

# NORTH CAROLINA GENERAL ASSEMBLY

## LEGISLATIVE RESEARCH COMMISSION

STATE LEGISLATIVE BUILDING

RALEIGH, NC 27601



April 18, 2012

TO THE MEMBERS OF THE LEGISLATIVE RESEARCH COMMISSION:

Attached for your consideration is the report to the 2012 Regular Session of the 2011 General Assembly. This report was prepared by the Legislative Research Commission's Committee on Energy Policy Issues, pursuant to G.S. 120-30.17(1).

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Senator Robert Rucho  
Chair

Chair  
Committee on Energy Policy Issues  
Legislative Research Commission

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LEGISLATIVE RESEARCH COMMISSION  
ENERGY POLICY ISSUES COMMITTEE  
NORTH CAROLINA GENERAL ASSEMBLY



**REPORT TO THE  
2012 SESSION  
of the  
2011 GENERAL ASSEMBLY  
OF NORTH CAROLINA**

**APRIL 18, 2012**

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# TRANSMITTAL LETTER

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April 18, 2012

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TO THE MEMBERS OF THE 2012 REGULAR SESSION  
OF THE 2011 GENERAL ASSEMBLY

**The Legislative Research Commission herewith submits to you for your consideration its report and recommendations to the 2012 Regular Session of the 2011 General Assembly. The report was prepared by the Legislative Research Commission's Committee on Energy Policy Issues, pursuant to G.S. 120-30.70(1).**

Respectfully submitted,

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Senator Philip E. Berger  
President Pro Tempore of the Senate

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Representative Thomas R. Tillis  
Speaker of the House of Representatives

Co-Chairs  
Legislative Research Commission

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# LEGISLATIVE RESEARCH COMMISSION MEMBERSHIP

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**2011 – 2012**

**President Pro Tempore of the Senate**

Senator Philip E. Berger  
Co-Chair

Senator Thomas M. Apodaca  
Acting Co-Chair

Senator Peter S. Brunstetter  
Senator Linda D. Garrou  
Senator Martin L. Nesbitt, Jr.  
Senator Richard Y. Stevens

**Speaker of the House of Representatives**

Representative Thomas R. Tillis  
Co-Chair

Representative Timothy K. Moore  
Acting Co-Chair

Representative John M. Blust  
Representative Justin P. Burr  
Representative Mike D. Hager  
Representative Edith D. Warren

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# PREFACE

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The Legislative Research Commission, established by Article 6B of Chapter 120 of the General Statutes, is the general purpose study group in the Legislative Branch of State Government. The Commission is co-chaired by the President Pro Tempore of the Senate and the Speaker of the House of Representatives and has five additional members appointed from each house of the General Assembly. Among the Commission's duties is that of making or causing to be made, upon the direction of the General Assembly, "such studies of and investigation into governmental agencies and institutions and matters of public policy as will aid the General Assembly in performing its duties in the most efficient and effective manner" (G.S. 120-30.17(1)).

The Legislative Research Commission authorized the study of Energy Policy Issues, under authority of G.S. 120-30.17(1). The Committee was chaired by Senator Robert Rucho, Chair of the Committee. The full membership of the Committee is listed under [Committee Membership](#). A committee notebook containing the committee minutes and all information presented to the committee will be filed in the Legislative Library by the end of the **2011-2012** biennium.

Copies of the presentations made and handouts distributed to the Committee are available at the Committee website:

[http://www.ncleg.net/gascripts/Committees/Committees.asp?sAction=ViewCommittee&sActionDetails=Non-Standing\\_6549](http://www.ncleg.net/gascripts/Committees/Committees.asp?sAction=ViewCommittee&sActionDetails=Non-Standing_6549)

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# COMMITTEE PROCEEDINGS

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The Legislative Research Commission's Committee on Energy Policy Issues met four times after the 2011 Regular Session. The Committee's charge can be found [here](#). The Committee conducted a thorough review of energy policy issues during the 2011-2012 legislative interim including the receipt of over 25 presentations from many different local, State, and national expert speakers. The following is a brief summary of the Committee's proceedings. Detailed minutes and information from each Committee meeting are available in the Legislative Library.

## AGENDA

**1:00 p.m. Wednesday, January 18, 2012**

Room 544 Legislative Office Building  
Raleigh, North Carolina

1. Call to order  
Senator Robert A. Rucho, Presiding
2. Introductory remarks by Chair (5 minutes)  
Senator Robert A. Rucho, Presiding
3. Introduction of Members and Staff (5 minutes)
4. Presentation of the Committee Charge (5 minutes)  
Jeff W. Hudson, Committee Counsel  
Research Division
5. Adoption of the Committee budget (5 minutes)
6. Presentation on shale gas in North Carolina's Triassic Basin (30 minutes)  
Dr. Kenneth B. Taylor, Assistant State Geologist  
Division of Land Resources, Department of Environment and Natural Resources (DENR)
7. Presentation on existing State oil and gas statutes (10 minutes)  
Jennifer L. McGinnis, Committee Counsel  
Research Division
8. Presentation of potential economic impacts of shale gas in North Carolina (30 minutes)

Jon Williams, Assistant Secretary for Energy  
Department of Commerce

9. Update on the Department of Environment and Natural Resources' shale gas study (Section 4, S.L. 2011-276) (20 minutes)  
Robin W. Smith, Assistant Secretary for Environment  
DENR
10. Exploration and production of shale gas – an industry perspective (1 hour)  
James E. Erb, P.E.  
Former Director of the Pennsylvania Bureau of Oil and Gas Management  
  
Michael Yount, Senior Vice President and Chief Utility Operations Officer  
Piedmont Natural Gas
11. Committee discussion and announcements
12. Adjourn

### **January 18, 2012**

The first meeting of the Committee was held on Wednesday, January 18 at 1:00 p.m. in Room 544 of the Legislative Office Building. Senator Bob Rucho presided.

Dr. [Ken Taylor](#), Assistant State Geologist in the Division of Land Resources in the Department of Environment and Natural Resources (Department), made a presentation to the Committee on the presence of shale gas in North Carolina's Triassic Basin. Dr. Taylor provided an overview of the North Carolina Geologic Survey and a brief geologic history of North Carolina's shale gas formation located in the Sanford Sub-Basin of the Deep River Basin. Dr. Taylor outlined the history of resource exploration in the Deep River Basin dating back to the late 18<sup>th</sup> century. Dr. Taylor explained the two key indicators of recoverable shale gas (1) Total Organic Carbon (TOC) content of greater than 1.4% and (2) Thermal Alteration Data (TAI) which indicates the thermal maturity of the rock. Dr. Taylor reported that some of the existing test wells in the Sanford Sub-Basin appear to meet these criteria.

Ms. [Jennifer McGinnis](#), Counsel to the Committee, made a presentation on the existing State oil and gas statutes. Ms. McGinnis explained that the governing State laws on oil and gas (Article 23 of Chapter 113 of the General Statutes) were enacted in 1945 and have not been substantially amended since. These statutes address oversight of oil and gas activities, provisions for taxation of resources, requirements for drilling, and prohibit horizontal drilling. Ms. McGinnis also explained that G.S. 143-214.2(b) prohibits the discharge of any waste in wells. Ms. McGinnis further clarified that this provision, combined with the prohibition on horizontal drilling in Chapter 113, essentially bans the use hydraulic fracturing technology for shale gas resources in the State. Ms. McGinnis also described some of the recent legislative changes that were enacted by S.L. 2011-276 (House Bill 242) to: increase the amount of the bond required to drill for resources; increase the amount of fees applicable to drilling new wells or

abandoning wells; require the Department of Environment and Natural Resources, with the Consumer Protection Division of the Department of Justice, and the Department of Commerce to jointly study issues related to hydraulic fracturing; and enact consumer protection provisions. Lastly, Ms. McGinnis identified rules in the North Carolina Administrative Code that are applicable to horizontal drilling and injection wells.

Mr. [Jon Williams](#), Assistant Secretary for Energy in the Department of Commerce, presented the potential economic impacts of a shale gas industry in North Carolina. Mr. Williams discussed the Department's role in the shale gas study and the State's potential shale gas play in the Deep River basin which, he stated, is difficult to compare to the Marcellus play (50,000 acres versus 16 million acres respectively). Mr. Williams explained that in order for the shale gas product to be marketable, it must either be virgin or processed to be of a certain quality grade. There are presently no natural gas processing plants located in North Carolina. Mr. Williams reported that North Carolina is the third lowest per capita consumer of natural gas in the nation and that presently there is limited infrastructure in the State to support transmission of product to areas of the country with higher demand. Mr. Williams stated that the natural gas industry is "boom and bust" with prices reflecting the changes in supply and demand. Mr. Williams also pointed out that several of the coal-fired power generating plants in the State have converted, or are in the process of converting, to natural gas, in part to comply with the new federal Cross-State Air Pollution rule requirements. Mr. Williams stated that long-term benefits could be realized from the natural gas industry if a processing plant was constructed and operated in the State.

Ms. [Robin Smith](#), Assistant Secretary for Environment in the Department of Environment and Natural Resources (Department), provided the Committee with an update on the Department's shale gas study. Ms. Smith distributed a draft of the study outline and explained that the study would only focus on the potential gas reserves within the Triassic Basin. The Department will largely rely on information from the United States Geologic Survey (USGS) regarding the State's shale gas resource. Ms. Smith provided an overview of the various sections of the shale gas study and how the Department is working with Commerce and the Consumer Protection Division of the Department of Justice to address certain issues in the study. One of the issues under evaluation is forced pooling, or compelling landowners to participate in a lease plan in situations where they do not want to participate. Ms. Smith reported the Department held one meeting in the fall to solicit input on the draft study outline and that two more meetings are scheduled in March to receive public comment on the draft report.

Mr. [James Erb](#), former director of the Pennsylvania Bureau of Oil and Gas Management, provided an on-the-ground perspective of experiences related to resource exploration and production for the Committee to consider. Mr. Erb made the following recommendations to the Committee:

- Keep risks in perspective, maintain balance.
- Rely on sound science and peer-reviewed articles.
- Involve advisory committees.
- Borrow from organizations (such as the American Petroleum Institute, Groundwater Protection Council, Interstate Oil and Gas Compact Commission, and STRONGER (State Review of Oil and Natural Gas Environmental

Regulation)) to incorporate industry standards of practice and training opportunities.

In evaluating the shale gas industry, Mr. Erb recommended the State also consider the following program areas: severed subsurface estates; surface owner rights and damages; correlative rights; well spacing; pooling/unitization; public lands; State versus local controls; taxes; and the organizational structure of the agency or agencies regulating the resources program. Lastly, Mr. Erb shared some statistics on the oil and gas industry in the Marcellus Basin.

Mr. [Michael Yount](#), Senior Vice-President and Chief Utility Operations Officer for Piedmont Natural Gas (PNG), presented an industry perspective on natural gas, the economy, and the environment. Mr. Yount provided an overview of PNG's fiscal year statistics, service area, and infrastructure. Mr. Yount reported that natural gas supplies 25% of the U.S. energy economy serving 76 million homes and businesses and provides source fuel to 24% of electric power generation. Furthermore, 89% of the natural gas supplies in the U.S. are produced domestically and all of North Carolina's natural gas is imported. Mr. Yount stated that, according to data compiled by the U.S. Energy Information Administration, there appears to be a 90 to 100 year supply of domestic natural gas based on present demand. As to its environmental benefits, natural gas produces less carbon dioxide than other traditional fuels and those emissions have remained relatively constant despite more homes and businesses using natural gas largely due to improved standards for energy efficiency for new building construction.

**AGENDA**  
**1:00 p.m. Wednesday, February 15, 2012**  
Room 643 Legislative Office Building  
Raleigh, North Carolina

1. Call to order  
Senator Robert A. Rucho, Presiding
2. Introductory remarks by the Chair (*5 minutes*)  
Senator Robert A. Rucho
3. Adoption of the minutes from the January 18, 2012 Committee meeting
4. Exploration for and extraction of shale gas in North Carolina (*30 minutes*)  
Tom Hassenboehler, Vice President, Policy Development and Legislative Affairs  
America's Natural Gas Alliance
5. Environmental and natural resource issues related to the exploration for and extraction of shale gas in North Carolina (*30 minutes*)  
Joe Rudek, Senior Scientist  
Environmental Defense Fund  
  
Will Morgan, Director of Government Relations  
North Carolina Chapter of the Sierra Club
6. Recommendations concerning exploration for and extraction of shale gas in North Carolina (*15 minutes*)  
Robert B. Jackson, Nicholas Chair of Global Environmental Change  
Nicholas School of the Environment, Duke University
7. Landowner and property rights issues related to the exploration for and extraction of shale gas in North Carolina (*1 hour and 15 minutes*)  
Jordan Treackle, Mineral Rights Project Coordinator (*20 minutes*)  
Rural Advancement Foundation International-USA  
  
W. Daniel Amburn, Legislative Specialist (*7½ minutes*)  
North Carolina League of Municipalities  
  
Amy Bason, Legislative Counsel (*7½ minutes*)  
North Carolina Association of County Commissioners  
  
Jim Womack, Commissioner (*20 minutes*)  
Lee County Board of Commissioners

Dan Butler, Property Owner (10 minutes)  
Lee County

Ray Covington, Property Owner (10 minutes)  
Lee County

8. Economics of shale gas exploration and extraction in North Carolina (30 minutes)  
Sara Banaszak, Vice President and Chief Economist  
America's Natural Gas Alliance
9. Committee discussion and announcements
10. Adjourn

### **February 15, 2012**

The second meeting of the Committee was held on Wednesday February 15 at 1:00 p.m. in Room 643 of the Legislative Office Building. Senator Bob Rucho presided.

Mr. [Tom Hassenboehler](#), Vice President of Policy Development and Legislative Affairs, for America's Natural Gas Alliance, presented the Committee with a presentation on the exploration for and extraction of shale gas in the State. Mr. Hassenboehler forecasted future energy demand and the role of renewable energy resources. Mr. Hassenboehler reiterated some of the information on the State's shale gas potential that was presented to the Committee at the January meeting. He stated that natural gas is used across sectors and is a cleaner fuel for power generation and fueling transportation needs. Mr. Hassenboehler stated that there is a risk-benefit calculus in shale gas extraction using hydraulic fracturing and showed the Committee a brief [video](#) that illustrates how shale gas extraction is done with hydraulic fracturing. Mr. Hassenboehler explained the differences between traditional (vertical) well extraction and horizontal wells and the environmental footprint required for extraction operations. Mr. Hassenboehler discussed the composition of hydraulic fracturing fluids, the volume of water typically required to conduct hydraulic fracturing activities (5 million gallons), and the regulatory regimes to which hydraulic fracturing activities are subject.

Dr. [Ken Rudek](#), Senior Scientist with the Environmental Defense Fund, and [Will Morgan](#), Director of Government Relations for the North Carolina Chapter of the Sierra Club presented the Committee with issues to consider regarding the exploration for and extraction of shale gas in North Carolina. Dr. Rudek identified the following issues related to exploration for and extraction of shale gas:

- Well construction – require strong regulation, inspection, and enforcement to ensure proper construction and operation to prevent groundwater contamination.
- Chemical disclosure – unknown impact of hydraulic fracturing in the shallow shale deposits found in the State, and the potential for vertical fissures to allow the migration of hydraulic fracturing fluids into overlying groundwater.
- Water resources – hydraulic fracturing requires large volumes of water to operate each well and the Deep River region of the State is one where water resources are more scarce.

- Wastewater treatment – many gallons of wastewater are generated (consisting of hydraulic fracturing fluids and produced fluids) in the process and municipal wastewater treatment plants are not designed to manage these wastes. The State’s current prohibition on deep well injection further complicates where these fluids can be disposed.
- Air pollutants – hydraulic fracturing for shale gas can result in the release of volatile organic compounds (VOCs) and heavy metals. There is also the potential for methane release.
- Land use, land quality, and cumulative impacts – standard well pads can exceed seven acres and must be served by new roads and other necessary, and often new, infrastructure.

In addition to echoing some of the issues Dr. Rudek outlined, Mr. Morgan presented the Committee with the following policy considerations related to shale gas production:

- Importance of State regulation of shale gas exploration and production activities as there exists a lack of federal regulation for the industry.
- Consider lessons learned from other states engaged in this activity recognizing the inherent challenges of bringing and regulating this new industry to North Carolina.
- Consider the pending studies (Department of Environment and Natural Resources, USGS, EPA drinking water studies, and various states) as resources to draw from in policy development.

Dr. [Robert Jackson](#), Nicholas Chair of Global Environment Change in the Nicholas School of the Environment at Duke University, presented the Committee with recommendations concerning the exploration and production of shale gas in North Carolina. Dr. Jackson’s initial recommendation to the Committee is “don’t rush” as scientific studies on the impacts of shale gas extraction are currently underway. Dr. Jackson also recommended comprehensive baseline testing, social and environmental safeguards, and impact fees that will benefit all citizens of North Carolina. Dr. Jackson reported that there is a wide diversity of views regarding hydraulic fracturing and shared the results of [Duke University study](#) that found a relationship between the concentration of methane in drinking water wells and proximity to gas wells. Dr. Jackson reiterated some of the comments made by the earlier presenters in that concerns regarding shale gas activities lie in possible groundwater contamination and air quality impacts. Some of Dr. Jackson’s recommendations for North Carolina include:

- Collect extensive pre-and post-drilling water and air quality data.
- Use aggressive zoning and setbacks to protect property owners.
- Plan now for large water withdrawals and wastewater disposal.
- Require full disclosure of the chemicals in the hydraulic fracturing fluids.
- Ensure fees cover long-term costs for monitoring.
- Provide landowners with better information.

Mr. [Jordan Treakle](#), Mineral Rights Project Coordinator for the Rural Advancement Foundation International-USA, presented the Committee with information on mineral rights leasing in North Carolina. Mr. Treakle explained that the mineral rights contract defines the relationship between the landowner and the drilling company and determines all payment terms, drilling phases, and activities of the company on the property. Mr. Treakle identified numerous concerns with the mineral rights contracts or leases, the first

being compensation. Mr. Treakle stated that leases offer landowners very little compensation in terms of per acre bonus payments and royalty payments compared to other states. The leases also provide for abnormally long drilling phases. Other lease concerns that Mr. Treakle addressed include: landowner liability (few protections that limit landowner financial risk and legal liability) and land impacts resulting from drilling or ancillary activities (lack of compensation for impacts to land and water resources, no setback requirements for drilling infrastructure, no compensation for water withdrawals on landowner's property, no reclamation requirements). Mr. Treakle expressed concern for landowners who do not own their mineral rights in a split estate and identified a number of potential impacts of hydraulic fracturing activity on farmlands.

Mr. Daniel Amburn, Legislative Specialist for the North Carolina League of Municipalities, provided the Committee with an update on the League's position on hydraulic fracturing. Mr. Amburn stated that the League currently has no position on hydraulic fracturing; where some municipalities see the activity as a positive, others view it as a negative. The League has facilitated educational programs to help municipalities make their own decisions on hydraulic fracturing. The League is also working with the North Carolina Association of County Commissioners, the North Carolina State Offices of Cooperative Extension, and Duke University to develop a guide with tools to address shale gas exploration and production for its members.

Ms. Amy Bason, Legislative Counsel for the North Carolina Association of County Commissioners, provided the Committee with an update of the Association's position on hydraulic fracturing. Ms. Bason stated that the Association is working collaboratively with the League and other entities to identify issues. What the Association is hearing from the counties is that a study should be pursued and that the counties are participating in all manner of ways. The Association, according to Ms. Bason, has no formal position on hydraulic fracturing and is presently in a research and information-gathering phase working with the counties that are directly involved. Some of the issues the Association is dealing with include: hydraulic fracturing is good for jobs and economic growth, concerns about the demands that come with population growth, demands for services and recovery of those costs for meeting new demand, safeguards for landowners, and potential environment impacts.

Mr. [Jim Womack](#), Commissioner, Lee County Board of Commissioners, presented a local government perspective on the potential for natural gas extraction. Mr. Womack, however, did not speak on behalf of the Lee County Board of Commissioners. Mr. Womack provided facts and figures about Lee County and listed the following reasons why a burgeoning shale gas industry could help the county: potential for job creation; diversify industrial base; expand secondary and tertiary markets; reduce tax rates; and potentially improve water quality. Mr. Womack stated that the other 16 states that have pursued shale gas extraction have operational experience that North Carolina can draw from. Mr. Womack recommended that the General Assembly consider the following policy recommendations as they pertain to shale gas extraction: apply American National Standards Institute (ANSI) and American Petroleum Institute (API) standards for hydraulic fracturing, pipelines, and refinery operations; conduct baseline water quality and seismic evaluations ([also recommended by the Lee County Environmental Affairs Board](#)); and give local governments discretion to protect local interests including establishing noise ordinances and drill-free zones. Mr. Womack also recommended that

any tax revenues and impact fees be disbursed in the areas where resource extraction is taking place and not redistribute the wealth to fund other programs across the State.

Mr. Dan Butler, a property and mineral rights owner in Lee County, provided his perspective and experience with resource extraction. Mr. Butler stated that landowners want to move forward with shale gas extraction and that North Carolina can look to Pennsylvania and New York as examples of how to pursue the activity. Mr. Butler is a third-generation oil and gas developer and landowner. He stated that two wells were drilled on his property (he owns 2,750 acres in Lee County and has purchased mineral rights from several surface property owners) that revealed high potential for recoverable resources. Mr. Butler stated that he had been approached by a number of industry representatives to lease his property and that there is presently only one company in Lee County in the oil and gas business. Mr. Butler said that he had no knowledge of low-dollar amount per-acre leases and disputed Mr. Treakle's earlier statement that a 12.5% bonus payment is not predatory. Mr. Butler explained that bonus payments are negotiable and that North Carolina needs some oil and gas attorneys with experience in this industry to assist lease holders to ensure the terms are fair.

Dr. [Ray Covington](#), a property and mineral rights owner in Lee County, provided his perspective and experience with resource extraction. Dr. Covington stated that he represented North Carolina Oil and Gas, LLC, a consortium of Lee County property owners interested in pursuing shale gas exploration. Dr. Covington explained that the State will know more about how much of the resource is commercially recoverable once hydraulic fracturing activities commence. Dr. Covington's recommendations for landowner and mineral rights legislation include:

- Protections for landowners who do not own the mineral rights.
- Address voluntary and forced pooling.
- Address unilateral transfer of existing leases to different or multiple companies without land or mineral rights owners' knowledge or consent.
- Compensation to landowners for damages resulting from drilling activities or accidents.
- Arbitration clauses that deny land and mineral rights owners the right to trial-by-jury.
- Impacts from gas flaring and noise pollution.
- Property rights of neighbors.

While stressing the need for the State to adopt a deliberate plan for shale gas extraction, Dr. Covington also addressed the leases and stated that they should be land- and mineral-owner rights-friendly and provide the citizens the best bonus and royalty payments possible, not prey on the uneducated and the elderly; adequately describe and compensate for impacts; and adequately restore the land to its pre-drilling state once activities have ceased on the property.

Ms. [Sara Banaszak](#), Vice President and Chief Economist for America's Natural Gas Alliance (ANGA), presented the economic opportunities of shale gas exploration and production in the State. Ms. Banaszak explained that North Carolina presently benefits from the increased production of shale gas around the United States as the price of natural gas has dropped over the past three years and has experienced increased divergence from the price of oil over the same period of time. Ms. Banaszak provided data derived from the U.S. Energy Information Agency forecasting the reduced need for

imports of liquefied natural gas due to the increased domestic resource supply. Industry research indicates that “unconventional” onshore gas production will make up more of the U.S. and Canadian natural gas supply for the next 20 years. Ms. Banaszak identified the various types of employment either directly, indirectly, or induced by the natural gas industry that include: manufacturing, leisure and other services, information and other professional services, wholesale and retail services, construction, transportation and utilities, and natural resources. Ms. Banaszak reported the following statistics from an ANGA paper documenting the economic impacts of shale gas in the United States:

- 600,000 jobs in 2010, 1.6 million jobs projected in 2035.
- \$930 billion in tax revenues (cumulative in 2035).
- ~\$1.9 trillion in capital expenditure (2010-2035).
- Lower energy prices for consumers with anticipated household savings of approximately \$926 per year in 2015.

## **AGENDA**

**1:00 p.m. Wednesday, March 21, 2012**

Room 643 Legislative Office Building

Raleigh, North Carolina

1. Call to order  
Senator Robert A. Rucho, Presiding
2. Introductory remarks by the Chair (*5 minutes*)  
Senator Robert A. Rucho
3. Adoption of the minutes from the February 15, 2012 Committee meeting

### **DISCUSSION OF COMPRESSED NATURAL GAS (CNG) VEHICLES**

4. Presentation on CNG vehicles (*20 minutes*)  
Jeffrey Clarke, General Counsel  
NGVAmerica
5. Overview of school bus acquisition, cost, and operation in North Carolina (*15 minutes*)  
Derek Graham, Chief  
Transportation Services Section, Department of Public Instruction
6. Briefing on research on CNG bus opportunities in North Carolina (*15 minutes*)  
Kris Nordstrom, Analyst  
Fiscal Research Division
7. Presentation on CNG school buses: efficiencies; sales; and market (*20 minutes*)  
Kelley Platt, President and CEO  
Thomas Built Buses  
  
Jed Routh, Manager of Product Planning  
Thomas Built Buses
8. Presentation on the opportunities for CNG with the State Department of Transportation (DOT) fleet and federal funding opportunities to build public and private refueling infrastructure. (*20 minutes*)  
Jim Trogdon, COO  
DOT

### **DISCUSSION OF CELLULOSIC ETHANOL FROM ENERGY GRASSES FOR BIOFUEL APPLICATIONS**

9. Presentation on Project Alpha in Clinton, North Carolina and the regulatory hurdles with nitrogen application rates on sprayfields (*20 minutes*)  
Mark Conlon, Vice President of Sector Development  
Biofuels Center of North Carolina
10. Discussion of the “1217” process and the proposed pilot program for energy grasses (*20 minutes*)  
Richard Reich, Assistant Commissioner for Agricultural Services  
Department of Agriculture and Consumer Services
11. Briefing on the scientifically justifiable nitrogen application rates based on other state and national data (*20 minutes*)  
Ron Gehl, Assistant Professor and Extension Specialist  
Department of Soil Science, North Carolina State University
12. Committee discussion of recommendations to be considered in the Committee’s final report (*20 minutes*)
13. Adjourn

### **March 21, 2012**

The third meeting of the Committee was held on Wednesday March 21 at 1:00 p.m. in Room 643 of the Legislative Office Building. Senator Bob Rucho presided.

Mr. [Jeffrey Clarke](#), General Counsel for NGV America presented the status of the U.S. natural gas vehicle (NGV) market. Mr. Clarke reported that the U.S. presently ranks 14<sup>th</sup> in the world NGV market (120,000 out of 250 million vehicles nationwide). The target market for NGVs includes heavy-duty freight trucks, transit vehicles, metropolitan fleets, vocational work trucks, commercial and delivery service trucks, and service vehicles. The NGV market is being propelled by numerous factors including significant domestic resource and existing deployable technology. Developing the NGV market can result in increased numbers of domestic jobs, air quality benefits, and greenhouse gas reductions. Mr. Clarke cited numerous examples of state and federal legislation promoting the use of NGVs. While NGVs cost more to purchase new or convert than comparable petroleum-fueled vehicles, they cost less to operate and on a life-cycle cost analysis, can save money for high fuel-use fleets.

Mr. [Derek Graham](#), Chief of the Transportation Services Section in the Department of Public Instruction, provided an overview of school bus acquisition, parking, and fueling in North Carolina. Mr. Graham reported that there are 13,700 yellow school buses on the road daily in the State and an additional 1,400 spare buses available when route buses are out on maintenance. School buses utilize 27 million gallons of diesel fuel per year and the State contract for fuel (presently \$3.40/gallon) amounts to nearly \$92 million per year. The total State appropriation for school bus fuel, drivers, maintenance, and contracts is \$395 million. Buses are replaced by DPI and Local Education Agencies (LEA) in accordance with criteria prescribed in the General Statutes. Mr. Graham explained that fuel trucks are the primary source of fuel distribution to the bus fleet.

Lastly, Mr. Graham described the spectrum of school bus parking across the State ranging from secure, fenced lots to open access lots on school grounds.

Mr. [Kris Nordstrom](#), Fiscal Analyst in the Fiscal Research Division of the General Assembly, briefed the Committee on compressed natural gas (CNG) bus opportunities in the State. Mr. Nordstrom stated that there is a \$50,000 to \$55,000 price difference between diesel and CNG buses. Mr. Nordstrom described the 1996 Charlotte CNG bus pilot program during which maintenance costs were found to be nearly double that of diesel buses. Installation of natural gas fueling stations can cost between \$1 million and \$2.5 million depending on the size of the fleet, however, Mr. Nordstrom pointed out that there may be opportunities for shared cost through public-private partnerships. Mr. Nordstrom outlined the differences in the emissions of diesel and CNG buses and listed the following criteria to consider before purchasing CNG buses:

- Ability to use CNG fueling stations.
- Public-private partnerships for fueling stations.
- Ability to share fueling stations with transit or other fleet vehicles.
- Centralized parking locations.
- Greatest bus replacement needs.
- Location in a non-attainment county.

Ms. [Kelley Platt](#), President and CEO of Thomas Built Buses, presented an overview of CNG school buses. Ms. Platt listed some of the *pros* and *cons* to CNG vehicles. *Pros* included CNG is a domestic fuel with vast resources, CNG vehicles have lower operating costs, and the fuel cleaner burning. The *cons* Ms. Platt identified included high initial equipment cost, required fueling infrastructure, time for refuel, and the fact that CNG is considered a "new" technology. Ms. Platt provided the Committee with calculations for potential cost savings for CNG over diesel. Ms. Platt also suggested the State first embark upon a pilot program.

Mr. [Jim Trogdon](#), the Chief Operating Officer in the Department of Transportation presented opportunities for CNG within the DOT fleet and opportunities for federal funding to build public and private fueling infrastructure. Mr. Trogdon also touched on the potential impacts on roads from hydraulic fracturing activities in the State. Mr. Trogdon reported that there are presently no CNG vehicles in the State motor fleet. The fleet has 1,450 half-ton pickup trucks, 573 of which are located in nonattainment areas. At \$12,000 a conversion, it would cost \$17.4 million to convert the entire fleet of pickup trucks to run on CNG. The associated costs to add CNG fuel to the existing 112 fueling sites would range from \$1 to \$1.8 million per station. 150 new half-ton pickup trucks are purchased every year, and CNG-only trucks cost an additional \$8,000 per unit. Mr. Trogdon listed some of the limitations of using CNG-only vehicles in the DOT fleet, but explained that the limitations do not extend to the use of bi-fuel (diesel and CNG) vehicles. Mr. Trogdon provided an overview of the federal Congestion Mitigation Air Quality Program (CMAQ), program, funding eligibility, and distribution of those funds. Lastly, Mr. Trogdon outlined the Departments concerns with heavy equipment used in conjunction with hydraulic fracturing operations on the State's roads, especially secondary roads and bridges and listed some of the solutions employed by other states that are engaged in hydraulic fracturing activities.

Mr. [Mark Conlon](#), Vice-President for Sector Development for the Biofuels Center of North Carolina, presented on *Project Alpha* in Clinton, North Carolina and the regulatory

hurdles with nitrogen application rates on sprayfields. Mr. Conlon explained that the sprayfields located adjacent to swine waste lagoons offer a great opportunity to grow energy-rich cellulosic grasses. According to the Department of Agriculture and Consumer Services, there are 3,343 swine waste lagoons and over 200,000 sprayfield acres in the State. With estimated yields from 6 to 30 tons per acre, Mr. Conlon stated that energy grass sprayfields would be a higher value to growers compared to the current practice of planting Coastal Bermuda grass. Mr. Conlon described the proposed Chemtex International facility - *Project Alpha* - in Clinton and explained that the schedule for construction and development is dependent on the U.S. Department of Agriculture's impending decision on a loan guarantee. Mr. Conlon also described the proposed mixed feed stock for the Chemtex facility and explained that the mixed crops would ensure year-round harvest. Mr. Conlon also discussed the application rates of effluent on energy grass sprayfields and stated that the interim rates developed by the "1217" Interagency Group are too low for viable introduction for some of the stocks.

Dr. [Richard Reich](#), Assistant Commissioner for Agriculture Services in the Department of Agriculture and Consumer Services, presented an overview of the 1217 Interagency Group. Dr. Reich provided the history and background of the Interagency Group and explained that the Group's purpose is to provide uniform interpretations of animal waste management rules and to address questions and publish guidance for technical specialists. The Interagency Nutrient Management Committee (INM Committee) was established in 2002 by the member agencies to investigate and research specific nutrient management issues at the Interagency Group's request. S.L. 2011-198 directed the Interagency Group to establish agronomic rates for specific biomass energy crops, rates that would not cause or contribute to a violation of groundwater standards. The Interagency Group tasked the INM Committee with providing recommendations for rates and to provide ongoing support and review of the data as it becomes available, in cooperation with the Energy Grasses Task Force. Dr. Reich reviewed the interim agronomic rates as recommended by the Interagency Group for the energy crops and stated that next steps include continued data review to refine the proposed agronomic rates and consideration of a pilot program with limited acreage.

Dr. [Ron Gehl](#), Assistant Professor and Extension Specialist in the Department of Soil Science at North Carolina State University, presented an overview of the scientifically justifiable nitrogen application rates for energy grasses. Dr. Gehl explained that the goal of cropping systems for sprayfields is to maximize both yield and nitrogen removal. Dr. Gehl and his staff conducted an extensive literature review and preliminary biomass studies to assist the INM Committee in developing the interim agronomic rates for Switchgrass, Fiber Sorghum, Sweet Sorghum, Giant Miscanthus, and Arundo Donax (Giant Reed).

**April 18, 2012**

The fourth meeting of the Committee was held on Wednesday April 18, 2012 at 1:00 p.m. in Room 643 of the Legislative Office Building. Senator Bob Rucho presided.

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## COMMITTEE MEMBERSHIP

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2011-2012

**President Pro Tempore of the Senate**  
**Appointments:**

Senator Robert Rucho, Co-Chair

Senator Harris Blake  
Senator Thom Goolsby  
Senator William Rabon  
Senator Michael Walters

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## COMMITTEE CHARGE

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**Energy Policy Issues** – Study strategies that will increase energy production and efficiency within the State to develop a secure, stable, and predictable energy supply in order to facilitate economic growth, job creation, and expansion of business and industry opportunities in a way that protects and preserves the State’s natural resources, cultural heritage, and quality of life. In doing so, the subcommittee may consider the following issues:

1. Development of a regional, interstate offshore energy commission and/or compact between North Carolina, Virginia, South Carolina and other coastal states deemed relevant to accelerate geophysical exploration of the outer continental shelf, amend the US Department of the Interior’s Five Year Leasing Plan to include the Atlantic coast, advocate proactively for federal revenue sharing for royalties and revenues generated from offshore leasing, exploration, and production (and how these monies should be allocated within the State); and recommend the reinstatement of the US Department of the Interior’s Offshore Policy Committee that shall include members of the commission and/or compact discussed above .
2. Potential legislative actions that can encourage or require the federal government to decrease or eliminate spent nuclear fuel stored on site within the State by using the funds collected from North Carolina electricity ratepayers through the Nuclear Waste Policy Act of 1982 to open the Yucca Mountain central nuclear waste repository in Nevada.
3. The feasibility of developing a limited pilot project for shale gas exploration in Chatham, Lee, and Moore counties that shall include information gathered by the Department of Environment and Natural Resources as required in H242 and S709 if it becomes law;
4. Review of the process(es) within North Carolina and other relevant states for the development of agronomic rates for nutrient application to non-edible, high-yield energy grasses and study potential options to increase the efficiency and regulatory consistency of these rates.
5. Studying the feasibility of development of a market for clean natural gas (CNG) vehicles within the State that includes expansion of natural gas production, expansion of natural gas delivery infrastructure, conversion of a portion of the State motor fleet to CNG, flat motor fuel tax rates for CNG (and other alternative fuel) vehicles, encouragement of local government and industry to open fleet CNG fueling stations to public, and the development of tax or regulatory incentives for fleet conversions, refueling stations (home- or fleet-based), dedicated vehicle purchases, or CNG-related industry expansion within the State.
6. Other potential pilot projects as the subcommittee finds relevant to the goals set forth above for traditional, renewable and alternative energy to increase exploration, development, production, and/or utilization.

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## STATUTORY AUTHORITY

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### NORTH CAROLINA GENERAL STATUTES ARTICLE 6B.

#### **Legislative Research Commission.**

##### **§ 120-30.17. Powers and duties.**

The Legislative Research Commission has the following powers and duties:

- (1) Pursuant to the direction of the General Assembly or either house thereof, or of the chairmen, to make or cause to be made such studies of and investigations into governmental agencies and institutions and matters of public policy as will aid the General Assembly in performing its duties in the most efficient and effective manner.
- (2) To report to the General Assembly the results of the studies made. The reports may be accompanied by the recommendations of the Commission and bills suggested to effectuate the recommendations.
- (3), (4) Repealed by Session Laws 1969, c. 1184, s. 8.
- (5), (6) Repealed by Session Laws 1981, c. 688, s. 2.
- (7) To obtain information and data from all State officers, agents, agencies and departments, while in discharge of its duty, pursuant to the provisions of G.S. 120-19 as if it were a committee of the General Assembly.
- (8) To call witnesses and compel testimony relevant to any matter properly before the Commission or any of its committees. The provisions of G.S. 120-19.1 through G.S. 120-19.4 shall apply to the proceedings of the Commission and its committees as if each were a joint committee of the General Assembly. In addition to the other signatures required for the issuance of a subpoena under this subsection, the subpoena shall also be signed by the members of the Commission or of its committee who vote for the issuance of the subpoena.
- (9) For studies authorized to be made by the Legislative Research Commission, to request another State agency, board, commission or committee to conduct the study if the Legislative Research Commission determines that the other body is a more appropriate vehicle with which to conduct the study. If the other body agrees, and no legislation specifically provides otherwise, that body shall conduct the study as if the original authorization had assigned the study to that body and shall report to the General Assembly at the same time other studies to be conducted by the Legislative Research Commission are to be reported. The other agency shall conduct the transferred study within the funds already assigned to it.

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# LEGISLATIVE PROPOSALS

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**GENERAL ASSEMBLY OF NORTH CAROLINA  
SESSION 2011**

**S**

**D**

**BILL DRAFT 2011-LGz-159B [v.3] (03/29)**

**(THIS IS A DRAFT AND IS NOT READY FOR INTRODUCTION)  
4/18/2012 2:58:57 PM**

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Sponsors:     Senator.

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Referred to:

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1    A JOINT RESOLUTION EXPRESSING THE OPINION OF THE GENERAL  
2    ASSEMBLY THAT THERE SHOULD BE A NATIONAL ENERGY POLICY  
3    THAT SUPPORTS THE RESPONSIBLE EXPLORATION FOR AND  
4    DEVELOPMENT OF DOMESTIC ENERGY RESOURCES, AS RECOMMENDED  
5    BY THE LEGISLATIVE RESEARCH COMMITTEE ON ENERGY POLICY  
6    ISSUES.

7           Whereas, economic recovery, job creation, effective global competitiveness,  
8    and national security depend upon developing our nation's diverse energy resources; and

9           Whereas, the identification and utilization of abundant supplies of affordable  
10   and reliable energy is vital to the prosperity of North Carolina and our nation; and

11          Whereas, the production of unconventional natural gas deposits in North  
12   America, including shale, is forecasted to increase to 64 percent of all domestic natural  
13   gas production by 2020. The United States is estimated to have a future natural gas  
14   supply of over 2,000 trillion cubic feet, which is enough gas at current consumption rates  
15   to supply the nation for the next 100 years. This increase is attributable to increased  
16   unconventional gas plays, largely from shale gas development; and

17          Whereas, the U.S. Department of Energy reports a shale gas potential of three  
18   to four trillion cubic feet of production per year may be sustainable for decades, and the  
19   Interstate Natural Gas Association of America reports that to achieve forecasted results,  
20   industry must have land access for drilling, a reasonable permitting process, and adequate  
21   prices and demand for natural gas; and

22          Whereas, the President of the United States, the Governor of North Carolina,  
23   and the North Carolina Department of Environment and Natural Resources have in recent  
24   months stated their support for environmentally responsible shale gas development; and

25          Whereas, the North Carolina Geological Survey reports 785,000 acres of  
26   Triassic basin formations that hold potential shale gas; and

## Appendix D

1           Whereas, the U.S. Environmental Protection Agency is reviewing and  
2 considering new regulations regarding the practice of hydraulic fracturing used to recover  
3 natural gas from horizontal wells, often into shale formations that hold previously  
4 unavailable reserves of natural gas, to supply the nation for decades at low cost, a  
5 practice that has been used for decades and is well within the regulatory expertise of the  
6 states, pursuant to delegation by the Clean Water Act responsibilities by U.S.  
7 Environmental Protection Agency; and

8           Whereas, North Carolina's more than 60 million acres of federally managed  
9 waters on the Atlantic Outer Continental Shelf is the largest along the Atlantic coast and  
10 the fourth largest in the United States; and

11           Whereas, the U.S. Department of the Interior failed to include the Atlantic  
12 Outer Continental Shelf in its leasing plan for 2012 through 2017; and

13           Whereas, the North Carolina General Assembly authorized the creation of the  
14 Legislative Research Commission's Advisory Subcommittee on Offshore Energy  
15 Exploration in 2008 to study offshore hydrocarbon and other energy resources; and

16           Whereas, the findings in the April 2010 final report of the Legislative  
17 Research Commission's Advisory Subcommittee on Offshore Energy Exploration noted  
18 that potentially significant energy resources exist offshore North Carolina that include  
19 quantifiable estimates from the federal government of almost 30 trillion cubic feet of  
20 natural gas; and

21           Whereas, the Legislative Research Commission's Advisory Subcommittee on  
22 Offshore Energy Exploration recommended that production of fossil fuel and alternative  
23 energy resources in North Carolina's outer continental shelf should include provisions for  
24 revenue and royalty sharing directed to the State of North Carolina; and

25           Whereas, the Legislative Research Commission's Advisory Subcommittee on  
26 Offshore Energy Exploration heard testimony from the Southeast Energy Alliance that  
27 estimated production of natural gas and associated hydrocarbons offshore North Carolina  
28 would create more than 6,700 new jobs and add more than \$659 million annually to the  
29 State's Gross Domestic Product over three decades, during which time this energy  
30 production could generate almost \$10 billion in revenue sharing of government revenues  
31 at an average of \$484 million per year to North Carolina; and

32           Whereas, the Legislative Research Commission's Advisory Subcommittee on  
33 Offshore Energy Exploration recommended that production of fossil fuel and alternative  
34 energy resources in North Carolina's outer continental shelf should include provisions for  
35 revenue and royalty sharing directed to the State of North Carolina; and

36           Whereas, the U.S. Environmental Protection Agency has proposed New  
37 Source Performance Standards for oil and natural gas production that would significantly  
38 slow down drilling, resulting in less oil and natural gas production, lower royalties to the  
39 federal government, and lower tax payments to state governments; and

40           Whereas, the President and the Congress have not approved a pipeline project  
41 to transport oil extracted in Canada to the Gulf of Mexico for environmentally  
42 responsible refining and marketing, a project that is expected to create 13,000  
43 construction jobs and 7,000 jobs in manufacturing for Americans in several states,  
44 generate substantial revenues to support state and local needs, and decrease the potential  
45 from supply disruptions from the Gulf of Mexico that have created recent price spikes  
46 and supply shortages to the citizens and businesses of North Carolina; and

## Appendix D

1           Whereas, commercial nuclear power plants provide base load electricity  
2 generation to and are an important component of a reliable, safe, and secure electric  
3 power supply for the citizens of North Carolina;

4           Whereas, North Carolina receives approximately forty percent (40%) of its  
5 electricity from nuclear energy, is one of the top nuclear power producers in the country,  
6 and nuclear energy continues to be a safe, reliable, and clean resource;

7           Whereas, the Nuclear Waste Policy Act of 1982 mandates that generators of  
8 nuclear power are responsible for paying the costs associated with establishing a  
9 permanent repository for the disposal of nuclear fuel from commercial reactors;

10           Whereas, the United States government failed to begin accepting commercial  
11 nuclear fuel by 1998 as required by the Nuclear Waste Policy Act of 1982 and there have  
12 been ongoing and extensive delays caused by the government's failure to reasonably  
13 implement a waste management program and develop a disposal facility; and

14           Whereas, the President has unilaterally halted development by the U.S.  
15 Department of Energy of a planned national repository for spent nuclear fuel at Yucca  
16 Mountain, a repository that was required by federal law to be in place by 1998, and the  
17 Department of Energy continues to collect the fees authorized by the Nuclear Waste  
18 Policy Act of 1982 to fund the required repository, fees that are paid by utilities that own  
19 nuclear power generation facilities and recovered from the purchasers of electricity  
20 generated by those facilities; and

21           Whereas, the Secretary of U.S. Department of Energy has now taken action to  
22 terminate the current waste disposal program approved by the Yucca Mountain  
23 Repository Site Approval Act of 2002 and therefore, there is currently no centralized  
24 waste management and disposal program being implemented and against which a fee can  
25 be assessed; and

26           Whereas, despite the absence of an ongoing waste management and disposal  
27 program, the Secretary is continuing to collect over \$750 million per year from reactor  
28 licensees, including those serving the citizens of North Carolina; and

29           Whereas, the citizens of North Carolina, through the rates charged, have  
30 contributed \$897.3 million in fees to fund the federal government's waste management  
31 and disposal program as prescribed in the Nuclear Waste Policy Act of 1982; and

32           Whereas, the Nuclear Waste Policy Act of 1982 requires the Secretary of the  
33 U.S. Department of Energy to collect fees only in an amount sufficient to offset the costs  
34 of the federal government's waste management and disposal program and provides that  
35 the Secretary is to request a fee adjustment if "excess or insufficient" revenues are being  
36 collected, and the current balance of the fund is more than \$25 billion and grows by  
37 approximately \$1 billion annually solely from the addition of investment income; and

38           Whereas, the recent report by the United States Secretary of Energy's Blue  
39 Ribbon Commission on America's Nuclear Future described the federal government's  
40 program to manage and dispose of used nuclear fuel as "... one of broken promises and  
41 unmet commitments" and recommended fundamental changes in the program, but the  
42 federal government has yet to act on any of the Blue Ribbon Commission's  
43 recommendations; and

44           Whereas, the U.S. Environmental Protection Agency has developed and  
45 proposed numerous significant new rules, regulations, and policy guidelines that will  
46 impact energy generation and utilization, including the Clean Water Act, Section 316(b)

1 rules; the Cross-State Air Pollution Rule; the Cooling Water Intake Structures rules; Title  
2 I of the Clean Air Act, Utility Maximum Achievable Control Technology (MACT)  
3 Standards and new Boiler MACT Standards; National Ambient Air Quality Standards for  
4 Sulfur Dioxide and Ozone; and the Coal Combustion Residuals rule; and

5 Whereas, the U.S. Environmental Protection Agency has not considered the  
6 combined impact of these new rules, regulations, and policy guidelines on citizens, states,  
7 and businesses, and the compliance with this array of new regulatory requirements,  
8 separately and together, particularly in the short time-frames provided, will be  
9 extraordinarily expensive, directing available business capital to regulatory compliance  
10 rather than economic growth; and

11 Whereas, the U.S. Environmental Protection Agency has not considered the  
12 combined impact of these new and proposed rules and regulations on citizens, states, and  
13 businesses, and if compliance can be accomplished at all, it is certain to increase the cost  
14 and reliability of electricity to residential, commercial, and industrial users at a time when  
15 no citizen or business can afford to pay more for energy without cutting back on other  
16 expenses, inhibiting economic growth, and posing a serious risk to the reliability of the  
17 electric grid; and

18 Whereas, the foregoing information regarding federal policies and their effect  
19 on energy issues provides an incoherent, indefensible, and unsustainable energy policy  
20 that risks North Carolina's and the nation's economic recovery, global competitiveness,  
21 and energy security; and

22 Whereas, these federal activities are driving up the cost and driving down the  
23 reliability of energy at a time when economic recovery, business development, and job  
24 creation should be the top priorities of our leaders; Now, therefore,  
25 Be it resolved by the Senate, the House of Representatives concurring:

26 **SECTION 1.** The General Assembly understands the urgency and  
27 importance of adopting a national energy policy that supports the responsible exploration  
28 for and development of this nation's diverse energy resources in order to secure abundant  
29 supplies of affordable, reliable energy for the economic recovery and future prosperity of  
30 North Carolina and the nation.

31 **SECTION 2.** The General Assembly advocates that the federal 2012-2017  
32 five-year leasing plan be amended to include at least North Carolina's more than 60  
33 million acres of federally managed waters on the Atlantic Outer Continental Shelf and  
34 expedite studies and permits to accelerate exploration, production, and development of  
35 the natural gas and hydrocarbon resources thereunder. The General Assembly also  
36 advocates that the federal government include revenue sharing provisions for North  
37 Carolina's federally managed waters on the Atlantic Outer Continental Shelf similar, if  
38 not identical, to those included in the gulf of Mexico Energy Security Act of 2006.

39 **SECTION 3.** It is the opinion of the General Assembly that ratepayers in  
40 North Carolina and throughout the nation could be protected by the immediate  
41 suspension of the collection of Nuclear Waste Fund fees because the continued collection  
42 cannot be justified under the Nuclear Waste Policy Act of 1982 given the unlawful  
43 termination of the waste management and disposal program at the Yucca Mountain site.

44 **SECTION 4.** It is also the opinion of the General Assembly that the  
45 collection fee should not be resumed until the long-term final repository program is  
46 revived or another waste management and disposal program is established based on the

1 final recommendations of the President's Blue Ribbon Commission on America's Nuclear  
2 Future.

3 **SECTION 5.** The federal government should put in place immediately the  
4 governance and financial reforms recommended by the Blue Ribbon Commission in  
5 order to make real progress toward disposal of used nuclear fuel in a geologic repository  
6 and to ensure that monies paid by electricity customers toward that end are used for the  
7 purpose of fuel management.

8 **SECTION 6.** In compliance with the mandates of the Nuclear Waste Policy  
9 Act of 1982 and the Yucca Mountain Repository Site Approval Act of 2002, it is the  
10 opinion of the General Assembly that the United States Department of Energy should  
11 resume work on the license application for the Yucca Mountain long-term spent nuclear  
12 fuel and high-level radioactive waste repository to the United States Nuclear Regulatory  
13 Commission to complete the environmental and technical review of the proposed  
14 repository.

15 **SECTION 7.** The General Assembly endorses the following:

- 16 (1) Providing statutory oversight and direction to implement a responsible  
17 energy policy in light of the Executive Branch's failure to implement  
18 such a policy.
- 19 (2) Having access to a cumulative regulatory impact assessment of all of  
20 the major regulations under consideration under the Clean Air Act and  
21 Clean Water Act, including the cumulative effect of all of these  
22 regulations on the economy, jobs, and energy affordability and  
23 reliability, drawing on the expertise of other federal agencies and the  
24 private sector.
- 25 (3) Providing additional oversight of the U.S. Environmental Protection  
26 Agency, considering the current encroachment of state enforcement  
27 powers and duties, air quality and water quality policy planning, and  
28 economic growth impacts due to regulatory uncertainty created by the  
29 Agency's recent actions regarding rules, regulations, and policy  
30 guidelines.

31 **SECTION 8.** The Secretary of State shall transmit certified copies of this  
32 resolution to each member of the North Carolina Congressional delegation, the Secretary  
33 of the United States Department of Energy, the Secretary of the United States Department  
34 of the Interior, the Administrator of the United States Environmental Protection Agency,  
35 the President of the United States, and the legislatures of the states so that they may be  
36 apprised of the opinions of the North Carolina General Assembly in these matters.

37 **SECTION 9.** This resolution is effective upon ratification.

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**BILL DRAFT 2011-RIxfz-28 [v.17] (03/19)**

**(THIS IS A DRAFT AND IS NOT READY FOR INTRODUCTION)  
4/18/2012 3:31:14 PM**

Short Title: Clean Energy and Economic Security Act. (Public)

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Sponsors: Senator.

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Referred to:

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1 A BILL TO BE ENTITLED  
2 AN ACT TO: (1) ESTABLISH AN OIL AND GAS BOARD WITH JURISDICTION  
3 AND AUTHORITY OVER MATTERS RELATED TO OIL AND GAS  
4 EXPLORATION AND DEVELOPMENT IN THE STATE, INCLUDING THE USE  
5 OF HORIZONTAL DRILLING AND HYDRAULIC FRACTURING FOR THAT  
6 PURPOSE, AND TO DIRECT THE BOARD TO CREATE A MODERN  
7 REGULATORY PROGRAM FOR MANAGEMENT OF OIL AND GAS  
8 EXPLORATION AND DEVELOPMENT IN THE STATE, INCLUDING THE USE  
9 OF HORIZONTAL DRILLING AND HYDRAULIC FRACTURING FOR THAT  
10 PURPOSE; (2) AUTHORIZE THE PROCESSES OF HORIZONTAL DRILLING  
11 AND HYDRAULIC FRACTURING FOR THE PURPOSE OF OIL AND GAS  
12 EXPLORATION AND DEVELOPMENT IN THE STATE, AND PLACE A  
13 MORATORIUM ON PERMITTING RELATED TO THOSE PROCESSES UNTIL  
14 JULY 1, 2014; (3) ENACT VARIOUS OTHER PROVISIONS RELATED TO  
15 MANAGEMENT OF OIL AND GAS EXPLORATION ACTIVITIES, INCLUDING  
16 PROVISIONS RELATED TO LOCAL GOVERNMENT AUTHORITY OVER  
17 THESE ACTIVITIES; (4) ESTABLISH THE JOINT LEGISLATIVE  
18 COMMISSION ON ENERGY POLICY WITH LEGISLATIVE OVERSIGHT OF  
19 ALL MATTERS RELATED TO OIL AND GAS EXPLORATION AND  
20 DEVELOPMENT IN THE STATE, AND OTHER ENERGY-RELATED ISSUES;  
21 (5) DIRECT THE DEPARTMENT OF PUBLIC INSTRUCTION TO PURCHASE  
22 SCHOOL BUSES THAT OPERATE ON COMPRESSED NATURAL GAS (CNG);  
23 (6) DIRECT THE DEPARTMENT OF TRANSPORTATION TO PURCHASE NEW  
24 THREE-QUARTER (3/4) TON PICK UP TRUCKS AND NEW ONE-HALF (1/2)  
25 TON PICK UP TRUCKS THAT OPERATE ON COMPRESSED NATURAL GAS  
26 (CNG) OR COMPRESSED NATURAL GAS (CNG) AND GASOLINE; (7)  
27 CREATE AN INTERAGENCY TASK FORCE TO ESTABLISH  
28 PUBLIC-PRIVATE PARTNERSHIPS FOR THE CONSTRUCTION AND  
29 DEVELOPMENT OF COMPRESSED NATURAL GAS (CNG) FUELING  
30 INFRASTRUCTURE; (8) ESTABLISH CRITERIA FOR THE OPERATION OF  
31 ELECTRIC VEHICLE CHARGING STATIONS LOCATED AT STATE-OWNED  
32 REST STOPS ALONG THE HIGHWAYS; (9) ENSURE THE USE OF FUEL  
33 EFFICIENT AND COST EFFICIENT RETREAD TIRES ON STATE VEHICLES;  
34 AND (10) AMEND THE ENERGY JOBS ACT OF 2011 IF THE ENERGY JOBS

1 ACT OF 2011 BECOMES LAW, AS RECOMMENDED BY THE LEGISLATIVE  
2 RESEARCH COMMISSION ENERGY ISSUES POLICY COMMITTEE.  
3  
4  
5

6 **PART I. LEGISLATIVE FINDINGS AND INTENT**  
7

8 Whereas, in S.L. 2011-276, the General assembly directed the Department of  
9 Environment and Natural Resources and other entities to study the issue of oil and gas  
10 exploration in the State and the use of horizontal drilling and hydraulic fracturing for that  
11 purpose, including study of: (i) oil and gas resources present in the Triassic Basins and in  
12 any other areas of the State; (ii) methods of exploration and extraction of oil and gas,  
13 including directional and horizontal drilling and hydraulic fracturing; (iii) potential  
14 environmental, economic, and social impacts arising from such activities, as well as  
15 impacts on infrastructure; and (iv) appropriate regulatory requirements for management  
16 of oil and gas exploration activities with particular attention to regulation of horizontal  
17 drilling and hydraulic fracturing for that purpose; and,

18 Whereas, pursuant to S.L. 2011-276 the Department of Environment and  
19 Natural Resources (DENR), in conjunction with the Department of Commerce, the  
20 Department of Justice, and the Rural Advancement Foundation (RAFI-USA), issued a  
21 draft report on oil and gas resources in March 2012; and,

22 Whereas, DENR's draft report set forth a number of recommendations,  
23 including recommendations concerning all of the following:

- 24 (1) Development of a modern oil and gas regulatory program, taking into  
25 consideration the processes involved in hydraulic fracturing and  
26 horizontal drilling technologies, and long-term prevention of physical  
27 or economic waste in developing oil and gas resources.
- 28 (2) Collection of baseline data for areas near proposed drill-sites  
29 concerning air quality and emissions, as well as groundwater and  
30 surface water resources and quality.
- 31 (3) Requirements that oil and gas operators prepare and have approved  
32 water management plans that limit water withdrawals during times of  
33 low-flow conditions and droughts.
- 34 (4) Enhancements to existing oil and gas well construction standards to  
35 address the additional pressures of horizontal drilling and hydraulic  
36 fracturing.
- 37 (5) Development of setback requirements and identification of areas  
38 where oil and gas exploration and development activities should be  
39 prohibited.
- 40 (6) Development of a State stormwater regulatory program for oil and gas  
41 drilling sites.
- 42 (7) Development of specific standards for management of oil and gas  
43 wastes.
- 44 (8) Requirements for disclosure of hydraulic fracturing chemicals and  
45 constituents to regulatory agencies and the public.

- 1 (9) Prohibitions on use of certain chemicals or constituents in hydraulic  
2 fracturing fluids.
- 3 (10) Improvements to data management capabilities and development of a  
4 coordinated electronic permitting program for oil and gas exploration  
5 and development activities.
- 6 (11) Development of protocols to ensure that State agencies, local first  
7 responders, and industry are prepared to respond to a well blowout,  
8 chemical spill, or other emergency.
- 9 (12) Appropriate distribution of revenues from any taxes or fees that may  
10 be imposed on oil and gas exploration and development activities to  
11 support a modern regulatory program for the management of all  
12 aspects of oil and gas exploration and development activities using the  
13 processes of horizontal drilling and hydraulic fracturing in the State,  
14 and to support local governments impacted by the activities, including,  
15 but not limited to, sufficient funding for improvements to and repair of  
16 roads subject to damage by truck traffic and heavy equipment from  
17 these activities.
- 18 (13) Clarifications needed to address local government regulatory authority  
19 over oil and gas exploration and development activities, and use of  
20 horizontal drilling and hydraulic fracturing for that purpose.
- 21 (14) Additional research required on impacts to local governments and  
22 local infrastructure, as well as potential economic impacts from oil and  
23 gas exploration and development activities.
- 24 (15) Development of provisions to address liability of the oil and gas  
25 industry for environmental contamination caused by exploration and  
26 development activities, particularly with regard to groundwater  
27 contamination.
- 28 (16) Establishment of a process that affords additional public participation  
29 in connection with development of a modern oil and gas regulatory  
30 program; and,

31 Whereas, it is the intent of the General Assembly to move forward with  
32 development of a modern regulatory program for the management of oil and gas  
33 exploration and development in the State and the use of horizontal drilling and hydraulic  
34 fracturing for that purpose in an environmentally responsible manner; and

35 Whereas, it is also the intent of the General Assembly to incorporate the  
36 recommendations included in the draft study issued by DENR as outlined above; Now,  
37 therefore,

38  
39 The General Assembly of North Carolina enacts:

40  
41 **PART II. ESTABLISH OIL AND GAS BOARD**

42  
43 **SECTION 1.(a)** Article 27 of Chapter 113 of the General Statutes is  
44 amended by adding a new Part to read:

45 "Part 4. Oil and Gas Board.  
46 "§ 113-430. Oil and Gas Board – creation; powers and duties.

Appendix D

1       (a) There is hereby established the North Carolina Oil and Gas Board with the  
2 power and duty to promulgate rules governing the management of oil and gas exploration  
3 and development activities in the State.

4       (b) The Board shall have jurisdiction and authority concurrent with that of the  
5 Department of Environment and Natural resources established under G.S. 113-391 and  
6 over all persons and property necessary to administer and enforce effectively the  
7 provisions of this Article and all other laws relating to oil and gas exploration and  
8 development activities in the State.

9       (c) The Board shall have authority concurrent with that of the Department of  
10 Environment and Natural resources established under G.S. 113-391 and it shall be the  
11 Board's duty to make such inquiries as it may think proper to determine whether or not  
12 waste over which it has jurisdiction exists or is imminent. In the exercise of such power  
13 the Board shall have the authority to collect data; to make investigations and inspections;  
14 to examine properties, leases, papers, books and records; to examine, check, test and  
15 gauge oil and gas wells, tanks, refineries, and means of transportation; to hold hearings;  
16 and to provide for the keeping of records and the making of reports; and to take such  
17 action as may be reasonably necessary to enforce this Articles and rules promulgated  
18 thereunder.

19       (d) In the exercise of its authority over oil and gas exploration and development  
20 activities, the Board shall have access to all data, records, and information related to such  
21 activities, including, but not limited to, seismic surveys, stratigraphic testing, geologic  
22 cores, proposed well bore trajectories, hydraulic fracturing fluid chemicals and  
23 constituents, drilling mud chemistry, and geophysical borehole logs. With the exception  
24 of information designated as a trade secret, as defined in G.S. 66-152(3) and that is  
25 designated as confidential or as a trade secret under G.S. 132-1.2, the Board shall make  
26 such information available to the public as provided by G.S. 132-11. The State Geologist  
27 shall serve as the custodian of all data, information, and records received pursuant to this  
28 subsection and shall ensure that: (i) the information shall be maintained securely as  
29 provided in G.S. 132-7; and (ii) access to information designated as a trade secret, as  
30 defined in G.S. 66-152(3) and that is designated as confidential or as a trade secret under  
31 G.S. 132-1.2, is limited to only those members of the Board and State employees who  
32 have executed a confidentiality agreement with the owner of such information.

33       (e) The Board shall promulgate rules for the management of oil and gas  
34 exploration and development in the State and the use of horizontal drilling and hydraulic  
35 fracturing for that purpose, including rules for all of the following purposes:

- 36       (1) To govern pre-drilling exploration activities, including seismic and  
37 other geophysical and stratigraphic surveys and testing, as well as  
38 drilling, operation, casing plugging, completion, and abandonment of  
39 wells; to prevent the pollution of water supplies by oil, gas, or other  
40 fluids used in oil and gas exploration and development, or to protect  
41 the quality of the water, air, soil or any other environmental resource  
42 against injury or damage or impairment; and to require reasonable  
43 bond conditions deemed necessary by the Board in connection with oil  
44 and gas exploration and development activities. Such rules shall  
45 specifically regulate the processes of horizontal drilling and hydraulic

- 1 fracturing for the purpose of oil and gas exploration, and shall, at a  
2 minimum, include standards or requirements related to the following:  
3 a. Appropriate well construction and siting standards, including  
4 setback requirements.  
5 b. Limits on water use.  
6 c. Prohibitions on use of certain chemicals and constituents in  
7 hydraulic fracturing fluids  
8 d. Management of wastes produced in connection with oil and gas  
9 exploration and development and use of horizontal drilling and  
10 hydraulic fracturing for that purpose.  
11 e. Stormwater control at sites.  
12 f. Installation of appropriate safety devices, and development of  
13 protocols for response to well blowouts, chemical spills, and  
14 other emergencies.  
15 g. Full disclosure of hydraulic fracturing chemicals and  
16 constituents.  
17 h. Proper well closure and site reclamation.  
18 i. Any other matter the Board deems necessary.  
19 (2) To require surveys upon application of any owner who has reason to  
20 believe that a well has been unlawfully drilled by another into land of  
21 the owner without permission. In the event such surveys are required,  
22 the costs thereof shall be borne by the owner making the request.  
23 (3) To require the making of reports showing the location of oil and gas  
24 wells, and the filing of logs and drilling records.  
25 (4) To prevent "blow-outs," "caving" and "seepage" as such terms are  
26 generally understood in the oil and gas industry.  
27 (5) To prevent fires and other emergency events potentially resulting from  
28 oil and gas exploration and development activities.  
29 (6) To identify the ownership of all oil or gas wells, producing leases,  
30 refineries, tanks, plants, structures and all storage and transportation  
31 equipment and facilities.  
32 (7) To regulate the "shooting," perforating, and chemical treatment of  
33 wells.  
34 (8) To regulate secondary recovery methods, including the introduction of  
35 gas, air, water or other substances into producing formations.  
36 (9) To limit and prorate the production of oil or gas, or both, from any  
37 pool or field for the prevention of waste as defined in this Article and  
38 rules promulgated thereunder.  
39 (10) To require, either generally or in or from particular areas, certificates  
40 of clearance or tenders in connection with the transportation of oil or  
41 gas.  
42 (11) To regulate the spacing of wells and to establish drilling units.  
43 (12) To prevent, so far as is practicable, reasonably avoidable drainage  
44 from each developed unit which is not equalized by counter-drainage.  
45 (13) To regulate and, if necessary in its judgment for the protection of  
46 unique environmental values, to prohibit the location of wells in the

1 interest of protecting the quality of the water, air, soil or any other  
2 environmental resource against injury, or damage or impairment.

3 (f) The Oil and Gas Board shall submit quarterly written reports as to its  
4 operation, activities, programs, and progress to the Joint Legislative Commission on  
5 Energy Policy. The Oil and Gas Board shall supplement the written reports required by  
6 this subsection with additional written and oral reports as may be requested by the Joint  
7 Legislative Commission on Energy Policy. The Oil and Gas Board shall submit the  
8 written reports required by this subsection whether or not the General Assembly is in  
9 session at the time the report is due.

10 **"§113-431. Oil and Gas Board – quasi-judicial powers; procedures.**

11 (a) With respect to those matters within its jurisdiction, the Oil and Gas Board  
12 shall exercise quasi-judicial powers in accordance with the provisions of Chapter 150B of  
13 the General Statutes. This section and any rules adopted by the Oil and Gas Board shall  
14 govern such proceedings:

15 (1) Exceptions to recommended decisions in contested cases shall be filed  
16 with the Board within 30 days of the receipt by the Board of the  
17 official record from the Office of Administrative Hearings, unless  
18 additional time is allowed by the Chair of the Board.

19 (2) Oral arguments by the parties may be allowed by the Chair of the  
20 Board upon request of the parties.

21 (3) Deliberations of the Board shall be conducted in its public meeting  
22 unless the Board determines that consultation with its counsel should  
23 be held in a closed session pursuant to G.S. 143-318.11.

24 (b) The final agency decision in contested cases that arise from civil penalty  
25 assessments made pursuant to this Article and rules adopted thereunder shall be made by  
26 the Board. In the evaluation of each violation, the Board shall recognize that harm to the  
27 natural resources of the State arising from the violation of standards or limitations  
28 established to protect those resources may be immediately observed through damaged  
29 resources or may be incremental or cumulative with no damage that can be immediately  
30 observed or documented. Penalties up to the maximum authorized may be based on any  
31 one or combination of the following factors:

32 (1) The degree and extent of harm to the natural resources of the State, to  
33 the public health, or to private property resulting from the violation.

34 (2) The duration and gravity of the violation.

35 (3) The effect on ground or surface water quantity or quality or on air  
36 quality.

37 (4) The cost of rectifying the damage.

38 (5) The amount of money saved by noncompliance.

39 (6) Whether the violation was committed willfully or intentionally.

40 (7) The prior record of the violator in complying or failing to comply with  
41 programs over which the Oil and Gas Board has regulatory authority.

42 (8) The cost to the State of the enforcement procedures.

43 (c) The Chair shall appoint a Committee on Civil Penalty Remissions from the  
44 members of the Board. No member of the Board on Civil Penalty Remissions may hear  
45 or vote on any matter in which the member has an economic interest. The Committee on  
46 Civil Penalty Remissions shall make the final agency decision on remission requests. In

1 determining whether a remission request will be approved, the Committee shall consider  
2 the recommendation of the Secretary or the Secretary's designee and all of the following  
3 factors:

- 4 (1) Whether one or more of the civil penalty assessment factors in  
5 subsection (b) of this section were wrongly applied to the detriment of  
6 the petitioner.
- 7 (2) Whether the violator promptly abated continuing environmental  
8 damage resulting from the violation.
- 9 (3) Whether the violation was inadvertent or a result of an accident.
- 10 (4) Whether the violator had been assessed civil penalties for any previous  
11 violations.
- 12 (5) Whether payment of the civil penalty will prevent payment for the  
13 remaining necessary remedial actions.

14 (d) The Committee on Civil Penalty Remissions may remit the entire amount of  
15 the penalty only when the violator has not been assessed civil penalties for previous  
16 violations, and when payment of the civil penalty will prevent payment for the remaining  
17 necessary remedial actions.

18 (e) If any civil penalty has not been paid within 30 days after the final agency  
19 decision or court order has been served on the violator, the Secretary or the Secretary's  
20 designee shall request the Attorney General to institute a civil action in the Superior  
21 Court of any county in which the violator resides or has his or its principal place of  
22 business to recover the amount of the assessment.

23 (f) For purposes of this section, "Secretary" shall mean the Secretary of  
24 Environment and Natural Resources.

25 **"§ 113-432. Oil and Gas Board – members; selection; terms; vacancies;**  
26 **compensation; meetings; quorum; staff.**

27 (a) Members, Selection. – The Oil and Gas Board shall consist of nine members  
28 appointed by as follows:

- 29 (1) One appointed by the Governor who shall be a licensed geologist with  
30 experience in oil and gas exploration and development.
- 31 (2) One appointed by the Governor who shall be an employee or officer of  
32 an investor-owned natural gas company.
- 33 (3) One appointed by the Governor who shall be a licensed attorney with  
34 experience in mineral leasing.
- 35 (4) One appointed by the President Pro Tempore of the Senate who shall  
36 be an environmental scientist with experience in environmental  
37 restoration, remediation, and mitigation of contamination resulting  
38 from industrial activities.
- 39 (5) One appointed by the President Pro Tempore of the Senate who shall  
40 be a licensed engineer with experience in oil and gas exploration and  
41 development.
- 42 (6) One appointed by the President Pro Tempore of the Senate who shall  
43 be a private owner of land located in the Sanford sub-basin of the  
44 Triassic basin of North Carolina.
- 45 (7) One appointed by the Speaker of the House of Representatives who  
46 shall, at the time of the initial appointment, be a member of a County

1 Board of Commissioners of a county located in the Sanford sub-basin  
2 of the Triassic basin of North Carolina.

3 (8) One appointed by the Speaker of the House of Representatives who  
4 shall, at the time of the initial appointment, be a representative of a  
5 municipal government of a municipality located in the Sanford  
6 sub-basin of the Triassic basin of North Carolina.

7 (9) One appointed by the Speaker of the House of Representatives who  
8 shall be an economist with particular experience in or familiarity with  
9 energy markets.

10 (b) Terms. – The term of office of members of the Board is three years. A  
11 member may be reappointed to any number of successive three-year terms. Upon the  
12 expiration of a three-year term, a member shall continue to serve until a successor is  
13 appointed and duly qualified. The term of members appointed under subdivisions (1), (4),  
14 and (7) of subsection (a) of this section shall expire on June 30 of years evenly divisible  
15 by three. The term of members appointed under subdivisions (2), (5), and (8) of  
16 subsection (a) of this section shall expire on June 30 of years that precede by one year  
17 those years that are evenly divisible by three. The term of members appointed under  
18 subdivisions (3), (6), and (9) of subsection (a) of this section shall expire on June 30 of  
19 years that follow by one year those years that are evenly divisible by three.

20 (c) Vacancies, removal from office. –

21 (1) Any appointment by the Governor to fill a vacancy on the Board  
22 created by the resignation, dismissal, death or disability of a member  
23 shall be for the balance of the unexpired term. The Governor shall  
24 have the power to remove any member of the Board from office for  
25 misfeasance, malfeasance, or nonfeasance in accordance with the  
26 provisions of G.S. 143B-13 of the Executive Organization Act of  
27 1973.

28 (2) Members appointed by the President Pro Tempore of the Senate and  
29 the Speaker of the House of Representatives shall be made in  
30 accordance with G.S. 120-121, and vacancies in those appointments  
31 shall be filled in accordance with G.S. 120-122. In accordance with  
32 Section 10 of Article VI of the North Carolina Constitution, a member  
33 may continue to serve until a successor is duly appointed.

34 (d) Compensation. – The members of the Commission shall receive per diem and  
35 necessary travel and subsistence expenses in accordance with the provisions of  
36 G.S. 138-5.

37 (e) Meetings. – The Board shall meet at least once in each quarter and may hold  
38 special meetings at any time and place within the State at the call of the Chair or upon the  
39 written request of at least five members.

40 (f) Quorum. – A majority of the Commission shall constitute a quorum for the  
41 transaction of business.

42 (g) Staff. – All staff support required by the Board shall be supplied by the  
43 Division of Energy, Mineral, and Land Resources, and the North Carolina Geological  
44 Survey.

45 **§ 113-433. Oil and Gas Board – officers; organization; seal.**

1        (a) Election of Chair and Vice-Chair. – The Commission shall elect one of its  
2 members to serve as Chair, and one of its members to serve as Vice-Chair. The Chair and  
3 Vice-Chair shall serve one-year terms beginning August 1 and ending July 31 of the  
4 following year. The Chair and Vice-Chair may serve any number of terms, but not more  
5 than two terms consecutively.

6        (b) Responsibilities of Chair. – The Chair shall guide and coordinate the activities  
7 of the Board in fulfilling its duties as set out in this Article. The Chair shall report to and  
8 advise the Governor and the Joint Legislative Commission on Energy Policy as provided  
9 in G.S. 113-430 on the activities of the Board.

10       (c) Procedure and organization. –The Board shall determine its organization and  
11 procedure in accordance with the provisions of this Article. The provisions of the most  
12 recent edition of Robert's Rules of Order shall govern any procedural matter for which no  
13 other provision has been made.

14       (d) Adoption of seal. – The Board may adopt a common seal and may alter it as  
15 necessary."

16        **SECTION 1.(b)** Chapter 132 of the General Statutes is amended by adding a  
17 new section to read:

18        **"§ 132-11. Qualified exception for information pertaining to oil and gas exploration**  
19 **and development activities.**

20        (a) Except as provided in subsection (b) of this section, data, records, and other  
21 information related to oil and gas exploration and development activities obtained by the  
22 North Carolina Oil and Gas Board pursuant to G.S. 113-430 and the Department of  
23 Environment and Natural Resources pursuant to G.S. 113-391 shall be made available for  
24 public inspection and examination after a period of two years from the date the data,  
25 records, and other information were received by the Board.

26        (b) Information designated as a trade secret, as defined in G.S. 66-152(3) and that  
27 is designated as confidential or as a trade secret under G.S. 132-1.2, shall be maintained  
28 as such by the Board and the Department, and shall not be made available to the public."

29        **SECTION 1.(c)** The Oil and Gas Board established under Section 1.(a) of this  
30 act shall create a modern regulatory program for the management of all aspects of oil and  
31 gas exploration and development activities including the processes of horizontal drilling  
32 and hydraulic fracturing in the State. The Board shall adopt rules governing these  
33 activities as quickly as practicable, but no later than December 31, 2013. The Board shall  
34 also consult and coordinate with the Department of Environment and Natural Resources,  
35 the Environmental Management Commission, and the Mining Commission to identify  
36 changes required to all existing rules and statutes governing these activities, including  
37 repeal or modification of the rules and statutes. The Board shall report to the Joint  
38 Legislative Commission on Energy Policy created under Section 8.(a) of this act on the  
39 progress of development of a modern regulatory program, and any statutory and rule  
40 changes required, on or before May 1, 2013. From the effective date of this act the Oil  
41 and Gas Board shall have concurrent authority and jurisdiction with the Department of  
42 Environment and Natural Resources to administer and enforce the provisions of Article  
43 27 of Chapter 113 of the General Statutes and rules adopted thereunder in compliance  
44 with the provisions of this act.  
45

1 **PART III. STATUTORY AND RULE CHANGES TO AUTHORIZE**  
2 **HORIZONTAL DRILLING AND HYDRAULIC FRACTURING;**  
3 **MORATORIUM ESTABLISHED**  
4

5 **SECTION 2.(a)** 113-389 reads as rewritten:

6 **"§ 113-389. Definitions.**

7 Unless the context otherwise requires, the words defined in this section shall have the  
8 following meaning when found in this law:

9 (1) "Board" shall mean the "North Carolina Oil and Gas Board."

10 (1a) "Department" shall mean the "Department of Environment and Natural  
11 Resources," as created by this law-Resources."

12 (1b) "Division" shall mean the "Division of Energy, Mineral, and Land  
13 Resources" of the Department of Environment and Natural Resources.

14 ...

15 (3a) "Hydraulic fracturing fluid" shall mean the base fluid type utilized in a  
16 particular hydraulic fracturing treatment.

17 (3b) "Hydraulic fracturing treatment" shall mean stimulating a well by the  
18 application of hydraulic fracturing fluids and additives with force in  
19 order to create artificial fractures in the formation for the purpose of  
20 improving the capacity to produce hydrocarbons.

21 ..."

22 **SECTION 2.(b)** 113-391 reads as rewritten:

23 **"§ 113-391. Jurisdiction and authority; rules and orders.**

24 (a) The Department shall have jurisdiction and authority concurrent with that of  
25 the Oil and Gas Board established pursuant to G.S. 113-430 of and over all persons and  
26 property necessary to administer and enforce effectively the provisions of this law and all  
27 other laws relating to the conservation of oil and gas.

28 (b) The Department shall have ~~the~~ authority concurrent with that of the Oil and  
29 Gas Board established pursuant to G.S. 113-430 and it shall be its-the Department's duty  
30 to make such inquiries as it may think proper to determine whether or not waste over  
31 which it has jurisdiction exists or is imminent. In the exercise of such power the  
32 Department shall have the authority to collect data; to make investigations and  
33 inspections; to examine properties, leases, papers, books and records; to examine, check,  
34 test and gauge oil and gas wells, tanks, refineries, and means of transportation; to hold  
35 hearings; and to provide for the keeping of records and the making of reports; and to take  
36 such action as may be reasonably necessary to enforce this law.

37 (b1) In the exercise of its authority over oil and gas exploration and development  
38 activities, the Department shall have access to all data, records, and information related to  
39 such activities, including, but not limited to, seismic surveys, stratigraphic testing,  
40 geologic cores, proposed well bore trajectories, hydraulic fracturing fluid chemicals and  
41 constituents, drilling mud chemistry, and geophysical borehole logs. With the exception  
42 of information designated as a trade secret, as defined in G.S. 66-152(3) and that is  
43 designated as confidential or as a trade secret under G.S. 132-1.2, the Department shall  
44 make any information it receives available to the public pursuant to G.S. 132-11.. The  
45 State Geologist shall serve as the custodian of all data, information, and records received  
46 by the Department pursuant to this subsection and shall ensure that: (i) the information is

1 maintained securely as provided in G.S. 132-7; and (ii) access to information designated  
2 as a trade secret, as defined in G.S. 66-152(3) and that is designated as confidential or as  
3 a trade secret under G.S. 132-1.2, is limited to only those staff of the Department who  
4 have executed a confidentiality agreement with the owner of such information.

5 (c) The Department may ~~make rules and issue~~ orders as may be necessary from  
6 time to time in the proper administration and enforcement of this ~~law;~~ law and rules  
7 promulgated by the Oil and Gas Board pursuant to G.S. 113-430, including ~~rules or~~  
8 orders for the following purposes:

- 9 (1) To require the drilling, operation, casing and plugging of wells ~~to be~~  
10 ~~done in such manner as to prevent the escape of oil or gas out of one~~  
11 ~~stratum to another; to prevent the intrusion of water into an oil or gas~~  
12 ~~stratum from a separate stratum; to prevent the pollution of freshwater~~  
13 ~~supplies by oil, gas or salt water, or to protect the quality of the water,~~  
14 ~~air, soil or any other environmental resource against injury or damage~~  
15 ~~or impairment; and to require reasonable bond~~ condition conditions ~~for~~  
16 ~~the performance of the duty to plug each dry or abandoned well.~~
- 17 (2) To require ~~directional~~ surveys upon application of any owner who has  
18 reason to believe that a well ~~or wells of others has or have~~ has been  
19 unlawfully drilled by another into land of the owner without  
20 permission, the lands owned by him or held by him under lease. In the  
21 event such surveys are required, the costs thereof shall be borne by the  
22 ~~owners~~ owner making the request.
- 23 (3) To require the making of reports showing the location of oil and gas  
24 wells, and the filing of logs and drilling records.
- 25 (4) ~~To prevent the drowning by water of any stratum or part thereof~~  
26 ~~capable of producing oil or gas in paying quantities, and to prevent the~~  
27 ~~premature and irregular encroachment of water which reduces, or~~  
28 ~~tends to reduce, the total ultimate recovery of oil or gas from any pool.~~
- 29 (5) To require the operation of wells with efficient gas-oil ratios, and to  
30 fix such ratios.
- 31 (6) To prevent "blow-outs," "caving" and "seepage" in the sense that  
32 conditions indicated by such terms are generally understood in the oil  
33 and gas business.
- 34 (7) To prevent fires.
- 35 (8) To identify the ownership of all oil or gas wells, producing leases,  
36 refineries, tanks, plants, structures and all storage and transportation  
37 equipment and facilities.
- 38 (9) To regulate the "shooting," perforating, and chemical treatment of  
39 wells.
- 40 (10) To regulate secondary recovery methods, including the introduction of  
41 gas, air, water or other substances into producing formations.
- 42 (11) To limit and prorate the production of oil or gas, or both, from any  
43 pool or field for the prevention of waste as herein defined.
- 44 (12) To require, either generally or in or from particular areas, certificates  
45 of clearance or tenders in connection with the transportation of oil or  
46 gas.

- 1 (13) To regulate the spacing of wells and to establish drilling units.
- 2 (14) To prevent, so far as is practicable, reasonably avoidable drainage
- 3 from each developed unit which is not equalized by counter-drainage.
- 4 (15) To prevent where necessary the use of gas for the manufacture of
- 5 carbon black.
- 6 (16) To regulate and, if necessary in its judgment for the protection of
- 7 unique environmental values, to prohibit the location of wells in the
- 8 interest of protecting the quality of the water, air, soil or any other
- 9 environmental resource against injury, or damage or impairment."

10 **SECTION 2.(c)** G.S. 113-393 reads as rewritten:

11 **"§ 113-393. Development of lands as drilling unit by agreement or order of**  
12 **Department.**

13 (a) Integration of Interests and Shares in Drilling Unit. – When two or more  
14 separately owned tracts of land are embraced within an established drilling unit, the  
15 owners thereof may agree validly to integrate their interests and to develop their lands as  
16 a drilling unit. Where, however, such owners have not agreed to integrate their interests,  
17 the Department shall, for the prevention of waste or to avoid drilling of unnecessary  
18 wells, require such owners to do so and to develop their lands as a drilling unit. All orders  
19 requiring such integration shall be made after notice and hearing, and shall be upon terms  
20 and conditions that are just and reasonable, and will afford to the owner of each tract the  
21 opportunity to recover or receive his just and equitable share of the oil and gas in the pool  
22 without unnecessary expense, and will prevent or minimize reasonably avoidable  
23 drainage from each developed unit which is not equalized by counter-drainage. The  
24 portion of the production allocated to the owner of each tract included in a drilling unit  
25 formed by an integration order shall, when produced, be considered as if it had been  
26 produced from such tract by a well drilled thereon.

27 In the event such integration is required, and provided also that after due notice to all  
28 the owners of tracts within such drilling unit of the creation of such drilling unit, and  
29 provided further that the Department has received no protest thereto, or request for  
30 hearing thereon, whether or not 10 days have elapsed after notice has been given of the  
31 creation of the drilling unit, the operator designated by the Department to develop and  
32 operate the integrated unit shall have the right to charge to each other interested owner  
33 the actual expenditures required for such purpose not in excess of what are reasonable,  
34 including a reasonable charge for supervision, and the operator shall have the right to  
35 receive the first production from the well drilled by him thereon, which otherwise would  
36 be delivered or paid to the other parties jointly interested in the drilling of the well, so  
37 that the amount due by each of them for his shares of the expense of drilling, equipping,  
38 and operating the well may be paid to the operator of the well out of production; with the  
39 value of the production calculated at the market price in the field at the time such  
40 production is received by the operator or placed to his credit. After being reimbursed for  
41 the actual expenditures for drilling and equipping and operating expenses incurred during  
42 the drilling operations and until the operator is reimbursed, the operator shall thereafter  
43 pay to the owner of each tract within the pool his ratable share of the production  
44 calculated at the market price in the field at the time of such production less the  
45 reasonable expense of operating the well. In the event of any dispute relative to such  
46 costs, the Department shall determine the proper costs.

1 (b) When Each Owner May Drill. – Should the owners of separate tracts  
2 embraced within a drilling unit fail to agree upon the integration of the tracts and the  
3 drilling of a well on the unit, and should it be established that the Department is without  
4 authority to require integration as provided for in subsection (a) of this section, then,  
5 subject to all other applicable provisions of this law, the owner of each tract embraced  
6 within the drilling unit may drill on his tract, but the allowable production from each tract  
7 shall be such proportion of the allowable for the full drilling unit as the area of such  
8 separately owned tract bears to the full drilling unit.

9 (c) Cooperative Development Not in Restraint of Trade. – Agreements made in  
10 the interests of conservation of oil or gas, or both, or for the prevention of waste, between  
11 and among owners or operators, or both, owning separate holdings in the same oil or gas  
12 pool, or in any area that appears from geological or other data to be underlaid by a  
13 common accumulation of oil or gas, or both, or between and among such owners or  
14 operators, or both, and royalty owners therein, of a pool or area, or any part thereof, as a  
15 unit for establishing and carrying out a plan for the cooperative development and  
16 operation thereof, when such agreements are approved by the Department, are hereby  
17 authorized and shall not be held or construed to violate any of the statutes of this State  
18 relating to trusts, monopolies, or contracts and combinations in restraining of trade.

19 (d) Variation from Vertical. – Whenever the Department fixes the location of any  
20 well or wells on the surface, the point at which the maximum penetration of such wells  
21 into the producing formation is reached shall not unreasonably vary from the vertical  
22 drawn from the center of the hole at the surface, provided, that the Department shall  
23 prescribe rules and orders governing the reasonableness of such variation. This  
24 subsection shall not apply to wells drilled for the purpose of exploration or development  
25 of natural gas through use of horizontal drilling in conjunction with hydraulic fracturing  
26 treatments."

27 **SECTION 2.(d)** G.S. 143-214.2 reads as rewritten:

28 "**§ 143-214.2. Prohibited discharges.**

29 (a) The discharge of any radiological, chemical or biological warfare agent or  
30 high-level radioactive waste to the waters of the State is prohibited.

31 (b) The discharge of any wastes to the subsurface or groundwaters of the State by  
32 means of wells is prohibited. This section shall not be construed to ~~prohibit~~ ~~prohibit~~: (i)  
33 the operation of closed-loop groundwater remediation systems in accordance with  
34 ~~G.S. 143-215.1A~~, G.S. 143-215.1A, or (ii) injection of hydraulic fracturing fluid for the  
35 exploration or development of natural gas resources.

36 (c) Unless permitted by a rule of the Commission, the discharge of wastes,  
37 including thermal discharges, to the open waters of the Atlantic Ocean over which the  
38 State has jurisdiction are prohibited."

39 **SECTION 3.(a)** With regard to wells that are drilled for the purpose of  
40 exploration or development of natural gas through use of horizontal drilling in  
41 conjunction with hydraulic fracturing treatments, notwithstanding subsection (e) of 15A  
42 NCAC 05D .0107 (Drilling and Completion), from the effective date of this act the  
43 Department of Environment and Natural Resources shall not prohibit the drilling of wells  
44 where the vertical deviation of the hole exceeds three degrees between the bottom of the  
45 hole and the top of hole.

1           **SECTION 3.(b)** With regard to wells that are drilled for the purpose of  
2 exploration or development of natural gas through use of hydraulic fracturing treatments,  
3 notwithstanding subsection (b) of 15A NCAC 02C 0209 (Classification of Injection  
4 Wells), from the effective date of this act the Department of Environment and Natural  
5 Resources shall not prohibit the construction, use, or operation of oil or gas production  
6 and storage related injection wells.

7           **SECTION 3.(c)** With regard to wells that are drilled for the purpose of  
8 exploration or development of natural gas through use of hydraulic fracturing treatments,  
9 notwithstanding subsection (b) of 15A NCAC 02C 0213 (Additional Criteria and  
10 Standards Applicable to Class 5 Wells), from the effective date of this act the Department  
11 of Environment and Natural Resources shall allow the use of hydraulic fracturing fluid  
12 for the exploration or development of natural gas resources, provided that such additives  
13 do not cause surrounding groundwaters to become non-potable.

14           **SECTION 3.(d)** With regard to wells that are drilled for the purpose of  
15 exploration or development of natural gas through use of hydraulic fracturing treatments,  
16 notwithstanding subdivision (1) of subsection (e) of 15A NCAC 02C 0213 (Additional  
17 Criteria and Standards Applicable to Class 5 Wells), from the effective date of this act the  
18 Department of Environment and Natural Resources shall not limit pressure at a well head  
19 to a maximum such that the pressure in the injection zone would not initiate new  
20 fractures or propagate existing fractures in the injection zone, initiate fractures in the  
21 confining zone, or cause the migration of injected or formation fluids outside the  
22 injection zone or area.

23           **SECTION 3.(e)** With regard to wells that are drilled for the purpose of  
24 exploration or development of natural gas through use of horizontal drilling and hydraulic  
25 fracturing treatments, the Department shall not enforce any rule that would have the  
26 effect of prohibiting such activities.

27           **SECTION 4.** There is hereby established a moratorium on the issuance of  
28 permits for oil and gas exploration and development activities using the processes of  
29 horizontal drilling and hydraulic fracturing in the State. The purpose of this moratorium  
30 is to allow the Oil and Gas Board established under Section 1.(a) of this act to create a  
31 modern regulatory program to govern all aspects of such activities. No agency of the  
32 State, including the Department of Environment and Natural Resources, the  
33 Environmental Management Commission, the Mining Commission, or the Oil and Gas  
34 Board established under Section 1.(a) of this act, shall issue a permit for oil or gas  
35 exploration or development activities using the processes of horizontal drilling and  
36 hydraulic fracturing for a period beginning from the effective date of this act and ending  
37 on July 1, 2014.

38  
39 **PART IV. MISCELLANEOUS PROVISIONS RELATED TO MANAGEMENT**  
40 **OF OIL AND GAS EXPLORATION AND DEVELOPMENT ACTIVITIES**

41  
42           **SECTION 5.** Article 27 of Chapter 113 of the General Statutes is amended  
43 by adding a new section to read:

44 **§ 113-388A. Impact fee imposed on oil and gas exploration and development**  
45 **activities:**

1       (a) A city or town in which oil and gas exploration and development activities are  
2 occurring may levy a one-time impact fee on operators of such sites that are located  
3 within the city or town's jurisdiction only in accordance with this section. This fee shall  
4 not exceed \$30,000 for each oil or gas well drilled by the operator within the city or  
5 town's jurisdiction.

6       (b) A county in which oil and gas exploration and development are occurring may  
7 levy a one-time impact fee on operators of such sites that are located within  
8 unincorporated areas of the county only in accordance with this section. This fee shall not  
9 exceed \$30,000 for each oil or gas well drilled by the operator within the county's  
10 jurisdiction.

11       (c) The rate or rates of a fee imposed under authority of this section shall be in an  
12 amount calculated to compensate the city, town, or county, as applicable, for the  
13 additional costs incurred by it from having a site on which oil and gas exploration and  
14 development activities are occurring located in its jurisdiction to the extent to which  
15 compensation for such costs is not otherwise provided, which costs may include the loss  
16 of ad valorem property tax revenues from the property on which a facility is located, the  
17 cost of providing any additional emergency services, the cost of monitoring air, surface  
18 water, groundwater, and other environmental media to the extent other monitoring data is  
19 not available, the cost to improve or repair roads impacted by truck traffic and heavy  
20 equipment from the activities, and other costs associated with the activities and for which  
21 the city, town, or county is not otherwise compensated.

22       (d) Any person or firm on which a fee is imposed pursuant to this section may  
23 appeal the fee to the Oil and Gas Board established by G.S. 113-430, but shall pay the fee  
24 when due, subject to a refund when the appeal is resolved by the Board or in the courts."

25       **SECTION 6.** Article 27 of Chapter 113 of the General Statutes is amended  
26 by adding a new section to read:

27       **"§ 113-415A. Local ordinances prohibiting oil and gas exploration and development**  
28 **activities invalid; petition to preempt local ordinance.**

29       (a) It is the intent of the General Assembly to maintain a uniform system for the  
30 management of oil and gas exploration and development activities, and the use of  
31 horizontal drilling and hydraulic fracturing for that purpose, and to place limitations upon  
32 the exercise by all units of local government in North Carolina of the power to regulate  
33 the management of oil and gas exploration and development activities by means of  
34 special, local, or private acts or resolutions, ordinances, property restrictions, zoning  
35 regulations, or otherwise. Notwithstanding any authority granted to counties,  
36 municipalities, or other local authorities to adopt local ordinances, including but not  
37 limited to those imposing taxes, any fees except as authorized by G.S. 113-388A, or  
38 charges or regulating health, environment, or land use, any local ordinance that prohibits  
39 or has the effect of prohibiting oil and gas exploration and development activities that the  
40 Oil and Gas Board has preempted pursuant this section, shall be invalid to the extent  
41 necessary to effectuate the purposes of this Article. To this end, all provisions of special,  
42 local, or private acts or resolutions are repealed that:

43           (1) Prohibit the siting of wells for oil and gas exploration and  
44 development within any county, city, or other political subdivision.

- 1           (2)    Prohibit the use of horizontal drilling or hydraulic fracturing for the  
2                    purpose of oil or gas exploration or development within any county,  
3                    city, or other political subdivision.
- 4           (3)    Place any restriction or condition not placed by this Article upon oil  
5                    and gas exploration and development activities and use of horizontal  
6                    drilling or hydraulic fracturing for that purpose within any county,  
7                    city, or other political subdivision.
- 8           (4)    In any manner are in conflict or inconsistent with the provisions of this  
9                    Article.

10           (b)    No special, local, or private act or resolution enacted or taking effect hereafter  
11                    may be construed to modify, amend, or repeal any portion of this Article unless it  
12                    expressly provides for such by specific references to the appropriate section of this  
13                    Article. Further to this end, all provisions of local ordinances, including those regulating  
14                    land use, adopted by counties, municipalities, or other local authorities that prohibit or  
15                    have the effect of prohibiting oil and gas exploration and development activities and use  
16                    of horizontal drilling or hydraulic fracturing for that purpose within the jurisdiction of a  
17                    local government are invalidated to the extent preempted by the Board pursuant to this  
18                    section.

19           (c)    When oil and gas exploration and development activities would be prevented  
20                    from construction or operation by a county, municipal, or other local ordinance, the  
21                    operator of the of the proposed activities may petition the Oil and Gas Board to review  
22                    the matter. After receipt of a petition, the Board shall hold a hearing in accordance with  
23                    the procedures in subsection (d) of this section and shall determine whether or to what  
24                    extent to preempt the local ordinance to allow for the proposed oil and gas exploration  
25                    and development activities.

26           (d)    When a petition described in subsection (c) of this section has been filed with  
27                    the Oil and Gas Board, the Board shall hold a public hearing to consider the petition. The  
28                    public hearing shall be held in the affected locality within 60 days after receipt of the  
29                    petition by the Board. The Board shall give notice of the public hearing by:

- 30                    (1)    Publication in a newspaper or newspapers having general circulation  
31                            in the county or counties where the activities are to be conducted, once  
32                            a week for three consecutive weeks, the first notice appearing at least  
33                            30 days prior to the scheduled date of the hearing; and
- 34                    (2)    First class mail to persons who have requested notice. The Board shall  
35                            maintain a mailing list of persons who request notice in advance of the  
36                            hearing pursuant to this section. Notice by mail shall be complete upon  
37                            deposit of a copy of the notice in a post-paid wrapper addressed to the  
38                            person to be notified at the address that appears on the mailing list  
39                            maintained by the Board, in a post office or official depository under  
40                            the exclusive care and custody of the United States Postal Service.

41           (e)    Any interested person may appear before the Oil and Gas Board at the hearing  
42                    to offer testimony. In addition to testimony before the Board, any interested person may  
43                    submit written evidence to the Board for the Board's consideration. At least 20 days shall  
44                    be allowed for receipt of written comment following the hearing.

45           (f)    A local zoning or land-use ordinance is presumed to be valid and enforceable  
46                    to the extent the zoning or land-use ordinance imposes requirements, restrictions, or

1 conditions that are generally applicable to development, including, but not limited to,  
2 setback, buffer, and stormwater requirements, unless the Oil and Gas Board makes a  
3 finding of fact to the contrary. The Board shall determine whether or to what extent to  
4 preempt local ordinances so as to allow for the establishment and operation of the facility  
5 no later than 60 days after conclusion of the hearing. The Board shall preempt a local  
6 ordinance only if the Board makes all of the following findings:

- 7 (1) That there is a local ordinance that would prohibit or have the effect of  
8 prohibiting oil and gas exploration and development activities, or use  
9 of horizontal drilling or hydraulic fracturing for that purpose.
- 10 (2) That all legally required State and federal permits or approvals have  
11 been issued by the appropriate State and federal agencies or that all  
12 State and federal permit requirements have been satisfied and that the  
13 permits or approvals have been denied or withheld only because of the  
14 local ordinance.
- 15 (3) That local citizens and elected officials have had adequate opportunity  
16 to participate in the permitting process.
- 17 (4) That the oil and gas exploration and development activities, and use of  
18 horizontal drilling or hydraulic fracturing for that purpose, will not  
19 pose an unreasonable health or environmental risk to the surrounding  
20 locality and that the operator has taken or consented to take reasonable  
21 measures to avoid or manage foreseeable risks and to comply to the  
22 maximum feasible extent with applicable local ordinances.

23 (g) If the Oil and Gas Board does not make all of the findings under subsection (f)  
24 of this section, the Board shall not preempt the challenged local ordinance. The Board's  
25 decision shall be in writing and shall identify the evidence submitted to the Board plus  
26 any additional evidence used in arriving at the decision.

27 (h) The decision of the Oil and Gas Board shall be final unless a party to the  
28 action files a written appeal under Article 4 of Chapter 150B of the General Statutes, as  
29 modified by G.S. 7A-29 and this section, within 30 days of the date of the decision. The  
30 record on appeal shall consist of all materials and information submitted to or considered  
31 by the Board, the Board's written decision, a complete transcript of the hearing, all  
32 written material presented to the Board regarding the location of the oil and gas  
33 exploration and development activities, the specific findings required by subsection (f) of  
34 this section, and any minority positions on the specific findings required by subsection (f)  
35 of this section. The scope of judicial review shall be that the court may affirm the  
36 decision of the Board, or may remand the matter for further proceedings, or may reverse  
37 or modify the decision if the substantial rights of the parties may have been prejudiced  
38 because the Board's findings, inferences, conclusions, or decisions are:

- 39 (1) In violation of constitutional provisions;
- 40 (2) In excess of the statutory authority or jurisdiction of the Board;
- 41 (3) Made upon unlawful procedure;
- 42 (4) Affected by other error of law;
- 43 (5) Unsupported by substantial evidence admissible under  
44 G.S. 150B-29(a) or G.S. 150B-30 in view of the entire record as  
45 submitted; or
- 46 (6) Arbitrary or capricious.



- 1           (2)    Review and evaluate existing and proposed State statutes and rules  
2                    affecting energy policy and determine whether any modification of  
3                    these statutes or rules is in the public interest.
- 4           (3)    Monitor changes in federal law and court decisions affecting energy  
5                    policy.
- 6           (4)    Monitor and evaluate energy related industries in the State and study  
7                    measures to promote these industries.
- 8           (5)    Study any other matters related to energy policy that the Commission  
9                    considers necessary to fulfill its mandate.

10           (b)    The Commission may make reports and recommendations, including  
11 proposed legislation, to the General Assembly from time to time as to any matter relating  
12 to its oversight and the powers and duties set out in this section.

13 **"§ 120-287. Organization of Commission.**

14           (a)    The President Pro Tempore of the Senate and the Speaker of the House of  
15 Representatives shall each designate a cochair of the Joint Legislative Commission on  
16 Energy Policy. The Commission may meet at any time upon the call of either cochair,  
17 whether or not the General Assembly is in session.

18           (b)    A quorum of the Commission is six members.

19           (c)    While in the discharge of its official duties, the Commission has the powers of  
20 a joint committee under G.S. 120-19 and G.S. 120-19.1 through 120-19.4. The  
21 Commission may contract for consultants or hire employees in accordance with  
22 G.S. 120-32.02.

23           (d)    From funds available to the General Assembly, the Legislative Services  
24 Commission shall allocate monies to fund the Joint Legislative Commission on Energy  
25 Policy. Members of the Commission receive subsistence and travel expenses as provided  
26 in G.S. 120-3.1. The Legislative Services Commission, through the Legislative Services  
27 Officer, shall assign professional staff to assist the Commission in its work. Upon the  
28 direction of the Legislative Services Commission, the Supervisors of Clerks of the Senate  
29 and of the House of Representatives shall assign clerical staff to the Commission. The  
30 expenses for clerical employees shall be borne by the Commission."

31           **SECTION 8.(b)** Notwithstanding G.S. 120-285(c), as enacted by Section  
32 8.(a) of this act, the President Pro Tempore of the Senate and the Speaker of the House of  
33 Representatives may appoint members to the Joint Legislative Commission on Energy  
34 Policy to terms that begin prior to the convening of the 2013 General Assembly. The  
35 terms of members appointed pursuant to this Section shall end upon the convening of the  
36 2013 General Assembly. Members appointed pursuant to this Section who are otherwise  
37 qualified to serve on the Commission may be reappointed to the Commission upon the  
38 convening of the 2013 General Assembly.

39  
40 **PART VI. DIRECT THE DEPARTMENT OF PUBLIC INSTRUCTION TO**  
41 **PURCHASE SCHOOL BUSES THAT OPERATE ON COMPRESSED NATURAL**  
42 **GAS (CNG)**

43  
44           **SECTION 9.(a)** Notwithstanding any other provision of law and with funds  
45 available, beginning July 1, 2013 the Department of Public Instruction shall purchase  
46 only passenger school buses (Types A and B) and transit-style school buses (Type D) that

1 operate on compressed natural gas (CNG) to replace school buses due to the age,  
2 mileage, condition, unique circumstances, or other condition necessitating replacement of  
3 a school bus.

4 **SECTION 9.(b)** Notwithstanding any other provision of law and with funds  
5 available, beginning July 1, 2015, the Department of Public Instruction shall purchase  
6 only passenger school buses (Types A and B), transit-style school buses (Type D), and  
7 conventional-style school buses (Type C) that operate on compressed natural gas (CNG)  
8 to replace school buses due to the age, mileage, condition, unique circumstances, or other  
9 condition necessitating replacement of a school bus.

10 **SECTION 9.(c)** No later than December 1, 2012, the Department of Public  
11 Instruction, in consultation with local school administrative units, shall develop a plan for  
12 the deployment of compressed natural gas (CNG)-fueled buses purchased in accordance  
13 with subsections (a) and (b) of this section to local school administrative units based on  
14 the following considerations:

- 15 (1) The availability of centralized fueling infrastructure.
- 16 (2) The ability of a local school administrative unit to operate and  
17 maintain compressed natural gas (CNG)-fueled buses.
- 18 (3) The characteristics of a local school administrative unit such as the  
19 geographic size, the density of the student population, and the number  
20 and average length of bus routes.
- 21 (4) Any other criteria the Department of Public Instruction deems  
22 necessary and applicable to implement this section.

23 **SECTION 9.(d)** This section shall not apply to non-instructional activity  
24 school buses purchased by a local school administrative unit with local or community  
25 funds.

26 **SECTION 9.(e)** Beginning January 1, 2013 and annually thereafter, the  
27 Department of Public Instruction shall report to the Joint Legislative Commission on  
28 Energy Policy, the Joint Legislative Education Oversight Committee, the House  
29 Appropriation Subcommittee on Education, and the Senate Appropriations Subcommittee  
30 on Education/Higher Education on the implementation of this section.

31  
32  
33 **PART VII. DIRECT THE DEPARTMENT OF TRANSPORTATION TO**  
34 **PURCHASE NEW THREE-QUARTER (3/4) TON PICK UP TRUCKS AND NEW**  
35 **ONE-HALF (1/2) TON PICK UP TRUCKS THAT OPERATE ON COMPRESSED**  
36 **NATURAL GAS (CNG) OR COMPRESSED NATURAL GAS (CNG) AND**  
37 **GASOLINE**

38  
39 **SECTION 10.(a)** Notwithstanding any other provision of law and with funds  
40 available, beginning July 1, 2013, fifty percent (50%) of the new three-quarter (3/4) ton  
41 pick-up trucks purchased by the Department of Transportation shall be manufactured by  
42 an original equipment manufacturer or a qualified vehicle manufacturer offering a full  
43 factory warranty and be capable of operating on compressed natural gas (CNG) or  
44 compressed natural gas (CNG) and gasoline.

45 **SECTION 10.(b)** Notwithstanding any other provision of law and with funds  
46 available, beginning July 1, 2015, one hundred percent (100%) of the new three-quarter

1 (3/4) ton pick-up trucks purchased by the Department of Transportation shall be  
2 manufactured by an original equipment manufacturer or a qualified vehicle manufacturer  
3 offering a full factory warranty and be capable of operating on compressed natural gas  
4 (CNG) or compressed natural gas (CNG) and gasoline.

5 **SECTION 10.(c)** Notwithstanding any other provision of law and with  
6 funds available, beginning July 1, 2014, fifty percent (50%) of the new one-half (1/2) ton  
7 pick-up trucks purchased by the Department of Transportation shall be manufactured by  
8 an original equipment manufacturer or a qualified vehicle manufacturer offering a full  
9 factory warranty and be capable of operating on compressed natural gas (CNG) or  
10 compressed natural gas (CNG) and gasoline.

11 **SECTION 10.(d)** Notwithstanding any other provision of law and with  
12 funds available, beginning July 1, 2016, one hundred percent (100%) of the new one-half  
13 (1/2) ton pick-up trucks purchased by the Department of Transportation shall be  
14 manufactured by an original equipment manufacturer or a qualified vehicle manufacturer  
15 offering a full factory warranty and be capable of operating on compressed natural gas  
16 (CNG) or compressed natural gas (CNG) and gasoline.

17 **SECTION 10.(e)** Notwithstanding any other provision of law and with funds  
18 available, the Department of Transportation shall ensure that at least fifty percent (50%)  
19 of the fuel used annually by the Department's three-quarter (3/4) ton pick-up trucks and  
20 one-half (1/2) ton pick-up trucks that are capable of operating on both compressed natural  
21 gas (CNG) and gasoline shall be compressed natural gas (CNG).

22 **SECTION 10.(f)** Beginning January 1, 2014, and annually thereafter, the  
23 Department of Transportation shall report to the Joint Legislative Commission on Energy  
24 Policy, the Joint Legislative Transportation Oversight Committee, the House  
25 Appropriations Subcommittee on Transportation, and the Senate Appropriations  
26 Subcommittee on Department of Transportation on the implementation of this section.

27  
28 **PART VIII. CREATE AN INTERAGENCY TASK FORCE TO ESTABLISH**  
29 **PUBLIC-PRIVATE PARTNERSHIPS FOR THE CONSTRUCTION AND**  
30 **DEVELOPMENT OF COMPRESSED NATURAL GAS (CNG) FUELING**  
31 **INFRASTRUCTURE**

32  
33 **SECTION 11.(a)** The Department of Public Instruction, the Department of  
34 Transportation, the Department of Commerce, and the Department of Administration, in  
35 consultation with other agencies as applicable, shall create an interagency task force  
36 responsible for establishing public-private partnerships with the compressed natural gas  
37 (CNG) industry to develop compressed natural gas (CNG) fueling infrastructure to  
38 support the operation of the vehicles purchased pursuant to Sections 9 and 10 of this act.  
39 The task force, together with private industry, shall evaluate the feasibility and efficacy  
40 of the construction and operation of centralized public-private fueling stations and any  
41 other fueling options that may be necessary to support the operation of each Department's  
42 compressed natural gas (CNG) vehicles.

43 **SECTION 11.(b)** Beginning January 1, 2013 and annually thereafter, the  
44 task force shall report to the Joint Legislative Commission on Energy Policy, the Joint  
45 Legislative Transportation Oversight Committee, the Joint Legislative Education  
46 Oversight Committee, the House Appropriations Subcommittee on Transportation, the

1 Senate Appropriations Subcommittee on Department of Transportation, the House  
2 Appropriation Subcommittee on Education, the Senate Appropriations Subcommittee on  
3 Education/Higher Education, a the House Appropriations Subcommittee on General  
4 Government, and the Senate Appropriations Subcommittee General Government and  
5 Information Technology on the implementation of this section.

6  
7 **PART IX. ESTABLISH CRITERIA FOR THE OPERATION OF ELECTRIC**  
8 **VEHICLE CHARGING STATIONS LOCATED AT STATE-OWNED REST**  
9 **STOPS ALONG THE HIGHWAYS**

10  
11 **SECTION 12.(a)** The Department of Transportation may operate an electric  
12 vehicle charging station at State-owned rest stops along the highways only if all of the  
13 following conditions are met:

- 14 (1) The electric vehicle charging station is accessible by the public.  
15 (2) The Department has developed a mechanism to charge the user of the  
16 electric vehicle charging station a fee in order to recover the cost of  
17 electricity consumed, the cost of processing the user fee, and a  
18 proportionate cost of the operation and maintenance of the electric  
19 vehicle charging station.

20 **SECTION 12.(b)** If the cost of the electricity consumed at the electric  
21 vehicle charging stations cannot be calculated as provided by subsection (a) of this  
22 section, the Department shall develop an alternative mechanism, other than electricity  
23 metering, to recover the cost of the electricity consumed at the vehicle charging station.

24 **SECTION 12.(c)** The Department may consult with other State agencies and  
25 industry representatives in order to develop the mechanisms for cost recovery required  
26 pursuant to subsection (a) of this section.

27 **SECTION 12.(d)** Beginning January 1, 2013 and annually thereafter, the  
28 Department of Transportation shall report to the Joint Legislative Commission on Energy  
29 Policy, the Joint Legislative Transportation Oversight Committee, the House  
30 Appropriations Subcommittee on Transportation, and the Senate Appropriations  
31 Subcommittee on Department of Transportation on the implementation of this section.

32  
33 **PART X. ENSURE THE USE OF FUEL EFFICIENT AND COST EFFICIENT**  
34 **RETREAD TIRES ON STATE VEHICLES**

35  
36 **SECTION 13.(a)** G.S. 115C-249.1 reads as rewritten:

37 **"§ 115C-249.1. Purchase of tires for school buses; repair or refurbishment of tires**  
38 **for school buses.**

39 (a) Definitions. – The following terms apply in this section:

- 40 (1) Critical tire information. – Tire brand name, tire line name, tire  
41 identification numbers, load and pressure markings, tire size  
42 designation, service descriptions such as load and speed ratings, and  
43 other information and specifications placed on the original tire  
44 sidewall by the original tire manufacturer.

1 (2) School bus. – A vehicle as defined in G.S. 20-4.01(27)d3. and  
2 G.S. 20-4.01(27)d4. that is owned, rented, or leased by a local board of  
3 education.

4 (b) Forensic Tire Standards. – In order to preserve critical tire information, a local  
5 board of education shall procure and install for school buses only tires that possess the  
6 original, unaltered, and uncovered tire sidewall. Furthermore, a local board of education  
7 shall not execute a contract for the repair or refurbishment of tires for school buses that  
8 provides for the removal, covering, or other alteration in any manner of the critical tire  
9 information contained on the original tire sidewall.

10 (b1) Retread Rubber Formulation Specifications. – Contracts for school bus tires  
11 executed on or after July 1, 2012 shall not include any specification for retread rubber  
12 formulations.

13 (b2) Use of Pre-Cure Fuel Efficient Rated Retread Tires.- Contracts for school bus  
14 tires executed on or after July 1, 2012 shall include specifications requiring pre-cure fuel  
15 efficient rated retreaded tires, as certified by the retread rubber manufacturer.

16 (c) Tire Purchase and Contract Standards Applicability. – All contracts for the  
17 purchase, repair, or refurbishment of tires for school buses, or contracts for the purchase  
18 of products or services related to the repair or refurbishment of tires for school buses,  
19 ~~executed on or after the date this section becomes effective~~ July 1, 2011 shall comply  
20 with the provisions of this section.

21 (d) Exemption. – Notwithstanding the provisions of this section, a local board of  
22 education that owns or has a legally binding contract in place for the future purchase of  
23 tires having altered or covered sidewalls prior to ~~the date that this section becomes~~  
24 ~~effective~~ July 1, 2011 shall perform its existing contractual obligations related thereto and  
25 may continue to use those tires on school buses for the useful life of the retreaded tire."

26 **SECTION 13.(b)** G.S. 143-63.2 reads as rewritten:

27 **"§ 143-63.2. Purchase of tires for State vehicles; repair or refurbishment of tires for**  
28 **State vehicles.**

29 (a) Definitions. – The following terms apply in this section:

30 (1) Critical tire information. – Tire brand name, tire line name, tire  
31 identification numbers, load and pressure markings, tire size  
32 designation, service descriptions such as load and speed ratings, and  
33 other information and specifications placed on the original tire  
34 sidewall by the original tire manufacturer.

35 (2) State vehicle. – Any vehicle owned, rented, or leased by the State, or  
36 an institution, department, or agency of the State, that is driven on a  
37 public road consistently at speeds greater than 30 miles per hour.

38 (b) Forensic Tire Standards. – In order to preserve critical tire information, the  
39 Secretary of Administration and any institution, department, or agency of the State shall  
40 only procure and install tires for State vehicles that possess the original, unaltered, and  
41 uncovered tire sidewall. Furthermore, neither the Secretary of Administration nor any  
42 institution, department, or agency of the State shall execute a contract for the repair or  
43 refurbishment of tires for State vehicles that provides for the removal, covering, or other  
44 alteration in any manner of the critical tire information contained on the original tire  
45 sidewall.

1 (c) Tire Purchase and Contract Standards Applicability. – All contracts for the  
2 purchase, repair, or refurbishment of tires for State vehicles, or contracts for the purchase  
3 of products or services related to the repair or refurbishment of tires for State vehicles,  
4 executed on or after ~~the date this section becomes effective~~ July 1, 2011 shall comply with  
5 the provisions of this section.

6 (d) Exemption. – Notwithstanding the provisions of this section, the State or any  
7 institution, department, or agency of the State that owns or has a legally binding contract  
8 in place for the future purchase of tires having altered or covered sidewalls prior to ~~the~~  
9 ~~date that this section becomes effective~~ July 1, 2011 shall perform its existing contractual  
10 obligations related thereto and may continue to use those tires on State vehicles for the  
11 useful life of the retreaded tire."

12 **SECTION 13.(c)** The Division of Purchase and Contract shall not extend its  
13 current contract for retreading of tires beyond the 90 day time period allowed under the  
14 contract.

15  
16 **PART XI. AMEND THE ENERGY JOBS ACT OF 2011 IF THE ENERGY JOBS**  
17 **ACT OF 2011 BECOMES LAW**

18  
19 **SECTION 14.(a)** If Senate Bill 709 of the 2011 Regular Session becomes  
20 law, Sections 2.(a), 2.(b), and 2.(c) of Senate Bill 709 are rewritten to read:

21 "**SECTION 2.(a)** Development of ~~Governors'~~ Regional Interstate Offshore  
22 Energy Policy Compact. – The Governor ~~is directed to commence~~ shall lay the  
23 groundwork for development of a regional energy ~~compact strategy by working~~ with the  
24 governors of South Carolina and Virginia in order to develop recommendations for  
25 creation and implementation of a unified regional strategy for the exploration,  
26 development, and production of all commercially viable federal and state offshore energy  
27 resources within the three-state region. The Governor shall develop recommendations for  
28 the General Assembly to consider for the development of a statutory regional compact,  
29 and these recommendations shall reflect the collective agreement of all three governors in  
30 the three-state region in order to provide common language for consideration by each  
31 state's General Assembly. During the development of these compact recommendations,  
32 the Governor is authorized to work directly with each of the three states' General  
33 Assemblies, Congressional delegations, the United States Department of the Interior, the  
34 United States Environmental Protection Agency, and other appropriate federal agencies  
35 on behalf of the State of North Carolina to develop appropriate strategies to be considered  
36 in the development of the three-state compact for increasing domestic energy exploration,  
37 development, and production within each state in the three-state region and their adjacent  
38 state and federal waters. The compact negotiations and recommendations shall address at  
39 least all of the following:

- 40 (1) Ensure a timely review and consideration of permits and proposals at  
41 both the state and federal level for both state and federal waters  
42 adjacent to each state in the three-state region for seismic and other  
43 marine geophysical exploration to identify and quantify natural gas  
44 and related hydrocarbon resources along the continental margin.
- 45 (2) Amend the Five Year Leasing Plan of the United States Department of  
46 the Interior to include leasing federal waters adjacent to the State and

1 the three-state region for the exploration, quantification, and  
2 development of natural gas and related hydrocarbon energy resources.

3 (3) Advocate proactively with each state's Congressional delegation and  
4 appropriate federal agencies to ensure direct sharing of royalties and  
5 revenues related to energy leasing, exploration, development, and  
6 production of all offshore energy resources in federal waters adjacent  
7 to the State and the three-state region.

8 (4) Request the United States Department of the Interior to reinstate the  
9 federal Offshore Policy Committee with new members and new  
10 alternate members to be nominated by the governor of the state  
11 represented on the Offshore Policy Committee and appointed by the  
12 Secretary of the Interior, six of whom are to be one member and one  
13 alternate member from each of North Carolina, Virginia, and South  
14 Carolina.

15 **"SECTION 2.(b)** No later than three months after the effective date of this  
16 act, and at least every three months thereafter, the Governor shall report to the General  
17 Assembly on the progress of the Governor and others in complying with the requirements  
18 under this section, to include providing copies of correspondence and other relevant  
19 materials to or from the Office of the Governor when the correspondence or materials  
20 pertain to the subject under this section or to any requirement under this section. The  
21 Governor shall report ~~her~~ the Governor's final recommendations for the three-state energy  
22 compact regional energy strategy to the Joint Regulatory Reform Committee no later than  
23 May 1, 2012. President Pro Tempore of the Senate and the Speaker of the House of  
24 Representatives no later than December 31, 2012.

25 **"SECTION 2.(c)** In addition to the provisions in Sections 2(a) and 2(b) of  
26 this act, the Governor is strongly encouraged to join the Governors of Alaska, Texas,  
27 Louisiana, Mississippi, and Virginia and any others who may sign on to the Outer  
28 Continental Shelf Governors Coalition announced on May 3, 2011, to promote a  
29 constructive dialogue among the coastal state governors and the federal government on  
30 offshore energy issues important to the future of North Carolina and the United States."

31 **SECTION 14.(b)** If Senate Bill 709 of the 2011 Regular Session becomes  
32 law, Sections 3.(a) and 3.(b) of Senate Bill 709 are repealed.

33 **SECTION 14.(c).** If Senate Bill 709 of the 2011 Regular Session becomes  
34 law, G.S. 113B-3, as amended by Senate Bill 709, reads as rewritten:

35 **"§ 113B-3. Composition of Council; appointments; terms of members;  
36 qualifications.**

37 (a) The Energy Jobs Council shall consist of 12 members to be appointed as  
38 follows:

- 39 (1) Repealed.
- 40 (2) Repealed.
- 41 (2a) The Secretary of Commerce.
- 42 (3) Eleven public members who are citizens of the State of North Carolina  
43 and who are appointed in accordance with subsection (c) of this  
44 section.

45 (b) Appointments to the Energy Jobs Council shall be made by ~~October 1,~~  
46 2011, September 1, 2012, and the appointed members shall serve four-year terms.

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1 Appointments made by the President Pro Tempore of the Senate and the Speaker of the  
2 House of Representatives shall be allowed when the General Assembly is not in session.

3 (c) The public members of the Energy Jobs Council shall have the qualifications  
4 and shall be appointed as follows:

- 5 (1) One member shall be a representative of an investor-owned electric  
6 public utility, to be appointed by the Governor.
- 7 (2) One member shall be a geologist experienced in ~~offshore~~ natural gas  
8 and associated hydrocarbon exploration, development, and production,  
9 to be appointed by the Governor.
- 10 (3) One member shall be a representative of an investor-owned natural gas  
11 public utility, to be appointed by the President Pro Tempore of the  
12 Senate.
- 13 (4) One member shall be an energy economist or a person with experience  
14 in the financing or business development or an energy-related  
15 business, to be appointed by the President Pro Tempore of the Senate.
- 16 (5) One member shall be a geologist with experience in hydrocarbon  
17 resource evaluation and geophysical data acquisition, to be appointed  
18 by the President Pro Tempore of the Senate.
- 19 (6) One member shall be an industrial energy consumer, to be appointed  
20 by the Speaker of the House of Representatives.
- 21 (7) One member shall be knowledgeable of alternative and renewable  
22 sources of energy, other than wind energy, to be appointed by the  
23 Speaker of the House of Representatives.
- 24 (8) One member who has experience in trucking, rail, or shipping  
25 transportation, to be appointed by the Speaker of the House of  
26 Representatives.
- 27 (9) Repealed by Session Laws 2009-446, s. 4, effective August 7, 2009.
- 28 (10) One member shall be a representative with experience in wind energy,  
29 to be appointed by the Governor.
- 30 (11) One member shall be a representative with experience in  
31 environmental management, appointed by the Speaker of the House of  
32 Representatives.
- 33 (12) One member shall be ~~involved with the biofuels industry,~~experienced  
34 in energy policy, to be appointed by the President Pro Tempore of the  
35 Senate."  
36

37 **PART XII. EFFECTIVE DATE**

38  
39 **SECTION 15.** This act is effective when it becomes law. Initial  
40 appointments to the Oil and Gas Board pursuant to G.S. 113-432, as enacted by Section  
41 1.(a) of this act, shall be made no later than August 1, 2012. The Oil and Gas Board shall  
42 submit the first report due under G.S. 113-430(e), as enacted by Section 2.(a) of this act  
43 on or before January 1, 2013.

**GENERAL ASSEMBLY OF NORTH CAROLINA  
SESSION 2011**

**S**

**D**

**BILL DRAFT 2011-SBz-35 [v.13] (04/02)**

**(THIS IS A DRAFT AND IS NOT READY FOR INTRODUCTION)  
4/18/2012 3:20:06 PM**

Short Title: Energy Jobs from Biofuel Crops. (Public)

Sponsors: Senator.

Referred to:

A BILL TO BE ENTITLED

AN ACT TO DIRECT THE DIVISION OF WATER QUALITY OF THE DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES, IN CONSULTATION WITH THE DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES, TO ADMINISTER A PILOT PROJECT OF LIMITED SCOPE FOR DETERMINING THE AGRONOMIC RATES FOR THE APPLICATION OF SWINE WASTE TO CERTAIN ENERGY CROPS IN NORTH CAROLINA IN ORDER TO PROMOTE FEEDSTOCK DEVELOPMENT AND EXPEDITE DATA COLLECTION FOR FINAL AGRONOMIC RATE DETERMINATIONS AND TO EXTEND THE SUNSET ON THE TAX CREDIT FOR CONSTRUCTING RENEWABLE FUEL FACILITIES FROM JANUARY 1, 2013 TO JANUARY 1, 2015.

Whereas, in 2007, as directed by the General Assembly, the North Carolina's Strategic Plan for Biofuels Leadership established a goal that by 2017, ten percent (10%) of liquid fuels sold in North Carolina will come from biofuels grown and produced within the State; and

Whereas, the identification and development of reliable and cost-effective feedstocks to service biofuels facilities is imperative to the development of the biofuels industry in North Carolina; and

Whereas, North Carolina is one of the leading pork producing states in the nation, and the swine industry is a significant component of North Carolina's agricultural sector; and

Whereas, the lands utilized for swine waste application in North Carolina represent a potential opportunity for the planting and growing of energy crops; and

Whereas, appropriate levels of animal waste application and proper agronomic rates of crops must be established to ensure environmental compliance and to protect water quality; and

Whereas, in 1995, the General Assembly through the passage of S.L. 1995-626 established an Interagency Group to provide uniform interpretations to

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1 technical specialists regarding the requirements of the animal waste management rules;  
2 and

3         Whereas, the intent of S.L. 1995-626 was to "establish a permitting program  
4 for animal waste management systems that will protect water quality and promote  
5 innovative systems and practices while minimizing the regulatory burden"; and

6         Whereas, the Interagency Group, as directed by S.L. 2011-198, on June 30,  
7 2011, assigned interim agronomic rates to certain energy crops as follows: switchgrass  
8 (120 pounds of nitrogen per acre regardless of soil type, no application recommended  
9 during first year); fiber sorghum (45-55 pounds of nitrogen per ton per unit yield,  
10 variable with soil type); sweet sorghum single green harvest (80 pounds of nitrogen per  
11 acre regardless of soil type with total harvestable biomass being removed from field);  
12 sweet sorghum multiple green harvest (80 pounds of nitrogen per acre regardless of soil  
13 type for first harvest and 20 pounds of nitrogen per acre regardless of soil type for second  
14 harvest with total harvestable biomass being removed from field); *Miscanthus giganteus*  
15 (60 pounds of nitrogen per acre regardless of soil type with nitrogen application not  
16 recommended for the first three years after planting); and *Arundo donax* (giant reed) (30  
17 pounds of nitrogen per acre regardless of soil type in year one and 60 pounds of nitrogen  
18 per acre regardless of soil type in subsequent years); and

19         Whereas, the Interagency Group's interim agronomic rates were based  
20 primarily upon scientific literature rather than North Carolina specific data; and

21         Whereas, the Legislative Research Commission Senate Energy Policy Issues  
22 Committee was presented nitrogen uptake rates from both scientific literature and crop  
23 data specific to North Carolina for energy crops that included the following information:  
24 switchgrass showed a calculated nitrogen uptake up to 191 pounds per acre with  
25 recommendations from North Carolina State University and the North Carolina  
26 Department of Agriculture and Consumer Services of ranges up to 160 pounds per acre;  
27 *Miscanthus giganteus* showed a calculated nitrogen uptake between 8-303 pounds of  
28 nitrogen per acre with reported fertilizer demand ranging from 36-167 pounds per acre  
29 and unpublished data from North Carolina showing nitrogen removal of between 79-158  
30 pounds per acre from a two-cut system after first year; and *Arundo donax* (giant reed)  
31 showed a calculated nitrogen uptake between 5-497 pounds per acre with North Carolina  
32 data showing winter harvested crops removed between 66-241 pounds per acre after the  
33 first year; and

34         Whereas, North Carolina State University, the North Carolina Department of  
35 Agriculture and Consumer Services, and the Biofuels Center of North Carolina have  
36 expressed support for projects to gain new agricultural markets and advanced biofuels  
37 production in eastern North Carolina with appropriate environmental balance.; Now,  
38 therefore,

39         The General Assembly of North Carolina enacts:

40         **SECTION 1.** S.L. 2011-198 is repealed.

41         **SECTION 2.** The Division of Water Quality of the Department of  
42 Environment and Natural Resources, in consultation with the Department of Agriculture  
43 and Consumer Services, shall administer a pilot project of limited scope for determining  
44 the agronomic rates for the application of swine waste to *Arundo donax* (giant reed),  
45 *Miscanthus giganteus* (*miscanthus*), and switchgrass in North Carolina in order to

1 promote feedstock development and expedite data collection for final agronomic rate  
2 determinations.

3 **SECTION 3.(a)** The pilot project conducted pursuant to this act shall allow  
4 up to a combined 15,000 acres of giant reed, miscanthus, and switchgrass to be planted.

5 **SECTION 3.(b)** The crops identified in this Section that may be planted on  
6 the acreage defined in Section 3.(a) of this act and the application of swine waste to these  
7 plantings shall be determined as follows:

- 8 1) For giant reed, the agronomic rate shall be either the rate established  
9 by the Interagency Group pursuant to S.L. 1995-626 or 250 pounds of  
10 nitrogen per acre, whichever is greater.
- 11 2) For miscanthus, the agronomic rate shall be either the rate established  
12 by the Interagency Group pursuant to S.L. 1995-626 or 150 pounds of  
13 nitrogen per acre, whichever is greater.
- 14 3) For switchgrass, the agronomic rate shall be either the rate established  
15 by the Interagency Group pursuant to S.L. 1995-626 or no nitrogen for  
16 the first year of growth followed by 200 pounds of nitrogen per acre  
17 for the second and subsequent years of growth, whichever is greater.

18 **SECTION 4.** The Interagency Group shall use the information collected  
19 during the pilot project to assist in the establishment of both interim and final agronomic  
20 rates for the application of swine waste to giant reed, miscanthus, and switchgrass in  
21 North Carolina. The Interagency Group shall not establish final agronomic rates for the  
22 application of swine waste to giant reed, miscanthus, and switchgrass in North Carolina  
23 prior to December 31, 2017.

24 **SECTION 5.** No later than January 1 of the years 2013 through 2018, the  
25 Department of Agriculture and Consumer Services and the Interagency Group shall  
26 jointly submit a report on the status of the pilot project and the establishment of  
27 agronomic rates for the application of swine waste to giant reed, miscanthus, and  
28 switchgrass in North Carolina to the Environmental Review Commission and the chairs  
29 of the House Agriculture Committee, the House Environment Committee, and the Senate  
30 Agriculture/Environment/Natural Resources Committee.

31 **SECTION 6.** G.S. 105-129.16D reads as rewritten:

32 **"§ 105-129.16D. Credit for constructing renewable fuel facilities.**

33 (a) Dispensing Credit. – A taxpayer that constructs and installs and places in  
34 service in this State a qualified commercial facility for dispensing renewable fuel is  
35 allowed a credit equal to fifteen percent (15%) of the cost to the taxpayer of constructing  
36 and installing the part of the dispensing facility, including pumps, storage tanks, and  
37 related equipment, that is directly and exclusively used for dispensing or storing  
38 renewable fuel. A facility is qualified if the equipment used to store or dispense  
39 renewable fuel is labeled for this purpose and clearly identified as associated with  
40 renewable fuel.

41 The entire credit may not be taken for the taxable year in which the facility is placed  
42 in service but must be taken in three equal annual installments beginning with the taxable  
43 year in which the facility is placed in service. If, in one of the years in which the  
44 installment of a credit accrues, the portion of the facility directly and exclusively used for  
45 dispensing or storing renewable fuel is disposed of or taken out of service, the credit  
46 expires and the taxpayer may not take any remaining installment of the credit. The

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1 taxpayer may, however, take the portion of an installment that accrued in a previous year  
2 and was carried forward to the extent permitted under G.S. 105-129.17.

3 (b) Production Credit. – A taxpayer that constructs and places in service in this  
4 State a commercial facility for processing renewable fuel is allowed a credit equal to  
5 twenty-five percent (25%) of the cost to the taxpayer of constructing and equipping the  
6 facility. The entire credit may not be taken for the taxable year in which the facility is  
7 placed in service but must be taken in seven equal annual installments beginning with the  
8 taxable year in which the facility is placed in service. If, in one of the years in which the  
9 installment of a credit accrues, the facility with respect to which the credit was claimed is  
10 disposed of or taken out of service, the credit expires and the taxpayer may not take any  
11 remaining installment of the credit. The taxpayer may, however, take the portion of an  
12 installment that accrued in a previous year and was carried forward to the extent  
13 permitted under G.S. 105-129.17.

14 (b1) Alternative Production Credit. – In lieu of the credit allowed under subsection  
15 (b) of this section, a taxpayer that constructs and places in service in this State three or  
16 more commercial facilities for processing renewable fuel and that invests a total amount  
17 of at least four hundred million dollars (\$400,000,000) in the facilities is allowed a credit  
18 equal to thirty-five percent (35%) of the cost to the taxpayer of constructing and  
19 equipping the facilities. In order to claim the credit, the taxpayer must obtain a written  
20 determination from the Secretary of Commerce that the taxpayer is expected to invest  
21 within a five-year period a total amount of at least four hundred million dollars  
22 (\$400,000,000) in three or more facilities. The credit must be taken in seven equal annual  
23 installments beginning with the taxable year in which the first facility is placed in service.  
24 If, in one of the years in which the installment of credit accrues, a facility with respect to  
25 which the credit was claimed is disposed of or taken out of service and the investment  
26 requirements of this subsection are no longer satisfied, the credit expires and the taxpayer  
27 may take any remaining installment of the credit only to the extent allowed under  
28 subsection (b) of this section. The taxpayer may, however, take the portion of an  
29 installment under this subsection that accrued in a previous year and was carried forward  
30 to the extent permitted under G.S. 105-129.17. Notwithstanding the provisions of  
31 G.S. 105-129.17, a taxpayer may carry forward unused portions of the credit allowed  
32 under this subsection for the succeeding 10 years.

33 If a taxpayer that claimed a credit under this subsection fails to meet the requirements  
34 of this subsection but meets the requirements of subsection (b) of this section, the  
35 taxpayer forfeits the difference between the alternative credit claimed under this  
36 subsection and the credit allowed under subsection (b) of this section. A taxpayer that  
37 forfeits part of the alternative credit under this subsection is liable for the additional taxes  
38 avoided plus interest at the rate established under G.S. 105-241.21, computed from the  
39 date the additional taxes would have been due if the credit had not been allowed. The  
40 additional taxes and interest are due 30 days after the date the credit is forfeited. A  
41 taxpayer that fails to pay the additional taxes and interest by the due date is subject to  
42 penalties provided in G.S. 105-236.

43 (c) No Double Credit. – A taxpayer may not claim the credits allowed under  
44 subsections (b) and (b1) of this section with respect to the same facility. A taxpayer that  
45 claims any other credit allowed under this Chapter with respect to the costs of

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1 constructing and installing a facility may not take the credit allowed in this section with  
2 respect to the same costs.

3 (d) Sunset. – This section is repealed effective for facilities placed in service on or  
4 after January 1, ~~2013~~2015."

5 **SECTION 7.** This act becomes effective July 1, 2012. The pilot project  
6 authorized by this act shall sunset effective December 31, 2017.

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