COMMENT

DRIVING THE MARKET: THE EFFECTS ON THE UNITED STATES ETHANOL INDUSTRY IF THE FOREIGN ETHANOL TARIFF IS LIFTED

I. INTRODUCTION

The use of sugar and corn-based ethanol as an alternative fuel is hardly a novel concept. In fact, Henry Ford touted ethanol as the "fuel of the future" in 1925.[1] Yet in 2007, the majority of Ford's namesake vehicles run solely on petroleum. However, a rising awareness of climate change and concern about reliance on Middle Eastern oil supplies have triggered renewed interest in the development of ethanol as a fuel source. Not only has technology improved so that ethanol is more efficient, society's attitude is ripe to accept the advancement.

Although ethanol development is occurring around the world, the method of development varies greatly between countries. The first part of this Comment will briefly address the basic aspects of ethanol production and use. Next, it will contrast the path implemented by Brazil with the ethanol strategy of the United States. Finally, this Comment will consider whether removing the tariff on ethanol will frustrate, rather than further, the purpose of the Energy Policy Act of 2005 (EPAct).[2]

1. *Ford Predicts Fuel from Vegetation*, N.Y TIMES, Sept. 20, 1925, at 24.
2. Energy Policy Act of 2005, Pub. L. No. 109-58, 119 Stat 594 (2005).

II. ETHANOL 101

Ethanol[3] is "clean-burning, high-octane fuel that is produced from renewable sources."[4] Though the most common feedstocks are sugar cane and corn, any crop that contains abundant sugars can produce ethanol.[5] Also, there are several different methods of producing ethanol, though the most common is the "dry mill" process.[6]

All engines are considered "ethanol-capable" in the United States.[7] However, this does not mean that all engines can run on pure ethanol. Rather, the term "ethanol-capable" refers to a vehicle's ability to accept E10,[8] the standard blend of 10% ethanol and 90% gasoline.[9] While all vehicles can run on E10, flexible fuel engines can accept a blend of up to 85% ethanol and 15% gasoline (E85).[10] Only E85 is considered an alternative fuel under current federal statutes,[11] and therefore only the use of E10 is covered under the typical car warranty unless it is a flexible fuel vehicle (FFV).[12] Nearly every major automaker offers several flexible fuel versions of popular models.[13]

A versatile alternative fuel, there is no universal system to produce or promote ethanol. In fact, the type of crop used to create ethanol varies from country to country based on feasibility of growth. Additionally, nations use different

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3. "Ethanol (CH_3CH_2OH) is made up of a group of chemical compounds whose molecules contain a hydroxyl group, -OH, bonded to a carbon atom. Ethanol made from cellulosic biomass materials instead of traditional feedstocks (starch crops) is called *bioethanol*." U.S. DEP'T OF ENERGY, WHAT IS ETHANOL?, http://www.eere.energy.gov/afdc/altfuel/whatis_eth.html (last visited Sept. 13, 2007).

4. AMERICAN COAL. FOR ETHANOL, ETHANOL 101, http://www.ethanol.org/index.php?id=34&parentid=8 (last visited Sept. 13, 2007) [hereinafter ETHANOL 101].

5. ENERGY INFO. ADMIN., ANNUAL ENERGY OUTLOOK 2007 WITH PROJECTIONS TO 2030 (2007), http://www.eia.doe.gov/oiaf/aeo/issues.html. "Ethanol is produced by fermenting sugars. Corn grain is processed to remove the sugar in wet and dry mills (by crushing, soaking, and/or chemical treatment), the sugar is fermented, and the resulting mix is distilled and purified to obtain anhydrous ethanol." *Id.*

6. AMERICAN COAL. FOR ETHANOL, HOW IT'S MADE, http://www.ethanol.org/index.php?id=73&parentid=73 (last visited Sept. 14, 2007). This process involves hammer mills grinding "the feedstock into a flour or powder." *Id.*

7. ETHANOL 101, *supra* note 4.

8. According to the U.S. Department of Energy, "[t]he most common low concentration blend is E10." U.S. DEP'T OF ENERGY, ENERGY EFFICIENCY AND RENEWABLE ENERGY, ETHANOL, http://www.eere.energy.gov/afdc/altfuel/ethanol.html (last visited Sept. 14, 2007).

9. AMERICAN COAL. FOR ETHANOL, ETHANOL 101: FREQUENTLY ASKED QUESTIONS, http://www.ethanol.org/pdf/contentmgmt/Ethanol_FAQs_spring_2007.pdf (last visited Sept. 14, 2007) [hereinafter FREQUENTLY ASKED QUESTIONS]. "Since the 1980s all automakers have covered up to 10% ethanol-blended fuel by warranty, no engine modifications necessary." *Id.*

10. FREQUENTLY ASKED QUESTIONS, *supra* note 9.

11. 26 U.S.C. § 4041(b)(2)(B) (2000).

12. ETHANOL 101, *supra* note 4. "E10 is approved for use in any make or model of vehicle sold in the U.S. Many automakers recommend its use because of its high performance, clean-burning characteristics. Today about 46% of America's gasoline contain[s] some ethanol . . . ." *Id.*

13. Ford claims to be "putting the environment first by developing six fuel and engine technologies—including hybrids, ethanol and hydrogen—and implementing cleaner manufacturing practices." FORD MOTOR CO., INNOVATION, http://www.ford.com/innovation (last visited Sept. 14, 2007). "Thanks to GM's pioneering efforts to make cleaner E85 ethanol a viable alternative to gasoline, there are over 2 million GM FlexFuel Vehicles on the road." GENERAL MOTORS CORP., LIVE GREEN GO YELLOW, http://www.gm.com/company/onlygm/livegreengoyellow/index.html (last visited Sept. 14, 2007). The Chrysler Group offers flexible fuel technology in eleven models. CHRYSLER GROUP, FLEX-FUEL VEHICLES AND E85, http://www.chrysler.com/flexfuel (last visited Sept. 14, 2007).

methods to process ethanol. In addition to climate, factors such as politics and technology will affect ethanol production and use. The ultimate goal, of course, is to implement the most efficient ethanol strategy for that particular country.

III. COMPARISON OF BRAZILIAN AND U.S. ETHANOL PROGRAMS

Brazil is the top ethanol-producing nation in the world.[14] A close second, the United States produced 3.4 billion gallons of ethanol in 2005, just slightly under Brazil's four billion.[15] However, fuel consumption varies dramatically between the two countries. Both nations have implemented mechanisms of ethanol mandates and tax incentives in order to increase ethanol production and use. The specific mechanisms used by both nations are worthy of separate consideration since the measurable successes of Brazil overshadow those of the United States.[16]

A. Brazilian ethanol programs

Economists and politicians alike have looked to Brazil as the leader on alternative fuel programs. Based on the statistics, it is easy to see why. For example, more than 50% of vehicles in Brazil, the largest country in South America,[17] are flexible fuel.[18] Furthermore, many vehicles in Brazil are capable of running on 100% ethanol, unlike the maximum of 85% ethanol capability in the United States.[19] This success can be attributed to extensive government action since the 1970s.

Much like the United States, Brazil relied upon ethanol throughout the twentieth century as a mechanism to supplement gasoline supplies, particularly during wartime.[20] Brazilian ethanol is made from sugar, a plentiful resource in Brazil's tropical climate.[21] Brazil's use of ethanol changed, however, during the

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14. ENERGY INFO. ADMIN., COUNTRY ANALYSIS BRIEFS—BRAZIL (2006) http://www.eia.doe.gov/emeu/cabs/Brazil/Full.html.

15. Marla Dickerson, *Homegrown Fuel Supply Helps Brazil Breathe Easy*, L.A. TIMES, June 15, 2005, at A1. However, the United States uses ethanol mostly "as a gasoline oxygenate to boost air quality" instead of a serious "replacement for foreign oil." *Id.*

16. Dickerson, *supra* note 15.

> Today about 40 percent of all the fuel that Brazilians pump into their vehicles is ethanol . . . compared with about 3 percent in the United States. No other nation is using ethanol on such a vast scale. The change wasn't easy or cheap. But 30 years later, Brazil is reaping the return on its investment in energy security while the United States writes checks for $50-a-barrel foreign oil.

Id.

17. CIA, THE WORLD FACTBOOK (2006), *available at* https://www.cia.gov/library/publications/the-world-factbook/geos/br.html. Brazil is by far the "largest country in South America; shar[ing] common boundaries with every South American country except Chile and Ecuador." The current population is approximately 190,010,647. *Id.*

18. COUNTRY ANALYSIS BRIEFS, *supra* note 14.

19. *Id.*

20. David Luhnow & Geraldo Samor, *Bumper Crop: As Brazil Fills Up on Ethanol, It Weans Off Energy Imports*, WALL ST. J., Jan. 9, 2006, at A1.

21. COUNTRY ANALYSIS BRIEFS, *supra* note 14.

oil crisis of 1973.[22] The increase of the price of oil crippled the economy because Brazil was dependent on foreign nations for 80% of its oil.[23]

As a result, the military dictatorship in Brazil implemented an energy strategy.[24] First, the government issued a nation-wide mandate requiring gasoline to be blended with certain amounts of ethanol.[25] This mandate laid the foundation for the rest of the strategy.[26] Second, the Brazilian government focused on incentives, mainly subsidies, to increase the use of ethanol. For example, the government offered "sugar companies cut-rate loans to build ethanol plants and guaranteed prices for their product."[27] In addition to funding research in order to create an ample supply of ethanol, the Brazilian government fostered the demand for alternative fuel vehicles. [28]

1. Proalcool program

These mandates and subsidies encouraged the use of ethanol but it took yet another crisis in the Middle East to promulgate the alternative fuel among the masses. The Brazilian government created the "Proalcool"[29] plan as a result of the Iranian revolution in 1979.[30] The strategy infiltrated Brazil's energy industry, causing even the country's largest oil supplier, Petrobras, to develop alternative fuels.[31] The Proalcool program had two goals: the first was to create "a mammoth distribution network to get the fuel to gas stations"; the second was to keep the price of ethanol low to draw in consumers.[32]

In order to achieve the first goal, the government forced towns with more than 1,500 people to install an ethanol pump at every gas station.[33] Therefore, ethanol was available to the average Brazilian, not just those who lived in large cities. Because of this policy, practically every one of the 32,000 gas stations in Brazil sells pure ethanol right alongside gasoline, and more importantly, the

22. Luhnow & Samor, *supra* note 20. "Months after Syrian and Egyptian tanks rolled into Israeli-held territory, the price of oil quadrupled." *Id.*

23. Luhnow & Samor, *supra* note 20. Brazil's economy at this time revolved around foreign oil to the point where "[a]bout 40% of its foreign-exchange income was used to import oil." *Id.*

24. Monte Reel, *Brazil's Road to Energy Independence*, WASH. POST, Aug. 20, 2006, at A1.

25. Luhnow & Samor, *supra* note 20. "In 1975, Brazil's military leader, Gen. Ernesto Geisel, ordered that the country's gasoline supply be mixed with 10% ethanol, a level Brazil steadily raised to 25% over the next five years." *Id.*

26. Luhnow & Samor, *supra* note 20. Mandating ethanol be mixed with gasoline ensured that "the same amount of gasoline would last longer. It also allowed Brazil to pay for fuel with local currency, in the form of payments to farmers." *Id.*

27. Luhnow & Samor, *supra* note 20.

28. Brazil invested heavily in a man named Urbano Ernesto Stumpf to design an engine that could run on only ethanol. In 1976, the government arranged a tour for Stumpf to show off his designs. "The trip, christened 'The National Integration Rally,' aimed to demonstrate to Brazilians that ethanol really worked." *Id.*

29. Luhnow & Samor, *supra* note 20. "In Brazil, ethanol is called 'alcool' (pronounced OWL-coal)." *Id.*

30. Luhnow & Samor, *supra* note 20.

31. *See* PETROBRAS, RENEWABLE ENERGIES, http://www2.petrobras.com.br/Petrobras/ingles/perfil/per_EnergRenov.htm (last visited Sept. 14, 2007).

32. Dickerson, *supra* note 15.

33. Reel, *supra* note 24.

country is able to transport ethanol through "a well-established distribution system and infrastructure."[34]

Once the government ensured that the ethanol could reach the consumer, Brazil turned to the sugar and automobile industries to achieve the second goal of the Proalcool program.[35] The Brazilian government guaranteed that the pumps had a constant supply of fuel by continuing to heavily subsidize sugar cane farmers.[36] These subsidies stabilized the industry, allowing consumers to trust that ethanol was more than a passing fad.

Earlier investments increased the popularity of the alternative fuel vehicle, but the implementation of Proalcool convinced the public that those vehicles were worth the investment. In fact, Brazilians almost exclusively looked for new cars that could run on pure ethanol.[37] Now that ethanol was accessible, consumers could not resist the fact that it provided a 35% discount over gasoline.[38] Brazil ensured that the price of ethanol would stay low by imposing a tax of forty-two cents per liter on gasoline and only nine cents per liter for ethanol.[39]

Ironically, the Proalcool program was threatened by stability in the Middle East and a regime change in Brazil.[40] In the late 1980s, the price of oil was so low that the paternalistic approach regarding ethanol no longer made economic sense.[41] As the government ended subsidies, demand for ethanol quickly stalled.[42] The fall in demand had a significant impact on the automobile industry.[43] Despite lessening subsidies, the government still considered alternative fuels a priority and preserved the mandate that ethanol be blended with gasoline.[44]

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34. USDA, FOREIGN AGRIC. SERV., GAIN REPORT, BRAZIL SUGAR ETHANOL UPDATE—FEB. 2006 2 (2006), http://www.fas.usda.gov/gainfiles/200602/146176813.pdf.

35. Beth Knight, *Brazilian Auto Industry and the Role of the Government Intervention and International Agreements in its Progress through the 1990s*, 14 TRANSNAT'L L. & CONTEMP. PROBS. 311, 319 (2004). "It is evident from the development of the auto industry in Brazil that government intervention has had a dominant influence in determining the direction and rate of the industry's growth." *Id*.

36. Luhnow & Samor, *supra* note 20. A Brazilian accounting firm "estimates that Brazil spent at least $16 billion in 2005 dollars from 1979 to the mid-1990s on loans to sugar companies and price supports." *Id*.

37. Dickerson, *supra* note 15.

38. Luhnow & Samor, *supra* note 20.

39. USDA, *supra* note 34, at 2. "In October of last year, it was estimated that ethanol enjoyed an advantage of approximately R$ 0.50/liter on state assessments in Sao Paulo. As a result, while pump prices were R$1.14/liter for ethanol and R$ 2.22/liter for gasoline, these prices included a differential of R$ 0.80 in taxation rates." *Id* at 3.

40. Luhnow & Samor, *supra* note 20. "In 1986, after civilians replaced generals in Brazilian politics, the world price of oil plunged, endangering the government's pledge to keep the price of ethanol below that of gasoline." *Id*.

41. Luhnow & Samor, *supra* note 20 "In 1989, President Jose Sarney started cutting ethanol price supports. Sales of ethanol cars plummeted and some Brazilians felt the entire experiment had been a waste." *Id*.

42. Dickerson, *supra* note 15.

43. Reel, *supra* note 24. "Ethanol cars went all the way from more than 90 percent of sales to less than 1 percent." *Id*.

44. Dan Morgan, *Brazil's Biofuel Strategy Pays Off as Gas Prices Soar*, WASH. POST, June 18, 2005 at D1, *available at* http://www.washingtonpost.com/wp-dyn/content/article/2005/06/17/AR2005061701440.html. Even during the oil price drops of the 1990's, the Brazilian government showed support for alternative fuels by "purchasing unsold stocks of ethanol and showering tax breaks on cabdrivers who used ethanol." *Id*.

2. Brazil Today

The organizational system that Proalcool created for ethanol allowed the fuel to make a comeback once the price of oil spiked again in 2002.[45] Ethanol is a booming industry in Brazil, employing an estimated 70,000 people and providing enough fuel "to replace 460 million barrels of oil" per year.[46] The industry has a plentiful crop supply, as Brazil is the largest producer of sugar in the world.[47] With the existing infrastructure, approximately half of this sugar will be converted into ethanol.[48]

B. U.S Ethanol Programs

As in Brazil, ethanol production has a history in the United States. In fact, the United States has been engaged in ethanol legislation since the end of the nineteenth century. Notably, the majority of this legislation was promulgated as a result of war.[49] For example, in 1862, "[t]he Union Congress put a $2 per gallon excise tax on ethanol to help pay for the Civil War."[50] At that time, "ethanol was a major illuminating oil in the United States. After the tax was imposed, ethanol cost too much to be used this way."[51] Domestic demand for ethanol increased during World War I and II, while other energy resources were utilized in combat.[52] After the conflicts were resolved, the demand for ethanol receded.[53] The United States was consumed with cheap and plentiful petroleum.

Once the viability of the oil industry was compromised again, the United States remembered ethanol. Congress created the Energy Tax Act of 1978 as a result of conflicts in the Middle East.[54] The Act essentially provided "a 40 cents per gallon subsidy for every gallon of ethanol blended into gasoline."[55] This subsidy allowed ethanol to be competitive with the price of gasoline.[56] President Jimmy Carter recognized that ethanol could solve two problems: reduce the United States' "dependence on foreign oil while creating a market for surplus corn."[57]

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45. Luhnow & Samor, *supra* note 20.

46. Morgan, *supra* note 44.

47. USDA, FOREIGN AGRIC. SERV., WORLD SUGAR SITUATION — DECEMBER 2005, *available at* http://www.fas.usda.gov/htp/sugar/2006/World%20Sugar%20Situation%20.pdf (last visited Sept. 21, 2007).

48. *Id.*

49. ENERGY INFO. ADMIN., ENERGY KID'S PAGE, ETHANOL TIMELINE, http://www.eia.doe.gov/kids/history/timelines/ethanol.html (last visited Sept. 14, 2007).

50. *Id.*

51. ETHANOL TIMELINE, *supra* note 49.

52. *Id.*

53. ETHANOL TIMELINE, *supra* note 49.

54. Energy Tax Act of 1978, Pub. L. No. 95-618, § 221, 92 Stat. 3185 (codified as amended at 26 U.S.C. §§ 4041, 4081 (2000)).

55. ETHANOL TIMELINE, *supra* note 49. In the Energy Tax Act of 1978, E10 is referenced as "gasohol." *Id.*

56. JOSEPH DIPARDO, ENERGY INFO. ADMIN., OUTLOOK FOR BIOMASS ETHANOL PRODUCTION AND DEMAND, http://www.eia.doe.gov/oiaf/analysispaper/biomass.html (last visited Sept. 14, 2007).

57. Brian Farrell, Note, *Fill 'Er Up with Corn: The Future of Ethanol Legislation in America*, 23 J. CORP. L. 373, 375 (1998).

The strategy seemed to work. Ethanol production increased substantially in the late 1970s and early 1980s.[58] In the Omnibus Budget Reconciliation Act of 1987, Congress recognized the benefits that ethanol production could have on the environment and the economy.[59] Through this bill, Congress used tax incentives to encourage the use of alternative fuels as a means of protecting the country from the tenuous situation in the Middle East.[60] While these laws endorsed the use of ethanol, they did little to actually advance production in a tangible way.

Without direct federal intervention (like that used in Brazil), the United States struggled to increase ethanol production to the level necessary to make it a viable alternative to petroleum. Additionally, the ethanol movement was confronted with strong opposition from the petroleum industry.[61] Opposition to ethanol programs came from agricultural and environmental sources as well.[62]

1. Current State of the Ethanol Market

In 2004, ethanol replaced 143.3 million barrels of imported oil, reducing the trade deficit in the United States by $5.1 billion.[63] In other words, ethanol production replaced about "400,000 barrels of oil a day in 2004."[64] Since 1990, the size of the ethanol industry has tripled.[65]

Part of this increased growth is because ethanol is now more efficient to produce than it was at the beginning of the twentieth century.[66] The spike in demand is also attributable to the fifty-one cent tax credit awarded for each gallon of ethanol-gasoline blend produced.[67] This tax credit is significant as it is applied to "*all ethanol, domestic or imported*," and it allows ethanol to be competitive with the price of pure gasoline.[68]

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58. DIPARDO, *supra* note 56. "Ethanol production jumped from just over 10 million gallons in 1979 to 175 million gallons in 1980." *Id*.

59. Omnibus Budget Reconciliation Act of 1987, Pub. L. No. 100-203, Title I, § 1508(a), 101 Stat. 1330-29 (1987).

60. *Id*.

61. Farrell, *supra* note 57. This is evident in the fact that the most vocal anti-ethanol members of Congress came from states that produce or refine petroleum. *Id*.

62. *See generally*, Florida Audubon Soc'y v. Bentsen, 94 F.3d 658 (1996) (challenging the lack of environmental consideration put into an ethanol tax credit statute).

63. *Renewable Energy Services: An Examination of U.S. and Foreign Markets, Under Section 332(g) of the Tariff Act of 1990 Before the U.S. Int'l Trade Comm'n*, Investigation No. 332-462, at 2 (2005) (statement of Larry Schafer, Vice President, Renewable Fuels Association), http://www.ethanolrfa.org/objects/documents/66/itctestimony041905.pdf [hereinafter *Renewable Energy Services*].

64. *Id*. at 4.

65. *Renewable Energy Services*, *supra* note 63, at 3.

66. "According to the most recent analysis by the U.S. Department of Agriculture, ethanol now yields 167% of the fossil energy used to grow, harvest, transport and refine grain into ethanol." *Renewable Energy Services*, *supra* note 63, at 4. There has been conflicting evidence, however, regarding the energy benefit of ethanol versus the energy consumed to produce it. The National Commission on Energy Policy found that corn-based ethanol "provides nearly a 20% more energy than it takes to produce. A more recent study by Argonne National Labs finds a 35% benefit." *Testimony before the U.S. S. Comm. on Commerce, Science and Transportation*, Nov. 15, 2005 (statement of Jason S. Grumet, Exec. Dir., National Comm'n on Energy Policy), http://www.energycommission.org/site/page.php?testimony=11.

67. *Renewable Energy Services*, *supra* note 63, at 5.

68. *Id*.

Much of the increase in the production of ethanol is also due to various state programs. The South Dakota ethanol program, for example, invests in ethanol plants and provides incentives for consumers and producers.[69] Iowa, currently home to twenty-five ethanol plants, boasts that it has the "capacity to manufacture 1,030 million gallons of ethanol."[70] Each state has a different strategy for implementing ethanol, on top of the federal mandates and subsidies. This allows the state to construct a plan that fits the needs of the jurisdiction.[71] However, ethanol production continues to encounter severe logistical issues that inhibit industry growth.[72] For example, the majority of gas stations are not properly equipped to offer ethanol.

2. Energy Policy Act of 2005

The EPAct[73] is the most recent example of the federal government's efforts to promote ethanol. The EPAct established a Renewable Fuels Standard (RFS) that mandates the use of renewable fuels.[74] This is the first time Congress has created such a mandate.[75] This portion of the law requires "the inclusion of specific aggregate volumes of renewable fuel in motor vehicle fuel sold or dispensed in the contiguous United States."[76] This mandate signifies potential federal intervention in the ethanol industry.

Congress created the RFS as a result of pressure from California regarding the removal of "methyl tertiary butyl ether (MTBE) from the gasoline supply."[77] The RFS is intended to incorporate alternative fuels in a more flexible manner allowing the market to accept ethanol gradually.[78]

Another portion of the EPAct creates a rebate program to reward "consumers for expenditures made for the installation of a renewable energy system in connection with a dwelling unit or small business."[79] The section also requires the Department of Energy to create a report on the impact of these incentives on

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69. SOUTH DAKOTA CORN, ETHANOL: ABOUT, http://www.sdcorn.org/ethanol/. "More than 14,000 South Dakotans have invested in some form of ethanol production. The state is set to consume 250 million bushels of corn for ethanol and by 2008 is expected to be producing 1 billion gallons of ethanol." *Id*.

70. IOWA DEP'T OF AGRICULTURE AND LAND STEWARDSHIP, ETHANOL FACTS, http://www.agriculture.state.ia.us/ethanolfacts.html (last visited Sept. 15, 2007).

71. Farrell, *supra* note 57.

72. DIPARDO, *supra* note 56.

73. 73.Energy Policy Act of 2005, Pub. L. No. 109-58, 119 Stat 594 (2005).

74. *Id*.

75. Raci Oriona Spaulding, *Fuel from Vegetables? A Modern Approach to Global Climate Change*, 13 TRANSNAT'L L. & CONTEMP. PROBS. 277, 303 (2003).

76. KEVIN MCINTYRE, ENERGY POLICY ACT OF 2005 213 (LexisNexis 2006). Furthermore, "[t]he applicable volumes of renewable fuel in motor vehicle fuel for years 2006-2012 are to be determined in accordance with a Schedule set forth in the Act, which sets the applicable volume at 4.0 billion gallons in 2006, rising to 7.5 billion gallons by 2012." *Id*.

77. Eric Washburn & Brian Jennings, *Signature Legislation: RFS Becomes Law*, ETHANOLTODAY, Sept. 2005, at 21, *available at* http://www.ethanol.org/pdf/contentmgmt/RFS_Becomes_Law_Sept_05_ET.pdf. MTBE is a gasoline additive that raises environmental concerns. *Id*.

78. Washburn & Jennings, *supra* note 77, at 21. "However, the debate over MTBE and the [reformulated gasoline] oxygen requirement led those Senators to look for ways to provide refiners with a more flexible means of using ethanol, in return for using even more ethanol in the future." *Id*.

79. Energy Policy Act of 2005 § 206.

consumers as well as the alternative fuel industry.[80] The Energy Information Administration (EIA) found that the incentives could lead to an influx of "between 1 and 3 trillion British thermal units (Btu)" of renewable energy consumption in 2006.[81] While this report includes sources other than ethanol, the findings signify a growing consumer trend towards alternative fuels.

In addition to promoting the consumption of ethanol, the EPAct focuses on increasing the production of the alternative fuel. One way to promote ethanol is to discourage the use of petroleum. Reducing subsidies for fossil fuels is the "sine qua non of promoting renewable resources."[82] Another way to increase production of alternative fuel is to offer tax credits to producers. While a tax break had already existed for small ethanol producers who produce less than thirty million gallons per year,[83] the EPAct expanded the production capacity to sixty million gallons.[84] Doubling the capacity will cost the government an estimated $181 million in tax breaks.[85] Additionally, the EPAct seeks to encourage distribution by providing a credit each time an alternative fueling station is installed.[86]

The EPAct also included the Sugar Cane Ethanol Program[87] that authorizes the Environmental Protection Agency to work with the states to implement alternative fuel strategies.[88] This is an example of the research and development aspects of the EPAct. However, since it is limited to sugar-based ethanol, the allocation of funds will only be distributed to the states that are able to produce sugarcane (Florida, Louisiana, Texas, and Hawaii).[89] There is no similar program for the more prevalent corn-based ethanol.

The ethanol industry received the EPAct with mixed reviews. The Act exceeded the Governors' Ethanol Coalition's (Coalition) recommendations regarding establishing incentives and funding research and development, key elements

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80. *Id.* § 206(d). "RENEWABLE FUEL INVENTORY. —Not later than 180 days after the date of enactment of this Act, the Secretary shall transmit to Congress a report containing—(1) an inventory of renewable fuels available for consumers; and (2) a projection of future inventories of renewable fuels based on the incentives provided in this section." *Id.*

81. ENERGY INFO. ADMIN., IMPACT OF ENERGY POLICY ACT OF 2005 SECTION 206 REBATES ON CONSUMERS AND RENEWABLE ENERGY CONSUMPTION, WITH PROJECTIONS TO 2010 5 (2006), http://www.eia.doe.gov/cneaf/solar.renewables/page/epact/epact.pdf.

82. Richard L. Ottinger, *Renewable Energy Sources for Development*, 32 ENVTL. L. 331, 345-46 (2002).

83. 26 U.S.C. § 40 (2000).

84. Energy Policy Act of 2005 § 1347.

85. MCINTYRE, *supra* note 76, at 203.

86. Energy Policy Act of 2005 § 1342.

87. *Id.* § 208.

88. Energy Policy Act of 2005 § 208. The relevant part of the statute states:

> [T]he Administrator of the Environmental Protection Agency shall establish a project that is—
> A) carried out in multiple States—
> ii. at the option of each such State, that have an incentive program that requires the use of ethanol in the State; and
> B) designed to study the production of ethanol from cane sugar, sugarcane, and sugarcane byproducts.

Id. While this does not extend to corn-based ethanol research and development, it does affect the overall ethanol scheme in the United States.

89. Energy Policy Act of 2005 § 208(c)(2)(A).

of the success in Brazil.[90] However, the Coalition was disappointed that the Act did not focus on a FFV implementation policy.[91] The Coalition would have liked the government to take a stronger position regarding transitioning the general public towards alternative fuel vehicles as a means of ensuring consistent demand.[92]

Conversely, economists typically stress the importance of making the alternative fuel cheap and available prior to promoting the alternative fuel vehicle. This situation is comparable to the one faced by regulators trying to incorporate unleaded fuel into the market.[93] Herein lies the major dilemma of the U.S ethanol strategy. Without abundant ethanol, consumers will not purchase alternative fuel vehicles. Without consumer demand, manufacturers will not spend the money to create vehicles to run on alternative fuel.[94]

IV. THE IMPACT OF THE REMOVAL OF THE ETHANOL TARIFF

Currently, the U.S. ethanol industry is unable to match the price of Brazilian-produced ethanol.[95] However, every gallon of ethanol imported into the United States is subjected to a fifty-four cent tariff.[96] Congress must now decide whether to renew the tariff, scheduled to expire on October 1st, 2007.[97] Congress has most recently considered the future of alternative fuels in the passing of the EPAct, specifically with the RFS. If the RFS is a sign of Congress's intent to merely increase ethanol usage, then the tariff may not be necessary. The removal of the tariff may jumpstart the ethanol market in the United States by forcing domestic manufacturers to produce ethanol at a competitive rate. Alternatively, if Congress intended the RFS to be part of a greater domestic ethanol scheme, then the tariff may be necessary to bolster domestic ethanol production.

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90. GOVERNORS' ETHANOL COAL., COMPARISON OF THE COALITION'S RECOMMENDATIONS AND THE ENERGY POLICY ACT OF 2005, http://www.ethanol-gec.org/E-Bill-Comparison.pdf (last visited Sept. 15, 2007). The Coalition is comprised of governors and leaders seeking to promote ethanol. "Membership as of January 2007 stands at 36 states plus international representatives from Brazil, Canada, Mexico, Queensland, Australia, Sweden and Thailand." GOVERNORS' ETHANOL COAL., THE COALITION'S HISTORY, http://www.ethanol-gec.org/aboutus/histry.htm (last visited Sept. 15, 2007).

91. *Id*.

92. GOVERNORS' ETHANOL COALITION, *supra* note 90.

93. Laurie Michaels, *Alternative Fuels and Greenhouse Gas Emission Policy*, *in* TRANSPORTATION AND ENERGY: STRATEGIES FOR A SUSTAINABLE TRANSPORTATION SYSTEM 108 (Daniel Sperling & Susan A. Shaneen, eds., 1995). "Experience with the introduction of unleaded gasoline indicates that, when the new fuel is more expensive than the traditional fuel, drivers are likely to go out of their way to avoid using it." *Id*.

94. Gail A. McKay, *The Chicken or the Egg Dilemma: Introducing Alternative Fuels into the California Marketplace*, 14 LOY. L.A. INT'L & COMP. L.J. 405 (1992).

95. WOODROW WILSON INTERNATIONAL CENTER FOR SCHOLARS, THE GLOBAL DYNAMICS OF BIOFUELS: POTENTIAL SUPPLY AND DEMAND FOR ETHANOL AND BIODIESEL IN THE COMING DECADE (2007), http://www.wilsoncenter.org/index.cfm?topic_id=1419&fuseaction=topics.event_summary&event_id=215842. "The projected price of ethanol produced in Brazil remains lower than both the projected prices of unleaded gasoline and of U.S. produced ethanol. In fact, the price differential between Brazilian and U.S. produced ethanol was so great in 2006 that it was still cheaper to import Brazilian ethanol even after the 54 cents per gallon import tariff." *Id*.

96. 19 U.S.C. § 3007 (2000); U.S. INT'L TRADE COMM'N, HARMONIZED TARIFF SCHEDULE OF THE UNITED STATES (2006), http://hotdocs.usitc.gov/docs/tata/hts/bychapter/0612C99.pdf (last visited Sept. 15, 2007).

97. *Id*.

If, as the legislative history suggests, the RFS mandate's purpose is to foster energy independence, then the tariff should be renewed.

A. Tariff as part of overall ethanol scheme

In light of a government seeking to promote the use of alternative fuels, a tariff on imported ethanol appears counterintuitive. This is especially true in light of subsidies and mandates seeking to increase producer and consumer reliance on ethanol. Nevertheless, imported ethanol is subjected to a two-part duty: "a regular duty of 2.5% ad valorem; and a secondary duty of 14.27 cents per liter or 54 cents per gallon."[98]

On one hand, the tariff is an example of protectionism.[99] It is an example of the government favoring domestic producers in violation of international agreements such as the General Agreement on Tariffs and Trade (GATT).[100] The word "protectionism" has a negative connotation, with opponents stressing that it requires extensive administrative costs while raising prices and reducing quality through the elimination of competition.[101]

On the other hand, the tariff is seen as offsetting subsidies so that U.S. tax dollars are not funding international ethanol production. Currently, every gallon of ethanol, regardless of origin, is entitled to a fifty-one cent subsidy.[102] Proponents view the tariff as a means of counteracting this subsidy and discouraging imported ethanol. Therefore the majority of tax dollars are invested back into the country, thus preserving the American economy.

Nevertheless, whether it is protectionist or preservationist, the tariff is temporary.[103] While it is unlikely that legislative action will occur prior to the fall of 2007, the ethanol tariff was instrumental in the highly divisive 2006 Congressional elections. Some politicians, mostly those with urban constituents, suggested that the removal of the tariff would lower the price of fuel.[104] Other politicians, specifically those from mid-western states, secured the corn farmer and ethanol producer's vote by stressing the threat to the domestic industry if the tariff is lifted.[105]

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98. *Renewable Energy Service*, *supra* note 63, at 5. The secondary tariff is found in the Harmonized Tariff Schedule. HARMONIZED TARIFF SCHEDULE, *supra* note 96. Although the tariff is considered separately here, it is important to remember that the fifty-one cent subsidy winnows the actual cost of imported ethanol down to approximately three cents per gallon.

99. Robert McGee, *The Cost of Protectionism: Should the Law Favor Producers or Consumers?*, 23 GA. J. INT'L & COMP. L. 529 (1993). This school of thought views tariffs as tools "to raise the price to consumers, thereby reducing the price competition on domestic producers that would otherwise result." *Id*.

100. General Agreement on Tariffs and Trade, Oct. 30, 1947, 61 Stat. A-11, 555 U.N.T.S. 194. Both the United States and Brazil are parties to the GATT. The preamble to which states that the member states "[b]eing desirous of contributing to these objectives by entering into reciprocal and mutually advantageous arrangements directed to the substantial reduction of tariffs and other barriers to trade and to the elimination of discriminatory treatment in international commerce." *Id*.

101. McGee, *supra* note 99, at 532.

102. *Renewable Energy Service*, *supra* note 63, at 5.

103. HARMONIZED TARIFF SCHEDULE, *supra* note 96.

104. *See, e.g.*, Press Release, Sen. Judd Gregg, Schumer, Gregg Call for Lifting Steep Tariff on Foreign Ethanol Imports; Could Save Drivers 8 Cents per Gallon (May 10, 2006), http://gregg.senate.gov/press/2006/May/0510_tariff_ethanol_imports.htm.

105. *See, e.g.*, Press Release, Grassley, Talent Take Lead, Grassley asks President to Back-off Ethanol Tariff Proposal (May 12, 2006), http://grassley.senate.gov/public/index.cfm?FuseAction=

The debate over the ethanol tariff most directly affects Brazil, as its strong domestic ethanol program makes it the likely source for imported ethanol. Not only has ethanol reduced Brazil's need for imported oil, it has now become a major export for the country.[106] While Brazil is a large country, its population does not require the large amount of ethanol produced domestically. It is estimated that Brazil will export two-thirds of its sugar and 13.5% of its ethanol.[107] For the past few years, Brazil has exported much of this surplus ethanol to India.[108] This year, however, India's production of domestic ethanol will meet the country's demand and it will no longer import from Brazil.[109] With production continuing to grow, Brazil is looking to the United States to take on the additional ethanol.

B. The Tariff Opposition

A major opponent of the tariff is the President of the United States.[110] This may conflict with his goals to increase domestic ethanol production. In the 2006 State of the Union, President Bush announced a goal to make "ethanol practical and competitive within six years."[111] In this speech, the President stressed the need for alternative fuel as a means of attaining energy independence.

Similarly, upon signing the EPAct in 2005, President Bush emphasized how the Act is a step towards energy independence. When discussing the RFS portion of the EPAct, President Bush touted it as accomplishing many things, including reducing dependency on foreign energy.[112] The emphasis, however, is specifically placed on being independent from Middle Eastern energy sources.[113]

If President Bush's goal is to reduce dependency solely on the Middle East, the ethanol tariff need not be renewed. The subsequent influx of alternative fuels from more "friendly" nations will not undermine his goals. However, Latin America, like the Middle East, has a history of political instability. If energy independence in general is President Bush's goal, it is questionable whether being less dependent on foreign oil is worth being more dependent on foreign ethanol.

Senator Feinstein (D-CA) is another key opponent of the tariff. Along with Senator Kyl (R-AZ), Feinstein crafted legislation to completely eliminate the tar-

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PressReleases.Detail&PressRelease_id=bd9671d5-e37f-471f-bbac-b35bbbade586&Month=5&Year=2006.

106. Between 2006-2007, Brazil is expected to see a 10% increase in sugarcane from 2005-2006. "The cane should yield 30 million metric tons of sugar, and 17.05 billion liters of fuel ethanol." Josh Schneyer, *Brazil's Strong Cane Crop Seen Providing Boost in Ethanol Exports to U.S.*, PLATTS OILGRAM NEWS, June 8, 2006, *available at* 2006 WLNR 10784438.

107. *Id*.

108. Schneyer, *supra* note 106. During 2005-2006, Brazil exported approximately 400 million liters to India. *Id*.

109. Schneyer, *supra* note 106.

110. *Id*.

111. George W. Bush, President, 2006 State of the Union Address (Jan. 31, 2006), http://www.whitehouse.gov/stateoftheunion/2006/print/index.html (last visited Sept. 15, 2007)) [hereinafter 2006 State of the Union].

112. Press Release, Office of the Press Secretary, President's Statement on Energy Policy Act of 2005 (Aug. 8, 2005), http://www.whitehouse.gov/news/releases/2005/08/20050808-9.html.

113. 2006 State of the Union, *supra* note 111. President Bush framed alternative fuels as the way to "dramatically improve our environment, move beyond a petroleum-based economy, and make our dependence on Middle Eastern oil a thing of the past." *Id.*

iff.[114] This legislation arises as a result of the ethanol mandate portion of the EPAct, a requirement that Senator Feinstein adamantly opposed during debate over the legislation.[115] The Senators argue that removing the tariff is in the best interest of the consumer since the RFS has increased demand for ethanol.[116] Senator Feinstein sees the tariff as the government favoring the corn lobby over what is best for the free market.[117]

1. Increased Supply will Lower Prices

The primary argument of the tariff opponents centers on the plight of the average consumer at the fuel pump. In May of 2006, Senators Schumer (D-NY) and Gregg (R-NH) attempted to temporarily remove the ethanol tariff for the remainder of 2006.[118] This piece of legislation stemmed from the concern that the high prices of gasoline would have an adverse effect on Americans' summer travel plans. This plan did not address the various logistical problems that the ethanol industry faces, such as how to get the fuel to the average consumer. The plan assumed that the only problem facing the alternative fuel industry is a lack of supply rather than a lack of infrastructure and demand.

2. Caribbean Basin Initiative

Another argument is that the tariff is unnecessary because Brazilian ethanol is already being imported duty-free. The ethanol duty is not imposed on every import, as Congress creates legislation to exempt certain countries. These exemptions are used in order to stimulate a country's economic development or buttress its trade with the United States.[119] Such legislation takes the form of bilateral agreements or unilateral trade preference initiatives.[120] The Caribbean Basin Economic Recovery Act (CBERA) is an example of an exception to the ethanol tariff in the form of a unilateral trade preference program.[121]

The CBERA took effect on August 5, 1983,[122] and is subject to periodic analysis by the Secretary of Labor.[123] The CBERA allows "[t]he President [to] proclaim duty-free treatment (or other preferential treatment) for all eligible articles from any beneficiary country" in order to rejuvenate the Caribbean re-

114. Press Release, Sen. Dianne Feinstein, Senators Kyl and Feinstein Call for Eliminating Ethanol Import Tariff (May 5, 2006), http://feinstein.senate.gov/06releases/r-ethanol-tariff.htm.

115. Press Release, Sen. Dianne Feinstein, Senate Approves 8 Billion Gallon Ethanol Mandate (June 15, 2005), http://feinstein.senate.gov/05releases/r-ethanol-amndt.htm.

116. Sen. Dianne Feinstein, *supra* note 114. According to Sen. Feinstein, "[i]f [oil companies] are going to be forced to use ethanol, [our refineries] should have the choice to buy it from the cheapest seller." *Id*.

117. Editorial, *Erring on Ethanol*, L.A. TIMES, May 22, 2006, at B10.

118. *See, e.g*., Press Release, Sen. Judd Gregg, Schumer, Gregg Call for Lifting Steep Tariff on Foreign Ethanol Imports; Could Save Drivers 8 Cents per Gallon (May 10, 2006), http://gregg.senate.gov/press/2006/May/0510_tariff_ethanol_imports.htm.

119. *Renewable Energy Services*, *supra* note 63, at 5.

120. *Id*. Two examples of bilateral agreements are "the U.S.-Israel Free Trade Agreement and the North American Free Trade Agreement . . . ." *Renewable Energy Services*, *supra* note 63, at 5.

121. 19 U.S.C. §§ 2701-2707 (2000). Another example of a unilateral program is the Andean Trade Preference Act. *Renewable Energy Services*, *supra* note 63, at 5.

122. 19 U.S.C. § 2706(a).

123. *Id.* § 2705.

gion.[124] This is a symbiotic plan, as it guarantees the United States continued access to certain imported items while strengthening the economy of troubled nations.

To date, twenty-one countries or territories are eligible for the benefits of the CBERA.[125] The beneficiary countries are chosen based on a litany of economic, social, and political factors.[126] The President is granted the discretion to remove a country that does not satisfy the requirements of the Act. This is also advantageous for the government as it causes the beneficiary countries to strive to remain in the good graces of the United States.[127] Similarly, the CBERA only grants duty-free treatment to the items that meet certain requirements in order to ensure that it fulfills the purpose of assisting the chosen countries.[128] However, the CBERA may inadvertently provide preferential treatment to a larger country using a beneficiary country as a clearinghouse.

While countries have taken advantage of the CBERA, there are limitations. The CBERA will allow ethanol to come into the United States duty-free so long as a certain amount of the product is produced in the beneficiary country.[129] For example, Brazil may take advantage of the CBERA to filter ethanol through a beneficiary country but only at a maximum amount equaling "7 percent of the U.S. production" from the year before.[130]

C. The Tariff Supporters

Talks of removing the tariff have been met with animosity from those involved in the domestic ethanol industry. Likewise, supporters of the EPAct are

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124. 19 U.S.C. § 2701.

125. *Id.* § 2702(b).

126. 19 U.S.C. § 2702(c). Some of the factors considered are:

> (1) an expression by such country of its desire to be so designated;
> (2) the economic conditions in such country, the living standards of its inhabitants, and any other economic factors which he deems appropriate;
> (3) the extent to which such country has assured the United States it will provide equitable and reasonable access to the markets and basic commodity resources of such country;
> (4) the degree to which such country follows the accepted rules of international trade provided for under the WTO Agreement and the multilateral trade agreements

19 U.S.C. § 2702(c)(1-11).

127. *See* 19 U.S.C. § 2702(b) (2000).

128. 19 U.S.C. § 2703(a)(1)(a-b) (2000). The Act states that

> [T]he duty-free treatment provided under this chapter shall apply to any article which is the growth, product, or manufacture of a beneficiary country if--
> (A) that article is imported directly from a beneficiary country into the customs territory of the United States; and
> (B) the sum of (i) the cost or value of the materials produced in a beneficiary country or two or more beneficiary countries, plus (ii) the direct costs of processing operations performed in a beneficiary country or countries is not less than 35 per centum of the appraised value of such article at the time it is entered.

Id.

129. *Renewable Energy Services*, *supra* note 63, at 5.

130. Bill Lambrecht, *Brazil Offers Model for Ethanol Success*, ST. LOUIS POST-DISPATCH, May 17, 2005, at A1.

concerned that lifting the tariff will counteract many of the advancements brought about as a result of the legislation. Tariff supporters admonish the government to promote the domestic ethanol industry as a way to further gain energy independence.

1. Promotion of the Domestic Industry

One argument is that the removal of the tariff will have a chilling effect on the ethanol industry.[131] The ethanol industry desperately needs continued investment in order to conduct crucial research and development. Investors may be wary to support an industry that appears to have lost the backing of the government. Opponents argue that the removal of the tariff will be "the wrong signal to send just as America's ethanol industry is picking up steam."[132]

Representative Boswell (D-IA) introduced legislation in the House on May 19, 2006, seeking to extend the temporary ethanol tariff until January 1, 2011.[133] Representative Boswell is a supporter of the tariff, as domestic ethanol production is important to his constituency. According to Representative Boswell, "the tariff has helped America's ethanol producers succeed and it's simply not the time to halt its progress at a time when the ethanol industry is picking up speed."[134] Similarly, Senator Grassley (R-IA) views the potential removal of the tariff as undermining the purpose of the RFS in the EPAct.[135] Senator Grassley, the Chairman of the Senate Committee on Finance, argues that removing the tariff will not lower prices for consumers but will only counteract the progress made in the domestic ethanol industry.[136]

2. Energy Independence

A second argument is that the EPAct mandates represent the country's desire to obtain energy independence. The tariff, therefore, serves as an example of the government's determination to promote the growth of the domestic industry rather than support foreign industries. Senator Thune (R-SD) supported the EPAct as a way for the federal government to reduce foreign dependency as well as invest in existing state ethanol programs.[137] Senator Obama (D-IL) supported the RFS portion of the EPAct primarily because of the possibility of reducing dependency on foreign oil.[138]

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131. Press Release, American Farm Bureau, Killing the Ethanol Tariff Would Hurt U.S. and Not Lower Gas Prices (May 10, 2006), http://www.fb.org/index.php?fuseaction=newsroom.newsfocus&year=2006&file=nr0510a.html.

132. *Id.*

133. H.R. 5431, 109th Cong. (2006).

134. Press Release, Rep. Leonard Boswell, Boswell Introduces Bill to Extend Tariff on Ethanol (May 24, 2006), http://boswell.house.gov/article.asp?id=457.

135. Grassley, *supra* note 105.

136. *Id.*

137. Press Release, Sen. John Thune, Thune Statement on Energy Bill Passage (July 29, 2005), http://thune.senate.gov/public/index.cfm?FuseAction=PressReleases.Detail&PressRelease_id=112&Month=7&Year=2005.

138. Molly Parker, *Obama Touts Ethanol's Use*, PEORIA JOURNAL STAR, March 15, 2005, *available at* http://obama.senate.gov/news/050315-obama_touts_ethanols_use/index.php.

Since Brazil is already exporting some ethanol duty-free through the CBERA, Senator Brownback (R-KS) argues that removing the tariff will only improve foreign access to the U.S. market without benefits or reciprocity.[139] The tariff, therefore, serves as a necessary roadblock to ensure that the domestic industry has the resources to continue to grow. Investing in the ethanol industry requires the government to secure demand for the domestic product.

The desire to achieve greater energy independence also serves as an impetus for state action. State leaders realize that bolstering the ethanol industry can have a tremendous effect on a state's economy.[140] In September of 2006, Florida sponsored a summit to create an alternative fuel strategy for the state.[141] Florida officials are pushing to make the state a key player in "25/25," a "national goal set by the agricultural industry to produce 25 percent of the energy consumed in the United States by 2025."[142]

V. CONCLUSION

The removal of the tariff on foreign ethanol has the potential to compromise the progress of the domestic ethanol industry. Tariff opponents stress the need to increase the supply of ethanol, regardless of origin, to drive down the price of the fuel. While this may please the consumer filling up at the gas station, it is not consistent with the government's desire to increase energy independence. Based on an examination of ethanol's history in Brazil, it is apparent that the United States must do more than merely keep the tariff in order to achieve success in the ethanol industry. The United States lacks the infrastructure that exists in Brazil to allow ethanol to reach the consumer. Similarly, alternative fuel vehicles must be promoted. While the automobile industry is picking up steam in manufacturing FFVs, there is still much ground to be covered. Without a continuous and cohesive strategy, the United States will not reach the level of success ethanol enjoys in Brazil.

Kaylan Lytle[143]

139. Press Release, Sen. Sam Brownback, Brownback Stands Against Ethanol Tariff Reduction (May 10, 2006), http://brownback.senate.gov/pressapp/record.cfm?id=255386&&days=365&.

140. David Adams, *Florida's Next Crop: Biofuels?*, ST. PETERSBURG TIMES, Sept. 1, 2006, at 1D, *available at* http://www.sptimes.com/2006/09/01/Business/Florida_s_next_crop__.shtml. The federal government is investing heavily in the biofuel industry and states are vying for a piece of the pie. The University of Florida, for example, is contending "for a $500-million 'biosciences institute.'" *Id.*

141. Adams, *supra* note 140.

142. *Id.*

143. J.D. Candidate, May 2008. The Author expresses appreciation to Brian Zimmet and Tyler Harden for their brains, to la familia for their courage, and to Travis J.W. Phillips for his heart.