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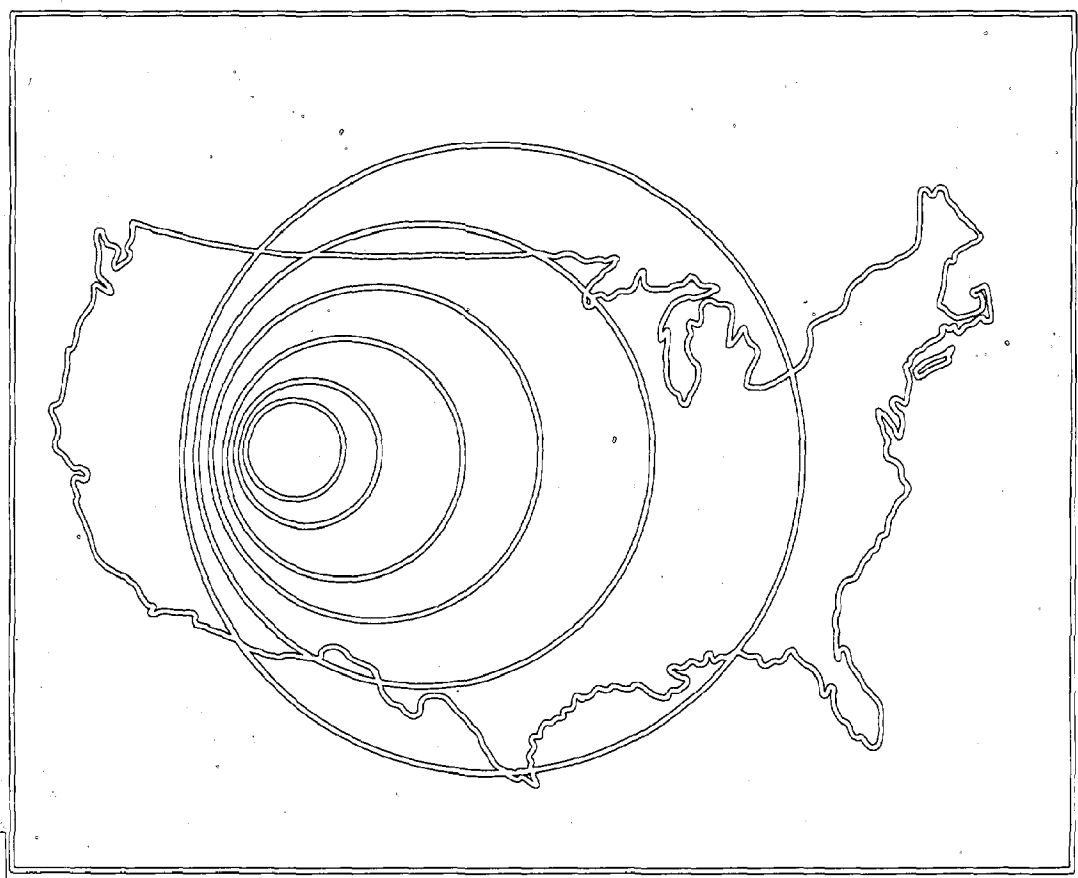
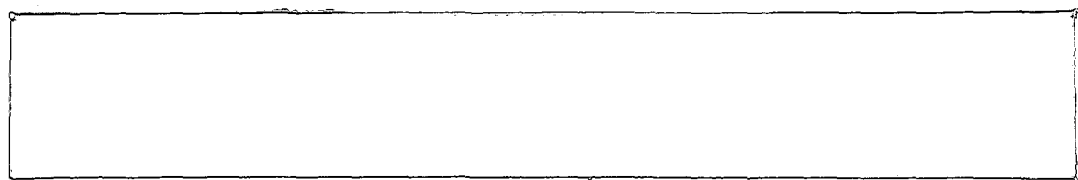
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OPPORTUNITIES FOR COMPANY-COMMUNITY COOPERATION
IN MITIGATING ENERGY FACILITY IMPACTS

Stanley A. West

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I. INTRODUCTION

A. Community Impacts of Energy Development

In widely separated rural communities of the United States, the demand for energy is stimulating the construction of mines, coal fired electric power plants, nuclear power plants, and other energy facilities. Many of these projects are large in scale and cause problems which are unfamiliar to local residents and government officials. The following passage describes some of the more extreme effects of energy development, or what has been called "the boomtown problem." However, few towns have all of these characteristics.

The town near or in which the energy facility has been sited was typically remote, growing slowly in population, and may have been declining in population because younger residents departed to take advantage of job opportunities in urban areas. Seemingly overnight, thousands of construction workers descend on this hamlet to make it "home" for a year or two. As a result of this influx the area will never be the same. Public facilities such as water and sewerage systems and public services such as law enforcement and education are severely overburdened by the burgeoning population.

Typically, completion of housing units lags far behind the influx of construction workers and the resulting housing shortage compels some workers to settle for improvised and crowded accommodations. Risks, uncertainties, and a lack of foresight cause the mismatch between supply and demand for housing. For some years a court case or regulatory deliberations may have prevented the energy company from beginning construction. As a result, developers were uncertain whether or not new workers needing additional housing would ever arrive. If this considerable risk causes housing developers to delay construction until the energy facility receives formal approval, workers may arrive on site almost immediately, although erection of housing has only just begun. Unless energy company executives adopt a policy of being extraordinarily open about employment projections and work to convince developers that the projections are accurate, private sector developers face uncertainties about future demand for their housing. Similar uncertainties cause other shortages in retail outlets.

A diverse and heterogeneous group, the newcomers are usually distinct from long-time residents in age, ethnicity, rural-urban orientation, degree of political and social conservatism, the number and magnitude of public services that they take for granted, emphasis on continuity of family ties, and so forth. Where there once had been a community with few newcomers, oldtimers now realistically fear that they will be dominated politically by new voters who have less attachment to the area.

Competition for scarce resources such as land and water are heightened as the population grows. Old alliances between ranchers and store owners, are a thing of the past. The level of conflict in the community increases dramatically and is reflected in the crime rate.

Community officials discover that their responsibilities are now full time, more formal, and more bureaucratic. Where informal customs and enduring personal relationships were evident in the conduct of town business, the presence of many newcomers leads officials to treat residents according to "the book."

Earlier residents interacted with one another in a variety of ways; new residents know each other through few or only one social tie such as the relationship of police officer to the citizen.

Sudden growth in the local economy invariably causes inflation. This is especially problematic for the elderly and others with fixed incomes. Inflation will jeopardize the quality of public services if the town government is unable to pay salaries that are competitive with wages in the energy industry. This experience causes stress for new and old residents alike. The problem will not diminish in several years when permanent operation crews begin to replace construction workers.

Given the array of adverse consequences that development can potentially cause, it seems only prudent for all parties to apply foresight and use preventive measures in designing energy facilities and planning community development. This effort should include an exploration of the opportunities for company-community cooperation in easing adverse impacts.

Urgent community needs include:

- Advance knowledge of companies' construction plans and employment projections.
- Money, including front-end financing, increased bonding capacity, and loan guarantees, which permit timely expansion of community services and facilities.

- Planning expertise when formal community planning is nonexistent.
- Availability of staff members who can navigate bureaucratic mazes in order to obtain Federal and state resources available to impacted communities.

B. The Project and Research Methods

This document is written for three groups: residents, leaders and planners of communities hosting new energy facilities; state officials whose responsibilities extend to energy development; and the energy company executives who oversee design, construction, and operation of energy facilities. This paper asserts that these three groups share sufficient common interest to form a basis for constructive cooperation in managing the changes that the construction of new energy facilities tends to cause. In the absence of such cooperation both new and long-time residents are potentially faced with inadequate public and private services and a general dissatisfaction with their community. A rationale is provided for company-community cooperation along with a detailed list of sorts of actions that are available to each.

This paper is an outgrowth of a research project directed by Lawrence Susskind and funded by the Energy Research and Development Administration entitled "Environmental and Community Service Impacts of Energy Facilities." The project team, which is focusing on energy development in North Dakota, Wyoming, Colorado, and Texas, has prepared four case studies exploring issues about state government's role in managing the adverse impacts of energy development. This document reflects the situations of energy companies and impacted communities.

This paper is based largely on interviews undertaken during August and October of 1976 with representatives of several energy companies. The interviews took place at national or regional headquarters although in one case (Carter Mining) the "home office" was also situated at the site of the company's surface mining and coal handling plant. The organizations which granted interviews are Atlantic Richfield Company, Exxon Company, Carter Mining Company, (an Exxon subsidiary), and the Missouri Basin Power

Project. In contrast, AMAX Coal executives failed to consent to or decline our requests for information about the company's policy on mitigation of its facilities' adverse impacts.

The author always described the subject of his research as -- "Opportunities for Company-Community Cooperation in Mitigating Energy Facility Impacts." The concept of "community" has been stretched to cover existing and emerging settlements as well as county governments. When energy development takes place within a few miles of an already established and self-governing community, both private companies as well as local officials have a role to play. When an energy facility is built in a remote location many miles from the nearest town, the energy company has little choice but to build a new community where none existed. Until the new community can become incorporated and organized to conduct its own affairs, the energy company has to act in a dual capacity -- as energy developer as well as community developer. Even during the phase of community building, though, there are important contributions that can be made by residents of the community-to-be. The company has to become and remain sensitive to the aspirations that permanent employees have for the community in which they settle. In this sense company and community can enter into a meaningful partnership well before a formally organized municipality emerges.

Each of the companies interviewed has constructed energy facilities demanding some sort of corporate mitigation program. The company spokesmen invariably preferred to begin by detailing the growth management or local assistance programs that their companies had undertaken. Once these steps were outlined, they agreed to describe the forces that encourage the company to implement an impact mitigation program as well as those that discourage such efforts. To avoid interviewer bias, the listing of mitigation factors was elicited anew during each interview. It might have been more efficient to ask each interviewee to rank in order a predetermined list of factors, but this would have shaped their responses. Nevertheless, the factors which executives identified as influencing their decisions about mitigation or nonmitigation were broadly shared within the sample of companies (which admittedly is small). The interviews have been supplemented by followup telephone inquiries.

The author gratefully acknowledges the helpful comments which Lawrence E. Susskind and Robert B. Foster made about earlier drafts of this report. Also, Robert Valeu and Robert E. Huff were especially generous in their willingness to share their knowledge and insight when interviewed by the author. This paper has also benefited from reviews of an earlier draft and comments by Mayor Michael Enzi of Gillette, Wyoming, and by Gary Payne of Wheatland, Wyoming (Community Psychologist and Director, Community Health Center).

II. INTERESTS COMMON TO COMPANIES AND COMMUNITIES

Both energy company executives and community residents want the locality to be a desirable place in which to live. Community residents are motivated by the fact that their well-being and happiness is at stake. Corporate executives adopt a similar goal because their efforts to make a profit and to ensure the company's long-term viability depend in part, on the response that workers have to the locale. Executives in the energy industry -- but by no means all executives there -- are becoming aware that:

- Efforts to expand production and processing of energy in the United States have been, and will continue to be, handicapped by the short supply of experienced, productive workers. Executives, therefore, want to ensure that their companies can successfully recruit the workers they need. Robert Valeu of Basin Electric Power Cooperative points out, "you need decent living conditions to keep good workers today because they are highly mobile."
- Profit and worker productivity are dependent on employees' well-being both on and off the job because domestic problems and frustrations inevitably spill over into the work place. "Industrial history proves that undesirable working and living conditions result in less than optimal productivity. Conversely history indicates that a good living environment will affect workers' attitudes favorably and, consequently, result in greater productivity" (White 1976: iv).
- Programs that a corporation might institute to provide only for the needs of its workers (and not for others who happen to live in the same community) are likely to be ineffective. For example, if A employs 20 percent of the local labor force and elects therefore to construct only 20 percent of the new houses and apartments needed, the result is that the town will continue to have a serious housing shortage. Therefore, corporate commitments to the mitigation of adverse impacts should result in measures to solve townwide or areawide problems even if this necessitates cooperation with community groups, other companies, and several local governments.

Companies and communities also share a preference for more effective and timely state and federal assistance to impacted communities. Mr. C. E. Smith Jr., President of the Carter Mining Company, for example, assisted researchers in writing the Wyoming Coal Impact Tax Bill and lobbied in support of this law which now taxes the Carter Mining Company because he recognizes that local communities need state impact assistance.

III. CONTRIBUTIONS BY ENERGY COMPANIES: POSSIBILITIES AND EXAMPLES

This section maps the roles that energy companies can play in the construction or operation of community facilities and services in host communities. Energy companies can pay taxes and do nothing more, or they can provide all the resources that are required to ameliorate a range of adverse impacts. One important characteristic of a company's role is the magnitude of its contribution. Companies can 1) provide financial or monetary assistance, 2) provide expertise and other human resources, and 3) help to plan, supervise construction, or operate public facilities and 4) coordinate the monitoring of impacts.

The provision of monetary resources might entail small grants to local governments to pay staff salaries for several months until these can be written into the community budget. Mr. Robert Valeu reports that the Basin Electric Power Cooperative, which is constructing a plant near Wheatland, Wyoming, granted \$18,000 to the City of Wheatland to help prepare an application for federal funds and to establish a Department of Planning. One result, which Basin Cooperative officials expected, was the enactment of stringent development codes.

If the flow of a community's tax revenues are uncertain, officials may be hampered in their attempts to sell bonds or to borrow the funds needed to finance local facilities. Rather than making an outright gift of funds, a company can guarantee repayment of the community's debts while working to ensure that company dollars will never have to be expended. In other words, a company can facilitate the development of their host community by limiting the risks to lending institutions. The energy companies helped the Campbell County Hospital District qualify for a Moody's AA bond rating, thereby ensuring the availability of front-end capital without requiring direct company financing. The energy companies provided staff to assist the Chamber of Commerce which prepared a report entitled "Economic Impact of Anticipated Growth: The City of Gillette and Campbell County, Wyoming." It was this report he says, which provided the analysis on which assignment of the AA rating was based.

If it is infeasible for a company to guarantee loans or bonds, it might consent to provide loans directly or to buy the bonds that the community needs to float. In such cases, companies expect repayment when tax revenues begin to flow.

Another means of providing "front-end" financial assistance is through advance payment of property taxes. By pre-paying its total bill well ahead of time, a company can avoid the risks involved in purchasing the municipality's bonds or in loaning funds directly to the community. However, corporate pre-payment of taxes may entail the cost of borrowing for that purpose, and there is no statutory guarantee that the payer will receive credit for its prepayment.

A company might also agree to underwrite the entire cost of certain public facilities. This would require a long term and definite commitment to a particular area as well as a detailed analysis of the opportunity costs involved.

Private developers are often hesitant to build houses on speculation if the commitment to energy development in an area is uncertain or if they fear that development will only be temporary. The strategies for company-community collaboration described above can be influential in triggering substantial private investment. Since housing is a critical concern to boomtown areas, some energy companies have created home building subsidiaries. While the stigma of the "company town" label is a serious concern, some energy companies have begun marketing and managing rental units. In such cases, plans have been made to sell all real estate and to transfer control of public works to elected officials as soon as possible. Moreover, executives such as R. Gale Daniel of Atlantic Richfield Company perceive that their companies should cease to work in housing development as soon as severe shortages are no longer a problem.

Another contribution that energy companies can make is expertise. The dollar cost of expert assistance is not as substantial and the private company has more direct control over the quality of the work done than is the case with a loan or bond purchase. Companies have helped to:

- Conduct impact assessments. In this capacity they prepare detailed forecasts of the demand for public and private facilities and services. For example, at the order of President Smith of the Carter Mining

Company, his employees prepared estimates of local housing needs every six months.

- Formulate tentative plans for numerous aspects of future community growth and development subject to community approval.
- Write proposals to secure available federal funds.*
- Lobby at the state and federal levels in behalf of the community's interests.
- Monitor impacts, and
- Provide employees with released time to offer public service.

In conjunction with the construction of two power plants and a strip mine in Colstrip, Montana, Montana Power and the Western Energy Company have committed a total of 16 million dollars to transform a near ghost town into a town of several thousand residents by 1980. The corporation's investments include about 2 million dollars in temporary trailer parks and bachelor quarters (White 1976: 5). Other developments carried out by the two companies include apartments (\$1,900,000), single-family homes (\$2,664,106) paved streets, water and sewer lines, a new sewerage and water systems (\$1,017,435), and temporary classrooms (\$186,000). Western Energy Company also "constructed a small mall and leased space to a grocery store, hardware store, pharmacy, restaurant, laundromat, barber shop, beauty salon, post office and medical-dental area" (White 1976: 15). "The Colstrip recreation facilities consist of tennis courts, tot lots, softball and little league fields, basketball courts, a wading pool, parks and picnic areas, a swimming pool and a large community center" (*Ibid.*, p. 18). The companies project that in about five years many workers will own the homes in which they live and Colstrip will become a self-governing community.

Colstrip is an unusual and extreme example. Few energy companies have been willing to assume responsibility for carrying out such a comprehensive community development effort. Montana Power and the Western Energy

*Robert Valeu and Mayor Michael Enzi attest that cities such as Gillete and Wheatland are unable to obtain any significant federal funding in support of local impact mitigation. This suggests that ERDA should determine the extent to which the federal government is failing to assist towns hosting energy facilities and should consider developing programs which more effectively extend aid to impacted communities.

Company decided to retain ownership of the town at least temporarily in order to be able to guide its orderly development. In the words of Martin A. White, the Project Manager, "the companies proceeded from the standpoint that corporate responsibility militated in favor of a net improvement in the community rather than an obligation simply to neutralize adverse effects (1976: iv).

Of the several coal mining operations located in the area of Gillette, Wyoming the Atlantic Richfield mine is most remotely located at fifty miles from Gillette. As R. Gale Daniel describes his company's analysis, executives reasoned that if Atlantic Richfield employees had to commute fifty miles to homes in Gillette the more productive workers would be lost to more conveniently located companies. Therefore, the company is building a new community near their mine at Reno Junction -- formerly the site of a boomtown named Wright. The plan, Daniel says, is to set the price of homes in Reno Junction and to periodically lower the costs until workers prefer to buy there rather than in Gillette. Through this and related contributions to community development, Atlantic Richfield hopes to drive living costs down and strengthen its employee relations. Other elements of the company's development include erection of over three hundred single-family homes and eight classrooms. The company had also contributed land for a local post office. To spare residents from monthly telephone charges of \$40, the corporation has invested \$600,000 in a central switching facility which will permit up to 900 private telephone lines.

Robert Huff, a community developer also working for Atlantic Richfield believes that cooperation with a variety of local communities has been highly beneficial for the company because of the communication, rapport, and respect that have resulted. Another major advantage that he identifies is that of being able to remain on schedule during construction.

Negotiations between the Puget Sound Power and Light Company and Skagit County, Washington led to an agreement whereby Puget will underwrite the cost of the increased public services necessitated by construction of the company's nuclear power plant. Rather than making outright gifts, Puget is prepaying its taxes to provide Skagit County with funds at a time when local public needs for capital are urgent. Details of the company-county agreement include payment of a set amount per student entering a school district (due to plant construction). Moreover, should existing

school facilities become insufficient, Puget plans to pay for new temporary portable classrooms. Similarly, the company is making payments to county and municipal police departments to compensate them to additional demands on their time and services. The agreement is predicated on the expectation that public revenue during the operation phase of the power plant will be adequate to finance any longer-term local growth management needs that are plant-related.

As Mayor Michael Enzi of Gillette, Wyoming cautions, corporate prepayment of taxes may encourage public over-spending and cause a shortage of tax revenues during future years. Moreover, prepayment is forbidden by the Wyoming State Constitution and similar restrictions may apply in other states. Where prepayments are permitted, corporations lack statutory guarantees of tax credit.

The Basin Electric Power Cooperative conducted intensive social impact assessment while completing plans for its Laramie River (power) Station near Wheatland, Wyoming. This detailed projecting of anticipated impacts was a necessary preparation for its design of the extensive mitigation and monitoring program that Basin also has underway. But as Wheatland resident Gary Payne observes, the success of assessment, mitigation, and monitoring in part depend on extensive continuing involvement by many residents who are committed to effective management of local growth. In particular Basin has agreed to:

- "Provide the necessary financial assistance to assure that the facility needs of School District No. 1, Platte County, are met in a timely manner;
- Provide the necessary financial assistance to assure that reasonable operating expenses of School District Nos. 1 and 2 are, in the absence of public sector revenues, met during the construction interval.
- Provide the necessary financial assistance to area health and social services centers, as limited by agreements signed by the Applicant and local offices, to assure continued services during the construction interval, in the absence of public sector revenues; and
- Provide assistance -- financial, technical or equipment -- in developing recreational facilities to assist the needs of area residents during the construction interval" (p. 8).

Basin also acknowledged the fact that the impacts of energy facilities usually ignore political boundaries when it agreed to "provide the necessary assistance -- financial, technical, or equipment -- such that smaller communities within the affected area are not significantly burdened by costs associated with temporary residents during the construction interval" (p. 11). However, the town closest to the Basin plant, Wheatland, is expected to experience most of the construction impacts.

Basin further agreed to develop a socioeconomic impact monitoring program, subject to the State Industrial Siting Council's approval, "to monitor and evaluate socioeconomic impacts., featuring provisions for timely implementation of contingency measures and for evaluation of the effectiveness of mitigating actions" (p. 9). Results of this monitoring will be to 1) identify unanticipated impacts in time to take corrective action, 2) document the effects of Basin's mitigation programs, and 3) provide a data base and analyses which should contribute to the state-of-the-art of social impact assessment of energy facilities. The preceding section demonstrates that energy companies can be of assistance to communities in a variety of ways.

IV. FACTORS WHICH SHAPE CORPORATE WILLINGNESS TO UNDERWRITE MITIGATION OF ENERGY FACILITY IMPACTS

In this section the forces which enhance the willingness of energy company executives to commit resources to impact mitigation are summarized. The factors which limit corporate mitigation efforts are implicit in that the converse of each statement describes a condition which works to dissuade companies from helping.

A. If Substantial Impact Mitigation is Necessary to Manage the Growth that Energy Development Will Stimulate, a company will be more likely to help. Energy company executives usually feel that metropolitan regions have little need for impact mitigation. For example, they are unlikely to construct new housing units in a populous area because existing housing plus the units that developers plan to build will be adequate for any population growth that the new facility will stimulate. George L. McGonigle of Exxon's Friendswood Development Company articulates a typical corporate sentiment when he states that "If the community can absorb our facility's impacts, we will do nothing." In contrast with urban areas, few small rural communities are equipped to absorb thousands of new residents. Whenever projected population growth is likely to exceed ten percent annually, as a result of industrial activity, companies are likely to feel some responsibility.

B. If Extremely Adverse Impacts Will Result from the Project in the Absence of Corporate Mitigation Program, a company will be more likely to respond. If executives perceive that their company's new facility will have extraordinarily harmful effects without mitigation, they recognize that a great deal is at stake. Even executives who feel only weakly motivated to work toward high environmental quality in the region of their planned facility are likely to give a high priority to sparing their corporation the notoriety that comes with despoiling a rural area. Various company representatives echoed the sentiment of Robert Valeu of Basin Electric Power Cooperative who recognized the urgency of "avoiding another Jim Bridger" -- i.e., an especially problematic boomtown. A

reputation for policies which are destructive to local communities is clearly disadvantageous for corporations which intend to maintain their presence in an area over the long-term and which expect to be permitted to construct future facilities in other communities.

C. If Impact Mitigation Will Result in Excellent Worker Productivity and Reduce Turnover During both Construction and Operation, companies will be more likely to help. To compete successfully for experienced, efficient workers, an energy company needs to provide both for adequate working conditions and for homes in pleasant settings. In the words of Robert Quenon of Carter Oil Company, we "want the best workers and that requires a desirable setting." Basin Electric Power Cooperative forecasts that the company will save approximately \$17,000,000 during the construction phase alone as a result of the productivity that has enabled construction to progress forty five days ahead of schedule as of March 1977. The productivity/turnover payoff provides the single strongest motivation for corporate efforts to protect environmental quality and to help manage the growth that their plants stimulate. Executives measure the success or failure of their efforts at impact mitigation in terms of worker productivity and turnover rates although local residents attach far higher value to the community's desirability as a place to live. Company representatives agreed unanimously that this factor motivates energy companies to mitigate adverse impacts. This attitude is supported by the experience of personnel departments which point out how hard it is to "get good people."

D. If Delays in Construction Will Cause the Cost of the Facility to Escalate, a company will be more likely to help. In an inflationary era, delays in construction of a new facility increase costs substantially. Moreover, increases in potential cost are apt to be substantial as in the case of the Basin Electric Power Cooperative's Laramie River Station. Mr. Robert Valeu recalls that a delay of one year resulted from passage of the Wyoming Industrial Siting Council Law. The delay together with required design changes increased the facility's estimated total cost, from \$700,000 to \$1,300,000. In comparison with the soaring costs which delays trigger, many impact alleviation measures are relatively

inexpensive. Executives prefer expenditure of thousands or hundreds of thousands of dollars for growth management programs to the alternative of facing delays which cause total plant cost to increase by millions of dollars. Not surprisingly, this orientation is shared by nearly every company representative. The executives have faced court cases which delayed one or more projects. Valeu observes that by winning over some potential opponents of an energy project and by reinforcing proponents' attitudes an effective program for impact alleviation is likely to strengthen rather than undermine the economic viability of a planned energy facility.

E. If Executives Recognize that the Facility is a Pivotal Element in Their Company's Plans, the company will be more likely to help. Executives of a petroleum producing corporation might give priority to construction of their first coal mine because they expect the company's income from coal production to surpass its income from oil production by 1990. Another facet of company commitment to a particular energy facility is the magnitude of the unrecoverable financial investment that has already been made in plant design and orders for machinery. Corporate momentum encourages executives to institute impact amelioration if they expect that doing so will enhance the facility's social acceptability and move the project along. R. Gale Daniel of Atlantic Richfield Company and others believe that the future development of their company will be very much influenced by its impacts elsewhere. This suggests that mitigation is central to corporate interests.

F. A Limited Amount of Community Opposition to a Facility is likely to cause a company to be more willing to help. If a great many community residents and leaders oppose an energy facility, the probable result is that the corporation will be discouraged from building. If the opponents are few in number or are not representative of the local population, the company is less likely to be dissuaded from siting its facility there. A small or moderate amount of opposition to an energy facility is conducive to corporate investment in impact mitigation although executives prefer to have no opposition at all.

G. If A High Level of Community Resourcefulness is Evident, a company will be more likely to help. Executives are wary of committing corporate resources if they have to carry the full responsibility for community help and development. They look for evidence that the community is capable of and committed to acting in its own behalf, and that elected officials expect local government to carry its share of the load (e.g., Robert Huff, Atlantic Richfield). Companies do not want to act as a surrogate local government. Executives would, for example, be favorably impressed by local officials who take the initiative in investigating the availability of federal and state resources to support community growth management rather than awaiting corporate offers of assistance. Energy companies which have planned energy facilities costing millions of dollars are amenable to providing small grants which enable local governments to become more capable and sophisticated -- by hiring their first professional staff, for example. Demonstrations of a community's willingness to act might include the granting of a zoning variance in exchange for promise of a corporate impact mitigation program.

Another source of community strength that local government officials might be able to communicate to company executives is the presence of a strong sense of community identity. This local spirit may be a valuable resource once the community begins to confront serious growth management problems.

H. If the Prospects for Successful Mitigation Appear Good, a company will be more likely to help. Corporate executives have every reason to be wary about the design of impact mitigation measures. If the prospects for success are dim, this discourages a commitment of company resources to impact alleviation (Robert Huff, Atlantic Richfield). An important factor is whether or not the plans for managing growth are timely (C. E. Smith, Jr. of Carter Mining Company). For example, if available construction methods or current regulatory legislation make it impossible to erect new housing, a recreation center, or whatever, by the date when the influx of workers is expected, there's little point in expending funds for such purposes.

I. If the Facility has an Expected Life Cycle of Several Decades,
 a company is more likely to help. An oil well is typically exploited for only a very few decades while some coal mines remain in operation for a century or more. A factor which influences the importance of a facility's life cycle is the size of the operating staff in comparison with the size of the construction force. Robert Quenon and C. E. Smith, Jr. of Carter observe that coal mines require a permanently large crew of miners whereas petroleum production is not labor intensive. Therefore, the long life cycle of a coal mine causes executives to be alarmed about its adverse impacts because workers will experience deleterious consequences and corporate loss of potential profit will be substantial over an extended period of time. In effect, a long life cycle encourages executives to invest in highly effective impact alleviation methods to ensure that the setting will become or remain desirable.

J. If Local Public Services and Public Facilities are Not Seriously Deficient prior to construction, a company will be more likely to help. Executives of energy companies are adverse to the notion that their firm ought to single-handedly remedy long-standing deficiencies in local services under the guise of impact mitigation or growth management (e.g., Robert Huff, Atlantic Richfield). For example, a deteriorated and antiquated system of wooden water mains which was barely adequate for local needs prior to the building of an energy facility would require total replacement rather than limited expansion to serve a growing community. An energy company is likely to resist assuming the capital cost of an all new water system although executives might be willing to underwrite part of the cost. However, few localities would be rejected as sites for energy facilities solely because of substandard services or physical systems -- many small rural communities have deficient public facilities.

Mayor Michael Enzi of Gillette claims that this issue about public deficiencies is sometimes raised by energy company executives "as an excuse for doing nothing." His perspective is that communities should not be expected to absorb the impacts of new energy facilities unless the locality receives real net benefits. In other words, he observes that it is fitting and proper for energy development to remedy at least some community deficiencies.

K. If Discrimination Against the Company by Local Government is Not

Expected, a company will be more likely to help. Executives of multinational energy companies feel that the size and wealth of their organizations make them vulnerable to widely-held popular antagonisms toward big business. Corporate representatives such as Robert Huff of ARCO prefer to site new facilities in communities where government officials apply the same legal standards to all business projects regardless of their size. Energy companies prefer to bypass communities in which company-built housing is required to meet all codes to the letter of the law while officials habitually overlook the violations of local or small builders. Rather than reflecting an appreciation for government regulation, this point of view stems from a preference for even-handed and consistent application of statutory requirements.

V. COMMUNITY ACTIONS THAT INFLUENCE COMPANY POLICY

Although communities usually lack the power to order a company to act in any particular way, residents and local officials can affect company decision-making by:

- Influencing the general public's image of a corporation.
- Shaping executives' perceptions of the community, or
- Enacting regulations that retard or prohibit facility construction.

If publicized, sentiments about the manner in which a company carries out the task of developing an energy facility can either foster or undermine the image that corporation seeks to create. Good public relations are valuable to corporations because they influence sales and income, Congressional legislation, anti-trust deliberation, rate setting, policies of governmental regulatory agencies, and other factors vital to the future of any energy company.

Corporate willingness to commit resources to impact mitigation is enhanced when executives sense that a community has the capacity and willingness to shoulder part of the burden. Communities, therefore, need to devise a variety of ways to demonstrate their capability for self-help.

Localities have or can enact legislation giving them power over companies: zoning ordinances, subdivision regulation building codes, fire safety codes, health codes, and demolition standards (Nicoson 1976: 8) can be formidable bargaining chips in the right hands. When the Puget Sound Power and Light Company approached Skagit County with a proposal to construct a nuclear power plant there, the company "had already been refused sites in a few other locations" (Mhyra 1976: 13) and the county could have prevented the facility's construction by doing nothing -- i.e., by declining to reclassify 260 acres which had been zoned as "forestry/recreation and residential." In return for a zoning change the county was able to extract Puget's promise to underwrite the costs of mitigating construction-induced growth.

However, these powers of taxation and regulation are only minimally available to impacted communities if new energy facilities are located in another political unit. A case in point is Gillette, Wyoming which is growing at a rate of 25% per year although the local coal mines are located outside the municipality. State and federal action may be needed in such cases.

If voters fully approve of energy development, local governments might consider actions which lessen the considerable corporate risks. As Nicoson articulates the likely corporate response, "all experienced developers, knowing the perils of government as an indifferent spectator or antagonist, will appreciate the value of government as a working partner in the development process" (1976: 28). Although the following points also apply to state and federal governments, local governments can greatly facilitate energy and other development through:

- "A combination of substantive programs" such as zoning and subdivision regulation that allow for streamlined and "comprehensive regulation of development under a single set of standards" (Nicoson 1976: 20).
- "The combined processing of permits" by various local and state agencies enables companies to avoid filing numerous applications (Ibid.) Such streamlining in the more remote towns may be opportune because bureaucrats are few in number.
- Assisting in land assembly. The power of eminent domain is available to local government as well as to higher levels of government. In cases where a development project is generally favored by local residents a project's viability can be greatly enhanced if there is recourse to public powers which require no cost to the taxpayers (Nicoson 1976: 22). This is an extreme and potentially unpopular use of local governmental power, however.

Robert Huff of Atlantic Richfield suggests that communities should encourage state governments to institute one-step permitting processes for the proposed facility and the associated community development or mitigation programs.

The following guidelines may be helpful to officials and residents of host communities:

- At the outset of negotiations local officials should state their intent to publicize 1) the successes and failures of company efforts to alleviate impact, and 2) the extent to which the corporation has honored its commitments to the community. Utilization of the mass media as well as channels of communication to legislators and regulatory agencies at all levels are most useful.

- Regulations and statutes that have or will be enacted should be carefully thought through and made explicit. The exact requirements for energy company compliance should be spelled out. Precise and detailed regulations enable executives to weigh the community's requirements at the outset of company-community negotiations.
- Local officials might require the company to limit the number of construction workers at any single time to some ceiling which can "reasonably" be absorbed. Basin Electric Power Cooperative illustrates precisely this opportunity in that it agreed to hire no more than 2250 persons at a time. Although some companies would reject a similar stipulation fearing increased interest costs caused by longer construction periods, the wisdom of that perspective is debatable because it discounts the opportunity to maintain high productivity among construction workers.
- Because energy companies typically deal with both municipal and county governments when designing and constructing energy facilities, cooperation and coordination between governmental levels should be extended as a means of facilitating company efforts at impact mitigation. The creation of regional or area-wide government structures that completely contain the energy facility and its impacts give public officials far greater control over growth management and facilitate approved corporate community development programs. However, long distances between neighboring communities may inhibit formation of regional governments.
- Community residents should participate in planning and share their knowledge with the corporation. An energy company cannot single-handedly solve all the growth problems in a boom town. Active cooperation by community members and groups and a sharing on the part of local people of their intimate knowledge of local conditions, problems, social values, conflicts, history, and informal problem solving mechanisms are needed. Unless community members cooperate it is unlikely that the corporation will be able to adequately mitigate the adverse impacts of the planned energy facility.
- Whether or not the energy company is willing to support a variety of measures for growth management, the community should retain ultimate responsibility for all planning and decision making about community development.

- It is in the interest of both community and corporation for all planning to incorporate considerable citizen involvement. As a result residents will identify thereby also increasing the probability monitoring efforts with the result of also increasing the probability of successful growth management. For example, Gary Payne of Wheatland reports that local residents are most diligent about completing the impact monitoring forms that are periodically distributed by Basin.
- It generally seems advisable that a local planning group be formed in order to serve as an intermediary between the company and local residents as a whole. Although the group should include some government officials, its composition should be broad and representative. Indeed, most community organizations should be represented. Such a group can conduct planning and help ensure that the plans that get accepted will be socially and politically viable.
- Both states and the federal government should consider enacting legislation which promotes effective management of the growth that new energy facilities stimulate. This legislation might resemble the Wyoming Industrial Siting Council Act which has already facilitated social impact assessment, impact mitigation, and impact monitoring in Wheatland, while encouraging company-community cooperation.
- Although prepayment of taxes initially appears attractive as a source of front-end capital for local government, Mayor Michael Enzi of Gillette cautions that its disadvantages include a temptation to overspend in the present and a danger of encountering a future deficiency of tax revenue. This strategy is also unlawful in some states such as Wyoming.
- Another recommendation made by Mayor Enzi is that communities might try to restrict local energy development to a single facility. When only one facility is under construction, there is no doubt about the cause of any adverse growth impacts and the energy company has compelling reasons to conduct effective impact mitigation programs with resultant community benefit.

Enzi also observes that it is in the interest of both company and community for energy company executives to avoid making conservative corporate employment projections. His reasoning is that estimates are likely to be exceeded, the community never receives as much assistance as is needed, and community officials can always pay back part of any over-allocation. It is important to have adequate resources when they are needed.

VI. FURTHER SUGGESTIONS

Public and private decisions about managing the growth that energy development induces have potentially grave consequences for residents in the site's environs. Unwise action by either the energy company or the host community can complicate the town's "growing pains" and cause both parties to become notorious for the boomtown problems that they permit.

Corporate executives who are aware of the poor quality of life in boomtowns seem cognizant of the need to provide for basic public and private services and facilities. They know that workers have to have a decent place to live. However, they evidence less appreciation of the hidden socioecultural impacts that energy development can cause.

The socioecultural impacts of energy development are caused by the massive immigration of workers with life styles, values, and expectations that vary substantially from those of long-time residents. Both construction workers and plant operators tend to be more ethnically diverse and politically liberal. Such polarization can cause social conflict. While oldtimers grieve at the passing of tradition, newcomers feel frustrated living in a community which does not accept them as they are. Although members of both groups suffer from alienation, it is construction workers and their families who lack a social support group and an enduring sense of belonging. Finally, members of both groups experience stress because of their deep discontent with the present state of affairs coupled with the perception that they are powerless to create a more desirable future. That perception is an important element in their dissatisfactions. Fortunately, there are ways of alleviating these conditions.

Although planning has been anathema to populations of the rural West, any community which elects to permit nearby energy development and which is committed to the development of a desirable community has little choice but to plan in the hope of fostering desired changes and mitigating adverse impacts of the industrial expansion. The alternative of moving to block energy development should be given serious consideration if voters wish to preserve the status quo. If local residents want to curb growth, that decision must be reached and acted on prior to the influx of thousands of newcomers who will eventually dominate local

elections. Russell Bovaird of Basin Electric Power Cooperative observes that it is desirable for objections to be raised early in planning for energy facilities because this enables the company to act quickly in order to mitigate the adverse impacts that are most important to residents. But if the decision is to permit development, "open" planning should be conducted which invites involvement of any interested member of the community and leads to formulation of objectives which reflect residents' values. Community leaders should seek the cooperation of the energy company throughout this planning and mitigation process. Such planning has many virtues, one of which is to channel resident's frustrations into the creation of desirable futures thereby counteracting their sense of powerlessness.

Open planning should also be directed toward alleviating some of the sociocultural impacts of energy development. The first step is to articulate the existence of problems such as alienation, conflict, or rootlessness. Resident task forces might be formed for the purpose of examining the situation and devising actions to remedy the problems. In other words, the first requirement is to recognize that such problems exist while the second is to direct local talent toward the search for solutions.

While such local self-help efforts are underway, an impacted community might also enlist the assistance of social scientists who would familiarize themselves with the community and make suggestions about remedies. As western residents are wont to say, there have been studies of boomtowns aplenty. However, what is being proposed here is applied research for which the community serves as either the client or as collaborator. Ideally, one sociologist or anthropologist should focus on problems of long-term residents and another should concentrate on the lives of newcomers. The social scientists should also work hand in hand with the citizens' group which is confronting local sociocultural problems as suggested above. Although there are no foolproof remedies for the disruptions that accompany transformation of homogeneous communities into heterogeneous ones, actions to harness the experience of local residents

and professional judgements of social scientists promise a constructive approach toward alleviating the sociocultural impacts of energy development. What energy company executives should do in response to such community efforts is to institute incentives which encourage participation, but not domination, by company employees.

VII SUMMARY

The opportunities for company-community cooperation in mitigating energy facility impacts are substantial.

- The incentives for private companies to cooperate originate in the profit motive and in corporations' intent to maintain a long-term viability. Impact mitigation fosters the positive relations with communities hosting their facilities which are essential to energy company plans to maintain long-term growth. Corporate profit depends on low employee turnover and high worker productivity which, in turn, requires that each facility's environs be acceptable to workers. For both reasons corporate mitigation of adverse impacts is in the interest of energy companies.
- The incentives for communities to cooperate originate in the difficulties of managing rapid growth coupled with the considerable resources which energy companies can potentially bring to bear on community growth problems: capital, technical and managerial expertise, and ability to rapidly take action.
- Things companies can do to help include pre-payment of local taxes, underwriting the cost of needed public facilities or services, guaranteeing of municipal bonds, making loans to local government, providing technical or planning assistance, supervising the construction or operation of public facilities, and monitoring the social impacts that accompany energy development despite mitigation programs.
- To interest energy companies in conducting impact mitigation, communities can adopt taxation and regulation policies that permit energy development, promise to widely publicise the local effects of energy development both beneficial or adverse, and demonstrate a substantial intent and ability to act in cooperation with the company.

APPENDIX A
COMPANIES AND INDIVIDUALS INTERVIEWED

- L. Atlantic Richfield Company
 - A. R. Gale Daniel
 - B. Frank Friedman
 - C. Robert E. Huff

- II. Missouri Basin Power Project
 - A. Russell Bovaird (Tri-State Generation and Transmission Assoc. Inc.)
 - B. Robert Valeu (Basin Electric Power Cooperative)

- III. Exxon Company, U.S.A.
 - A. Robert Lindauer
 - B. George L. McGonigle (Friendswood Development Company)
 - C. Robert M. Perry
 - D. Robert H. Quenon (Monterey Coal Company and Carter Oil Company)
 - E. C. E. Smith, Jr. (The Carter Mining Company)

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