information can be increasingly shared electronically through computer bulletin boards or similar local networks.

❑ **Formal participation events.** Because of the technical, environmental, and regulatory complexities of energy facilities, it may be useful to formalize public involvement into special educational workshops, and perhaps such events as tours of exemplary

WINNING PUBLIC SUPPORT BY MAXIMIZING ENERGY EFFICIENCY

"Our society has become extremely dependent on energy services to support modern life styles, yet few issues are more controversial than the siting and development of energy facilities. Good planning maximizes the efficient use of energy and minimizes the need for new infrastructure. As an added benefit, energy-related projects are more likely to be accepted by the community when serious efforts have been made to avoid them. A community's energy plan provides an opportunity to reduce environmental impacts and inevitable controversy by promoting the efficient production and use of energy resources and services. A good, well-implemented energy plan provides the best evidence that the community has made every effort to avoid the need for new energy facilities."

Rich Ferguson, Director of Research, Center for Energy Efficiency and Renewable Technologies

facilities already sited and operating. It may also be helpful to invite presentations by local governments that have completed facility planning processes. The inserts entitled *Linking Growth, Livability and Energy Supplies* (on the next page) and *Finding Common Problems and Solutions* (page 3.23) describe projects in Washington State and British Columbia where utilities, government agencies, and other stakeholders are undertaking formal planning processes together in order to better understand each other's needs and concerns, and to work together toward mutual goals.

❑ **Informal collaboration.** An important adjunct to formal events can be informal, nonjudicial forums of collaborative "brainstorming" among developers, citizens, and regulators. Using the architectural technique of a design "charette," energy facility stakeholders can jointly develop preliminary facility siting and performance ideas for consideration in more formal processes when appropriate.

❑ **Budgetary commitment.** Despite today's tight budgets, it is still important for communities to make a firm, if only modest, commitment to funding public involvement. Sometimes local funds can be leveraged with developer and interest group monies using a cooperative approach to public participation. In the insert entitled *Planning Via Partnerships* on page 3.24 describes the Electric Power Research Institute's Community Initiative program that seeks to partner electric utilities with local governments in solving common community problems.

❑ **Ongoing activities.** Public involvement needs to be an ongoing process that periodically examines current events, and monitors the need for revision or fine tuning of established plans. The stakeholders advisory group mentioned earlier can be reconvened every few years to re-examine the local energy plan and recommend appropriate updating where warranted.

LINKING GROWTH, LIVABILITY AND ENERGY SUPPLIES

The population of the Vancouver area of British Columbia, Canada, is expected to grow to nearly three million by the year 2021. Managing this growth to maintain and enhance the livability of the region will require a coordinated and innovative approach to planning and delivering the services desired by the citizens of the region. In British Columbia, BC Hydro is the electric utility responsible for delivering virtually all of the province's electricity.

To meet the challenges of growth, BC Hydro is using a new approach to planning that it believes will improve the efficiency of electricity generation, delivery, and use. Simply stated, BC Hydro is contacting the communities it serves and volunteering to assist them with the integration of electricity information into the community planning process. Since the physical shape and content of communities dictates the demand and distribution requirements of an electric utility, BC Hydro recognizes that efficient community and utility planning are inextricably linked. This approach also supports other goals such as preserving open space, improving air quality, and providing opportunities for economic growth.

A central theme of this approach is the notion of choice. Communities have choices about how they grow and develop, which in turn influence electricity requirements and the options available to meet those requirements. If communities are more aware of the energy implications of their decisions, they can make more informed choices about growth and development. In turn, if BC Hydro better understands community goals and

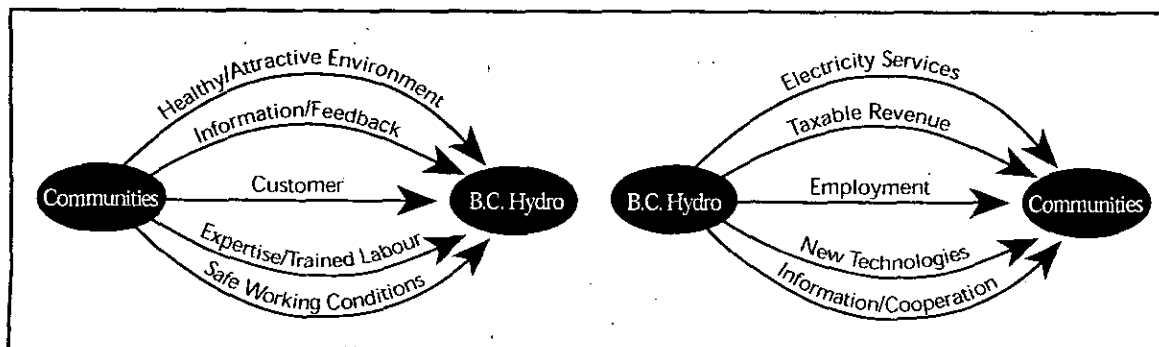
values, it can make better informed choices about the options to pursue for supplying electricity services in the region.

BC Hydro is going about this by several methods:

- Establishment of a provincial stakeholder advisory committee composed of community planners and other utility providers
- Sponsorship of workshops and distribution of information materials to increase awareness of energy facility challenges and opportunities among community officials
- Co-sponsorship of pilot projects to analyze and demonstrate the specific benefits that can be obtained from energy-efficient urban design and growth management

To date, BC Hydro's efforts have focused on the area around the city of Vancouver in British Columbia where population growth and urbanization is the highest. Working with municipalities, BC Hydro is explaining how electricity is produced and delivered in the region; where problems and constraints are emerging because of rapid growth and limited capacities; and the different options that communities have for meeting future electricity needs, including efficiency improvement, expanded transmission lines and/or new power plants.

Additional information on BC Hydro's program is available from Allan Grant, BC Hydro, (604) 528-7749.



HOW TO STRENGTHEN INTERAGENCY COORDINATION

Long-range energy facility planning also creates an opportunity for improving coordination between local government, utilities, and other agencies that have planning responsibilities, and that may ultimately be involved in facility permitting and monitoring. The process of energy facility planning can be an occasion for strengthening interagency coordination as shown in the page 3.25 insert on *Creating a Local Hub: Coordination Among Plans*, including the following capability-building techniques:

- Improvement of the local information base with additional data and technical analyses
- Strengthening of the public education and involvement process with other agencies' resources and capabilities
- Increasing the expertise of local staff through interagency contacts and informal training opportunities
- Improved consistency and effectiveness among different agency policies and standards, and minimized duplication or conflicts among agencies

A strong base of interagency coordination during the planning phase will ultimately translate into more effective siting and permitting processes because of established contacts, familiarity with respective authorities and rules, and up-to-date knowledge of local issues and preferences.

FINDING COMMON PROBLEMS AND SOLUTIONS

The Puget Sound area, centered around Seattle, is Washington State's fastest growing metropolitan area. Cities and counties, and electric and natural gas utilities, are all scrambling to keep pace with population growth and increasing demands for services. Using the concept of integrated resource planning (IRP), where efficiency improvements and new supplies are evaluated equally, Puget Sound energy stakeholders have embarked on an innovative project that can serve as a model for cooperative energy facility planning.

The Puget Sound Fuel Blind IRP Project was launched in 1992, with Puget Sound Power and Light Company, Washington Natural Gas, Seattle City Light, State Energy Office, Washington Utilities and The Transportation Commission, and local governments in the region. The group developed a set of ground rules for participation in the Project, designed to encourage open discussion to elicit active participation by all members and to achieve consensus wherever possible. The goal of the Project was to identify ways that utilities and communities can work together to reduce costs, increase efficiency, and enhance the environment.

Over the course of a year and a half, the Project participants developed a course of action that led to the identification of a number of opportunities for working together. The group singled out joint trenching for new service lines, capacity sharing of natural gas pipelines, and formulation of common policies governing service extension to new customers.

Each of these issues was studied to determine where cost savings could be captured; where procedures currently cause bottlenecks and delays; and how infrastructure planning can be more closely coordinated among multiple utility providers in dense urban environments. The group found that it shared the following three common goals:

- Enhance consumers' ability to choose among fuels
- Improve public education concerning energy resource costs
- Address and remove inefficiencies in energy delivery mechanisms

One of the key strategies that the group agreed to in achieving these goals is greater local government coordination. All stakeholders recognized that to be genuinely integrated, energy resource planning must be integrated with all planning processes, particularly local land use policies and standards.

Additional information on the Puget Sound IRP project is available from Debrah Ross, Washington State Energy Office, (360) 956-2124.

INFORMATION RESOURCES

A variety of resources is available to local governments to assist in energy facility planning. These range from staff expertise in other agencies, to national laboratories, to current periodicals. Appendix E provides a roster of major information sources, including the following key resources:

■ **Utilities and independent power producers.** One of the best sources of assistance will be the electric and/or natural gas utilities that serve a planning area, as well as independent power producers who may have local plants. All California electric and natural gas utilities maintain service territory plans for their generation and distribution systems. These plans are essential information baselines for any local planning effort, since they form the backbone of a community's energy system. Utilities will also have useful data on future energy demands; available conservation and efficiency improvement opportunities; electric and magnetic field (EMF) management (see Chapter 5.6); and the feasibility of employing new, innovative technologies in the local area.

■ **Energy Commission.** The Energy Commission can be helpful when assembling a local energy plan by providing information, including that for energy technologies, electricity and fuels use and forecasts, energy facility siting and generating efficiency, and environmental assessments. In particular, the local agency Siting and Permit Assistance Program staff can help in providing sources of information and advice.

■ **Other state and federal agencies.** Several other state and federal agencies have technical staff and publications relevant to local

PLANNING VIA PARTNERSHIPS

One of the best ways to plan for energy facilities is through a partnership with affected stakeholders. This type of partnership approach is being used by the Electric Power Research Institute (EPRI), which conducts research and development for its member electric utilities across the nation. Under its "Community Initiative," EPRI is providing cost-shared assistance to help local governments and their electric utilities form planning partnerships to solve mutual problems. Some of these concerns are explicitly energy-related, and others are associated with the need to maintain economic competitiveness or to confront mounting social or environmental problems.

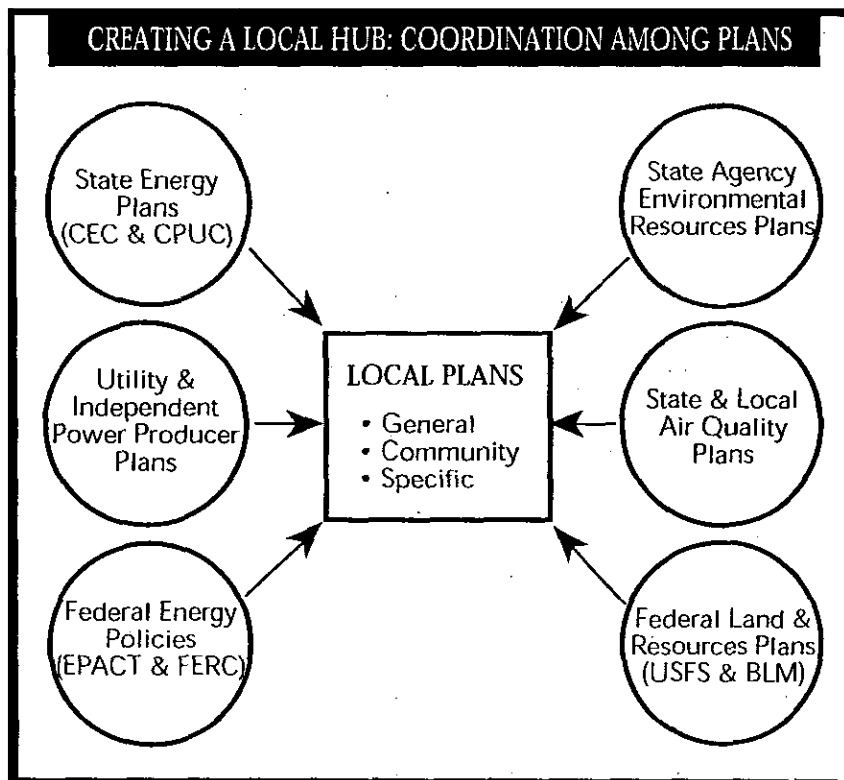
Examples of community partnership projects that are underway or planned include:

- **Improving the environment.** EPRI and member utilities are working with some communities on developing energy efficient land use plans, pollution prevention techniques, and increased waste recycling.
- **Creating telecommuting opportunities.** Utilities are exploring ways to help employers and schools in their communities to offer options for telework and distance learning.
- **Streamlining transportation.** Increased use of electricity in the transportation sector not only can improve air quality but also encourages more efficient, intermodal approaches to moving people and goods.
- **Offering new services.** Innovative communication links with customers provide new opportunities for demand-side management, distribution automation, and real-time pricing.

Community Initiative projects are possible where member electric utilities and local community planners have interests and resources that can be applied to a mutual challenge or opportunity. EPRI can strengthen this partnership with additional technical and financial assistance. Additional information on EPRI's Community Initiative can be obtained from Stephen Baruch at (415) 855-8912.

energy resources and facility planning and development, including the Governor's Office of Planning and Research; the California Public Utilities Commission; the Division of Oil, Gas and Geothermal Resources in the Department of Conservation; California Environ-

mental Protection Agency; Department of Forestry; Department of Water Resources; Air Resources Board; and the Integrated Waste Management Board. At the federal level, the U.S. Department of Energy, Environmental Protection Agency, and their national labora-



Assistance is also available in the form of periodicals, research studies, and conference proceedings. Many energy conferences are annual events that local staff can plan on attending for regular updates. Also, numerous electronic bulletin boards are expanding the availability of technical information.



tories, all have technical assistance programs and publications that address energy resources, technologies, and impacts.

❑ **Other local governments.** The informal network of local jurisdictions that have already prepared energy-related plans can also be an efficient and relevant source of assistance. Counterparts in other communities can often identify likely issues and effective methods for addressing and resolving them.

❑ **University research centers.** California universities and associated national laboratories offer a large array of research and analytical capabilities that communities can use in compiling and evaluating technical planning information.

❑ **Energy industry trade groups.** The energy industry is represented at the state and national levels by several trade groups that can provide useful information on technologies and industry trends.

Examples include:

- American Wind Energy Association
- Biomass Processors Association
- California Electric Transmission Coalition
- California Gas Producers Association
- California Municipal Utilities
- California Solar Industry Association
- Electric Power Research Institute
- Geothermal Resources Council
- Independent Energy Producers Association

NOTES NOTES NOTES

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ENERGY FACILITY SITING AND RECOGNIZING LOCAL OPPORTUNITIES

Opinions of the author do not necessarily reflect the views of the Energy Commission or its staff.

The siting of new energy facilities and the re-licensing of existing energy facilities is an issue which has generally been ignored by local government unless a crisis erupts. Yet an assertive, proactive approach by local decision makers can achieve huge gains in at least three areas.

❑ First, important public policy goals can be met. Promoting the siting of new and the retention of existing biomass plants can provide a means to reduce the landfilling of burnable solid waste. Air quality goals can also be met by reducing open air burning while using renewable fuels rather than fossil fuels. Critical emerging problems can be addressed while complementing the achievement of existing goals. For example, in virtually all of California there needs to be an aggressive natural fuels reduction program; yet burning the accumulated waste faces air quality restraints, and landfilling it reduces capacity. Counties that have access to disposal at a biomass plant will not only be contrib-

uting to energy production, they will be creating local jobs and saving tax dollars. Similarly, by becoming actively involved in the licensing of hydroelectric projects, local needs for water supplies, recreational areas, enhanced tourism opportunities, or increased revenues can be addressed.



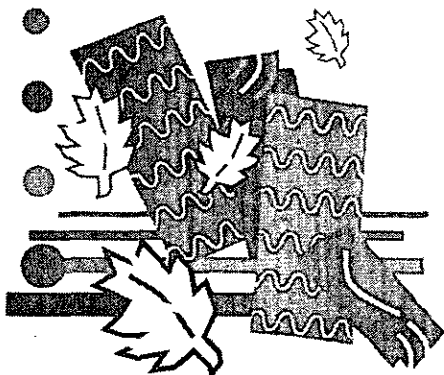
Bill Center

"Local interests must be defined. They are rarely identical to those of the power producer, but they don't have to be in conflict."

❑ Third, the interests of the public and the environment can be much better met when locally defined and developed goals are agreed upon early in the process. All too often public hearings become a "jobs versus the environment", or a "not in my backyard" debate. By waiting too long, interests get lost and positions become entrenched, resulting in frustration, poor decisions, and continuing confrontation. When clear community goals and interests are defined up front they can be presented early on as opportunities to create partnerships.

❑ Second, local government can save potentially large amounts of money by becoming a direct customer of a local energy facility. While the details of a myriad of proposed regulatory changes remain uncertain, inevitably there will be new opportunities for local governments to reduce their energy bills by directly contracting to purchase locally produced power. This can save millions of dollars for cash strapped counties.

In truth, the debate over locally sited energy facilities has rarely been framed at the local level. When it has, it has too often been in the context of mitigating a necessary evil, instead of exploring opportunities to solve local problems. The process is burdened by the regulatory, economic and social environment. We have an international electricity grid; affected by national energy policies and world markets; regulated by a variety of state and federal organizations; owned and operated by a



mixture of private enterprise, administrative arms of local, state and national governments, directly elected special districts, and private, public or private-public consortiums; all of which are pressured by a variety of social and environmental organizations. It is a messy and complex system.

Largely because of this complexity the historical trend has been to centralize regulation and decision making. Ironically, this has not disempowered local government. On the contrary, in today's political, legal and regulatory climate it is simply impossible to ignore well articulated local concerns over locating or licensing a project. The sophistication, legitimacy, and resources of even the smallest local government is sufficient to tie most projects in knots if a confrontation takes place.

This gives the local government decision makers the power to significantly affect the outcome of the decision, while not having jurisdictional responsibility for the decision. So what should local government do to deal with locally sited energy projects?

Local interests must be defined. They are rarely identical to those of the power producer, but they don't have to be in conflict. There are many areas where a local energy facility will affect local public policy goals. Some that are common to many local jurisdictions are air quality, disposal of biomass, water supply enhancements, environmental restoration, even undergrounding of power lines. Changes in grid access rules [by the Federal Energy Regulatory Commission] may also provide opportunities for wholesale power purchases and energy savings. The key is to be proactive, to participate in the process up front, and

make it clear that ways to create opportunities are being sought, rather than ways to impede the project. There is no risk, since early involvement is the best way to affect the project. It also makes it clear to the project proponent that local government will be a major player.

Sometimes a proactive approach involves seeing an opportunity and pulling potential players together in a collaborative effort. In El Dorado County a local lumber mill has a major investment to make in order to meet air quality standards for boilers burning wood waste. The municipal utility in Sacramento wishes to reduce its dependence on non-renewable fossil fuels, and has transmission lines from its Sierra hydroelectric project running close to the mill. The county, U.S. Forest Service, California Department of Forestry, and local fire departments are very concerned about the wildland fire interface and have a variety of fuels reduction programs which will generate huge amounts of biomass. The county is looking for a way to divert stumps and other wood and burnable organic wastes from its landfill.

The opportunity exists here for a public-private partnership involving multiple jurisdictions to build a biomass cogeneration plant, which can use state-of-the-art equipment to burn wood wastes, generate steam for use in the mill and electricity to meet the renewable energy goals of Sacramento. However, capitalizing on it has proven to be difficult, in part because traditional governmental approaches are not activist or proactive, and in part because the shifts in the regulatory environment, both in terms of timber supply and energy regulation, are being viewed as obstacles rather than opportunities.

To succeed, local government must become proactive and entrepreneurial. In the case of the mill, someone must get the players together, explore the opportunities and define the barriers, and then get all the stakeholders together and try to make a project happen. While such a project could save local government millions of dollars of landfill space and fire departments millions in fire suppression costs, for a county to actually appropriate any resources to facilitate the project is politically risky simply because it is not required: "it's not our job." This mindset needs to change.

Similarly, a proponent of a particular project may do everything that is required in terms of notice of affected agencies and organizations, and then wonder why the hearing room on a draft EIR is packed with upset people after several million dollars and years of time have been spent on siting and environmental studies by a series of consultants. The reason is simple. No meaningful early and proactive discussion occurred with the stakeholders, [emphasis added] and probably many stakeholders and even potential allies were never identified, because it wasn't required.

Nowhere is such early discussion more critical than in the licensing and re-licensing of hydroelectric projects. Rural California is no longer as rural as it once was, and even our smallest counties have substantial stakes in how their resources have been and will be developed. Substantial tourism and recreational industries have created new needs, expectations and opportunities while new rural residents bring an increased sophistication and environmental awareness to local governments. Again, multiple jurisdictions with

often checkered histories of interaction have to work together or nothing will happen.

Local jurisdictions should have a single individual or department who is given early responsibility to coordinate energy facility siting. Yes, it is an added responsibility for someone whose plate is almost certainly overflowing. But it will pay dividends and reduce conflict. Local alliances can be built and local interests met in collaboration with, rather than in opposition to,

the proposed project. This individual must have the ability to look at interests rather than getting locked into positions, should have experience or training in putting together collaborative efforts, and most important, must have the ear of and support of policy makers. Such an individual, by working with everyone from community activists to business leaders, from elected officials to sister agencies, can build alliances that make a final decision on a project seem anticlimactic, rather than a civil war.

There is no better place for such an approach to succeed than at the local government level. The traditional strength of local government is the same as that of small business - it is responsive, flexible, hungry and innovative, and therefore often on the cutting edge of progress and success. It appears likely that Sacramento and Washington recognize this, and will respect it. Hopefully local government can take advantage of it, to everyone's benefit.

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PERMITTING ENERGY FACILITIES: ISSUES RELATED TO LOCAL AGENCIES

Opinions of the author do not necessarily reflect the views of the Energy Commission or its staff.

In the 1970s renewable energy was seen largely as a curiosity, but perhaps with sufficient energy saving potential to warrant considerable federal and state tax credits to promote its use in homes. While this was intended to accelerate commercialization along with producing energy savings, it ended up seriously distorting the market and giving false price signals. These tax credits were removed by the mid 1980s, along with almost all national support for renewable energy resources in general, and the brief "market" collapsed. Or so it appeared.

But a quiet revolution began in the early 1980s. The remaining manufacturers and distributors of solar water heaters became more cost and reliability conscious; some builders began to learn that passive solar homes and daylight commercial buildings offered important market advantages; and important experience in wind-electric generation, solar thermal-electric generation, and photovoltaic electric generation was gained through the world's largest examples of all three technologies, all installed within California's boundaries.

Not only did the costs of all of the solar-electric technologies drop dramatically during the 1980s, while reliability of the systems improved, but the ways of determining their benefits also changed significantly. For example, California's cities and counties began to learn that dollars spent



Donald W. Aitken

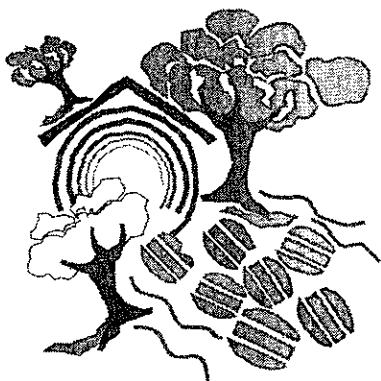
"Energy decision makers will be the vehicle to promote new businesses and jobs, to improve the healthful quality of local environments, and to facilitate the more efficient and productive use of local energy expenditures...."

benefit, and created more jobs in the community, than the conventionally fueled supply alternatives. The boundaries for examining the economic impacts of energy policy decisions expanded out to encompass the interwoven economic, environmental and labor systems, rather than just the energy users.

During the previous decade the electric utilities also began to appreciate that solar water heating, commercial building daylighting and careful shade tree planting were cost-effective ways to reduce hot summer peak loads on the utility system, thereby saving all ratepayers' money. The framework for viewing the benefits had again been expanded to encompass all who receive them (that is, to all "stakeholders"), rather than confined to just those who apply the technologies.

More recently solar electric cells ("photovoltaics") located adjacent to distribution substations next to urban areas, or on urban building surfaces, have been shown to produce "distributed utility" benefits in California environments of at least twice the value of the

within their boundaries for energy resource avoidance, such as home weatherization or shade tree planting, or for passive solar heating or commercial building daylighting, kept energy dollars working locally with greater economic and environmental



electricity output of the cells, leading to the confident expectation that even relatively costly photovoltaics will prove in this larger economic framework to be fully cost-effective this decade.

In addition, state and local environmental quality improvement standards will continue to require reductions in environmental emissions related to energy production and use, and the United States will increasingly participate in international protocols that will require reductions in the use of fossil fuels (e.g. President Clinton's Climate Action Plan, to meet carbon emission-reduction targets that have been set internationally). Renewable energy resources are increasingly being appreciated for their contributions to these goals.

The result of these considerations is that energy decision makers are going to be faced with new kinds of decision making circumstances involving energy efficiency and renewable energy resources within this decade, ones that will also require cooperation by the same decision makers to assure that the benefits of these efficiency and indigenous resource applications actually accrue to their constituencies. For example, long-term supply and price stability for urban electricity users can be enhanced by assuring a diverse "portfolio" of resources, especially those that are independent of international price-fixing cartels located in politically unstable regions of the world.

With renewable energy resources in those portfolios, the chances for continuity of supply, enhanced environmental quality, and absolute price stability are all improved, frequently in circumstances that also create new local businesses and provide new jobs.

While municipalization now permits urban areas to contract directly for such portfolios (e.g. the Sacramento Municipal Utility District's aggressive renewable energy program), it is very likely that the result of the electric utility competitive restructuring that is just now beginning may also provide the opportunity for energy resource portfolio optimization by non-municipalized communities and otherwise aggregated purchasers.

To realize the energy-saving "passive" benefits of solar space heating through appropriate architectural design and from properly placed shade tree planting, energy decision makers will need to work with developers in ways that enhance the building market without increasing builder costs, while providing both solar "access" and west-side and street tree shading. Experience has already shown this to be quite feasible and practical. This usually only requires subdivision redesign services and other procedural incentives or assistance to the cooperating builders. City and county agencies should also be prepared to work with electric energy suppliers to provide the necessary expertise for the adoption of additional cost-effective "passive" energy saving and space quality-enhancing measures, such as daylighting and daylight-controlled electric lighting.

The application of "active" solar energy techniques can also be expected to see a resurgence. These include solar water preheating with electric utility support to reduce the costs of peak power management and to provide support for the transmission and distribution systems, and low-cost solar ventilation air preheating, cladding the south sides of build-

ings with now-available and very cost-effective materials that enable sunshine to replace gas-fired preheating.

Encouraging or subsidizing the inclusion of electric service to the south-facing roofs of all new exposed residential and commercial structures can provide a very low-cost way to accommodate the forthcoming "distributed utility" application of photovoltaics. Furthermore, solar-electric glass, sized for commercial curtain-wall and skylight applications, is even now beginning to appear from the manufacturers of low-cost thin-film photovoltaics, suggesting emerging opportunities for the full integration of distributed utility electric service with the very structure of the building.

These developments are all remarkable, all new, and all rapidly heading toward full commercialization. By the end of this decade everything discussed in this brief essay will begin to be commonplace, and will certainly mark the transformation of urban energy markets during the first decade of the next millennium. Energy decision makers will need to keep abreast not only of these exciting developments, but of the full scope of benefits that each brings to the full range of affected stakeholders.

Energy decision makers will be the vehicle to promote new businesses and jobs, to improve the healthful quality of local environments, and to facilitate the more efficient and productive use of local energy expenditures, through their energy resource and policy decisions. Energy efficiency techniques and technologies and renewable energy resources and technologies will provide the tools to accomplish those worthy aims.

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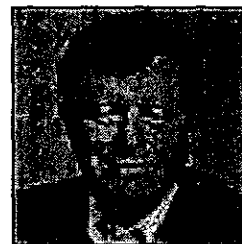
EMERGING ENERGY TECHNOLOGIES

Opinions of the author do not necessarily reflect the views of the Energy Commission or its staff.

Emerging energy technologies point toward satisfying energy needs much closer to the ultimate user, and have the potential of producing electricity in our homes and businesses rather than at some distant powerplant. Emerging technologies also hold the key to resolving such energy issues as a cleaner environment and lower costs. Perhaps, more importantly, they might be the instruments for substantial change in the way we produce and use electricity to provide for our needs.

Older technologies, boiler type steam generating plants, like coal, oil and nuclear, rely on economies of facility scale to obtain efficiencies in both fuel conversion and costs. Since the turn of the century increasing the size and the operating temperature in power plants has led to a continuing lowering of electricity costs. This trend came to an end in the 1970's and in many cases there are no more economies of facility scale left to capture. The

newer emerging technologies tend to be cleaner, smaller, and modular. They achieve their cost efficiencies through economies of manufacturing, or mass production. For example, instead of making bigger heat pumps, on-site generator sets, wind machines, solar photovoltaics, or high-efficiency compact fluorescent lamps, factories need to make more of them to

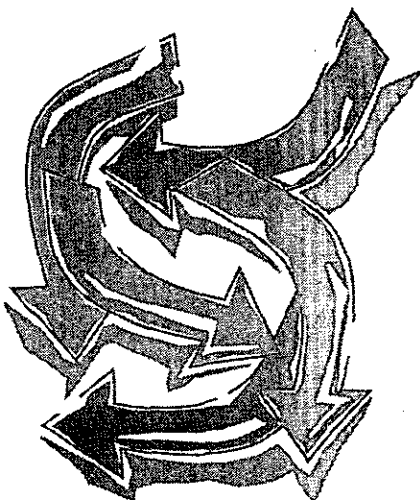


"If the smaller more modular technologies are allowed to enter the market they will rapidly begin to penetrate, and a new era in energy services will emerge."

manufactured energy will have a major impact on how we produce and use energy.

Why is this important? The implication is that the decisions about energy production and use will move closer to the customer. And by inference closer to local government decision makers. This is readily understood by those that are working in energy efficiency, since efficient appliances, windows, passive solar design are always related to the customer. And efficient homes already have to meet designated standards enforced by local agencies. Previous technologies, however, have led us to believe that the production of electricity would always be far away from the actual point of use. The new technologies tend to challenge that notion and should cause us to rethink that premise. The concept of a much more integrated energy production and use is being discussed under the name "The Distributed Utility".

reduce costs. This concept is a fundamental change of mindset for the utility industry, which is more familiar with capturing economies in field construction rather than economies in manufacturing. This shift from constructed energy to



If we count distributed benefits properly we will find that they are worth double or more than what standard utility economics (designed for large powerplants) say they are worth. One has to take into account the whole chain of energy use from production to transport to actual conversion. This makes many distributed renewable technologies, such as photovoltaics or solar hot water heating cost effective in many cases right now. The SMUD Photovoltaic Pioneer program is an example of this approach. It uses photovoltaic panels on the rooftop to produce electricity when needed most, during the hot summer days.

A recent Allison paper for General Motors suggests that polymer fuel cells (PEM) might be mass-produced for about \$47/kW. At this cost it would be more competitive than electricity brought in over the wire. The development so far has been primarily for the electric vehicle market. A hybrid electric vehicle is really a miniature utility. It contains an electric generator, an electric storage device and a computer controlled smart energy management system; all the components that you need to have your own utility in your home. This leads to the potential ability to plug your home into your vehicle. If you can produce electrical energy in a fuel cell (which has no hazardous emissions) in your car, there really is every reason to operate your car to produce electricity for your home when the car is in the garage. You have already paid for the powerplant, why not use it. (This is the exact opposite of what most people are thinking; that is, plugging your car into your home to recharge the batteries.) It is also not a great leap to then think of plugging your business into your car when you have parked it for the day. It also

means that the energy use of your home or business is now integrated with the transportation planning in an entirely new way. These technologies therefore not only impact the energy sector but may well cross over to the transportation sector.

If mass production of PEM fuel cells occurs for the automotive market, it could occur for fixed sites also. Proposals have been made that a small fuel cell could be incorporated into the bottom of a waterheater and you would buy the combination as a small mini-cogenerator at your local hardware

"Because these technologies are much more dispersed and distributed, they will enter the domain of decision making or at least permitting of local governments."

or Sears. If this is then combined with a super efficient home it is not even clear that you would have an electric grid if it didn't already exist. In that case you could just have a gas grid, or ultimately a hydrogen grid.

Progress in dispersed electrical storage is also continuing, and the storage devices are making rapid headway. Again, because of the electric and hybrid car development and markets, a cost effective way to store small amounts of electricity will have major impacts on energy uses and production. There are at least a dozen companies working on flywheels. (They may be cylinders instead of wheels.) All of them integrate smart electronics into the designs. This allows them to be plugged in and all the rest is taken care of. (It won't be quite that simple. It never is, but close.) These devices will look like little beer kegs or small boxes sitting in the basement or garage. Some flywheel models should enter the market by 1995, and by the late 1990s be a common and affordable commodity in the several to tens of kilowatt-hours size range. An additional benefit is that they are superb voltage stabilization devices, as well as being able to provide electricity during those short outages that now make all the clocks in the house blink "12:00," and have the potential to upset your computers.

The distributed generation systems presently being installed and considered run from 10 to 20 megawatts for onsite commercial cogeneration, to five kW motor generator sets, to a single photovoltaics panel on a residential roof. The fuel of choice for those systems using fuel will be natural gas and later hydrogen, and for the renewable generation technologies, photovoltaics, or wind.

The issues regarding distributed generation systems for local government are related to whatever considerations are presently being given to standby generation for hospitals and major emergency centers. The difference is that the

distributed generation will run for more hours. This means that emissions will need to be considered. Most of the systems running on natural gas meet the present California emission requirements. Fuel cells are very low in emissions since they do not have a typical combustion process and produce primarily water and carbon dioxide. The requirements for the safe handling of natural gas are well established for both commercial and residential applications.

Hydrogen, as the clean follow-on fuel, may give rise to questions of safety. Hydrogen has not had the history of use that natural gas or gasoline has had and the perception of explosive danger is high. It has been handled successfully in numerous industrial and commercial settings. The form in which the hydrogen will be stored will influence the perception of safety. It can be piped directly, produced as needed from natural gas (reformed), or produced from a stored solid or liquid. Experimental fuel cells with natural gas to hydrogen reforming are running successfully in urban settings today.

The renewable technologies bring with them a different set of concerns. Photovoltaics, as with solar hot water heating, will need to have sunlight. This brings out the issue of shading by new adjacent structures, an issue that has been handled by some municipalities for solar hot water heaters.

Small wind turbines bring in the issues of visual impact and noise. Since the turbines will be elevated they become an intrusive visual object. And as always beauty is in the eye of the beholder. The closest equivalent would be ham radio operator towers. Most modern designed small turbines have very low noise levels and can meet most urban noise ordinances.

And, in all cases, the electrical connections will have to meet local code requirements. As more experience is gained with distributed generation systems, the interconnection requirements have become more realistic.

The changing electric utility industry provides a unique opportunity for these new technologies to emerge. If the present utility regulation is changed and the technology and services are provided by a number of organizations then the issue of consumer protection will become more important. Considering the present knowledge of the average consumer of their energy choices, the potential for consumer fraud is high. It is too early to know exactly what the ultimate outcome will be. If the smaller more modular technologies are allowed to enter the market, they will rapidly begin to penetrate, and a new era in energy services will emerge.

These technologies have the potential to customize energy services beyond just time-of-day, or real-time pricing. This era will be much richer in customer choices and will focus much more attention to the needs of individual customers. Customers are not necessarily interested in low-cost kilowatt-hours, but in low-cost, high-quality energy services, and have overwhelmingly voted for cleaner and more environmentally-sensitive energy provisions. But because these technologies are much more dispersed and distributed, they will enter the domain of decision making or at least permitting of local governments. Photovoltaics on the roof or fuel cells in the garage will call for some permitting procedures and how these are handled will also impact the ability for these technologies to rapidly penetrate the market place.

These new technologies have the ability to fuse together energy production, use and management at the user's location, and will make such concepts as "think globally but act locally" even more important.

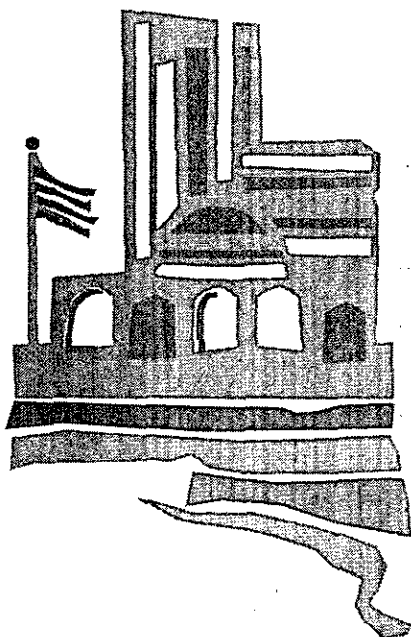
PERMITTING ENERGY FACILITIES

CHAPTER 4

CHAPTER 4: PERMITTING ENERGY FACILITIES

INTRODUCTION

This chapter provides information and ideas to address the inevitable energy project permitting challenges that you will face, to make your permitting process more efficient and effective, and to obtain results that reflect the preferences of your community and the participation of all interested parties. The extent of local authority over energy facility permitting is explained. This chapter provides ideas for improving local permitting, monitoring, and compliance activities in order to obtain results that address the needs of your community. Information is presented about state and federal energy facility permitting processes, focusing on opportunities to participate in and influence these processes. The roles and responsibilities of all participating state and federal agencies are described.



GUEST AUTHOR ARTICLES

Guest Author articles are found at the end of this chapter. These articles contain opinions of the authors and do not necessarily reflect the views of the California Energy Commission or its staff.

Developing Energy Projects in a Given Community by Thomas Sparks, Manager of Government Relations and Utility Affairs, Geothermal Operations, UNOCAL.

“... increasing growth in California means that your community may need additional energy resources or be impacted by the demand for them in other areas.”

Participating in Licensing: Opportunities and Advantages by Ernesto Perez, attorney and former California Energy Commission Public Advisor.

Siting Powerlines and Substation Facilities: An Investor Owned Utility's Approach by Michael Hertel, Manager, Environmental Affairs, Southern California Edison Company.

Authorization of Hydroelectric Facilities-Guidelines and Issues by Fred Springer, Director, Office of Hydropower Licensing, Federal Energy Regulatory Commission.

Effective Local Government in the Licensing of Hydroelectric Projects by Stephen Padula, Principal and Senior Consultant, Long View Associates, Inc.

Biomass and Local Government: Challenges and Opportunities by William Miller, President, Board of Directors, Biomass Processors Association.

GROWING ENERGY DEMANDS AND LOCAL ROLES IN PERMITTING

Whether or not your local government promotes new growth and development, increasing growth in California means that your community may need additional energy resources or be affected by the demand for them in other areas. The Energy Commission anticipates that the demand for energy will grow by roughly two percent annually. It forecasts that by 2005, demand for electricity in California will increase by an additional 6,580 MW.

New power plants, transmission lines, pipelines and other energy facilities will be built to address the growing demand for electricity, the retirement of old facilities, and the refurbishment of existing facilities to reduce environmental impacts and improve their economies. In the future there will likely be an

CITY OF HANFORD'S PERMIT EXPERIENCE

This case study concerning the lengthy and controversial permitting process of the GWF Cogeneration Power Plant in Hanford, California is an example of the importance of early, and frequent, public involvement and adequate consideration of environmental reviews in the energy project permitting process.

In October 1987 GWF Power Systems filed an application with the City of Hanford to build a 19.9 MW coal-fired cogeneration power plant in Hanford (Kings County, California). The proposal was designed to provide 35,000 pounds of steam per hour to an adjacent Pirelli-Armstrong Tire and Rubber Company, with electricity to be sold to Pacific Gas and Electric Company.

The original Environmental Impact Report (EIR) was rejected by the Hanford City Planning Commission as inadequate. However, the Hanford City Council overruled the decision and approved the EIR on March 21, 1988, about six months after the application was filed. At this point a grass roots environmental group, known as Kings County Citizens for a Healthy Environment (KCCHE), was formed to oppose the GWF power plant. In June 1988, KCCHE's request for the City Council to reconsider the issue was rejected. Lawsuits opposing the plant were subsequently filed in Kings County Superior Court by KCCHE and the Kings County Farm Bureau. Kings County Superior Court ruled in favor of GWF, enabling them to begin construction of the plant. As the plant was being built, the issue went to the California Court of Appeals, Fifth Appellate District.

The Fifth Appellate District ruled that the Hanford City Council had overstepped its authority in issuing permits for the GWF project. Specifically, the Court found that the EIR failed to:

- Consider secondary emissions from rail and truck traffic
- Adequately assess the project's cumulative impacts to air quality and ground water resources
- Provide a meaningful analysis of project alternatives

The Court also determined that the land use, circulation and conservation elements of the City of Hanford General Plan did not comply with statutory requirements. Since these elements directly related to the proposed plant, the project could not be approved until the elements had been properly adopted.

During this litigation process, GWF continued to build the plant. They were unable to begin operation until after a final Court ruling. The final ruling was issued in October 1990 and required the City of Hanford to prepare a "Subsequent Draft and Final EIR" to address the issues that the original EIR failed to consider. The Court also ordered the City of Hanford to take necessary actions to bring the City's General Plan elements into compliance with the requirements of Article 5 of the Government Code. In addition, the final ruling allowed GWF to operate its facility for up to 60 days to test and obtain information concerning the effect of plant operation on the environment.

Almost four years after GWF filed its application with the City of Hanford, a Final Subsequent EIR was approved in August 1991. Additional mitigation measures were imposed to reduce environmental impacts. The process was costly for all parties involved and many lessons were learned, including the need for adequate environmental analysis/mitigation, legally defensible General Plans, and most importantly, early and frequent public involvement.

For more information, contact Jim Beath, Community Development Director, City of Hanford, at (209) 585-2583.

increase in the number of modular generation (5 kW - 25 MW) and storage units located on electric customers' sites or near load centers. Local governments will play a major role in the permitting of many of these new facilities.

Local agencies, therefore, may find that their permitting processes or their ability to effectively participate in other agencies' processes play an important role in ensuring these energy facilities are built consistent with the interests of their community. In light of this potential role, the following suggestions are offered:

■ **Realize planning is key to an effective least cost permitting process.** As discussed in Chapter 3, the foundation of a local agency's permitting process is its development plans (General Plan, Specific Plan, etc.). The permitting process is one of the means by which local plans are implemented. Effective and comprehensive permitting processes:

- Provide for early public involvement
- Clearly define permit-related issues
- Minimize delays and costs

- Facilitate coordination with developers, utilities, other governmental agencies (federal, state, regional), and interest groups

- Result in reasonable, enforceable mitigation measures

A well designed permitting process will provide economical, reliable, safe and environmentally sound energy facilities in a timely manner. Developing clear, comprehensive energy facility permitting processes that effectively reduce time requirements, cost and contentiousness, therefore, may be a valuable endeavor.

■ **Exert your influence in federal and state permitting processes.** In circumstances where federal, state or municipal utilities are the lead permitting agency, local agencies can influence these processes by:

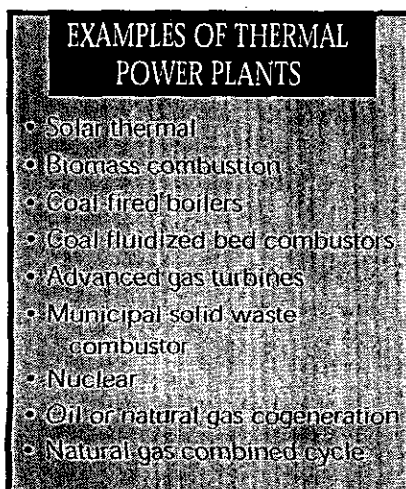
- Knowing and understanding their legal authority and limitations
- Participating as early as possible
- Having adopted policies, ordinances and standards that identify resources of interest and criteria for development
- Staying informed about plans for future energy facilities
- Developing and maintaining cooperative relationships with utilities, governmental agencies and other energy-related organizations
- Utilizing resources and assistance available to them

■ **Understand the needs of developers and the public.** Developers and the general public often find permitting processes very slow, costly and without clearly specified criteria or requirements. Lack of agency coordination, inconsistency among agency requirements, and obstacles to public involvement complicate energy facility permitting processes. Developers and the public prefer clear permit requirements and a logical, predictable process. Developers seek some assurance that their projects will be approved if they satisfy all permit requirements and criteria. The public desire a forum in which they can voice their concerns and have their issues addressed. The case study discussing the City of Hanford's experiences on the previous page illuminates some of the pitfalls of inadequate public involvement and unclear permit requirements.

LOCAL AUTHORITY IN PERMITTING ENERGY PROJECTS

The California Constitution, various state statutes and case law give local governments authority to regulate development as an exercise of the protection of the general welfare. This power is exercised through adoption of local development plans (Gov. Code section 65300 et seq.), enactment of zoning (Gov. Code section 65800 et seq.), subdivision of land parcels (Gov. Code section 66410 et seq.), and other enactments to protect the general welfare.

The scope of this power is fairly broad to the extent that it does not conflict with general laws of the state or federal government. Where conflicts arise, the local enactment will often be preempted, depending on the legal circumstances. There are numerous state



and federal preemptions for energy projects. These are discussed beginning on page 4.14.

HOW TO IMPROVE THE LOCAL GOVERNMENT ENERGY FACILITY PERMITTING PROCESS

Four general areas in the energy facility permitting process in which local governments can make changes to improve and shorten the process are: developer guidance, permit process streamlining, interagency coordination, and public involvement.

Energy facility developer guidance can include policies, standards and siting criteria, information on the roles of affected agencies, and public information manuals with legal and procedural requirements. Permit streamlining techniques include pre-application packages and meetings, one-stop permitting "shops," use of Master Environmental Assessments and program level EIRs, and establishing an "ombuds-person" to resolve conflicts. Inter-

agency coordination can mean joint application review panels, consistent policies among agencies with jurisdictional overlap, and elimination of duplicate permit approvals where feasible. To be effective, public involvement must occur early in the permit process and may include the use of technical advisory committees, frequent public workshops, and computer simulations.

DEVELOPER GUIDANCE

One of the surest and easiest ways to improve the energy facility permitting process is to ensure that project developers are given adequate information on permit requirements, time frames, and costs. The more information the developer has from the start, the more complete the application will be. If the developer knows all local, state and federal requirements before the application is submitted and the project plans are completed, costly revisions and delays will be less likely to occur.

Information should be provided to energy facility developers as early in the process as possible. The following paragraphs describe the type of information that energy facility developers will need.

▣ Preferences, policies, codes, standards, ordinances and siting criteria. Local government guidance in various forms for energy facilities can be made available to prospective permit applicants. Even in cases where local authority is limited over a given energy project, these adopted policies and regulations are considered by many of the lead state and federal agencies. Jurisdictions which have not developed such guidance may want to consider doing so. Examples of local government requirements for wind energy conversion systems (WECS) are contained in the matrix beginning on page 4.11.

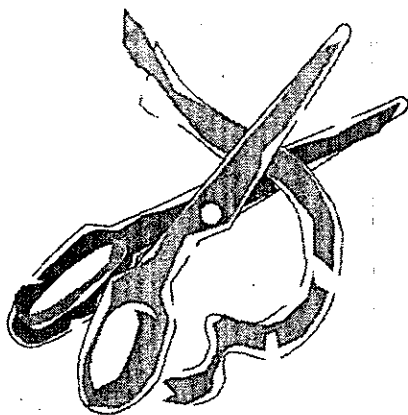
This type of information is beneficial to the local community, the developer, and other regulatory agencies. The community can express its preference for the type(s) and location of facilities it wants. The developer does not have to waste time and money on projects that are unlikely to be approved. In addition, these policies will reduce the number of discretionary approvals needed later, thus reducing the permitting time.

▣ Screening Criteria and Mitigation Measures. A community can develop CEQA screening criteria for various issues, such as hazardous materials, air quality, noise, etc. Screening information will alert project developers to the type of data needed for review to determine impacts and appropriate mitigation measures. (See the insert about Santa Barbara County.)

SANTA BARBARA COUNTY PERMITTING PROCESSES

Santa Barbara County has made a number of changes in its permitting process. With the help of interested business and community leaders, the County focused on coordinating requirements of the Environmental Health Department, the Fire Department and the local air pollution control district to reduce costs, duplications and conflicts. The County developed "how to" manuals which address compliance with state and local regulations for certain industries, and consolidated certain permitting and inspection requirements. It established an Industry Assistance Program of detailed information packets, workshops and technical assistance, and initiated concurrent review for planning and environmental requirements to speed processing. Santa Barbara County has assigned a Permit Coordinator to resolve conflicts and to ensure that time deadlines are met. The County has also developed a CEQA threshold of significant impact document to alert project developers when mitigation will be required.

Contact: Santa Barbara County Air Pollution Control District, 26 Castilian Dr., Suite B-23, Goleta, CA 93117 (805) 961-8800.



It would be helpful for the local government to provide information on the kinds of mitigation that have been required in the past, and, if desired, to list the kinds of mitigation they would consider for various impacts of future projects. CEQA, however, requires that mitigation be devised on a case-by-case basis to address actual impacts of each project. Therefore, project proponents will need to be able to identify specific project impacts.

The result of advance information to developers will be more complete applications, greater consistency, and improved review efficiency.

■ **Pertinent siting information.** Communities with a data bank or a geographic information system (GIS) can easily provide developers with pertinent siting information. Information such as the location of sensitive receptors, soil types, species of concern and sensitive biological areas can help a developer to choose a facility site that will be more likely to be approved. See the *Energy Facility Planning with a GIS* insert on page 3.18. (See Chapter 3 for more information on useful data for local energy facility planning purposes.)

CUTTING THROUGH THE RED TAPE —TOGETHER

The California Council on Partnerships was established in 1983 by the California State Association of Counties as a public-private partnership. This mutual effort on the part of local government and the business community has resulted in *Cutting Through the Red Tape — Together*, the report of its Red Tape Task Force. The Task Force commissioned a study that included a survey of 4,000 businesses and all of California's cities and counties to ascertain their feelings on the permit process and to discover what had been done and what could be done to improve the process. The result is an excellent resource for local governments that wish to understand better the problems that developers face when applying for permits in general. Many of the ideas presented in this chapter have their origins in this document.

Contact: California Counties Foundation, California Council on Partnerships, 1100 K Street, Suite 101, Sacramento, CA 95814, (916) 327-7507.

■ **Public information manual.** A public information manual can include the information in the above sections. It can also contain legal and procedural requirements, projected costs and time frames, and roles and responsibilities of other agencies and utilities for energy facility permits. Such a manual will be useful to energy developers before they start the permitting process by reducing the possibility of delays and associated permitting costs.

PERMIT PROCESS STREAMLINING TECHNIQUES

Permit streamlining will reduce the time and costs of issuing and obtaining permits. Several reference books are available (see the above box *Cutting through the Red Tape Together*, and the INFORMATION RESOURCES section of this chapter) that focus on permit streamlining. Examples of useful techniques include: one-stop permit centers, pre-application packages and conferences, simplified permit language, one point of contact for all local permits, cross

training of staff, and the use of Master Environmental Assessments and program-level EIRs.

■ **One-stop permit center.** One-stop permit centers provide all local government permitting information for multiple local agencies in one place and can reduce some of the time and frustration associated with the energy facility permitting process. Employees at the center are usually cross-trained regarding the requirements of all local agencies. Ideally, the center contains a shared database so that the applicant fills out only one application. The information contained in the application can be shared by all agencies represented at the center. This step alone will eliminate duplication that would otherwise occur if the agencies were not coordinated. One-stop permit centers can also provide the required forms and information from other local governments, and state and federal agencies as appropriate.

❑ A single "point-of-local government-contact" person. Providing a single "point-of-local-government contact" person for the project developer to work with will reduce the potential confusion and frustration associated with a permit application, particularly when issues or concerns arise over an application. A single contact person can identify and resolve inter-agency conflicts before dispensing information to a developer; act as an ombudsperson to resolve conflicts between a project developer and local agencies; handle concerns from the public regarding an application; and improve the resolution of conflicts that may occur. Through cross-training, the contact person understands the entire local permitting process and the requirements of all agencies. See the accompanying box titled *County Examples of Permit Facilitation* for an example.

❑ Cross-train staff. When a single local point-of-contact is not possible to dispense permitting information for all agencies, cities and counties can cross-train some staff within each agency so they better understand the entire permitting process, not just their particular area. Understanding the entire process and the ultimate goals of regulations, should help to reduce unnecessary conflicts over insignificant details.

❑ Pre-application packages and conferences. A pre-application package should contain the information noted under "Developer Guidance." A pre-application conference will involve the applicant and representatives from all local, regional, state and federal agencies requiring permits or approvals, or that are otherwise interested in the project. All interested parties have the opportunity to provide the potential developer with their concerns and requirements. The developer can then design in the

requirements from the start and should not have to go through costly and time consuming application resubmittals. Information about the type and number of permits, approximate costs, and length of approval time can be identified and discussed. Interagency conflicts regarding permit conditions can also be identified and resolved. See the box below entitled *County Examples of Permit Facilitation*.

❑ Clearly written regulations. Energy facility permit problems can be caused by the intricate and confusing language of some regulations. Writing regulations clearly will help to eliminate any confusion that currently exists. Certain ordinances and regulations will require precise, technical language to ensure their compliance. When this is the case, a lay person's translation should also be provided.

❑ Environmental Documents. Cities and counties can develop Master Environmental Assessments (MEAs) or program level EIRs. A MEA is a document containing data describing environmental characteristics and constraints of an area which can be used in subsequent environmental documents and to influence the design and location of individual projects.

Program level EIRs address impacts from a specific type of program or related projects such as energy or transportation. It can ensure consideration of cumulative impacts that might be slighted in a case-by-case analysis and can allow the lead agency to consider broad policy alternatives and program-wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts. Use of program level EIRs may reduce the work necessary for later

COUNTY EXAMPLES OF PERMIT FACILITATION

Santa Cruz County has adopted and put into effect a number of objectives for their permitting process. These include providing applicants with complete information concerning the application process along with time estimates for each step, a single point of contact person for application processing, early notification of any processing delays, and appeal information. These reforms came about after the county surveyed permit applicants about their satisfaction with the County's process.

Contact: Santa Cruz County Planning Department, 701 Ocean Street, Santa Cruz, CA 95060, (408) 454-2580.

Glenn County requires that energy facility developers attend a pre-application conference with affected local and state agencies. The County has also developed design standards for various energy facility types that can alert developers to the requirements they can expect if they wish to locate in the county.

Contact: John Benoit, Glenn County Planning Department, 125 S. Murdock Street, Willows, CA 95988, (916) 934-6540.

PLACER COUNTY INTERAGENCY PERMIT COORDINATION

The Placer County Permit Streamlining Committee (PSC) was established by the Placer County Board of Supervisors in 1986. Its membership includes a member of the Board of Supervisors, the Planning Commission, and the Business and Industrial Development Commission, the County Executive Officer, the Public Works Director, the Community Development Director, the Health Administrator, and the Administrative Assistant to the Board of Supervisors who serves as the PSC Chair. The PSC serves two functions. First, it acts as the coordinating agency for the land development application and permit process in the County. Second, it provides an internal forum for coordinating review of major projects by several different departments in situations where comments or concerns of one department need to be reconciled with those of another. PSC review does not replace a technical review by separate departmental staffs, but provides a more comprehensive perspective and serves to mediate differences. Comments made by PSC members are advisory only and are not considered a formal recommendation by the county or by a hearing body. The PSC may review an application at any time in the permitting process. The Committee recommends, however, that consideration of the project be requested prior to formal submission of an application to the County, when the project is still in the conceptual stage. Project proponents are urged to use their time before the PSC as a forum to assess a proposal's feasibility and to learn of potential procedural or political issues that must be resolved.

Contact: Administrative Assistant, Placer County Board of Supervisors, 175 Fulweiler Avenue, Auburn, CA 95603, (916) 889-4010.

project specific EIRs. However, CEQA Guidelines provide that where subsequent activities involve site specific operations, the agency should use a written checklist or similar device to document the evaluation of the site and the activity to determine whether the environmental effects of the operation were covered in the program EIR. While program level EIRs do not require the naming of specific projects, Master EIRs do.

Master EIRs may be prepared for a project consisting of smaller individual projects to be phased in, as well as for general plan documents or a specific plan. A Master EIR must include sufficient information about anticipated projects within its scope, such as size,

location, intensity, and scheduling. It must also preliminarily describe potential impacts of anticipated projects for which insufficient information is available to support a full impact assessment.

A Master EIR for a phased-in project can effectively reduce the extent of subsequent environmental review if it includes the anticipated projects that fall within its scope. The project lead agency must prepare an Initial Study to determine whether the anticipated project and its significant environmental effects were included in the Master EIR. If a lead agency can make a finding that concludes that no additional significant impacts will occur due to a anticipated project within the scope of the Master EIR, and that

no additional mitigation measures or alternatives may be required, it may prepare a written finding to that effect without preparing a new environmental document or finding.

If such a finding cannot be made, either a mitigated negative declaration or a focused EIR must be prepared by the project lead agency. The advantage of the latter is that only those project-specific effects on the environment that were not covered in the Master EIR have to be analyzed in the negative declaration or the focused EIR. Significant time savings can result.

■ **Familiarity with energy technologies.** Becoming familiar with energy technologies will help to reduce the time associated with their permitting. When confronted with a new technology or facility type, local government agencies are understandably cautious. Once a local community has had experience permitting an energy technology, it can benefit from this experience by focusing more efficiently on key issues and their resolution, making the next application for a similar facility type easier.

INTERAGENCY CONSULTATION AND COORDINATION

Energy facilities often have complicated issues associated with them that require permit approval from many agencies at various government levels. Coordinating permit requirements of the various agencies and jurisdictions involved with energy facility permitting is another way to reduce time and confusion. Coordination can involve joint review of permit applications; sharing information between agencies and jurisdictions; eliminating inconsistent policies, standards and duplicative permit approvals; using parallel permit processing; and delegating permit authority.

■ **Joint review panels.** Joint permit application review panels reduce conflict and help ensure complete applications. Preapplication conferences, where the developer and representatives of affected agencies gather to discuss permit requirements, provide the developer with necessary information before the application(s) is completed. Regardless of when joint review happens, it will serve to coordinate the efforts of the various agencies and lessen potential conflicts. Joint review will also help to assure the participation of responsible agencies for compliance monitoring after the facility is in operation. See the insert *Placer County Interagency Permit Coordination* on the previous page.

■ **Interjurisdictional relationships.** Cities and counties can develop contacts with other local jurisdictions with previous energy facility siting experience and avoid having to "reinvent the wheel." Jurisdictions may wish to consider forming a regional work group to discuss ideas for developing consistent energy facility permitting processes and/or resolving mutual problems encountered as a result of energy facilities.

■ **Consistent policies and standards among agencies that have jurisdictional overlap.** Ensuring consistent policies and standards among agencies that have jurisdictional overlap will eliminate conflicts between jurisdictions when permits are sought. There may be instances, however, when there is a need for differing requirements.

■ **Intrajurisdictional policy and ordinance consistency.** Inconsistencies may exist with regulations within a single jurisdiction. Local policies, ordinances, regulations and standards enacted at different times or by different departments

may be in conflict. Local government agencies can review local policies and ordinances for consistency, and change or eliminate those that are not in line with the community's guiding goals and objectives. Cities and counties may also consider consolidating or reorganizing departments and/or their jurisdictional authorities to eliminate overlapping requirements.

■ **Eliminate duplicative permit approvals.** If cities and counties have developed relationships with other local, regional, state or federal agencies, they can work to eliminate duplicative permit

approvals where feasible. If a state permit for a particular project characteristic protects the local government's concern in the matter, two permits may not be necessary. However, state permits usually preempt local authority and the elimination of a local permit is usually due to this preemption.

■ **Parallel and combined processing.** Parallel processing can speed up the permit approval process. Often when multiple approvals are necessary, the application must be approved in a specified order. Sequential processing is usually done to avoid unnecessary work. If one department does not approve a

LAKE COUNTY PERMITTING PROCESS

Lake County has large geothermal reserves including one of the largest geothermal developments in the world, the Geysers. Geothermal development at the Geysers was initially characterized by protracted environmental conflicts. In response, Lake County formed a Geothermal Advisory Board. It is composed of residents, industry, and public agency representatives covering a broad spectrum of resource interests who are appointed by the Board of Supervisors. The Advisory Board's role is to work together with the Planning Commission and Board of Supervisors to ensure that:

- 1) All phases of the planning process are open to public and industry participation
- 2) Technical information is made available to the public for explanation and interpretation of resource and environmental issues
- 3) Two-way communication occurs between County officials and the public and industry on the rationale used to reach decisions

The County has also implemented a Request for Review form to coordinate the permit process. The form is circulated to all county state and federal agencies at the time a geothermal facility application is received. Agencies with permitting or review authorities are identified early and the project proposal is then circulated for their comments.

Contact: Mark Dellinger, Energy and Resource Manager, Lake County Special Districts, 255 N. Forbes Street, Lakeport, CA 95453, (707) 263-2273

permit, there is no reason to have other departments spend time on it. Unfortunately, this often increases the time necessary to obtain a permit. Parallel processing works as long as the application does not change in a way that affects the concerns of other departments.

Combined processing is often used if there are co-lead agencies and no interagency agreement has designated one "lead agency." (See below.) Cooperative and combined processing can also be used if many departments are reviewing the permit at the same time, most of the approvals can be obtained simultaneously, and only those departments with problems will require alterations and resubmittal.

❑ **Lead agency agreements.** The document *Cutting through the Red Tape-Together!* (See insert on page 4.5) suggests that permitting process efficiency would be enhanced by use of interagency agreements when more than one local agency has authority over a permit area. They would agree on which, and under what circumstances, one of them would become the "lead agency." In such cases, the "responsible" agencies use the environmental documents prepared by the other agency in their permitting processes. The agreement will describe performance standards, and conditions and criteria the agent must use on behalf of the other agencies. Appeal procedures should be clearly defined.

PUBLIC INVOLVEMENT

Public involvement can be critical in its effect on the energy facility permitting process. An informed and involved public can make the process more efficient and less costly. The public can provide useful advice and support. Public involvement should occur early in

A QUANTITATIVE APPROACH TO COMPARING ALTERNATIVES

Example: Transmission Line Routing

Processes exist that can be used as a quantitative basis for California public agencies to compare alternative energy facility sites or routes for a linear facility. For example, the Z-score process is a statistical procedure to "normalize" and therefore put in perspective the data from different types of impacts. The process is a way of comparing the relative scale of important but unrelated impacts, such as a comparison between impacts from a facility to an endangered plant species versus the visual impacts of the facility to two thousand residents. The Z-score process can include weighting of impact categories based on perception of their relative value or importance.

The Z-score process was utilized for the City of Riverside in the selection of a route for the Orangecrest Springs 69-kV electric power transmission line project. The first step in the route selection process was to develop a list of feasible route segment alternatives. Next, an objective process was developed for evaluating the route segments and thereby limiting the number of alternative routes for more detailed study. The City actively sought community input during this stage to ensure that community concerns were included in the selection process. Twelve evaluation factors were selected, each of which was given a numerical weighting score. Weights were developed that reflected the relative importance of the evaluation factors; the most important factors were given a high number and the least important were given a low number. Z-scores were used to determine the most and least favorable route segments. Route segments were then joined into entire routes, and the entire routes were scored using the Z-score process. Route Z-scores were presented at a Public Open House. After receiving public input, five routes were chosen for more detailed study as project alternatives.

For more information on the "Z score" process, contact John Keene, Resource Management International, Inc., 31100 Zimlandel Drive, Suite 600, Sacramento, CA 95670, (916) 852-1300, FAX: (916) 852-1073.

the permitting process, continue throughout the process, and be a meaningful attempt to understand and resolve local issues. The process should not be seen as just a public education or coercion attempt. Identifying goals and stakeholders, holding frequent public workshops, utilizing technical advisory committees, and facilitating communication are

ways that local governments can focus and improve public input.

❑ **Identify goals and stakeholders.** Once public involvement goals have been defined, key community leaders and any other citizens or groups that may have an interest in the success or failure of the facility permit should be identified and made part of the process. The

stakeholders should be involved to the maximum extent possible and be kept informed of activities in which they do not participate. It is important for these stakeholders to be provided access to the permit agency and the developer.

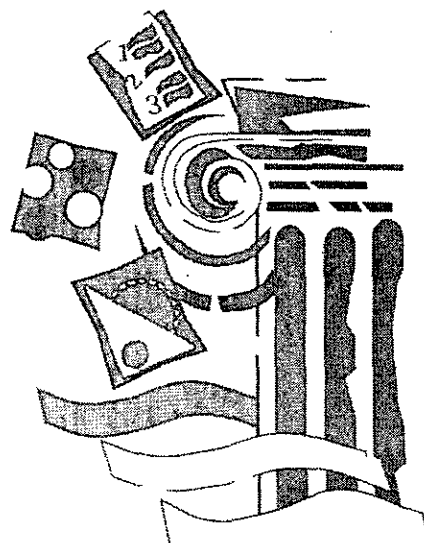
❑ **Frequent public workshops.** Public workshops early in the permitting process will provide meaningful opportunities for addressing community issues. Being less formal than public hearings, they provide an opportunity for creating a dialogue and facilitating important public input and support. Workshops are more effective at addressing public concerns when held early in the permit process, when changes are easy to make. Public hearings that come late in the process, after time and energy have been invested in a facility application, can be ineffective.

❑ **Citizen advisory committees.** Citizen advisory committees, composed of community representatives, can be organized to advise local governments of energy facility issues and serve as public representatives in the rulemaking process of a regulatory agency. Committee members should be integrated into the permitting process, with their concerns and suggestions being considered at all stages of the project. They can also be included in the rulemaking process, possibly reducing later conflicts on specific permits. See the box on page 4.8 entitled *Lake County Permitting Process* for an example.

❑ **Communication facilitation.** Several techniques are available to facilitate communication between the developer, the public and regulatory agencies. Design charrettes are one method. Charrettes are one to seven day intensive, collaborative efforts that bring together concerned citizens, stakeholders, and all the relevant information with a detailed plan as the product. The charrette process involves working interactively with design consultants who sketch and render basic design plans based on input from participants. A charrette can result in a more easily approvable project.

Computer simulations are another way to convey energy facility proposals in order to help the public visualize what a project will look like. Communities have also used weighted preference systems to involve the public in permitting decisions. See the box on the previous page entitled *A Quantitative Approach to Comparing Alternatives*.

An "Info Expo" is another way to inform the public and answer their questions on energy facility proposals. All the residents of the host community should be invited to a combination open house and science fair. Various experts can be located at information booths, and throughout an afternoon discuss the project with attendees, answering their questions, and in some cases, conducting impromptu debates. Unlike a hearing, the Info Expo creates the opportunity for real "give and take."



MATRIX OF LOCAL GOVERNMENT REQUIREMENTS FOR WIND ENERGY CONVERSION SYSTEMS (WECS)

REQUIREMENTS	ALAMEDA CO.	CONTRA COSTA CO.	GLENN CO.	KERN CO.	MERCED CO.	MONTEREY CO.	RIVERSIDE CO.	SOLANO CO.	PALM SPRINGS
Setback: Structures (e.g. residences, businesses)	3X total WECS height ¹ from residential or commercial zoning ² (but in no case less than 500 ft) ³ 3X total WECS height from a Dwelling Unit ² (but in no case less than 500 ft) ⁴	A minimum of 1,000 ft from any existing off-site residences or residential areas All WECS, buildings, and structures shall be sited to minimize visual impact to residences within one mile	<i>Horizontal Axis WECS:</i> 2X total WECS height from structures and homes <i>Vertical Axis WECS:</i> At least 10 blade diameters from structures and homes	Minimum 4X total WECS height or 1,000 ft (whichever is greater) from any off-site residence on an adjacent parcel ⁶ Minimum 1.5X total WECS height from any on-site residence or accessory structure designed for human occupancy	NA	1.25X total WECS height from any habitable structure	Setback information is for Commercial WECS only 1.25X to 3X total WECS height from any building ^{7, 8}	Minimum of 10 ft from any structure on the property	No WECS shall be closer than 1,200 ft from any residence, hotel, hospital, school, library, or convalescent home (may be reduced due to factors of topography or the characteristics of the proposed WECS project) 1.25X total WECS height from any off-site building ⁹
Setback: Property lines	1.25X total WECS height from all property lines 3X total WECS height from a Building Site upon which a windfarm has not been approved ² (but in no case less than 300 ft) ⁴	3X total WECS height or 500 ft (whichever is greater) from exterior project boundaries	NA	4X total WECS height or 500 ft (whichever is greater) from exterior boundaries if project site is adjacent to parcels of less than 40 acres ⁶ 1.5X total WECS height from all exterior boundaries if project is adjacent to parcels of 40 acres or more (allowance for setback reduction)	1.25X total WECS height from any exterior property line	2X total WECS height from any property line	1.25X to 3X total WECS height from any lot line ^{7, 8} (If WECS is located in the W-E or W-1 zone) 3X total WECS height from lot line of any lot containing a dwelling ⁹	Minimum 1.25X total WECS height from any property line (Setbacks determined by height may be waived when appropriate easements are secured from adjacent property owners) 300 ft from any district which does not permit WECS	1.25X total WECS height from any lot line ⁹ Minimum 200 ft from any lot line of a lot containing a dwelling
Setback: Public roads, highways	3X total WECS height ² (but in no case less than 500 ft) ³ 6X total WECS height from the travelled way of I-580 ⁵ (but in no case less than 500 ft)	All WECS, buildings, and structures shall be sited to minimize visual impact to adjacent roadways, and County scenic routes	NA	Minimum 1.5X total WECS height	1.25X total WECS height	5X total WECS height from the right-of-way line of any public road or highway	1.25X to 3X total WECS height ^{7, 8} Scenic setbacks required from various state highways	NA	1.25X total WECS height ⁹ Scenic setbacks required from various state highways and roads
Setback: Railroads	NA	NA	NA	Minimum 1.5X total WECS height	NA	NA	1.25X to 3X total WECS height ^{7, 8}	NA	1.25X total WECS height ⁹
Setback: Above Ground Transmission Lines (more than 12 kV)	NA	NA	NA	NA	NA	NA	1.25X total WECS height	NA	1.25X total WECS height

¹ Total WECS height is measured from grade to the uppermost extension of any blade, or the maximum height reached by any part of the windmill.

² If the ground elevation of the windmill is 2 or more times the height of the windmill above the protected feature, the setback shall be 4X total height of the windmill.

³ A reduction may be granted if it is shown in a report prepared by a qualified professional, and verified by the County, that a lesser minimum setback is adequate, however, in no case shall a setback less than 300 ft ever be provided.

⁴ This setback may be reduced by a maximum of 50% if the written, notarized, and recorded agreement of the affected property owner is obtained.

⁵ Setback from the travelled way of I-580 shall be 8X the total height of the windmill if the ground elevation of the windmill is 2 or more times the height of the windmill above the travelled way of I-580.

⁶ The Planning Director may allow a reduction in this setback, not to exceed a minimum setback of 1.5X total WECS height, if a letter of consent from the owner of the adjacent parcel is filed with the Planning Department.

⁷ If WECS is located in the W-E zone or W-1 zone, the setback shall be 1.25X the total WECS height from the protected feature. If located in any other zone, the setback shall be 3X the total WECS height.

⁸ This setback shall be reduced to 1.25X total WECS height if WECS is certified as complying with safety standards or may be reduced to 1.25X total WECS height if the topography of the adjacent property eliminates or substantially reduces potential safety hazards.

⁹ This setback may be reduced to less than 1.25X total WECS height if Planning Commission determines that the topography of, or other conditions related to, the adjacent property or right-of-way eliminates or substantially reduces the potential safety hazards.

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MATRIX OF LOCAL GOVERNMENT REQUIREMENTS FOR WIND ENERGY CONVERSION SYSTEMS (WECS) (CONT)

REQUIREMENTS	ALAMEDA CO	CONTRA COSTA CO	GLENN CO	KERN CO	MERCED CO	MONTEREY CO	RIVERSIDE CO	SAN JOSE CO	PALMS SPRINGS
Noise Levels	Not closer than 1,000 ft in an upwind direction from any dwelling; nor closer than 300 ft in any other direction from any dwelling or Building Site; bonds required ¹⁰	Not to exceed 65 dB(A) as measured at any lot line Cash deposit of \$3,000 used in the investigation and evaluation of a noise complaint or permit violation	<i>Noncommercial WECS:</i> Not to exceed 65 dB, measured at nearest residential dwelling <i>Commercial WECS:</i> Not to exceed 65 dB, measured at nearest inhabited structure	Not to exceed 45 dB(A) for more than 5 minutes out of any hour; or to exceed 50 dB(A) for any period measured within 50 ft of home, school, hospital, church, or public library	Not to exceed 60 dB(A) CNEL from closest existing residence	In compliance with Noise Element of the General Plan	Not to exceed 65 dB(A); 60 dB(A) if point of measurement is adjacent to a lot used for residential, hospital, school, library, or nursing home purposes; Accessory WECS not to exceed 60 dB(A)	Not to exceed 50 dB(A) CNEL at any property line abutting a residential zone; 60 dB(A) CNEL at any other property line	Not to exceed 55 dB(A) at measurement point; limit reduced by 5 dB(A) if pure tone noise will be generated; setbacks ¹²
Interference with Broadcast Signals/ Navigational Systems	NA	Shall be designed, installed, and operated so that no disrupting electromagnetic interference is caused	Shall not create electromagnetic interference that can disrupt local residents or businesses	NA	Wind turbines shall be filtered and/or shielded to prevent interference with broadcasting signals	No disrupting electromagnetic interference shall be caused	Shall comply with FAA regulations for siting structures near an airport or VORTAC station	Wind turbines shall be filtered and/or shielded to prevent interference with broadcasting signals	Shall comply with FAA regulations for siting structures near an airport or VORTAC station
Avian Injury/ Mortality	File reports; obtain veterinary care; pay monitoring fees ¹¹	NA	File reports; contact avian rehabilitation center	NA	NA	NA	Report all dead birds found within 500 ft of a WECS	File reports; annual fee to fund avian activity research (limited term, now expired)	Report all dead birds found within 500 ft of a WECS
Distribution Lines/ Power Poles	Electrocution protection measures	NA	NA	All on-site electrical wires associated with WECS shall be installed underground	NA	NA	Electrical distribution lines on project site shall be undergrounded	Transmission lines undergrounded; raptor protection measures	Electrical distribution lines on project site shall be undergrounded; raptor protection
Soil Erosion/ Sedimentation Control Plan	Required prior to issuance of any building permits	NA	NA	Required prior to issuance of any building permits; surety bond to guarantee implementation	Erosion control plan required	NA	NA	Grading/erosion/ sedimentation control plan required	NA
Inoperable or Unsafe WECS/Site Reclamation	If a windfarm has not produced electricity in 1 year or more than 50% of the turbines are being removed or in disrepair, and there is no plan to restore production, the permittee shall restore site; or cash performance deposit is required.	Reclamation plan required; cash deposit required to insure completion of site reclamation	Not operational or not producing electricity; dismantle blades within 6 months; not operational for continuous 2 year period; reclaim site to natural state	NA	Reclamation plan and bond required	Not operational for continuous period of 1 year; required to be removed; permittee shall maintain a fund payable to County for the removal	Inoperable and unsafe WECS shall be repaired or removed by the owner; site shall be restored to its natural condition; a bond may be required	Surety bonds may be required to guarantee removal of any abandoned windmills	Not operational for continuous 1 year period WECS shall be declared a public nuisance and must be repaired or removed; a bond may be required
Encountering Archaeological Resources	Halt work within 30 meter radius; retain archaeologist	NA	NA	NA	NA	NA	NA	Halt work; retain archaeologist	NA

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¹⁰ A cash bond in the amount of \$2,000 to be used in the investigation of a noise complaint. A \$10,000 performance bond which shall inure to the benefit of property owners or residents within one half mile of the windfarm who suffer damage as a result of a violation of the noise standard.

¹¹ Fees shall be used by County to prepare a permanent compliance monitoring program to oversee compliance with existing and proposed mitigation measures, EIR, and General Plan.

¹² Wind turbines prohibited within 200 ft of any property used for residential, hotel, hospital, school, library or convalescent home purposes. Acoustical report indicating compliance with noise level limits required for wind turbine development at a distance between 200 ft and 3,000 ft from previously stated land uses. At distances greater than 3,000 ft from previously stated land uses, development may be permitted without acoustical study.

MATRIX OF LOCAL GOVERNMENT REQUIREMENTS FOR WIND ENERGY CONVERSION SYSTEMS (WECS) (CONT)

REQUIREMENTS	YALAMEDA CO.	CONTRA COSTA CO.	GLENN CO.	KERN CO.	MERCED CO.	MONTEREY CO.	RIVERSIDE CO.	SOLANO CO.	PALM SPRINGS
Safety/Security	Maintain phone numbers of inhabitants of all adjacent properties in event of fire	Warning signs; manual and automatic controls to limit blade speed; tower access limitation	NA	Warning signs; fencing; fuel break	Braking system; blade pitch control; manual and auto overspeed controls	Fencing; warning signs; manual and auto controls to limit blade speed	Fencing; guy wires marked; warning signs; fire protection measures	Windmill equipped with braking system; blade pitch control	Fencing; warning signs; fire protection
WECS Height	NA	NA	NA	Not to exceed maximum height allowed for antennae and towers by the district with which Wind Energy District is combined	NA	<i>Noncommercial WECS:</i> Not to exceed 50 ft; 100 ft if parcel WECS is located on is 10 acres or larger <i>Commercial WECS:</i> 200 ft maximum ¹³	<i>Commercial WECS:</i> Comply with height limits of zone where located <i>Accessory WECS:</i> 80 ft or less in any zone	NA	Not to exceed 200 ft
Height of Blade Tip from Ground	NA	NA	NA	NA	No lower than 15 ft unless enclosed by 6 ft high fence	Lowest position of blade shall be at least 30 ft above the ground and 30 ft above highest existing structure or tree within a 250 ft radius	<i>Horizontal axis WECS:</i> No lower than 25 ft; <i>Vertical axis WECS:</i> If rotors are less than 15 ft from the ground, WECS shall be enclosed by a fence	Minimum 15 ft from ground unless enclosed by 6 ft high fence	<i>Horizontal axis WECS:</i> No lower than 25 ft; <i>Vertical axis WECS:</i> If rotors are less than 15 ft from the ground, WECS shall be enclosed by a fence
Density	NA	NA	1 turbine per 10 acres	Accordance with industry standards	NA	NA	NA	NA	NA
Color/Finish	Blend with surroundings	Nonreflective, unobtrusive color	NA	Nonreflective, unobtrusive color; nonreflective surface	Nonreflective, nongloss gray	Colors and surface treatment shall minimize disruption	Light environmental colors, or darker, fully-saturated colors; matte or galvanized finish	Neutral, nonreflective	Light environmental colors, or darker, fully-saturated colors; matte or galvanized finish
Project Identification Signs/Advertising/Logos	NA	No advertising sign or logo on any WECS; no more than 2 project identification signs, not to exceed 16 sq ft in area or 8 ft in height	NA	One project identification sign, not to exceed 32 sq ft in area	Brand names or advertising shall not be visible from any public access	NA	No advertising sign or logos on WECS; no more than 2 signs relating to the development allowed, not to exceed 15 sq ft in area or 8 ft in height	Brand names or advertising shall not be visible from any public access	One project identification sign, not to exceed 50 sq ft or 8 ft in height; no advertising signs or logos on WECS
Status/Report	Rated capacity, meteorological data, actual power generated	NA	NA	NA	NA	NA	Quarterly power production report to the Planning Department	Rated capacity, meteorological data, actual power generated	NA
Insurance Policy	Comprehensive General Liability in minimum of \$1,000,000	NA	NA	NA	NA	Shall maintain an insurance policy to cover installation and operation of WECS	NA	General Liability and Workers' Compensation in minimum of \$1,000,000	NA

Prepared 7/95

¹³ WECS shall be equipped with air traffic warning lights and shall have prominent orange markings on the rotor blade tips if total height exceeds 175 ft or if any WECS exceeding 125 ft in total height is placed at an elevation over 200 ft.

STATE AND FEDERAL PREEMPTIONS FOR ENERGY PROJECTS

Characteristics of a project, including the facility type, size, location and project applicant all help to identify if the project is under a local agency's authority or if there is a state or federal preemption.

In terms of electric generating facilities, there are two types that trigger preemption of local authority regardless of project applicant. First, non-federal hydroelectric facilities (i.e., those not built by the federal government) are normally under the licensing authority of the Federal Energy Regulatory Commission (FERC). Exemptions from FERC's license are granted only if projects meet specific criteria (see the Guest Author article by Fred E. Springer at the end of this chapter). Exempted hydroelectric projects are subject to state environmental review.

Secondly, thermal power plants, 50 MW or greater, and their related facilities including transmission lines are normally under the authority of the Energy Commission. Among other things, the Energy Commission must review projects within its jurisdiction for compliance with local laws, ordinances, regulations, and standards. The Energy Commission strongly encourages local agencies to participate in its licensing process.

EXAMPLES OF NON- UTILITY APPLICANTS

- Chevron
- Gilroy Foods
- U.S. Generating Company
- Mission Energy
- San Francisco Energy Co.

In terms of applicants there are three general types: municipal or other publicly-owned utilities; investor-owned utilities; and non-utility private enterprises. The following preemptions apply if not preempted by FERC or the Commission as explained above.

■ **Publicly-Owned or Municipal Utilities.** Some publicly-owned utility energy projects may be subject to local permitting requirements in their own jurisdictions, but the Legislature has granted some exemptions. For example, Government Code section 53091 generally exempts municipal utility facilities "for the production or generation of electrical energy" from the zoning and building codes of cities and counties.

■ **Investor-Owned Utilities.** The CPUC asserts jurisdiction over investor-owned utilities for most energy projects and considers its authority preemptive of all local regulations. Under Public Utilities Code section 761, the CPUC is granted regulatory authority over the method and means of locating and constructing investor-owned utility equipment and facilities.

Although the CPUC has preemptive authority over most investor-owned utilities' projects, it does encourage the utilities to consult with local agencies. In particular, the CPUC requires an investor-owned utility to obtain nondiscretionary permits and approvals for certain substations and distribution power lines (< 50kV) when no CPUC permits are required. (CPUC D94-06-014)

CALIFORNIA'S MAJOR MUNICIPAL UTILITIES

- Los Angeles Department of Water & Power
- Sacramento Municipal Utility District
- Imperial Irrigation District
- Northern California Power Agency

■ **Non-Utility, Privately Owned Enterprises.** All relevant local laws and regulations generally apply unless specifically preempted by state or federal law. Non-utility proponents of intrastate oil or gas pipelines are presumably subject to the requirements of local governments. However, the CPUC may assume jurisdiction if such pipelines interconnect with an investor-owned utility system. (Pub. Util. Code section 2811.) FERC through its discretion may also preempt local authority for certain interstate pipeline projects depending upon project characteristics.

UNDERSTANDING THE PERMITTING PROCESSES OF STATE AND FEDERAL AGENCIES

The charts beginning on page 4.16 generalize the major steps in permit application review and approval processes of several state and federal agencies for proposed or existing electrical generation and linear facilities in California. These charts highlight the points at which local governments and the public can participate in these processes.

The processes are presented by facility type and, in some cases, generating capacity, as follows:

- Thermal power plants 50 MW or greater
- Thermal power plants under 50 MW and non-thermal (except hydroelectric) power plants
- Hydroelectric generation facilities
- Linear Facilities (electricity transmission lines and natural gas pipelines)

Federal and state permit application review processes are charted separately with the exception of applications for thermal power plants, 50 MW and greater. Each agency's specific licensing or approval requirements are not shown. At the time of this writing, the only abbreviated or exemption application process characterized is the Energy Commission's Small Power Plant Exemption.

Each flow chart incorporates the major components of the environmental review process (NEPA or CEQA) with specific requirements of various agencies italicized. Federal agencies follow NEPA for environmental review purposes. NEPA does not set a time limit for completion of environmental assessments. The charts represent the events to be followed when an Environmental Impact Statement is required. State agencies follow CEQA with a specified time frame of 12 months. In addition to the 12 months, many agencies typically allow for a Data Adequacy period which the Permit Streamlining Act limits to 30 days (Gov. Code Section 65943). Also a three month extension can be granted under California's Permit Streamlining Act with the applicant's

consent. The charts depict events to be followed when an Environmental Impact Report is required.

Finally, each chart contains at least four generalized review stages: discovery, analysis, hearings and decision. These terms are used to characterize the activities in each stage and are not necessarily used by the agencies discussed. In some processes, a Data Adequacy stage is also present. Whether formal or informal, most review processes have a "prefiling" stage which provides an opportunity for potential applicants, lead agencies and

responsible agencies to clarify any ambiguities about a given process or requirement and to identify interested parties. For the most part, the greatest opportunity for local governments to become involved in these processes occurs during the discovery and hearing stages.

THERMAL POWER PLANTS

The California Energy Commission has jurisdiction for permitting all thermally-based power plants producing 50 megawatts or greater. This grant of authority is preemptive of local regulation. A license from the Energy Commission, if granted, takes the place of all permits that otherwise would have been required by state and local entities. However, the statute which creates the Energy Commission's jurisdiction also directs the Energy Commission to consider whether a proposed project will conform to local laws and regulations (Pub. Resources Code 25523(d)(1)).

A project will conform to local laws and regulations only if the Energy Commission makes certain findings. To license such a project, the Energy Commission must find that the project is needed for the public convenience and necessity and that there is no more prudent and feasible means of meeting this need (Pub. Resources Code 25525). Of the more than 40 projects approved in its 20 year history, the Energy Commission has overridden local regulations only once.

The process before the Energy Commission includes an environmental review meeting the requirements of the California Environmental Quality Act (CEQA). The timing and form of documents produced during this review are somewhat different from those prepared pursuant to CEQA in most other proceedings. This is because the Energy Commission conducts a certified regulatory program that has been approved as fulfilling the requirements of CEQA in an alternative format (functionally equivalent).

It is important for local agencies wishing to participate in a power plant siting case to consult with the Energy Commission to ensure full awareness of the timing and significance of analytical documents and of all opportunities for input.

PERMITTING PROCESSES OF STATE AND FEDERAL AGENCIES

POWER PLANTS THERMAL— 50MW or GREATER

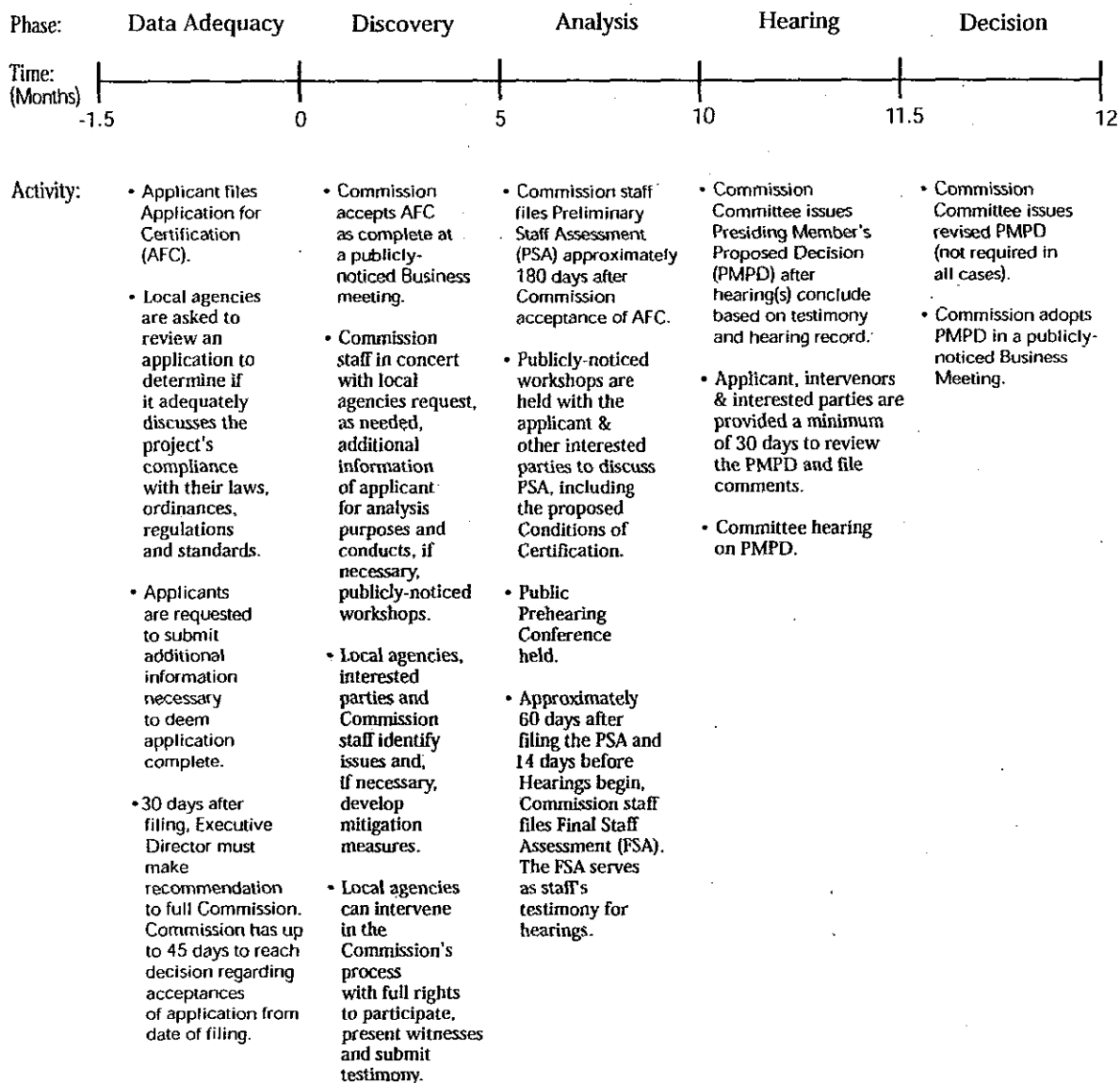
• State Agencies •

• California Energy Commission

- The Commission's AFC process is functionally equivalent to an EIR process.
- Opportunities for local agency input are noted in bold.

Application for Certification (AFC) Process*:

Typical Time: 12 Months



* Can include transmission lines, natural gas pipelines, and other related facilities.

PERMITTING PROCESSES OF STATE AND FEDERAL AGENCIES

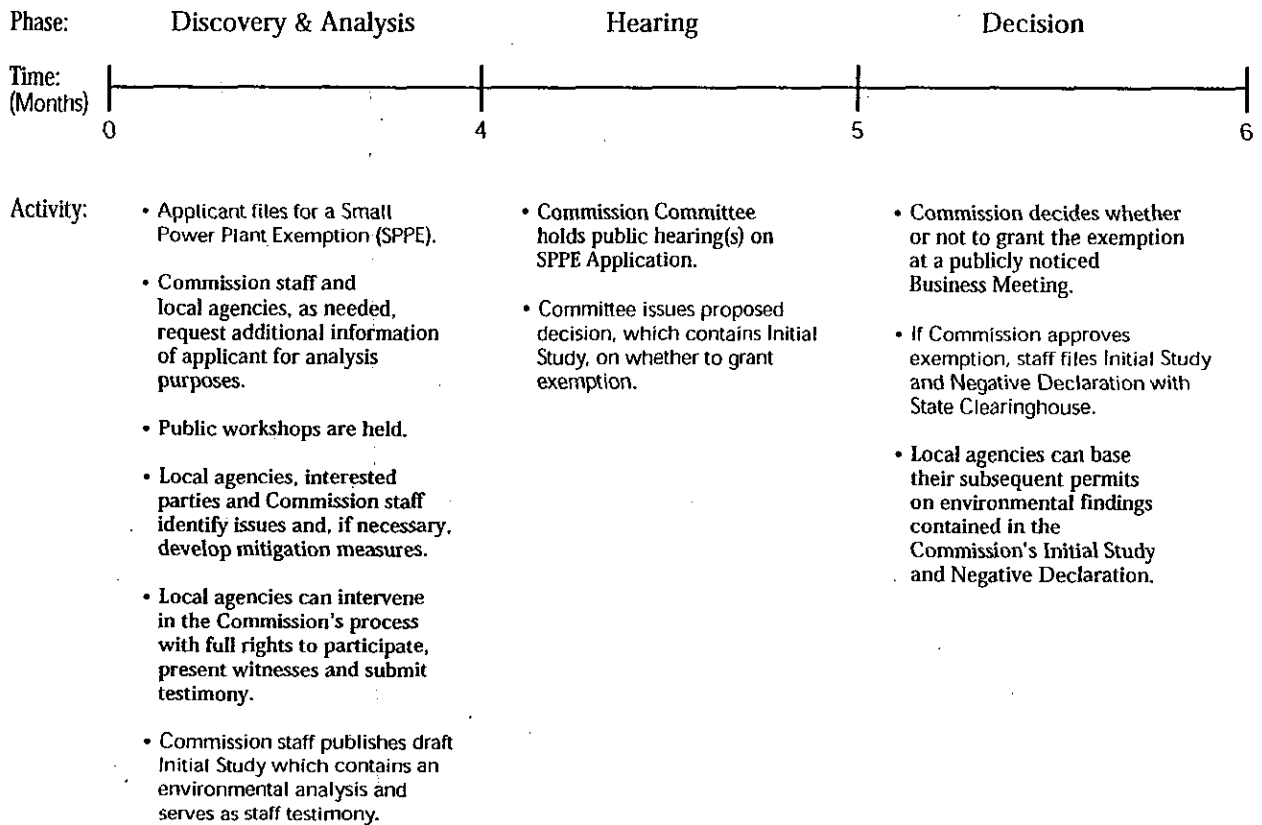
POWER PLANTS THERMAL— 50MW to 100MW

- State Agencies •
- California Energy Commission

• Opportunities for local agency input are noted in **bold**.

Small Power Plant Exemption (SPPE) Process:

Typical Time: 6 Months



PERMITTING PROCESSES OF STATE AND FEDERAL AGENCIES

POWER PLANTS

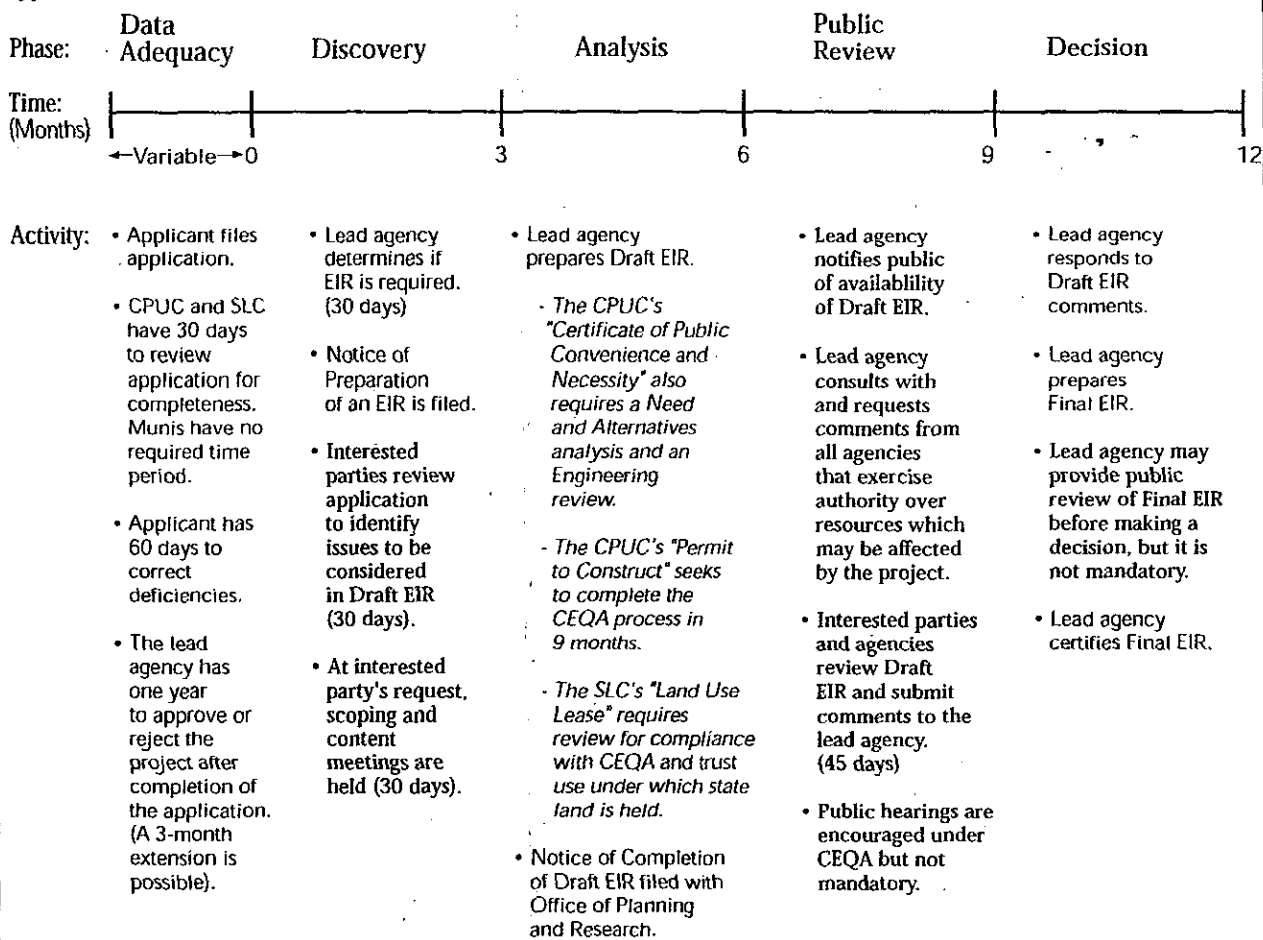
THERMAL— UNDER 50MW and NON-THERMAL (EXCEPT HYDROELECTRIC)¹

• State Agencies and Municipal Utilities •

- California Public Utility Commission (CPUC)- for all IOU proposed projects.
- Municipal Utilities- for all projects proposed by municipal utilities.
- State Lands Commission (SLC)- all projects on state lands.

- This chart generally incorporates the CEQA EIR Process.
- Possible lead agency specifics are noted in *italics*.
- Opportunities for local agency input are noted in **bold**.

Typical Time: 12 Months²



¹ See hydroelectric permit process charts which follow.

² Extensions beyond the required 12 month time frame must be agreeable to the lead agency and the applicant.

PERMITTING PROCESSES OF STATE AND FEDERAL AGENCIES

POWER PLANTS

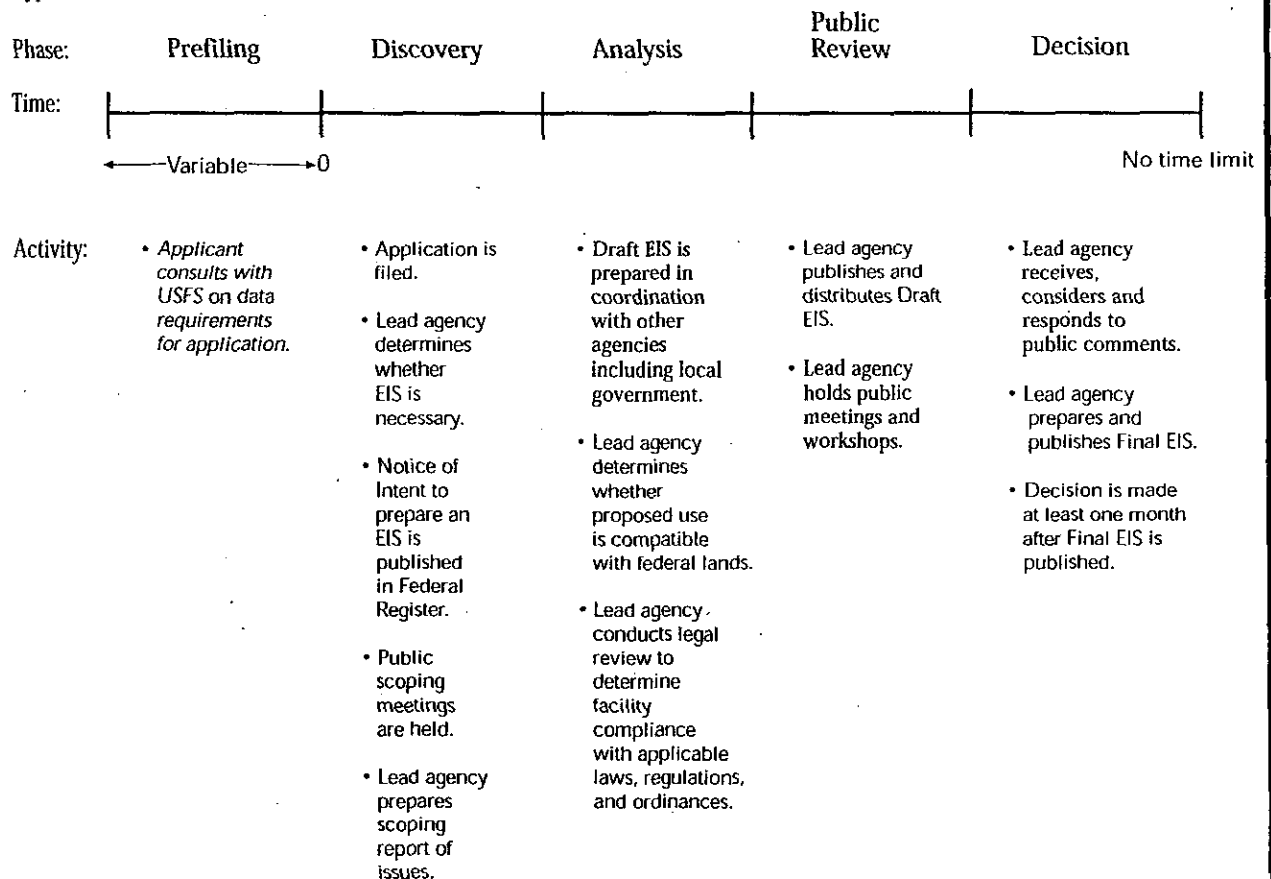
THERMAL— UNDER 50MW and NON-THERMAL (EXCEPT HYDROELECTRIC)¹

• Federal Agencies •

- United States Forest Service- for projects on USFS lands.
- Bureau of Land Management- for projects on BLM lands.

- This chart generally incorporates the NEPA EIS Process.
- Possible lead agency specifics are noted by *italics*.
- Opportunities for local agency input are noted in **bold**.

Typical Time: Varied.



¹ See hydroelectric permit process charts which follow.

PERMITTING PROCESSES OF STATE AND FEDERAL AGENCIES

POWER PLANTS HYDROELECTRIC FACILITIES

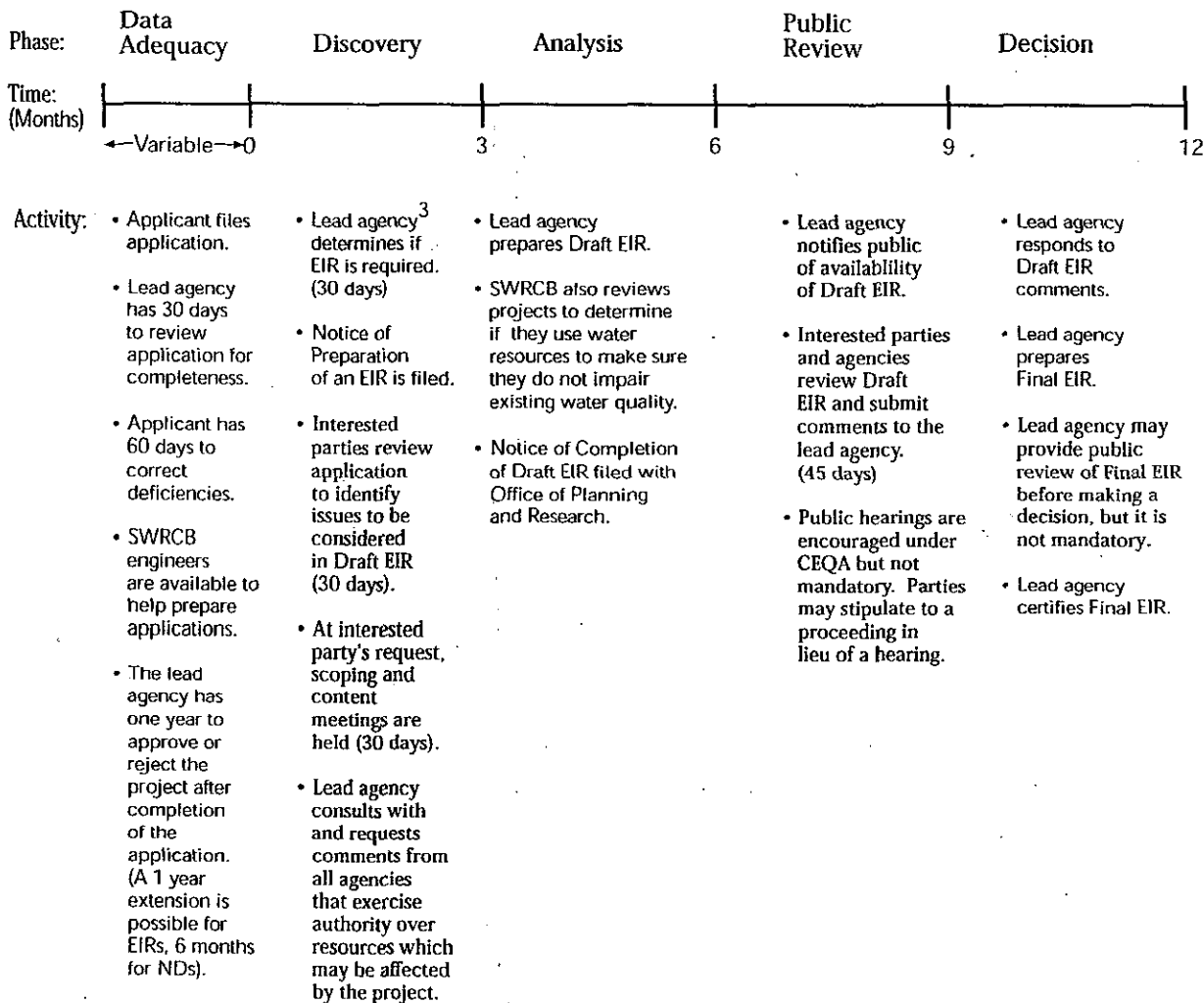
• State Agencies •

• State Water Resources Control Board (SWRCB)

- This chart generally incorporates the CEQA EIR Process.
- Possible lead agency specifics are noted by *italics*.
- Opportunities for local agency input are noted in **bold**.

Water Quality Certification:¹

Typical Time: 12 Months²



¹ Contact the SWRCB, Division of Water Rights, regarding the Permit to Appropriate Water.

² Extensions beyond the required 12 month time frame must be agreeable to the lead agency and the applicant.

³ For all projects requiring a FERC license, FERC is lead agency for purposes of environmental review. A CEQA document may be required for purposes of water quality certification.

PERMITTING PROCESSES OF STATE AND FEDERAL AGENCIES

POWER PLANTS

NONFEDERAL HYDROELECTRIC FACILITIES¹

• Federal Agencies •

• Federal Energy Regulatory Commission (FERC)

- This chart incorporates the NEPA EIS requirements.
- Opportunities for local agency input are noted in bold.

Hydro Licensing and/or Re-Licensing Process:

Typical Time: Varied

Consultation Process			Licensing Process			
Stage 1	Stage 2	Stage 3	Data Adequacy	Discovery	Analysis	Decision
• Pre-filing consultation begins between project proponents, interested resource agencies² and FERC. • Potential applicant provides information as required to agencies. • Within 60 days of initiating pre-filing consultation, joint agency/public meetings are held. • Resource agencies request environmental studies.	• Environmental studies conducted. • Potential applicant provides draft application to resource agencies. • Interested agencies have 90 days to review the Draft Application and submit comments to potential applicants. • Within 60 days after written comments of disagreeing agency, public meetings are held to resolve disagreements on the Draft Application. • Applicant files Section 401 Application with state certifying agency.	• Final Application is filed with FERC. • Applicant publishes public Notice of Filed Application within 14 days of submittal. • Interested public and resource agencies must submit requests for additional studies within 60 days of application filing.	• FERC staff reviews application. Staff submits a deficiency letter to and/or makes additional information request of applicant. • Applicant must file deficiency revisions within 90 days of request.	• FERC issues a public Notice of Accepted Application. • Protests and interventions must be filed by the public and resource agencies within 60 days of the public notice of accepted application.³ • Additional information filed by applicant. • Public notice that the application is ready for environmental analysis. • Public and resource agencies submit comments to FERC. Agencies develop Terms and Conditions within 60 days of environmental analysis notice.	• EA or EIS public scoping meetings held. • Public and resource agencies' comments submitted to FERC. A revised EIS scoping document is then issued. • Draft EIS issued. • Depending on size of the project and issues, public and agencies have 45-60 days to submit comments on Draft EIS. • Agencies issue revised Terms and Conditions. • 45 days after public comment deadline, FERC's staff makes clarification requests of agencies. • FERC staff issues Preliminary Inconsistency Determination. • Public and resource agencies have 45 days to comment on Inconsistencies. • Public meeting to resolve inconsistencies.	• Final EA or EIS issued. • Order issuing or denying license.

¹ The Army Corps of Engineers or the Bureau of Reclamation licenses all federal hydroelectric facilities under a separate permitting process.

² Federal and State Resource Agencies.

³ Only parties filing protests and interventions by this deadline can petition FERC for rehearings of project if decision is disputed.

PERMITTING PROCESSES OF STATE AND FEDERAL AGENCIES

LINEAR FACILITIES

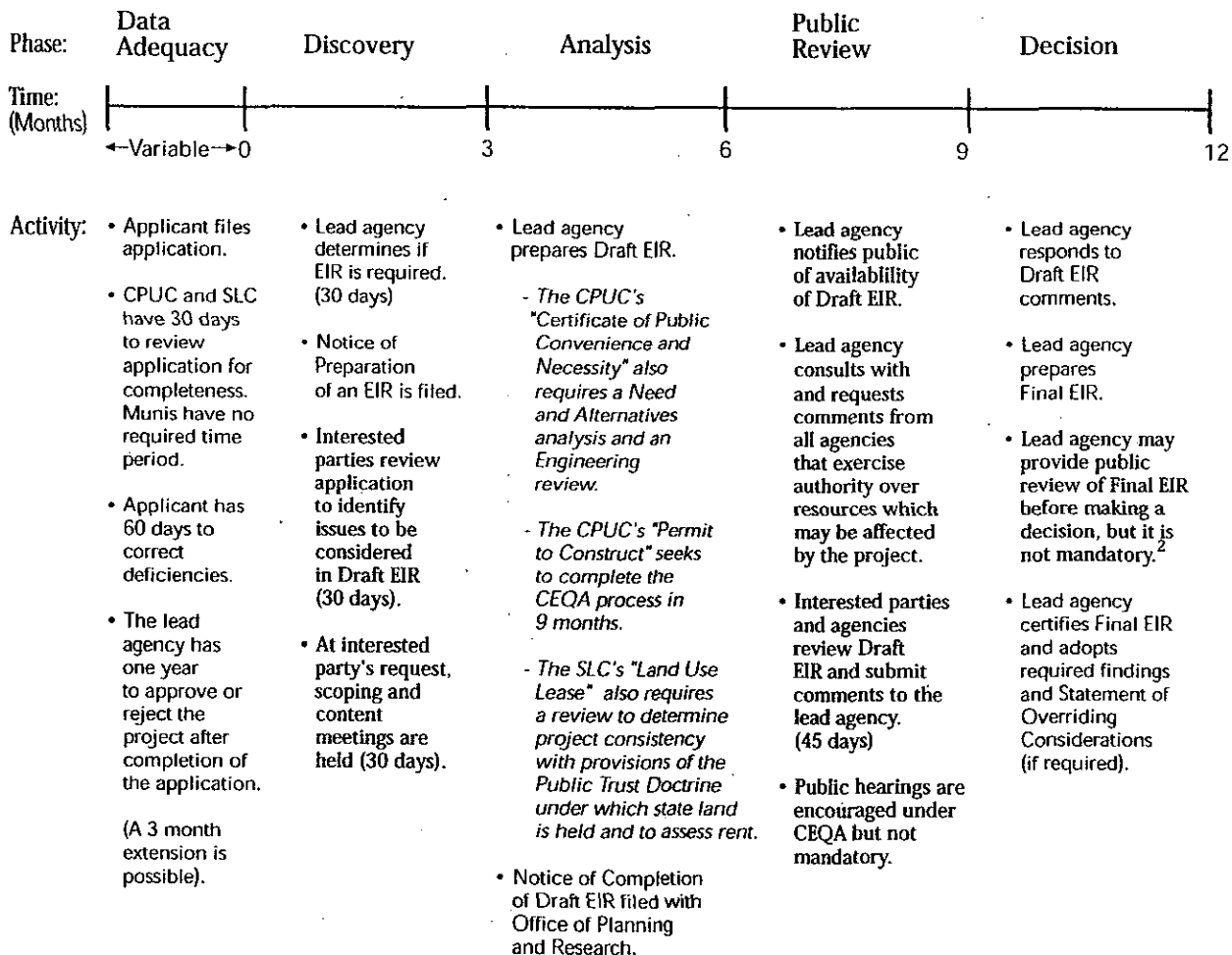
TRANSMISSION LINES and PIPELINES

• State Agencies and Municipal Utilities •

- California Public Utility Commission (CPUC)- for all IOU proposed projects.
- Municipal Utilities- for all projects proposed by municipal utilities.
- State Lands Commission (SLC)- all projects on state lands.

- This chart generally incorporates the CEQA EIR Process.
- Possible lead agency specifics are noted by *italics*.
- Opportunities for local agency input are noted in **bold**.

Typical Time: 12 Months¹



¹ Extensions beyond the 12 month required time frame must be agreeable to the lead agency and the applicant.

² This is a provision of the National Environmental Policy Act (NEPA) rather than CEQA.

PERMITTING PROCESSES OF STATE AND FEDERAL AGENCIES

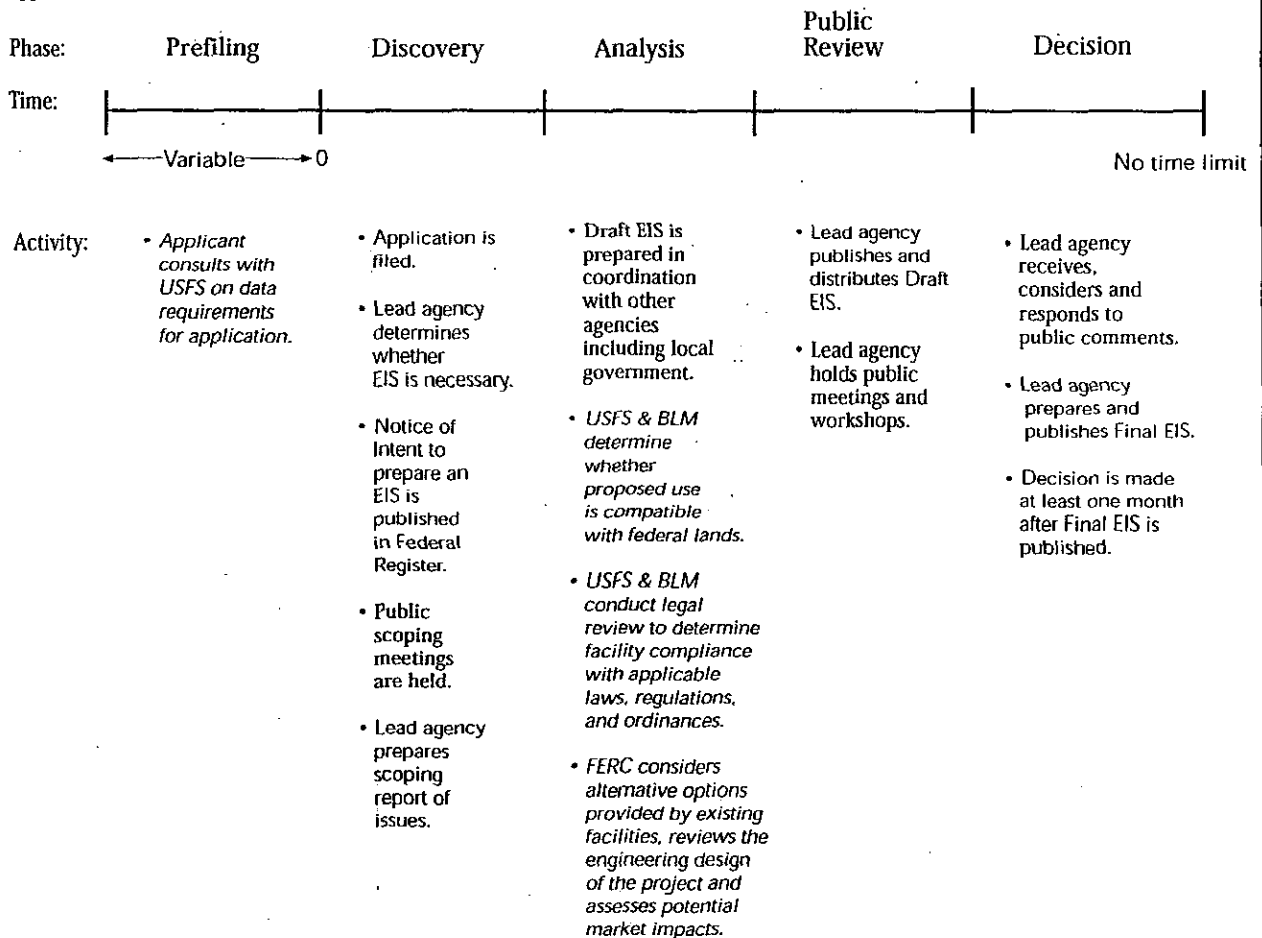
LINEAR FACILITIES TRANSMISSION LINES and PIPELINES

• Federal Agencies •

- Federal Energy Regulatory Commission (FERC)- for interstate projects.
- United State Forest Service- for projects on USFS lands.
- Bureau of Land Management- for projects on BLM lands.

- This chart generally incorporates the NEPA EIS Process.
- Possible lead agency specifics are noted by *italics*.
- Opportunities for local agency input are noted in **bold**.

Typical Time: Varied.



HOW TO DETERMINE THE LEAD AGENCY

Determining the lead agency for CEQA or NEPA purposes when more than one agency has jurisdiction is not always easy. As discussed in the previous section, some agencies have clear preemptive authority over specific energy projects giving them lead agency status for environmental review purposes. This section attempts to shed some light on the issue of lead agency status for environmental review of power plants, transmission lines and pipelines.

The six charts on the following pages identify the typical lead agencies for major energy facilities based on general type of permit applicant. For the three applicant types (investor-owned utilities, municipal utilities, and non-utility developers) the charts differentiate between generation and linear facilities (electricity transmission lines and natural gas pipelines) as follows:

Generation Facilities

- Thermal power plants 50 MW or greater
- Thermal power plants below 50 MW
- Hydroelectric power plants



- Other non-thermal power plants

Linear Facilities

- Electrical transmission lines or natural gas pipelines associated with a thermal power plant 50 MW or greater
- Other electrical transmission lines
- Other natural gas pipelines

The charts indicate the typical lead agencies when general conditions apply to a given project proposed by the specified applicant. Please note, when both federal and state permits are required, and both NEPA and CEQA apply, federal and state leads are needed for environmental review purposes. In such cases, the state and federal agencies involved may choose to coordinate their efforts producing a single environmental document. Consistent with the previous discussion of local authority, there are some general guidelines that can be followed to determine which agency will likely have primary authority over a given energy project in the state.

For example:

- The FERC Office of Hydro-power Licensing is normally the federal lead agency for NEPA purposes on non-federal, (i.e., hydroelectric projects not built by the federal government) non-exempt hydroelectric projects.
- FERC is generally the NEPA lead agency for interstate electrical transmission and natural gas pipeline projects.

- The Energy Commission is the state lead agency for thermal power plants 50 MW or greater and their related facilities.

- The California Public Utilities Commission (CPUC) is the state lead agency for investor-owned utility energy projects such as non-thermal power plants, thermal power plants under 50 MW, transmission lines, and pipeline projects.

- Municipal utilities are normally the state lead agency for their own non-thermal or under 50 MW thermal power plants, intra-state transmission line or pipeline projects.

These are not absolutes by any means. Even within each of these rather certain conditions, there is some gray. This is particularly the case when a project involves significant amounts of public lands or resources under the jurisdiction of a state or federal agency. That agency may act as the lead agency for environmental review purposes. For instance, if a proposed interstate transmission line facility crosses substantial federal lands under the management of the U.S. Forest Service, the Forest Service may be the lead agency rather than FERC.

In situations where both NEPA and CEQA apply to a given project, joint environmental analysis and documentation is frequently done. In cases where no such arrangement has been made and separate analysis is being conducted, avoiding redundancy is encouraged. According to the *Guide to the California Environmental Quality Act*, if the NEPA process is completed first, the lead agency for the CEQA analysis should rely, whenever possible, on the NEPA docu-

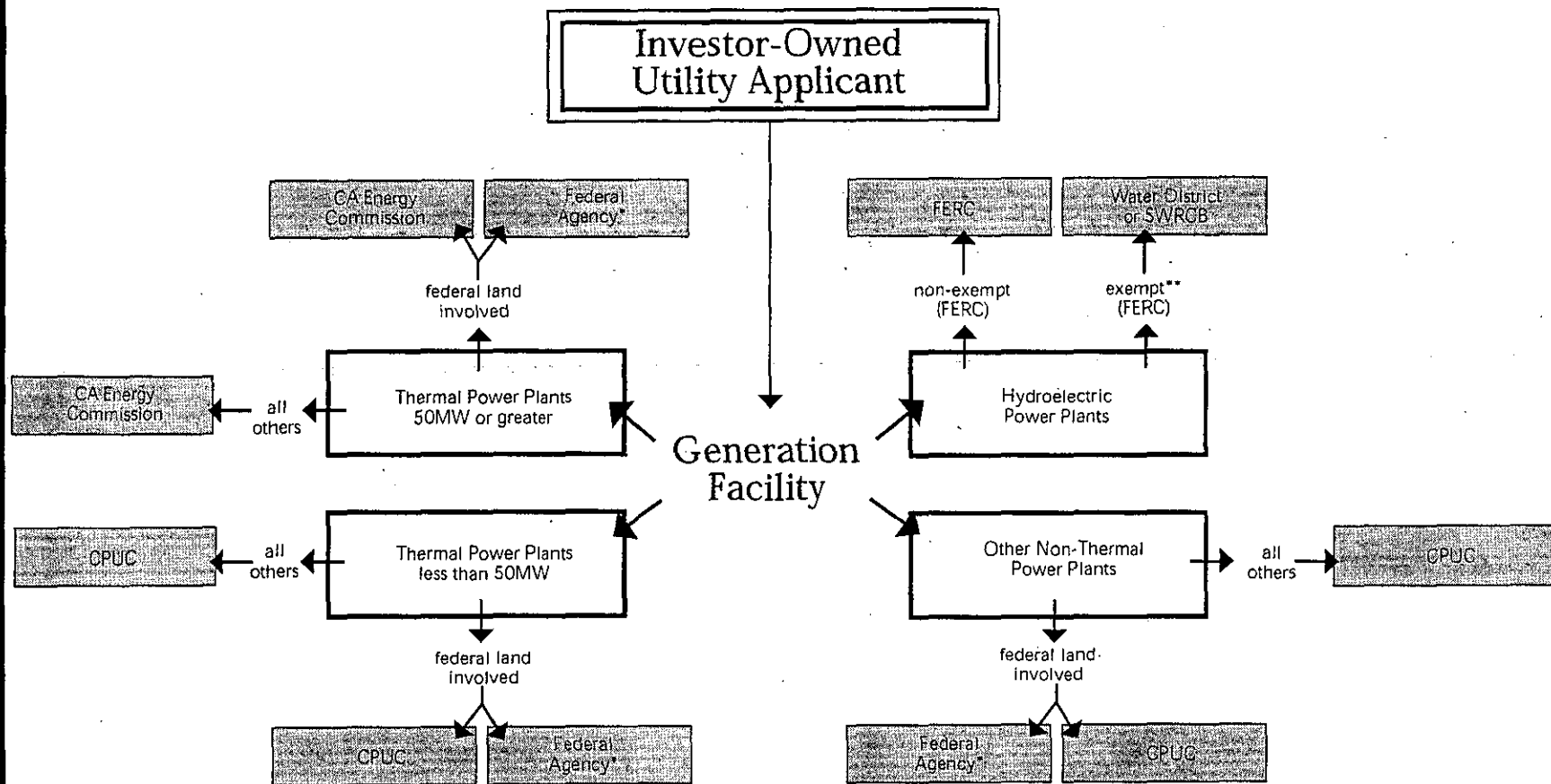
ments instead of redoing the work. (Remy et al., 1994). When the CEQA analysis is started first, the state or local lead agency is encouraged to work early and closely with the federal lead agency.

Although not definitive, the following charts lay out a path one can use at least to narrow the field of potential lead authorities and identify those typically taking the lead role. When the choices are really muddled, another alternative

is to consider the direction given in *Citizens Task Force on Sohio v. Board of Harbor Commissioners* section 1501 of the CEQA Guidelines where one criterion, for example, is that the agency that acts first is the lead when more than one jurisdictional body has clear authority. (Cal. Code Regs., tit. 14, section 1501 (L).) In addition, the Governor's Office of Planning and Research is available to and responsible for mediating lead agency disputes if they arise.

As illustrated in the following tables, "Local Agencies" are CEQA lead agencies when the proposed project involves a non-utility applicant filing projects which are either less than 50 MWs or non-thermal power plants which are not located on federal land. Furthermore, if a non-thermal power plant is proposed on federal land, the local agency may still be a CEQA lead agency.

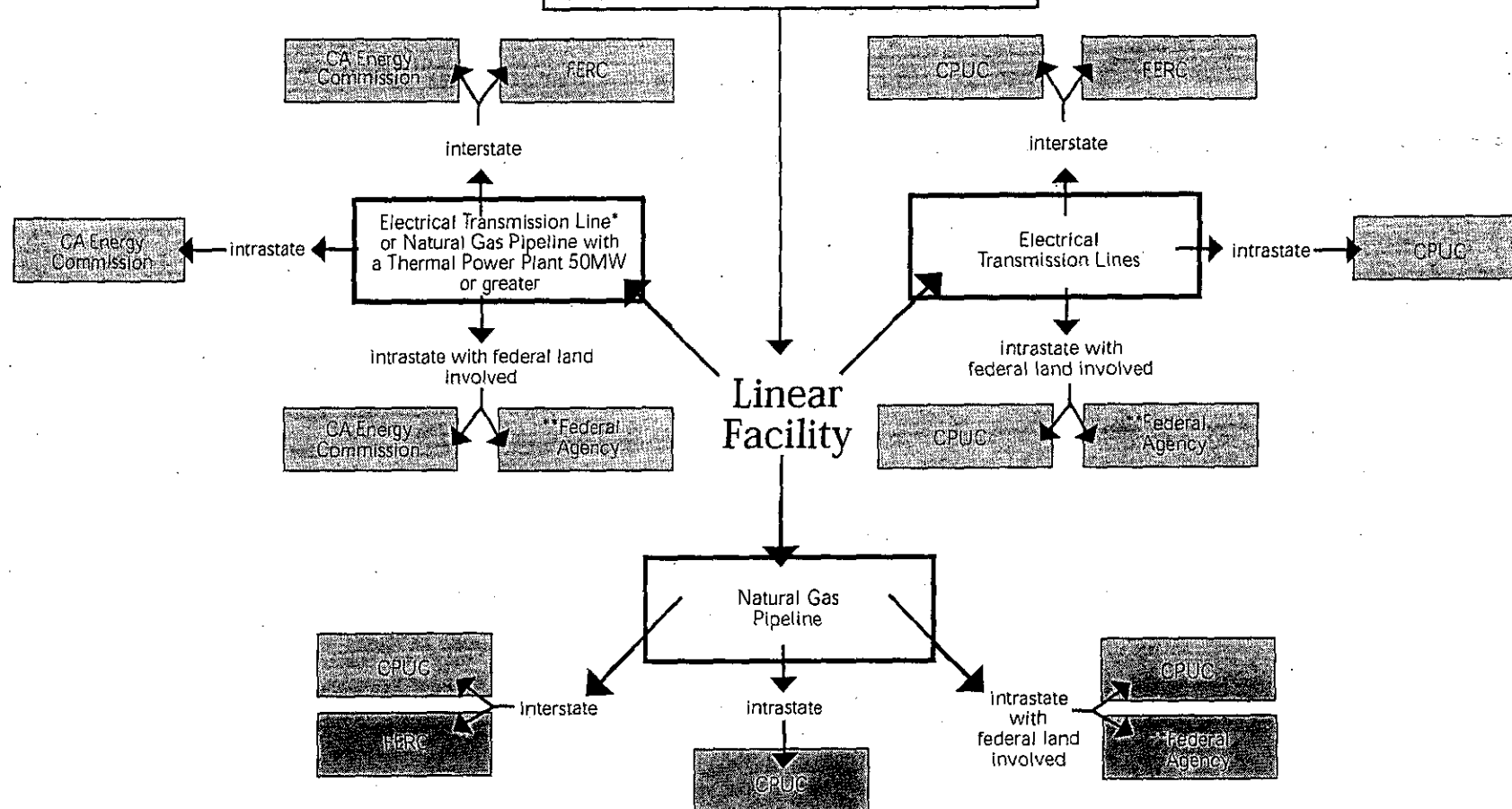
DETERMINATION OF LEAD AGENCIES FOR



* Federal Land Management Agencies such as the Bureau of Land Management and the U.S. Forest Service.

** Some small hydroelectric projects qualify for an exemption from FERC's licensing. Exempted projects are subject to state environmental review.

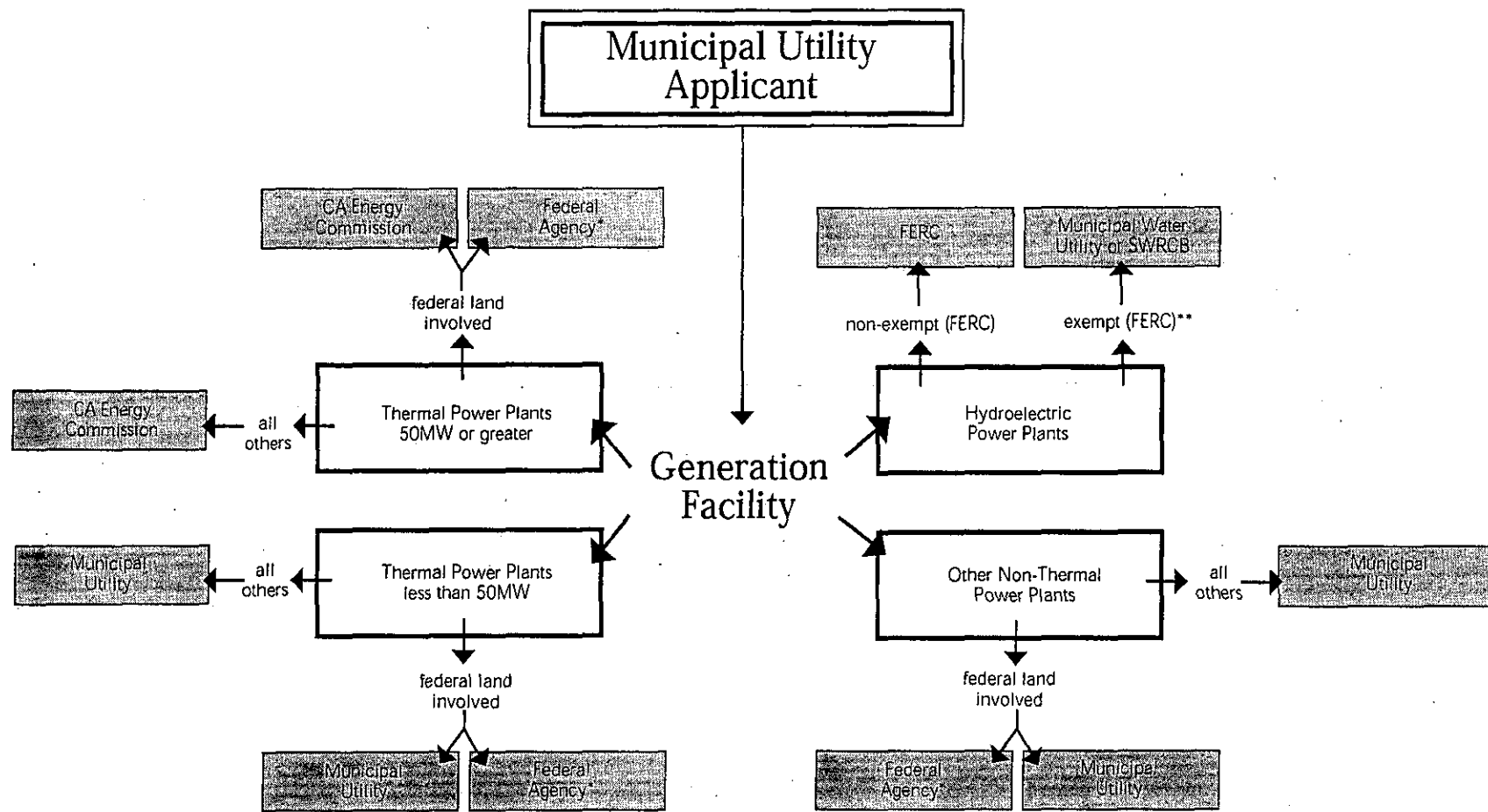
DETERMINATION OF LEAD AGENCIES FOR

Investor-Owned
Utility Applicant

* CA Energy Commission's jurisdiction over electric transmission lines from thermal power plants is limited to the first point of interconnection with the existing system.

** Federal Land Management Agencies such as the Bureau of Land Management and the U.S. Forest Service.

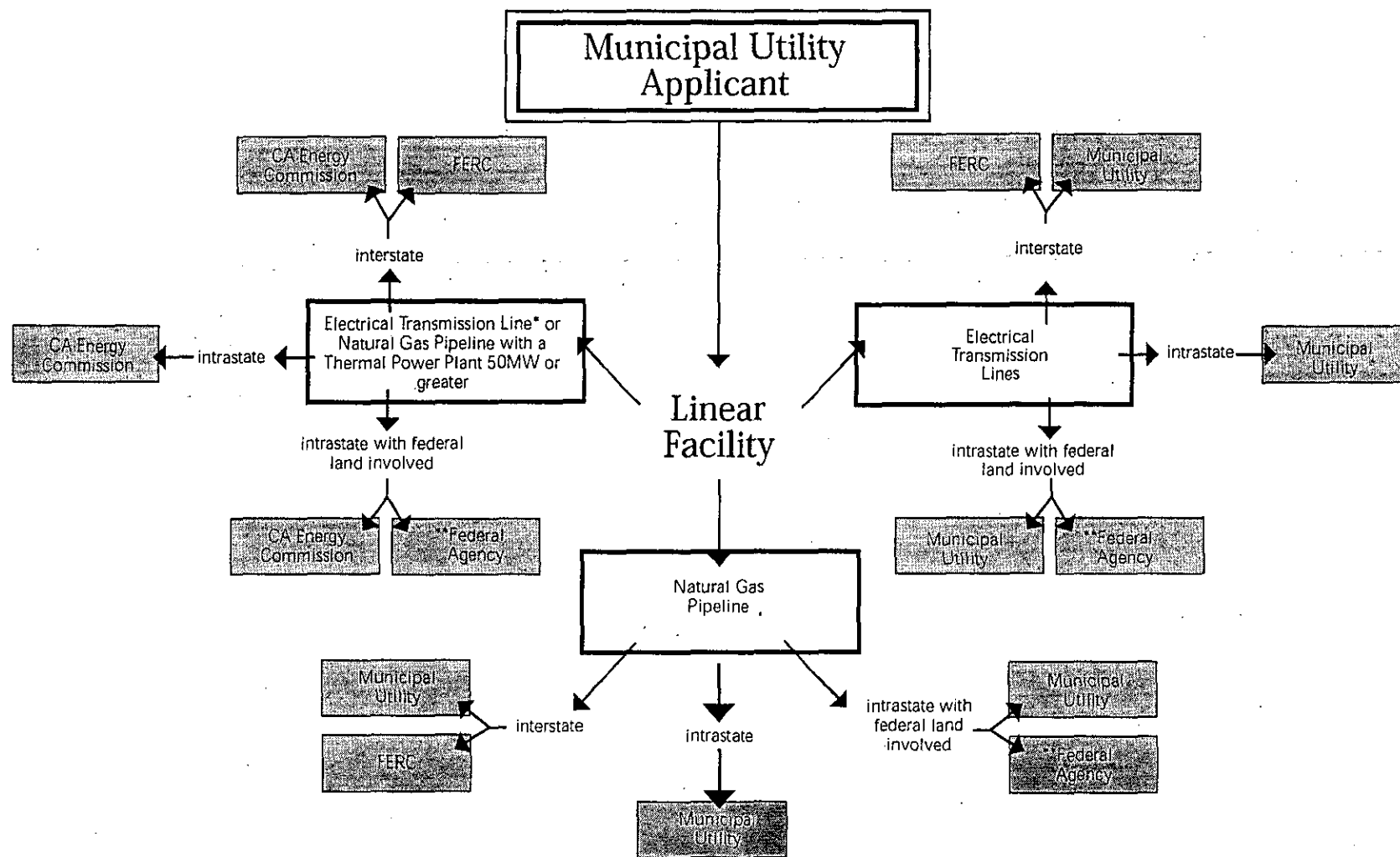
DETERMINATION OF LEAD AGENCIES FOR



* Federal Land Management Agencies such as the Bureau of Land Management and the U.S. Forest Service.

** Some small hydroelectric projects qualify for an exemption from FERC's licensing. Exempted projects are subject to state environmental review.

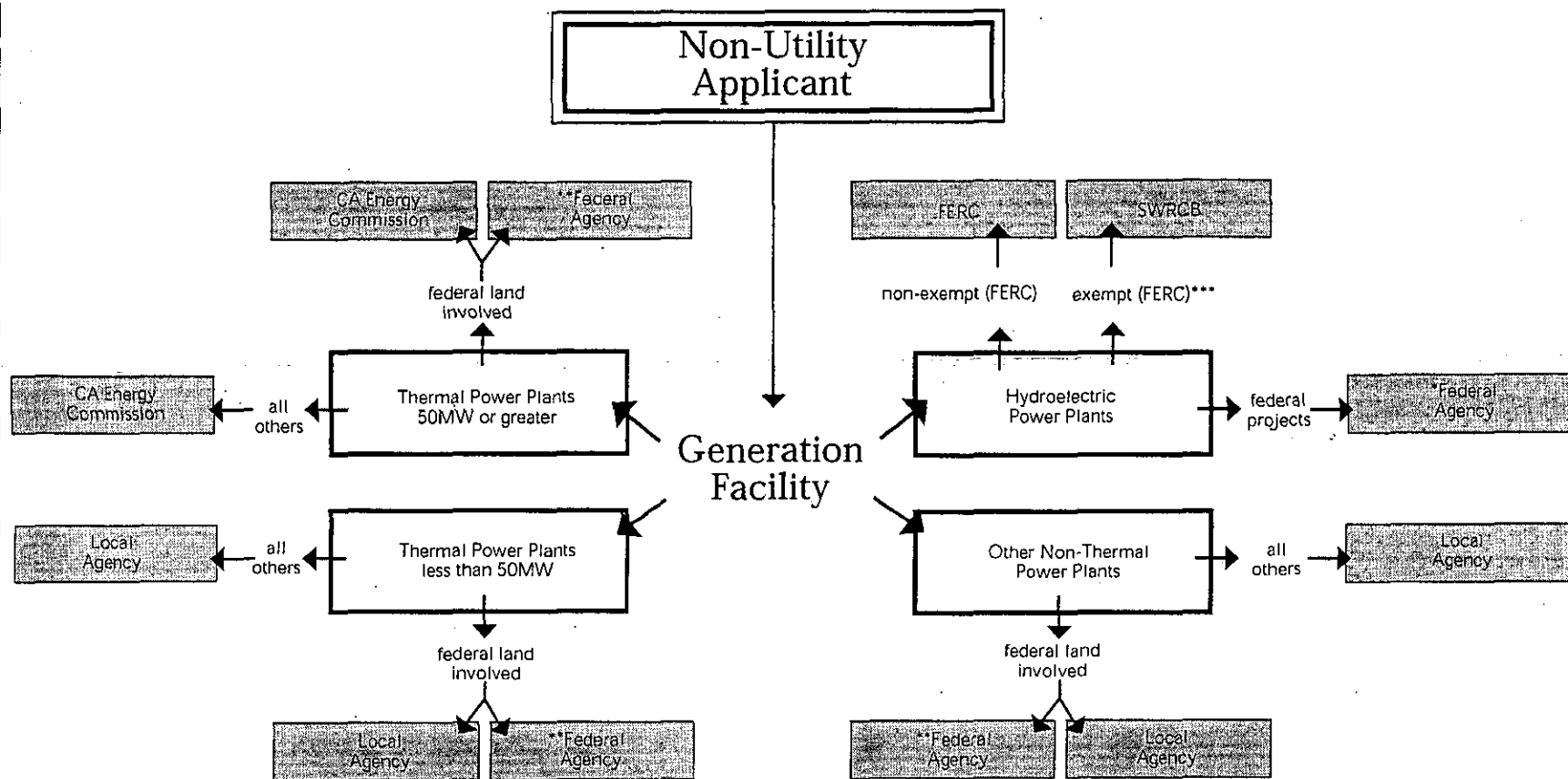
DETERMINATION OF LEAD AGENCIES FOR



* CA Energy Commission's jurisdiction over electric transmission lines from thermal power plants is limited to the first point of interconnection with the existing system.

** Federal Land Management Agencies such as the Bureau of Land Management and the U.S. Forest Service.

DETERMINATION OF LEAD AGENCIES FOR



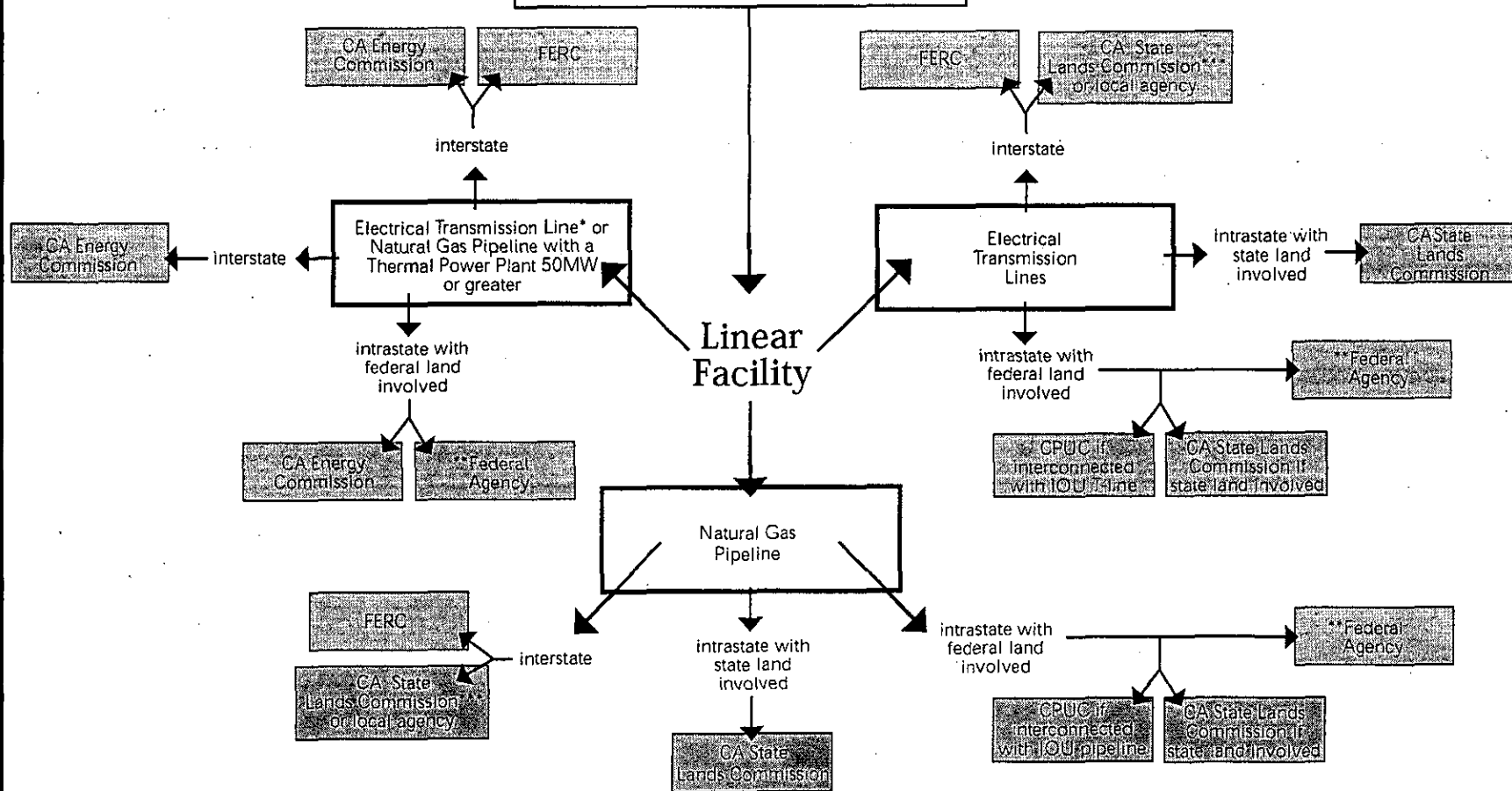
* Most Federal projects of Federally authorized projects are proposed by the Army Corp of Engineers or the Bureau of Reclamation.

** Federal Land Management Agencies such as the Bureau of Land Management and the U.S. Forest Service.

*** Some small hydroelectric projects qualify for an exemption from FERC's licensing. Exempted projects are subject to state environmental review.

DETERMINATION OF LEAD AGENCIES FOR

Non-Utility Applicant



* CA Energy Commission's jurisdiction over electric transmission lines from thermal power plants is limited to the first point of interconnection with the existing system.

** Federal Land Management Agencies such as the Bureau of Land Management and the U.S. Forest Service.

*** When project crosses a navigable waterway or if State lands are involved. For a multi-county project, use of a state agency makes the process easier. The Office of Permit Assistance can assist.

ADDITIONAL AGENCIES WITH PERMIT, LEASING OR REVIEW REQUIREMENTS

AGENCY	PERMIT/REVIEW	LEGAL AUTHORITY
FEDERAL		
Bureau of Indian Affairs	Right-of-Way Grants	Title 25, United States Code sections 323-328
Army Corps of Engineers	Dredging and Fill Permit	Rivers & Harbors Act Clean Water Act
US Fish and Wildlife Service	Biological Assessment Biological Opinion Jeopardy Opinion	Fish & Wildlife Coordination Act Endangered Species Act Federal Power Act Migratory Bird Treaty Act Eagle Protection Act
National Park Service	Right-of-Way Permit (for transmission lines)	Title 16, United States Code section 79
Bureau of Reclamation	Hydropower License Application Overhead Crossing Permit Lease of Power Privilege	Federal Power Act Reclamation Act
CALIFORNIA		
State Lands Commission	Land Use Lease (tidelands, submerged lands, beds of navigable rivers, school & other state lands) Geothermal Exploration or prospecting leasing (oil, gas & other minerals)	Public Resources Code section 6000 et seq.
Dept of Transportation	Encroachment Permit	Facilities that impact state highways
Dept of Conservation Div. of Oil, Gas & Geothermal Resource	Notice of Intention Oil, Gas or Geothermal Well Permit	Title 14, California Code of Regulations, Div 2
Dept of Water Resources Div. of Safety of Dams	Plan Approval	Water Code, Div 3, Part 1 & 2
Integrated Waste Management Board	Solid Waste Facility Permit	Government Code sections 66796.32 Public Resources Code section 40000 et seq.
Dept of Toxic Substances Control	Permit to Operate	Health & Safety Code, Div 20, Ch 6.5
Coastal Commission	Development Permit	CA Coastal Act 1976, Public Resources Code section 30000 et seq.
Dept of Forestry & Fire Protection	Timber Operators License Timber Harvesting Plan Timberland Conversion Permit Fire Permit	Public Resources Code section 4511 et seq. 4521 et seq. Public Resources Code section 4100 et seq.
Dept of Parks & Recreation	Right-of-Way Permit	Public Resources Code section 5012
State Water Resources Control	Certification of Adequacy of Water Rights Permit to Appropriate Water Statement of Diversion and Use Clean Water Act Section 401 Certification	Public Utilities Code section 2821 Water Code, Div 1 & 2
Reclamation Board	Encroachment Permit	Water Code section 8590 et seq.
Dept of Fish & Game	Approval Stream or Lake Alteration Permit Dredging Permit	CA Endangered Species Act Fish & Game Code section 2090 Fish & Game Code section 1600.7 5650-53.9, 5800-11037