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State Policies in the North Central Region Promoting Ethanol[1]

Laura Demmel[2]

Abstract. The government has played a major role in supporting the progress of the ethanol industry. This paper examines what influence state governments have had and presently have in the development, production, and expansion of ethanol manufacturing. A vast array of subsidies, mandates, and other government supports are utilized in planning, constructing, producing, and expanding ethanol facilities as well as promoting and influencing greater ethanol consumption. Three general areas are considered in this paper: outlinked support, factors of production subsidies, and intermediate goods subsidies. This paper examines state subsidies specifically found within a twelve-state area, known as the North Central Region of the United States. The states that are included are: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. This collection of ethanol incentives will provide insight into the impact and extent of governmental support of grain ethanol at the state level in the North Central Region.

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Outlinked Support

State governments often provide support to the ethanol industry by encouraging production expansions through payments, credits, targeted incentives, infrastructure development. They also encourage increased consumption of ethanol-blended fuels. Governments subsidize ethanol producers so that the price they receive for each gallon exceeds above and beyond the costs of production. Direct payments to producers that are linked to their levels of production are one option for subsidizing them. Tax credits can have the same effect. Incentives may be placed to improve infrastructure to allow easier use of biofuels in a state. Mandates and standards can also spur greater use of biofuels in a state. By requiring a certain amount of fuel consumption or increases in research, development, and promotion of ethanol, states hope to cause increases in the production and consumption of ethanol.

States may also provide targeted incentives to attract plants to one area over another area or state. Illinois provides one example of this with its Economic Development for a Growing Economy (EDGE) Program. EDGE offers special tax incentives to encourage companies to locate or expand operations in Illinois rather than in a competing state (DCEO, 2008).

Retailer Payments and Credits

Although producer payments occur in many different ways, retailers directly can be persuaded to purchase and sell more ethanol by the incentives created uniquely by each state's legislation. These policy mechanisms help induce retailers to sell specific amounts of ethanol in order to receive the benefit. Often, the benefits are found in the form of tax credits.

For example, Iowa provides 25 cents for each gallon of E85 sold after 60 percent of the gasoline sold at the station is ethanol blended. Kansas has the Renewable Fuel Retailer Incentive

that pays retailers 6.5 cents per gallon if the annual threshold of ethanol is met. The threshold is 10 percent starting on January 1, 2009 and will rise to 25 percent in 2024 (EERE, 2008).

Infrastructure Development Policies

Some states provide incentives by providing tax credits for alternative fuel refueling stations. Kansas has the Alternative Fuel Refueling Infrastructure Tax Credit which is worth up to 40 percent of the total amount and may not exceed $160,000 if placed in operation between January 1, 2005 and January 1, 2009. After January 1, 2009, the amount credited must be less than $100,000 (EERE, 2008). Another example is administered by the Indiana State Department of Agriculture. The E85 Fueling Station Grant Program provides grants of up to $5,000 to fueling stations to purchase or modify existing E85 fueling equipment. The program is capped at $1 million annually. Most states in the North Central Region have some type of program that has this effect, although some states provide more funding than others in building fueling infrastructure.

Ethanol Mandates and Standards

Mandates and standards are less binding incentives for promoting grain ethanol than actual monetary incentives such as direct payments and tax credit, but states still utilize them in providing direction and objectives for public policies, ethanol boards, and state agencies to follow. Grain ethanol mandates and standards by states often exist in relation to the requirements established by the federal government.

Minnesota has several specific ethanol mandates and standards. For instance, Minnesota mandates that all gasoline sold in the state contain 10 percent ethanol or greater. By 2013, the

state plans to require all gasoline to have 20 percent ethanol content or higher (EERE, 2008). Since 1998, Minnesota also uses an oxygen standard that encourages more ethanol use since it is the most economical option for obtaining the appropriate oxygen level in fuels (Clean Fuels Development Coalition and the Nebraska Ethanol Board, 2006).

Mandates can impact transportation infrastructure of state agencies or educational institutions as well. Missouri mandates that 70 percent of its newly purchased state vehicles be alternative fuel vehicles (AFV) compatible with E85. Also, 30 percent of the fuel purchased for the AFVs in the state fleet must be from alternative fuels. In Nebraska, state flex fleets are mandated to purchase E85 gasoline whenever "reasonably" available. Iowa mandates state educational institutions to purchase at least 10 percent of new car purchases with alternative fueled propulsion (EERE, 2008).

Other Output-Related Subsidies

Other output-related support mechanisms for grain ethanol exist. A fuel tax incentive may be used to change behavior of buyers to purchase more ethanol-blended gasoline such as E10 or E85 rather than 100 percent gasoline. States such as Kansas provide alternative fuel income tax credits for most of the incremental cost after purchasing flexible fuel vehicles (Koplow, 2006).

Support to Factors of Production

From the beginning stages of developing a plan, to the construction of an ethanol plant, and to the complete manufacturing of ethanol at a plant, many costs are incurred to investors and producers of ethanol. Some of these expenses are related to feedstock, energy, technology,

transportation and storage, management and organization, capital costs, debt financing, property taxes, and infrastructure expenses. Many public policies are in place to alleviate the burden of these costs to ethanol producers.

Subsidies to factors of production help to reduce the cost of production as mentioned in the output-linked support section. Input factors such as capital, labor, and land can all be subsidized. Capital grants are commonly used in financing construction of an ethanol plant. Other subsidies such as loan guarantees, tax increment financing (TIF), and property tax abatement can all be used whether at the local or state level. Regulatory exemptions also exist such as an environmental impact assessment waiver. Often, compiling all of these subsidies together creates a phenomenon of "subsidy stacking" that can add up to a large amount of support for ethanol production.

Producer Tax Credits and Payments

In combination with a federal support such as the most well known and largest federal ethanol tax credit, the volumetric ethanol excise tax credit (VEETC), states can increase the price of ethanol for producers through tax credits in order to increase quantities available in a state. States generally provide incentives to producers based on every gallon that they produce. Requiring specific objectives, tax credits and direct payments can be viewed as performance incentives that induce production expansion at existing facilities. Also, incentives can spur greater investment and innovation for building waste or cellulosic ethanol plants. Tax credits are only useful when they offset tax liability. Thus, during the development and beginning stages of projects, these incentives have less value than anticipated (Clean Fuels Development Coalition and the Nebraska Ethanol Board, 2006).

Minnesota, for example, provided a 20 cent per gallon payment to qualified ethanol producers who began operating before June 30, 2000. The subsidy was temporarily reduced to 13 cents per gallon from 2004 to 2007. Producer payments will close in 2010 for those remaining in the program. Nebraska provides a payment to ethanol manufacturers of 18 cents per gallon on the first 15.6 million gallons with a cap of $2.8 million per year for each plant, totaling eight years. North Dakota has a remarkable 40 cent payment for every gallon of ethanol produced and sold in the state. The state of North Dakota also specifies how much a plant can receive cumulatively ($10 million) and how much it can receive depending on when it began operating. More examples of these producer payments exist in many North Central Region states.

Equity Investments

For businesses or anyone interested in developing and building an ethanol plant, significant capital investments must take place. States offer many incentives and mechanisms for addressing and helping to alleviate the major capital cost of starting an ethanol plant. Equity investment programs can help entities and the state share risk and reduce the debt from start-up costs of a plant. Lenders find this approach to capital financing more attractive.

Bond Investments

Some states issue bonds to finance capital construction projects of an ethanol plant. Certain investment criteria must be met to purchase government bonds. Nebraska Statutes 70-143 authorizes the use of tax exempt municipal bonds as well as public power districts to finance or construct ethanol plants (Koplow, 2006, p. 80).

Tax Incremental Financing and Tax Abatement

States can offer incentives that offer tax reductions to property. Tax increment financing (TIF) is a tool used to finance ethanol plants by utilizing future gains in taxes. Usually, the value of the site where the ethanol plant is placed will rise and thus more taxable property will occur. This "tax increment" creates increased tax revenue, which is then used to help pay for the plant. Nebraska has allowed the bypassing of certain zoning regulations and then permitted smaller cities to collect property taxes from nearby plants to use those dollars to help with project financing or expansion (Koplow, 2006, p. 79). This, often referred to as skip zoning, is an extension of TIF. Other states may create laws that specifically allow ethanol plants to bypass the payments of property taxes in plants' initial years of development and operation, not through tax increment financing but through another law. Local governments might have similar control over this type of allocation.

Loan or Loan Guarantee Programs

Loan or loan guarantee programs help secure investments into an ethanol plant. The state government can come to be known as a "lender of last resort". High risk ventures are often participants in this program, so balancing between sound lending practices and high-risk investments is vital for successful loans (Clean Fuels Development Coalition and the Nebraska Ethanol Board, 2006). For example, although cellulosic ethanol looks to be very promising for meeting future biofuel needs and mandates, the risk of operating such a changing technology will be higher to begin but, in the long run, will hopefully pay off.

Since 1993, Minnesota's Ethanol Production Facility Loan Program has provided low-interest loans of $500,000 that has helped start seven ethanol plants through 2002 (Koplow, 2006, p. 79). North Dakota's Biofuels Partnership in Assisting Community Expansion (PACE)

is another loan program that provides 5 percent interest buy down to ethanol plants meeting requirements. One more example to mention is the Alternate Energy Revolving Loan Program (AERLP). Managed by the Iowa Energy Center, plants can apply for loans with interest rates as low as 0 percent for up to $250,000 or 50 percent of the cost of the project, whichever comes first.

Support for Labor

States may even provide tax credits to labor. Labor employed to build biofuels production capacity, for example, might receive a lower rate on the state's business and occupation tax. In the state of Illinois, the Economic Development for a Growing Economy (EDGE) Program provides tax credits that are equal to the amount of state income taxes that are withheld from employee salaries of newly created jobs. For tax credits to be given through the EDGE Program, the new ethanol facility must create 25 new full time jobs in Illinois if the company has more than 100 employees or must create 5 full time jobs if less than 100 employees in the company (IL DCEO EDGE, 2008).

Another example found in Illinois that provides support for labor is the creation of Enterprise Zones. These zones attract businesses by income and job creation tax credit incentives. By simply attracting one ethanol plant to the area, the zone and plant could create hundreds of construction jobs as well as tens or hundreds of permanent, new jobs. With more workers in the area, these consumers could inject millions of dollars into the local economy (Illinois Office of the Governor, 2007). Iowa has a similar program to induce investments in economically distressed areas (IDED, 2008).

Other Production Incentives

States use many incentives to meet public policy objectives. Value-added processing facilities in Iowa have start-up venture promotions by guaranteed purchasing contracts (Koplow, 2006). States can also bypass environmental assessments and other regulations that would be mandatory for other incoming new businesses.

Intermediate Input Subsidies

A third type of government policy that could be used is in the area of supporting the cost of intermediate goods. Subsidies for ethanol feedstocks or for capital related to ethanol distribution are examples. Corn is one of the most highly subsidized commodities in the United States. Although corn is no longer at a price where it needs to be subsidized by direct payments to its producers, the presence of those subsidies over the last eight decades has induced increased production of corn and thus entrepreneurs have looked for business ventures that can utilize the surplus that was once created by these governmental policies.

Conclusion

State governments have a large influence in the development, production, and expansion of ethanol manufacturing. A vast array of subsidies, mandates, and other government supports are utilized in planning, constructing, producing, and expanding ethanol facilities as well promoting and influencing greater ethanol consumption. Three general areas considered were outlinked support, factors of production subsidies, and intermediate goods subsidies specifically found in the North Central Region.

A stacking effect is indeed created when combining the VEET subsidy, import tariffs, other federal programs, and all of the state programs described above. Further research can be

done into how the local government attracts and gives incentives for potential and operating ethanol manufacturers. State governments by themselves spend millions and millions of dollars in support of the development and construction of the grain ethanol industry in the United States. The ethanol industry has been given the ability to develop and grow rapidly in part by the support of state governments.

Appendix

North Central Region State-by-State Subsidy Descriptions

Illinois

Project/Policy	Description of Policy	Subsidy Rate ($millions)	Comments
Illinois Renewable Fuels Research, Development, and Demonstration Program	Coordinated by the Department of Commerce and Economic Opportunity (DCEO) promotes and expands the use of ethanol (DCEO, 2008).	In 2003, $750k; in 2004, $400k (EERE, 2006). Gives grants of up to $25,000 for projects developing ethanol industry (EERE, 2008)	
Alternative Fuels Rebate Program	Provides a rebate of purchasing an alternative fuel vehicle (AFV) and a rebate for using E85 at least half of the time	80% of the incremental cost of AFV purchase. $450 rebate or $340/year for 3 yrs for using E85 at least 50% of the time (EERE, 2008).	Must be licensed and legal Illinois residents; businesses, government units (not federal), and institutions in IL are all eligible.
Corn-to-Ethanol Research Center (NCERC) Pilot Plant	Managed by the IL Ethanol Research Advisory Board (EERE, 2008)	In 2004, $15m fed., $6.6m state. In 2005, $2m fed, $1m state. In 2006, $4m state. Total fed: $17m. Total state: $11.6m (EERE, 2006)	
Renewable Fuels Development Program	IL Public Act 93-15- grants funds to help in construction of new facililties or expansion of existing biorefineries.	Subsidizes producers at 10 cpg for of additional biofuel capacity or 10% of total construction costs, granting up to $5.5 million (IL DCEO, 2008).	Must have annual production capacity of 30+ mmgy.
Biofuels Business Planning and Grant Program	Provides grants for business planning, engineering studies, and other areas for developing an ethanol plant.	Grants of up to $25,000 for each potntial new biofuel production facility (IL DCEO, 2008)	
E85 Infrastructure Tax Credits	Offers state income tax credits for installing E85 fueling equipment (Koplow, 2006).		
Economic Development for a Growing Economy (EDGE) Program	Offers tax credits equal to the amount of state income taxes witheld from employee salaries of newly created jobs. Encourages companies to locate or expand operations in Illinois rather than a competing state. (IL DCEO EDGE, 2008).	Must show evidence of a competing state, agree to invest at least $5m in capital improvements and create at least 25 new full time jobs in IL. If company < 100 employees, must agree to make capital investment of $1m and create at least 5 full time jobs in IL.	Case-by-case basis.

Indiana

Program/Policy	Description of Policy	Subsidy Rate	Comments
E85 Fueling Station Grant Program	Helps stations purchase new E85 fueling stations or modify existing equipment	Grants of up to $5000 (yr. total not to exceed $1m) (EERE, 2008).	Administered by Indiana State Department of Agriculture (ISDA)
E85 Fuel Retailer Tax Credit	Retailers of E85 receive credit against the state gross retail tax (Indiana Code 6-2.5-7-5).	Tax credit of 18cpg of E85 sold (yr. total not to exceed $1m)	Reporting period ends July 1, 2020.
E85 Fuel Use Tax Credit	Political subdivisions, defined as municipal corporations or special taxing districts receive payments if 75% of gas used in all its flex fuel vehicles is E85-blended (Indiana Code 8-14-2-8).	Payed $33.33 for each vehicle owned by political subdivision for <5 years (EERE, 2008).	Expires January 1, 2015.
Biofuels Grant Program	Supports E85 equipment installments or E85 usage for large fleets in state agencies or public school systems (EERE, 2008).	Maximum grants of $25k for single fuel infrastucture.	Requires 50% matching funds.
Ethanol Production Tax Credit	Creates incentives for greater ethanol production.	Production tax credit of 12.5 cpg of eth. For plants built or expanded by 40 mmgy after Dec 31, 2003. (IN Code 6-3. 1-28)	Lifetime cap of $2m for plants 40-60 mmgy and $3m if produces 60 mmgy or more. $20m lifetime cap for cellulosic ethanol plants that produce 20 mmgy or more (EERE, 2008).

Iowa

Project/Policy	Description of Policy	Subsidy Rate	Comment
Ethanol Tax Credit	**Tax relief for retail sellers of ethanol blends.**	**25 cpg for E85 (HF 2754 and approp. HF 2759) after 60% of gasoline sold at station is blended with ethanol (EERE, 2008).**	**Ends Dec 31, 2008. New incentive program begins in 2009 called the Ethanol Promotion Tax Credit. Provides 6.5 cpg for retailers meeting Renewable Fuel Standard (RFS) for the year. If within 2% or 4% of RFS, will receive 4.5 cpg or 2.5 cpg, respectively (EERE, 2008). $13m appropriated for this .**
Enterprise Zone Program	**Provide incentives for investing in economically distressed areas (IDED, 2008).**	**Qualifying businesses may receive up to 100% property tax exemption for up to 10 years. Tax refunds for construction and equipment. Investor tax credit up to 10% of investment, payed back over 5 years.**	**Must meet specific requirements set out by the Local Enterprise Zone Commissions and the Iowa Department of Economic Development.**
Alternative Fuel Infrastructure Cost-Share Program	**Supports retailers to purchase or convert existing equipment to E85 fueling equipment**	**Up to $325,000 annually (EERE, 2008).**	**Program extends from July 1, 2005 to June 30, 2008.**
Value-Added Ag Products and Processes Financial Assistance Program (VAAPPFAP)	**Made to encourage increased utilization of ag commodities produced in IA. (IA DED 2005; IA Cde Title 1, Subtitle 5, 15E.111). One primary goal of program is to support renewable fuels (IDED, VAAPPFAP).**	**Out of $45m given in grants overall, uncertain what the amount was for ethanol plants.**	**Began in 1994. Ethanol facilities have been regular recipients of this support .**
	Iowa Renewable Fuel Fund provides low cost financing for renewable energy projects. 20% commitment is a soft-loan (grant). 80% is a low-interest loan (EERE, May 2006; IA Energy Center).	$44m in funding between 1995-2005. Ethanol share of total awards not known (IA DED, 2005). Maximum loan per recipient is $520k.	Also administered through the VAAPPFAP.
Alternate Energy Revolving Loan Program	**Any individual or organization who wants to build renewable energy production facilities in Iowa eligible. Recipients get a combination of AERLP funds and private lender funds (IA Code 476.46).**	**Public funding may comprise up to 50% of the project cost if <$250k per project. Interest rates as low as 0% (EERE, 2008).**	**Lender's funds must bear market interest. A total of $10 million since 1996 has been used (Iowa Energy Center).**

Kansas

Project/Policy	Description of Policy	Subsidy Rate	Comment
Renewable Fuel Retailer Incentive	Incentive to sell biofuels at the pump.	6.5 cpg sold if the annual threshold for ethanol is exceeded (starting at 10% on Jan. 1, 2009 to 25% on Jan. 1, 2024 (EERE, 2008)).	Funds allocated from the KS Retail Dealer Incentive Fund.
Alternative Fuel Vehicle Tax Credit	Income tax credit to purchase alternative flexible vehicles (AFVs) and E85.	Credit of up to 40% of the incremental cost of purchasing an AFV (EERE, 2008).	Credit only available to first purchaser of the vehicle. Size of the vehicle determines its credit.
Ethanol Production Incentive	Pays producers for production capacity increases (KS Statutes 79-34, 163).	7.5 cpg collected if operating before July 1, 2001 and increase production by 5m gal over producer's base sales. If began operating after July 1, 2001, 7.5 cpg payed to producer who has sold over 5m gal of ethanol (EERE, 2008).	Supported by the KS Qualified Agricultural Ethyl Alcohol Producer Fund. Payment for up to 15m gal sold.

Michigan

Project/Policy	Description of Policy	Subsidy Rate	Comment
Alternative Fuel Fueling Infrastructure	Incentives provided by the Ethanol and Biodiesel Matching Grant Program to assist funding the installation of new E85 delivery systems.	Grants not to exceed 75% of construction costs or up to $3000 for existing facilities. Grants not to exceed 50% of new facility costs, up to $12000 (EERE, 2008).	Created by the Michigan Strategic Fund (MSF)
Alternative Fuel Research and Development Tax Exemption	The Alternative Energy Zone (AEZ) created to promote research, development, and manufacturing of alternative fuels.	Energy companies in the AEZ may be eligible for certain state and local tax exemptions (EERE, 2008).	Eligibility determined by Michigan NextEnergy Authority (MNEA).

Minnesota

Project/Policy	Description of Policy	Subsidy Rate	Comment
Ethanol Promotion	Public education of ethanol funded from 1987 to 1998 (EERE, 2008)	$100/yr. or ~$1.1m over the life of the program (Koplow, 2006, p. 83).	
E85 Fueling Infrastructure Grants	Administered by the Minnesota E85 Team, grants available for installing E85 fueling stations (EERE, 2008).		Eligibility on case-by-case basis according to grant sponsorship.
Ethanol Blend Mandate	Requires all gasoline sold in the state to contain 10% ethanol or greater. After August 30,2013, all gasoline must contain 20% ethanol or higher or 20% of all motor vehicle fuel sold in the state must be ethanol by December 31, 2010 (EERE, 2008).		Certain exemptions may apply.
Alternative Fuel Use Requirement	Requires state flexible fuel vehicles to use E85 whenever reasonably available (EERE, 2008).		MN's SmartFleet Committee help facilitate greater use and availability of E85 in state vehicles.
Alternative Fuel Vehicle (AFV) Acquisition Requirements	Mandates states to purchase alternative fuel vehicles whenever reasonably available at similar costs to other vehicles built for the same purpose (Minnesota Statutes 16C.135)(EERE, 2008).		
Alternative Fuel Tax	E85 taxed at a lower rate than gasoline (Minnesota Statutes 296A.07)(EERE, 2008).	E85 tax- 14.2 cpg compared to gasoline tax- 20 cpg	
Economic Recovery Grants	Distributed by the MN Department of Trade and Economic Development, also went to support ethanol plants.	$100k-$150k grants given to 4 plants since 1996 (Koplow, 2006).	
Tax Credit for Blenders Program	Incentive for ethanol blenders.	From 1980 and 1997, E10 or higher paid 4 cpg less than gasoline in excise taxes.	Total payments during this period estimated at $208m (2006$) by the MN Taxpayers League (Koplow, 2006).
Ethanol Production Incentive	Qualified producers receive payment for each gallon of ethanol produced.	20 cpg for those begininning before June 30, 2000. Temporarily reduced incentive to 13 cpg from 2004 to 2007. (Minnesota Statutes 41A.09) (EERE, 2008).	Payments capped at $3m per producer per year since 2004.

Missouri

Project/Policy	Description of Policy	Subsidy Rate	Comment
Ethanol Production Incentive	Qualified ethanol producers receive incentive payments from Missouri Ethanol Producer Incentive Program.	20 cpg on first 12.5 mmgy of production; 5 cpg on up to the next 12.5 mmgy. Eligible for first 5 years of production, expiring Dec 31, 2005. (EERE, 2008)	Plants must be located in MO. 51% must be owned by ag producers engaged commercially in farming (MO Revised Statutes, 142.028, 142.029).
Alternative Fuel Vehicle (AFV) Acquisition and Alternative Fuel Use Requirements	Mandates 70% of new state fleet vehicles purchased be AFV compatible with E85. Also 30% of fuel purchased must be from alternative fuels (EERE, 2008).		
Ethanol Fuel Blend Requirement	Requires that all gasoline must use 10% ethanol or higher at all pumps by January 1, 2008 (Koplow, 2006).		
Alternative Fuels Promotion	The Missouri Ethanol and Other Renewable Fuel Sources Commission recommends policies to the legislative general assembly that promote ethanol (EERE, 2008).		See Missouri Revised Statutes 414.420.

Nebraska

Project/Policy	Description of Policy	Subsidy Rate	Comment
Producer Tax Credit	Incentive to expand or start producing ethanol.	18.5 cpg on first 15.625 mmgy. Credit caps of up to $2.8m per year per plant, for eight years (a total of $22.5m/plant). Eligible if began production before June 30, 2004 (Koplow, 2006).	Estimated cost: $100m to $176m for 2006 through 2012 when eligibility ceases. Changes to the rules, especially given large increases in production capacity, would result in much larger outlays. Credits granted from 1990-2005 were nearly 230m.
Capital Investment Support	NE Statutes 70-143 authorizes the use of tax exempt municipal bonds as well as public power districts to finance and/or construct ethanol plants (Koplow, 2006, p. 80).		
Tax Increment Financing	"Skip zoning", a form of TIF, gives municipalities near ethanol facilities the opportunity to collect property taxes from nearby plants to help finance the ethanol plants (Koplow, 2006, p. 79).		Must meet certain requirements and criteria (NE DED).
Alternative Fuel Use in State Fleets	Executive Order 05-03, 2005 mandates that all state flexible fuel vehicles use E85 whenever feasible (		
Ethanol Tax Exemption	Exempts ethanol producers from certain motor fuel tax laws.		Administered by the Motor Fuels Division of the Department of Revenue.
Alternative Fuel Vehicle and Refueling Infrastructure Loans	Provides low-cost loans for alternative fuel projects; also known as the Dollar and Energy Savings Program	$150,000 / borrower with a 5% interest rate	Administered by the Nebraska Energy Office
Ethanol Promotion	Created Nebraska Ethanol Board starting in 1993, consisting of 7 members appointed by the governor and approved by a majority of the Legislature (EERE, 2008). State also authorized to fund memberships in national ethanol promotion organizations (NE Statutes 66-1335) (Koplow, 2006, p. 83).		

North Dakota

Project/Policy	Description of Policy	Subsidy Rate	Comment
Ethanol Production Incentive	Grants payments of 40 cpg for ethanol produced and sold in ND (ND Century Code 4-14.1-07.1).	If operating before July 1, 1995 and producing < 15m gal., may receive up to $900k in production incentives. If operating before July 1, 1995 and producing at least 15m gal., may receive up to $450k. Cumulative state amt. to any one ethanol facility must not exceed $10m.	
Quarterly Ethanol Production Incentive	Provides a quarterly production incentive for facilities meeting certain elibility requirements.	Cumulative state amt. to any one ethanol facility must not exceed $10m. Incentive based on avg. ND price of corn and avg ND rack price of ethanol, both during that quarter.	Administered by the ND Division of Community Services' Office of Renewable Energy and Energy Efficiency
Ethanol Blend Tax Rate Reduction	E85 produced and sold in North Dakota receives a lower tax rate than other special fuels sold in the state (ND Century Code 57-43.1-02 and 57-43.2-02).	E85- tax rate of 1cpg, compared to special fuels excise tax of 23 cpg.	
Biofuels Loan Program	The Biofuels Partnership in Assisting Community Expansion (PACE) provides 5% interest buy down to qualified ethanol plants		Ethanol facility must have 50% of ownership belong to state residents or 10% of ownership interest be ND agricultural producers.
Producer Tax Credit	Incentive to produce more ethanol.	40cpg for ethanol produced and sold in ND. Plants built before Jul 1, 1995 get avg of $450k/yr from 2005-07 if capacity <15mmgy. Plants >15mmgy get avg. of $225k/yr during same period (Koplow, 2006).	Rate rises as corn prices rise or ethanol prices fall. Benchmarks not indexed for inflation. Annual dispersement cap of $1.6m/yr with entire collective cap of $10m (ND 4.14-1.09).
Income Tax Credits	Promotes investment in beginning ethanol plant construction and development.	Income tax credits of 25% (up to a max of $250k) for investing in a qualified ND venture capital corporation (ND Code 10-31.1) (Koplow, 2006).	
Ag Commodity Processing Facility Tax Credit	Subsidies to ag commodity processing facilities (Koplow, 2006).	Investment tax credit of 30% of investment, up to $50k per year per taxpayer, $250k total for a project (ND Code 57-38.6). Construction materials for ag processing facilities are exempt from sales and use taxes (ND Code 57-39.2-04.4).	

Ohio

Project/Policy	Description of Policy	Subsidy Rate	Comment
Biofuels Retail Tax Credit	Tax credits for E85 retailers (House Bil 119, 2997 and Ohio Revised Code 5733.48 and 5747.77).	15 cpg of E85 sold at a metered pump in 2008; 13 cpg for E85 in 2009	
Alternative Fuel and Fueling Infrastructure	Authorized funds for instalation of alternative fuel fueling and blending facilities and alternative fuel use by businesses, nonprofits, public school systems, and local governments.	$900k	Beginning Aug. 27, 2007 for Fiscal Yr. 2008 (Ohio Revised Code 122.075).
Alternative Fuel Vehicle (AFV) Acquisition Requirements	State vehicles must be flex-fuel vehicles whenever reasonably available and prices. Mandated to use >60k gallons of E85 annually, increasing by 5k gallons after each additional year.		Credits for vehicle acquisition issued in accordance with the federal Energy Policy Act of 1992.
Producer Payment	Producer payment up to 50% of invested capital; expires tax year 2013 (Koplow, 2006).		

South Dakota

Project/Policy	Description of Policy	Subsidy Rate	Comments
Ethanol Tax Report Credit	Credit used to offset tax liability from blending ethanol (SD Statutes 10-47B-4 and 10-47B-136).	10 cpg rate for E85, 20cpg rate for other ethanol blends (EERE, 2008).	
Ethanol Production Incentive	Creates production incentives for ethanol denatured and blended with gasoline to create an ethanol blend.	20 cpg. Through Dec 31, 2006 capped at $1m per year per plant; total of $10m lifetime per plant. Max payout of <$7m annually (SD Statutes 10-47 B-162) (EERE, 2008).	
Ethanol Taxes	Ethanol blends taxed progressively lower with higher ethanol content.	E85 taxed at 10 cpg; other ethanol blends taxed at 20 cpg (SD Statutes 10-47B-4) (EERE, 2008).	

Wisconsin

Project/Policy	Description of Policy	Subsidy Rate	Comments
Alternative Energy Promotion	Executive Order 192, 2007 aims to to have 25% of transportation fuels be renewable sources by 2025.		
	Executive Order 141, 2006 directs the Wisconsin Department of Ag (DOA) directing facilitation and awareness of state fleet use of renewable fuels.		
	Executive Order 101, 2005 establishes members of the Consortium of Biobased Industry to make recommendations to state on biofuel programs		
Alternative Fuel Tax Exemption	Prevents county, city, village, town, or other political subdivision from collecting any excise, license, privilege, or occupational tax upon motor vehicle fuel or alternative fuels, or upon the buying, selling, handling, or consuming of motor vehicle fuel or alternative fuels (Wisconsin Statutes 78.82).		
Production Tax Credit	Promoted ethanol production increases.	20 cpg for first 15 mmgy produced; Eligible for 5 years with minimum production threshold of 10 mmgy. $3m cap over 5 years. Expired July 1, 2006 (Koplow, 2006).	Commodity inputs had to come from WI. Availability subject to legislative funding (ACE,50).

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