2015 ANALYSIS OF THE ECONOMIC CONTRIBUTION OF THE RENEWABLE ENERGY TAX INCENTIVES

Florida Department of Agriculture and Consumer Services
Adam H. Putnam, Commissioner

Dear Governor Scott, President Gardiner and Speaker Crisafulli:

Pursuant to Section 377.703(2)(n), Florida Statutes, I am pleased to provide you with the attached Analysis of the Economic Contribution of the 2015 Renewable Energy Tax Incentives. This analysis is a critical assessment of the Renewable Energy Tax Incentives programs, which are scheduled to sunset on June 30, 2016. The tax incentives include the Florida Renewable Energy Technologies Investment Tax Credit, the Florida Renewable Energy Production Credit and the Florida Renewable Energy Technologies Sales Tax Refund.

These tax incentives were designed with assisting companies to expand renewable energy production within our state and to create new jobs for Floridians. As you know, these tax incentives are not energy subsidies. Rather, they are incentives that are available to businesses that demonstrate they are making investments to diversify our state's energy portfolio.

I support and embrace your commitment to ensure that any investment of taxpayer dollars should benefit Florida. To that end, this analysis measures the return on investment of taxpayer dollars in these programs and evaluates whether the programs achieved their intended goals.

Based on the information gathered by the department from applicants, the overall economic contribution these programs have provided our state is substantial. The department estimates that a total investment of more than $20 million for the Renewable Energy Tax Incentives produced an estimated total economic contribution of more than $195.2 million. Further, an estimated total of 704 jobs were created or supported statewide as a result of these incentives. These programs raised an estimated $15.9 million in state and local taxes and generated an estimated $43.2 million in labor income.

I hope you find this analysis informative. We look forward to continuing to work with you in order to create a stable, reliable and diverse supply of energy for Florida's future.

Sincerely,

Adam H. Putnam
Commissioner of Agriculture

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1. Introduction

The 2012 Florida Legislature reinstated the Renewable Energy Tax Incentives as part of Florida's energy policy. The program consists of three possible tax incentives and represents a total of $89 million in potential tax credits or sales tax refunds during the life of the program. The intended goals of the program are to increase renewable energy production within the state and to create new jobs for Floridians.

This report, required by Section 377.703(2)(n), Florida Statutes, is an overview of the utilization of the Renewable Energy Tax Incentives granted this year, as well as a critical assessment to determine if the programs produced a positive economic impact on our state and created new jobs for Floridians.

Through its rules, the Florida Department of Agriculture and Consumer Services (FDACS) required that all applicants provide a description of the economic impact that the eligible project has had on the state. This information may include the total dollar value of additional investments made, the number of jobs created and the total dollar value of salaries and wages of jobs created as a result of the project. Regional economic modeling was used as the basis for this evaluation. FDACS also reviewed public response to the programs, including requests for technical assistance in completing 2016 applications.

2. Florida Renewable Energy Technologies Sales Tax Refund

Pursuant to Section 212.08(7)(hhh), Florida Statutes, the Florida Renewable Energy Technologies Sales Tax Refund Program provides a refund of previously paid Florida sales tax on materials used in the distribution, including fueling infrastructure, transportation and storage, of biodiesel (B10-B100), ethanol (E10-E100) and other renewable fuels. An eligible item is subject to a one-time refund and must be purchased between July 1, 2012, and June 30, 2016. This program is limited to $1 million in Florida sales tax refunds each state fiscal year for all taxpayer applicants.

2.1 Utilization Summary

The Florida Renewable Technologies Sales Tax Refund program continues to be underutilized. Given the lack of interest demonstrated from prospective participants in the first year of the program, the department recommended repealing the program in the Analysis of the Economic Contribution of the 2013 Renewable Energy Tax Incentives. In the second year of the program, Fiscal Year 2013-2014, the department approved $261,686.16 in refunds to eligible applicants signaling an increase of interest in the program. However, in the past year of the program, Fiscal Year 2014-2015, the interest has decreased with only $27,740.66 approved in refunds to eligible applicants.

FDACS continues to work to increase participation in the program by educating eligible businesses on program requirements and providing assistance during the application process.

Table 1. Utilization of the Florida Renewable Energy Technologies Sales Tax Refund

Fiscal Year	Appropriation	Total Refunds Approved	Unused Refunds
FY2012-2013	$1 million	$0	$1 million
FY2013-2014	$1 million	$261,686.16	$738,313.84
FY2014-2015	$1 million	$27,740.66	$972,259.34

FDACS received five applications under the Florida Renewable Energy Technologies Sales Tax Refund Program in Fiscal Year 2014-2015. Three of the five applications were approved, totaling $27,740.66. The two applicants whose submissions were deemed incomplete received a full description of their application's deficiencies. Examples of the deficiencies include lack of supporting documentation in the form of invoices and proof of payments, sales tax calculated above the Florida sales tax rate of 6 percent, and failure to provide legible copies of invoices. The rule administering this program allows applicants to submit a corrected application. At this time, the applicants that were determined incomplete have not submitted corrected applications.

Table 2. FY2014-15 Approved Applicant List

Taxpayer	Approved Refund	Fueling Infrastructure	Transportation	Storage
Viesel Fuel, LLC	$18,010.66	$15,607.48	$0	$2,403.18
Sun Biodiesel, LLC	$8,100	$8,100	$0	$0
Sun Biodiesel, LLC	$1,630	$1,630	$0	$0
Total	**$27,740.66**	**$25,337.48**	**$0**	**$2,403.18**

2.2 Methodology

The Renewable Energy Technologies Sales Tax Refund is awarded to eligible applicants as a reimbursement of state sales taxes paid on materials used in the distribution of biodiesel, ethanol, and other renewable fuels. These materials include those used to build, repair, or maintain fueling infrastructure, transportation, and storage facilities for renewable fuels in Florida. However, the total expenditures on renewable fuel distribution supported by this program are much larger than the refunds awarded, since the refunds represent just a small fraction of the total costs of these improvements. Specifically, the refunds amount to just 6% of the total expenditures in materials destined for renewable fuel distribution in the state.

To determine the contribution that the program has made to Florida's economy, a model of the state's economy was created using the IMPLAN regional economic modeling system (Minnesota Implan Group, Inc., 2013) and associated state database for 2011. The use of a regional economic model allows a descriptive analysis that tracks the gross economic activity created by the policy as the dollars cycle through the region's economy (Watson et al., 2007). IMPLAN databases incorporate federal and state economic statistics on commodity production, household and government final demand, industry output, employment, labor and property income, domestic and international trade, personal and business taxes, transfer payments, capital investment, and business inventories. The model estimates regional economic multiplier effects, including direct changes in output or employment, indirect effects on supply chain activity and induced effects on employee household and government spending (Hodges & Spreen, 2012).

At a sales tax rate of 6%, the $27,740.66 in tax refunds supported total equipment purchases for renewable fuel distribution of $462,344.33. Broken down by spending category, $25,337.48 was awarded for purchases in fueling infrastructure materials of $422,291.33 while $2,403.18 was awarded for purchases in fuel storage materials of $40,053.00. Purchases of fueling infrastructure materials generally include items like pumps, piping, tubing and connectors, and therefore are entered into the IMPLAN model in the "fabricated pipe and pipe fitting manufacturing" sector. Similarly, purchases of fuel storage materials are likely to be large metal tanks, metal pipes, and other metallic structures, hence they were entered into the IMPLAN model in the "metal tanks (heavy gauge) manufacturing" sector, which manufactures tanks,

vessels and other containers by cutting, forming and joining heavy-gauge metals, as well as installs heavy-gauge metal tanks (IBIS World, 2014).

2.3 Results

Estimated direct, indirect, induced and total economic contributions of this program are summarized in Table 3. During the 2014-2015 fiscal year, awarded sales tax refunds for renewable fuel distribution capital improvements of $27,740.66 resulted in total purchases of new equipment of $462,344 and a total economic contribution of $811,247. These refunds also supported or created a total of 4 jobs with an average annual pay of $53,497, for a total income contribution of $224,687.

Table 3. Summary of Economic Impacts in 2015 for Renewable Energy Technologies Sales Tax Refund

Impact Type	Employment	Labor Income	Value Added	Output
Direct Effect	2	$115,492	$145,906	$462,344
Indirect Effect	1	$55,098	$91,292	$183,209
Induced Effect	1.2	$54,098	$97,629	$165,694
Total Effect	4.2	$224,687	$334,828	$811,247

Estimated local, state and federal taxes collected as a result of the economic activity supported by the program are summarized in Table 4. The department estimates $18,066 was collected in state and local taxes, while $45,871 was collected in federal taxes.

Table 4. Tax Impacts in 2015 for the Renewable Energy Technologies Sales Tax Refund

Description	Employee Compensation	Proprietor Income	Tax on Production and Imports	Households	Corporations
Total State and Local Tax	$169	$0	$16,794	$771	$332
Total Federal Tax	$21,431	$798	$1,948	$15,839	$5,855

2.4 Additional Jobs Created

As part of the application process, businesses seeking the Renewable Energy Technologies Sales Tax Refund are required to submit a statement of the economic impact created by their investment. As part of their economic impact statement, applicants may report the number of people they expect to employ at their facilities once these facilities become fully operational and are running at full capacity. Across the state, approved applicants expect to employ 55 people once their facilities are operating at or near full capacity.

Table 5. Self-reported Number of Employees Expected at Full Operational Capacity by Businesses Approved for the Renewable Energy Technologies Sales Tax Refund in FY 2014-15

Taxpayer	Reported Number of Jobs
Viesel Fuel, LLC	55
Sun Biodiesel, LLC	Not Reported
Sun Biodiesel, LLC	Not Reported
Total	**55**

2.5 Applicant Highlights

This section highlights one of the three applicants from the 2015 approved applications to provide a better understanding of the economic contribution these projects have on the state.

Viesel Fuel, LLC

Viesel Fuel, LLC, is a small business in Stuart, Florida, that has developed a more energy efficient process for refining biodiesel. Viesel Fuel uses an enzyme catalyzed reaction followed by a unique resin system for crude biodiesel refining. This is the only facility in the world using a combination of enzymes and resins to commercially produce biodiesel. This enzymatic process requires less energy compared to traditional biodiesel production, and the enzyme process allows the use of a variety of inexpensive feedstocks that traditional biodiesel plants are unable to handle. Viesel Fuel is currently providing renewable fuel to major truck stops up and down key Interstate 4 and Interstate 75 corridors and has plans for expanding its market.

Viesel Fuel currently has 28 employees, but will soon employ over 40 full-time positions. These positions range from plant operator to Ph.D. level research and development positions. Stuart Lamb, President and CEO, attributes the renewable energy tax incentives for the company's recent $3 million expansion. The expansion included improvements to the existing plant to accommodate raw material that will be stored, handled and processed throughout the facility. Viesel Fuel now has production capacity that exceeds 5 million gallons a year.

3. Renewable Energy Technologies Investment Tax Credit

Pursuant to Section 220.192, Florida Statutes, the Renewable Energy Technologies Investment Tax Credit Program provides an annual corporate tax credit equal to 75 percent of all capital costs, operation and maintenance costs, and research and development costs in connection with an investment in the production, storage and distribution of biodiesel (B10-B100), ethanol (E10-E100) and other renewable fuel in the state. Eligible costs must be incurred between July 1, 2012, and June 30, 2016. This program allows $1 million per state fiscal year for each taxpayer with a limit of $10 million per state fiscal year.

3.1 Utilization Summary

The Renewable Energy Technologies Investment Tax Credit Program continues to be a very popular program and is currently oversubscribed. The department granted 11 credits, including two partial credits, under Fiscal Year 2014-2015, totaling $10 million. The department received seven of the 11 credits granted under Fiscal Year 2014-2015, including one partial credit, under Fiscal Year 2013-2014. These applications totaling more than $6.6 million did not receive a tax credit under Fiscal Year 2013-2014 due to exhaustion of funds.

FDACS received 12 applications under Fiscal Year 2014-2015. Three applications were granted a full credit and one application was granted a partial credit. Nine of the 12 applications, including the applicant that received a partial credit, did not receive a full credit due to an exhaustion of funding. These nine applications totaling over $8.6 million are scheduled to receive a credit under Fiscal Year 2015-2016. Less than $1.4 million is available under Fiscal Year 2015-2016. The submittal period opens on July 1, 2016.

Table 6 shows the approved credit broken down by capital costs, operation and maintenance costs, and research and development costs.

Table 6. Utilization of the Renewable Energy Technologies Investment Tax Credit

Fiscal Year	Appropriation	Capital Costs	Operation and Maintenance Costs	Research and Development Costs	Approved Credit
FY2012-13	$10,000,000	$6,418,643.43	$2,007,596.33	$799,414.46	$6,878,263.96
FY2013-14	$10,000,000	$7,004,389.39	$2,944,440	$3,724,689.04	$10,000,000
FY2014-15	$10,000,000	$10,047,522.45	$2,414,870.55	$1,884,300.28	$10,000,000

Table 7. FY2014-15 Approved Applicant List

Taxpayer	Capital Costs	Operation and Maintenance Costs	Research and Development Costs	Total Eligible Costs	Approved Credit
GGS Miami, LLC*	$0	$582,767.88	$328,232.55	$911,000.43	$670,490.22
Marathon Petroleum Company LP	$1,546,242.47	$0	$0	$1,546,242.47	$1,000,000
Slingshot Industries, Inc.	$1,341,900.19	$0	$0	$1,341,900.19	$1,000,000
Biodiesel of Central Florida	$1,400,000	$0	$0	$1,400,000	$1,000,000
Green Star Biodiesel	$1,377,892.90	$0	$123,683.15	$1,501,576.05	$1,000,000
Greenwave Oil Recovery	$100,914.33	$1,165,110.39	$0	$1,266,024.72	$949,518.54
First Coast Biodiesel, LLC	$1,415,010	$0	$0	$1,415,010	$1,000,000
Viesel Fuel, LLC	$1,380,659.83	$0	$0	$1,380,659.83	$1,000,000
Treasure Coast Biodiesel Feedstock Supply	$0	$0	$1,347,430.39	$1,347,430.39	$1,000,000
Affordable Bio Feedstock, Inc.	$955,754.88	$270,131.39	$84,954.19	$1,310,840.46	$983,130.35
Florida Biodiesel Fuel, Inc.**	$529,147.85	$396,860.89	$0	$926,008.74	$396,860.89
Total	**$10,047,522.45**	**$2,414,870.55**	**$1,884,300.28**	**$13,420,684.54**	**$10,000,000**

*GGS Miami, LLC received a partial credit under Fiscal Year 2013-2014 due to exhaustion of funding. This is the second partial credit to provide the applicant a full credit.
** Florida Biodiesel Fuel, Inc. received a partial credit under Fiscal Year 2014-2015 due to exhaustion of funding. A second partial credit will be issued under Fiscal Year 2015-2016.

All the applicants who received an investment tax credit under Fiscal Year 2014-2015 are continuing to expand or enhance their operations and are expected to submit another application in 2016.

3.2 Methodology

Applicants to the Renewable Energy Technologies Investment Tax Credit were required to provide the capital costs, operation and maintenance costs, and research and development costs incurred in connection with an investment in the production, storage and distribution of renewable fuels for transportation in the state. The sum of these costs represents the investment in renewable fuels production that was directly supported by the program.

A total of $10,047,522.45 of capital improvement costs were claimed by applicants to the program. These expenses were entered into the IMPLAN model in the "Construction of other new nonresidential structures," which includes construction of facilities such as blast furnaces, petroleum refineries, chemical manufacturing plants, power plants and tank storage facilities. Similarly, applicants claimed $2,414,870.55 in operation and maintenance costs and $1,884,300.28 in research and development costs. These expenses were entered into the IMPLAN model in the "Other basic organic chemical manufacturing" sector, which includes manufacturing of organic fuel propellants and is commonly used to model the biofuels sector (Swenson & Eathington, 2006; Schlosser et al., 2008).

3.3 Results

Estimated direct, indirect, induced and total economic contributions of the program are summarized in Table 8. For Fiscal Year 2014-2015, a total program investment of $10 million produced an estimated total output contribution of $26.6 million, total value added contribution of $12.2 million and total labor income contribution of $9 million. Similarly, the program is estimated to have supported or created nearly 96 jobs in the construction and organic chemical manufacturing sectors, as well as 85 jobs in related and supporting industries, thereby having a total estimated employment contribution of 181 jobs.

Table 8. Summary of Economic Impacts in 2015 for Renewable Energy Technologies Investment Tax Credit

Impact Type	Employment	Labor Income	Value Added	Output
Direct Effect	95.6	$4,897,622	$5,386,117	$14,346,693
Indirect Effect	35.7	$1,926,353	$2,904,244	$5,623,386
Induced Effect	49.5	$2,151,530	$3,882,455	$6,589,745
Total Effect	**180.8**	**$8,975,505**	**$12,172,816**	**$26,559,824**

Estimated local, state, and federal taxes collected as a result of the economic activity fostered by the program are summarized in Table 9. Total state and local taxes collected were estimated to be $655,084 while total federal taxes collected were estimated to be $1,718,605.

Table 9. Tax Impacts in 2015 for the Renewable Energy Technologies Investment Tax Credit

Description	Employee Compensation	Proprietor Income	Tax on Production and Imports	Households	Corporations
Total State and Local Tax	$6,284	$0	$608,724	$30,940	$9,136
Total Federal Tax	$796,466	$54,574	$70,603	$635,657	$161,305

3.4 Additional Jobs Created

As part of the application process, businesses seeking the Renewable Energy Technologies Investment Tax Credit are required to submit a statement of the economic impact created by their investment. As part of their economic impact statement, applicants may report the number of people they expect to employ at their facilities once these facilities become fully operational and are running at full capacity. Many of the applicants were able to expand their facilities as a result of the tax credit and have created new positions at their facilities. Across the state, approved applicants expect to employ 270 people once their facilities are operating at or near full capacity.

Table 10. Self-reported Number of Employees Expected at Full Operational Capacity by Businesses Approved for the Renewable Energy Technologies Investment Tax Credit in FY 2014-2015.

Taxpayer	Reported Number of Jobs
GGS Miami, LLC	25
Marathon Petroleum Company LP	Not Reported
Slingshot Industries, Inc.	Not Reported
Biodiesel of Central Florida	10
Green Star Biodiesel	8
Greenwave Oil Recovery	16
First Coast Biodiesel, LLC	6
Viesel Fuel, LLC	55
Treasure Coast Biodiesel Feedstock Supply	10
Affordable Bio Feedstock, Inc.	120
Florida Biodiesel Fuel, Inc.	20
Total	**270**

3.5 Applicant Highlights

This section highlights one of the applicants from the 2015 approved applications to provide a better understanding of the economic contribution these projects have on the state.

Affordable Bio Feedstock, Inc.

Affordable Bio Feedstock, Inc., (ABF) is a family-owned and operated business located in Kissimmee, Florida, that recycles brown grease for use as biodiesel feedstock. Brown grease is cooking oil recovered from a waste water plumbing component that has been contaminated with rotted food solids and considered unsuitable for re-use in most applications. Brown grease is commonly treated with lime and taken to a landfill. However, ABF uses a process called "thermal depolymerization" to transform the brown grease into a source of feedstock to produce biodiesel, organic compost and reclaimed water. During the last seven years, ABF has recycled more than 56 million gallons of brown grease, creating more than 4 million gallons of brown grease feedstock and more than 11,200 tons of organic compost, and reclaiming more than 50 million gallons of water.

Since starting their business in 2008, ABF has created 250 jobs and invested more than $8 million in their Kissimmee plant, $5 million of which was invested in the last two years. According to owner Bill Freeman, reinstating the tax incentives allowed ABF to expand their existing plants and add an additional plant in Kissimmee and a new plant in Daytona. ABF is continuing to improve their plants' efficiency as well as looking at additional markets in the northern part of the state for expansion.

4. Florida Renewable Energy Production Credit

Pursuant to Section 220.193, Florida Statutes, the Florida Renewable Energy Production Credit Program provides an annual corporate tax credit equal to $0.01/kWh of electricity produced and sold by the taxpayer to an unrelated party during a given tax year. The credit may be claimed for electricity produced and sold on or after January 1, 2013, through June 30, 2016. The combined total amount of tax credits which may be granted for all taxpayers under this section is limited to $5 million in state fiscal year 2012-2013 and $10 million per state fiscal year in state fiscal years 2013-2014 through 2016-2017.

4.1 Utilization Summary and Public Response

The Florida Renewable Energy Production Credit Program continues to be a very popular program. Under the 2015 production year, FDACS received 14 applications from qualified applicants applying for over $15.8 million in tax credits. FDACS allocated the maximum of $10 million in tax credits to all 14 applications based on the priority outlined in Section 220.193(3)(c), Florida Statues.

Table 11. Florida Renewable Energy Production Credit Program Status

Fiscal Year	Appropriation	Total Credits Approved	Unused Credits
FY2012-13	$5 million	$5 million	$0
FY2013-14	$10 million	$10 million	$0
FY2014-15	$10 million	$10 million	$0
FY2015-16	$10 million	$10 million	$0

Table 12: 2015 Production Year Approved Applicant List

Taxpayer	Type of Renewable Energy	Total Kilowatt Hours Produced	Facility Operation Date	New/ Expanded Facility	Total Approved Credit
International Paper	Biomass	375,206,340	2007	New	$1,661,519.58
Tropicana Manufacturing Company, Inc.	Biomass	11,059,213	2013	New	$110,592.13
Mosaic Fertilizer, LLC TG3	Waste Heat	165,340,675	2008	New	$1,157,060.83
Mosaic Fertilizer, LLC TG4	Waste Heat	173,687,700	2014	New	$1,494,783.58
New Hope Power Company	Biomass	324,243,334	2006	New	$1,539,018.67
G2 Energy (Marion) LLC	Biomass	28,783,560	2009	New	$204,207.24
Rayonier A.M. Products, Inc.	Biomass	119,293,240	2006	New	$846,335.32
Jacksonville Solar LLC	Solar	20,004,915	2009	New	$141,926.45
Florida Power Development LLC	Biomass	149,576,000	2015	New	$1,323,721.22
FPL Space Coast	Solar	17,684,320	2010	New	$125,462.81
FPL DeSoto	Solar	50,003,750	2009	New	$354,755.56
FPL Martin	Solar	89,499,769	2010	New	$634,963.18
WM Renewable Energy, LLC Naples	Biomass	21,098,742	2011	New	$149,686.69
WM Renewable Energy, LLC Springhill	Biomass	36,079,200	2006	New	$255,966.74
TOTAL		**1,581,560,758**			**$10,000,000**

The Florida Renewable Energy Production Credit Program was oversubscribed again under the 2015 production period. FDACS expects all 14 applicants who were approved for the 2015 production period will also submit an application in August 2016 for the 2016 production period. Based on previous production periods, FDACS expects Florida businesses will continue to take advantage of the tax credits available through this program.

4.2 Methodology

The program supported the production of 1,000,000,000 kilowatt-hours of electricity from renewable sources in the 2015 production period. At a state average price of 10.64 cents per kilowatt-hours during the last 24 months (Energy Information Administration), this amounts to an estimated $106,400,000 in revenue from the sale of electricity. This estimate of total revenues from sales of renewable electricity supported by the program was entered into the IMPLAN model in the "Electric power generation, transmission, and distribution" sector, which includes establishments that perform one or more of the following activities: operate generation facilities that produce electric energy; operate transmission systems that convey the electricity from the generation facility to the distribution system; and operate distribution systems that convey electric power received from the generation facility or the transmission system to the final consumer.

4.3 Results

Estimated direct, indirect, induced and total economic contributions of the program are summarized in Table 13. For 2015, a total program investment of $10 million produced an estimated total output contribution of $167.9 million, total value added contribution of $94.7 million, and total labor income contribution of $34 million. Similarly, the program is estimated to have supported or created nearly 120 jobs in the electricity generation, transmission and distribution sector, as well as 399 jobs in related and supporting industries, thereby having an estimated total employment contribution of 519 jobs.

Table 13. Summary of Economic Impacts in 2015 for the Renewable Energy Production Credit

Impact Type	Employment	Labor Income	Value Added	Output
Direct Effect	118.6	$15,677,286	$63,587,240	$108,576,280
Indirect Effect	214.7	$10,168,113	$16,321,232	$34,039,367
Induced Effect	185.7	$8,201,805	$14,801,522	$25,261,845
Total Effect	519	$34,047,204	$94,709,994	$167,877,492

Estimated local, state, and federal taxes collected as a result of the economic activity fostered by the program are summarized in Table 14. Total state and local taxes collected were estimated to be $15.2 million, while total federal taxes collected were estimated to be $10.3 million.

Table 14. Tax Impacts from the Renewable Energy Production Credit

Description	Employee Compensation	Proprietor Income	Tax on Production and Imports	Households	Corporations
Total State and Local Tax	$25,443	$0	$14,949,929	$116,879	$159,561
Total Federal Tax	$3,224,903	$129,464	$1,733,977	$2,401,269	$2,817,348

4.4 Applicant Highlights

This section highlights two of the 12 applicants from the 2015 approved applications to provide a better understanding of the economic contribution these projects are having on the state.

Florida Power and Light Company

Florida Power and Light Company produced over 157,100,000 kilowatt-hours of renewable energy in 2015 from three of its solar centers. These centers include the Martin Next Generation Solar Energy Center, the Desoto Next Generation Solar Energy Center, and the Space Coast Next Generation Solar Energy Center.

- The Martin Next Generation Solar Energy Center opened in 2010 and is the first-of-its-kind "hybrid" solar facility in the world that delivers reliable electricity around the clock. This center uses more than 190,000 mirrors over roughly 500 acres to harness Florida's sunshine. The sun's rays heat fluid-filled tubes, producing steam, which generates electricity and at night, or when it's cloudy, U.S. natural gas is used to create electricity.
- The Desoto Next Generation Solar Energy Center was the first-ever solar energy center in Florida and the largest of its kind in the nation when it opened in 2009. This solar center uses 90,500 solar panels to convert sunshine directly into electricity and produces about 52,000 megawatt-hours of electricity annually. That's enough to power about 3,000 homes.
- The Space Coast Next Generation Solar Energy Center opened in 2010 and is a public-private partnership with NASA located at Kennedy Space Center. This solar center produces about 18,500 megawatt-hours of electricity each year, or enough for more than 1,100 homes.

Florida Power and Light is planning to build three new solar energy centers before the end of 2016, adding more than 1 million solar panels. That's enough to cover about 3,000 football fields or the equivalent of roughly 45,000 typical residential rooftop systems. The locations for the new plants are DeSoto, Charlotte and Manatee counties.

Florida Power Development

Located in Brooksville, Florida Power Development (FPD) is a former coal-fired power plant that has been repurposed to a 70 megawatt renewable energy facility utilizing biomass. FDP began producing renewable energy on July 1, 2015 and in just the last six months has produced 149,576,000 kilowatt-hours of renewable energy. That is enough electricity to power nearly 13,700 homes for a year.

FDP purchased the coal-fired power plant in 2012 and has since invested more than $169 million, including nearly $78 million for machinery and equipment, to transform the facility into a renewable energy power plant. In addition, FDP employs approximately 70 full time employees whose salaries exceed $1 million annually. All 70 positions would have been terminated if the facility had not been repurposed from a coal-fired power plant to a renewable energy facility.

5. Return on Investment

To examine the gains that result from the Renewable Energy Tax Incentives to the economy of Florida, FDACS developed several measures of the Return on Investment (ROI) of the policy and associated programs. Two variations of ROI show the economic contributions and tax revenues generated for each dollar that the state invested in the Renewable Energy Technologies Investment Tax Credit, the Renewable Energy Production Credit and the Renewable Energy Tax Incentives as a whole during 2015. The measure is calculated using the following equation:

$$ROI = \frac{Return}{Investment}.$$

In the equation, *Return* refers to either the estimated total economic contribution or state and local taxes collected as a result of the program, while *Investment* refers to the total amount of credits approved by the department. In addition, the 'economic benefits' measure defined in Section 288.005, Florida Statutes, is also calculated as:

$$ROI = \frac{(State\ and\ Local\ Tax\ Contribution - Investment)}{Investment} \times 100.$$

The ROI in Section 288.005, Florida Statutes, is defined as the "direct, indirect, and induced gains in state revenues as a percentage of the state's investment." The different ROI measures for each of the three individual programs, and for the policy as a whole, are shown in Table 15.

Table 15. Return on Investment (ROI) from the Renewable Energy Technologies Investment Tax Credit, Renewable Energy Production Credit, and Renewable Energy Tax Incentives Policy

Program	Contribution ROI	State and Local Tax ROI	F.S. 288.005 ROI
Renewable Energy Technologies Sales Tax Refund (Program)	$29.24	$0.65	-35%
Renewable Energy Technologies Investment Tax Credit (Program)	$2.66	$0.07	-93%
Renewable Energy Production Credit (Program)	$16.79	$1.53	53%
Renewable Energy Tax Incentives (Policy)	$9.75	$0.80	-20%

Calculation of the ROI from the Renewable Energy Tax Incentives shows that all of these programs provide positive and sizable returns to the state of Florida. Each dollar invested in the Renewable Energy Technologies Sales Tax Refund yields an estimated $29.24 in economic output throughout the state, and an estimated 65 cents of each dollar returns to state and local government coffers in the form of taxes. Similarly, every dollar invested in the Renewable Energy Technologies Investment Tax Credit results in an estimated $2.66 of economic activity throughout the state, and an estimated 7 cents of every dollar returns to state and local government as tax revenues. The Renewable Energy Production Credit has an even more impressive return on investment, as every dollar invested in this program results in an estimated $16.79 of economic activity throughout the state, and an estimated $1.53 returns to state and local government as tax revenues.

Combining the three programs together to measure the ROI of the policy as a whole yields similarly impressive results, as every dollar invested in these incentives results in an estimated $9.75 in economic activity throughout the state, and an estimated 80 cents return to state and local government in the form of tax revenues.

6. Conclusion

The economic contribution of the Florida Renewable Energy Tax Incentives has been substantial. In 2015 alone, an investment in these programs of a little more than $20 million resulted in an estimated 704 jobs created or supported statewide. Similarly, these programs were responsible for raising an estimated $15.9 million in state and local taxes, generating an estimated $43.2 million in labor income and producing an estimated total economic contribution of more than $195.2 million.

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