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Office of Inspector General
Midwest Region

Audit Report

Implementation of Renewable Energy Programs in Rural Business-Cooperative Service

Report No. 34601-0005-Ch
July 2008

UNITED STATES DEPARTMENT OF AGRICULTURE

OFFICE OF INSPECTOR GENERAL

Washington D.C. 20250

July 3, 2008

REPLY TO
ATTN OF: 34601-0005-Ch

TO: Ben Anderson
Administrator
Rural Business-Cooperative Service

THROUGH: John M. Purcell
Director
Financial Management Division

FROM: Robert W. Young /s/
Assistant Inspector General
for Audit

SUBJECT: Implementation of Renewable Energy Programs in Rural Business-Cooperative Service

This report presents the results of our audit of the Rural Business-Cooperative Service's renewable energy activities. Our audit evaluated the agency's key internal controls, as well as agency efforts to promote renewable energy projects, monitor program activities, and determine the effectiveness of renewable energy projects.

The agency response to the draft report, dated June 23, 2008, is included as exhibit B, with excerpts and the Office of Inspector General's position incorporated into the relevant sections of the report. Based on the response, we have reached management decisions on Recommendations 1, 2, 4, 5, 7, and 8. Please follow your agency's internal procedures in forwarding documentation for final action to the Office of the Chief Financial Officer.

Management decisions have not yet been reached on Recommendations 3 and 6. The Findings and Recommendations section of this report includes a description of the information needed to reach management decisions on these recommendations.

In accordance with Department Regulation 1720-1, please furnish a reply within 60 days describing the corrective action taken or planned and the timeframes for implementation for those recommendations for which a management decision has not yet been reached.

Please note that the regulation requires a management decision be reached on all recommendations within a maximum of 6 months from report issuance, and final action to be taken within 1 year of each management decision.

We appreciate the courtesies and cooperation extended to us by your staff.

Executive Summary

Results in Brief

This report presents the results of our audit of the Rural Business-Cooperative Service's (RBS) actions to support renewable energy activities within the U.S. Department of Agriculture (USDA). We conducted this audit as part of a Departmentwide effort to evaluate renewable energy activities. Thus, the results of this audit may be included in an overall report of USDA's renewable energy activities. We included RBS in this effort because it provides more loan and grant funds for the commercialization of renewable energy projects than any other agency within USDA.

Through legislation and initiatives, the President and Congress have in recent years placed significant emphasis on the development and commercialization of renewable energy ventures across the Federal Government. This emphasis addresses our nation's urgent need to reduce its dependency on foreign oil and cut greenhouse gas emissions. In 2006, the President proposed measures and goals through the Advanced Energy Initiative to change the way the nation fuels its vehicles and powers its homes and businesses.

The 2002 Farm Bill (Title IX, Energy) established the Renewable Energy and Energy Efficiency Improvement (Section 9006) Program for RBS. The Section 9006 Program is the largest in the Department with funds appropriated specifically for renewable energy activities. From fiscal years (FY) 2003 through 2007, the Section 9006 Program disbursed more than $198 million to fund 1,268 renewable energy projects. RBS' other programs, where funds were not appropriated specifically for renewable energy, disbursed another $234 million to fund an additional 260 renewable energy projects from FYs 2001 through 2007.

Our objective was to evaluate agency managers' actions and key management controls, within the Section 9006 Program and the agency's other programs where funds were not appropriated specifically for renewable energy activities. We found that RBS funded many worthwhile renewable energy projects that have had a positive impact. Those projects included ethanol and bio-diesel production facilities, wind and solar power generation projects, and landfill recovery systems. However, we identified several areas where the agency could improve its contribution to reducing the nation's dependence on foreign oil and in powering its homes and businesses with renewable energy sources.

We found that more emphasis could have been placed on renewable energy projects in the five programs where funds were not appropriated for that purpose. We determined that agency officials had not noticeably increased funding for renewable energy activities from FY 2005 to FY 2006 in these programs. For example, agency officials had increased funding for renewable energy projects in the Business and Industry (B&I) Program by only 3.3 percent of total expenditures. Also, agency officials had not expended a very large percentage of other program funds on renewable energy projects. For instance, three of RBS' five programs expended less than 7 percent of total program expenditures in FY 2006 on renewable energy projects. In our view, considering the emphasis placed on this issue by the President and Congress, more funds could have been directed to renewable energy projects.

We attributed the funding issue, in part, to field staff not using selection criteria developed by the national office that benefited applications involving renewable energy projects. The Rural Development officials at one of the States we visited did not use the criteria. Instead, they encouraged applicants to use the Section 9006 Program. This would not have been a concern except that the Section 9006 Program did not have sufficient funds for all renewable energy projects. In the two States we visited, 26 eligible applications for renewable energy projects went unfunded for FYs 2005 and 2006. Another factor was RBS' not having a strategy to use funds in those programs for renewable energy projects.

We also found that agency officials had not established procedures to perform pre-approval analyses of renewable energy projects for the Section 9006 Program or for the programs where funds were not appropriated for that purpose. As a result, RBS had not identified the projects that would provide the highest energy output per amount funded on the project. Further, agency officials had not analyzed the results of completed projects to compare expected and actual renewable energy outcomes. At the time of our audit, RBS officials had the information available to perform such an analysis, but they were not using it in this manner.

The agency had not developed effective and formal internal controls to prevent applicants from receiving duplicate funding from RBS' six programs with renewable energy activity. Further, there were no controls to detect duplication if it did occur. We found that the six agency programs funded similar types of renewable energy projects including solar, wind, thermal conversion, bio-diesel, and ethanol production facilities. Our limited testing did not uncover any instances of duplication. However, without formal procedures and controls there is an increased risk that duplicate funding will occur and not be detected by agency officials.

RBS did not accurately report renewable energy activities to the Office of Budget and Program Analysis (OBPA). We found that RBS underreported renewable energy activities to OBPA by over $38 million for FY 2006. We attributed the underreporting to agency officials' misunderstanding of reporting requirements and not contacting OBPA officials for guidance.

One important aspect of our audit work was to verify that funds reported as expended for renewable energy activities were actually used for that purpose. To accomplish this objective, we visited 80 renewable energy projects in 2 States and examined records related to 98 projects funded by RBS' six programs involved in renewable energy. Overall, we found no instances where funds spent on renewable energy projects were provided to ineligible applicants and no instances where funds specifically appropriated for renewable energy activities were diverted to other purposes.

Recommendations In Brief

We recommend that RBS officials develop and implement a renewable energy strategy that guides field staff on the appropriate funding priorities to be placed on those activities. We also recommend that agency officials establish procedures to (1) perform both pre- and post-approval analysis of renewable energy projects, (2) prevent duplicate funding within agency programs, and (3) ensure that renewable energy funding is accurately identified and reported to OBPA.

Agency Response

In their response dated, June 23, 2008, agency officials generally agreed with the findings and recommendations contained in the report. However, they did not provide specific procedures that will be taken to meet management decision on Recommendations 3 and 6. We have incorporated applicable portions of the response, along with our position, in the Findings and Recommendations section of this report. The agency's response is included in its entirety as exhibit B of the report.

RBS' response also noted that the agency has implemented numerous initiatives since the completion of our audit. Those initiatives included: efforts to work with OBPA to prevent underreporting of renewable energy activities, and with the Department of Energy to measure projected energy generation and savings; training for field managers on marketing renewable energy programs, which included a demonstration of the Social Economic Benefits Assessment System; an interagency agreement with the Department of Energy's National Renewable Energy Laboratory to assist in analyzing the technical viability of applications; and training for State Energy Coordinators and State Engineers/Architects related to processing renewable energy and energy efficiency applications.

OIG Position

We agree with the actions the agency has underway in response to our recommendations. We have reached management decision on Recommendations 1, 2, 4, 5, 7, and 8. For Recommendations 3 and 6, agency officials need to modify the scoring criteria to include projects having the greatest output per dollar spent, and develop and implement interagency procedures to identify and prevent duplicate funding for renewable energy projects within all RBS programs.

Abbreviations Used in This Report

B&I	Business and Industry Guaranteed Loan Program
FY	Fiscal Year
GLS	Guaranteed Loan System
kWh	kilowatt hours
OBPA	Office of Budget and Program Analysis
OCFO	Office of the Chief Financial Officer
OIG	Office of Inspector General
PATSy	Post Award Tracking System
RBEG	Rural Business Enterprise Grant Program
RBOG	Rural Business Opportunity Grant Program
RBS	Rural Business-Cooperative Service
REDLG	Rural Economic Development Loan and Grant Program
Section 9006	Renewable Energy/Energy Efficiency Improvement Program
Section 9008	Biomass Research and Development Grant Program
USDA	United States Department of Agriculture
VAPG	Value-Added Producer Grant Program

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Background and Objective

Background

Due to our nation's increasing dependence on foreign oil and environmental damage, the President directed members of his administration to emphasize renewable energy activities within their respective programs. Congress tasked the U.S. Department of Agriculture (USDA) to take on a leadership role in the renewable energy area as co-chair of the Governmentwide Biomass Research and Development Board.

Congress has enacted legislation in the last few years that significantly impacted renewable energy activities within USDA. This included the Biomass Research and Development Act of 2000; the 2002 Farm Bill, Title IX, Energy; and the Energy Policy Act of 2005. In 2006, the President proposed measures and goals to change the way the nation fuels its vehicles and powers its homes and businesses through the Advanced Energy Initiative. The Initiative directly impacted USDA by calling for cellulosic ethanol to be cost competitive with corn based ethanol by 2012.

In May 2007, the President directed USDA and other agencies to create regulations that would cut gasoline consumption and greenhouse gas emissions from motor vehicles, by using his "Twenty in Ten" plan to reduce U.S. gasoline consumption by 20 percent over the next ten years. In December 2007, the President signed the Energy Independence and Security Act, which requires the use of at least 36 billion gallons of biofuel by 2022.

The Rural Business-Cooperative Service (RBS) is one of three agencies within the Rural Development mission area. RBS provides loans and grants to individuals, corporations, partnerships, cooperatives, public bodies, nonprofit corporations, Indian tribes, and private companies. The purpose of these loans and grants is to enhance the quality of life for all rural residents by assisting new and existing cooperatives and businesses.

RBS programs include the: (1) Rural Business Enterprise Grant (RBEG) Program, which provides grants that finance the development of small and emerging rural businesses, distance learning networks, and employment related adult education programs; (2) Rural Business Opportunity Grant (RBOG) Program, which promotes sustainable economic development in rural communities by providing funding for technical assistance for business development, training for economic development officials, and economic development planning; (3) Rural Economic Development Loan and Grant (REDLG) Program, which provides funding to rural projects through local utility organizations; (4) Value Added Producer Grant (VAPG) Program, which helps accelerate the transformation of the nation's agricultural economy into one focused on producer-owned value added businesses; (5) Business and Industry (B&I) Guaranteed Loan Program, which guarantees loans to improve, develop, or finance business, industry, and employment and improve the economic and environmental climate in rural communities; (6) Renewable Energy/Energy Efficiency Loan and Grant (Section 9006) Program, which funds grants and loan guarantees to agricultural producers and rural small business for assistance with purchasing renewable energy systems and making energy efficiency improvements; and (7) Biomass Research and Development Grant (Section 9008) Program, which promotes innovation and development related to biomass.

RBS provides funding to a vast number of projects through these seven programs, including renewable energy projects. RBS spent $432 million between fiscal years 2001 through 2007 on renewable energy. Overall, RBS funded 1,528 renewable energy projects. Of the 1,528 projects, 1,268 were funded through the Section 9006 Program for $198 million; 181 through the VAPG Program for $28 million; 35 through the RBEG Program for $1.9 million; 25 through the B&I Program for $199 million; 9 through the REDLG Program for $4.6 million; and 10 through the RBOG Program for $483,000.

The types of renewable energy activities funded through these programs included ethanol and bio-diesel facilities, wind and solar projects, thermal conversion, anaerobic digesters, and energy efficiency building and industrial improvements. The Section 9006 and 9008 Programs are the only RBS programs allocated funding specifically appropriated for renewable energy projects. The other five RBS programs also fund renewable energy projects, but they provide funding for renewable energy projects through yearly program allocations. None of those funds are specifically allocated for renewable energy projects.

Objective

Our objective was to evaluate RBS' actions related to renewable energy funds. Specifically, we examined key internal controls, such as the eligibility of program participants, as well as RBS' efforts to promote renewable energy projects, monitor program activities, and determine the effectiveness of renewable energy projects. In addition, we ensured borrowers and grant recipients used funds appropriately and in compliance with laws and regulations.

Findings and Recommendations

Section 1: Renewable Energy Policies and Procedures

Rural Business-Cooperative Service (RBS) officials needed to place more emphasis on renewable energy activities. We noted that from fiscal year (FY) 2005 to FY 2006, agency officials had not noticeably increased funding for renewable energy activities in programs where funds were not appropriated specifically for that purpose. Further, we found that agency officials had not expended a very large percentage of overall funds on renewable energy projects from those programs. We attributed this to some State officials encouraging applicants to use the Section 9006 Program only for renewable energy projects. Thus, all such projects would be maintained in one program. Considering the emphasis placed on this issue by the President and Congress, more funds could have been directed to this area if those State officials had accepted renewable energy applications for all programs.

Agency officials had not established procedures to perform pre-approval analyses of renewable energy projects for the Section 9006 Program and the programs where funds were not appropriated for that purpose. As a result, RBS had not identified the projects that would provide the highest energy output per amount funded on the project, a criterion we consider critical. Further, agency officials had not established procedures to analyze the results of completed projects to compare expected and actual renewable energy outcomes.

Finding 1

RBS Needs To Develop a Process for Directing Eligible Funds to Renewable Energy Projects

RBS officials could have placed more emphasis on renewable energy projects in programs where funds were not appropriated for that purpose. We attributed this to some State officials encouraging applicants to use the Section 9006 Program, rather than placing a higher priority on applications involving renewable energy projects and funding them from other programs. Another factor was RBS' not having a strategy to use funds in those programs for renewable energy projects. As a result, RBS could have funded more renewable energy projects, which would have helped to reduce our nation's dependence on foreign oil and to power our homes and businesses with renewable energy sources. For FYs 2005 and 2006, 26 applications for renewable energy projects went unfunded in the two States in our review. In FY 2007, RBS had 421 unfunded renewable energy applications nationwide.

The President's Advanced Energy Initiative and recent legislation, in particular the Energy Policy and Energy Independence and Security Acts, emphasized the need for Federal agencies to increase their support of renewable energy activities. In response, RBS officials instructed program managers, through agency regulations, to consider as a priority the funding of renewable energy projects within agency programs where funding is not specifically appropriated for that purpose.[1]

We analyzed renewable energy activity in programs where funds were not appropriated specifically for that purpose and identified two concerns. First, agency managers had not noticeably increased funding for renewable energy activities from FY 2005 to FY 2006 (the last 2 years data was available at the time of our fieldwork). Second, they had not expended a very large percentage of overall funds, particularly in FY 2006, on renewable energy projects.

Historically, RBS' funding of renewable energy projects from non-renewable energy funds has been relatively low. Nationwide, between FYs 2001 and 2006, RBS funded 1,100 renewable energy projects totaling over $339 million. Of the 1,100 projects, only 213 were funded through programs not specifically appropriated for that purpose. However, with increased emphasis on renewable energy from the President and Congress, especially since FY 2005, we expected to observe a corresponding increase in the funding on renewable energy projects by agency managers.

Our review disclosed no general upward trend in renewable energy funding by program from year to year. In fact, in some years agency managers spent less than in prior years. We also noted that between FYs 2005 and 2006, the years we expected to see a noticeable increase due to Congressional and Administration emphasis, there was little increase. (See exhibit A for a table of percentages of expenditures by program and fiscal year.)

The Business and Industry (B&I) Program, for example, increased renewable energy activities less than 3.3 percent of total program expenditures between FYs 2005 and 2006. The Rural Business Enterprise Grant (RBEG) Program increased renewable energy activities from $135,000 of $41 million in FY 2005 to $541,000 of $42 million in FY 2006, an increase of less than 1 percent of total program expenditures. Finally, the Rural Economic Development Loan and Grant (REDLG) Program had a five percent increase in renewable energy activities from zero of $32 million in FY 2005 to $1.8 million of $35 million in FY 2006.

Our analysis of total funds spent on renewable energy disclosed that agency managers did not emphasize these types of projects. For instance, we found

[1] Rural Development Instruction 1940-L, dated May 25, 2007.

that three of RBS' five programs expended less than 7 percent of total program expenditures in FY 2006 on renewable energy projects. One program, the RBEG Program, provided only 1.3 percent for renewable energy projects in FY 2006. The B&I Program, RBS' largest with funding totaling $766 million in FY 2006, expended only $52 million, or 6.85 percent, on renewable energy projects.

Between them, RBS' programs that were not appropriated funds for renewable energy received funding of over $6 billion from FYs 2001 through 2006. By contrast, the Section 9006 Program received only $122 million during that period. Thus, using all available programs, RBS managers could have directed considerably more funding towards renewable energy activities. Considering the emphasis placed on this issue by the President and Congress, RBS managers should direct more funds to this area.

The funding issue was attributable, in part, to State officials encouraging applicants to use the Section 9006 Program, even though that program did not have sufficient funds to support all applications for renewable energy projects. As a result, some renewable energy projects went unfunded. Instead, they could have placed a higher priority on applications involving renewable energy projects for programs where funds were not specifically appropriated for that purpose.

Although not supported by any written policy, State officials stated that in most cases applicants for renewable energy projects – even if submitted through other programs such as the B&I Program – would be encouraged to direct the applications to the Section 9006 Program because it had funds appropriated specifically for renewable energy activities. We found that in one of the States in our review, officials generally followed this policy. In that State, officials encouraged all renewable energy applicants, such as for wind turbine projects, to use the Section 9006 Program in order to maintain all such projects in one program.

Without a strategy for renewable energy activities, RBS will likely not achieve all that it could towards meeting the goals of the President and Congress. An RBS official stated that in keeping with agency regulations calling for renewable energy applications to receive a higher priority, the national office encourages State officials to promote renewable energy activities. Based on our discussion with national officials, FY 2007 operations were generally conducted in the same manner as prior years.

Recommendation 1

Require State officials managing programs to place a higher priority on applications involving renewable energy activities.

Agency Response

RBS officials will encourage State program managers to use any discretionary points allowed by program regulations to place a higher priority on renewable energy applications. They will provide direction by March 30, 2009.

OIG Position

We accept management decision for this recommendation. Final action can be achieved by providing the Office of the Chief Financial Officer (OCFO) with documentation of the agency's internal operating policies and procedures.

Recommendation 2

Develop a strategy related to renewable energy activities that provides specific guidance to field staff on funding priorities and the process for achieving goals established in the agency's strategic plan.

Agency Response

RBS officials will incorporate guidance relating to funding priorities and the process for achieving the agency's related strategic goals into either agency instructions or regulations by October 1, 2008.

OIG Position

We accept management decision for this recommendation. Final action can be achieved by providing the OCFO with documentation of the agency's internal operating policies and procedures.

Finding 2 Pre- and Post-Approval Project Analyses Not Performed

RBS officials had not compared applications for renewable energy projects to identify those that would provide the most benefit for the amount of funds expended on the projects. Further, they had not analyzed the results of completed projects to compare expected and actual renewable energy outcomes. Agency officials stated that they had not developed and required such analyses, but were in the process of doing so. As a result, RBS had not always funded the most energy beneficial projects and agency officials had not determined if funded projects accomplished agency goals.

The Section 9006 Program would benefit, more than other programs, from a pre-approval analysis of applications because of the greater number of renewable energy projects it funds. This program supports only renewable energy projects, but does not have sufficient resources to fund all applications submitted to agency officials. Our review found that between FYs 2005 and 2006, RBS did not have sufficient resources to fund 182 applications for renewable energy projects. The number of unfunded applications increased significantly to 421 in FY 2007. At the two States we visited, there were 26 unfunded applications for FYs 2005 and 2006.

To determine if field staff funded less productive projects, we analyzed the estimated kilowatt hours (kWh) applicants expected to generate from both funded and unfunded projects at the two States in our review. Our analysis included 15 of the 26 unfunded applications. We found that at least 12 of the unfunded projects appeared to have more potential than projects actually funded by the States.

The unfunded project with the highest estimated energy output, 6.8 million kWh, would have had more output than 118 funded projects in FY 2005. Further, the unfunded project with the lowest estimated energy output, 14,980 kWh, would have had more output than 53 of the funded projects in FY 2006. In one case, an unfunded project estimated that it would provide 6.8 million kWh, or about 14 kWh per dollar spent. This exceeded the kWh per dollar spent for 9 renewable energy projects actually funded by an average of 6 kWh per dollar spent.

We questioned agency officials at the two States in our review about their selection and approval procedures for incoming applications. They stated that applications are processed based on a scoring system that assigns varying points to specific criteria, and on available funding. The specific criteria included items such as commercial viability, simplified applications, technical merit, size of the producer, estimated energy production, and return on investment.

Our analysis of these criteria identified numerous factors that would allow less productive projects to be approved over more productive projects. (We recognize that productivity is not the only factor to use when selecting a project to fund.) For instance, two criteria (small agricultural producer and simplified application) gave a significant advantage to small producers. Consequently, all other criteria being equal, a small producer was more likely to receive funding than a large producer. For wind turbine projects, this made a considerable difference to the total energy output of the project. Our analysis of estimated kWh for wind turbine projects disclosed that large projects averaged significantly more energy generation than small projects. (Small projects averaged about 3 kWh per dollar spent, while large ones averaged about 41 kWh per dollar spent.)

We considered the total energy output per dollar spent on the project to be a critical criterion. The agency did include estimated energy production and return on investment criteria, and considered the social and economic benefits with an emphasis on sustainability. However, these were not adequate because there was no comparison between projects based on the estimated total energy output, or a benchmark to use for comparison and selection purposes.

For agency programs where funds were not appropriated specifically for renewable energy projects, State officials evaluated all applications, including those related to renewable energy, based on the mission of the program. As stated in Finding 1, State officials gave no special consideration to renewable energy projects. An official at one State we visited was encouraging applicants to use the Section 9006 Program, even though that program did not have sufficient funds to support all applications for renewable energy projects. Further, State officials did not compare estimated energy output provided on applications submitted to the various programs, including the Section 9006 Program.

RBS officials stated that they were developing procedures to perform pre-approval analyses for the Section 9006 Program. However, they had no plans to develop similar procedures for programs where funds are not appropriated for renewable energy activities. An analysis of incoming applications to identify those with the greatest potential would have resulted in the agency funding projects that provided more energy output. In our view, this approach would provide greater results toward the President’s and Congress’ goals of reducing our nation’s dependence on foreign oil and using renewable energy sources to power our homes and businesses.

RBS officials also do not analyze outcomes after a renewable energy project becomes operational to compare estimated and actual results. In addition to providing important data about individual projects funded by the agency, this analysis could assist agency managers in determining the most effective and productive projects in the future.

RBS has most of the data necessary to analyze projects after they become operational in the Post Award Tracking System (PATSy). Agency officials stated that they intended to use PATSy in this manner. However, they acknowledged that the system was not being used to its full potential at the time of our audit.

While only Section 9006 Program data is entered into PATSy, this still encompasses 76 percent of the renewable energy projects approved between FYs 2003 and 2006. We examined data from PATSy and concluded that agency managers would benefit from such an analysis. (We did not verify the accuracy of data maintained in PATSy.) For instance, we found one instance where a wind project was estimated to produce 3.5 million kWh of energy per year when operational. However, after becoming operational for one calendar year, the recipient reported actual energy generation of only 1.9 million kWh.

We analyzed 20 completed projects in one of the States in our review, and found that actual energy produced ranged from 4 percent to 54 percent less than original estimates. Agency managers could gain considerable knowledge and insight regarding specific projects through such an analysis, which would be beneficial when making funding decisions in the future. In addition, they would be better able to assess program performance and progress toward achieving Rural Development's Strategic Plan goals. They informed us that procedures were being developed to perform such analyses.

To meet the goals set by recent legislation and the President's Advanced Energy Initiative, RBS needs to invest its limited funding to support renewable energy projects that produce the greatest quantity of energy for the amount expended on the project, as well as other factors. As such, RBS officials should perform an analysis to make a determination before approving applications. Further, they should analyze projects after they become operational to verify that intended outcomes were achieved.

Recommendation 3

Modify scoring for renewable energy applications to include as a criterion those projects that have the greatest energy output per dollar spent.

Agency Response

RBS is currently evaluating its scoring criteria to determine if changes need to be made to its present system. The agency will consider "Energy output per dollar spent" as an economic factor to be evaluated. Agency officials will complete the evaluation process by October 1, 2008.

OIG Position

Agency officials need to modify the scoring criteria to include projects having the greatest output per dollar spent. We will accept management decision when agency officials agree to this change.

Recommendation 4

Establish procedures to perform analyses of renewable energy project applications to identify projects that will provide the most energy output per the amount spent, as well as other factors.

Agency Response

RBS is currently analyzing various models including "energy output per amount" to measure the various social, economic and environmental benefits of renewable energy investments. Based on the results of this analysis, procedures incorporating “energy output per amount” will be implemented by December 31, 2008.

OIG Position

We accept management decision for this recommendation. Final action can be achieved by providing the OCFO with documentation of the agency’s internal operating policies and procedures.

Recommendation 5

Establish procedures to perform analyses of renewable energy projects after they become operational. This would be used to determine if projects met expectations and achieved desired results, and as a factor in future decisions.

Agency Response

RBS recognizes the need to track post award activities for renewable energy. They are developing procedures to compare actual energy production/savings to projected energy production/savings provided and implement it by October 1, 2008.

OIG Position

We accept management decision for this recommendation. Final action can be achieved by providing the OCFO with documentation of the agency’s internal operating policies and procedures.

Finding 3

Policies and Procedures to Prevent Duplicative Funding were Absent

Six RBS programs provided more than $339 million for similar types of renewable energy projects between FYs 2001 and 2006. The agency had not developed internal controls designed to ensure that applicants had not previously received or applied for funding from different agency programs for the same purpose. Although our audit found no instances of duplicate funding, it could occur and not be detected by agency officials.

The Government Accountability Office standards for internal control require that agency managers in the Federal Government design procedures to protect assets from unauthorized disposition.[2] For RBS programs, this would include internal controls designed to prevent or detect the distribution of multiple grants and loans to applicants for the same purpose.

The six RBS programs that fund similar types of renewable energy projects are the B&I, VAPG, Section 9006, RBOG, RBEG, and REDLG Programs. These programs fund renewable energy projects such as wind, solar, thermal conversion, anaerobic digesters, and bio-fuel production facilities. For some renewable energy projects, such as ethanol production facilities, all six programs can provide funding for some aspect of the project.

Despite the potential for overlapping activities, agency officials had not established procedures and controls to prevent or detect duplicate funding. We asked national officials about this risk and they stated that field staff enters all applicant data such as name, address, identification number, and the project's description, into the Guaranteed Loan System (GLS). Through this process, field staff would be able to identify applicants who had already applied for or received a loan or grant from an RBS program, and prevent duplicate funding.

The national office's reliance on field staff to identify duplication in this manner is not effective primarily because they do not always scan the GLS to check for duplication. During our review at two States, officials said they checked applicant data in the GLS to identify applicants who had previously applied for or received funding from RBS programs. However, we found no evidence of this action at one State office. At the other State office, we found evidence of this action for only one program, the Section 9006 Program. Several State officials said there was no formal guidance requiring them to document these actions. In our view, this action could be an effective and

[2] GAO/AIMD-00-21-3-1 United States Government Accountability Office Standards for Internal Control in the Federal Government (November 1999).

efficient control to prevent duplicate funding. The national office should require and formalize this procedure into agency policy.

The scanning procedure, or a similar control, is also important because different field staff employees are responsible for the various agency programs. Further, those employees generally were not located in the same office and, in the two States in our review, had not compared information with each other to determine if applicants had applied for or received funding through other agency programs.

We evaluated the agency's programs to determine the likelihood that duplicative funding could occur. We concluded that individuals could submit applications for the same purpose to multiple programs and receive funding from those programs without it being detected. Based on our risk assessment, we analyzed RBS' renewable energy activity report, which listed all 1,100 RBS renewable energy projects between FYs 2001 through 2006 by program. We selected for analysis 98 of the 274 total projects in the two States in our review.

Our analysis consisted of sorting the list by applicant name to identify those who had received funds from more than one agency program or who had received funding through the same program multiple times. We reviewed 14 of 26 instances identified in the two States where applicants received funding for the same project from multiple agency programs, and concluded that duplicative funding had not occurred.

Our examination of the records reinforced our concern that duplicative funding could occur and not be detected by agency officials. For instance, at the two States we visited, an individual could apply for a planning grant from the VAPG Program and for a Section 9006 Program grant to pay for a feasibility analysis, which is the same activity. The applicant could receive funding because different field staff employees, located at different offices, were responsible for processing the applications. There was no communication between them or review performed by a higher-level official. Further, we found no evidence that applicant data had been compared against information in GLS prior to approval.

In one case we reviewed, an applicant received an $11 million loan guarantee from the B&I Program and a $500,000 grant from the VAPG Program for an ethanol facility. The applicant received the loan guarantee to develop, construct, equip, and otherwise prepare the ethanol plant for production. The applicant also received, in the same year, the grant for working capital to purchase initial operating inventory (i.e., corn) for the ethanol plant. While our review did not uncover any evidence of duplication, an unscrupulous applicant could have easily provided the same receipt for the purchase of corn to both programs without detection. For the B&I Program, the applicant would justify the purchase as preparation for production at the plant.

State officials also stated that applicants are required, as a part of their application, to list all project financing sources and a description of the use of those funds. In their view, this would identify potential duplicative funding. Our review of application files found that applicants generally did include a list detailing project financing. However, there was no evidence that State officials verified the accuracy of this information. Thus, this control measure may not be effective because applicants often place their own interests and not the interest of the Government first, and may not include this information. They can also make mistakes.

Our audit found no instances of overlapping or duplicate funding. However, without formal procedures and controls an increased risk that duplicate funding will occur and not be detected by agency officials exists. RBS provided over $339 million to renewable energy projects between FYs 2001 and 2006 with ineffective procedures to prevent or detect duplicate funding. The amount funded by RBS for a single project can run as much as $25 million dollars, which poses a significant risk to agency assets when duplicate funding is a potential threat.

Recommendation 6

Develop and implement formal procedures, as part of eligibility determination criteria, to identify and prevent duplicate funding for renewable energy projects.

Agency Response

RBS will send all renewable energy applications through the Energy Council Coordinating Committee, as a clearinghouse, to ensure duplicate funding does not occur. This will occur as an ongoing initiative.

OIG Position

This internal control will help identify projects that have applied for or received funding under other RBS programs with similar criterion and reduce the risk of duplicating valuable assets. To reach management decision, agency officials need to clarify the procedures to be followed by the Energy Council Coordinating Committee to identify and prevent duplicative funding.

Finding 4 — Renewable Energy Activities Underreported to the Office of Budget and Program Analysis

RBS did not accurately report renewable energy activities to the Office of Budget and Program Analysis (OBPA) in FY 2006. We found that RBS budget officials (1) submitted estimates rather than the actual amounts and (2) did not include three small programs in their reporting. We attributed these deficiencies to not fully understanding reporting requirements and not contacting OBPA officials for guidance. RBS' $38 million understatement of renewable energy activities contributed to the inaccurate figures reported to the Office of Management and Budget for use in developing policy.

OBPA, together with the Department's Energy Council, developed guidance related to reporting renewable energy activities in USDA. In accordance with Exhibit C-1 of USDA's Budget Manual,[3] OBPA requested agency officials to report the amount of financial assistance to support the commercial development of new products and the creation of markets for renewable energy, as well as support for expanding proven technologies. Financial assistance includes loans, loan guarantees, and other forms of assistance.

Our review included an examination of supporting documentation to determine if RBS officials had accurately reported to OBPA. The documentation provided by agency program officials did not support the nearly $80 million reported to OBPA. In fact, the documentation showed that RBS actually had provided funding totaling almost $118 million to benefit renewable energy activities. Thus, we concluded that RBS had underreported renewable energy activities to OBPA by over $38 million, or 32 percent.

The chart below details this point.

PROGRAMS	RBS Reported	OIG	UNDERREPORTED
B&I	$16,000,000	$52,500,000	$36,500,000
REDL	$2,003,000	$1,480,000	($523,000)
VAPG	$2,500,000	$4,731,000	$2,231,000
Section 9006 Grants	$21,209,000	$21,209,000	$0
Section 9006 Loans	$24,159,000	$24,159,000	$0
Section 9008 Grants	$14,103,000	$12,785,000	($1,318,000)
RBEG	$0	$287,000	$287,000
RBOG	$0	$541,000	$541,000
REDG	$0	$300,000	$300,000
TOTALS	**$79,974,000**	**$117,992,000**	**$38,018,000**

[3] USDA Budget Manual, Part II, Chapter 12.

RBS had not accurately reported renewable energy activities because of two factors. First, RBS budget officials submitted estimates rather than actual amounts. In November 2006, OBPA requested RBS to report all renewable energy activity from programs for FY 2006. RBS did not yet have the actual amounts from those programs where funding is not specifically appropriated for renewable energy. Therefore, to provide OBPA with some type of data, RBS officials decided to submit estimates of renewable energy activities for FY 2006. This caused underreporting of energy activities by $36,890,000.

By January 2007, RBS officials had calculated actual renewable energy activity in all of their programs for 2006. However, OBPA had already provided the data to the Under Secretary for Rural Development's Office. According to RBS officials, OBPA advised that it was too late to revise the amounts previously reported.

Second, RBS did not report the renewable energy activity of the RBEG, REDLG (grants only), and RBOG Programs. These three programs had renewable energy activity of $1,128,000. According to RBS officials, the Energy Council created the report format for agencies to use. Since these programs were not included on the report format, they did not report on them.

As described above, we identified significant errors in reporting on renewable energy activities, and the reasons for the incorrect reporting. Agency budget officials relied on program officials without reviewing or questioning their procedures on how they arrived at the amounts provided. Agency officials also explained that they did not have the time to obtain information by the date required and that the OBPA prescribed reporting format excluded some agency programs. However, they did not seek guidance from OBPA.

Recommendation 7

Seek guidance from OBPA on reporting renewable energy requirements.

Agency Response

RBS has sought guidance from OBPA and is currently updating its internal operating policies and procedures. Agency officials will meet with OBPA officials to review proposed changes and implement those changes within 90 days of report issuance.

OIG Position

We accept management decision for this recommendation. Final action can be achieved by providing the OCFO with documentation of the agency's internal operating policies and procedures.

Recommendation 8

Report renewable energy activities based on actual program expenditures, including loans and loan guarantees made as instructed in the Department's budget manual.

Agency Response

The agency will update its internal operating policies and procedures to reflect this recommendation. This will be accomplished within 90 days of report issuance.

OIG Position

We accept management decision for this recommendation. Final action can be achieved by providing the OCFO with documentation of the agency's internal operating policies and procedures.

Scope and Methodology

We conducted our audit of the Rural Business-Cooperative Service (RBS) renewable energy activities at its national office in Washington, D.C., at two Rural Development State Offices (Minnesota and Iowa), and at five local offices (one in Minnesota and four in Iowa). We also visited 80 renewable energy projects funded by RBS in Minnesota and Iowa.

For fiscal years (FY) 2001 through 2007, the agency provided over $432 million to fund 1,528 renewable energy projects through seven different RBS programs. The seven RBS programs were the Renewable Energy and Energy Efficiency Grant and Loan (Section 9006) Program, the Business and Industry (B&I) Guaranteed Loan Program, the Value Added Producer Grant (VAPG) Program, the Rural Business Enterprise Grants (RBEG) Program, the Rural Business Opportunity Grant (RBOG) Program, and the Rural Economic Development Loan and Grant (REDLG) Program. Since FY 2007 activities were not available during our audit, the period of our review was FYs 2001 through 2006, in which the agency provided over $339 million to fund 1,100 projects.

Of the $432 million that was funded, over $137 million was in grants and almost $295 million was in loans. RBS used that money for the funding of 105 anaerobic digesters, 169 bioenergy projects, 154 biomass projects, 764 energy efficiency projects, 227 wind projects, 60 solar projects, and 49 other projects including geothermal and hybrid.

We judgmentally selected two States (Minnesota and Iowa) because they had higher numbers of loans and grants, with large dollar amounts disbursed through a variety of RBS programs. We reviewed 98 RBS projects totaling $55.7 million from Minnesota and Iowa for these RBS programs. We also visited 80 renewable energy projects in the two States. RBS' Section 9006 Program, the largest renewable energy program in the agency and the only commercialization program with funds appropriated specifically for that purpose, provided $122 million to fund 832 projects. We reviewed records related to 67 of those projects totaling over $10.8 million.

We selected FY 2006, the most recent actual figures at the time of our fieldwork, for our review of renewable energy activities reported to Office of Management and Budget. RBS reported almost $80 million in renewable energy activities. We had budget officials provide us with documentation to support the funds reported to Office of Budget and Program Analysis. We were referred to program officials who were delegated the responsibility to identify the extent of expenditures in renewable energy activities.

To accomplish our objectives, we performed the following procedures related to renewable energy activities within the Department:

- Reviewed applicable laws, regulations, and various agency guidance related to all RBS renewable energy and non-renewable energy programs;

- Reviewed agency's policies, procedures, and management controls over the process of approving applications for RBS loans and grants, and for monitoring project activities in these areas;

- Interviewed agency officials to determine the guidance and direction given to loan and grant applicants, and the monitoring actions they took to ensure that applicants complied with prescribed guidelines;

- Interviewed loan and grant recipients to confirm information provided to agency officials was accurate and complete;

- Visited properties financed by agency programs to confirm that funds were used for eligible and intended purposes; and

- Reviewed the President's Advanced Energy Initiative.

We conducted our fieldwork from April through December 2007. We conducted this performance audit in accordance with *Generally Accepted Government Auditing Standards*. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Exhibit A – Expenditures for Programs Where Funds Were Not Appropriated Specifically for Renewable Energy

Fiscal Year	B&I[4]	VAPG	RBEG	RBOG	REDLG
2001	1.98%	25%	0.252%	1.48%	0.00%
2002	0.00%	18%	0.410%	0.00%	8.53%
2003	1.10%	13%	0.585%	1.58%	2.38%
2004	2.01%	14.76%	0.155%	0.00%	1.77%
2005	3.60%	19%	0.327%	0.00%	0.00%
2006	6.85%	22%	1.295%	9.14%	5.07%

[4] All percentages represent renewable energy funds obligated from appropriated budgets.

United States Department of Agriculture
Rural Development

JUN 23 2008

SUBJECT: Office of Inspector General (OIG) Business and Cooperative Programs - Implementation of Renewable Energy Programs - (Audit No. 34601-0005-CH)

TO: Robert W. Young
Assistant Inspector General
for Audit

Attached for your review is the response dated June 23, 2008, from Ben Anderson, Administrator, Business and Cooperative Programs, to the official draft for the subject audit.

This response is being submitted for inclusion in the final report and your consideration to reach management decision on the eight recommendations.

If you have any questions, please contact Arlene Pitter of my staff at 202-692-0083.

JOHN M. PURCELL
Director
Financial Management Division

Attachment

1400 Independence Ave, SW • Washington, DC 20250-0700
Web: http://www.rurdev.usda.gov

United States Department of Agriculture
Rural Development

JUN 23 2008

TO: John M. Purcell
Director
Financial Management Division

SUBJECT: Implementation of Renewable Energy Programs
Audit Report No. 34601-0005-CH

This is in response to the official draft findings and recommendations of the subject Office of Inspector General (OIG) audit.

Recommendation No. 1:
Require State officials managing programs to place a higher priority on applications involving renewable energy activities.

Agency Response
State Program managers will be encouraged to utilize any discretionary points allowed under the respective program regulations to place a higher priority on renewable energy applications. This direction will be provided in the form of Administrative Notice/Unnumbered Letter and RD Instruction 1940-L. We anticipate accomplishing this by March 30, 2009, contingent on an appropriation bill.

Recommendation No. 2:
Develop a strategy related to renewable energy activities that provides specific guidance to field staff on funding priorities and the process for achieving goals established in the agency's strategic plan.

Agency Response
Agency will incorporate guidance either through an Administrative Notice/Unnumbered Letter or the annual issuance of the RD Instruction 1940-L, Exhibit A, Attachment 1 relating to funding priorities and the process for achieving agency's related strategic goals. This will be accomplished by October 1, 2008.

Recommendation No. 3:
Modify scoring for renewable energy applications to include as a criterion those projects that have the greatest energy output per dollar.

1400 Independence Ave, S.W. · Washington DC 20250-0700
Web: http://www.rurdev.usda.gov

Agency Response
The agency is currently evaluating the scoring criteria to determine if changes need to be made to support sustainability of the investment. Scoring criteria will be amended to reflect social, economic and environmental factors that contribute to sustainability. "Energy output per dollar spent" will be considered as one of the economic factors evaluated. Evaluation process will be concluded by October 1, 2008. Any changes to the scoring criteria would need to be addressed through a proposed/final rule process.

Recommendation No. 4:
Establish procedures to perform analyses of renewable energy project applications to identify projects that will provide the most energy output per the amount spent, as well as other factors.

Agency Response
Agency is working with numerous partners within and outside USDA to analyze various models that have been developed to measure the various social, economic and environmental benefits of renewable energy investments. The "energy output per amount" of investment will be one of the factors considered in this analysis. Based on the results of this analysis, procedures will be implemented to incorporate this analysis in the decision process for review of applications for funding. We anticipate implementing these procedures by December 31, 2008.

Recommendation No. 5:
Establish procedures to perform analyses of renewable energy projects after they become operational. This would be used to determine if projects met expectations and achieved desired results, and as a factor in future decisions.

Agency Response
The agency, recognizing the need to track post award activities for renewable energy/energy efficiency funded projects, developed a Post Award Tracking System (PATSY) that tracks various activities during the post award stage including, construction, initial start–up, and operational related activities. A comparison of actual energy production/savings to projected energy production/savings provided at time of application is being made. This will assist the agency in making better informed decisions during the future processing of applications. This will be accomplished by October 1, 2008.

Recommendation No. 6:
Develop and implement formal procedures, as part of eligibility determination criteria, to identify and prevent duplicate funding for renewable energy projects.

Agency Response
The Energy Council Coordinating Committee (ECCC) is composed of representatives from the mission areas within USDA that have renewable energy related programs/assistance. The ECCC will be the clearinghouse for sharing proposed funding activities to assure no duplication of funding is occurring. This will occur as an ongoing initiative.

Recommendation No. 7:
Seek guidance from OBPA on reporting renewable energy requirements.

Agency Response
The Agency has had several meetings with OBPA after the FY 2006 reporting discrepancy and has developed internal operating procedures for reporting Energy Investments. The Agency will obtain a copy of Exhibit C-1 of USDA's Budget Manual, and update its internal operating policies and procedures for reporting renewable energy requirements accordingly. During the process, the Agency will meet with OBPA to review draft updated policies and procedures to assure consistency with USDA Budget and OBPA guidelines. This corrective action will be completed within 90 days from the date of OIG acceptance.

Recommendation No. 8:
Report renewable energy activities based on actual program expenditures including loans and loan guarantees made as instructed in the Department's budget manual.

Agency Response
The Agency will update its internal operating policies and procedures to reflect this recommendation. This corrective action will be completed within 90 days from the date of OIG acceptance.

In addition to the above courses of action, the Agency would like it noted that numerous initiatives have been implemented since the audit. These initiatives directly address some of the observations made in the audit findings and are as follows:

1. RBS has made a concerted effort to work with OBPA to assure there is no underreporting of renewable energy activities. RBS has taken the lead for Rural Development in tracking energy investment activities for all Rural Development programs that have supported either renewable energy systems development or energy efficiency improvements. In working with the Department of Energy, projected environmental benefits and renewable energy generation/saving on conventional energy consumption are being measured.

2. In January 2008, training was provided to field managers/energy coordinators on marketing of the renewable energy programs at the State level. We anticipate this marketing will lead to new opportunities for utilization of our programs to support renewable energy systems development and energy efficiency improvements. In addition, at this training the Social Economic Benefits Assessment System (SEBAS) was demonstrated to the attendees and they were encouraged to start utilizing it for measuring the benefits of our investments. SEBAS has identified seven key economic indicators that it tracks on our investments.

3. Rural Development has entered into an interagency agreement with the Department of Energy's National Renewable Energy Laboratory (NREL) to assist the agency in analyzing the technical viability of applications being received. Each application receives a score based on established criteria and merit.

4. In FY 2008, agency has conducted numerous webinars with field staff on the technical and environmental evaluation responsibilities related to processing renewable energy/energy efficiency applications. State Energy Coordinators and State Engineers/Architects are involved in this training.

If you have any questions or concerns, please contact Nannie Hill-Midgett, Director, Oversight Coordination Staff at (202) 690-4100.

BEN ANDERSON
Administrator
Business and Cooperative Programs

Informational copies of this report have been distributed to:

Administrator, Rural Business-Cooperative Service	(4)
Through: Director, Financial Management Division	
Operations and Management	
U.S. Government Accountability Office	(1)
Office of the Chief Financial Officer	
Director, Planning and Accountability Division	(1)
Office of Management and Budget	(1)