



Florida Biofuels – A Homegrown Revolution

American Biofuels Now is a coalition of business, industry, citizens, educators, researchers and leaders who want real policies to support real businesses providing a real alternative for future energy.

American Biofuels Now recognizes that we cannot turn off the fossil fuel taps today, but we need to prepare ourselves for tomorrow. We recognize that biofuels are not the “magic bullet” solution but they are available NOW.

Coupled with other policies, like increased fuel economy standards, energy efficiency and conservation, and other renewable energy resources, the United States can attain energy independence.

Specifically, American-made biofuels create:

- (1) Local economic development
- (2) Sustainable and reliable energy supply
- (3) Energy and national security
- (4) Reductions in greenhouse gas emissions

What Gasoline Is Costing Florida

Florida currently ranks **third** among all states in total gasoline consumption at more than **20 million gallons per day**. Our demand is projected to exceed **28 million gallons per day** by 2020, according to “Fueling Florida’s Future – Strategic Fit of Alternative Fuels in Florida” by the Clean Fuel Florida Advisory Board.

Florida currently consumes a staggering **7.6 billion gallons of gasoline per year**, the U.S. Department of Energy says. Accounting for a 10 percent average ethanol consumption, Florida burns **8.36 billion gallons of blended fuel** each year.

At an average cost of \$2.417 per gallon, using 2009 data from the U.S. Energy Information Administration, Floridians spent roughly **\$20.2 billion** on imported gasoline and ethanol in 2009.

Floridians send **\$2 billion dollars** out of state for ethanol each year that could be locally produced. In addition, Florida’s economy does not benefit from participating in the supply chain of producing that fuel, and thus, does not economically benefit from employment opportunities associated with its production. Local governments also miss out on increased tax revenue stemming from the purchased land and operating facility.

What Diesel Fuel Is Costing Florida

Currently there are approximately **1.4 billion gallons of diesel sold**, according to the Florida Department of Revenue, although some estimates have that as high as 2 billion gallons. Taking into consideration a very conservative price estimate of \$2.28 per diesel gallon, Floridians sent **\$3.2 billion dollars** out of state for diesel.

In fact, the dollars could be even greater since B5 (5 percent biodiesel) doesn’t have to be declared at

the pump, thus it's not included in market summaries. For example, Florida Power & Light testified at the 2010 Farm to Fuel event in Orlando that FPL is the largest non-governmental consumer of biodiesel in Florida, yet the company does not consume any Florida produced biodiesel.

Getting to the Source of Petroleum, Ethanol and Biodiesel

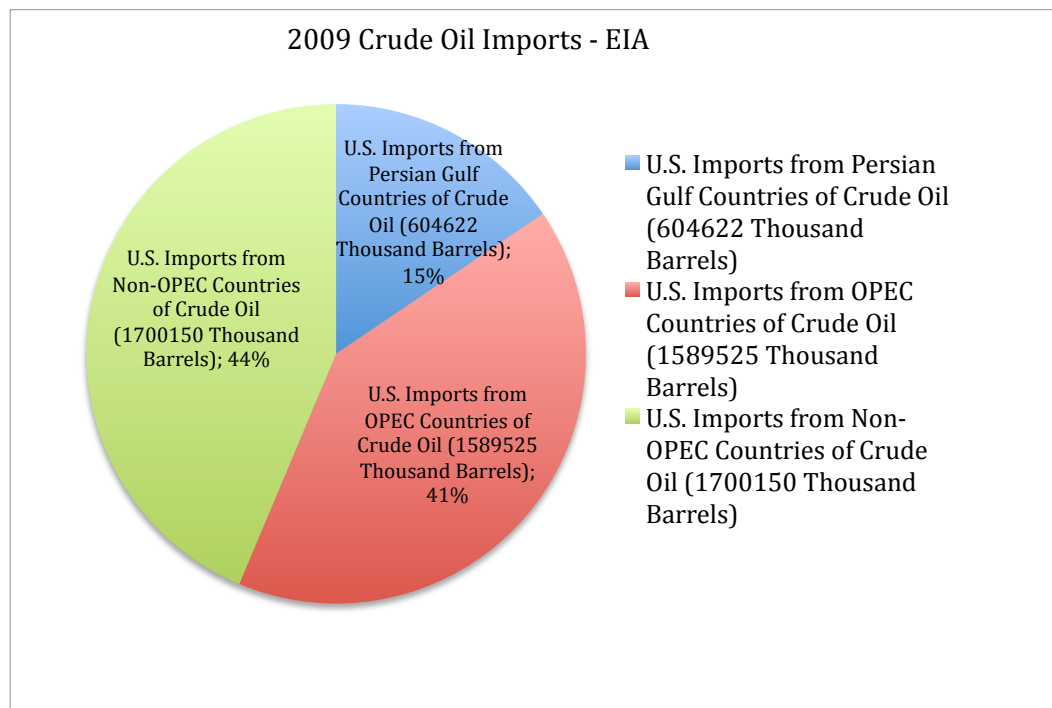
Florida is heavily dependent on imported fuels with very little crude production and no petroleum refining capacity. It does not have a gasoline pipeline from the Gulf coast petroleum refineries either. Instead, Florida's fuel arrives on tankers and barges from all over the world, foreign nations, as well as Gulf coast ports to destinations along the Florida Gulf and Atlantic coasts.

More foreign fuel enters our ports than domestic fuels (adding to the trade imbalance). When refined petroleum products like gasoline, diesel fuel and jet fuel reach Florida port destinations, the fuels are transferred to many different supply storage terminals located within the seaports. Terminal owners then mix their additive packages into the refined products at these facilities before distributing to stations and businesses by tanker trucks.

Currently, no ethanol fuel production facilities exist in Florida, and only one commercial biodiesel facility – Genuine Biofuels – is continuously running throughout the year. Therefore, all the ethanol and the majority of biodiesel is imported via rail or barge and blended with petroleum products at Florida's ports before making its way to gas stations around the state.

Ethanol, to be blended with gasoline, is imported primarily from the Midwest, the Caribbean Basin and Brazil. Gasoline is blended at the refineries from crude purchased on the world market.

The United States imports approximately 62 percent of its oil with 41 percent of that coming from OPEC (which includes Venezuela), 15 percent from the Persian Gulf, and the remaining 44 percent from non-OPEC countries like Canada, which provides 20 percent of the nation's oil, and Mexico which provides another 10 percent. Many of these countries are unstable or simply unfriendly to Americans. Dependence on foreign sources leaves us politically and economically vulnerable to supply disruptions and cost increases.



What it Means for Florida

If Florida produced the 10 percent of ethanol needed for blending at our ports, this state would retain at least **\$2 billion** that is currently flowing to sister states and foreign nations. This estimate is very conservative since it does not take into account the “trickle-down” economic growth associated with producing 760 million gallons of ethanol annually.

The impact of ethanol production and use reaches virtually every sector of our market. Economists measure ethanol production using a variety of metrics, but we can conservatively estimate that based on a typical 40 million gallon ethanol plant, it will generate the following economic activity:

- The plant will provide a one-time boost of \$71 million to the local economy during construction.
- The plant will expand the local economic base of the community by \$70.2 million each year through the direct spending of \$58 million.
- The plant will create at least 33 full-time jobs at the plant, and a total of at least 120 jobs throughout the local economy.
- The plant will increase household income for the community by \$6.7 million annually.

Source: Nebraska Public Power District, Employment and Other Economic Impacts Associated with the Construction of an Ethanol Production Facility (January 2005), and Estimated Economic Effects for the Prospective Ethanol Production Facility in Boone County, Nebraska (June 2004).

Economic benefits vary significantly depending on plant type, and many of the economic studies fail to measure the impacts on other industries – feedstock, research, by-products, etc. Adding to the complexity is that the larger the plant, the greater the economic multiplier. Below are some economic impacts by plant type:

- One 49 million gallon per year cellulosic ethanol plant will generate about 194 jobs and \$105.5 million annually to the local economy in the first phase of operation (Flanders and McKissick, *the Economic Impact of Cellulosic Ethanol Production in Treutlen County, 2007*)
- A 110 MGY biodiesel plant will add \$117 million to the local economy and create 635 new jobs in all sectors of the economy. (Urbanchuk, *The Economic Impact of the Biodiesel Industry, 2007*)
- One 110 MGY ethanol plant will generate about 265 jobs and \$34.98 million annually to the local community. (Palmer, *Economic Impact of Ethanol Production in Hall County, 2007*)

To produce its own ethanol, Florida would have to build approximately 19 plants, which in the process would create 627 full-time jobs, another 1,560 jobs throughout the local area, and funnel at least \$1.3 billion into local economies annually.

Florida doesn't have a biodiesel mandate, but the Federal Renewable Fuels Standard – as administered by the Environmental Protection Agency -- does mandate the limited production and use of biodiesel. To incentivize the use, the federal government offers a blender credit as a carrot. If just 5 percent of Florida's 1.4 billion gallons of diesel were to be blended with Florida biodiesel, we would need to make about 70 million gallons. This would generate approximately \$70 million and create approximately 400 jobs (based on the example plant above).

Why Florida is ready NOW

Florida has substantial infrastructure already in place:

- Kinder Morgan pipeline, a 16-inch pipeline known as the Central Florida Pipeline that began transporting commercial bates of ethanol along with gasoline from Tampa to Orlando. That made CFPL the first transmarket gasoline pipeline in the United States to do so.
http://www.afdc.energy.gov/afdc/pdfs/km_cfpl_ethanol_pipeline_fact_sheet.pdf
- Sophisticated blending facilities at Florida ports
- State Renewable Fuel Standard: 10 percent by Dec. 31, 2010
- ~600,000 flex fuel vehicles, or FFVs
- 44 E85 stations across 34 cities
- \$2.5 million revolving loan for E85 retail pumps
- Expedited permitting for biofuels

ETHANOL PRODUCTION FACILITIES (8 projected facilities ~230 MGY)

- **Southeastern Renewable Fuels**, Hendry County – sweet sorghum to produce 22 MGY ethanol and 30 megawatts of electricity
- **Highlands EnviroFuels, LLC.**, Highlands County - sweet sorghum and sugar cane to produce 30 MGY
- **INEOS New Planet Bioenergy**, Indian River County – waste biomass to produce 8 (up to 50) MGY ethanol and electricity
- **Vercipia Ethanol Facility**, Highlands County – energy cane and forage sorghum to produce 40 MGY cellulosic ethanol
- **University of Florida Ethanol Testing Facility (Buckeye site)**, Taylor County –165 KGY ethanol and organic acid
- **Coskata Inc., and U.S. Sugar Corp.**, Hendry County – sugar cane to ethanol, 100 MGY
- **Vision/FL LLC**, Osceola County- sweet sorghum to ethanol, 30 MGY and 50 MW of electricity
- **Algenol Biofuels**, Lee County - algae to ethanol, pilot production plant, producing 300 KGY

BIODIESEL PRODUCTION FACILITIES (4 projects ~40 MGY)

- **Genuine Biofuels**, Martin County - 6MGY (**currently** producing; waste vegetable oil)
- **SmartFuels**, Lake County – 2.74 MGY (not producing; waste vegetable oil)
- **Agri-Source Fuels, LLC**, Pasco County – 12 MGY up to 60 MYG (limited production; animal fats and plant oils)
- **Purada Processing LLC, now Clean Fuel Lakeland LLC**, Polk County - 18.25 MGY (not producing; vegetable oil/animal feedstock)

What's Next

Current Florida Law requires a 10 percent ethanol blend. However, the EPA recently released a decision to increase this to 15 percent ethanol for most cars. This recent EPA decision is an indication that the industry will soon move to a higher blend at retail pumps:

Florida Ethanol Blend Mandate

Beginning Dec. 31, 2010, all gasoline that a terminal supplier, importer, blender, or wholesaler sells or offers for sale in Florida must contain 9 to 10 percent ethanol by volume. Ethanol fuel may be derived from any agricultural source. The fuel mandate does not apply to fuel used in aircrafts or watercrafts, fuel sold to a blender, or fuel sold for use in collector vehicles, off-road vehicles, motorcycles, or small engines. If a terminal supplier, importer, blender, or wholesaler is unable to obtain ethanol fuel at the same or lower price as unblended gasoline, then the covered entity may apply for a waiver. (Reference [Florida Statutes 526.201-526.207](#))

However, this law does not address biodiesel — a significant opportunity for us to invest in ourselves. Florida should extend the state's renewable energy technologies investment tax credit and investigate other ways to expand the market (such as a low-carbon or renewable fuel standards) that requires a percentage to come from Florida producers.

Several Federal laws are set to expire which will devastate the industry as well, including:

- Volumetric Ethanol Excise Tax Credit (VEETC), set to expire at the end of 2010
- Small Producers Tax Credit
- Cellulosic Ethanol Producer Tax Credit that expires at the end of 2012.

Clearly, Florida has a tremendous opportunity to create a sustainable market for biofuels that will reduce our dependence on imported fuels both petroleum- and bio-based. By creating our own markets we create tremendous residual benefits to communities, our economy, our security and our environment.