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OFFICE OF THE LEGISLATIVE AUDITOR

STATE OF MINNESOTA

Evaluation Report Summary / October 2010

Renewable Energy Development Fund

The Renewable Development Fund was created to help develop renewable sources of electricity, but its impact so far has been limited.

Major Findings:

- Since 1999, Xcel Energy has transferred about $165 million into a Renewable Development Fund (RDF), as directed by state law. The fund was established "for development of renewable energy sources," and grants from the fund were initially awarded entirely by the Public Utilities Commission (PUC).
- During the past decade, the Legislature has broadened the RDF's allowable uses, and administrative responsibility for RDF-funded projects has grown more diffuse. Increasingly, the Legislature has played a role in the allocation of RDF funds.
- RDF project costs are borne mainly by Xcel Energy's Minnesota ratepayers. However, representatives of these ratepayers have not been adequately involved in RDF project selection processes.
- Many RDF projects have helped advance knowledge about renewable energy technologies, but a much more limited number have directly contributed to the deployment of these technologies in Minnesota.
- There has been inadequate public communication of RDF-funded project findings and information on the status of the fund.
- Most RDF grants have been awarded using reasonable administrative processes, but there are some inconsistencies among RDF administrators in grant selection criteria and oversight.
- The RDF is maintained by a private corporation outside the state treasury—an unusual arrangement for a state-mandated account.
- State law does not address the use of RDF funds for administrative purposes.

Key Recommendations:

- The Legislature should consider adopting a single process—with clearer criteria—for approving projects to receive RDF grants, assigning authority for final decisions to either the PUC or the Legislature.
- If the Legislature opts to have the PUC approve all projects, it should clarify the purpose and structure of the board that now advises the PUC on project selection.
- If the Legislature prefers to assume final authority for all RDF grant awards, it should (1) create an advisory board to help select projects and (2) designate the RDF as a state fund.
- The Legislature should require that reports on individual projects and the RDF's overall financial status be posted online, preferably at one public Web site.
- The Legislature should amend state law to address the use of the RDF for administrative costs.

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The RDF is maintained by a private company and subject to minimal state oversight, but it has been accessed by the Legislature as if it were a state fund.

Xcel Energy's Minnesota ratepayers pay for most RDF costs, but they are not always represented in RDF project selection processes.

Report Summary

The 1994 Legislature mandated the creation of the Renewable Development Fund (RDF) for the purpose of developing renewable sources of electricity, such as wind, solar, and biomass. Xcel Energy—as operator of the state's nuclear power plants—was required to annually transfer funds to the RDF as part of legislation that allowed Xcel to store spent nuclear fuel at its Prairie Island nuclear plant (and later its Monticello plant). Since 1999, Xcel has transferred about $165 million into the RDF, and Xcel recovers RDF expenditures from its ratepayers.

Through mid-2010, about 200 grants had been made with RDF funds. Nearly half focused on biomass as an energy source. About 86 percent of RDF grants were awarded to Minnesota-based grantees.

The RDF is not part of the state treasury, but the Legislature has increasingly designated how its revenues are used.

The RDF is maintained by Xcel Energy, not a state agency. The Legislature apparently established the RDF as an account outside the state's budget process to discourage its use by future legislatures for purposes other than those originally envisioned.

As a non-state fund, the RDF is subject to limited review by executive branch finance staff, and it has not been subject to financial audits by the Office of the Legislative Auditor. Rarely have funds been established in a similar way in Minnesota state government.

State law says expenditures from the RDF may only be made with the approval of the Public Utilities Commission (PUC). Increasingly, however, the Legislature has played a role in the allocation of RDF funds, transferring them to various agencies to administer legislatively specified initiatives. Also, the Legislature has broadened the RDF's allowable uses, authorizing projects that go beyond the original purpose of developing renewable sources of electricity.

Because the Legislature has accessed the RDF as if it were a state fund, the Legislature should consider making the RDF part of the state treasury and subject to the state's budgeting and oversight processes. This would subject the fund to greater accountability. The Legislature should also consider whether a fund intended to foster renewable energy development throughout Minnesota should continue to be funded by a single utility. However, we do not recommend extending RDF financial obligations to other utilities unless the Legislature establishes a clear rationale in law for collecting such revenues.

Fragmentation of RDF administration has contributed to inconsistencies in project selection and grants management.

Originally, the PUC approved all RDF projects and grantees. The PUC still plays a role in approval and oversight of certain projects, but the Legislature, Department of Commerce, and University of Minnesota now also select projects (without direct PUC participation).

Most RDF grants have been awarded on the basis of reasonable administrative processes for project selection—for example with proper solicitations of proposals and involvement of outside experts. However, fragmentation of administrative responsibilities has contributed to some important inconsistencies.

For example, Xcel Energy ratepayer representatives are involved in the selection of projects approved by the PUC, but they are not formally represented in the selection of other projects. Also, while RDF reports overseen by Xcel Energy acknowledge the role of the RDF and Xcel ratepayers, the reports overseen by the University of Minnesota and Department of Commerce usually do not. In addition, some types of projects that the PUC has deemed ineligible for RDF funding—such as projects not related to electricity production—have been authorized by the Legislature. Furthermore, Xcel Energy and the Department of Commerce enter into formal contracts with grantees, but the University of Minnesota does not.

State law references a PUC-created advisory body (the RDF Board) in the project selection process, but the law does not adequately specify the composition and purpose of the board. The Legislature should clarify the role of this board.

The Legislature should also consider consolidating the RDF project approval process, rather than continuing with multiple avenues for allocating RDF revenues and authorizing projects. Options for consolidation include (1) relying on a regulatory body (the PUC) to select all projects (as originally prescribed by the RDF law) or (2) establishing a process in which the Legislature would authorize all RDF projects based on input from an advisory body (perhaps a modified version of the RDF Board). The latter option should only be considered if the Legislature brings the RDF into the state treasury and therefore under its budgetary authority. Under either approach, the Legislature should consider adopting clearer statutory criteria to guide the selection of RDF projects.

The RDF's impact on electricity generation has been limited, partly reflecting the types of projects funded.

Many RDF projects have improved knowledge about renewable energy, but the RDF's direct impact on the deployment of these technologies has been limited.

Some RDF-funded grants have aimed to create or refurbish facilities that produce renewable energy. Overall, these grants have had a small impact on Minnesota's electricity generation. In 2007, the electricity produced as a result of these grants equaled less than 0.1 percent of the electricity generated statewide.

Also, some large RDF grants have not led to the creation of energy production facilities that were intended. For instance, a firm spent $10 million in RDF funds to design and plan a "clean coal" plant for which the PUC has not authorized a purchase of power agreement. Another RDF grantee's plans for a hydroelectric facility have been stopped by its inability to obtain a lease of city park land.

RDF-funded "incentive payments" to existing renewable energy facilities have had a somewhat larger impact.[1] In 2007, the electricity produced by these facilities equaled about 1.5 percent of the electricity generated by Minnesota utilities.

Most RDF grants have been for "research and development" projects that address underlying questions about new technologies. While some RDF research projects have contributed to tangible outcomes—such as licenses for commercial uses of technology, or patent applications—most have not had impacts this direct. This partly reflects the fact that many projects approved by the University of Minnesota or PUC have involved preliminary stages of research for unproven technologies (such as new types of photovoltaic cells to capture solar energy). Often this research has involved exploration of basic scientific concepts and assumptions, not applications in the later stages of technology development or ones related to specific Minnesota users.

Early-stage research can be an important part of technology development, but it is unusual for this type of research to be funded by individual states' renewable energy initiatives or the ratepayers of an individual utility. There is probably a role for RDF-funded research of this sort, but our report suggests that the

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[1] Under Minnesota's Renewable Energy Production Incentives program, payments are made to facilities based on the actual amount of electricity produced.

The findings of RDF projects have not been adequately conveyed to policy makers and persons who might put this research to use.

Legislature sharpen the focus of the RDF by stating in law a preference for projects with direct Minnesota benefits "where reasonable."

Communication of RDF information has been inconsistent and sometimes inadequate.

Clear communication of RDF project results provides accountability to policy makers, the general public, and ratepayers, and it can also help ensure greater use of the reports.

No single report has presented the Legislature or others with a clear, consolidated overview of all RDF activities, such as a list of all RDF-funded projects. Also, there is no single Web site that provides links to all RDF-funded reports. This partly reflects the fact that RDF projects have been administered by multiple entities. For example, Xcel Energy has provided online links to all final reports issued by the grantees it oversees on behalf of the PUC. However, there are no Web sites with links to all of the RDF reports overseen by the University of Minnesota and Department of Commerce.

Furthermore, the adequacy of individual RDF reports has varied. Many of the reports are challenging to understand—especially for nonexperts, but also for some readers with more technical knowledge. Some of the reports lack the details that might be useful to other researchers, to persons interested in putting the technology to use, or to people who want to better understand what was accomplished with large grants through a publicly authorized program.

State law should address possible uses of RDF funds for administrative costs.

State law does not explicitly address whether—and which—administrative costs can be paid for from the RDF. Xcel Energy and the University of Minnesota have paid for certain RDF administrative costs with RDF funds; the Department of Commerce generally has not.

The PUC has adopted a policy capping the RDF-funded administrative costs borne by Xcel Energy, but this cap does not apply to other entities administering RDF funds. In addition, there have been differing interpretations of the PUC's administrative cost cap.

Summary of Agency Responses

In a letter dated October 12, 2010, Public Utilities Commission Chair David Boyd said the OLA report provides the Legislature and stakeholders with "a solid foundation" to explore the purpose, structure, and oversight of the RDF. He said a centralized approval process—by either the PUC or Legislature—"could be an important strategy" to improve the RDF's coordination and accountability. Boyd said that if the Legislature assigns this role to the PUC, it should consider authorizing the PUC in law to approve projects administered by entities it does not otherwise oversee, such as the Department of Commerce and University of Minnesota. He said if the Legislature decides instead to approve RDF projects itself, it should consider adopting a statewide funding mechanism for the RDF.

In a letter dated October 12, 2010, Xcel Energy Director of Regulatory Administration James Alders said the OLA report is "thorough" and "fair." He said Xcel would prefer to administer RDF resources "with the oversight of the [PUC]."

In a letter dated October 11, 2010, Jonathan Foley and Richard Hemmingsen of the University of Minnesota said they would act "in the very near future" to implement some of the OLA report's recommendations, such as posting final reports online. They advocated having a governing board of legislators and ratepayer representatives provide guidance, oversight, and coordination on RDF projects, while preserving the strengths of the University's "rigorous and effective" project selection process. They also favor having the RDF support a broad range of renewable energy projects, not just projects related to renewable forms of electricity.

The full evaluation report, *Renewable Energy Development Fund*, is available at 651-296-4708 or:
www.auditor.leg.state.mn.us/ped/2010/rdf.htm