

OSBM

**DEPARTMENT OF ADMINISTRATION
STATE ENERGY OFFICE**

Needs Assessment

As Directed by Session Law 2006-66, Section 17.2

February 2007



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*Office of State Budget and Management
And
State Energy Office*

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INTRODUCTION

Scope of Study

Section 17.2 of Session Law 2006-66 requires that due to depleting federal funds, the State Energy Office and the Office of State Budget and Management (OSBM) shall jointly conduct a needs assessment to determine what functions currently being performed by the State Energy Office (SEO) should be performed in the 2007-2008 fiscal year. The mission statement of the Division was used to evaluate and determine programs that should continue.

Methodology

In order to conduct the study, the OSBM and SEO study team performed the following tasks:

- Reviewed mission statement,
- Identified current programs,
- Examined current and five years of historical financial information,
- Reviewed internal reports, forms, and publications,
- Identified applicable statutes, and
- Analyzed program data.

BACKGROUND

The North Carolina Energy Policy Act of 1975, §113B-1 was established as a response to the Arab Oil Embargo of 1973-74 and outlined the duties of the Energy Policy Council. The State Energy Office (SEO) serves as the staff to the State Energy Policy Council and carries out the duties mandated by this and other legislation as shown in Appendix A. Initially, the office served as an energy emergency response agency. Today, the State Energy Office is an organizational unit in the Department of Administration and has expanded to include serving as the lead agency for energy efficiency, renewable energy, alternative fuels, and energy policy. The mission statement of the State Energy Office states:

The State Energy Office promotes energy efficiency and renewable energy for North Carolina, striving toward a sustainable energy future. The office accomplishes this by administering innovative programs, projects and services that inform, educate and involve energy consumers, producers and decision makers. The State Energy Office organizes rapid responses to energy supply emergencies. The office is recognized as North Carolina's primary independent resource for energy information and technology.

The SEO administers programs in the following primary areas: energy efficiency, renewable energy, alternative fuels and alternative fuel vehicles, energy policy, and energy emergencies. The majority of current funding for these programs comes from Petroleum Violation Escrow funds (PVE). The SEO also receives formula grants and special competitive grant funds from the U.S. Department of Energy (DOE).

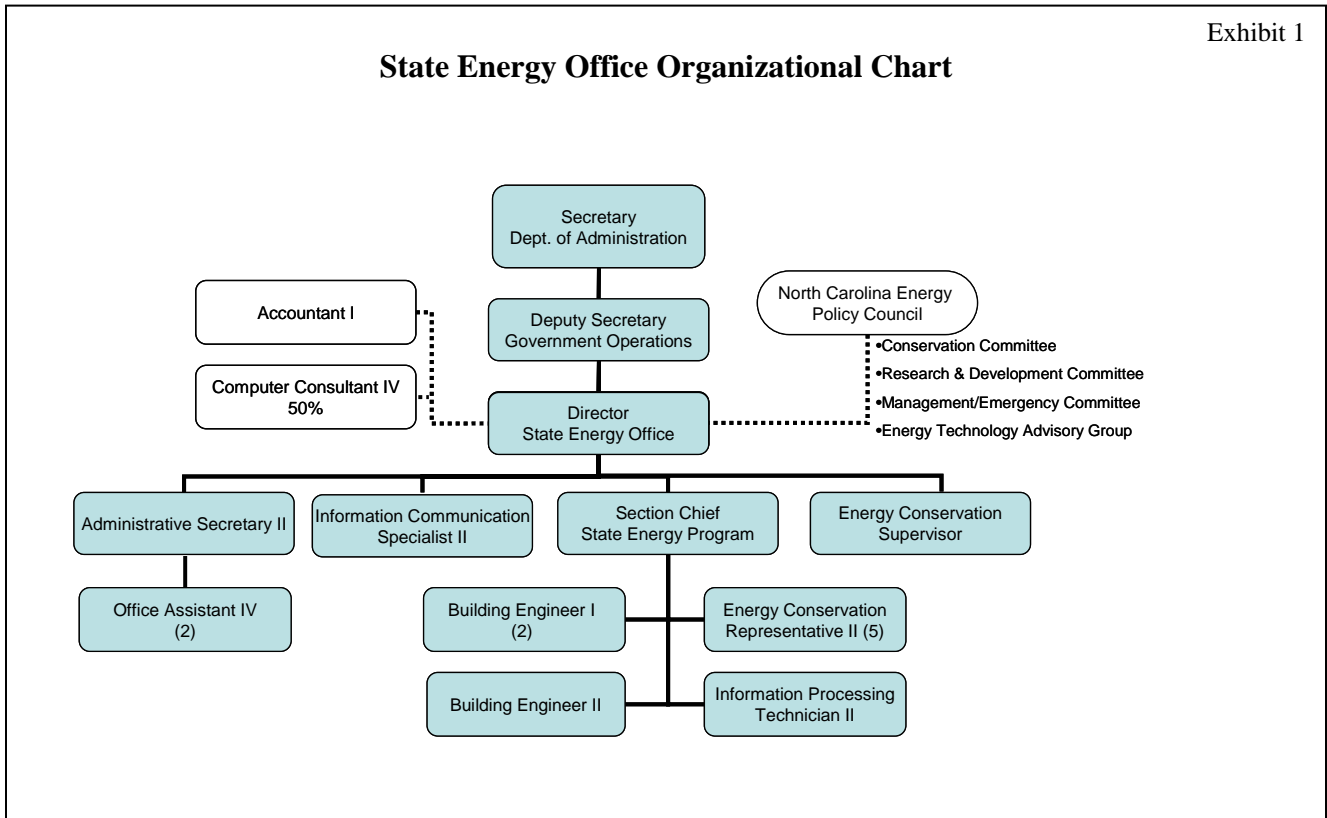
The budgeted revenues for the current fiscal year funds 59 projects. The SEO utilizes contractor expertise by outsourcing for all but two projects. The SEO employees act as project managers overseeing contractor's performance to ensure compliance with contract requirements and funding guidelines. Many of the contracts are multi-year projects.

Organization and Staffing

The SEO is a division of the Department of Administration. The organizational placement and structure is outlined in Exhibit 1, on the next page. The SEO activities, operations and funding allocations are overseen by an 18-member Energy Policy Council; however, many activities are dictated by DOE

requirements. The council is composed of representatives of the North Carolina Utilities Commission; cabinet secretaries from the North Carolina Departments of Environment and Natural Resources, Commerce, Administration and Agriculture; four legislators; and nine appointments made by the Governor. The Council represents a variety of interests, including petroleum, natural gas, industry, economics, alternative energy, electricity, environment, and city and county governments.

The staffing levels of the SEO have changed little during the last five years. In June 2002, the SEO had 14 permanent full-time positions. As of January 1, 2007, staffing increased to 15 permanent full-time and one time-limited full-time position. Three of these positions are currently vacant. In addition to the SEO staff, financial and computer support is provided by Department of Administration staff and funded by SEO.



Financial

As mentioned earlier, the SEO major funding sources have been PVE funds from court settlements, judgments, or legislation at the federal level against oil companies that overcharged customers during the 1970s and 1980s. Guidelines require PVE funds be spent on energy efficiency and renewable energy programs. The funds, which are held in trust, are allocated by the General Assembly. Once these funds are exhausted, no additional PVE funds will be available. The balance of PVE funds will be obligated in FY 2008 and depleted as the existing contracts are completed. In the current and historical financial information that follows, the dependence on PVE funds will be shown. Although the formula and special grant funding from the DOE represents a smaller percentage of the SEO revenues, the future of these funds is also uncertain. Since inception, the SEO has operated with very limited State appropriations¹.

¹ The SEO received \$40,000 in fiscal year 2007 from the Department of Administration, as specified by legislation, to revise the Emergency Energy Plan.

The budgeted revenues ² for the current fiscal year are shown in Table 1 along with the percentage by revenue source. PVE funds account for the majority of SEO funds at 86% of the budgeted revenues for FY 2006-07. Currently the SEO uses DOE Formula Grant funds exclusively for administrative costs (staff and other non-personnel operating costs).

Table 1

State Energy Office Budgeted Revenues FY 2006-07		
Revenue Source	Amount	% of Budget
PVE	\$7,734,339	86.09%
DOE Formula Grant*	915,000	10.19%
DOE Special Funds	300,557	3.35%
Other	33,638	0.37%
Total Authorized Budget	\$ 8,983,534	100.00%

*Includes carryover funds

The actual revenues from FY 2002 through FY 2006 are provided in Table 2. As with the current fiscal year's revenues, PVE funds represent the major portion of revenues for the previous five fiscal years.

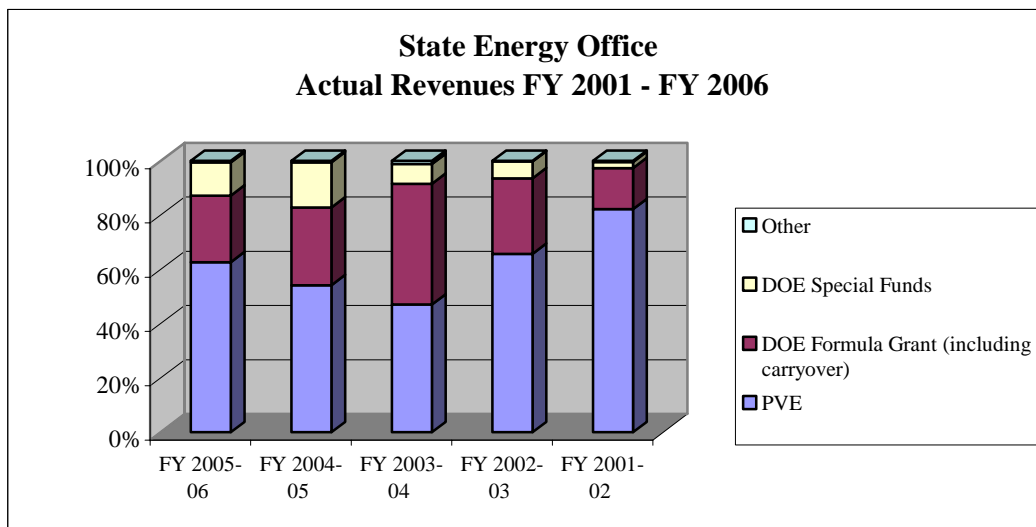
Table 2

State Energy Office Actual Revenues by Type FY 2002 - FY 2006					
Revenues	FY 2005-06	FY 2004-05	FY 2003-04	FY 2002-03	FY 2001-02
PVE	\$ 3,880,743	\$ 2,661,174	\$ 1,935,998	\$ 2,697,701	\$ 4,129,177
DOE Formula Grant*	1,518,254	1,409,555	1,831,466	1,143,219	758,498
DOE Special Funds	755,786	818,186	298,083	253,959	113,041
Other **	36,066	24,285	48,046	7,988	20,589
Total	\$ 6,190,850	\$ 4,913,200	\$ 4,113,593	\$ 4,102,867	\$ 5,021,306

* Includes Carryover funds
** Other consists of fees, interest, surplus sales

This financial information is shown graphically in Chart 1 for the five-year period from FY 2002 through FY 2006. As mentioned earlier, PVE funds are the largest revenue source for the SEO during this period.

Chart 1



² The SEO budget reflects In-Kind Provider Match. However, since this match is inconsistently reported and does not increase revenues available to the SEO it is not being included in the reported financial information.

Table 3

In the revenue information on the previous page, all DOE Formula Grant funds included carryover amounts. Table 3 shows the actual annual allocations.

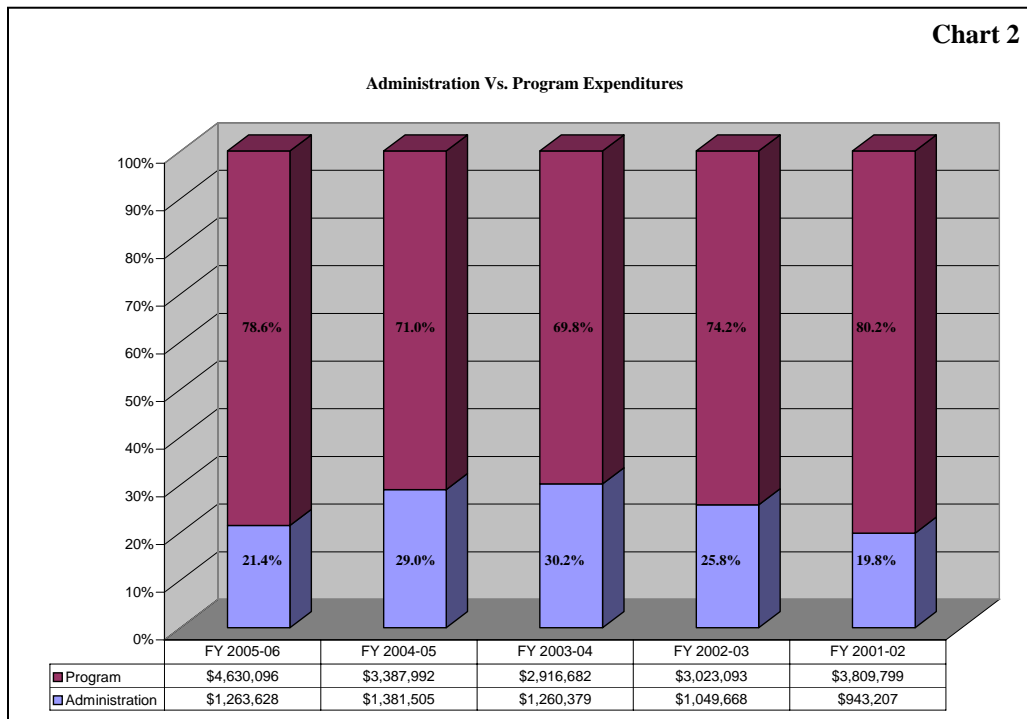
Annual DOE Formula Grant Allocations	
FY	Funding Amount
2001	\$ 748,000
2002	854,000
2003	1,016,000
2004	1,020,000
2005	1,004,000
2006	1,016,000
2007	\$ 787,000

The PVE trust fund balances as of December 31, 2006 are shown in Table 4. This information shows that there is just over four million dollars remaining in unobligated funds. With the exception of the Stripper Well-Revolving Loan account, once the unobligated balances are expended, the trust funds will be depleted. The Stripper Well-Revolving Loan is a perpetual account and fund levels will be maintained through loan repayments and interest charges.

Table 4

State Energy Office PVE Trust Funds Balances as of 12/31/06			
Program Name	Ending Cash Balance 12/31/06	Obligated Amount	Unobligated Balance
Federal Petroleum Overcharge	\$ 362,761	\$ 355,256	\$ 7,505
Exxon Overcharge	1,000,999	979,599	21,400
Stripper Well Settlement	6,082,851	2,319,102	3,763,749
Stripper Well-Revolving Loan	2,779,153	2,327,663	451,490
Amoco	98,256	96,487	1,769
Occidental	903,145	754,501	148,644
Total Trust Fund Balances	\$ 11,227,165	\$ 6,832,607	\$ 4,394,558

Throughout this five-year financial history reviewed, the administrative costs have remained fairly constant as shown in Chart 2. The chart also shows administrative cost as a percent of all expenditures. During this five-year period, administrative costs have ranged from 19.8% to 30.2% which is a high administrative ratio. However, some projects costs were accounted for in the administrative cost center and thus cause the percentage to be inflated. They include such programs as the State Energy Office Annual Report, the Emergency Energy Program, and Performance Contracting. A complete list of the projects accounted for in the administrative cost center is listed in Table 8 on page 9. As mentioned earlier, all DOE Formula Grant funds are currently used for administration costs. In previous years, Formula Grants were also used for project grants.



Current Programs

The SEO categorizes their projects into seven major areas which are: 1) Alternative Fuels, 2) Awareness & Education, 3) Energy Improvement Loan Program, 4) Industrial, 5) Renewable Energy, 6) Residential, and 7) State Energy Savings Programs. It should be noted that some projects have elements that fit into more than one of these categories. A brief description of each program area is listed in Table 5.

Table 5	
State Energy Office Major Program Areas	
Programs	Description
Alternative Fuels	The SEO supports a number of alternative transportation programs designed to reduce dependence upon fossil fuels and improve air quality. Alternative fuels encompass several different technologies including electric and hybrid vehicles to those using compressed natural gas, biodiesel, ethanol and propane as fuel.
Awareness & Education	The SEO collects, organizes and disseminates energy information to the public through various channels including television and radio programs, SEO Website, an online newsletter, an annual State Energy Conference and other conferences, workshops and training sessions, publications, and through a toll free telephone number.
Energy Improvement Loan Program	The program provides low interest loans for eligible energy conservation measures for industry, commercial businesses, local government units, community colleges, K-12 school systems, and non-profit organizations.
Industrial	Business & Industry programs assist North Carolina companies with energy cost savings through education and training, surveys, technical assistance and loan programs.
Renewable Energy	The SEO supports several programs that utilize biomass, solar, and wind energy sources. Landfill gas, while not strictly a renewable resource, is included here as a biomass resource.
Residential	Residential programs include energy efficient mortgages, energy efficiency in manufactured housing and low-income housing, and energy efficiency in sustainable communities.
State Energy Savings Programs	The Utility Savings Initiative has become the signature program of the State Energy Savings Programs and the SEO. It is a comprehensive, multi-programmed approach to reduce energy expenditures and in buildings and operations in state agencies and public universities, community colleges, K-12 schools, local governments and non-profit organizations.

In Table 6 beginning on page 6, the current SEO projects are listed by individual contracts. The program category and funding sources are shown for each contract. Of the 59 projects being administered this fiscal year, two are operated internally by the SEO; all others are outsourced to the contractors listed. The contract period of some of the contracts listed has ended; however, close out of the contracts is not complete.

Table 6

State Energy Office - Current Programs							
Program Type	Program Title	Contractor	Fund Type	Additional Obligated Contract Amount	Current Contract Amount	Contract Begin Date	Contract End Date
Alternative Fuels	Alternative Fuels Clean Cities Program for Charlotte, NC	Centralina Clean Fuels Coalition	PVE-Stripper Well	100,000	52,000	09/27/06	12/31/2007
Alternative Fuels	Blue Ridge Biofuels Production Facility	Blue Ridge Biofuels	PVE-Stripper Well		164,400	04/11/06	3/31/2007
Alternative Fuels	National Clean Bus Project	Environmental and Energy Study Institute	DOE-Special		25,000	04/29/05	6/30/2006
Alternative Fuels	Filter Specialty Biodiesel Production Facility	Filter Specialty, Inc.	PVE-Stripper Well		165,300	06/06/06	4/30/2007
Alternative Fuels	Alternative Fuels Clean Cities Program for Asheville, NC	Land of Sky Regional Council	PVE-Stripper Well		100,000	09/21/06	12/31/2007
Alternative Fuels	Market Based Biotechnologies Development	NCSU	DOE-Special		73,236	10/17/05	9/30/2007
Alternative Fuels	Congestive Mitigation Air Quality for NC	North Carolina Solar Center, NCSU	PVE-Stripper Well		200,000	09/21/06	4/30/2009
Alternative Fuels	PEM Fuel Cell Demonstration Model	North Carolina Solar Center, NCSU	DOE-Special		119,975	02/02/05	9/30/2007
Alternative Fuels	Piedmont Biofuels Production Facility	Piedmont Biofuels	PVE-Stripper Well		170,300	02/01/06	3/31/2007
Alternative Fuels	Alternative Fuels Clean Cities Program for the Triangle	Triangle J Council of Governments	PVE-Stripper Well		100,000	09/21/06	12/31/2007
Education & Awareness	Alt. Fuels Education for NC Middle & High School Students	Carolina Electric Vehicle Coalition	PVE-Stripper Well		152,000	11/27/06	6/30/2007
Education & Awareness	SEO Awareness & Marketing Program	Internal	PVE-Amoco	241,195	82,000	10/16/06	9/30/2008
Education & Awareness	National Energy Education Development for Teachers & Students	National Energy Education Development	PVE-Stripper Well		50,000	09/21/06	12/31/2006
Education & Awareness	Annual NC Sustainable Energy Conference	NCSU Office of Professional Development	PVE-Stripper Well		53,030	03/02/06	6/30/2006
Education & Awareness	Fuel Cell Education for Students Fueling the Future	Students Fueling the Future, Inc.	PVE-Stripper Well		237,349	08/30/05	6/30/2007
Education & Awareness	Rebuild America - Western NC Partnership	Western Office Rebuild Partners	DOE-Special		130,000	10/01/04	9/30/2007
Energy Improvement Loan Program	BioLogix of the Triangle	BioLogix of the Triangle	PVE-Stripper Well		150,000	04/04/06	6/1/2016
Energy Improvement Loan Program	Franklin Health & Fitness Center, Inc.	Franklin Health & Fitness Center, Inc.	PVE-Stripper Well		67,320	01/06/06	1/1/2011
Energy Improvement Loan Program	Guilford Child Development	Guilford Child Development	PVE-Stripper Well		154,446	06/01/06	8/1/2016
Energy Improvement Loan Program	Larry Beans	Larry Beans	PVE-Stripper Well		167,000	01/07/07	2/7/2017
Energy Improvement Loan Program	WNC Dry Kiln, Inc.	WNC Dry Kiln, Inc.	PVE-Stripper Well		375,000	02/07/06	7/1/2008
Industrial	Steam Trap Survey Program	Enercheck, Hickory, Spirax	PVE-Stripper Well		55,000	07/27/05	7/20/2007
Industrial	Energy Management Program	NCSU	PVE-Occidental		557,020	03/06/06	3/31/2007
Industrial	Boiler Technical Assistance Program	NCSU	PVE-Stripper Well		90,000	02/13/06	6/30/2007
Industrial	NC Industries of the Future-Glass Partnership to Accelerate Industry	NCSU	DOE-Special		100,000	10/04/04	3/31/2006
Industrial	NC Combined Heat & Power Center	NCSU	DOE-Special		145,000	11/13/06	6/30/2007
Industrial	NC Industries of Future	North Carolina Solar Center, NCSU	PVE - Exxon		98,000	10/30/2006	6/30/2008
Industrial	NC GreenPower Marketing	North Carolina Solar Center, NCSU	PVE-Exxon		100,000	11/6/2006	6/30/2007
Renewable Energy	NC GreenPower Marketing	Advanced Energy/NC	PVE-Stripper Well		250,000	05/25/06	9/30/2007
Renewable Energy	Brownfields to Brightfields Solar Demonstration	Carolina Green Energy	DOE-Special		125,000	10/05/05	9/30/2007
Renewable Energy	WC Biomass Council & Related Work (Biomass Trader)	NC Division of Forest Resources & Land of Sky Regional Council	Southern States Energy Board Funding Source		50,000	11/1/2005	3/31/2007
Renewable Energy	NC Solar Center	NCSU	PVE-Exxon	300,000	605,000	01/01/06	12/31/2006
Renewable Energy	NC Biomass Council	NCSU	DOE-Special		34,411	03/01/06	11/30/2006
Renewable Energy	Wind Power at NC Parks	NCSU	PVE-Stripper Well		31,000	03/29/06	8/31/2006
Renewable Energy	Coastal Wind and Water Collaborative	NCSU	DOE-Special		50,000	05/17/06	9/30/2007

Table 6 (continued)

State Energy Office - Current Programs							
Program Type	Program Title	Contractor	Fund Type	Additional Obligated Contract Amount	Current Contract Amount	Contract Begin Date	Contract End Date
Renewable Energy	Million Solar Roofs for NC	NCSU	PVE-Stripper Well		10,390	06/03/05	6/30/2006
Renewable Energy	Federal Energy Management Program for Southeastern Parks	North Carolina Solar Center, NCSU	DOE-Special		75,000	05/26/04	9/30/2006
Residential	Heat Pumps Manufactured Homes - Western NC	ASU	PVE-Stripper Well		184,768	09/18/06	12/21/2007
Residential	High Performance Affordable Housing for the Southeast	ASU	DOE-Special		99,536	10/04/06	3/31/2007
Residential	Heat Pumps in Manufactured Homes	ECU	PVE-Stripper Well		115,500	05/17/06	9/30/2006
Residential	Circuit Riding Energy Auditor	ElectricCities of NC, Inc.	PVE-Stripper Well		167,000	07/03/06	6/30/2008
Residential	Performance Contracting for Public Housing	National Association of Energy Services Companies	DOE-Special		99,996	05/26/04	12/30/2006
Residential	Heat Pumps Manufactured Homes - Piedmont NC	NC A& T University	PVE-Stripper Well		199,400	10/03/06	7/31/2007
Residential	Center for Energy Research & Technology	NC A& T University	PVE-Warner	197,662	135,000	09/18/06	9/30/2007
Residential	Consumer Energy Education Program	NCSU Cooperative Extension Dept. of Family & Consumer Services	PVE-Stripper Well		289,495	04/24/06	6/30/2008
Residential	Promoting Energy Efficient Housing and Mortgages	Residential Energy Savings Network	PVE-Stripper Well		50,000	09/02/05	12/31/06
State Energy Savings Programs	Building Operator Certification to Promote Energy Conservation	Asheville-Buncombe Technical Community College	PVE-Exxon		50,000	07/28/06	5/31/2008
State Energy Savings Programs	Appalachian State University Energy Center	ASU	PVE-Stripper Well and PVE-Occidental		483,204	01/01/06	12/31/2007
State Energy Savings Programs	Carrboro Sustainable Community Design	Carrboro Collaborative Development Association	PVE-Stripper Well		120,407	10/30/2006	9/30/2007
State Energy Savings Programs	USI Strategic Energy Plan Training and Workshops	David Mahoney	PVE-Stripper Well		74,000	12/22/05	6/30/2007
State Energy Savings Programs	Prairie Ridge Ecostation for Wildlife & Learning	Friends of the NC State Museum of Natural Science	PVE-Stripper Well		69,760	12/8/2006	5/31/2007
State Energy Savings Programs	Energy Efficiency for Nonprofits	Internal	Piedmont Natural Gas Funds		100,000	11/15/2006	9/30/2007
State Energy Savings Programs	Waste Reduction Partners Energy Efficiency Field Assistance	Land of Sky Regional Council	PVE-Stripper Well		65,000	09/02/05	9/30/2006
State Energy Savings Programs	Waste Reduction Partners Energy Efficiency Field Assistance	Land of Sky Regional Council	Exxon		130,000	09/21/06	08/31/008
State Energy Savings Programs	HVAC Controls Tune-Up for Energy Conservation	Multiple Facilities	PVE-Stripper Well		258,000	07/01/05	6/30/2007
State Energy Savings Programs	USI Community College Coordinator	NC Community College System - Andy Nehila	PVE-Stripper Well		75,000	07/29/05	12/31/2006
State Energy Savings Programs	Energy Management Diploma	NCSU Office of Professional Development	PVE-Stripper Well		85,072	11/09/05	6/30/2007
State Energy Savings Programs	Chapel Hill Fire Station Energy Efficiency Upgrade	Town of Chapel Hill	PVE-Stripper Well		30,000	09/21/06	12/31/2007
State Energy Savings Programs	UNC-Asheville Energy Intern	UNC-Asheville	PVE-Stripper Well		2,520	09/12/05	6/30/2006
Total				838,857	8,047,835		

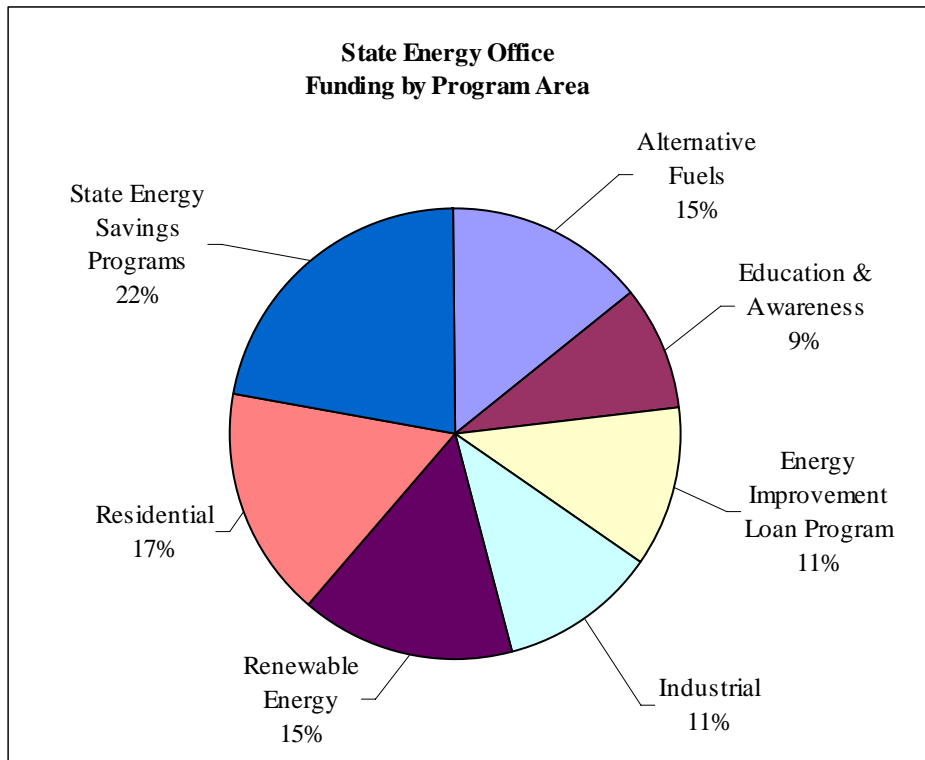
A breakdown of the type of entity receiving contracts is shown in Table 7. Universities receive 49% of all grant funds awarded. NC State University (NCSU) and Appalachian State University (ASU) account for most of these contracts. NCSU has 34% of all current contracted funds awarded which amounts to approximately \$2,700,000 for 18 contracts. ASU has 3 contracts, amounting to approximately \$767,000, which equates to 10% of all contracted funds awarded. The SEO uses the universities to tap into existing expertise, build in-state capacity, utilize their extension service requirements and because universities are often best suited to the task.

Table 7

Current Contracts		
Entity Type	Number of Contracts	Total Amount of Contracts
University	25	\$3,936,557
Non-Profit	17	2,010,551
Business	9	1,439,320
Other	2	204,000
Internal	2	182,000
Community College	2	125,000
Town	2	150,407
Total	59	\$8,047,835

In Chart 3, the percentage of contracted funds is shown by program. When combined, the two largest programs, Residential and State Energy Savings Programs, make up 39% of the current contracted funds.

Chart 3



In addition to the programs listed in the Table 6 on pages 6 and 7, the SEO also oversees and/or assists in several programs and projects which are not accounted for in the programs previously discussed. The costs related to these projects, many of which are required by statute, are included in administrative costs. The programs/functions are listed in Table 8.

Table 8	
State Energy Office Required Projects and Programs	
<u>State Energy Office Annual Report</u>	– A comprehensive report providing general overview of energy conditions in state.
<u>Emergency Response Team</u>	– All SEO employees serve on SERT in emergency situations such as hurricanes, ice storms, fuel disruptions, etc.
<u>Emergency Energy Program</u>	– This program, established as part of the NC Energy Policy Act of 1975, is required to develop and maintain a contingency and emergency plan to deal with possible shortages of energy to protect public health, safety and welfare.
<u>State and Alternative Provider Program</u>	– Provides an annual report to DOE on state owned alternative fuel vehicles and compliance with Federal Energy Policy Act.
<u>NC Petroleum Displacement Plans</u>	– Collects and reviews plans annually as legislatively mandated to achieve 20% reduction in petroleum use by state vehicles by the end of 2009.
<u>E-85 Refueling Infrastructure Report</u>	– This report develops a plan for the targeted conversion of fuel-dispensing facilities to provide greater availability of biodiesel, ethanol, and other alternative fuels in order to promote attainment of the 20% reduction or displacement of petroleum products consumed in State-owned fleets by January 1, 2010, as required by Section 19.5 of S.L. 2005-276.
<u>Energy Outlook Report</u>	– Update the current outlook report forecasting energy trends in the future for North Carolina.
<u>Performance Contracting</u>	– SEO provides oversight, technical assistance and review for state agencies entering into guaranteed energy savings contract.
<u>Energy Credit Banking and Selling Program</u>	– SEO administers and provides oversight for the banking and selling of EPAct credits (Energy Policy Act) accumulated from the purchase of Alternative Fuel Vehicles.
<u>Energy Policy Council</u>	– The SEO serves as the staff to the Council and carries out duties mandated by legislation which includes the State Energy Plan every two years (G.S. 113B-7); the Energy Outlook Forecast (G.S. 113B-8); and the Energy Emergency Plan (G.S. 113B-9). The Council meets bi-monthly and approves all SEO funding of projects over \$25,000.
<u>Utility Savings Initiative Strategic Energy Plans</u>	– Collects and reviews plans annually from all State agencies and universities as legislatively mandated in G.S. 143-64.12(b).
<u>High Performance Building Guidelines Report</u>	– Report to be completed eighteen months after the completion of last pilot in the program. Monitoring of 15 pilot building projects and evaluation.

As of January 2007, there are 16 projects that are in varying stages of contract negotiation. As these contracts are executed, the number of projects being administered will increase to 75 projects during the current fiscal year. These pending projects are shown in Table 9 on page 10.

Table 9

State Energy Office - Contracts in Negotiation				
Program Type	Project Title	Contractor	Obligated Contract Amount	Projected Contract End Date
Alternative Fuels	Cherokee Biodiesel Dispensing System	Environment & Natural Resources Department, Eastern Band of Cherokees	60,000	9/30/2007
Education & Awareness	NC Sustainable Design Building Competition	Advanced Energy/NC Emerging Green Builders	100,000	6/30/2008
Energy Improvement Loan Program	Windhorse Zen Community	Windhorse Zen Community	54,500	12/1/2016
Energy Improvement Loan Program	Evans Environmental Energies, Inc.	Evans Environmental Energies, Inc.	500,000	12/1/2016
Energy Improvement Loan Program	Caroleen & Henrietta, NC, Hydroelectric Generating Facilities	Caroleen & Henrietta Mills Hydroelectric Generation	410,000	12/1/2016
Energy Improvement Loan Program	Lofts at Mica Village	Mica Village, LLC	146,457	12/1/2016
Energy Improvement Loan Program	Quaintance-Weaver Restaurants & Hotels	Quaintance-Weaver Restaurants & Hotels	500,000	12/1/2016
Renewable Energy	Wind Energy Resource Development in NC	ASU and NC Solar Center, NCSU	81,000	6/30/2008
Renewable Energy	Landfill Gas Development	ASU and NC Solar Center, NCSU	50,000	6/30/2008
Residential	Heat Pumps in Manufactured Homes-Expansion - Eastern NC	ECU	268,004	12/31/2007
State Energy Savings Programs	Utility Savings Initiative	Internal	27,671	6/30/2007
State Energy Savings Programs	USI K-12 Coordinator	DPI	100,000	9/30/2008
State Energy Savings Programs	Waste Reduction Partners Central & Eastern NC Expansion	NC DENR Div. Pollution Prevention & Environmental Assistance	332,000	9/30/2008
State Energy Savings Programs	UNC-Asheville Physical Plant Building	UNC-Asheville	175,000	9/30/2007
State Energy Savings Programs	Morrison Dorm Energy Efficiency Retrofit	UNC-Chapel Hill	137,455	6/30/2007
State Energy Savings Programs	UNC-Asheville Craft Campus	UNC-Asheville	100,000	9/30/2007

Staff and Budget Utilization

The SEO employees work on many different projects throughout the year. A summary of the current staff utilization is shown in Table 10 on page 11. The staff FTE is recorded based on the time spent on all the projects administered by the SEO. The cost allocation is based on the budgeted salaries, fringe benefits, and other non-personnel operating costs.

Table 10

State Energy Office - Current Service Level of Budget and Staff Distribution																			
Position Title	Administration Area - Required Projects and Programs											Grants Management							Total FTE
	State Energy Office Annual Report	Emergency Response Team	Emergency Energy Program	State & Alternative Provider Program	NC Petroleum Displacement Plans	E-85 Refueling Infrastructure Report	Energy Outlook Report	Performance Contracting	Energy Credit Banking & Selling Program	Energy Policy Council / Legislation and Legislative Reporting	Fiscal	Alternative Fuels	Awareness & Education	Energy Improvement Loan Program	Industrial	Renewable Energy	Residential	State Energy Savings Programs	
Energy Division Director	0.034	0.025	0.017	0.017	0.017	0.017	0.017	0.051	0.017	0.424		0.042	0.068	0.042	0.042	0.042	0.042	0.085	1.00
Energy Conser. Rep II		0.050										0.014	0.014		0.014	0.909			1.00
Building Systems Eng. II		0.025								0.297		0.017	0.017	0.271	0.170	0.017	0.170	0.017	1.00
Information & Communication Spec II	0.223	0.025					0.056						0.696						1.00
Admin. Secretary II	0.022	0.025	0.007	0.004	0.004	0.004	0.006	0.043	0.007	0.103		0.093	0.079	0.099	0.038	0.072	0.109	0.285	1.00
Office Assistant IV	0.022	0.025	0.007	0.004	0.004	0.004	0.006	0.043	0.007	0.103		0.093	0.079	0.099	0.038	0.072	0.109	0.285	1.00
Energy Conservation Rep II		0.025		0.034	0.034	0.034			0.067			0.672	0.067				0.067		1.00
Building Systems Eng. I		0.025												0.034		0.807	0.134		1.00
Office Assistant IV	0.022	0.025	0.007	0.004	0.004	0.004	0.006	0.043	0.007	0.103		0.093	0.079	0.099	0.038	0.072	0.109	0.285	1.00
Energy Conser. Rep. Supv.		0.100	0.069							0.554		0.277							1.00
Energy Conser. Rep. II		0.025						0.471						0.034	0.067				0.403
Energy Conser. Rep. II		0.025												0.034	0.067				0.874
Energy Conser. Rep. II ¹		0.025										0.101	0.067						0.807
Energy Conser. Rep. II ²		0.025												0.101					0.874
Information Processing Tech. ²		0.025												0.807					0.168
Building Systems Eng. I ²		0.025													0.101				0.874
Accountant											1.000								1.00
Total FTE by Program	0.323	0.500	0.108	0.063	0.063	0.063	0.091	0.650	0.105	1.583	1.000	1.401	1.167	1.519	0.662	1.096	1.649	4.957	17.00
Total Budgeted Administrative Cost	25,406	39,350	8,472	4,946	4,946	4,946	7,175	51,136	8,246	124,564	50,000	110,297	91,871	119,548	52,139	86,292	129,750	390,127	1,309,211

¹Time limited position scheduled to end June 30, 2007

²Vacant position as of January 1, 2007

NEEDS ASSESSMENT

As stated earlier, the Needs Assessment directed by Section 17.2 of Session Law 2006-66 is to determine what functions currently being performed by the SEO should be performed in the 2007-2008 fiscal year. As part of the assessment, the mission statement of the division is to be examined to clarify what existing activities the office should continue in the future.

An examination of the SEO mission statement was not very beneficial in determining what existing needs the office should continue. The all-encompassing nature of the mission statement would suggest that not only should all the current activities continue into FY 2007-08 but would also allow for considerable expansion.

For purposes of this Needs Assessment, four levels of service and the cost of maintaining each level will be presented. Each service level description will include a listing of the functions to be performed. Following the service level descriptions will be a summary table outlining the funding requirements for each level and the possible revenue sources to provide those funds.

Minimum Level of Service

The functions included in this level are deemed to be essential. This level includes those functions that are legislatively mandated and/or authorized (refer to Table 8); the maintenance of the Energy Improvement Loan Program, a revolving loan program that replenishes itself with principal and interest payments; and the management of existing contracts and grants that extend into FY 2008, and in some cases, beyond. Table 11 - Current Contracts and Table 12 - Contracts in Negotiation on page 14 through 16 list the contracts/grants and their end dates. No new contracts and grants would be issued in the listed program areas.

Number positions required	7
Funds Required	\$858,000

Reduced Level of Service

The functions included in this level are those listed in the Minimum Level plus the continued operation of the State Energy Savings Program of which the Utility Savings Initiative has become the signature program. After the mandated programs, both the SEO Director and Department of Administration executive management have determined that this program (function) is the top priority. The SEO has documented cost savings and/or avoidance in excess of \$45 Million over the past three years. This level of service would allow for a minimum number of new contracts and grants annually.

Number positions required	13
Funds Required	\$2,087,000

Current Level of Service

This is the level of service being provided in FY 2007 including all of the functions listed in Table 8 with an average of \$3 Million annually in new contracts and grants.

Number positions required	17
Funds Required	\$5,800,000

Enhanced Level of Service

The functions included in this level are those in the Current Level plus an expansion in the high-yield Utility Savings Initiative particularly savings initiatives in the public schools, community colleges, and the universities.

Number positions required	17
Funds Required	\$7,000,000

Summary of Requirements and Revenue Sources For FY 2008

Level of Service	Funds Required	Revenue Sources	
		DOE Formula Grant ³	General Fund Appropriations
Minimum	\$858,000	\$787,000	\$158,000
Reduced	\$2,087,000	\$787,000	\$1,300,000
Current	\$5,800,000	\$787,000	\$5,013,000
Enhanced	\$7,000,000	\$787,000	\$6,213,000

RECOMMENDED SERVICE LEVEL FOR FY 2008

A sound energy policy and strategy for state government is essential, particularly given the impact that global supply and demand for conventional energy will or potentially will have on domestic supplies. To provide policy direction and a strategy to continue to provide an example for the public in energy conservation, the reduced level of service should be continued in FY 2007-08. To maintain the status quo related to energy, the current level of service would need to be continued in FY 2007-08. Under either strategy, appropriations from \$1.3 Million to \$5.0 Million will be required.

If only the functions identified for the minimum level of service are to be continued during FY 2007-08, other alternatives for providing these functions should be pursued. For example either the Office of State Construction or the Utilities Commission, both of which are involved in energy matters could perform these functions.

Regardless of the level of service selected to continue in FY 2008, the SEO management should implement the following actions:

- 1) Review the professional staff to clerical staff ratio. Currently the SEO has a high number of clerical positions for the number of professionals.
- 2) Aggressively pursue the acquisition of more external grant awards.
- 3) Refocus mission statement and goals.
- 4) Administer more grants internally.
- 5) Review current personal service contracts to determine if work can be done by internal staff.

³ A 20% match is required for the DOE Formula grant which is \$158,000 at the minimum level. The DOE Formula grant funds may not be available in anticipated amounts if the scope of SEO services drop to the minimum or reduced levels.

COMMENTS FROM THE STATE ENERGY OFFICE

In Section 17.2 of Session Law 2006-66, the State Energy Office and the Office of State Budget and Management were instructed to document any differences in findings and recommendations related to the needs assessment. The State Energy Office has prepared the following comments for inclusion in the report:

Energy Climate Now - Since the point in the summer of 2006 when the General Assembly requested the attached report, interest and activity in the energy arena has increased by several orders of magnitude. Requests for information, technical services and assistance have greatly accelerated, driven partially by the almost daily focus and attention of the media. Concern regarding air pollution and global warming, recognition of our increasing dependence on foreign oil, awareness of the job potential presented by renewable fuels and energy, and the volatility in energy prices have all come together at one time to drive this high level of interest.

It is in this context of heightened awareness of energy concerns and issues that this report has been drafted. From the standpoint of the State Energy Office, the demands for its many programs and services have never been at a higher level. From businesses and industry to local governments and consumers, interest in stepping forward and taking action to reduce energy use and costs is at all-time peak. The need for convening of key stakeholders and crafting new strategies to address our energy requirements, a role the State Energy Office wishes to maintain and enhance, has never been greater.

Administrative Staff Functions – The State Energy Office currently has four positions which are considered administrative or clerical positions. These four positions are an Administrative Secretary II, two Office Assistant IVs, and an Information Processing Technician II. These positions are essential to carrying out the goals and missions of the office. Each position provides direct administrative assistance; however, each position is also assigned to specific tasks which vary among the positions.

The Administrative Secretary II provides direct assistance to and serves as the lead administrative contact for the Director of the State Energy Office. This position also serves as the general Office Manager overseeing office matters such as: compiling SEO Policy and Procedures Manuals; coordinating meetings and conferences; coordinating computer, phone, equipment and office space needs; serving as Human Resources Representative to DOA; supervising the office assistant positions; and completing many other office tasks as they arise.

The two Office Assistant IV positions provide direct assistance to all of the State Energy Office staff members. In this capacity, these two positions perform the following tasks: ordering office supplies; answering multiple internal and external inquiries about State Energy Office programs; compiling meeting notes and agendas; routing required contractual documents; updating the SEO database; arranging travel agendas for program managers; maintaining SEO inventory; and completing many other office tasks on a daily basis. In addition to these tasks, one office assistant serves as the office receptionist. The other office assistant provides direct assistance to the Utility Savings Initiative Program.

The fourth position is the Information Processing Technician. This position serves as the contract administrator providing direct administrative support for contract activity including financial accounting, programmatic narrative reporting, and new contract development. This position also serves as the Energy Improvement Loan Program Manager. In this capacity, this staff member does the following: answers all inquiries about the loan program; forwards all loan applications documents to applicants; negotiates the terms and conditions of loans with applicants; serves as a liaison between SEO, DOA Fiscal and the applicant; assures that loans meet the requirements of the programs; solicits assistance of SEO staff in evaluating loan applications; and tracks the entire loan process until application is fully executed.

Match for DOE Special Project Funds through Competitive Solicitations – Over the last five years, the State Energy Office has been the most successful energy office in the South in leveraging special project grants from the U.S. Department of Energy. Around 20 projects have been funded in this manner, including the western office. All together, these funds total around \$2 million. In previous years, most of these funds were contracted or passed through to partner organizations for project deployment. With Petroleum Violation Escrow funds being exhausted, these funds can become an avenue for project deployment directly through the State Energy Office. However; the Special Project grants require non-federal match dollars. The match requirements may vary for each program area and solicitation, but most require a 25% match. The State Energy Office will require State Appropriations to match these federal funds as they become available.

State Construction Office and Utilities Commission on Energy Matters – On page 13 of this report, when discussing a minimal level of service, a mention is made that some programs and services could possibly be transferred to the NC Utilities Commission or State Construction Office. It should be noted the NC Utilities Commission, a regulatory agency, does not presently conduct any energy programs of the nature of those administered by the State Energy Office. In fact, in a Performance Audit conducted by the State Auditor in July 2004, the audit found no overlap of programs or responsibilities between the State Energy Office and the NC Utilities Commission. The State Construction Office, meanwhile, focuses principally on the construction review and oversight of new state buildings and identification of repairs needed in existing state buildings. Given the current staffing and resource limitations, transfer of any functions over to SCO would require the provision of additional staff and resources to conduct those assigned duties.

Middle Reduced Level Funding – The State Energy Office submitted an original Budget Expansion Request in the amount of \$7,719,731 in fiscal year 2007-08 to fund eight energy office positions and to fund energy programs at the current and previous levels of funding. Over the last two decades, these positions and programs have been funded from two principal sources: the U.S. Department of Energy and the Petroleum Violation Escrow Funds.

A revised Budget Expansion Request was later submitted in the amount of \$3,986,503 in fiscal year 2007-08. The revised request included funding for eight energy office positions and \$3,400,000 to fund high priority core energy efficiency programs at reduced levels. These areas include state building energy efficiency programs, alternative fuels, residential energy efficiency program, industrial/commercial energy efficiency programs, renewable energy programs, energy education and awareness programs. All of these programs address the problems and concerns of potential energy shortages, environmental pollution, and the need for economic development in North Carolina. Without funding at this revised request level, all of these programs will end at the completion of their current contracts except the state building energy efficiency programs.

APPENDIX A

Legislation Impacting State Energy Office

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Appendix A

Legislation Impacting State Energy Office

The legislation referenced below impacts the State Energy Office either directly or indirectly. A brief summary of the contents is also included.

State Energy Office as Staff to Energy Policy Council

Chapter 113B - North Carolina Energy Policy Act of 1975

§113B-1 to 24 of the Act specifying duties of Energy Policy Council.

- §113B-2 and §113B-11(e) references the Department of Administration as location of the Council and staffing.
- §113B-2(c) designates the Energy Policy Council as the central energy policy planning body of the State, communicating and cooperating with federal, State, regional and local bodies and agencies to effect a coordinated energy policy.
- §113B-6 lists the duties and responsibilities of the Energy Policy Council:
 - < Develop and recommend to the Governor a comprehensive long-range State energy policy to achieve maximum effective management and use of present and future sources of energy.
 - < Conduct an ongoing assessment of the opportunities and constraints presented by various uses of all forms of energy and to encourage the efficient use of all energy forms.
 - < Review and coordinate all State government research, education and management programs relating to energy matters and to continually educate and inform the general public regarding energy matters.
 - < Recommend to the Governor and to the General Assembly needed energy legislation and such modifications of energy policy, plans and programs the Council considers necessary and desirable.
 - < Develop and administer the Low-Income Residential Energy Program (added in 2003 Session H397). (This Program is directed to making new, affordable housing energy-efficient.)
- §113B-7 describes the Energy Efficiency Program to encourage and promote energy conservation. (Currently, this is carried out through the State Energy Plan; the programs and projects of the SEO; and the SEO website, media and publications.)
- §113B-8 describes the Energy Management Plan which notes current patterns of consumption of energy; assesses demand and supply of different energy forms; forecasts future energy supplies and consumption; analyzes effects of conservation measures on energy consumption in the State; and assesses the effects of alternative energy sources. (These directives are carried out in the Energy Outlook, and through the programs and projects of the SEO.)
- §113B-9 directs the development on contingency and emergency plans to deal with possible shortages of energy including strategies and staged conservation measures, compliance with federal energy regulations, and recommendations to avert shortages, and procedures for review of complaints and special exemptions. (The directives are carried out in the Energy Emergency Plan.)
- §113B-12(a) requires the Energy Policy Council to annually provide a comprehensive report providing a general overview of energy conditions in the State.
- §113B-10(a) directs the Energy Policy Council to encourage energy conservation and management and development of alternative energy technologies.
- §113B-10(b) directs the Energy Policy Council to develop and coordinate research and development in energy-related matters.
- §113B-10(c) directs the Energy Policy Council to serve as the repository for data and information on energy-related matters.
- §113B-10(d) directs the Council to review and coordinate all State agency research and planning relating to energy.

State Energy Office as Delegated by Department of Administration

§143-64.12(b) DOA shall develop a comprehensive energy management program for State government. Each state agency shall develop and implement an energy management plan that is consistent with the State's comprehensive energy management program. Other DOA activities include energy efficient products, practices, life-cycle cost analysis, and building operation efficiency (1993 Session H101).

§143-64.15A Section 7.(d) requires the Department of Administration to submit a final report within 18 months after completion of the last project participating in the Triangle J COG High Performance Building Guidelines pilot program (2001 Session H1272).

§143-345.13 and 14 authorizes DOA, with approval of the Energy Policy Council and the Governor, to collect reports on stocks of energy products and storage capacity, etc., from suppliers during an energy crisis.

2005 Session S622 Section 19.5(a), (b), and (c) State Fleets shall develop and implement plans to improve use of alternative fuels and achieve a 20% reduction or displacement of current petroleum produces by 1/1/2010. SEO approval of methods of reduction and prepare annual report due each 11/1 as delegated by DOA.

2006 Session S2051 Section 1 directs DOA to develop a plan for targeted conversion of fueling facilities to promote availability and use of alternative fuels by 11/1/06.

State Energy Office Specified by General Assembly

§143-64.17H Each fiscal year, State Energy Office shall compile info on guaranteed energy savings contracts in state agencies and report to specified commissions (2001 Session H623) and provide recommendations on energy savings contracts to Council of State (2003 Session H864).

§143-345.16, 17 and 18 (2001 Session H322) updated the Business Energy Improvement Program to the Energy Improvement Loan Program: allowing loans to nonprofits and local governments; named the State Energy Office as the lead State agency in matters relating to energy efficiency; and extended the maximum contract period from seven to ten years.

§143-58.4(b) (2005 Session S1149) SEO to establish and administer an energy credit banking and selling program to generate funds for use of alternative fuels and purchase of alternative fuels and vehicles by state agencies and institutions. Each State agency and institution to report all fleet info requested to SEO. SEO must prepare annual report.

2006 Session S1741 Section 17.2 directs the SEO and the OSBM to conduct a needs assessment of the SEO to determine which current functions need to be performed in FY2007/08 and review of mission statement by 11/1/06.

2006 Session S198 Section 17.2 (a), (b), and (c) directs the SEO to update the Energy Emergency Plan including cost of the recommended undertaking by 11/1/06.

North Carolina Emergency Operations Plan, Tab B to Appendix 3 to Annex A, tasks the State Energy Office as the Lead State Agency in responding to and recovery from fuel shortages, power outages, and capacity shortages that impact or threaten to impact large numbers of citizens.

North Carolina Emergency Operations Plan, Tab D to Appendix 5 to Annex B and Appendix 3 to Annex B, lists the State Energy Office as a member of the Energy Loss Task Force. This group can be activated to assess the impact of drought on generation of hydroelectric power or water supply in cooling lakes serving coal generation plants.

State Energy Office Involvement

2006 Session S2051 Section 4.1, the Joint Legislative Oversight Committee on Capital Improvements is charged to submit a study on improvements in energy and water conservation in state-owned facilities, with recommendations, by 2/1/07. The SEO expects to be heavily involved.

Other Legislation

2006

S402 expands guaranteed energy savings contracts to include water and other utilities; raises debt ceiling from \$50M to \$75M; extended contract term from current 12 years to 20 years; and clarifies wording that repayment begins when work is accepted versus at contract signature.

S1741 directs the SEO and the OSBM to conduct a needs assessment of the SEO to determine which current functions need to be performed in FY2008/08 and review of mission statement by 11/1/06.

S198 directs the SEO to update the Energy Emergency Plan including cost of the recommended undertaking by 11/1/06.

S2051 directs the SEO to develop a plan for targeted conversion of fueling facilities to promote availability and use of alternative fuels by 11/1/06. In addition, the SEO is to submit a study on improvements in energy and water conservation in state-owned facilities, with recommendations, by 2/1/07.

2005

S622 Budget Bill Section 19.4(b) appropriated balance of PVE funds and interest in account to DOA for projects approved by the State Energy Policy Council (approx. \$3.1M)

S622 Budget Bill Section 19.5 required all state fleets to improve use of alternative fuels and efficient vehicles to achieve a 20% reduction or displacement of petroleum by 2010, with reports due from all agencies to DOA by 1/1/06.

S1149 established a banking and selling program for EPACT credits to generate funds for use of alternative fuels and purchase of AFV by state agencies and institutions; administered by SEO. The bill also extended and expanded renewable energy tax credits. (Draft Rules)

2004

H1414 Section 19.1(a) provided additional PVE funds.

2003

H397 Report on Request for Information on Provision of Energy Management Services

H397 Section 18.3 Addition of Low-Income Residential Energy Program in §113B-6; Additional PVE funds in Section 18.4(a) and PVE funds expended as recommended by EPC in (b).

H864 Revision in Performance Contracting Program impacting SEO as lead agency (Rules)

2002

H623 Performance Contracting Program with SEO as lead agency

2001

H1272 High Performance Building Guidelines pilot project under SEO; requires life cycle cost analysis

H322 Revise Business Energy Improvement Program to become Energy Improvement Loan Program (Rules 9/04)