E85 Retail Station Locations in Iowa

Report to the

Iowa General Assembly

Submitted by the:

Iowa Department of Transportation

and

Iowa Department of Natural Resources

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Introduction

House File 2754, relating to renewable fuel and energy, was enacted on May 30, 2006. The Act established goals and incentives for the use of renewable fuel, including E85 gasoline (85 percent ethanol and 15 percent gasoline).

Section 33 of the Act states:

Sec. 33. DEPARTMENTAL STUDY – E85 GASOLINE AVAILABILITY. The state department of transportation and the department of natural resources shall cooperate to conduct a study to provide methods to inform persons of the availability of E85 gasoline offered for sale and distribution by retail dealers of motor fuel in this state, including the location of each retail motor fuel site where a retail dealer offers E85 gasoline for sale and distribution. The department's study shall include methods for identifying those locations for the convenience of the traveling public including but not limited to the identification of those locations on roadside signs and on the official Iowa map published pursuant to section 307.14. The departments shall jointly prepare and deliver a report to the governor and general assembly, which includes findings and recommendations, not later than January 10, 2007.

Ethanol and E85 Trends in Iowa and Nationwide

Ethanol is a flourishing industry in Iowa and the nation with production and use of the renewable fuel growing daily. During the first nine months of 2006, Iowans chose ethanol-blended fuel approximately 75 percent of the time on average, according to Iowa Department of Revenue sales data.

Iowa's ethanol plants are capable of producing more than 1.56 billion gallons per year with 25 plants in production. An additional 20 plants are in the planning or construction process and are expected to come on-line by 2009. This will increase Iowa's production capacity to more than 3.5 billion gallons annually.

According to the Iowa Department of Natural Resources (DNR), record ethanol sales continue to be set in Iowa each year. Iowa retail stations sold 1,211,812,177 gallons of E10 (10 percent ethanol and 90 percent gasoline) in 2005, compared to 1,076,701,458 gallons in 2004, an increase of 12 percent. In 2003, 998,831,351 gallons were sold, bringing the increase from 2003 to 2005 to 16 percent.

Usage of E85 has increased dramatically in recent years, but 2005 E85 sales remained less than 1 percent of all ethanol sales in Iowa. In 2004, 140,726 gallons of E85 were sold across the state. Annual sales jumped to 668,595 in 2005, an increase of 375 percent compared to 2004 and 716 percent compared to the 81,891 gallons sold in 2003.

Iowa state government was one of the earliest users of E85 and owns one of the largest fleets of flexible-fuel vehicles in the nation with more than 650 vehicles. Flexible-fuel vehicles are manufactured to operate on any blend of ethanol or gasoline up to E85. Iowa's local, county and state governments are required by law to use ethanol-blended fuel in all applicable vehicles.

On April 22, 2005, Governor Vilsack signed <u>Executive Order 41</u> requiring the use of E85 and biodiesel in the state fleet. Provisions of the order include:

- IV. All agencies shall ensure that 100% of the non-law enforcement, light-duty vehicles procured by 2010 shall be alternative fuel vehicles (as defined by Iowa Code section 8A.362(5)) or hybrid-electric vehicles when an equivalent alternative fuel or hybrid-electric model is available. Furthermore, agencies shall ensure that their flexible fuel vehicles operate on E85 whenever an E85 fueling facility is available.
- V. All agencies shall ensure that all bulk diesel fuel procured has at least 5% renewable content by 2007, 10% renewable content by 2008, and 20% renewable content by 2010, provided fuel that meets ASTM D 6751 is available. Further, agencies shall ensure that diesel vehicles operate on biodiesel blends whenever the blends are available.

E85 Retail Station Locations in Iowa

There are more than 1,000 E85 retail stations and over six million flexible-fuel vehicles nationwide, according to the National Ethanol Vehicle Coalition. According to the Iowa Department of Transportation (DOT), there are approximately 60,600 flexible-fuel vehicles registered in Iowa (November 2006).

The Iowa DNR maintains a Web site at <u>E85.iowadnr.gov</u> that includes a listing of retail and state E85 fuel sites in Iowa. As of December 2006, the Iowa DNR's Web site identified 62 retail fueling sites and seven state fueling sites in Iowa.

In addition to the Iowa DNR's Web site, the following organizations also provide E85 retail station location information at their Web sites:

- Iowa Renewable Fuels Association (IRFA) at http://iowarfa.org/ethanol_e85refueling.php
- National Ethanol Vehicle Coalition at http://www.e85refueling.com/locations.php?state=iaIowa

Discussion: Methods to Identify and Communicate the Availability and Locations of E85 Retail Stations in Iowa

The Iowa DOT and Iowa DNR have identified several strategies to inform the public about the locations of E85 retail stations in the state.

Web Site

The Iowa DOT and Iowa DNR propose using the Web as the core means to identify and inform the public of E85 retail station locations. The Iowa DNR currently maintains a Web site listing E85 stations, including both street addresses and a state map. A short, easily remembered Web site address has been developed to maximize the usefulness of this Web site. The Iowa DNR could work collaboratively with organizations such as the Iowa Renewable Fuels Association, National Ethanol Vehicle Coalition and Petroleum Marketers & Convenience Stores of Iowa to maintain a current listing of available E85 retail station locations. The Web site information would be both current and easily accessible.

Coordination is key. Several Web sites currently identify E85 retail stations in Iowa and are listed earlier in this report. However, these Web sites are not always consistent, making it confusing for drivers to confirm current E85 retail station locations. Steps could be taken to coordinate efforts and provide consistent information.

Publicity of the Iowa DNR's Web site is the second step. The Web site could be linked to Iowa (and perhaps national) ethanol and transportation-related Web sites. This includes the Iowa DOT, Iowa Renewable Fuels Association, Iowa Corn Growers, Petroleum Marketers & Convenience Stores of Iowa, Iowa Automobile Dealers Association, individual vehicle manufacturers and automobile dealerships, state and local agencies, and others.

Мар

The Iowa Transportation Map is published annually by the Iowa DOT.

Additional information important to Iowa motorists is included on the reverse side of the state map. The Iowa DOT currently partners with the Iowa DNR (park information), Amtrak (rail stops), U.S. Army Corps of Engineers (federal impoundments), and 511 travel information to share this additional information.

An E85 logo and Iowa DNR's E85 Web site address could be included on the reverse side of the state map. As discussed above, the Web site would provide up-to-date information and be a reliable source of information for motorists. The Web site would also provide motorists with the street address of E85 retail stations.

The Iowa Transportation Map is intended to be attractive, easy to read and uncluttered. Publishing the Web address of the Iowa DNR's Web site on the Iowa Transportation Map would support this goal while assisting motorists in locating E85 retail stations.

Rest Areas

Iowa's 39 rest areas offer free wireless Internet access. An individual with a computer or other Internet accessible device can access the Iowa DNR's Web site and identify E85 retail station locations.

The Iowa DOT will be installing electronic kiosks at all Iowa rest areas during calendar year 2007. The kiosks could offer Internet access to the Iowa DNR's E85 Web site and current E85 retail station locations, along with other valuable tourist and travel information.

Signs

E85 signs are currently placed on interstate and freeway service station logo panels and general service signs if the station sells E85. Stations must be within 15 miles of the interstate and must purchase a logo sign. Stations do not pay for a general service sign.



Picture of a logo panel showing the availability of E85



Picture of a general service sign showing the availability of E85



Examples of tourist-oriented destination signs modified to show the availability of E85

Tourist-oriented destination (TOD) signs are available in all rural areas and in communities under 2500 in population. Qualifying gas/service stations that are within five miles of a state highway and are not easily visible are eligible for TOD signs. The Iowa DOT has modified the program to allow an E85 message to be added next to the gas/service station name.

Official city or county signs are another option that a city or county may wish to consider to alert motorists to the availability of E85 gasoline. These signs are located beyond the highway right-of-way and can provide generic information regarding services available within the respective jurisdictions; however, the signs cannot provide commercial advertising or include a private business name. Although the Iowa DOT is not involved in developing or approving such signing, Iowa DOT staff can assist a local jurisdiction or public agency in meeting the requirements for this signage.

More information concerning logo, TOD signs and official city or county signs is available at the Iowa DOT's Web site at <u>www.iowaroadsigns.com/</u>.

Coordinated Statewide Marketing Campaign

A variety of promotional possibilities could be incorporated into a statewide marketing campaign involving public/private partnerships. Industry, such as the Iowa Renewable Fuels Association or Petroleum Marketers & Convenience Stores of Iowa might wish to take the lead with assistance from state and local agencies as appropriate. Funding from private and/or public sources would be necessary to support a coordinated statewide marketing campaign.

The following are a few ideas that could be considered within the framework of such a campaign:

• Print

Print materials and posters could be useful in targeted situations. For instance, dealers could provide every flexible-fuel vehicle purchaser with an E85 pamphlet identifying the location of E85 retail stations. Rental car companies could provide the pamphlet to customers that rent flexible-fuel vehicles. The pamphlet could be as simple as publicizing the Iowa DNR's Web site address and the location of E85 retail stations. Private business and government organizations might be identified for targeted distribution as well.

• Vehicle Registration

General information inserts could be developed to be included with motor vehicle registration renewal reminders. The information could include the Iowa DNR's E85 Web site and other information on E85 and flexible-fuel vehicles.

• Tourism

The Iowa Department of Economic Development (DED) could incorporate information regarding the availability of E85 retail station locations in various travel promotional publications.

• Telephone

An 800 number "hot line" might be developed for motorists to call and obtain the location of E85 retail stations.

Findings and Recommendations

Iowa DOT and Iowa DNR recommend using the Web as the core means to identify and inform the public of E85 retail station locations. Specifically, we recommend:

- 1. Iowa DNR work collaboratively with organizations such as the Iowa Renewable Fuels Association, Petroleum Marketers & Convenience Stores of Iowa, and National Ethanol Vehicle Coalition to maintain a current Iowa DNR Web site listing of available E85 retail station locations.
- 2. Iowa ethanol, transportation, and economic development organizations work with Iowa DNR to establish links to the Iowa DNR's E85 Web site so information is consistent.
- 3. Iowa DOT include the Iowa DNR E85 Web site on the Iowa Transportation Map and provide a link to the Web site at rest area kiosks.
- 4. Iowa DOT continue to make E85 signs available as part of the DOT's logo and TOD sign programs.
- 5. Iowa DOT assist local jurisdictions to incorporate E85 information on official city and county signs when appropriate.
- 6. Private entities consider identifying and implementing other efforts, perhaps as part of a broader marketing campaign, to identify and communicate the location of E85 retail stations in Iowa to the public in a cost-effective manner.

The Iowa DOT and Iowa DNR have initiated several of these recommendations. The Iowa DNR has established the <u>E85.iowadnr.gov</u> Web site. The 2007 Iowa Transportation Map will reference this Web site. Motorists will also be able to access the Iowa DNR's Web site at Iowa's rest areas via wireless internet or using kiosks that will be installed at all rest areas in the coming year. Signing options currently exist for retail fuel stations that provide E85, including logos, general service and official city or county signs.

Both departments wish to thank those individuals and organizations that reviewed this report and made suggestions. We believe that the measures suggested here will assist the motoring public in accessing E85 fuel in Iowa.

For further information contact:

Sharon Tahtinen, Legislative Liaison Iowa Department of Natural Resources E-mail: <u>Sharon.Tahtinen@dnr.state.ia.us</u> Phone: 515-281-7066

Allan Goldberg, Supervisor – Energy Section Iowa Department of Natural Resources E-mail: <u>Allan.Goldberg@dnr.state.ia.us</u> Phone: 515-281-8912

Elizabeth Baird, Legislative Liaison Iowa Department of Transportation E-mail: <u>Elizabeth.Baird@dot.iowa.gov</u> Phone: 515-239-1641

Steve Gent, Director, Office of Traffic and Safety Iowa Department of Transportation E-mail: <u>Steve.Gent@dot.iowa.gov</u> Phone: 515-239-1129

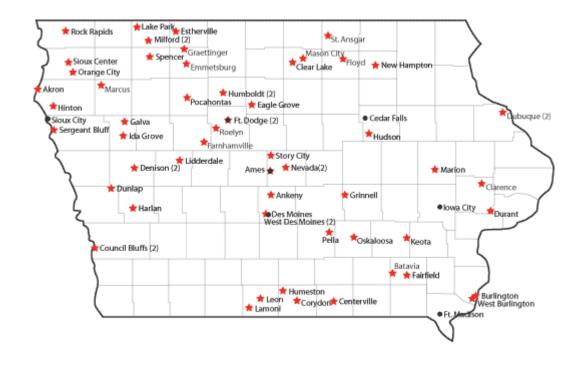
Peggi Knight, Director, Office of Transportation Data Iowa Department of Transportation E-mail: <u>Peggi.Knight@dot.iowa.gov</u> Phone: 515-239-1530

Mark Hansen, Transportation Planner, Office of Transportation Data Iowa Department of Transportation E-mail: <u>Mark.Hansen@dot.iowa.gov</u> Phone: 515-239-1990

Appendix Iowa Department of Natural Resources Iowa E85 Fueling Sites: Map and List December 2006

E85.iowadnr.gov

Iowa's E85 Refueling Sites



• Printable Iowa E85 Fueling Sites Map and Listings, *.pdf

Retail fueling sites:

- Akron Pronto Convenience Store, 100 Highway 12
- Ames Kum & Go, 2801 13th Avenue
- Ankeny Kum & Go, 1910 Southwest White Birch Circle
- Batavia BP Elliot Oil Company, 100 First Street
- Burlington 34 Fast Break Truckstop, 4305 West Mount Pleasant Street
- Centerville MFA Oil Petro-Card 24, 1500 South 18th Street
- Clarence River Valley Coop Cenex 902 Lombard Street
- Clear Lake Kum & Go, 2905 Fourth Avenue South
- Corydon MFA Oil Petro-Card 24, 2184 Highway 2
- Council Bluffs Fill & Food Total, 701 32nd Avenue
- Council Bluffs Lakeside Ampride, 4040 South Expressway
- Denison Ampride Truck Plaza, 506 Highway 59 North
- Denison Petroloc Express, 820 Second Avenue North
- Dubuque Kwik Stop Key West Conoco, 2150 Twin Valley Drive
- Dubuque Big 10 Mart, 2100 JFK Road
- Dunlap Town and Country Store, 304 North Sixth Street
- Durant Price Oil, 302 Fifth

- Eagle Grove W & H Coop, 100 East Broadway
- Emmetsburg Hometown Convenience, 1303 Main Street
- Estherville Riverside Sinclair, 102 Central Avenue
- Fairfield Loglis Store, 508 North Fourth Street
- Farnhamville Star Energy, 105 Garfield Avenue
- Floyd 218 Fuel Express, 68 Monroe Street
- Fort Dodge Star Energy, 2 North 27th Street
- Fort Dodge W&H Coop, Ampride All-Round, 3243 Fifth Avenue South
- Galva Galva Holstein Ag, LLC, 1583 Market Avenue
- Graettinger Farmers Coop Elevator, Highway 4
- Grinnell Grinnell Fuel 24, 1017 Ogan Avenue
- Harlan Fast Stop, 2401 12th Street
- Hinton Hinton Ampride, 121 Highway 75 North
- Hudson East Central Iowa Cooperative, 602 Washington Street
- Humboldt Cenex Ampride, 1301 Tenth Avenue North
- Humboldt W & H Coop, 407 13th Street North
- Humeston MFA Oil Petro-Card 24, 214 Highway 65 North
- Ida Grove Galva Holstein Ag, LLC, 600 Highway 175 West
- Keota County Line Mart, 609 East Broadway
- Lake Park- Farmers Exchange Coop, 400 South Market Street
- Lamoni Kum & Go, 2091 East Main Street
- Leon MFA Oil Petro Card 24, 18681 Highway 69
- Lidderdale Farmers Cooperative, 340 South Main Street
- Marcus Marcus Junction LLC, 406 Highway 3
- Marion Linn Coop Oil, 325-35th Street
- Mason City Fuel Time, 426 Fourth Street Southwest
- Milford Cenex Pump 24 Express, 1808 Okoboji Avenue
- Milford Great Lakes Coop, 1110 P Avenue
- Nevada Heart of Iowa Coop Cenex, Corner of Lincoln Highway and 600th Avenue
- Nevada Heart of Iowa Coop, 80 West Lincoln Way
- New Hampton Five Star Coop, 1949 North Linn Avenue
- Orange City Sinclair Hwy. Service, 206 Eighth Street Southeast, Highway 10
- Oskaloosa New Alliance FS Fuel 24, 2305 Highway 23
- Pella Two Rivers Cooperative, 109 East South Street
- Pocahontas Pro Cooperative Cenex, 101 North Main
- Rock Rapids Lyon County Coop Oil Company, 102 First Avenue
- Roelyn Star Energy, 1207 Main Street
- Sergeant Bluff Phillips 66, 200 First Street
- Sioux Center Coop Gas & Oil, 153 North Main Street
- Spencer Cenex, 701 Fourth Avenue West
- St. Ansgar Fuel Time, 203 Saints Avenue
- Story City Cenex (Heart of Iowa Coop), 633 Market Avenue
- West Burlington 34 Fast Break Truckstop, 4305 West Mount Pleasant Street
- West Des Moines, Kum & Go, 141 South Jordan Creek Parkway
- West Des Moines, Hy-Vee, 665 South 51st Street

State fueling sites:

- Ames Iowa Dept of Transportation, 800 Lincoln Way
- Cedar Falls University of Northern Iowa, 31st Street & Hudson
- Des Moines State of Iowa Vehicle Dispatch, 301 East Seventh Street
- Ft. Dodge Ft. Dodge Correctional Facility, 1550 L Street
- Ft. Madison Iowa State Penitentiary, 31 Avenue G
- Iowa City University of Iowa, 603 South Madison
- Sioux City Sioux City, City Maintenance Garage, 1821 18th Street

Original Equipment Manufacturers Certified E85 Vehicles

The <u>National Ethanol Vehicle Coalition</u> provides information on flexible-fuel vehicles capable of operating on E85, E10 and regular gasoline. Please check your vehicle identification number to verify your vehicle is a flexible-fuel vehicle.