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).

Senator Robert Rucho
Chair

Chair
Committee on Energy Policy Issues
Legislative Research Commission
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REPORT TO THE
2012 SESSION
of the
2011 GENERAL ASSEMBLY
OF NORTH CAROLINA

APRIL 18, 2012
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TRANSMITTAL LETTER

April 18, 2012

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,

Senator Philip E. Berger
President Pro Tempore of the Senate

Representative Thomas R. Tillis
Speaker of the House of Representatives

Co-Chairs
Legislative Research Commission
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# LEGISLATIVE RESEARCH COMMISSION MEMBERSHIP

2011 – 2012

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PREFACE

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
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)
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 18th 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 or 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...
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 Treakle, Mineral Rights Project Coordinator (20 minutes)
   Rural Advancement Foundation International-USA
   W. Daniel Amburn, Legislative Specialist (7 1/2 minutes)
   North Carolina League of Municipalities
   Amy Bason, Legislative Counsel (7 1/2 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 NGVAmerica presented the status of the U.S. natural gas vehicle (NGV) market. Mr. Clarke reported that the U.S. presently ranks 14th 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.
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
COMMITTEE CHARGE

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.
APPENDIX C

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

Whereas, economic recovery, job creation, effective global competitiveness, and national security depend upon developing our nation's diverse energy resources; and
Whereas, the identification and utilization of abundant supplies of affordable and reliable energy is vital to the prosperity of North Carolina and our nation; and
Whereas, the production of unconventional natural gas deposits in North America, including shale, is forecasted to increase to 64 percent of all domestic natural gas production by 2020. The United States is estimated to have a future natural gas supply of over 2,000 trillion cubic feet, which is enough gas at current consumption rates to supply the nation for the next 100 years. This increase is attributable to increased unconventional gas plays, largely from shale gas development; and
Whereas, the U.S. Department of Energy reports a shale gas potential of three to four trillion cubic feet of production per year may be sustainable for decades, and the Interstate Natural Gas Association of America reports that to achieve forecasted results, industry must have land access for drilling, a reasonable permitting process, and adequate prices and demand for natural gas; and
Whereas, the President of the United States, the Governor of North Carolina, and the North Carolina Department of Environment and Natural Resources have in recent months stated their support for environmentally responsible shale gas development; and
Whereas, the North Carolina Geological Survey reports 785,000 acres of Triassic basin formations that hold potential shale gas; and
Whereas, the U.S. Environmental Protection Agency is reviewing and considering new regulations regarding the practice of hydraulic fracturing used to recover natural gas from horizontal wells, often into shale formations that hold previously unavailable reserves of natural gas, to supply the nation for decades at low cost, a practice that has been used for decades and is well within the regulatory expertise of the states, pursuant to delegation by the Clean Water Act responsibilities by U.S. Environmental Protection Agency; and

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

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

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

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

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

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

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

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

Whereas, the President and the Congress have not approved a pipeline project to transport oil extracted in Canada to the Gulf of Mexico for environmentally responsible refining and marketing, a project that is expected to create 13,000 construction jobs and 7,000 jobs in manufacturing for Americans in several states, generate substantial revenues to support state and local needs, and decrease the potential from supply disruptions from the Gulf of Mexico that have created recent price spikes and supply shortages to the citizens and businesses of North Carolina; and
Whereas, commercial nuclear power plants provide base load electricity generation to and are an important component of a reliable, safe, and secure electric power supply for the citizens of North Carolina;

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

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

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

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

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

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

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

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

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

Whereas, the U.S. Environmental Protection Agency has developed and proposed numerous significant new rules, regulations, and policy guidelines that will impact energy generation and utilization, including the Clean Water Act, Section 316(b)
rules; the Cross-State Air Pollution Rule; the Cooling Water Intake Structures rules; Title I of the Clean Air Act, Utility Maximum Achievable Control Technology (MACT) Standards and new Boiler MACT Standards; National Ambient Air Quality Standards for Sulfur Dioxide and Ozone; and the Coal Combustion Residuals rule; and

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

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

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

Whereas, these federal activities are driving up the cost and driving down the reliability of energy at a time when economic recovery, business development, and job creation should be the top priorities of our leaders; Now, therefore,

Be it resolved by the Senate, the House of Representatives concurring:

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

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

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

SECTION 4. It is also the opinion of the General Assembly that the collection fee should not be resumed until the long-term final repository program is revived or another waste management and disposal program is established based on the
final recommendations of the President's Blue Ribbon Commission on America's Nuclear Future.

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

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

SECTION 7. The General Assembly endorses the following:

(1) Providing statutory oversight and direction to implement a responsible energy policy in light of the Executive Branch's failure to implement such a policy.

(2) Having access to a cumulative regulatory impact assessment of all of the major regulations under consideration under the Clean Air Act and Clean Water Act, including the cumulative effect of all of these regulations on the economy, jobs, and energy affordability and reliability, drawing on the expertise of other federal agencies and the private sector.

(3) Providing additional oversight of the U.S. Environmental Protection Agency, considering the current encroachment of state enforcement powers and duties, air quality and water quality policy planning, and economic growth impacts due to regulatory uncertainty created by the Agency's recent actions regarding rules, regulations, and policy guidelines.

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

SECTION 9. This resolution is effective upon ratification.
Appendix D

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A BILL TO BE ENTITLED

AN ACT TO: (1) ESTABLISH AN OIL AND GAS BOARD WITH JURISDICTION AND AUTHORITY OVER MATTERS RELATED TO OIL AND GAS EXPLORATION AND DEVELOPMENT IN THE STATE, INCLUDING THE USE OF HORIZONTAL DRILLING AND HYDRAULIC FRACTURING FOR THAT PURPOSE, AND TO DIRECT THE BOARD TO CREATE A MODERN REGULATORY PROGRAM FOR MANAGEMENT OF OIL AND GAS EXPLORATION AND DEVELOPMENT IN THE STATE, INCLUDING THE USE OF HORIZONTAL DRILLING AND HYDRAULIC FRACTURING FOR THAT PURPOSE; (2) AUTHORIZE THE PROCESSES OF HORIZONTAL DRILLING AND HYDRAULIC FRACTURING FOR THE PURPOSE OF OIL AND GAS EXPLORATION AND DEVELOPMENT IN THE STATE, AND PLACE A MORATORIUM ON PERMITTING RELATED TO THOSE PROCESSES UNTIL JULY 1, 2014; (3) ENACT VARIOUS OTHER PROVISIONS RELATED TO MANAGEMENT OF OIL AND GAS EXPLORATION ACTIVITIES, INCLUDING PROVISIONS RELATED TO LOCAL GOVERNMENT AUTHORITY OVER THESE ACTIVITIES; (4) ESTABLISH THE JOINT LEGISLATIVE COMMISSION ON ENERGY POLICY WITH LEGISLATIVE OVERSIGHT OF ALL MATTERS RELATED TO OIL AND GAS EXPLORATION AND DEVELOPMENT IN THE STATE, AND OTHER ENERGY-RELATED ISSUES; (5) DIRECT THE DEPARTMENT OF PUBLIC INSTRUCTION TO PURCHASE SCHOOL BUSES THAT OPERATE ON COMPRESSED NATURAL GAS (CNG); (6) DIRECT THE DEPARTMENT OF TRANSPORTATION TO PURCHASE NEW THREE-QUARTER (3/4) TON PICK UP TRUCKS AND NEW ONE-HALF (1/2) TON PICK UP TRUCKS THAT OPERATE ON COMPRESSED NATURAL GAS (CNG) OR COMPRESSED NATURAL GAS (CNG) AND GASOLINE; (7) CREATE AN INTERAGENCY TASK FORCE TO ESTABLISH PUBLIC-PRIVATE PARTNERSHIPS FOR THE CONSTRUCTION AND DEVELOPMENT OF COMPRESSED NATURAL GAS (CNG) FUELING INFRASTRUCTURE; (8) ESTABLISH CRITERIA FOR THE OPERATION OF ELECTRIC VEHICLE CHARGING STATIONS LOCATED AT STATE-OWNED REST STOPS ALONG THE HIGHWAYS; (9) ENSURE THE USE OF FUEL EFFICIENT AND COST EFFICIENT RETREAD TIRES ON STATE VEHICLES; AND (10) AMEND THE ENERGY JOBS ACT OF 2011 IF THE ENERGY JOBS...
ACT OF 2011 BECOMES LAW, AS RECOMMENDED BY THE LEGISLATIVE RESEARCH COMMISSION ENERGY ISSUES POLICY COMMITTEE.

PART I. LEGISLATIVE FINDINGS AND INTENT

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

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

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

1. Development of a modern oil and gas regulatory program, taking into consideration the processes involved in hydraulic fracturing and horizontal drilling technologies, and long-term prevention of physical or economic waste in developing oil and gas resources.

2. Collection of baseline data for areas near proposed drill-sites concerning air quality and emissions, as well as groundwater and surface water resources and quality.

3. Requirements that oil and gas operators prepare and have approved water management plans that limit water withdrawals during times of low-flow conditions and droughts.

4. Enhancements to existing oil and gas well construction standards to address the additional pressures of horizontal drilling and hydraulic fracturing.

5. Development of setback requirements and identification of areas where oil and gas exploration and development activities should be prohibited.

6. Development of a State stormwater regulatory program for oil and gas drilling sites.

7. Development of specific standards for management of oil and gas wastes.

8. Requirements for disclosure of hydraulic fracturing chemicals and constituents to regulatory agencies and the public.
Appendix D

(9) Prohibitions on use of certain chemicals or constituents in hydraulic fracturing fluids.

(10) Improvements to data management capabilities and development of a coordinated electronic permitting program for oil and gas exploration and development activities.

(11) Development of protocols to ensure that State agencies, local first responders, and industry are prepared to respond to a well blowout, chemical spill, or other emergency.

(12) Appropriate distribution of revenues from any taxes or fees that may be imposed on oil and gas exploration and development activities to support a modern regulatory program for the management of all aspects of oil and gas exploration and development activities using the processes of horizontal drilling and hydraulic fracturing in the State, and to support local governments impacted by the activities, including, but not limited to, sufficient funding for improvements to and repair of roads subject to damage by truck traffic and heavy equipment from these activities.

(13) Clarifications needed to address local government regulatory authority over oil and gas exploration and development activities, and use of horizontal drilling and hydraulic fracturing for that purpose.

(14) Additional research required on impacts to local governments and local infrastructure, as well as potential economic impacts from oil and gas exploration and development activities.

(15) Development of provisions to address liability of the oil and gas industry for environmental contamination caused by exploration and development activities, particularly with regard to groundwater contamination.

(16) Establishment of a process that affords additional public participation in connection with development of a modern oil and gas regulatory program; and,

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

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

The General Assembly of North Carolina enacts:

PART II. ESTABLISH OIL AND GAS BOARD

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

"Part 4. Oil and Gas Board.

§ 113-430. Oil and Gas Board – creation; powers and duties.
There is hereby established the North Carolina Oil and Gas Board with the power and duty to promulgate rules governing the management of oil and gas exploration and development activities in the State.

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

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

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

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

1. To govern pre-drilling exploration activities, including seismic and other geophysical and stratigraphic surveys and testing, as well as drilling, operation, casing plugging, completion, and abandonment of wells; to prevent the pollution of water supplies by oil, gas, or other fluids used in oil and gas exploration and development, or to protect the quality of the water, air, soil or any other environmental resource against injury or damage or impairment; and to require reasonable bond conditions deemed necessary by the Board in connection with oil and gas exploration and development activities. Such rules shall specifically regulate the processes of horizontal drilling and hydraulic fracturing for that purpose, including rules for all of the following purposes:
fracturing for the purpose of oil and gas exploration, and shall, at a minimum, include standards or requirements related to the following:

a. Appropriate well construction and siting standards, including setback requirements.

b. Limits on water use.

c. Prohibitions on use of certain chemicals and constituents in hydraulic fracturing fluids.

d. Management of wastes produced in connection with oil and gas exploration and development and use of horizontal drilling and hydraulic fracturing for that purpose.

e. Stormwater control at sites.

f. Installation of appropriate safety devices, and development of protocols for response to well blowouts, chemical spills, and other emergencies.

g. Full disclosure of hydraulic fracturing chemicals and constituents.

h. Proper well closure and site reclamation.

i. Any other matter the Board deems necessary.

(2) To require surveys upon application of any owner who has reason to believe that a well has been unlawfully drilled by another into land of the owner without permission. In the event such surveys are required, the costs thereof shall be borne by the owner making the request.

(3) To require the making of reports showing the location of oil and gas wells, and the filing of logs and drilling records.

(4) To prevent "blow-outs," "caving" and "seepage" as such terms are generally understood in the oil and gas industry.

(5) To prevent fires and other emergency events potentially resulting from oil and gas exploration and development activities.

(6) To identify the ownership of all oil or gas wells, producing leases, refineries, tanks, plants, structures and all storage and transportation equipment and facilities.

(7) To regulate the "shooting," perforating, and chemical treatment of wells.

(8) To regulate secondary recovery methods, including the introduction of gas, air, water or other substances into producing formations.

(9) To limit and prorate the production of oil or gas, or both, from any pool or field for the prevention of waste as defined in this Article and rules promulgated thereunder.

(10) To require, either generally or in or from particular areas, certificates of clearance or tenders in connection with the transportation of oil or gas.

(11) To regulate the spacing of wells and to establish drilling units.

(12) To prevent, so far as is practicable, reasonably avoidable drainage from each developed unit which is not equalized by counter-drainage.

(13) To regulate and, if necessary in its judgment for the protection of unique environmental values, to prohibit the location of wells in the
interest of protecting the quality of the water, air, soil or any other
environmental resource against injury, or damage or impairment.
(f) The Oil and Gas Board shall submit quarterly written reports as to its
operation, activities, programs, and progress to the Joint Legislative Commission on
Energy Policy. The Oil and Gas Board shall supplement the written reports required by
this subsection with additional written and oral reports as may be requested by the Joint
Legislative Commission on Energy Policy. The Oil and Gas Board shall submit the
written reports required by this subsection whether or not the General Assembly is in
session at the time the report is due.
§113-431. Oil and Gas Board – quasi-judicial powers; procedures.
(a) With respect to those matters within its jurisdiction, the Oil and Gas Board
shall exercise quasi-judicial powers in accordance with the provisions of Chapter 150B of
the General Statutes. This section and any rules adopted by the Oil and Gas Board shall
govern such proceedings:
(1) Exceptions to recommended decisions in contested cases shall be filed
with the Board within 30 days of the receipt by the Board of the
official record from the Office of Administrative Hearings, unless
additional time is allowed by the Chair of the Board.
(2) Oral arguments by the parties may be allowed by the Chair of the
Board upon request of the parties.
(3) Deliberations of the Board shall be conducted in its public meeting
unless the Board determines that consultation with its counsel should
be held in a closed session pursuant to G.S. 143-318.11.
(b) The final agency decision in contested cases that arise from civil penalty
assessments made pursuant to this Article and rules adopted thereunder shall be made by
the Board. In the evaluation of each violation, the Board shall recognize that harm to the
natural resources of the State arising from the violation of standards or limitations
established to protect those resources may be immediately observed through damaged
resources or may be incremental or cumulative with no damage that can be immediately
observed or documented. Penalties up to the maximum authorized may be based on any
one or combination of the following factors:
(1) The degree and extent of harm to the natural resources of the State, to
the public health, or to private property resulting from the violation.
(2) The duration and gravity of the violation.
(3) The effect on ground or surface water quantity or quality or on air
quality.
(4) The cost of rectifying the damage.
(5) The amount of money saved by noncompliance.
(6) Whether the violation was committed willfully or intentionally.
(7) The prior record of the violator in complying or failing to comply with
programs over which the Oil and Gas Board has regulatory authority.
(8) The cost to the State of the enforcement procedures.
(c) The Chair shall appoint a Committee on Civil Penalty Remissions from the
members of the Board. No member of the Board on Civil Penalty Remissions may hear
or vote on any matter in which the member has an economic interest. The Committee on
Civil Penalty Remissions shall make the final agency decision on remission requests. In
determining whether a remission request will be approved, the Committee shall consider
the recommendation of the Secretary or the Secretary's designee and all of the following
factors:

(1) Whether one or more of the civil penalty assessment factors in
subsection (b) of this section were wrongly applied to the detriment of
the petitioner.

(2) Whether the violator promptly abated continuing environmental
damage resulting from the violation.

(3) Whether the violation was inadvertent or a result of an accident.

(4) Whether the violator had been assessed civil penalties for any previous
violations.

(5) Whether payment of the civil penalty will prevent payment for the
remaining necessary remedial actions.

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

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

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

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

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

(1) One appointed by the Governor who shall be a licensed geologist with
experience in oil and gas exploration and development.

(2) One appointed by the Governor who shall be an employee or officer of
an investor-owned natural gas company.

(3) One appointed by the Governor who shall be a licensed attorney with
experience in mineral leasing.

(4) One appointed by the President Pro Tempore of the Senate who shall
be an environmental scientist with experience in environmental
restoration, remediation, and mitigation of contamination resulting
from industrial activities.

(5) One appointed by the President Pro Tempore of the Senate who shall
be a licensed engineer with experience in oil and gas exploration and
development.

(6) One appointed by the President Pro Tempore of the Senate who shall
be a private owner of land located in the Sanford sub-basin of the
Triassic basin of North Carolina.

(7) One appointed by the Speaker of the House of Representatives who
shall, at the time of the initial appointment, be a member of a County
Board of Commissioners of a county located in the Sanford sub-basin of the Triassic basin of North Carolina.

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

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

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

(c) Vacancies, removal from office. –

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

SECTION 1.(c) The Oil and Gas Board established under Section 1.(a) of this act shall create a modern regulatory program for the management of all aspects of oil and gas exploration and development activities including the processes of horizontal drilling and hydraulic fracturing in the State. The Board shall adopt rules governing these activities as quickly as practicable, but no later than December 31, 2013. The Board shall also consult and coordinate with the Department of Environment and Natural Resources, the Environmental Management Commission, and the Mining Commission to identify changes required to all existing rules and statutes governing these activities, including repeal or modification of the rules and statutes. The Board shall report to the Joint Legislative Commission on Energy Policy created under Section 8.(a) of this act on the progress of development of a modern regulatory program, and any statutory and rule changes required, on or before May 1, 2013. From the effective date of this act the Oil and Gas Board shall have concurrent authority and jurisdiction with the Department of Environment and Natural Resources to administer and enforce the provisions of Article 27 of Chapter 113 of the General Statutes and rules adopted thereunder in compliance with the provisions of this act.
PART III. STATUTORY AND RULE CHANGES TO AUTHORIZE HORIZONTAL DRILLING AND HYDRAULIC FRACTURING; MORATORIUM ESTABLISHED

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

"§ 113-389. Definitions.

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

(1) "Board" shall mean the "North Carolina Oil and Gas Board."
(1a) "Department" shall mean the "Department of Environment and Natural Resources," as created by this law. Resources."
(1b) "Division" shall mean the "Division of Energy, Mineral, and Land Resources" of the Department of Environment and Natural Resources.

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

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

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

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

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

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

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

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

(1) To require the drilling, operation, casing and plugging of wells to be
done in such manner as to prevent the escape of oil or gas out of one
stratum to another; to prevent the intrusion of water into an oil or gas
stratum from a separate stratum; to prevent the pollution of freshwater
supplies by oil, gas or salt water, or to protect the quality of the water,
air, soil or any other environmental resource against injury or damage
or impairment; and to require reasonable bond conditions for
the performance of the duty to plug each dry or abandoned well.

(2) To require directional surveys upon application of any owner who has
reason to believe that a well or wells of others has or have been
unlawfully drilled by another into land of the owner without
permission, the lands owned by him or held by him under lease. In the
event such surveys are required, the costs thereof shall be borne by the
owners making the request.

(3) To require the making of reports showing the location of oil and gas
wells, and the filing of logs and drilling records.

(4) To prevent the drowning by water of any stratum or part thereof
capable of producing oil or gas in paying quantities, and to prevent the
premature and irregular encroachment of water which reduces, or
tends to reduce, the total ultimate recovery of oil or gas from any pool.

(5) To require the operation of wells with efficient gas-oil ratios, and to
fix such ratios.

(6) To prevent "blow-outs," "caving" and "seepage" in the sense that
conditions indicated by such terms are generally understood in the oil
and gas business.

(7) To prevent fires.

(8) To identify the ownership of all oil or gas wells, producing leases,
refineries, tanks, plants, structures and all storage and transportation
equipment and facilities.

(9) To regulate the "shooting," perforating, and chemical treatment of
wells.

(10) To regulate secondary recovery methods, including the introduction of
gas, air, water or other substances into producing formations.

(11) To limit and prorate the production of oil or gas, or both, from any
pool or field for the prevention of waste as herein defined.

(12) To require, either generally or in or from particular areas, certificates
of clearance or tenders in connection with the transportation of oil or
gas.
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(13) To regulate the spacing of wells and to establish drilling units.

(14) To prevent, so far as is practicable, reasonably avoidable drainage from each developed unit which is not equalized by counter-drainage.

(15) To prevent where necessary the use of gas for the manufacture of carbon black.

(16) To regulate and, if necessary in its judgment for the protection of unique environmental values, to prohibit the location of wells in the interest of protecting the quality of the water, air, soil or any other environmental resource against injury, or damage or impairment."

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

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

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

In the event such integration is required, and provided also that after due notice to all the owners of tracts within such drilling unit of the creation of such drilling unit, and provided further that the Department has received no protest thereto, or request for hearing thereon, whether or not 10 days have elapsed after notice has been given of the creation of the drilling unit, the operator designated by the Department to develop and operate the integrated unit shall have the right to charge to each other interested owner the actual expenditures required for such purpose not in excess of what are reasonable, including a reasonable charge for supervision, and the operator shall have the right to receive the first production from the well drilled by him thereon, which otherwise would be delivered or paid to the other parties jointly interested in the drilling of the well, so that the amount due by each of them for his shares of the expense of drilling, equipping, and operating the well may be paid to the operator of the well out of production; with the value of the production calculated at the market price in the field at the time such production is received by the operator or placed to his credit. After being reimbursed for the actual expenditures for drilling and equipping and operating expenses incurred during the drilling operations and until the operator is reimbursed, the operator shall thereafter pay to the owner of each tract within the pool his ratable share of the production calculated at the market price in the field at the time of such production less the reasonable expense of operating the well. In the event of any dispute relative to such costs, the Department shall determine the proper costs.
(b) When Each Owner May Drill. – Should the owners of separate tracts embraced within a drilling unit fail to agree upon the integration of the tracts and the drilling of a well on the unit, and should it be established that the Department is without authority to require integration as provided for in subsection (a) of this section, then, subject to all other applicable provisions of this law, the owner of each tract embraced within the drilling unit may drill on his tract, but the allowable production from each tract shall be such proportion of the allowable for the full drilling unit as the area of such separately owned tract bears to the full drilling unit.

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

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

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

§ 143-214.2. Prohibited discharges.

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

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

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

SECTION 3.(a) With regard to wells that are drilled for the purpose of exploration or development of natural gas through use of horizontal drilling in conjunction with hydraulic fracturing treatments, notwithstanding subsection (e) of 15A NCAC 05D .0107 (Drilling and Completion), from the effective date of this act the Department of Environment and Natural Resources shall not prohibit the drilling of wells where the vertical deviation of the hole exceeds three degrees between the bottom of the hole and the top of hole.
SECTION 3.(b) With regard to wells that are drilled for the purpose of exploration or development of natural gas through use of hydraulic fracturing treatments, notwithstanding subsection (b) of 15A NCAC 02C 0209 (Classification of Injection Wells), from the effective date of this act the Department of Environment and Natural Resources shall not prohibit the construction, use, or operation of oil or gas production and storage related injection wells.

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

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

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

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

PART IV. MISCELLANEOUS PROVISIONS RELATED TO MANAGEMENT OF OIL AND GAS EXPLORATION AND DEVELOPMENT ACTIVITIES

SECTION 5. Article 27 of Chapter 113 of the General Statutes is amended by adding a new section to read: "§ 113-388A. Impact fee imposed on oil and gas exploration and development activities:"
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(a) A city or town in which oil and gas exploration and development activities are occurring may levy a one-time impact fee on operators of such sites that are located within the city or town's jurisdiction only in accordance with this section. This fee shall not exceed $30,000 for each oil or gas well drilled by the operator within the city or town's jurisdiction.

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

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

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

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

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

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

(1) Prohibit the siting of wells for oil and gas exploration and development within any county, city, or other political subdivision."
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(2) Prohibit the use of horizontal drilling or hydraulic fracturing for the purpose of oil or gas exploration or development within any county, city, or other political subdivision.

(3) Place any restriction or condition not placed by this Article upon oil and gas exploration and development activities and use of horizontal drilling or hydraulic fracturing for that purpose within any county, city, or other political subdivision.

(4) In any manner are in conflict or inconsistent with the provisions of this Article.

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

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

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

(1) Publication in a newspaper or newspapers having general circulation in the county or counties where the activities are to be conducted, once a week for three consecutive weeks, the first notice appearing at least 30 days prior to the scheduled date of the hearing; and

(2) First class mail to persons who have requested notice. The Board shall maintain a mailing list of persons who request notice in advance of the hearing pursuant to this section. Notice by mail shall be complete upon deposit of a copy of the notice in a post-paid wrapper addressed to the person to be notified at the address that appears on the mailing list maintained by the Board, in a post office or official depository under the exclusive care and custody of the United States Postal Service.

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

(f) A local zoning or land-use ordinance is presumed to be valid and enforceable to the extent the zoning or land-use ordinance imposes requirements, restrictions, or
conditions that are generally applicable to development, including, but not limited to, setback, buffer, and stormwater requirements, unless the Oil and Gas Board makes a finding of fact to the contrary. The Board shall determine whether or to what extent to preempt local ordinances so as to allow for the establishment and operation of the facility no later than 60 days after conclusion of the hearing. The Board shall preempt a local ordinance only if the Board makes all of the following findings:

1. That there is a local ordinance that would prohibit or have the effect of prohibiting oil and gas exploration and development activities, or use of horizontal drilling or hydraulic fracturing for that purpose.

2. That all legally required State and federal permits or approvals have been issued by the appropriate State and federal agencies or that all State and federal permit requirements have been satisfied and that the permits or approvals have been denied or withheld only because of the local ordinance.

3. That local citizens and elected officials have had adequate opportunity to participate in the permitting process.

4. That the oil and gas exploration and development activities, and use of horizontal drilling or hydraulic fracturing for that purpose, will not pose an unreasonable health or environmental risk to the surrounding locality and that the operator has taken or consented to take reasonable measures to avoid or manage foreseeable risks and to comply to the maximum feasible extent with applicable local ordinances.

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

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

1. In violation of constitutional provisions;

2. In excess of the statutory authority or jurisdiction of the Board;

3. Made upon unlawful procedure;

4. Affected by other error of law;

5. Unsupported by substantial evidence admissible under G.S. 150B-29(a) or G.S. 150B-30 in view of the entire record as submitted; or

6. Arbitrary or capricious.
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(i) If the court reverses or modifies the decision of the Oil and Gas Board, the judge shall set out in writing, which writing shall become part of the record, the reasons for the reversal or modification.

(ii) In computing any period of time prescribed or allowed by this procedure, the provisions of Rule 6(a) of the Rules of Civil Procedure, G.S. 1A-1, shall apply."

SECTION 7. (a) The Division of Land Resources of the Department of Environment and Natural Resources is hereby renamed the Division of Energy, Mineral, and Land Resources.

SECTION 7. (b) The Revisor of Statutes shall make the conforming statutory changes necessary to reflect the changes made under subsection (a) of this section. The Codifier of Rules shall make the conforming rule changes necessary to reflect the changes made under subsection (a) of this section.

PART V. CREATE ENERGY POLICY OVERSIGHT COMMISSION

SECTION 8. (a) Chapter 120 of the General Statutes is amended by adding a new Article to read:


(a) The Joint Legislative Commission on Energy Policy is established.

(b) The Commission shall consist of 10 members as follows:

(1) Five members of the Senate appointed by the President Pro Tempore of the Senate, at least one of whom is a member of the minority party.

(2) Five members of the House of Representatives appointed by the Speaker of the House of Representatives, at least one of whom is a member of the minority party.

(c) Terms on the Commission are for two years and begin on the convening of the General Assembly in each odd-numbered year. Members may complete a term of service on the Commission even if they do not seek reelection or are not reelected to the General Assembly, but resignation or removal from service in the General Assembly constitutes resignation or removal from service on the Commission. A member continues to serve until the member's successor is appointed.

§ 120-286. Purpose and powers and duties of Commission.

(a) The Joint Legislative Commission on Energy Policy shall exercise legislative oversight over energy policy in the State. In the exercise of this oversight, the Commission may do any of the following:

(1) Monitor and evaluate the programs, policies, and actions of the Oil and Gas Board established pursuant to G.S. 113-430, the Energy Policy Council established pursuant to G.S. 113B-2, the Energy Division in the Department of Commerce, the Utilities Commission and Public Staff established pursuant to Chapter 62 of the General Statutes, and of any other board, commission, department, or agency of the State or local government with jurisdiction over energy policy in the State.
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(2) Review and evaluate existing and proposed State statutes and rules affecting energy policy and determine whether any modification of these statutes or rules is in the public interest.

(3) Monitor changes in federal law and court decisions affecting energy policy.

(4) Monitor and evaluate energy related industries in the State and study measures to promote these industries.

(5) Study any other matters related to energy policy that the Commission considers necessary to fulfill its mandate.

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


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

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

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

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

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

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

SECTION 9.(a) Notwithstanding any other provision of law and with funds available, beginning July 1, 2013 the Department of Public Instruction shall purchase only passenger school buses (Types A and B) and transit-style school buses (Type D) that
operate on compressed natural gas (CNG) to replace school buses due to the age, mileage, condition, unique circumstances, or other condition necessitating replacement of a school bus.

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

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

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

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

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

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

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

**SECTION 10.(b)** Notwithstanding any other provision of law and with funds available, beginning July 1, 2015, one hundred percent (100%) of the new three-quarter
(3/4) ton pick-up trucks purchased by the Department of Transportation shall be manufactured by an original equipment manufacturer or a qualified vehicle manufacturer offering a full factory warranty and be capable of operating on compressed natural gas (CNG) or compressed natural gas (CNG) and gasoline.

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

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

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

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

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

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

SECTION 11.(b) Beginning January 1, 2013 and annually thereafter, the task force shall report to the Joint Legislative Commission on Energy Policy, the Joint Legislative Transportation Oversight Committee, the Joint Legislative Education Oversight Committee, the House Appropriations Subcommittee on Transportation, the
Senate Appropriations Subcommittee on Department of Transportation, the House Appropriation Subcommittee on Education, the Senate Appropriations Subcommittee on Education/Higher Education, the House Appropriations Subcommittee on General Government, and the Senate Appropriations Subcommittee General Government and Information Technology on the implementation of this section.

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

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

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

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

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

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

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

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

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

(a) Definitions. – The following terms apply in this section:
(1) Critical tire information. – Tire brand name, tire line name, tire identification numbers, load and pressure markings, tire size designation, service descriptions such as load and speed ratings, and other information and specifications placed on the original tire sidewall by the original tire manufacturer."
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(2) School bus. – A vehicle as defined in G.S. 20-4.01(27)d3. and G.S. 20-4.01(27)d4. that is owned, rented, or leased by a local board of education.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

PART XI. AMEND THE ENERGY JOBS ACT OF 2011 IF THE ENERGY JOBS ACT OF 2011 BECOMES LAW

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

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

(1) Ensure a timely review and consideration of permits and proposals at both the state and federal level for both state and federal waters adjacent to each state in the three-state region for seismic and other marine geophysical exploration to identify and quantify natural gas and related hydrocarbon resources along the continental margin.

(2) Amend the Five Year Leasing Plan of the United States Department of the Interior to include leasing federal waters adjacent to the State and...
the three-state region for the exploration, quantification, and development of natural gas and related hydrocarbon energy resources.

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

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

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

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

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

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

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

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

(1) Repealed.

(2) Repealed.

(2a) The Secretary of Commerce.

(3) Eleven public members who are citizens of the State of North Carolina and who are appointed in accordance with subsection (c) of this section.

(b) Appointments to the Energy Jobs Council shall be made by October 1, 2011, September 1, 2012, and the appointed members shall serve four-year terms.
Appointments made by the President Pro Tempore of the Senate and the Speaker of the House of Representatives shall be allowed when the General Assembly is not in session.

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

(1) One member shall be a representative of an investor-owned electric public utility, to be appointed by the Governor.

(2) One member shall be a geologist experienced in offshore natural gas and associated hydrocarbon exploration, development, and production, to be appointed by the Governor.

(3) One member shall be a representative of an investor-owned natural gas public utility, to be appointed by the President Pro Tempore of the Senate.

(4) One member shall be an energy economist or a person with experience in the financing or business development or an energy-related business, to be appointed by the President Pro Tempore of the Senate.

(5) One member shall be a geologist with experience in hydrocarbon resource evaluation and geophysical data acquisition, to be appointed by the President Pro Tempore of the Senate.

(6) One member shall be an industrial energy consumer, to be appointed by the Speaker of the House of Representatives.

(7) One member shall be knowledgeable of alternative and renewable sources of energy, other than wind energy, to be appointed by the Speaker of the House of Representatives.

(8) One member who has experience in trucking, rail, or shipping transportation, to be appointed by the Speaker of the House of Representatives.

(9) Repealed by Session Laws 2009-446, s. 4, effective August 7, 2009.

(10) One member shall be a representative with experience in wind energy, to be appointed by the Governor.

(11) One member shall be a representative with experience in environmental management, appointed by the Speaker of the House of Representatives.

(12) One member shall be involved with the biofuels industry, experienced in energy policy, to be appointed by the President Pro Tempore of the Senate.”

PART XII. EFFECTIVE DATE

SECTION 15. This act is effective when it becomes law. Initial appointments to the Oil and Gas Board pursuant to G.S. 113-432, as enacted by Section 1.(a) of this act, shall be made no later than August 1, 2012. The Oil and Gas Board shall submit the first report due under G.S. 113-430(e), as enacted by Section 2.(a) of this act on or before January 1, 2013.
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
technical specialists regarding the requirements of the animal waste management rules; and

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

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

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

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

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

The General Assembly of North Carolina enacts:

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

SECTION 2. The Division of Water Quality of the Department of Environment and Natural Resources, in consultation with the Department of Agriculture and Consumer Services, shall administer a pilot project of limited scope for determining the agronomic rates for the application of swine waste to Arundo donax (giant reed), Miscanthus giganteus (miscanthus), and switchgrass in North Carolina in order to
promote feedstock development and expedite data collection for final agronomic rate determinations.

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

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

1) For giant reed, the agronomic rate shall be either the rate established by the Interagency Group pursuant to S.L. 1995-626 or 250 pounds of nitrogen per acre, whichever is greater.

2) For miscanthus, the agronomic rate shall be either the rate established by the Interagency Group pursuant to S.L. 1995-626 or 150 pounds of nitrogen per acre, whichever is greater.

3) For switchgrass, the agronomic rate shall be either the rate established by the Interagency Group pursuant to S.L. 1995-626 or no nitrogen for the first year of growth followed by 200 pounds of nitrogen per acre for the second and subsequent years of growth, whichever is greater.

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

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

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

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

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

The entire credit may not be taken for the taxable year in which the facility is placed in service but must be taken in three equal annual installments beginning with the taxable year in which the facility is placed in service. If, in one of the years in which the installment of a credit accrues, the portion of the facility directly and exclusively used for dispensing or storing renewable fuel is disposed of or taken out of service, the credit expires and the taxpayer may not take any remaining installment of the credit. The
taxpayer may, however, take the portion of an installment that accrued in a previous year and was carried forward to the extent permitted under G.S. 105-129.17.  
(b) Production Credit. – A taxpayer that constructs and places in service in this State a commercial facility for processing renewable fuel is allowed a credit equal to twenty-five percent (25%) of the cost to the taxpayer of constructing and equipping the facility. The entire credit may not be taken for the taxable year in which the facility is placed in service but must be taken in seven equal annual installments beginning with the taxable year in which the facility is placed in service. If, in one of the years in which the installment of a credit accrues, the facility with respect to which the credit was claimed is disposed of or taken out of service, the credit expires and the taxpayer may not take any remaining installment of the credit. The taxpayer may, however, take the portion of an installment that accrued in a previous year and was carried forward to the extent permitted under G.S. 105-129.17.  
(b1) Alternative Production Credit. – In lieu of the credit allowed under subsection (b) of this section, a taxpayer that constructs and places in service in this State three or more commercial facilities for processing renewable fuel and that invests a total amount of at least four hundred million dollars ($400,000,000) in the facilities is allowed a credit equal to thirty-five percent (35%) of the cost to the taxpayer of constructing and equipping the facilities. In order to claim the credit, the taxpayer must obtain a written determination from the Secretary of Commerce that the taxpayer is expected to invest within a five-year period a total amount of at least four hundred million dollars ($400,000,000) in three or more facilities. The credit must be taken in seven equal annual installments beginning with the taxable year in which the first facility is placed in service. If, in one of the years in which the installment of credit accrues, a facility with respect to which the credit was claimed is disposed of or taken out of service and the investment requirements of this subsection are no longer satisfied, the credit expires and the taxpayer may take any remaining installment of the credit only to the extent allowed under subsection (b) of this section. The taxpayer may, however, take the portion of an installment under this subsection that accrued in a previous year and was carried forward to the extent permitted under G.S. 105-129.17. Notwithstanding the provisions of G.S. 105-129.17, a taxpayer may carry forward unused portions of the credit allowed under this subsection for the succeeding 10 years.  
If a taxpayer that claimed a credit under this subsection fails to meet the requirements of this subsection but meets the requirements of subsection (b) of this section, the taxpayer forfeits the difference between the alternative credit claimed under this subsection and the credit allowed under subsection (b) of this section. A taxpayer that forfeits part of the alternative credit under this subsection is liable for the additional taxes avoided plus interest at the rate established under G.S. 105-241.21, computed from the date the additional taxes would have been due if the credit had not been allowed. The additional taxes and interest are due 30 days after the date the credit is forfeited. A taxpayer that fails to pay the additional taxes and interest by the due date is subject to penalties provided in G.S. 105-236.  
(c) No Double Credit. – A taxpayer may not claim the credits allowed under subsections (b) and (b1) of this section with respect to the same facility. A taxpayer that claims any other credit allowed under this Chapter with respect to the costs of
constructing and installing a facility may not take the credit allowed in this section with respect to the same costs.

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

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

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