

II-5223 der Beilagen zu den Stenographischen Protokollen
des Nationalrates XVIII. Gesetzgebungsperiode

DIPL.-ING. DR. FRANZ FISCHLER
BUNDESMINISTER
FÜR LAND- UND FORSTWIRTSCHAFT

WIEN, 1992 03 25
1012, Stubenring 1

Zl.10.930/16-IA10/92

2269 IAB
1992 -03- 27
zu 2271 IJ

Gegenstand: Schriftl.parl.Anfr.d.Abg.z.NR Resch und
Kollegen, Nr. 2271/J vom 29.Jänner 1992
betreffend zusätzliche Anfragen zum Thema
umweltfreundliche Treibstoffe und
Schmiermittel

An den
Herrn Präsidenten
des Nationalrates
Dr. Heinz Fischer

Parlament
1017 Wien

Auf die - aus Gründen der besseren Übersichtlichkeit in Kopie
beigeschlossene - schriftliche Anfrage der Abgeordneten Resch
und Kollegen vom 29. Jänner 1992, Nr. 2271/J, betreffend
zusätzliche Anfragen zum Thema umweltfreundliche Treibstoffe und
Schmiermittel, beehre ich mich folgendes mitzuteilen:

Zu Frage 1:

Ihre Anfrage bezieht sich auf betriebswirtschaftliche Daten
einer privaten Firma. Die Republik Österreich hält keine
Gesellschaftsanteile an der Bioethanol Produktionsgesellschaft
m.b.H.

Ich sehe meine Aufgabe darin, durch ausreichende Rahmenbedingun-
gen den Einstieg in die Produktion von biogenen Kraftstoffen zu
ermöglichen.

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Zu Ihrer Feststellung im zweiten Teil der Frage ist zu bemerken, daß auch die im Gasölsteuerbegünstigungsgesetz geregelte Steuerdifferenzierung für Heizöl im Subventionsbericht 1990 nicht als indirekte Förderung angeführt und als solche definiert wird. Ebenso trifft dies auf die Differenzierung des Mineralölsteuersatzes für verbleites und unverbleites Benzin zu.

Im übrigen deckt sich meine Auffassung mit der der EG-Kommission, die im Rahmen eines Vorschlages über die Ermäßigung des Verbrauchssteuersatzes feststellt, daß es sich bei dem Vorschlag um einen Steueranreiz und nicht um eine Subvention handelt.

Zu Frage 2:

Die von Ihnen zitierte Aussage in meinem Antwortschreiben zu Ihrer parlamentarischen Anfrage Nr. 1757/J ist zutreffend und kann folgendermaßen belegt werden:

- a) Aus Gründen des Umweltschutzes (Clean-Air-Act) gibt es eine Mineralölsteuerregelung in den USA, welche dem Biokraftstoff Ethanol einen deutlich niedrigeren Mineralölsteuer(MÖSt)-Satz einräumt. Aufgrund dieser Rahmenbedingung wird die Herstellung von umweltfreundlichem Bioethanol ermöglicht. Eine Verdoppelung der Produktionsmenge bis 1995 ist zu erwarten. In der Beilage 1 (Memorandum des US-Landwirtschaftsministeriums - United States Department of Agriculture, Office of Energy) ist die entsprechende Regelung dargestellt. Darüberhinaus gibt es noch eine Reihe weiterer, von den einzelnen US-Bundesstaaten gewährten Förderungen (siehe Beilagen 2 und 3).
- b) Der Vorschlag für eine Richtlinie des Rates der EG zur Harmonisierung der Struktur der Verbrauchssteuern auf Mineralöle (Amtsblatt der Europäischen Gemeinschaften C 183, 34. Jahrgang vom 15. Juli 1991, Seite 288) sieht vor, daß für Erzeugnisse, die

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aus erneuerbaren Rohstoffen hergestellt werden, steuerliche Erleichterungen zu gewähren sind.

- c) Weiters darf ich Ihnen mitteilen, daß mit 23. Jänner 1992 die Kommission der Europäischen Gemeinschaften einen Vorschlag für eine Richtlinie des Rates über den Verbrauchssteuersatz auf Kraftstoffen aus landwirtschaftlichen Rohstoffen an den Rat der Europäischen Gemeinschaften gerichtet hat.

Darin wird vorgeschlagen, daß der in einem Mitgliedsstaat auf Bioethanol, auf Methanol oder auf chemisch modifizierte oder nicht modifizierte Pflanzenöle erhobene Verbrauchssteuersatz 10 % des Verbrauchssteuersatzes, der in dem betreffenden Mitgliedsstaat auf bleifreies Benzin erhoben wird, nicht übersteigen darf. Die Mitgliedsstaaten werden darin verpflichtet, alle erforderlichen Rechts- und Verwaltungsvorschriften zu erlassen, um den Bestimmungen dieser vorgeschlagenen Richtlinie bis zum 1. Jänner 1993 nachzukommen.

- d) Ich darf Sie schließlich davon in Kenntnis setzen, daß die österreichische Botschaft in Paris das Bundesministerium für Land- und Forstwirtschaft mit Note vom 21. Jänner 1992, Zl. 57.16.00/2-A/92-A/92 davon in Kenntnis gesetzt hat, daß in Frankreich ab 1992 eine vollständige Befreiung von der Mineralölsteuer (MÖSt) für Bioethanol und seine Derivate aus landwirtschaftlicher Produktion gültig ist. Diese Produkte werden aus Zuckerrüben, Kartoffeln oder Weizen gewonnen und Benzin in einem bestimmten, behördlich festgelegten Höchstmaß bis zu 10 % beige-mischt.

Diese Note ist gleichlautend an das Bundesministerium für auswärtige Angelegenheiten, das Bundesministerium für Finanzen und das Bundesministerium für wirtschaftliche Angelegenheiten ergangen.

Zu Frage 3:

Es ist davon auszugehen, daß in Österreich die Steuerdifferenzierung nicht als Subvention anzusehen ist. Wenn in den USA eine Steuerdifferenzierung besteht und in der EG eine Steuerdifferenzierung neu eingeführt werden soll, sind auch keinerlei Bedenken in Richtung GATT- oder EG-Konformität zu befürchten.

Im übrigen kann die EG-Kommissarin Christiane Scrivener mit der Aussage zitiert werden, daß es sich bei dem Vorschlag der EG-Kommission an den Rat um einen Steueranreiz und nicht um eine Subvention handelt.

Zu Frage 4:

Es ist zutreffend, daß Rohstoffe zu Weltmarktpreisen zur Verfügung gestellt werden müssen. Anzumerken ist, daß im Falle des Exportes von Getreide Exportförderungen in mindestens der gleichen Höhe anfallen. Das Risiko der Schwankungen der Weltmarktpreise für Getreide ist nach der vorgesehenen Konstruktion vom Anlagenbetreiber zu tragen. Zur Ermittlung der von Ihnen angefragten Subventionskosten je Liter Bioethanol ist anzumerken, daß die Mineralölsteuer im Sinne der obigen Ausführungen keinesfalls als Subvention zu betrachten ist und daher als Förderung die Weltmarktpreisdisparität bei Getreide bleibt. Die Höhe der Rohstoffkosten für Treibstoffalkoholerzeugung wird durch die Rohstoffwahl und die jeweilige Weltmarktpreissituation erheblich beeinflußt, sodaß eine durchschnittliche Betrachtung für vergangene Perioden kaum sinnvoll angestellt werden kann.

Zu Frage 5:

Die Kalkulation aus meiner seinerzeitigen Anfragebeantwortung basiert auf dem Liefervertragsentwurf zwischen ÖMV und Austroprot und beinhaltet folgende Ethanolübernahmepreise:

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"Premium: 0,15 Rotterdam barges"
plus ein Zuschlag von S 550,--/t frei Hafen Lobau.

Dieser Preis entspricht in etwa dem Raffinerieabgabepreis für Vergaserkraftstoffe in Österreich. Zum zweiten Teil Ihrer Frage kann gesagt werden, daß daran gedacht ist, für Alkoholerzeugung die verfügbaren mittleren und schwächeren Qualitäten einzusetzen. Es ist völlig unbestritten, daß für menschlichen Konsum inländisches Getreide der besten Qualität herangezogen wird.

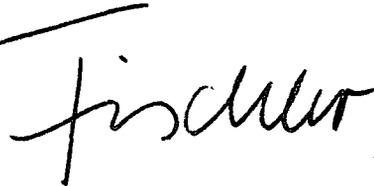
Zu den Fragen 6 und 7:

Die Investitionskosten betragen aus heutiger Sicht 1,3 Mrd. Schilling (exkl. Kraftwerk). Die Erhöhung gegenüber dem Projektstand Juni 1991 ergibt sich dadurch, daß das ursprünglich abgegebene Schätzoffert für Investitionskosten nicht eingehalten werden konnte.

Nach den mir vorliegenden Informationen besteht kein Grund für die Annahme, daß sich einer der präsumtiven Gesellschafter der AUSTROPROT Bioethanol Produktionsgesellschaft m.b.H. aus dem Projekt zurückziehen wird.

Beilagen

Der Bundesminister:



BEILAGEN

A N F R A G E

der Abgeordneten Resch
und Genossen
an den Bundesminister für Land- und Forstwirtschaft
betreffend zusätzliche Anfragen zum Thema umweltfreundliche Treibstoffe und
Schmiermittel

Mit Datum 23. Dezember 1991 Nr. 1798/AB zu 1757/J betreffend umweltfreundliche Treibstoffe und Schmiermittel wurde von Ihnen eine aus Sicht der Fragesteller unzureichende Beantwortung vorgenommen.

Die unterzeichneten Abgeordneten richten an den Bundesminister für Land- und Forstwirtschaft daher nachstehende

A n f r a g e:

1. Können Sie die in Ihrer Einleitung zur Anfragebeantwortung Nr. 1798/AB lapidar geäußerte Behauptung, das Austroprot-Projekt könne ohne öffentliche Subventionen die Gewinnschwelle erreichen, argumentativ mit Zahlen belegen?
Zu Ihrer Argumentation ist darüberhinaus zu bemerken, daß gemäß dem Subventionsbericht eine Steuerdifferenzierung sehr wohl als Subvention gesehen wird.
2. Sind Sie sich darüber bewußt, daß es falsch ist, wenn Sie sagen: "Sowohl die USA wie auch die EG in ihrem jüngsten Beschluß durch das Europäische Parlament sieht eine derartige Regelung vor"?
3. Ist die Behauptung richtig, wenn Sie auf Seite 2 weiter ausführen: "dadurch ist diese Steuerdifferenzierung auch EG- und GATT-konform" und zwar in inhaltlicher als auch formaler Hinsicht?

4. Sind Sie sich darüber bewußt, daß von einer Subventionierung des Projektes auch dann gesprochen werden muß, wenn der Rohstoff (das Getreide) zu Weltmarktpreisen zur Verfügung gestellt werden muß (andernfalls würden die Exportsubventionen für Getreide in Ihrer Diktion auch nicht mehr als Subventionen bezeichnet werden)?
- Sind Sie sich auch darüberhinaus bewußt, daß durch dieses Konzept eine erhebliche Gefährdung der Wirtschaftlichkeit des Projektes dadurch entsteht, daß die Weltmarktpreise für Getreide großen Schwankungen unterworfen sind?
- Wie würden in diesem Zusammenhang sich die Subventionskosten je Liter Bioalkohol (inkl. Steuerbegünstigung) des Austroprot-Projektes aufgrund der durchschnittlichen Exportpreise je Tonne Getreide in den Jahren 1985, 1986, 1987, 1988, 1989, 1990 und 1991 errechnen?
5. Sind Sie sich darüberhinaus im klaren, daß Sie in Ihrer Anfragebeantwortung auf Seite 3 unten Produktionskosten mit Raffinerieabgabepreis und damit nicht Vergleichbares gegenübergestellt haben?
- Sind Sie sich weiters darüber im Klaren, daß Sie mit diesem Absatz Ihre eigene Argumentation hinsichtlich der Verwendung von österreichischen Exportgetreide unterlaufen, denn tatsächlich soll doch hochwertiges für Nahrungsmittelzwecke geeignetes österreichisches Getreide statt auf dem Weltmarkt für Biosprit verarbeitet werden?
- Ist es daher nicht auch gerechtfertigt, den Rohstoffpreisansatz (auf Nahrungsmittelpreisniveau) nach dem betriebswirtschaftlich gängigen Prinzip der opportunity-costs, d.h. der bestmöglichen Alternativverwertung, zu wählen.
6. Wie weit ist der Stand des Austroprot-Projekts aus Ihrer Sicht und liegen nicht neue Kalkulationsgrundlagen vor, die das Projekt gegenüber den Preisansätzen vom Juni 1991 nochmals bedeutend verteuern?
7. Stimmt es, daß die ÖMV überlegt, sich aus diesen Projekt zurückzuziehen?

04.25/91

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Beilage



United States
Department of
Agriculture

Office of
Energy

Washington, D.C.
20250

April 24, 1991

INFORMATIONAL MEMORANDUM

TO: Dr. Anthony Schaup
Austroprot Bioethanol Produktionsgesellschaft M.B.H.

Telephone: 011-43-211 77
Telefax: 011-43-211 77-2001

FROM: Earle E. Gavett, Consultant
USDA/Office of Energy *Earle E. Gavett*

SUBJECT: U.S.A. Ethanol Tax Exemptions

Attached are the relevant portions of the Revenue Reconciliation Act of 1990 which modified the Federal tax exemptions for ethanol when blended into motor fuel.

- (1) The language extended the tax credits and tax exemptions for ethanol to the year 2000.
- (2) The Act established a small producer production tax credit of 10 cents per gallon for up to 15 million gallons in any taxable year. Small producers are defined as those producers whose alcohol productive capacity does not exceed 30 million gallons per year. This additional subsidy is intended to compensate the small producer for higher production costs.
- (3) The alcohol blender tax credit is reduced from 60 cents per gallon of ethanol to 54 cents for anhydrous ethanol. The 6 cents removed from the blender tax credit is available for funding the small producer production tax credit above.
- (4) The Federal excise tax on gasoline was increased from 9.1 cents to 13.1 cents per gallon. However, gasohol is taxed at 7.7 cents per gallon which reflects the ethanol tax credit of 5.4 cents per gallon of gasohol or 54 cents per gallon of ethanol.

In operation, the blender can afford to pay more for ethanol from a producer because the blender will receive a 54 cents per gallon tax credit for every gallon of ethanol he blends into gasoline at the rate of one in 10. When the blender remits the Federal

INFORMATIONAL MEMORANDUM

Page Two

highway fuel excise tax to the U.S. Treasury for placement in the Highway Trust Fund, he remits only 7.7 cents per gallon for gasohol while remitting 13.1 cents per gallon of gasoline.

The reduced tax on gasohol is an inducement to the consumer to utilize a renewable, domestically produced fuel.

1 Attachment

Background Paper
The Highway Trust Fund
After the Budget Agreement

American Petroleum Institute
Policy Analysis Department
1220 L Street, Northwest
Washington, D. C. 20005

The contents of this paper are for the purposes of study and discussion of government legislative or regulatory proposals and do not necessarily represent the views of the American Petroleum Institute or any of its members.

C

Background Paper

The Highway Trust Fund After the Budget Agreement

This paper outlines the impact of the 1990 budget agreement, as embodied in the Omnibus Budget Reconciliation Act of 1990 (OBRA), on the Highway Trust Fund and related matters. It also gives an overview of the fiscal situation surrounding the Highway Trust Fund and summarizes its development in recent years.

Budget Agreement Provisions on Motor Fuel Taxes. Federal excise taxes on motor fuels (gasoline and diesel) were increased by 5 cents per gallon on December 1, 1990. Provisions in the Senate amendment for additional increases in 1991 and 1992 were eliminated in the conference agreement. One half of the increase (2.5 cents) goes into the Highway Trust Fund, and the other half is retained in the general fund (i.e., "used for deficit reduction").

Of the increment for the Highway Trust Fund, 20% (0.5 cents) is earmarked for the Mass Transit Account. Thus, the division of the gasoline tax of 14 cents per gallon (and diesel tax of 20 cents) after December 1, 1990 is as follows: Highways and related projects, 10.0 cents (diesel 16.0 cents); Mass Transit Account, 1.5 cents; general fund, 2.5 cents.¹

Diesel fuel for railroad use is taxed for the first time, at a rate of 2.5 cents per gallon. These revenues are retained in the general fund. The railroad fuel tax is equal to the portion of motor fuel taxes which is retained in the general fund.

All of these fuel taxes, including the base rates established by previous legislation, were extended through September 30, 1995.

The "gasohol" exemption from the federal motor fuel tax for gasoline blended with 10% ethanol was reduced from 6 to 5.4 cents per gallon. The blender's credit for ethanol blended with gasoline or used as a motor fuel was correspondingly reduced from 60 to 54 cents per gallon of ethanol. Exemptions for ethanol fuels, which were to expire in 1993, were extended to 2000. An additional tax credit of 10 cents per gallon of ethanol was provided for small producers (up to 15 million gallons of alcohol for producers of less than 30 million gallons per year). This is equivalent to 1 cent per gallon of gasohol.²

¹ This paper does not consider an additional motor fuel tax of 0.1 cent per gallon, which is dedicated to the Leaking Underground Storage Tank Trust Fund.

² The reduction in the basic ethanol exemption allowed Congress to create the additional tax credit for small ethanol producers without increasing the overall deficit.

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A one-time "floor stocks tax" was levied on motor fuel inventories held on December 1, 1990 by retailers, jobbers, and others, to the extent that those inventories had already passed the point of incidence of taxation when the old rates were in effect. The intent of the floor stocks tax is to bring total taxes on these inventories up to the new rates.

Motor fuel taxes are remitted to the Internal Revenue Service by "producers and importers."³ Certain oil industry recommendations to reduce motor fuel tax evasion were incorporated in OBRA, without significantly changing the point where the taxes are collected.

Highway Trust Fund: Background. The Highway Trust Fund was created by the Highway Revenue Act of 1956 as a funding mechanism for the Interstate highway program, which was authorized by the Federal-Aid Highway Act of 1956. The federal taxes on gasoline and other motor fuels were increased from 2 cents to 3 cents per gallon, and all revenue from these taxes were dedicated to the Highway Trust Fund.⁴ The tax rate was increased to 4 cents per gallon in 1959, and 9 cents per gallon in 1983. The tax on diesel fuel was increased to 15 cents per gallon in 1984. These taxes do not apply to fuels used for "off-highway" purposes, such as farm or industrial use.

The trust fund also receives the proceeds from certain other highway-related excise taxes, including taxes on trucks and tires. Unexpended balances in the trust fund are invested in U.S. government securities, and the interest is credited to the trust fund.

The Federal Highway Administration (FHWA) administers the Highway Trust Fund, but states initiate and manage federal-aid highway projects. Most Highway Trust Fund outlays are within the framework of the Interstate highway system. There are other categories, encompassing construction and maintenance on other major roads. States create the detail designs, award contracts, supervise the work, and pay contractors. Once this has been done, FHWA authorizes payments to the states for the federal government's share of the cost. The federal share is 90% for most Interstate projects, and 75-90% for other eligible projects.⁵

Annual authorizations are allocated by state and territory. There are differing allocation formulas for each of several categories of construction and maintenance, based on such factors as population, area, road miles, and percentage of nationwide needs. There

³ The literal definition of "producers" means refiners. However, wholesalers, traders, and many other resellers can elect to be treated as producers, and a large number of them do so.

⁴ Prior to 1956, federal motor fuel taxes were deposited in the general fund, and federal aid for highway construction was provided through the normal appropriations process.

⁵ The federal government pays 100% of the cost of highway projects on federal lands and Indian reservations, and administers those projects. It also pays 100% of the cost of certain safety programs.

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are minimum allocations for states in most categories, a provision which tends to increase outlays in small states. In addition, there is a provision that each state receive at least 85% of total Highway Trust Fund taxes collected in the state.

Congress has not made the Highway Trust Fund and motor fuel taxes permanent. The 1956 legislation anticipated that the program would build the 40,000-mile Interstate system and then terminate. Thus, the trust fund and related taxes were given an expiration date of 1971. In fact, the job has never been finished. Not only are there still a few Interstate segments to complete (often at very high cost), but the Interstate system and other federal-aid highways have needed continuing expansion, repair, and reconstruction.⁶ Congress has renewed the authorization several times since 1971, usually for four or five years.

The most recent extension was the Surface Transportation and Uniform Relocation Assistance Act of 1987 (STURAA). This act authorizes the Highway Trust Fund through fiscal year 1992, with limited authorization for 1993. While OBRA extended the life of motor fuel taxes, it did not extend the scheduled expiration date of the Highway Trust Fund or of the other excise taxes supporting the trust fund from September 30, 1993.

Supporters of highway construction are seeking to pass a highway reauthorization bill in 1991, to extend the Highway Trust Fund and the taxes that support it. Several groups worked on principles for a new highway bill during 1990. However, there is still no broad-based draft bill in Congress that has gained general acceptance by the appropriate committees as a vehicle for reauthorization.

Mass Transit Account. The Mass Transit Account was created in 1983. A portion of Highway Trust Fund revenues equal to one cent per gallon of taxable motor fuel has been deposited in the Mass Transit Account, and these funds have been earmarked for public transportation projects. (This was just increased to 1.5 cents per gallon.) States have had the option to "trade in" highway money in the trust fund for public transportation projects under some circumstances.⁷

The Mass Transit Account has received about \$1.3 billion in motor fuel taxes each of the last few years. This will increase to almost \$2 billion per year as a result of the budget agreement.⁸ Of the total of \$11.4 billion in taxes and interest accumulated since 1983, only \$4.5 billion has been spent, leaving a balance of over \$6.9 billion, of which about

⁶ Highway Trust Fund expenditures increased from \$4 billion to \$14 billion since the mid-1960s, or about 3.5 times. In the same period, highway construction and maintenance price indices have gone up by a factor of 4, compared to a factor-of-3 increase in the general price level.

⁷ For example, the District of Columbia canceled an urban freeway segment and converted these funds to subway construction.

⁸ The Mass Transit Account was also credited with \$550 million in interest in FY 1990.

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\$3 billion has been obligated.

Highway Trust Fund Spending Restraints. The Highway Trust Fund is operated differently from most federal budget accounts, because of the multi-year character of major highway projects. This makes individual years' appropriations difficult to manage. As a result, the most important control on outlays is the obligation ceiling--the dollar value of projects which FHWA can approve in a fiscal year. Several additional restrictions have been placed on the trust fund: the Byrd Amendment, authorizations, and most recently, appropriations.

From 1956 to 1971, when much of the Interstate system mileage was built, the Highway Trust Fund was operated with modest working balances--10-20% of annual expenditures. In the 1970s, trust fund balances rose rapidly, to well over a full year's expenditures, and sometimes close to two years. In large measure, this was a result of the Byrd Amendment, which sought to ensure that the trust fund would not become over-committed, given that it had a relatively short time horizon. At the end of each fiscal year, the total of unpaid commitments on the Highway Trust Fund must be less than the current balance in the trust fund plus anticipated revenues to be earned in the next 24 months.

The ratio of year-end trust fund balances to annual expenditures has fallen in the 1980s. However, restrictions on the use of the Highway Trust Fund in response to the overall budget problem have caused balances to grow in the last two years.

The Administration has worked to hold annual appropriations down, with a criterion that obligation authority should be equal to trust fund tax revenues. This has been described as a "budget neutral" approach to the Highway Trust Fund, but it has disregarded interest income of well over \$1 billion annually (\$960 million in the highway portion of the trust fund in 1990). Since the Highway Trust Fund is part of the unified budget, any positive difference between receipts and expenditures (i.e., growth of the trust fund balance) reduces the overall deficit. In addition, highway programs have been subject to Gramm-Rudman sequestration, so the appropriations process has become an actual or potential constraint on highway spending in recent years.

Expenditures from the Mass Transit Account have been held down by similar constraints to those affecting highways.

Budget Agreement Effects on Federal Highway Expenditures. Federal spending on highways will increase in the next few years, as a result of the 1991 transportation appropriation bill. Some of the increment which is earmarked for the Highway Trust Fund cannot be spent for highways--at least in the immediate future. It appears that highway expenditures will continue to be less than the revenue to the Highway Trust Fund, as has been the case in the past few years.

The FY 1991 Department of Transportation appropriation has \$14.5 billion in obligation authority for Highway Trust Fund projects. This is an increase of \$2.8 billion over FY 1990. In addition, there is about \$1.5 billion outside the obligation ceiling for emergency relief, minimum allocations, and demonstration projects, for a total around \$16 billion.

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This increase will provide a spending increase of about \$700 million in 1991, with the remainder being spent over the next three or four years. Thus, the unexpended balance in the trust fund is likely to increase in the near term.

Future highway expenditures are still subject to reduction through the Gramm-Rudman mechanism, as revised by the budget agreement. The 1990 legislation divided the budget into three functional areas, domestic, international, and defense, each with its own "funding cap." Should programs be approved which cause total spending within a category to exceed the cap, reductions would be made across the board for all programs *within a category*. Thus, any new domestic spending above 1991 levels could cause funds available for highways to be reduced.

Motor Fuel Taxes after 1995. The budget agreement runs for five years, through FY 1995. The legislation includes a "sense of the Congress resolution" with four points: (1) All new revenues going to the Highway Trust Fund should be made available for transportation purposes. (2) Annual budget resolutions and outlays should be increased to allow use of the new revenues. (3) The principle that highway motor fuel taxes should be deposited in the Highway Trust Fund is reaffirmed. (4) Use of fuel taxes for deficit reduction should end as soon as possible, no later than 1995.⁹

This language is simply a statement of position, and has no legal standing in achieving the stated objectives. Nonetheless, some people regard it as a good set of aims for the federal highway program, particularly for the time after the expiration of the current budget agreement and the taxes in the package, in 1995.

Some proponents of highway construction have advocated legislation that would reduce the level of Highway Trust Fund balances. Assuming current appropriations constraints were removed, this would make additional funds available for highway purposes over a few years, without an increase in motor fuel taxes or other taxes contributing to the trust fund.

rw

December 21, 1990 12:19 pm

⁹ The 2.5 cents per gallon for deficit reduction is the first clear "diversion" of motor fuel taxes since the Highway Trust Fund was established in 1956. However, the gasohol exemption and establishment of the Mass Transit Account each represented an erosion of the original principle that highway user taxes should be devoted to highway purposes.



The Economics of Gasoline Ethanol Blends

Robert C. Anderson
Thomas J. Lareau
Roger D. Wollstadt

Research Study #045
November 1988

The contents of this paper are for the purposes of study and discussion of government legislative or regulatory proposals and do not necessarily represent the views of the American Petroleum Institute or any of its members.

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Calculations of the effects of a national fuel ethanol mandate in this study assume consumption of 5.5 billion gallons of ethanol annually, which is 5% of the 110 billion gallons of motor gasoline used in 1987. This would mean production and sale of 3.6 million barrels per day (b/d) of ethanol-blended motor fuel. While *H.R.2052* envisions reaching this goal in 1992, others have suggested that the date would have to be delayed, unless ethanol were imported. The National Advisory Panel on Cost-Effectiveness of Fuel Ethanol Production concluded that U.S. fuel ethanol capacity probably could not be increased beyond 3.4 billion gallons by 1992.²

Other congressional proposals would mandate use of ethanol blends or other oxygenated fuels in locations where Clean Air Act goals are not met, authorize distribution of surplus grains to fuel ethanol manufacturers at prices below market cost, extend the federal tax subsidy beyond its current expiration date of 1993, grant a partial exemption from gasoline volatility limits, permit additional duty-free import of fuel ethanol from Caribbean countries, or require automobile manufacturers to test and certify their cars' compatibility with gasoline-ethanol blends.

Use of oxygenated fuel is now required during winter months in Denver and nearby areas and in Phoenix and Tucson. The required oxygen content is scheduled to be 2.0% during the 1988-89 winter season and subsequent years in Denver, 2.3% in Phoenix (given recent approval of the Sun waiver permitting a 15% blending level for methyl tertiary butyl ether [MTBE]) and 1.8% starting in October, 1990 in Tucson. Up to the 2.7% oxygen level, gasoline containing ethanol or MTBE is now allowable under Environmental Protection Agency (EPA) regulations. At higher oxygen requirement levels, some use of ethanol blends would be the only feasible means of compliance.

Proposals for local requirements of oxygenated fuels are motivated by potential reductions of carbon monoxide (CO) emissions. High-altitude urban areas in western states are most frequently mentioned as candidates for local or regional mandates. Energy Analysts International, Inc. [1987] estimated potential ethanol consumption in areas proposed for regional mandates of 575 million gallons per year, an increase of 400 million gallons over current consumption in those areas.

Tax Exemptions and Ethanol Subsidies

The federal government and many state governments provide tax exemptions to encourage use of

ethanol fuels. The federal government exempts ethanol fuels from 6 cents of the federal motor fuel tax, which is equivalent to a federal subsidy of 60 cents per gallon of ethanol. In addition, 28 states have tax exemptions or direct production subsidies. They provide a weighted average subsidy of 3 cents per gallon of fuel, or 30 cents per gallon of ethanol.

Congress exempted gasoline with 10% ethanol from the federal motor fuel tax in 1979. The tax was 4 cents per gallon, for an effective subsidy of 40 cents per gallon of ethanol. The federal tax is now 9.1 cents per gallon, and the exemption for ethanol fuels has been increased twice, to the present level of 6 cents per gallon.

State governments had taken the lead in subsidizing ethanol for gasoline blending. Nebraska gave a 3-cent reduction from the state gasoline tax in the early 1970s. Iowa's program, exempting ethanol fuels from the state gasoline tax of 6.5 cents in 1978, was the first to result in significant sales of ethanol fuel. By 1980, 17 states offered tax exemptions for ethanol fuel. At that time, the exemptions were at least 4 cents per gallon in all but two of these states, and ranged as high as 10 cents per gallon. There appears to be a moderate trend to reduce subsidies at the state level. Some state subsidies are limited to alcohol produced in-state or from local feedstocks, or have differentials that favor local producers.

Both federal and state tax exemptions take effect when ethanol is blended with gasoline, usually at a wholesaler's distribution point. Blenders typically pay a price reflecting the full cost of manufacturing and distributing ethanol. Tax exemptions and production subsidies reduce the effective cost of ethanol to an amount equal to or lower than the wholesale price of gasoline. Ethanol fuel production has shown considerable response to state subsidies. About 99% of current production occurs in states that subsidize production or use.

Apart from excise and some state sales tax reductions, other tangible subsidies and government benefits for ethanol fuels go directly to producers. No payments are made to corn farmers or other suppliers of ethanol feedstocks. Their potential gain from ethanol programs is indirect, through greater demand for their output.

The fuel ethanol market is largely reserved for U.S. firms by a duty of 60 cents per gallon on fuel-grade ethanol imports, which cancels the federal tax exemption for most foreign producers. The duty does not apply to Caribbean nations covered by the Caribbean Basin Initiative (CBI). Exports from these coun-

tries have been estimated at about 5% of the U.S. market. To a large extent, they import hydrous ethanol from third countries, process it into anhydrous ethanol, and export the product to the U.S.

Other Subsidies and Support

The Energy Tax Act of 1978 provided an extra 10% investment tax credit (ITC) for equipment for converting biomass to ethanol, in addition to the standard 10%, and subsequent amendments preserved ITC on such equipment through 1987, two years after the credit had been eliminated for most capital goods. Legislation in the late 1970s and early 1980s authorized feasibility studies and cooperative agreements to support alternative fuel facilities, price guarantees and federal agency purchase agreements, and loan guarantees for fuel ethanol facilities.

Some of these programs have been costly to the federal government. The Department of Energy (DOE) and Farmers Home Administration (FmHA) guaranteed loans of almost \$400 million for 15 ethanol plants. DOE settled a defaulted loan in Louisiana (on a 35 million gallon plant that has not yet produced any ethanol) with a \$70 million payment in August 1987, and paid \$126 million to creditors of a plant in Indiana earlier in 1987. The FmHA guarantee program was intended to encourage small-scale plants. Many of the smallest ethanol plants have closed in the last two years, and FmHA has had to pay off several defaulted loans. One recent default resulted in a \$13 million charge to the government.

The Food Security Act of 1985 authorized disposal of government-owned commodities to ethanol producers at reduced or no cost. The Department of Agriculture (USDA) distributed \$54 million worth of corn from surplus stocks over a seven-month period in 1986 under this provision, providing one bushel free for each 2.5 bushels of corn that ethanol producers bought during the period.

Some states have encouraged ethanol in other ways, for example by providing financing for ethanol facility construction and by directives to use ethanol fuel in state-owned vehicles. Nebraska has recently joined the list of states offering financial assistance to producers. The legislature created the Nebraska Ethanol Authority in 1986, and provided it with \$12 million to offer partial financing for ethanol plants. The agency has received at least six proposals, including one for a \$50 million plant that would produce 30 million gallons annually.

U.S. Fuel Ethanol Industry

Industry Output

About 800 million gallons of fuel ethanol were consumed in 1987, in about 8 billion gallons of motor gasoline blends. While ethanol fuels account for about 7% of overall gasoline consumption in the U.S., market share varies greatly among states and regions.

Ethanol fuels are almost always sold as a blend of 90% gasoline and 10% ethanol. Ethanol costs more to produce than gasoline, so its use usually depends on attaining 10% content to qualify for federal and state subsidies. Higher ethanol content will not yield greater subsidies, so 10% ethanol tends to be both a floor and a ceiling.³

Fuel ethanol capacity was greatly increased between 1981 and 1985, when sales rose from 70 million gallons to almost 800 million gallons. There has been relatively little change in consumption since 1985. Ethanol industry spokesmen have typically called this a slowdown in an upward trend of sales, but it could equally well signify that ethanol sales have reached rough equilibrium under current economic and tax policy conditions.

Ethanol production is capital intensive. U.S. ethanol capacity has grown to match demand in recent years, mainly through new and expanded plants in corn-growing states. However, a significant increase in demand would require new capacity.

Industry Structure

Practically speaking, there are two ethanol industries in the U.S. Fuel ethanol is mainly distilled from corn. Most alcohol for industrial and chemical uses is produced from ethylene, a petroleum derivative. The two markets are segregated by federal and state fuel alcohol subsidies.

Table 2 lists fuel ethanol production capacity by plant, as of early 1988.⁴ There are 50-60 plants, with total capacity of 1053 million gallons per year, though some of the smaller plants may not be operating at any given time. Most production comes from a few large plants that use corn as the feedstock. There are only 8 plants with capacity of 25 million gallons or more, and another 7 plants in the 10-25 million gallon range. These 15 plants represent 90% of U.S. capacity.

Archer Daniels Midland Co. (ADM) is by far the largest producer of fuel ethanol. It operates four plants in Illinois and Iowa, with total capacity of 600 million gallons per year (57% of all U.S. capacity).

3



ALCOHOL OUTLOOK

The Definitive Source of Alcohol Market Analysis and Industry Trends - Information Resources

ALCOHOLS		FEDERAL GOVERNMENT		FEEDSTOCKS
	MARKETS		PRICING	
GASOLINE		STATE TAXES		CO-PRODUCTS

March 1991

EPA Test Shows Emissions, Air Toxics Benefits of "E10"

The U.S. Environmental Protection Agency (EPA) recently completed tests of reformulated gasoline containing "splash-blended" fuel ethanol and concluded that the fuel produced lower total hydrocarbon (combined exhaust and evaporative) and air toxics emissions than either MTBE- or ETBE-blended fuels. The results also pointed out that the non-volatility adjusted fuel can meet the 15% emissions reductions requirements of the 1995 "fuel formula" reformulated gasoline provisions of the Clean Air Act Amendments of 1990 for both volatile organic compounds (VOCs) and air toxics.

While not necessarily applicable to the entire vehicle fleet, these data are seen by industry observers as marking a significant development in understanding that splash-blended fuel ethanol is far from being the "bad actor" that many of its critics have for years suggested. It may also provide some additional input for the ongoing "Reg Neg" process to set reformulated gasoline regulations (*see related story, this issue, p13*), for the Joint Auto/Oil Air Quality Improvement Research Program, and the planned Federal Express Alternative Fuel Demonstration Project in Southern California.

The EPA tests, conducted under contract with Southwest Research Institute (SwRI), was a comparison of the emissions benefits of four fuels on five 1974 - 90 model year vehicles with varying mileage and emissions control equipment, using Federal Test Procedures (FTPs). The fuels tested included a base, all-hydrocarbon fuel compared to a reformulated gasoline containing 10% (vol.) ethanol ("E10"), 16.4% (vol.) MTBE, and 19.1% (vol.) ETBE. In the latter two cases, the volume percentages exceed the currently permissible levels under either the Sun waiver for MTBE or the newly-revised "substantially similar" interpretive rule for ETBE (*see Alcohol Outlook, 2/91, p1*).

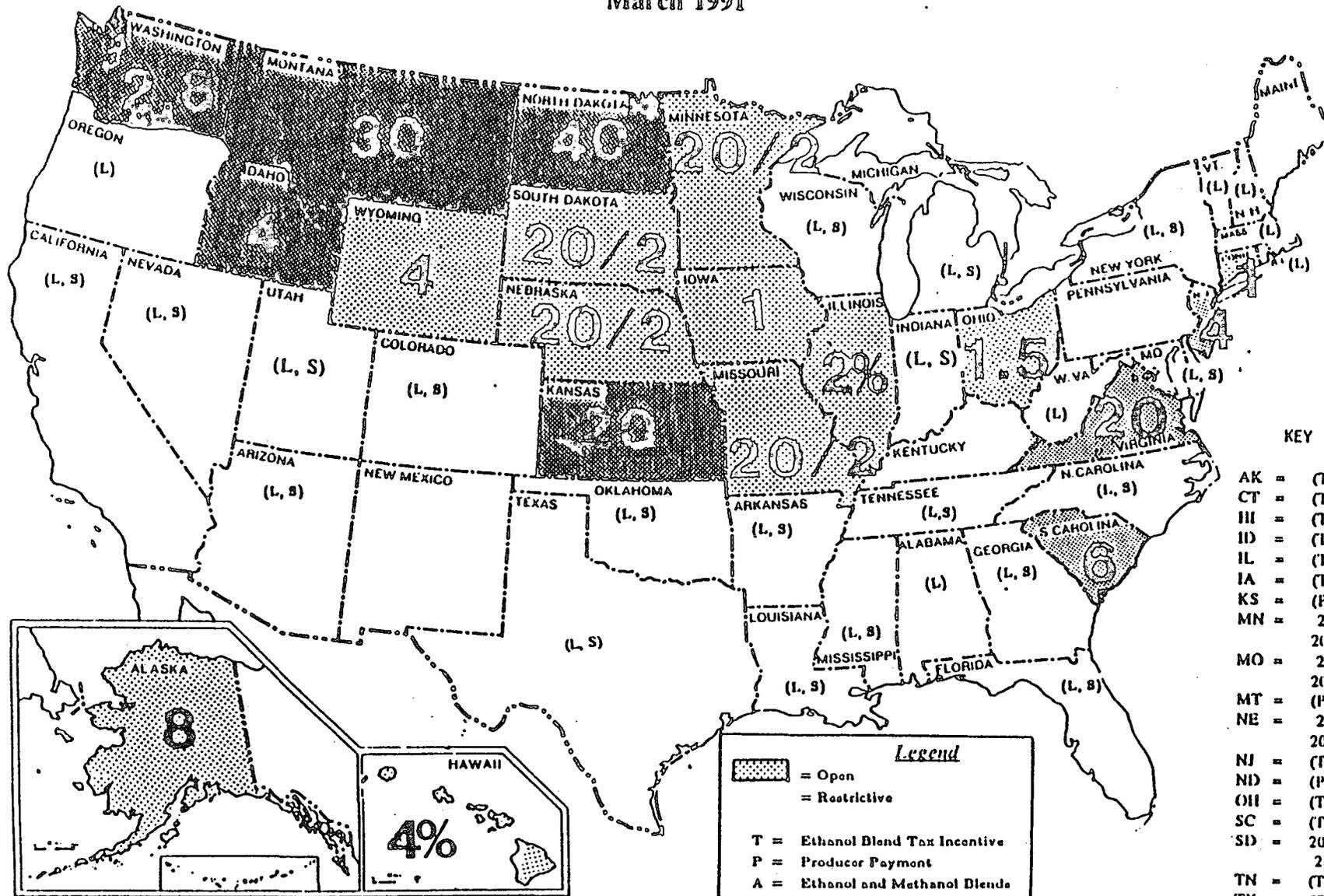
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State Fuel Ethanol Incentives & Regulations

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Legend

= Open
 = Restrictive

T = Ethanol Blend Tax Incentive
P = Producer Payment
A = Ethanol and Methanol Blends
I = In-state Product Only
R = Reciprocal Incentive
L = Pump Labeling
S = Fuel Quality Specification

KEY

AK	=	(T, I)
CT	=	(T, A, L, S)
HI	=	(T, L, S)
ID	=	(T, R, I, S)
IL	=	(T, L, S)
IA	=	(T, L, S)
KS	=	(P, I, S)
MN	=	2 - (T, I, S)
MO	=	20 - (P, I, L, S)
MT	=	20 - (P, I, L, S)
NE	=	(P, I, L, S)
ND	=	2 - (T, I, S)
OH	=	20 - (P, I, L, S)
SC	=	(T, R, I, S)
SD	=	20 - (P, I, L, S)
TN	=	2 - (T, I)
TX	=	(T, L, S)
VA	=	(P, I, L, S)
WV	=	(L)
WY	=	(T, L, S)