In 1991 the Land and Water Fund of the Rockies (LAW Fund), a regional environmental organization, started an Energy Project with two lawyers and a scientist to challenge the energy-efficiency, renewable-resource and environmental-protection practices of utilities in the vast six-state Rocky Mountain region. Within three years, Colorado and Utah had adopted comprehensive integrated resource planning (IRP) rules, and several utilities had developed plans to expand their demand-side management (DSM) activities. We discuss the role that this small band of lawyers and policy analysts played in stimulating these changes, based on our first-hand experience with the LAW Fund. We also comment on the substantial influence and valuable services that such a small group can provide.

Introduction

The six states of the Rocky Mountain region, Colorado, Wyoming, Utah, Nevada, Arizona and New Mexico, are fast growing and rich in renewable resources as well as in coal, oil and gas. Until recently, utilities have been slow to adopt energy efficiency and renewable as resources that displace traditional power plants. Although the region’s population and economy are growing, and although the region possesses the nation’s largest concentration of wind and solar resources, its utilities have been slow to tap energy efficiency and renewable resources. The Rocky Mountain utilities lag far behind Washington, Oregon, and California, their western neighbors, in developing these resources to reduce electricity bills, reduce the pollution effects of electricity generation, and reduce the risk of fossil-fuel price escalation.

Figure 1 shows why the LAW Fund is so concerned about the environmental effects of electricity production. The six-state region depends on coal for more than 80% of its electricity generation, compared with 55% for the nation as a whole. This coal dependence has substantial environmental effects related to land use, water pollution, and especially air pollution and global warming. Per Btu of energy, coal is the “dirtiest” of the fossil fuels. The region’s status as an exporter of electricity compounds the problems associated with its reliance on coal. In many respects the Rocky Mountain region is an energy colony, exporting clean electricity to other states while retaining much of the pollution. The region’s utilities, as of 1991, were spending much less money on programs to improve customer energy-efficiency than were utilities in other regions. Finally, renewable resources (e.g., biomass, photovoltaics, solar thermal, and wind) accounted for a much smaller share of generating capacity in the Rocky Mountain region than in the nation as a whole.

Because of these problems, the LAW Fund created the Energy Project in early 1991 with a staff of two lawyers and a scientist. (The LAW Fund, started in 1990, is a regional environmental law center that provides legal support to local environmental groups throughout the Rocky Mountain region.) The Energy Project focuses on the use of DSM programs, renewable resources, and IRP as ways for electric and gas utilities to deliver desired energy services to their customers at minimal environmental cost. The Energy Project works on state-specific and regional issues in the six-state Rocky Mountain region.

We each spent a year with the LAW Fund and can therefore report our observations both as participants in LAW Fund projects and as independent observers. Hirst, a national laboratory researcher with an engineering background, worked with the LAW Fund from mid-1992 to mid-1993. Swanson, a public utility commission (PUC) manager with an economics background, has been with the LAW Fund for a year beginning in September 1993.
The Energy Project, of course, did not introduce DSM and renewable resource development to the region. In many states PUC staff, state energy offices or local advocacy groups have addressed these subjects. The progress such groups have made varies widely. The Arizona Corporation Commission (ACC), for example, already had issued an IRP rule, and had initiated steps to address the obstacles to utility DSM activity posed by the regulatory link between profits and sales. Utah and Colorado, on the other hand, had made little progress on these issues before the Energy Project intervened.

Strategy

The Energy Project’s overall goal is to reduce the environmental impacts of energy, especially electricity production. To achieve that goal, it promotes regulatory changes that would encourage utilities to make greater use of DSM and renewable resources. The DSM strategy seeks to ensure that utility shareholders are at least as well off if the utility runs DSM programs as if it does not. The renewable strategy focuses on acquisition of those resources that are currently cost effective (e.g., wind in some locations) and development of promising renewable to accelerate their progress toward being cost effective.

Although much of its work is state-specific, the group’s goals are regional. It is the only organization in this region that can take a regional perspective on the environmental effects of electricity production. Utilities and PUCs have much narrower geographical boundaries. This broad view enables the LAW Fund to participate in activities such as the Grand Canyon Visibility Transport Commission as a proponent of DSM and renewable to reduce air pollution throughout the West, and to work with the Western Area Power Administration to expand utility use of DSM and renewable in its 15-state region.

Two elements characterize the Energy Project’s approach. The first is cooperation, a genuine interest in and effort to work with, rather than litigate against, utilities and other parties. The second is technical competence. The LAW Fund’s presentations in various dockets are unique in their breadth and depth.

Pursuit of an environmentally benign energy future goes beyond compliance with today’s laws. The LAW Fund is concerned about the possibility of future restrictions on air pollution related to visibility in the region’s national parks, local visibility in major cities (e.g., Denver’s brown cloud), and possible health effects of small (<10 micron) particulate matter. Obviously, given the region’s heavy dependence on coal, we are concerned about the effects of future limits or taxes on carbon dioxide.

Increasingly, the region’s utilities face, or are concerned about the prospects of, increased competition. While these pressures currently occur primarily at the wholesale rather than the retail level, utilities are more and more worried about any actions that might increase short-term rates. Although DSM and renewable could lower costs (and perhaps prices) in the long term and provide utilities with a competitive advantage, utilities are reluctant to undertake major efforts in these areas because of their possible short-term price impacts.

Figure 1. Comparison of six-state Rocky Mountain region with the U.S. as a whole on key electricity factors. (The bars show values for the Rocky Mountain region relative to the U.S. totals)
Activities

The Energy Project, since its inception, has had a “pedal to the metal” pace in its pursuit of regulatory reform. At times, this means that the staff is spread thin, working long hours to prepare materials for the sometimes overlapping schedules of regulatory dockets in several states.

The Energy Project began work in 1991 with opposition to a proposed rate-case settlement involving Public Service Company of Colorado (PSCo), the state’s largest utility. This opposition was influential in the Colorado PUC’s establishment of four dockets. These dockets dealt with (1) IRP, (2) a collaborative to design DSM programs with PSCo, (3) decoupling and incentives for DSM to ensure that PSCo shareholders would not be hurt by the company’s DSM programs, and (4) low-income energy-efficiency programs.

The Energy Project also began work in three other states. It participated in the development of an IRP rule in Utah and reviewed the IRP report prepared by PacifiCorp and submitted to the Utah Public Service Commission (PSC). Project staff also served on an ACC task force dealing with environmental externalities. And the Project filed comments with the New Mexico PSC on its proposed IRP rulemaking process.

In June 1992, the Colorado PUC held three weeks of hearings on its IRP and decoupling/incentives dockets. This was a grueling time for the staff because these were the first major cases in which the Energy Project was participating. The Project sponsored several witnesses in both dockets and actively cross-examined witnesses throughout the hearings.

Integrated Resource Planning

During fall 1992, we filed comments with the Colorado PUC, presented oral testimony, and then waited for the PUC to issue its final IRP rule in December 1992 (Colorado PUC 1992). We were delighted that the rule followed closely the one that we had proposed. The final rule differed from our proposal in only two major respects. First, although the rule emphasized the importance of environmental externalities in resource planning, it did not require the utilities to quantify and monetize these externalities. The rule gave the utilities considerable flexibility, subject to subsequent PUC review and approval, to decide how to incorporate these externalities into their planning. Second, although the rule emphasized the importance of nonutility participation in development of the IRP, it did not include the participation fund that we had supported.

The Commission’s adoption of an IRP rule similar to the one we had proposed was a watershed event for the Energy Project. This rule demonstrated to the utilities and others that we had some “clout” and were a force to be reckoned with. Before approval of the rule, the utilities (indeed virtually all the parties in Colorado) often treated us as “new kids on the block.” Even more important, the rule set the utilities on a new path that we felt would lead to much more benign (and ultimately cost-effective) resource selections than had occurred in the past.

We used the opportunity of the PUC’s IRP rule to publish the Energy Project’s first report (Hirst, Driver, and Blank 1992). We called the report Trial By Fire because our proposed rule had been subjected to intense scrutiny and criticism—and had survived. Therefore, we thought that PUCs, environmental groups, and utilities in other states would be interested in what we had developed. The report not only provided information useful to other parties, it also helped strengthen our professional credentials. Subsequent publication of an article summarizing the report in Public Utilities Fortnightly helped this process along.

As soon as the ink was dry on the PUC’s rule, we contacted executives at PSCo with offers to help in the preparation of its resource plan. During the next several months, we met with staff and executives at the utility and participated in IRP technical working groups. For example, we sent PSCo a several-page memo in May 1993, based on our review of the PSCo draft IRP. Our primary goal in these activities was to make the IRP process work for both the utilities and their customers. We were determined, and largely successful, in keeping the working group meetings focused on substantive issues and free of procedural wrangles. In March 1994, we submitted testimony to the Colorado PUC on PSCo’s October 1993 IRP report. Although generally supportive of PSCo’s planning process and plan, we suggested additional DSM programs and renewable resources to consider.

In March 1994, we testified on all three resource plans submitted to the Colorado PUC in October 1993. In an unusual move, we cosponsored testimony with PSCo on the WestPlains IRP. We criticized WestPlains’ poor IRP because we felt that IRP could not be sustained in Colorado unless all the utilities, both large and small, are held to similar standards for DSM and renewable analysis and action.

The Energy Project reviewed the IRP reports filed by the Arizona utilities and became active in the ACC’s IRP docket in September 1993. This was the second round of IRP review in Arizona, so the Energy Project concentrated its efforts primarily on the DSM and renewable-resource commitments of Arizona utilities. We focused on
Arizona Public Service (APS) Company’s IRP because APS is by far the state’s largest investor-owned utility.

The ACC staff is a strong advocate of renewable resources and had already done much to promote effective utility DSM programs. This enabled the LAW Fund to focus on changes needed to accelerate the pace of renewable-resource development and to expand DSM programs to levels that would capture a significant share of the state’s DSM resource.

Before the formal proceedings began, we met informally with APS executives and staff to acquire a good understanding of their interests and to assess the willingness of the company to address the Energy Project’s objectives. These off-the-record discussions are an important element of the Energy Project’s modus operandi. They enable the Energy Project to communicate its key interests and to seek opportunities to design recommendations that accommodate utility concerns. The Energy Project also consulted with the ACC staff and other parties in the Arizona IRP proceeding for the same purpose. The Energy Project places a high priority on seeking accommodation, and on showing the Project to be both a skilled advocate of its cause and reasonable in its willingness to understand and respect the interests of utilities and other key parties.

To present the Energy Project case in Arizona’s formal IRP hearings, we assembled a strong combination of policy witnesses and technical experts to present testimony. The witnesses included IRP and renewable experts from two national laboratories, a state PUC, and a LAW Fund economist testifying on policy issues, DSM, and renewable (Swanson 1993). The Commission and Commission Staff welcomed the contributions of our witnesses, viewing their participation as bolstering the record in the proceeding. This response appeared to make the utilities more willing to respond positively to Energy Project proposals. By the end of the hearings, APS had agreed to adopt several Energy Project renewable-resource proposals and the Staff had embraced several other proposals.

Removing Disincentives to Utility DSM

We were active proponents of revenue-per-customer (RPC) decoupling before the Colorado PUC, in testimony filed with the Commission in 1991 and at the June 1992 hearings. At a September 1992 hearing, all the other parties to the case offered a settlement. We argued strongly against the settlement and for RPC decoupling. In February 1993, the Commission issued its decision (Colorado PUC 1993). It agreed with us that the net lost revenues caused by DSM programs create serious problems for utility shareholders under current regulation and that these problems need to be addressed. The Commission disagreed with our view that RPC decoupling was an acceptable solution. Although the Commission expressed concern with the settlement proposal, it accepted that proposal for the limited purpose of the DSM collaborative programs, primarily because the Commission had no other viable options from which to choose. Because of this dilemma, the PUC decided to consider incentives and decoupling again in PSCo’s 1993 rate case, which was set to begin in March.

We learned two lessons from the Commission’s decoupling decision. First, before we propose a solution, we need to understand its operation and implications thoroughly. We had not considered the types of problems that arose with RPC decoupling in Washington and Maine and therefore had no response to those problems for the Colorado PUC (Hirst 1993). Second, we need to keep clear the distinction between our goals (in this case, make DSM no less profitable for utility shareholders than any other resource) and our proposed solution (in this case, RPC decoupling). We focused so sharply on our preferred mechanism that we were unwilling to participate in developing a compromise mechanism [e.g., a net-lost-revenue adjustment (NLRA)].

We prepared a LAW Fund report, based on our participation in the decoupling/incentives docket, that quantified the magnitude of the lost-revenue problem for a PSCo-like utility (Hirst and Blank 1993). The report also discussed the various solutions that had been tested and considered to deal with lost revenues. Preparation and distribution of this report helped strengthen the LAW Fund’s standing among our professional peers. In addition, the comments we received from reviewers of the draft report were helpful in shaping our thinking about future directions in the new Colorado decoupling/incentives docket (Hirst 1993). And the spreadsheet we developed for this report (an expanded version of one we used for our September 1992 testimony) proved useful in three later dockets in Colorado, Nevada, and Utah.

During the first half of 1993, our efforts focused strongly on the decoupling/incentives issue, with dockets in Colorado, Nevada, and Utah. We filed comments in January with the Nevada PSC and participated in a Nevada PSC workshop that month. Although we argued strongly against the consensus proposal to provide utilities with an extra 5% return on equity for DSM investments, our intervention was fruitless. The Nevada PSC approved the 5% “kicker.” In retrospect, we probably entered this case far too late in the process.

We also participated in a series of workshops sponsored by the Utah PSC and PacifiCorp. These workshops dealt with decoupling and incentives for DSM programs to be run by PacifiCorp. Our work in Utah and in Colorado, during the first half of 1993, moved very much in
parallel. This was one of the few times when we could comfortably apply work from one jurisdiction to another.

The Utah workshops resulted in a consensus recommendation to the Utah Public Service Commission. The Commission, in early 1994, approved the recommendation, which established a one-year experimental NLRA mechanism (Utah PSC 1994). The recommendation also set up a one-year numerical experiment to test the performance of statistical recoupling, a form of decoupling that minimizes rate volatility (Hirst 1993). The LAW Fund plays an active role in the ongoing Utah collaborative to implement these mechanisms and associated DSM evaluation methods.

The Colorado DSM decoupling/incentives docket involved formal testimony, rebuttal testimony, and surrebuttal testimony filed in 1993. During this period, the Energy Project participated in several negotiating sessions with the other parties to this case. Ultimately, these negotiations paid off, with a settlement agreement reached only a week before formal hearings were to begin in February 1994. The settlement included a NLRA as the default mechanism, with a one-year study period to explore fully the other alternatives proposed during this case. The Colorado PUC approved the settlement. The LAW Fund will play a lead role in these further deliberations.

Renewable

The LAW Fund’s work on renewable began in 1992 with background research to identify the amounts and costs of various renewable available in the Rocky Mountain region. The background work also included development of a network of professionals involved in renewable research and application. The results of this work were presented in an April 1993 report to the Grand Canyon Visibility Transport Commission. The report, produced by the LAW Fund and the Environmental Defense Fund, provided a regional assessment of the renewable and DSM resources that could reduce visibility-impairing emissions from electricity generation.

We used the Arizona IRP proceeding to first address the role of renewable in a utility’s IRP. The ACC staff had earlier presented considerable analysis to support its recommendations that the utilities should increase their investments in renewable resources. The LAW Fund supported the Commission staff and introduced suggestions calling for greater utility investment and for use of a “tool box” of regulatory policies and utility actions in subsequent resource plans. Two of the larger Arizona utilities, APS and Tucson Electric, adopted several of our recommendations. We were the only intervenor to address renewable in the Arizona IRP docket.

We next took our renewable case to the PSCo IRP in testimony filed with the Colorado PUC in March 1994. Three LAW Fund witnesses addressed renewable; experts from the National Renewable Energy Laboratory testified on wind and solar resources and Swanson testified on policy issues. We presented economic analyses showing wind to be a cost-effective resource for PSCo and recommended three PSCo actions: (1) increase commitment to wind from 11 MW to 50 to 75 MW, (2) prepare a comprehensive renewable-resource plan as part of the 1996 IRP, and (3) include in that plan a setaside for solar capacity. The LAW Fund was the only nonutility party in this proceeding to address renewable resources.

In early 1994, we approached Nevada Power Company (NPC), then in the midst of preparing its IRP filing for the Nevada PSC, on the role of renewable in its plan. We are working with NPC to support and strengthen the company’s renewables-acquisition proposals. Our testimony in the forthcoming NPC IRP docket may prove important in balancing the concerns of the Commission staff about the possible short-term rate impacts of renewable against the environmental benefits of renewable.

Developing a Sustainable Energy Future

All of the Energy Project’s work is aimed at building a sustainable energy future for the Rocky Mountains. By sustainable, we mean a future in which the region provides energy services in a way that maintains both a healthy economy and a healthy environment. Because this general goal provides little practical guidance for policy makers and utilities, the LAW Fund is preparing a major report, a “vision” piece, to define the practical choices required to realize such a sustainable future.

This project, begun in mid-1993, has four phases. First, the Energy Project developed a great deal of technical information about resource options and their regional prospects, and is using this information to provide a sound technical basis for the “vision.” Second, the Project conducted meetings with environmental groups in each of the six states. Third, the Project facilitated meetings, again in each of the six states, with high-level representatives of utilities, state agencies, and other stakeholders. The Energy Project worked hard to engage the many divergent interest groups in each state to hear their concerns and their views about the future. Fourth, the Energy Project is preparing, based on the first three phases, a report to present what we hope will be a consensus view of an environmentally-benign energy future for the Rocky Mountain region.

This future orientation led the LAW Fund to face the prospects of substantial changes in electricity markets and
utility regulation sooner than many other groups did (Blank 1993). On more than one occasion, the LAW Fund surprised utility executives and regulators by showing a thorough knowledge of current issues and a willingness to develop new approaches to meet environmental objectives that respond to the prospects of increased competition in electricity markets.

Other Energy Project Activities

The preceding pages describe a few cases on which we focused our time and attention. We were also active in many other matters, including low-income and gas IRP docket in Colorado, participation in PSCO’s DSM collaborative, opposition to construction of a coal plant in Wyoming, advocacy of IRP rules in Wyoming and New Mexico, participation in the Grand Canyon Visibility Transport Commission as proponents of DSM and renewable to reduce air pollution in the West, discussions with the Western Area Power Administration on its IRP rules and DSM technical assistance, discussions with the City of Colorado Springs utility on its IRP and DSM efforts, and review of the IRP report and planning process of PacifiCorp.

In 1994, the Energy Project worked with various parties in New Mexico to develop an IRP rule. The rule proposed by the New Mexico PSC for public comment is based largely on the rule we proposed in Colorado. We are also working with Nevada Power Company on the design of new DSM programs as the company develops its IRP to be submitted to the Nevada PSC late this year.

Tactics

The preceding discussion suggests that the Energy Project accomplishes a great deal, which is especially surprising given its very small staff of four professionals. Several factors account for this success.

First, the competence and dedication of the Energy Project staff are first rate. Perhaps because salaries are low at public-interest organizations, only those with considerable commitment to the organization’s goals work there. In addition, the Energy Project staff has a good mix of legal and technical backgrounds and skills.

Second, the group is committed to presenting comprehensive and substantive cases in each docket in which it participates. For example, in the 1993 PSCo IRP docket, the LAW Fund sponsored nine witnesses. These people presented expert testimony on IRP policy and practice, DSM from national and state perspectives, wind and solar technologies, utility renewable activities, risk analysis, and the health effects of air pollution. The witnesses included staff from two national laboratories, a state PUC, a national consulting firm, a local energy-service company, a university, a hospital, and a state health department. The LAW Fund’s interventions in these cases allow the PUC and other parties access to national experts who might otherwise not be available in that state.

Third, the LAW Fund seeks to work cooperatively with utilities, PUCs, and the other parties. Unlike some advocacy groups that thrive on “in your face” confrontation, the LAW Fund listens carefully and respectfully to the opinions and concerns of other parties. To illustrate, our DSM advocacy has been substantially affected by recent utility concerns about increasing competition (Blank 1993). Our collaborative approach has paid off. Whereas two years ago we were often viewed as the “new kids on the block,” we are now considered an important participant in various proceedings.

Fourth, the LAW Fund, in part because of its limited budget and small size, has virtually no bureaucracy. As a consequence, Energy Project staff are free to devote almost all their time to the technical and legal issues associated with electric-utility planning, DSM, renewable, and regulation.

Although the LAW Fund has achieved much with very limited resources, we make mistakes. We constantly struggle to choose among competing demands to decide what to do and what not to do. These choices are difficult because there are many environmental issues but few other organizations able to advocate environmental concerns in regulatory proceedings in the Rocky Mountain region.

A group of only four people that works in six states on DSM, renewable, and IRP has to make difficult choices. These choices include the selection of projects on which to work, the amount of time and effort to devote to each project, deciding when and how to negotiate with other parties, building bridges to other organizations, use of the media, and participation in state political processes (Hirst 1994). These choices are often more difficult than for similar organizations in other regions because any meeting outside Colorado means incurring high travel costs.

Perhaps the biggest challenge facing the Energy Project is building a solid foundation for its own future. Because the work week is filled with the details of our various projects, we take almost no time to define a future strategy for the Energy Project. The Energy Project has been successful in obtaining grants from charitable organizations, its primary means of support. But this year-to-year funding makes it difficult to institutionalize the LAW Fund’s role in the region. We need to prepare a long-term plan that identifies LAW Fund goals, the resources needed to achieve these goals, and possible sources of funding.
We also need to develop a human-resource plan to ensure the hiring and development of needed legal and technical staff.

**Conclusions**

Based on our experiences with the LAW Fund, we believe that small environmental organizations play a vital role in reforming utility regulation. These groups offer perspectives and technical expertise that is not available from other parties. Many of the other parties in utility resource-planning cases represent special interests such as low-income households, large industrial customers, or utility shareholders. The government agencies charged with protecting the public interest are, in our view, often timid in their approaches to balancing short-term economic concerns with long-term sustainability. Only the environmental groups such as the LAW Fund are willing and able to mount strong, credible defenses of strategies to protect our physical environment.

These environmental groups, because of their small size, clear focus, limited budgets, and dedicated staff, are very productive in deploying their human and financial resources.

The LAW Fund (and by implication, like organizations throughout the country) faces major challenges. The primary challenge comes from the rush to increase competition in the electric-utility industry. Environmental groups are almost alone in working to preserve the environmental gains made in DSM, renewable, and IRP through recent regulatory reforms. The LAW Fund will need to develop new strategies, including those that do not necessarily involve PUC proceedings, to promote DSM and renewable in a more competitive environment. The LAW Fund’s “vision” piece will play an important role in achieving this goal.

In addition, the LAW Fund needs to sustain its foundation funding, and institutionalize its staffing. It is especially important that it attract, retain, and grow the kinds of high-quality staff it now has.

**References**


