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PUBLIC ACCEPTANCE AND SUPPORT FOR GEOTHERMAL RESOURCE DEVELOPMENT IN THE 1980s-- AN ISSUE DESERVING INDUSTRY CONCERN AND ACTION

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ABSTRACT

For geothermal energy development to fulfill its potential as a major energy source, it must first win the confidence and support of the general public and key special interest groups. Even in areas where geothermal potential is considerable and where large-scale successful development (e.g., the Geysers) has occurred, widespread public support has yet to be demonstrated. In facing the coming decade, geothermal proponents should consider why public support has been lukewarm and how it can be strengthened. Examining public response to previous large-scale geothermal and other energy developments can provide useful insights. This paper suggests some lessons from these earlier experiences which may be applicable to public acceptance of future geothermal projects. Also proposed is a series of specific steps to be taken by the geothermal industry to encourage public support and interest.

INTRODUCTION

Public acceptance of and interest in geothermal resource development during the 1980s will be powerfully affected by a number of somewhat contradictory concerns. On the one hand, the demand for renewable, inexpensive sources of energy has never been greater: the general public recognizes the need to reduce our dependence on imported fossil fuels and is becoming increasingly aware of alternatives (including geothermal, expanded coal use, solar technologies, etc.) At the same time there is a deep felt concern, that often emerges in response to site-specific energy development proposals, over possible effects on the natural and social environment and the quality of life. This is partly a legacy of the environmental consciousness that developed in the 1970s, partly a result of emerging resentment (whether legitimate or not) toward the energy industry and other large institutions, governmental and private

Fortunately, the geothermal industry has generally been able to avoid such negative reaction, though it has failed to generate much of a positive reaction--with the notable exception of local public support for geothermal development in Imperial Valley. With the future of geothermal energy never so promising as it appears to be in the 1980s, what might be done to achieve all-important public acceptance and support for expanded development activities and specific geothermal projects?

WHY GO TO THE PUBLIC?

Public involvement in planning for resource development and consideration of public concerns has increasingly become a major aspect of many energy development projects. This is a result of legal/regulatory requirements, as well as social/political forces.

In November 1978, the President's Council on Environmental Quality (CEQ) issued regulations for implementation of the National Environmental Policy Act (NEPA), which require extensive public input and "scoping"-- early (planning phase) identification of significant issues and concerns to be addressed in the subsequent environmental assessments. Several states have enacted similar requirements as part of their permitting and environmental decision-making process. Other legal and regulatory factors that deserve mention include: the passage of NEPA in 1969, as well as other Federal (e.g., the Clean Air Act) and state and local laws and regulations to control and reverse environmental degradation; the requirements for direct public involvement in the environmental review process (e.g., public hearings following publication of draft environmental assessments); the passage of public disclosure legislation such as the Freedom of Information Act, which has made it easier for non-governmental interests to obtain detailed program information; trends in the judicial/regulatory arena that have made it easier for those who perceive themselves as adversely affected by a project to use the legal system to protect their interests through court injunctions and protracted litigation.

A number of recent social and political trends in American society have also combined to make consideration of public acceptability virtually a requirement on the part of those proposing development of large-scale energy projects. These include: the public's recognition of limits to the natural environment's capacity to absorb ever-increasing impacts of an industrial society; the direct impact of the energy resource "crisis" on individual lives and pocketbooks; a general decline in the public's trust of and goodwill towards government and private industry; the rise to prominence of public interest organizations (e.g, Common Cause, Sierra Club, the Nader organizations) which lobby and otherwise serve as watchdogs of the public good, as they define it; and the growth of single-issue political organizations and behavior, as illustrated by certain adherents of the consumer and environmental movements.

Increasingly, factors such as those noted above have resulted in vigorous opposition and often in delay or outright cancellation of controversial projects and programs, even those offering substantial public and private benefit. Achieving a broad consensus of support for major projects has become, at the same time more important--and more difficult--to achieve. Thus, two tasks are of great importance to the future acceptance and support of geothermal development: first, to identify and understand the concerns of those who perceive themselves to be affected by a "new" technology or a specific development proposal; and second, to establish mechanisms for attempting to resolve concerns and conflicts that arise from competing values and perceptions.

GENERALIZED CONCLUSIONS REGARDING PUBLIC ACCEPTANCE

The following generalizations regarding public attitudes toward geothermal development activities are a result of the authors' participation in numerous geothermal environmental assessments and public attitudes/issues/acceptance studies for large-scale energy development projects. Also considered were a number of previous public concerns studies and environmental statements supporting major development proposals for rural areas of the western U.S. containing or contiguous to KGRAs and other locations with high potential for future geothermal development. Thus, it is suggested that such generalized conclusions are useful indicators of the scope and focus for any broad-based, long-term effort aimed at achieving greater public acceptance and support for geothermal development plans and activities.

- There is generally a lack of knowledge and awareness of legitimate benefits and drawbacks of geothermal energy development; the public needs more and better information before specific project plans are finalized and reviewed as part of the environmental process.
- Most public attitudes and concerns regarding geothermal development focus on problems or issues that are common to most large-scale development projects; geothermal-specific issues often tend to be of secondary importance.
- The public's initial concerns and perceptions of major issues do not always reflect the actual environmental impacts identified during technical analysis phases of the environmental assessment process.
- Among various interest groups affected by geothermal development, certain trends consistently emerge: social and economic issues often predominate over environmental concerns on the part of local residents; environmental concerns are often most vigorously expressed by "outside" (i.e. non-resident) groups; Native Americans are almost exclusively concerned with cultural values and protection of their perceived traditional use areas.
- Careful pre-development scoping of potential issues and public involvement in pre-project planning is a cost-effective means of minimizing public opposition.
- Working with (and through) local interest groups and spokesmen, rather than merely reacting to them after attitudes have solidified, often is a successful means of avoiding adversarial relationships; short-term compromise and accommodation to local concerns maximizes long-term public acceptance.

RECOMMENDATIONS FOR AN INDUSTRY-SPONSORED PROGRAM

Clearly, the geothermal industry and proponents of geothermal development need to cultivate the support and acceptance of the public and relevant interest groups just as much as the public (perhaps without realizing it) needs geothermal energy. Given the potential for public opposition, as well as support, during the coming decade, it would seem reasonable to pursue a carefully planned and cautiously executed program to identify public attitudes and concerns--whether the industry agrees with them or not--and to develop methods of encouraging wide-spread public acceptance and support. The following actions are suggested:

1) A comprehensive public information and education program should be developed to carry the "geothermal

message" to the general public. This would include production of appropriate literature, audio-visual materials, curriculum guides, etc., for use in schools (at all levels, from college to kindergarten); development of public information kits and press releases for print and electronic media; provision of geothermal spokesmen for public meetings and special interest group forums.

2) A further refinement of public acceptance issues should be made by the industry, with the goal of more clearly understanding the source of potential controversies. Distinctions should be made among controversies stemming from differing values and priorities, genuine technical uncertainties, perceptions based on a lack of information, misinformation, skepticism regarding published information, etc. Changes in public perceptions as a result of newly available data, altered social, political or other conditions, or for a variety of other reasons, will require ongoing reassessment of the nature and degree of interest group concerns.

3) Public controversies surrounding previous geothermal projects and programs, as well as other major energy projects should be examined. The focus of these studies should be on the relevant substantive issues, the participants (e.g., interest groups, public agencies) involved, the behavior of the groups involved (the project sponsor, supporters and opponents), and the nature and forum for the resolution of the conflict.

4) Public attitudes and governmental response to a number of general issues should be monitored and analyzed. These include:

   - land use issues and potential for conflict or co-incident land uses with geothermal development areas;
   - Native American values and concerns, both generalized and site-specific;
   - "boomtown" effects and social destabilization produced by development activities in rural areas;
   - public response to the newly-required "scoping" process and its effectiveness in issue identification;
   - government regulation and policy, as it relates to public support of geothermal development;
   - local environmental issues and impacts resulting from other ongoing development activities in areas of interest to geothermal developers.

5) Emerging developments in the field of conflict management and resolution should be examined carefully. Both successful and unsuccessful applications of these techniques to actual controversies should be studied to see what lessons they may hold for resolving conflicts over geothermal development.

6) Industry representatives should seek out opportunities for dialogue with members of the affected public at an early stage of project development in order to incorporate measures which mitigate public concerns; this would ideally be done as part of the early phases of project design. Development proponents should encourage public participation and involvement in the planning process through use of public acceptance and mediation specialists as "advance men" in areas proposed for geothermal development; these experts would serve to enlighten public and private interest groups and to respond to locally expressed concerns and opposition.

7) A comprehensive program for geothermal public acceptance and involvement activities over the next few years should be developed. This might include plans for monitoring media reports on geothermal development and related issues. It also should include such activities as developing a detailed roster of interests (i.e., interest groups and individuals) potentially affected by geothermal development proposals. Such a roster can serve to identify potential participants in a nonadversarial, consensus-building program similar to that employed in the National Coal Policy Project, which involved industry and environmentalist participants and produced a surprising (to the participants) degree of agreement on many relevant issues.

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