

HOUSE OF REPRESENTATIVES STAFF ANALYSIS

BILL #: CS/CS/HB 1141 Natural Gas Rebate Program

SPONSOR(S): Business & Professions Subcommittee; Ray

TIED BILLS: None **IDEN./SIM. BILLS:** SB 1538

REFERENCE	ACTION	ANALYST	STAFF DIRECTOR or BUDGET/POLICY CHIEF
1) Business & Professions Subcommittee	11 Y, 0 N, As CS	Whittier	Luczynski
2) Agriculture & Natural Resources Appropriations Subcommittee	13 Y, 0 N, As CS	Lolley	Massengale
3) Regulatory Affairs Committee			

SUMMARY ANALYSIS

Currently, there is not an incentive program in Florida for those who are considering converting a locomotive, ship, or high-horsepower engine to natural gas; however, in 2013, the Legislature created the Natural Gas Fuel Fleet Vehicle Rebate Program within the Department of Agriculture and Consumer Services (DACS). The purpose of the program is to award rebates for up to 50 percent of the eligible costs incurred in the conversion or retrofitting of diesel- or gasoline-powered motor vehicles to natural gas-powered.

The bill creates the Heavy Transportation Industry Natural Gas Rebate program within DACS. Similar to the Natural Gas Fuel Fleet Vehicle Rebate program, the program provides for the award of rebates for up to 50 percent of the eligible costs for converting traditionally-fueled locomotives, waterborne ships, and high-horsepower engines to natural gas-fueled or for up to 50 percent of the eligible costs for the purchase of such eligible vehicles or vessels. Applicants must have placed these locomotives, ships, and engines into service on or after July 1, 2015, for commercial business or governmental purposes. An applicant is eligible to receive a maximum rebate of \$500,000 per vehicle up to a total of \$1 million per fiscal year.

The bill requires DACS to determine and publish on its website, on an ongoing basis, the amount of available funding for rebates remaining in each fiscal year and to provide, by December 1, 2016, and by December 1 of each subsequent year of the program, an annual assessment of the use of the rebate program to the Governor, the President of the Senate, the Speaker of the House of Representatives, and the Office of Program Policy Analysis and Government Accountability.

The bill appropriates unobligated general revenue funds at June 30 each fiscal year from the Natural Gas Fuel Fleet Vehicle Rebate program to the Heavy Transportation Industry Natural Gas Rebate program in the subsequent fiscal year.

The bill may have a significant positive fiscal impact on the private sector. See Fiscal Analysis & Economic Impact Statement for more details.

The bill provides an effective date of July 1, 2015.

FULL ANALYSIS

I. SUBSTANTIVE ANALYSIS

A. EFFECT OF PROPOSED CHANGES:

Present Situation

U.S. Environmental Protection Agency Standards

The U.S. Environmental Protection Agency (EPA) has adopted very stringent standards to reduce emissions of diesel particulate matter (PM) and nitrogen oxide (NOx) from locomotives and marine diesel engines. The EPA's goal is to tighten emissions on existing engines when remanufactured and set long term standards referred to as Tier-4 standards.¹

According to the EPA, there is a coordinated strategy that includes Clean Air Act standards, as well as implementation of the international standards for marine engines and their fuels contained in Annex VI to the International Convention on the Prevention of Pollution from Ships (a treaty called MARPOL).^{2, 3}

EPA has adopted a similar approach to regulating "nonroad" transportation, high-horsepower engines, which are used in machines that perform a wide range of jobs. High-horsepower engines include excavators and other construction equipment; farm tractors and other agricultural equipment; heavy forklifts; and airport ground service equipment. Nonroad sources are regulated by type, size, weight, use, and/or horsepower.⁴

The EPA estimates that by 2030, compliance with this standard will result in an annual reduction of 800,000 tons of NOx emissions and 27,000 tons of PM emissions;⁵ however, compliance with these emissions mandates will be costly for the heavy transportation industry. The three most common methods of achieving these goals are:

- Using costly ultra-low sulfur diesel (road grade diesel),
- Installing scrubber systems on the engines which are similar to those of coal power plants, or
- Using natural gas (the lowest cost alternative).⁶

Florida does not have a Liquefied Natural Gas (LNG) plant at this time and transports by truck any railroad LNG from Macon, Georgia, to destinations in Florida. Any railroad or ship LNG needs must be met by transporting the commodity from out of state. However, as a result of the growing demands for natural gas, several companies are looking to build LNG plants but need a specific demand for the capital intensive projects. The Florida Natural Gas Association asserts, "This legislation will help focus the use of liquefied natural gas as the means to meet the emission mandates and aid the guarantee of

¹ Email from a representative of the Florida Natural Gas Association, RE: Rail and maritime industries and EPA's emission mandates (Mar. 13, 2015).

² United States Environmental Protection Agency, Office of Transportation and Air Quality, *EPA Finalizes More Stringent Standards for Control of Emissions from New Marine Compression-Ignition Engines at or Above 30 Liters per Cylinder*, pg. 1 (Dec. 2009), available at <http://www.epa.gov/otaq/regs/nonroad/marine/ci/420f09068.pdf>.

³ According to the EPA, the MARPOL Annex VI contains a program that applies stringent engine emission standards and fuel sulfur limits to ships that operate in specially designated Emission Control Areas (ECAs). The quality of fuel that complies with the ECA standard changes over time. The United States has obtained designation for the North American ECA and the US Caribbean ECA. The effective dates of the standards for an area depend on the area's designation date. By 2030, this coordinated strategy is expected to reduce annual emissions of NOx in the United States by about 1.2 million tons and PM emissions by about 143,000 tons. Source: United States Environmental Protection Agency, *Ocean Vessels and Large Ships*, <http://www.epa.gov/otaq/oceanvessels.htm> (last visited Mar. 13, 2015).

⁴ Email from staff of the Florida Department of Environmental Protection, RE: high-horsepower engines (Mar. 20, 2015).

⁵ Email from a representative of the Florida Natural Gas Association, RE: Rail and maritime industries and EPA's emission mandates (Mar. 13, 2015).

⁶ *Id.*

liquefied natural gas sources in Florida which will provide fuel for our growing trade and tourism industries.”⁷

Natural Gas Fuel

During the past several years, exploration has uncovered a supply of natural gas in the United States which has resulted in a reduction in the price of natural gas and an increased interest in natural gas-powered vehicles, fuel plants, and refueling infrastructure.

Natural gas is touted as the cleanest of the fossil fuels. The Natural Gas Supply Association points out that, “Pollutants emitted in the United States, particularly from the combustion of fossil fuels, have led to the development of many pressing environmental problems. Natural gas, emitting fewer harmful chemicals into the atmosphere than other fossil fuels, can help to mitigate some of these environmental issues.” These concerns include:

- Greenhouse Gas Emissions;
- Smog, Air Quality and Acid Rain;
- Industrial and Electric Generation Emissions; and
- Pollution from the Transportation Sector.⁸

When compared using equivalent units of measure, natural gas is less expensive per gallon than traditional fuels. The U.S. Department of Energy reports that in the Fall of 2014, the national average price for gasoline was \$3.34 a gallon, the price for diesel was \$3.77 a gallon, and for a gasoline gallon equivalent of compressed natural gas was \$2.16.⁹

Florida East Coast Industries (FECI) reported that, in April 2014, using equivalent units of measure, the national price for railroad diesel was \$2.95 a gallon and a diesel gallon equivalent of railroad LNG was \$1.47.¹⁰

Currently, most locomotives use diesel and most ships today use bunker fuel which is crude oil.¹¹ To refuel locomotives with LNG, railroads use a tender that sits between two locomotives. There are 14 railroads in Florida.¹² Total diesel fuel used by railroads in Florida is approximately 70 million gallons a year, which is the equivalent of approximately 119 million gallons of natural gas.¹³

To refuel ships with LNG, another ship transports the LNG in ISO tanks to a port and then transfers the natural gas to the ship’s fuel tank. Each ship requires about 25,000 to 30,000 gallons of natural gas per day, resulting in the need for approximately 10 million gallons annually per ship.¹⁴ The FECI notes that, “... by converting ships to natural gas, you get not only the cost savings but significant environmental benefit since crude is a lot dirtier than natural gas.”

Although initial savings in fuel costs may be offset by the cost of a natural gas vehicle, locomotive, ship, or high-horsepower engine over gasoline, diesel, or crude oil, cost savings are expected after a few years.

Natural Gas Fuel Fleet Vehicle Rebate Program

⁷ *Id.*

⁸ NaturalGas.Org, <http://www.naturalgas.org/environment/naturalgas/> (last visited Mar. 13, 2015).

⁹ United States Department of Energy, *Clean Cities Alternative Fuel Price Report*, pg. 4-5 (Oct. 2014), available at http://www.afdc.energy.gov/uploads/publication/alternative_fuel_price_report_oct_2014.pdf.

¹⁰ Email from a representative of Florida East Coast Industries, RE: Rail and maritime industries and liquefied natural gas (Mar. 14, 2015).

¹¹ *Id.*

¹² *Id.*

¹³ *Id.*

¹⁴ *Id.*

Currently, there is not an incentive program in Florida for those who are considering converting a locomotive, ship, or high-horsepower engine to natural gas; however, in 2013, the Legislature created the Natural Gas Fuel Fleet Vehicle Rebate Program (rebate program) within the Department of Agriculture and Consumer Services (DACS), the purpose of which is to “help reduce transportation costs in this state and encourage freight mobility investments that contribute to the economic growth of the state.”¹⁵

Section 377.810, F.S., provides the following definitions under the program:

- "Conversion costs" means the excess cost associated with retrofitting a diesel- or gasoline-powered motor vehicle to a natural gas fuel-powered motor vehicle.
- "Department" means the Department of Agriculture and Consumer Services.
- "Eligible costs" means the cost of conversion or the incremental cost incurred by an applicant in connection with an investment in the conversion, purchase, or lease lasting at least 5 years, of a natural gas fleet vehicle placed into service on or after July 1, 2013. The term does not include costs for project development, fueling stations, or other fueling infrastructure.
- "Fleet vehicles" means three or more motor vehicles registered in this state and used for commercial business or governmental purposes.
- "Incremental costs" means the excess costs associated with the purchase or lease of a natural gas fuel motor vehicle as compared to an equivalent diesel- or gasoline-powered motor vehicle.
- "Natural gas fuel" means any:
 - Liquefied petroleum gas product,
 - Compressed natural gas product, or
 - Combination thereof used in a motor vehicle as defined in s. 206.01(23).

The term includes, but is not limited to, all forms of fuel commonly or commercially known or sold as natural gasoline, butane gas, propane gas, or any other form of liquefied petroleum gas, compressed natural gas, or liquefied natural gas. This term does not include natural gas or liquefied petroleum placed in a separate tank of a motor vehicle for cooking, heating, water heating, or electric generation.¹⁶

Beginning with Fiscal Year 2013-2014 and continuing through Fiscal Year 2017-2018 (five years), DACS is required to award rebates for the eligible costs of conversion or retrofitting of a diesel- or gasoline-powered motor vehicle to a natural gas fuel-powered motor vehicle. Specifically, DACS is to award rebates for up to 50 percent of the eligible costs of a natural gas fuel fleet vehicle or bi-fuel natural gas fuel operating system placed into service on or after July 1, 2013. An applicant is eligible to receive a maximum rebate of \$25,000 per vehicle up to a total of \$250,000 per applicant per fiscal year, on a first-come, first-served basis. The DACS must reserve 40 percent of the annual allocation for governmental applicants and 60 percent for commercial applicants. The total amount that DACS can award for these rebates is \$6 million¹⁷ per year.¹⁸

The law provides steps for application and authorizes DACS to adopt rules to implement and administer the section by December 31, 2013.

The DACS must determine and publish on its website on an ongoing basis the amount of available funding for rebates remaining in each fiscal year and to provide, by October 1 each year, an annual assessment of the use of the rebate program to the Governor, the President of the Senate, the Speaker of the House of Representatives, and the Office of Program Policy Analysis and Government Accountability (OPPAGA). By January 31, 2016, OPPAGA is to provide a report reviewing the rebate program to the Governor, the President of the Senate, and the Speaker of the House of Representatives.¹⁹

¹⁵ s. 377.810(1), F.S.

¹⁶ s. 377.810(2), F.S.

¹⁷ The rebate is funded through the state's General Revenue Fund.

¹⁸ s. 377.810(3), F.S.

¹⁹ s. 377.810(7) and (8), F.S.

The Florida Natural Gas Vehicle Coalition reports that in Florida, the Natural Gas Fuel Fleet Vehicle Rebate Program has produced 1,820 jobs and \$68 million in wages since its inception. When the legislation was passed there were approximately 32 Compressed Natural Gas (CNG) stations in Florida. According to Biofuels Digest, there are now 61 active CNG fueling stations with an additional 29 planned.²⁰ The Digest quotes a report from Fishkind & Associates that, "... a CNG station costs on average \$1.5 million, meaning investment in CNG station infrastructure has been \$91.5 million over the past two years."²¹

Effects of Proposed Changes

The bill creates the Heavy Transportation Industry Natural Gas Rebate Program within DACS. Similar to the Natural Gas Fuel Fleet Vehicle Rebate Program, the program provides for the award of rebates for up to 50 percent of the eligible costs for converting traditionally-fueled locomotives, waterborne ships, and high-horsepower engines to natural gas-fueled or for up to 50 percent of the eligible costs for the purchase of such eligible vehicles or vessels.

Applicants must have placed these locomotives, ships, and engines into service on or after July 1, 2015, for commercial business or governmental purposes. An applicant is eligible to receive a maximum rebate of \$500,000 per vehicle up to a total of \$1 million per fiscal year.

The purpose of the program is to help reduce transportation costs in the state, encourage the use of a domestic fuel source, and encourage heavy transportation investments that contribute to the economic growth of the state. The bill provides the following definitions under the program:

- "Conversion costs" means the costs associated with retrofitting a diesel-powered, gasoline-powered, or heavy-fuel-oil-powered locomotive, waterborne ship, or high-horsepower engine to a natural-gas-fuel-powered eligible vehicle or vessel.
- "Department" means the Department of Agriculture and Consumer Services.
- "Eligible costs" means the conversion costs or the incremental costs incurred by an applicant in connection with an investment in the conversion of, purchase of, or lease lasting at least 10 years of, a natural-gas-fuel-powered eligible vehicle or vessel. The term does not include costs for project development, fueling stations, or other fueling infrastructure.
- "Eligible vehicle or vessel" means a locomotive, waterborne ship, or high-horsepower engine used for transportation purposes, registered or licensed in the state, and used for commercial business or governmental purposes within the state. An eligible vehicle must be newly constructed or repowered and placed into service on or after July 1, 2015. A waterborne ship must be built and documented in the United States with a coastwise endorsement under 46 U.S.C. s. 55102 and be used to provide regular transportation of merchandise between one or more ports in the state and other domestic ports.
- "High-horsepower engine" means an engine that provides more than 1,000 horsepower and is used for nonhighway transportation purposes.
- "Incremental costs" means the excess costs associated with the purchase or lease of a natural-gas-fuel-powered eligible vehicle or vessel as compared to an equivalent diesel-powered, gasoline-powered, or heavy-fuel-oil-powered eligible vehicle or vessel.
- "Natural gas fuel" means any:
 - Liquefied petroleum gas product,
 - Compressed natural gas product, or a
 - Combination thereof used in an eligible vehicle or vessel.

The term includes, but is not limited to, all forms of fuel commonly or commercially known or sold as:

- Natural gasoline,
- Butane gas,

²⁰ Isabel Lane, *Florida's natural gas vehicle incentive program creates 200% growth in fueling stations*, BIOFUELSDIGEST (Oct. 6, 2014), <http://www.biofuelsdigest.com/bdigest/2014/10/06/floridas-natural-gas-vehicle-incentive-program-creates-200-growth-in-fueling-stations/>.

²¹ *Id.*

- Propane gas, or
- Any other form of liquefied petroleum gas, compressed natural gas, or liquefied natural gas.

The term does not include natural gas or liquefied petroleum placed in a separate tank for cooking, heating, water heating, or electric generation.

The bill provides steps for application and authorizes DACS to adopt rules to implement and administer the program by December 31, 2015.

The DACS must determine and publish on its website on an ongoing basis the amount of available funding for rebates remaining in each fiscal year and must provide, by December 1, 2016, and by December 1 of each subsequent year of the program, an annual assessment of the use of the rebate program to the Governor, the President of the Senate, the Speaker of the House of Representatives, and OPPAGA. The bill specifies items that are to be included in the assessment.

The bill appropriates unobligated general revenue funds at June 30 each fiscal year from the Natural Gas Fuel Fleet Vehicle Rebate program to the Heavy Transportation Industry Natural Gas Rebate program in the subsequent fiscal year.

B. SECTION DIRECTORY:

Section 1. Creates the heavy transportation industry natural gas rebate program within DACS; defines terms; prescribes powers and duties of DACS; provides rebate eligibility requirements; provides limits on awards; authorizes DACS to adopt rules; requires DACS to publish certain information on its website; directs DACS to submit an annual assessment to the Governor, the Legislature, and OPPAGA by a specified date; and provides for recurring appropriations.

Section 2. Provides an appropriation.

Section 3. Provides an effective date of July 1, 2015.

II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT

A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues:

None.

2. Expenditures:

The bill appropriates unobligated general revenue funds at June 30 each fiscal year from the Natural Gas Fuel Fleet Vehicle Rebate program to the Heavy Transportation Industry Natural Gas Rebate program in the subsequent fiscal year.

B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:

None.

2. Expenditures:

None.

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

The bill may result in increased savings for owners of locomotives, waterborne ships, or high-horsepower engines that convert from being powered by traditional fuels to being powered by natural gas fuel. It may lead to the creation of a natural gas plant and refueling infrastructure in the state.

D. FISCAL COMMENTS:

None.

III. COMMENTS

A. CONSTITUTIONAL ISSUES:

1. Applicability of Municipality/County Mandates Provision:

Not applicable. This bill does not appear to affect county or municipal governments.

2. Other:

None.

B. RULE-MAKING AUTHORITY:

The bill provides rule-making authority to DACS to implement and administer the program, including rules relating to the forms required to claim a rebate under this program, the required documentation and basis for establishing eligibility for a rebate, procedures and guidelines for claiming a rebate, and the collection of economic impact data from applicants. The rules "may" be adopted by December 31, 2015.

C. DRAFTING ISSUES OR OTHER COMMENTS:

None.

IV. AMENDMENTS/ COMMITTEE SUBSTITUTE CHANGES

On March 17, 2015, the Business & Professions Subcommittee considered and adopted a strike-all amendment, and two amendments to the strike-all amendment, and reported the bill favorably as a committee substitute. The committee substitute, as amended, differs from the filed bill by:

- Expanding the purpose of the bill to include encouraging the use of a domestic fuel source and encouraging heavy transportation industry investments that contribute to the economic growth of the state;
- Expanding those eligible to use the program to include high-horsepower engines that are converted from using heavy fuel oil to being powered by natural gas;
- Specifying that eligible ships must be waterborne ships that are built and documented in the United States with a coastwise endorsement under the 46 U.S.C. s. 55102 and that are used to provide regular transportation of merchandise between one or more ports in Florida and other domestic ports;
- Changing the earliest date that a vehicle must be placed into service from January 1, 2015, to July 1, 2015;
- Changing the rule-adoption date for DACS from January 1, 2016, to December 31, 2015, and making adoption of the rules by DACS permissive, i.e., "shall" to "may;"
- Changing the date of DACS' annual assessment deadline from October 1st to December 1st.
- Removing the OPPAGA report requirement; and
- Providing for annual appropriations of \$10 million from the General Revenue Fund to DACS, beginning in FY 2015-2016 and continuing through FY 2019-2020.

The staff analysis is drafted to reflect the committee substitute.

On April 7, 2015, the Agriculture & Natural Resources Appropriations Subcommittee adopted one amendment. The amendment removes the \$10 million appropriation and appropriates unobligated funds at June 30 each fiscal year from the Natural Gas Fuel Fleet Vehicle Rebate program to the Heavy Transportation Industry Natural Gas Rebate program in the subsequent fiscal year. The bill was reported favorably as a committee substitute.

The staff analysis is drafted to reflect the committee substitute.