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TAX CREDIT

Analysis of the New Generation Cooperative Incentive Tax Credit Program

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YELLOW SHEET

State Estimated to lose $37.1 million on New Generation Cooperative Incentive Tax Credit Program

This audit reviewed the cost-benefit to the state of the New Generation Cooperative Incentive (NG) tax credit program and found the credit would not create enough economic activity to offset the tax credits used. The program is designed to induce producer member investment in new generation cooperatives and processing entities that will process Missouri agricultural commodities and agricultural products into value-added goods, benefit Missouri's agricultural producers, and create jobs. As of June 30, 2006, state officials had issued $22.1 million in tax credits for this program, and $18.1 million had been redeemed. State law requires state auditors to perform a cost-benefit analysis of all state tax credit programs, and this report is a part of such ongoing work.

Loss of $37.1 million from the NG program

The software used to model the program estimates the economic activity occurring from the business investment generated solely by the tax credit will result in about a $2 million net revenue gain. However, when total projected tax credit redemptions of $39.1 million are considered, the gain becomes a projected total loss to the state of $37.1 million. The model evaluated the impact of the investment resulting from the tax credit and not the total investment for any facility constructed because other state, federal, local and private funding sources are available for the remaining investment portion of the projects. We were unable to measure the social benefits this tax credit may have on the rural communities that received the majority of the tax credit's benefits. (See page 10)

Limited permanent jobs created

The analysis predicts the tax credit program will have limited impact on jobs and the gross state product. For example, the program's resulting employment growth peaks at 96 net new jobs created in 2006. However, by program end in 2010, just 57 jobs remain and all but 12 of those jobs are lost by 2020. Rural areas benefit from most of the predicted new jobs. (See page 10)

Tax credit law needs clarification

State law does not define when a facility would have to be placed in operation to remain eligible for tax credits and is unclear if facilities of new generation cooperatives must operate in the state. State law also is not clear regarding limitations on the tax credit issuances. Section 348.432.3, RSMo, limits each producer member in a new generation cooperative or processing facility to a maximum tax credit of $15,000; however, the law does not clarify if producer member name or taxpayer identification number controls what constitutes a separate producer member. We identified four instances where MASBDA issued $30,000 in tax credits to one taxpayer identification number. (See page 13)

Control and reporting weaknesses

NG program internal controls and reporting need improvement because (1) MASBDA has not received sufficient documentation that producer members made investments prior to tax credits being issued, (2) MASBDA has not established policies and procedures for compliance and on site monitoring of new generation cooperative or processing facilities, (3) MASBDA has not established criteria for when new generation cooperatives or processing facilities may be eligible for additional tax credits issuance, (4) MASBDA failed to adhere to its internal conflict of interest policy and issued tax credits to ineligible applicants, and (5) the annual tax credit's cost-benefit reported to the General Assembly as part of the state's budgeting process overestimates the benefit to the state. (See page 15)

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Abbreviations

GSP	Gross State Product
MASBDA	Missouri Agricultural and Small Business Development Authority
NAICS	North American Industrial Classification System
NG	New Generation Cooperative Incentive
REMI	Regional Economic Models, Inc.
RSMo	Missouri Revised Statutes
SAO	State Auditor's Office

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Missouri State Auditor

Honorable Matt Blunt, Governor
and
Joint Committee on Tax Policy
and
Tony Stafford, Executive Director
Missouri Agricultural and Small Business Development Authority
and
Fred Ferrell, Director
Department of Agriculture
Jefferson City, MO 65102

State law mandates the State Auditor's office perform cost-benefit analyses on state tax credit programs. The audit objectives included (1) estimating the economic impact of the New Generation Cooperative Incentive (NG) tax credit program on state revenue, and (2) reviewing the adequacy of internal controls in place to ensure compliance with statutory requirements for the tax credit program.

We concluded the NG tax credit program will not generate sufficient economic activity to offset the state tax credits used because the program is estimated to result in a net loss of approximately $37.1 million in state revenues. Since this tax credit is designed to create additional markets for agricultural products and most agricultural production is in rural parts of the state, it can have social impacts, as well as economic impacts. For example, it may increase the quality of life in rural communities which would not occur without the tax credit. We were unable to measure these social benefits. We found the General Assembly needs to clarify program law. In addition, program internal controls and reporting need improvement.

We conducted our work in accordance with applicable standards contained in *Government Auditing Standards*, issued by the Comptroller General of the United States with the exception of the external impairment of access to redemption data from income tax returns which limited our ability to conduct our work, and included such procedures as we considered necessary in the circumstances. This report was prepared under the direction of John Blattel. Key contributors to this report were Jon Halwes, Andrea Paul, and Glenn Fitzgerald.

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Introduction

The New Generation Cooperative Incentive (NG) tax credit program started in 1999 and is established under Section 348.432, RSMo. The Missouri Agricultural and Small Business Development Authority (MASBDA)[1] manages this program and is authorized to issue up to $6 million in tax credits per fiscal year to producer members[2] making qualified investments in new generation cooperatives or new generation processing entities. The tax credit is currently set to expire December 31, 2010. The program is designed to induce producer member investment in new generation cooperatives and processing entities that will process Missouri agricultural commodities and agricultural products into value-added goods, benefit Missouri's agricultural producers, and create jobs.

Tax credits can generally be broken into three categories. Some are established to create a certain economic benefit, some are established to induce certain social benefits and others are created for both an economic and social benefit. The NG tax credit program is designed to create both an economic and social benefit with more emphasis on an economic impact. In addition to the economic impact, new agricultural businesses will help rural areas which have a more difficult time attracting new business development.

After a new generation cooperative or processing entity is organized, the entity files a form with MASBDA to be certified for the tax credit. MASBDA then approves a contingent allocation of tax credits based on the project investment amount on the application. After all the members have made their cash investment, the cooperative or entity provides a certified listing to MASBDA with actual member and investment information. The new generation members, or investors, individually apply directly to MASBDA for a tax credit. A $25 application fee must be submitted with the application. These fees go towards the administration of the tax credit program.

The maximum tax credit allowed per employee-qualified capital project[3] is $3 million and the maximum tax credit allowed per large capital project[4] is

[1] MASBDA is administered by a seven-member commission which is appointed by the Governor and confirmed by the Senate. The Director of the Department of Agriculture serves as an ex-officio commission member. An Executive Director manages MASBDA operations. MASBDA is part of the Department of Agriculture.

[2] A person, partnership, corporation, trust or limited liability company whose main purpose is agricultural production that invests cash funds to an eligible new generation cooperative or eligible new generation processing entity.

[3] Eligible new generation cooperative with capital costs greater than $15 million and at least 60 employees.

[4] Eligible new generation cooperative with capital costs greater than $1 million.

$1.5 million. No employee-qualified projects have been approved by MASBDA as of June 2006. The tax credit amount issued to a producer member may be the lesser of 50 percent of the member's cash investment or $15,000, except for any pro-ration of the member's tax credits if members' investment in a new generation cooperative or processing entity would be eligible for tax credits in excess of the project's tax credit allocation.

The credits are transferable or may be sold under the provisions of Section 348.432.5, RSMo and the credits can be carried back 3 years to offset previous tax liability or carried forward for 5 years to offset future tax liability. The tax credits may be redeemed against state income tax, corporate franchise tax, and financial institution tax.

Section 135.805, RSMo, requires a recipient of an agricultural tax credit to, for a period of 3 years following issuance of tax credits, provide the administering agency (MASBDA) annual information confirming the type of agricultural commodity, the amount of contribution, the type of equipment purchased, and the name and description of the facility. However, if the agricultural credit is issued as a result of a producer member investing in a new generation processing entity then the new generation processing entity, and not the recipient, shall annually, for a period of 3 years following issuance of tax credits, provide this information to the administering agency.

Section 620.1300, RSMo, requires the State Auditor's office (SAO) to analyze the cost-benefit impact to evaluate the effectiveness of all state tax credit programs.

Tax Credits Used and New Generation Projects

As of June 30, 2006, records show $22.1 million in tax credits had been issued and $18.1 million in tax credits had been redeemed leaving $4.0 million in outstanding tax credits. MASBDA estimated an additional $17 million in credits would be issued through 2010 the statutory program end. Tax credits can be redeemed through 2015.

Through June 30, 2006, producer members in 16 new generation cooperative or processing entities[5] had received tax credits (see Appendix I for the name and location of the organizations). The new generation organizations are producing or plan to produce and distribute products ranging from fuel (biodiesel and ethanol) to food (meat, soy-based beer, milk and soy snacks). The cooperatives involved with the ethanol production had proposed total investments ranging from $5 million to $58

[5] Producer members in four of these cooperatives received a second issuance of tax credits.

million for various construction phases based on information in MASBDA's tax credit database.

Scope and Methodology

To evaluate the impact of the NG tax credit program on the state, we reviewed state statutes and MASBDA's procedures. We discussed the operation of the program and internal controls with MASBDA's staff to determine if proper controls were in place to ensure compliance with statutory requirements.

We obtained database files from MASBDA which reported the amount of tax credits issued to NG program investors. We determined the database was complete and could be relied upon for purposes of our analysis.

We obtained aggregate totals of annual tax credit redemptions from the Department of Revenue. We were not provided detailed redemption information. The Director of the Department of Revenue denied us access due to the department's interpretation of the Missouri Supreme Court decision in the case of Director of Revenue v. State Auditor 511 S.W.2d 779 (Mo. 1974). These external impairments limited our ability to conduct work and therefore, we could not verify the completeness and accuracy of annual redemption totals.

We used regional macroeconomic modeling software called Policy Insight® 7.0, produced by Regional Economic Models, Inc. (REMI), to analyze the total economic and demographic impact of the tax credit program on the state. REMI specifically designed this model for Missouri which aggregates the production sectors into 70 sectors by North American Industrial Classification System (NAICS) code and splits the state into 17 geographic regions by groups of counties. The REMI model generates a baseline forecast for the state without the tax credit in place. We then input data into the model to reflect how the tax credit affects spending by firms, households, and government and studied the difference between certain variables in the baseline and the alternative forecast. The key outputs from the model are (1) growth in total employment compared to the baseline, (2) growth in gross state product compared to the baseline, (3) and the fiscal impact on the General Revenue Fund.

Modeling assumptions

We changed three variables in the REMI model to create the alternative forecast (1) production costs of the industry sectors receiving investment as a result of the NG tax credit, (2) personal taxes to substitute for reduced household consumption, and (3) government spending. We modeled the tax credit through 2020, five years after possible redemption of tax credits issued.

We obtained the total amount of tax credits issued to producer members of each new generation project from MASBDA. We defined follow-on investment in each project as the amount of investment that the tax credit induces but is not eligible for the tax credit. Producer members who invest in a new generation project can receive a tax credit for 50 percent of their investment or $15,000, whichever is less. The follow-on investment must at least equal the tax credit issuance amount. We assumed any producer member investment beyond $30,000 was investment that would have been made absent the tax credit, and therefore, did not produce any follow-on investment beyond $15,000 and was not modeled. We calculated total modeled investment in each project as double the amount of tax credits received by the producer members. The model is evaluating the impact of the investment resulting from the tax credit and not the total investment for any facility constructed because other state, federal, local and private funding sources are available for the remaining investment portion of the projects.

We entered the total modeled investment for each project as reduced production costs for that particular industry (NAICS code) in the REMI model. Production costs include labor, capital, and fuel. We used the actual year and NAICS code reported by MASBDA for each new generation project established through June 30, 2005 and projected results provided by MASBDA for subsequent years through the credits current expiration December 31, 2010. We used these actual and estimated amounts to calculate total modeled investment for the projected years and entered that amount into the REMI model as reduced production costs. Altogether, we reduced production costs by $78.2 million from program inception to the end of 2010.

The REMI model assumes all production occurs within the state; however, as of June 30, 2006 at least two new generation cooperatives or production facilities receiving tax credits did not own or operate a production facility within the state. As a result, the model's results may overestimate the impact of this tax credit.

Since at least 50 percent of a producer members' investment in a new generation project is not eligible for a tax credit, the amount of follow-on investment cannot be spent on goods and services. To account for this decrease in household consumer spending, we increased personal taxes in the REMI model by the amount of the follow-on investment for all actual and estimated projects. Increasing personal taxes in REMI decreases consumer spending across all sectors because disposable income is reduced for all households.

Because some tax credits were given to out-of-state producer members, we reduced follow-on investment in our model by the amount of out-of-state follow-on investment. This adjustment is because out-of-state follow-on investment does not affect household consumption patterns in Missouri. From a sample of tax credits issued from July 1, 1999 to June 30, 2005, we estimated 10.5 percent of all tax credits have been or will be issued to out-of-state producer members. As a result we reduced follow-on investment by an estimated amount related to these tax credit issuances.

Since the state does not collect tax revenue on tax credits, we reduced state spending in our model by the amount of each tax credit issued to producer members. The Department of Revenue sent us actual redemption data for calendar years 2000 to 2005 and the first half of calendar year 2006 for this tax credit. We used the amount of redeemed credits each year as the reduction in state spending. This tax credit has a carry forward of 5 years, meaning the tax credits may be redeemed up to 5 years from issuance. To estimate redemptions through 2015, we assumed producer members would redeem their tax credits at the same annual rate observed from 2000-2004, an average of 34 percent. We applied this rate to all years from 2005-2013. In the final two years, we assume the remainder of all outstanding tax credits will be redeemed. Total redeemed tax credits from 2000-2015 in our model is $39.1 million. The Department of Revenue does not maintain a list of tax credits which are no longer eligible to be used, so we could not adjust the redemption rate for these credits. The first year any credits would no longer be eligible for use is 2005. We assume all tax credits are redeemed because we had no data on expired tax credits. We ran a model with a 90 percent redemption rate and compared the economic impact of that model to the model with a 100 percent redemption rate. That analysis produced similar results to the model results presented in Chapter 2.

To assess the fiscal impact of the NG tax credit, we captured any increases to the General Revenue Fund as a result of the tax credit. Increases to state general revenue would result from additional sales and income tax revenues or reduced expenses (for example in assistance programs) offset by increased costs (for example business compliance monitoring). We then subtracted tax credit actual and estimated redemptions for each year from 2000-2015 from General Revenue Fund revenues.

We submitted our modeling assumptions and the REMI model results to an economist at REMI. He stated he found no problems with the assumptions and results.

In addition to the various factors discussed above which are measurable through the use of REMI, there are other factors which may have an impact which are not measurable. Since this tax credit is designed to create additional markets for agricultural products and most agricultural production is in rural parts of the state, it can have social impacts, as well as economic impacts. For example, it may increase the quality of life in rural communities which would not occur without the tax credit. Such a benefit would not be measurable in the REMI model. The REMI model also does not measure additional benefits the new generation cooperative or processing entity receives from the federal and state government, such as grants or subsidies. Through the end of fiscal year 2006, the state's cooperative supported ethanol plants had received $29.9 million in ethanol production incentive payments under Section 142.028, RSMo.[6] Those costs to the state and benefit to the producers are not included in the REMI model inputs because we wanted to measure only the impact of the NG tax credits.

We requested comments on a draft of our report from the MASBDA commission. We conducted our work between July 2005 and June 2006.

[6] Under the law, a Missouri qualified fuel ethanol producer shall be eligible for a production subsidy for 60 months. The subsidy in any fiscal year is equal to 20 cents per gallon for the first 12.5 million gallons of qualified fuel ethanol produced from Missouri agricultural products plus 5 cents per gallon for the next 12.5 million gallons of qualified fuel ethanol produced from Missouri agricultural products.

New Generation Tax Credit Will Not Create Sufficient Economic Activity

The NG tax credit program as projected will not generate sufficient economic activity because the program minimally impacts gross state product (GSP) and does not create a significant number of jobs. As a result, the state is estimated to lose revenue of $37.1 million over the 20-year period modeled.

Loss of $37.1 Million From the NG Program

The REMI model predicts the NG tax credit program will generate a $37.1 million loss. The model estimates the economic activity occurring from the investments generated by the tax credits will result in about a $2 million[7] net revenue gain. However, when total projected tax credit redemptions of $39.1 million are considered, the gain becomes a projected total loss to the state of $37.1 million.[8] The NG program is not projected to have a positive effect on state revenues in any years.

The model predicts a net increase in local government revenues of $2.5 million. Local governments receive positive net revenues because they do not have to finance the tax credits.

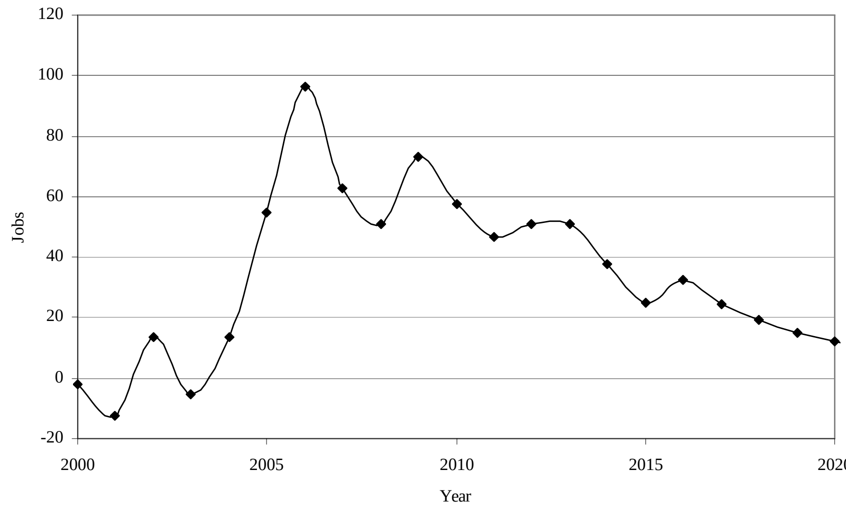
Impact on jobs and GSP not enough to offset tax credits

The REMI model predicts the tax credit program will have limited impact on jobs and the GSP. For example, the tax credit program's resulting employment growth peaks at 96 net new jobs created in 2006. However, by program end in 2010, just 57 jobs remain and all but 12 of those jobs are lost by 2020. Rural areas benefit from most of the predicted new jobs. Figure 2.1 shows the predicted change in employment by year.

[7] This net gain is calculated by taking the projected $2.3 million revenues generated from the program less the projected $300,000 in state expenditures.

[8] This loss calculation does not include the positive social effects of any developments which occurred in the rural communities that would not have occurred without the tax credit. For example, it was not possible to measure the economic benefits of the increased quality of life this tax credit may have provided to these areas.

Figure 2.1: Predicted Change in Employment by Year

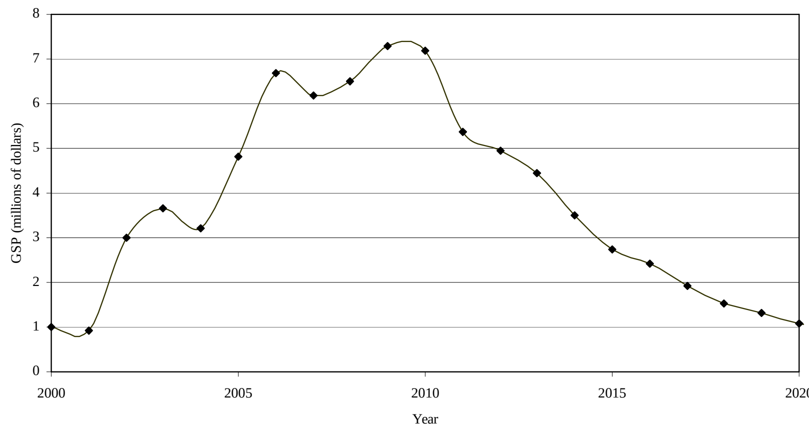


Source: REMI economic model.

The REMI model predicted GSP increased and peaked at an increase of $7.3 million in 2009, and steadily declines, but remains positive in subsequent years as the effects of the program dissipate. The projected cumulative increase in GSP totals $79.7 million through 2020. The model predicts GSP per capita peaks in 2014 at cumulative growth of $8.34. Beginning in 2015 GSP per capita becomes negative[9] and remains slightly negative annually through 2020 when cumulative GSP per capita is $7.83 The reduction in GSP per capita annually after 2015 occurs because the population of the state increases at a faster rate than the change in GSP. Figure 2.2 shows the predicted change in GSP.

[9] GSP per capita is negative in a particular year when the growth in the modeled economy with the tax credit impact is less than the growth that results from the baseline economy in the model.

Figure 2.2: Predicted Change in GSP (dollars in millions)



Source: REMI economic model.

Conclusions

Although the NG tax credit program is estimated to create jobs and increase GSP, the REMI model estimates it will generate limited overall economic activity. The model results show the NG program creates only 12 jobs which remain in place by the end of the 20-year period the program was modeled and will cost the state $37.2 million over that period. The investment activity and job creation through 2005 occurred primarily in rural communities.

The NG program sunsets December 31, 2010. Because of the minimal economic benefits resulting from program costs, the General Assembly should evaluate whether the program's social benefits outweigh those costs when considering the program's extension.

Recommendation

We recommend the General Assembly evaluate whether the NG program's social benefits outweigh its costs when considering its extension.

Agency Comments

See Appendix IV for MASBDA's Chapter 2 comments with REMI and SAO comments.

Law Changes Could Improve Benefits of Tax Credit Program

State law does not require new generation cooperatives to own or operate facilities in Missouri. In addition, unclear statutes can allow individuals to exceed the $15,000 tax credit limit per cooperative per producer member. As a result, the tax credit's potential economic benefit to the state is less than it could be and some individuals may be able to benefit from the credit more than the General Assembly intended.

Tax Credit Law Needs Clarification

Inconsistency in state law allows facilities of new generation cooperatives to operate outside of the state. Section 348.432.2, RSMo, defines a tax credit eligible new generation cooperative as a nonprofit cooperative association formed for the purpose of operating a developmental facility or renewable fuel production facility. That statute further defines a tax credit eligible new generation processing entity as a partnership, corporation, cooperative, or limited liability company organized or incorporated pursuant to the laws of this state consisting of not less than 12 members, approved by the authority, for the purpose of owning or operating within this state a development facility or a renewable fuel production facility in which producer members (1) hold a majority interest, (2) control hiring and firing of management, and (3) deliver agricultural products.

The law does not define when a facility would have to be placed in operation to remain eligible for tax credits and is unclear if facilities of new generation cooperatives must operate in the state. A MASBDA official said MASBDA interprets the statute to mean only new generation processing entities would have to have facilities operating in the state. We identified at least two new generation cooperatives working with facilities based outside of the state. According to application paperwork and comments from MASBDA personnel, both cooperatives plan facilities in the state. However, those facilities may not occur and MASBDA officials do not believe they are required to establish facilities in the state. Section 348.414, RSMo, says MASBDA shall not provide services or funds for any project not located in this state; however, project is not defined.

State law also is not clear regarding limitations on the tax credit issuances. Section 348.432.3, RSMo, limits each producer member in a new generation cooperative or processing facility to a maximum tax credit of $15,000; however, the law does not clarify if producer member name or taxpayer identification number controls what constitutes a separate producer member. We identified four instances where MASBDA issued $30,000 in tax credits to one taxpayer identification number. The new generation cooperatives reported the same taxpayer identification number as two separate producer members.[10] As a result, the individual/entity with that taxpayer identification number received $30,000 in credits for each cooperative investment. Whether the legislature intended such a situation to happen based on how the law was written is unknown.

Conclusions

Changes to state law to ensure new generation cooperatives own or operate production facilities in Missouri and to clarify the definition of separate producer members would enhance the economic benefit of the NG tax credit program in the state and clarify the legislative intent regarding tax credit eligibility limits.

Recommendations

We recommend MASBDA request the General Assembly:

3.1 Modify state law to ensure new generation cooperatives establish facilities within the state and establish a timeframe by which the facility needs to be in place (for example 3 to 5 years after issuance of the credits).

3.2 Clarify in state law whether entity name or tax identification number controls who is considered a separate producer member for tax credit eligibility.

Agency Comments

3.1 A legislative proposal has been submitted to amend Section 348.432.2. (3) by inserting <u>within this state</u> so the definition of "Eligible new generation cooperative" and "Eligible new generation processing entity" are consistent and does require the facility to be located in Missouri.

By board policy the facility must be operational within 24 months of the New Generation Cooperative Tax Credits being issued. Extensions of the 24 month requirement may be requested. MASBDA will consider, but not limited to: construction delays due to weather, unforeseen material delays, acts of God or other catastrophic events.

3.2 By board policy "Tax credits will only be issued to memberships with distinct tax identification numbers." Tax credits will not be issued to multiple memberships with the same tax identification number in any one project.

[10] One for an individual and one for a business/farm name.

Improved Procedures and Reporting for Tax Credit Program Needed

NG program internal controls and reporting need improvement to ensure investments are properly made, facility monitoring is adequate, reasons are sufficient for authorizing additional tax credit issuances, conflict of interest policies are complied with and the cost-benefit of the program is accurately reported. As a result of weaknesses identified in these areas, the program may not be running as effectively as possible and the General Assembly has not received an accurate analysis of the tax credit's impact on the state.

Control and Reporting Weaknesses

NG program internal controls and reporting improvements are needed because (1) MASBDA has not received sufficient documentation that producer members made investments prior to tax credits being issued, (2) MASBDA has not established policies and procedures for compliance and on site monitoring of new generation cooperative or processing facilities, (3) MASBDA has not established criteria for when new generation cooperatives or processing facilities may be eligible for additional tax credits issuance, (4) MASBDA failed to adhere to its conflict of interest policy and issued tax credits to ineligible applicants, and (5) the annual tax credit's cost-benefit reported to the General Assembly as part of the state's budgeting process overestimates the benefit to the state.

Proof of investment inadequate

MASBDA has not required adequate supporting documentation for proof of the investment. MASBDA program guidelines require each new generation cooperative or processing facility provide a certified listing of the investors and the investment amount prior to issuing letters to investors that they are eligible to apply for tax credits. However, without requiring the provided documentation include copies of checks and deposit slips validated by a bank, there is no proof the investments occurred. A MASBDA official said the current documentation was sufficient because the cooperatives and facilities needed the investments, entities have external audits and MASBDA staff conducts periodic site visits of the facilities. However, the official further stated MASBDA does not receive or review the audit reports and has no set procedure or requirement for site visits.

Specific monitoring procedures needed

MASBDA has not established compliance monitoring procedures for new generation cooperatives or processing facilities. New generation cooperatives or processing facilities receive annual audits, but MASBDA has not established procedures to obtain and review these audits. In addition, procedures have not been developed to perform periodic site visits and ensure compliance with statutory and program established requirements. According to a MASBDA official, specific documented procedures are not necessary because the agricultural community is small, MASBDA is invited to the groundbreaking or ribbon cutting ceremonies, and if an employee or commission member is in the area of the facility they will "stop in." Good business practices suggest formal compliance monitoring procedures improve the identification of errors or weaknesses compared to unstructured or inconsistent approaches.

Criteria for authorizing additional tax credits needed

MASBDA has not established criteria for when new generation cooperatives or processing facilities may be eligible for additional issuances of tax credits. New generation cooperatives or processing facilities have been allowed to receive additional tax credits for facility expansions. As of June 2006, four facilities have been approved for additional tax credit issuances. A MASBDA official said the commission approves additional tax credits if "substantial expansion" of the facility is planned; however, MASBDA has not developed specific criteria for what constitutes a substantial expansion.

In one case, MASBDA approved two rounds of tax credits for a new generation processing facility within a 6-month period. A MASBDA official said the commission knew the cooperative would be applying for two rounds of tax credits in a short time frame because the cooperative had separate projects in different parts of the state. He also said MASBDA did not believe specific criteria is necessary for approving additional tax credit funding for cooperatives because each request is unique and would need to be evaluated on its own merits.

MASBDA did not adhere to its conflict of interest policy

MASBDA's internal conflict of interest policy prohibits the issuance of tax credits to any member of the Missouri General Assembly, statewide elected official, director of a state department, or any of their immediate family who has a substantial interest in a new generation cooperative or processing entity, as defined by section 105.450 (10), RSMo. This section defines substantial interest as (1) ownership of 10 percent or more of a business entity or (2) an interest having a value of $10,000 or more.

A test of tax credit recipients disclosed MASBDA issued at least $78,000 in tax credits to three members of the General Assembly not eligible to receive the tax credits based on MASBDA's internal policy. Each legislator reported owning shares in new generation cooperatives or processing entities worth more than $10,000 on tax credit applications. According to a MASBDA official, the commission only determined the applicant did not own 10 percent or more of the business entity when determining tax credit eligibility. He said the commission did not consider if the investment has a value of $10,000 or more when evaluating whether a conflict exists.

Cost-benefit for credit overstated

The annual tax credit's cost-benefit reported to the General Assembly as part of the state's budgeting process overestimates the benefit to the state. MASBDA staff has prepared an annual tax credit analysis for the NG tax credit since fiscal year 2000, for the General Assembly as part of the state budget process. That analysis includes a cost-benefit analysis. MASBDA's methodology for calculating the cost-benefit ratio has three major flaws:

- MASBDA has used two ethanol impact studies that analyze the impact of one agricultural product to estimate the benefits of a program that provides tax credits of varying amounts to new generation cooperative and processing facilities of varying size and agriculture sector impact. The construction and operational impacts of an ethanol plant are the highest among all the potential new generation cooperative or processing facilities. Because ethanol plant construction and sales are so high relative to all other new generation entities, the benefits of the plant far exceed the costs in the cost-benefit ratio, but that would not be the case with the smaller new generation entities that create fewer sales.

- The ethanol impact studies used as a basis for the cost-benefit analysis lack two key features a tax credit cost-benefit analysis should contain. First, the model used in these reports did not account for the decrease in state tax revenue caused by financing the tax credits. Second, these studies reported the total economic benefit derived from the construction and operation of the ethanol plants. Whereas a tax credit analysis only calculates the economic benefit resulting from the tax credit program.

- A MASBDA official said staff used a "tax revenue multiplier" in the cost-benefit computation to increase the direct effect, or benefit, of the program by three times the tax revenue. He said this computation was done because of an assumption that the software program used for the analysis in the impact study did not account for dividends paid to owners of firms. However, we identified the software did account for this activity in the total value-added component.

A MASBDA official said the cost-benefit analysis has been done this way because the analysis instruction documents provide limited explanation and the presentation made was the best information available.

Conclusions

Improving internal controls and establishing specific monitoring procedures will help ensure tax credits are issued for eligible investments, facilities are adequately monitored for statutory and program created compliance guidelines, and reasons are sufficient for authorizing additional tax credits for projects that already received program assistance.

MASDBA's interpretation of law has allowed individuals to receive tax credits they were not eligible for under its conflict of interest policy.

Inaccurate or incomplete cost-benefit program analysis has been provided to the General Assembly limiting the effectiveness of how it can judge program results.

Recommendations

We recommend MASBDA:

4.1 Establish procedures that require documentation to ensure producer member investments took place.

4.2 Develop a policy to periodically monitor operational new generation facilities. The policy should stipulate specific monitoring procedures, such as how often site visits should occur and what should be reviewed.

4.3 Establish criteria for when new generation cooperatives and processing facilities may be eligible for additional issuances of tax credits.

4.4 Discontinue issuing tax credits to ineligible applicants and work with the Department of Revenue to recoup the credits issued to the ineligible recipients.

4.5 Provide accurate realistic cost-benefit analysis to the General Assembly annually as part of the budgeting process.

Agency Comments

4.1 By current board policy: (1) The facility must certify, subject to penalties of perjury, that all "producer member" investments, as shown on a certified membership list, has been received and deposited to the account of the facility and that the facility has full use of the investment funds, (2) The "producer member" certifies, subject to penalties of perjury, that they did, in fact, invest a stated amount on a stated date, (3) the two referenced certifications are reconciled.

Additional requirements will be added: (4) facilities must send an audited financial statement that adequately reflects the investment funds, or monthly bank statements which reflect deposits of member's investment. The bank statements may be reconciled with the certified membership investment list.

4.2 By board policy all projects whose producer members received New Generation Cooperative Incentive Tax Credits will be monitored on no *less than an annual basis from the date of issuance through the fifth year after becoming operational.*

Monitoring will be recorded and shall include, but not be limited to:

1. *Construction progress during the construction phase,*
2. *Note any update of board members, board of managers, or CEOs,*
3. *Address any delinquent reports as required by the tax credit accountability act,*
4. *Attempt to obtain a copy of the most recent financial information, and*
5. *Verification of number of employees.*

4.3 By current board policy each application for additional tax credits is considered on the individual merits of the expansion. Consideration will continue to include, but not be limited to; expansion capital, job creation, physical capacity increase, product line increase, environmental requirements, and economic development.

4.4 MASBDA's conflict of interest policy made reference to Section 105.450. (10) RSMo. The intent was to make reference to the ownership of 10% or more of a business entity that is referenced in the above section and not the complete (10) section.

The conflict of interest policy has been clarified to clearly state the board's policy:

The Missouri Agricultural and Small Business Development Authority (MASBDA) shall not knowingly provide a loan, loan guarantee, grant, or tax credit to any member of the Missouri General Assembly, any state-wide elected official, any director of a state department, or any of their immediate family or to any entity in which they have a "substantial interest", except for loans, loan guarantees, direct grants, or tax credits made (a) after public notice with competitive bidding and provided that the award is made to the lowest bidder or (b) for projects of eligible new generation cooperatives in which they do not have a substantial interest.

"Immediately family" is defined as spouse or dependent child whether by consanguinity or by operation of the law.

"Dependent child" is defined as all children, stepchildren, foster children and wards under the age of eighteen residing in the person's

household and who receive in excess of fifty percent of their support from the person.

"Substantial interest" is defined as ownership by the individual, the individual's spouse, or the individual's dependent children, whether singularly or collectively, of ten percent or more.

All tax credits have been issued in accordance with the intent of the conflict of interest policy which has now been restated to clearly state the intent of MASBDA commissioners. Therefore, no attempt will be made to recoup the tax credits referenced in the audit as they were not issued in violation of the intent of the policy.

4.5 MASBDA's belief is that the New Generation Cooperative Incentive Tax Credits play a vital role in rural economic development in Missouri and it is our belief that the tax credits do provide direct positive benefits at both the state and local level. MASBDA will continue to provide the most accurate realistic cost-benefit analysis to the General Assembly. MASBDA is preparing to solicit bids from outside sources to conduct more frequent cost/benefit analysis in an effort to update information to the General Assembly.

Cooperatives Receiving New Generation Tax Credits

Table I.1 lists the cooperatives for which producer members received tax credit allocations through June 30, 2006.

Table I.1: Cooperatives Receiving Tax Credits

Cooperative	Value-Added Product Produced	County Location of Cooperative	Tax Credits Issued
Northeast Missouri Grain Cooperative[1]	Ethanol/DDGS[2]	Macon	$1,500,000
Golden Triangle Cooperative	Ethanol/DDGS	Holt	1,500,000
Agramark Quality Grain Cooperative[1]	Food Grade Ingredients	Buchanan	1,500,000
Northeast Missouri Grain Cooperative[1]	Ethanol	Macon	1,500,000
Missouri Food and Fiber Cooperative	IP[3] Soybeans	Warren	1,500,000
Ozark Mountain Pork Cooperative[1]	Packaged Pork	Howell	398,000
Farm Food Cooperative	Meat	Montgomery	100,000
Gateway Beef Cooperative	Processed Beef	St. Louis	499,960
Ozark Mountain Pork Cooperative[1]	Packaged Pork	Howell	265,000
Central Missouri Poultry Producers	Soil Amendment	Moniteau	102,500
TransCon Ag Processing Cooperative	IP Grain – Soy-Based Beer	Cass	1,500,000
Mid-Missouri Energy Cooperative	Ethanol	Carroll	1,500,000
Sho-Me Livestock	Processed Meat	Maries	829,250
Missouri Farms Dairy	Process Milk	Jasper	1,500,000
Alma Meats	Meat	Lafayette	1,282,500
1 Soy	Soy Snacks	Warren	1,027,500
Agramark Quality Grain Cooperative[1]	Corn Flower	Buchanan	1,117,500
Biofuels[1]	Biodiesel Fuel	Cole	1,500,000
Biofuels[1]	Biodiesel Fuel	Cole	1,500,000
ECAP Cooperative	Ethanol	Audrain	1,500,000
Total			$22,122,210

[1] Cooperative received more than one round of tax credits.
[2] DDGS is corn distillers dried grains with solubles. DDGS is a co-product of a dry milling manufacturing process.
[3] Identity Preserved

Source: MASBDA database and cooperative files.

Tax Credit Review Status

Table II.1 shows the statewide tax credit programs and the State Auditor's office review status of each program.

Table II.1: Tax Credit Programs and Review Status

Program	Administering Department	Report Number for Review
New Generation Cooperative Incentive	Agriculture	2007-06
Agricultural Product Utilization Contributor	Agriculture	2007-05
Adoption (Special Needs)	Revenue	2005-79
Community Development Corporation/Bank	Economic Development	2005-55
(Capital) Small Business Investment	Economic Development	2005-54
Certified Capital Companies (CapCo)	Economic Development	2004-56
New Enterprise Creation	Economic Development	2004-56
Community College New Jobs Training Bonds	Economic Development	2003-32
Brownfield Jobs/Investment	Economic Development	2002-33
Brownfield Remediation	Economic Development	2002-33
Historic Preservation	Economic Development	2002-33
Qualified Research Expense	Economic Development	2002-33
Seed Capital	Economic Development	2002-33
Youth Opportunities and Violence Prevention	Economic Development	2002-33
Film Production	Economic Development	2001-13
Rebuilding Communities	Economic Development	2001-13
Small Business Incubator	Economic Development	2001-13
Winery and Grape Growers	Economic Development	2001-13
Affordable Housing Assistance	Economic Development	To Be Reviewed
Bank Franchise	Revenue	To Be Reviewed
Bank Tax Credit for S Corporation Shareholders	Revenue	To Be Reviewed
Brownfield Demolition	Economic Development	To Be Reviewed
BUILD Missouri Bonds	Economic Development	To Be Reviewed
Business Facility	Economic Development	To Be Reviewed
Cellulose Casings	Revenue	To Be Reviewed
Charcoal Producers	Natural Resources	To Be Reviewed
Development	Economic Development	To Be Reviewed
Disabled Access	Revenue	To Be Reviewed
Domestic Violence	Public Safety	To Be Reviewed
Enhanced Enterprise Zone	Economic Development	To Be Reviewed
Enterprise Zone	Economic Development	To Be Reviewed
Examination Fees	Insurance	To Be Reviewed
Family Development Account	Economic Development	To Be Reviewed
Guarantee Fee	Economic Development	To Be Reviewed
Life and Health Guarantee Association	Insurance	To Be Reviewed
Maternity Home	Social Services	To Be Reviewed
MDFB Development and Reserve	Economic Development	To Be Reviewed

Appendix II
Tax Credit Review Status

Program	Administering Department	Report Number for Review
MDFB Export Finance	Economic Development	To Be Reviewed
MDFB Bond Guarantee Credit	Economic Development	To Be Reviewed
MDFB Infrastructure	Economic Development	To Be Reviewed
Missouri Health Insurance Pool	Insurance	To Be Reviewed
Missouri Low Income Housing	Economic Development	To Be Reviewed
Missouri Property and Casualty Guarantee Association	Insurance	To Be Reviewed
Neighborhood Assistance	Economic Development	To Be Reviewed
Neighborhood Preservation	Economic Development	To Be Reviewed
Pharmaceutical	Revenue	To Be Reviewed
Processed Wood Energy	Natural Resources	To Be Reviewed
Property Tax	Revenue	To Be Reviewed
Retain Jobs	Revenue	To Be Reviewed
Shared Care	Health and Senior Services	To Be Reviewed
Sponsorship and Mentoring Program	Elementary and Secondary Education	To Be Reviewed
Transportation Development	Economic Development	To Be Reviewed

Source: SAO

Tax Credit Redemptions

Table III.1 shows the redeemed tax credits in fiscal years 2003 through 2006 for all state tax credit programs. This information was not audited.

Table III.1: Tax Credit Redemptions by Program

	Fiscal Year			
Program	**2003**	**2004**	**2005**	**2006**
Adoption (Special Needs)	$1,993,883	1,995,882	2,582,546	2,460,245
Affordable Housing Assistance	7,601,144	7,554,503	7,702,860	4,080,564
Agricultural Product Utilization Contributor	957,074	1,964,872	1,639,541	1,857,235
Bank Franchise	873,461	1,596,458	2,543,523	2,413,631
Bank Tax Credit for S Corporation Shareholders	1,060,111	1,233,830	941,460	1,451,903
Brownfield Jobs/Investment	90,893	2,134,891	1,726,687	1,476,143
Brownfield Remediation/Demolition	5,669,489	16,101,975	10,627,870	10,611,324
BUILD Missouri Bonds	4,261,882	9,667,000	3,770,557	5,402,416
Business Facility	7,244,747	7,826,417	4,546,330	5,892,727
Cellulose Casings	225,319	429,480	382,540	341,315
Certified Capital Companies	13,111,196	13,564,932	13,371,610	13,164,904
Charcoal Producers	120,837	0	384,609	70,151
Community Development Corporation/Bank	484,723	1,632,669	2,021,628	34,870
Community College New Jobs Training Bonds	8,650,799	8,061,584	6,847,304	5,771,777
Development	430,097	562,622	2,487,152	4,518,483
Disabled Access	47,506	87,401	56,761	36,549
Domestic Violence	513,532	475,283	515,035	525,348
Dry Fire Hydrant	20,371	13,169	17,228	805
Enhanced Enterprise Zone	n/a	n/a	9,809,254	5,922,720
Enterprise Zone	13,767,273	19,766,366	15,485,501	14,759,891
Examination Fees and Other Fees[1]	6,710,016[2]	5,844,206[2]	4,962,341[2]	5,413,885
Family Development Account	8,760	27,488	12,875	9,237
Film Production	122,810	423,857	322,079	788,596
Guarantee Fee	0	0	11,224	73,009
Historic Preservation	43,153,986	66,089,980	74,532,355	103,134,226
Life and Health Guarantee Association[1]	2,440,427	177,712	302,516	4,910
Maternity Home	976,379	982,747	743,636	760,674
MDFB Bond Guarantee Credit	316,855	0	594,034	0
MDFB Development and Reserve	0	0	1,500	0
MDFB Export Finance	0	0	0	0
MDFB Infrastructure	6,310,541	10,020,578	25,953,799	21,858,725
Missouri Business Modernization and Technology (Seed Capital)	508,182	288,174	164,894	60,313
Missouri Health Insurance Pool[1]	1,581,522	3,687,665	3,688,639	5,497,999
Missouri Low Income Housing	29,978,473	36,916,831	65,392,601	61,963,799

Appendix III
Tax Credit Redemptions

Program	Fiscal Year 2003	2004	2005	2006
Missouri Property and Casualty Guarantee Association[1]	18,362,815	16,823,462	16,959,512	6,019,763
Neighborhood Assistance	8,641,533	10,217,628	9,286,880	10,009,497
Neighborhood Preservation	3,879,134	4,001,293	8,461,503	4,627,368
New Enterprise Creation	4,331,972	3,259,307	2,504,561	1,534,647
New Generation Cooperative Incentive	1,510,305	3,466,068	3,334,935	4,990,666
Pharmaceutical	3,737,102	524,527	142,373	1,672
Processed Wood Energy	3,642,570	1,205,443	3,700,285	3,728,100
Property Tax	97,180,378	95,237,314	99,455,570	96,090,703
Qualified Research Expense	1,642,524	2,038,230	1,626,864	1,006,688
Rebuilding Communities	2,289,501	1,415,889	1,694,006	1,764,167
Retain Jobs	n/a	n/a	0	2,882,995
Shared Care	24,355	39,109	33,574	39,247
Small Business Incubator	81,716	167,360	246,807	322,278
Small Business Investment (Capital)	149,068	49,478	109,050	58,189
Sponsorship and Mentoring Program	0	0	0	0
Transportation Development	1,249,848	3,678,532	3,545,219	980,806
Winery and Grape Growers	275,366	260,397	179,323	69,564
Youth Opportunities and Violence Prevention	2,898,572	3,272,225	3,211,185	3,256,950
Total	$309,129,047	364,784,834	418,634,136	417,741,674

[1] Redemptions are on a calendar year rather than fiscal year and based on tax year credit was applied against.

[2] Until 2006 the amount reported by the Department of Insurance for this credit was only the examination fee portion and not the other taxes and fees for which credits were also redeemed. The numbers in this appendix for 2003, 2004, and 2005 have been updated to include all redeemed credits.

Source: Office of Administration, Department of Revenue, and tax credit program administering agencies.

MASBDA Chapter 2 Comments with REMI and SAO Comments

MASBDA provided the following comments to the REMI analysis in Chapter 2:

Missouri Agricultural and Small Business Development Authority (MASBDA) commissioners and staff welcomed and embraced the audit that was to be conducted by the Missouri State Auditor's office. We take very seriously our charge of administering legislatively mandated programs and always welcome any comments and suggestions on ways to better implement and administer programs. We were very supportive of the "Tax Credit Accountability Act" which provides for audits of all tax credit programs. In fact, MASBDA provided testimony in favor of the legislation.

Serious considerations have been given to all recommendations made in the audit. The vast majority of those recommendations have been implemented, clarified, or proposed.

One notable exception is that we are very concerned with the audit methodology, assumptions, and the REMI modeling tool being used to conduct a cost/benefit analysis of the tax credit program.

During the initial audit meeting MASBDA staff expressed grave concerns about the REMI model being used to conduct a cost/benefit analysis. The model utilizes North American Industry Classification System (NAICS) codes which are biased against agriculture as the 70 sector codes do not reflect modern agriculture. That same concern was expressed throughout the audit, during the exit interview, and again when the audit findings were presented to the MASBDA commissioners.

We understand REMI to be an instrument for forecasting and policy analysis. The model utilizes national forecasts of future growth or decline by industry sector. The historical data is used to track how the industrial mix and concentration of employment in the region is different from the rest of the country, and how the economic growth trends in the region differ from national trends for each industry sector. The model produces a controlled forecast by using current data regarding the economy. The control forecast represents the projection of the economy into the future ceteris paribus. This means that the future economic growth will follow similar patterns in the future as had been experienced in the past. In modern value-added agriculture that assumption is certainly flawed. For example, in the case of alternative fuels with unprecedented high oil prices, fuel prices and demand being at all time highs is in no way reflective of history. Many other value-added enterprises, who have received the benefits of tax credits, have experienced tremendous advances in technology making them much more efficient and effective. History was in no way a predictor of *those changes. For example, the first ethanol produced in Missouri was not until 2001 and the first biodiesel plant is just now coming online. With this short history the model cannot have an adequate representative baseline.*

As the audit analysis states, REMI generates a baseline forecast for the state, by sector, by geographic regions, by NAICS codes (which are not reflective of modern day value-added agriculture) without the tax credit program in place. Data was then input into the model to reflect how the tax credits affect spending by firms, households, and government and then studied the difference between certain variables in the baseline and the alternative forecast.

The alternative forecast allows the user to input variable changes to occur in future time periods. Only those variables that would be affected by the policy change being measured would be changed in the alternative forecast. The REMI model then forecasts economic performance based upon the policy variable changes.

The difference between the alternative and the control forecasts, measured by the distance between the two forecast lines, represents the economic impact of the policy change upon the economy. If the alternative forecast is greater than the control forecast, then a positive economic impact results for the economy. A negative economic impact results should the alternative forecast be less than the control forecast.

REMI is intended to be used to analyze policy changes and make forecasts accordingly. REMI is not intended to be used for a cost/benefit analysis of specific tax credits issued to specific producer members who invest in specific projects. For example, the exact benefit or cost of $1.5 million tax credits being issued to 700 plus producer members who are now 100% owners of a $80,000,000 ethanol production facility creating 30 plus jobs and causing corn prices to increase by an estimated $.15/bushel for all farmers in the area cannot be determined by REMI. Again, REMI looks at sectors, not specific projects. For any specific issuance of tax credits, REMI does not account for any specific plant operational efficiencies, specific purchasing efficiencies, specific marketing efficiencies, employee productivity, by-product production or marketing, or profitability of the facility and how and to whom those profits flow. Just as in the above example, all of the profits remain in Missouri as compared to the baseline generated by REMI in which national and international companies generate the baseline. Those profits flow throughout the United States, or even internationally.

The "Tax Credit Accountability Act" requires the Missouri State Auditor to prepare a cost benefit analysis of all tax credit programs. Again, we believe the REMI model does NOT accomplish that purpose on each tax credit program but rather looks at the tax credit programs from a policy analysis standpoint without consideration being given for the merits of each project whose producer members received tax credits.

As previously noted, the NAICS codes are not reflective of modern value-added agriculture and we believe REMI is an inadequate tool to conduct a cost/benefit analysis.

Some examples of the inadequacies of the REMI model are:

1. *Of the $22 million tax credits issued by MASBDA and reviewed by the Missouri State Auditor, $7.5 million were issued to producer members investing in ethanol production facilities. There is no NAICS code for ethanol production. The code for ethyl alcohol manufacturing was used. That code is not at all reflective of ethanol production in Missouri.*

2. *Tax credits in the amount of $3.0 million were issued to producer members investing in biodiesel facilities. The code for petroleum bulk station terminals and distribution was used as there is no code for biodiesel production. Again the code used is not at all reflective of biodiesel production.*

3. *Examples of other credits issued to producer members include:*

    a. *Poultry litter recycling – no NAICS code,*
    b. *Food grade corn milling – no NAICS code,*
    c. *Food grade soybean cleaning, processing, and distribution – no NAICS code, and*
    d. *Nutriceutical production – no NAICS code.*

4. *Of the tax credit issuance projected through December 31, 2010, most of those projected projects did not have adequate NAICS codes.*

5. *The audit notes that the employment peaks in 2006 with 96 net new jobs. The audit assumption is that only 57 jobs remain in 2010 and only 12 remain by 2020. It is unclear how those numbers were generated. With only 57 jobs remaining in 2010 that means that less than two ethanol plants can operate and all other projects will cease operation. With only current ethanol production being*

considered, over 100 new jobs have been created. The projected ethanol projects alone will generate in excess of 100 additional jobs. With all other current and projected projects, the employment numbers far exceed those reflected in the audit. If only 12 jobs remain in 2020, the assumption is being made that none of the ethanol or biodiesel plants will still be in operation. The typical ethanol plant requires 30 employees.

It is unrealistic to assume that the vast majority of the projects will cease to be operational by 2020.

6. *In addition, the model does not allow multiple codes per project. For example, a meat company doing custom slaughtering, wholesale, retail, and further processing would be fit into one code without each sector of the business being reflected in the total operation.*

A recent study conducted by the University of Missouri's Commercial Agriculture Program shows:

- *the one time impact of constructing the current four operational ethanol plants to have created 5,374 U.S. jobs,*
- *increased the economic activity in the U.S. by $637 million,*
- *the operation of the same four plants will annually maintain 2,784 Missouri jobs, and*
- *provide $92 million in Missouri employment income.*

That same study shows the four operational plants will annually:

- *generate $178 million in value-added income to Missouri's economy,*
- *generate $390 million in economic activity in Missouri, and*
- *raise the value of Missouri's corn crop by $41 million annually.*

A study just completed by the Missouri Department of Economic Development's Missouri Economic Research & Information Center (MERIC) in which they looked at the biofuels (ethanol and biodiesel) industry (over a 10 year period, 2004-2013) in Missouri concludes, in part, that for every dollar invested in the biofuels industry:

- *$0.42 in net general revenues to the state totaling ($165 million),*
- *$17.34 in new personal income to Missourians totaling $4.9 billion, and*

- *$19.08 in new economic activity/output to the state economy totaling $5.4 billion.*

The study goes on to show that on average each year the industry creates:

- *6,670 new jobs paying an average wage of $24,989,*
- *($16.5 million) in net general revenues on average each year,*
- *$494 million in new personal income on average each year, and*
- *$544 million in new economic activity/output on average each year.*

The study does show a ($16.5 million) in net general revenues for average per year for the modeling years 2004 - 2013. However, the study does show that beginning with 2013 there is a positive impact on general revenues of $10,688,931. The modeling is only through the year 2013 but certainly there is every reason to believe that a positive impact on general revenue will continue so long as the facilities are in production.

MASBDA is also concerned about the audit because a number of the assumptions made in the audit seem to be arbitrary and without merit.

1. *The assumption was made that any producer member investing beyond $30,000 was an investment that would have been made absent the tax credit, and therefore, did not produce any follow-on investment beyond $15,000 and was not modeled. This assumption was made <u>without</u> any conversations, surveys, or questions of the producer members investing in the projects to determine what they would or would not have done absent the tax credit. It seems more logical to include the overall investment rather than making an arbitrary assumption to determine the reason for making the investment. Financial decisions are based on the overall investment return, not just a limited calculation of the return for a portion of the investment. That means just over $78 million of the estimated $615,000,000 in capital investments was considered in the model.*

2. *Although 10% of the credits have been issued to out-of-state producer members who invested in Missouri projects, the investments resulted in creating economic development and jobs in Missouri. The decision was made by the audit staff to reduce follow-on investment in the model by the amount of the out-of-state follow-on investment. That decision was made without regard to any shopping and spending patterns of those producer members. For example, based on conversations of MASBDA staff with the producer members, MASBDA believes that the nearest trade center*

for many of the out-of-state producer members is in Missouri. Many of those individuals shop almost exclusively in Missouri. Certainly their major purchases such as farm equipment, vehicles, and household goods are purchased in Missouri. Some of those producer members have off-farm jobs and actually work in Missouri.

3. *Based on the current statute, the last credits could be claimed in 2015. It is unclear why the model is projecting cost through 2020, five years after the last credits could be claimed. Certainly, the benefits will continue so long as the facilities are operational.*

4. *The audit notes the redemption rate is about 34% average for the years 2000-2004. The audit did not reflect how that average was determined but was verbally explained to the satisfaction of MASBDA. That average was applied to the projected tax credit issuances to determine the amount of redeemed tax credits. The audit assumed that all tax credits which have or will be issued will be redeemed. MASBDA staff conveyed to the audit staff that an estimated 10% of issued credits would lapse and not be redeemed. That estimate was based on conversations with tax credit recipients who either attempted to transfer credits which had lapsed or who tried to redeem credits which had lapsed. Therefore, we disagree with the audit assumption that 100% of all issued tax credits will be redeemed.*

The REMI economist who we consulted with during the audit provided the following analysis of MASBDA's comments and the specific concerns noted regarding the appropriateness of the REMI software in doing a cost-benefit analysis.

REMI Comments:

The analyses using the REMI model looks into the “total” benefit/cost of all the tax credit programs by looking beyond the method of increase in economy output from the sector of traditional input/output models. Understanding the concerns of Missouri’s Agricultural sectors, an increase in output is not sufficient enough to account for the actual total benefits of the program to the state. REMI Policy Insight was adjusted to look at the sector impact beyond their NAICS category by looking into productivity improvements and Missouri’s competitiveness in the national and international market.

Within the REMI model there are strong regional purchases and exports for the sector and their intermediate inputs, which shows the sector's importance for the health of the Missouri economy. Although in the analyses, there were improvements to Missouri's competitiveness, the increases in the sector's competitiveness were minimal over time.

REMI Policy Insight was used in many analyses in the U.S. including the recent studies of Advanced Ethanol in the Great Lake region for Michigan Technological University and Biodiesel feasibility study for the U.S. Environmental Protection Agency. Although REMI looks at how markets and impacts change over time, its clients have frequently used the REMI model to derive the cost and benefits of programs and projects. REMI would like its users to look beyond benefit/cost analysis but there is no denying the importance of using benefit/cost ratios for comparisons of projects. REMI has been used for the last 26 years in helping its clients figuring out the total benefits and costs of projects. Agencies such as New Mexico Department of Finance Administration, Washington Department of Transportation, Louisiana Legislative Fiscal Office, Massachusetts Institute of Technology, New Jersey Transit Authority and countless others have used REMI for benefit/cost analysis.

Steps were taken to adjust the sector to increase productivity and lower production costs and to make the industry competitive in the national and global markets.

1. The NAICS code for ethanol production is 325193. The correct code was used for the analysis.

2. The NAICS code for biodiesel facilities is 325199. The correct code was used for the analysis.

3. a. The NAICS code for Poultry Litter Recycling is 112
   b. The NAICS code for Corn Milling is 311221
   c. The NAICS code for Soybean Processing is 311222
   d. The NAICS code for Nutriceutical Production is 325410

   The analysis went beyond their NAICS code but tried to see the benefit of improvements to the competitiveness of the sectors and growth of market share.

4. What we went after was the maximum benefit that in an ideal situation (market clearance) that the credit would help lower production costs. We allocated the impacts accordingly to their

NAICS sectors (Every industry in the U.S. is part of a NAICS sector).

5. When the program ended, the productivity gained was not enough for the viability of the sector in Missouri, i.e. Missouri's competitors have a competitive advantage to take their market share back. Within the model, the impact could not be sustained.

6. The analysis went beyond their NAICS code but tried to see the benefit of improvements to the competitiveness of the sectors and growth of market share.

<u>SAO Comments</u>:

The assumptions made for the REMI analysis were not arbitrary and without merit. We discussed assumptions with REMI staff and made adjustments where necessary to appropriately evaluate the tax credit. The benefits to the state of biofuels projects as reported above by MASBDA include the impact of all state and federal subsidies and grants available for these projects, as well as private investment. As discussed on page 9, the state's cooperative supported ethanol plants have received $29.9 million in production incentive payments from the state through fiscal year 2006. This funding source and other state and federal resources available to the ethanol industry would be inducements for ethanol plants being established in the state. The analysis presented in this report attempts to show only the impact of the NG tax credits. An argument could be made that there is less need for cooperatives establishing alternative fuel products receiving NG tax credits when other public resources are available in that industry which are not available for cooperatives establishing other types of agribusinesses.

As noted in Chapter 1, we also performed a separate REMI analysis assuming 10 percent of the tax credits were not redeemed and found no significant difference in the analysis results.