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Subsidized U.S. biodiesel: the never-ending story

COMMENTARY:

Subsidized U.S. biodiesel: the never-ending story

by By Russ Finley*

In 2004 the U.S. Congress created a USD\$ 1/gallon (US\$ 0.264/litre) blenders' tax credit for biodiesel that was slated to expire in 2006. But in 2005 it extended the tax credit through the end of 2008 and, before that year was up, extended it again, through 2009.

Predictably, last autumn, legislation was introduced to extend the tax credit for yet another year, through 2010. The bill passed the U.S. House of Representatives but stalled in the Senate. Consequently, since 1 January 2010, a number of biodiesel operators, unable to find buyers for their product at a cost price, have suspended operations.

Currently, the U.S. biodiesel industry is estimated to be operating at only 15 percent of its rated capacity. That percentage would undoubtedly be even smaller if it were not for the subsidies and tax exemptions still provided by a number of states, and for the various government mandates (state as well as federal), that continue to force the blending of biodiesel into the nation's fuel supply regardless of cost. Because taxpayers cannot opt out of buying a blended fuel, mandates allow blenders to pass on at least some of their costs to consumers, creating a de facto subsidy via a captive, artificial market.

The Energy Independence and Security Act of 2007, which created

a specific mandate for biodiesel, left open a glaring loophole — ironically, one that Congress was in no hurry to close. Although (as its title attests) this act was passed ostensibly to reduce American dependence on foreign oil, it did not disallow the export of subsidized biofuels.

“Our biodiesel policy is a prime example of how government subsidies and mandates can turn a rational market into a nonsensical, confused, unpredictable, spiral of waste, all at the expense of taxpayers and investors.”

American producers of biodiesel were quick to capitalize on this loophole and were soon exporting a majority of their product to Europe, where it fetches a higher price than in the United States, thanks to the partial exempting of biodiesel from fuel taxes in many countries, and the edge that dollar per gallon blending credit gave U.S. producers over their European rivals. This practice was ended in March 2009, when the European Commission imposed anti-dumping and countervailing duties on imports of U.S. biodiesel.

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The USA's biodiesel policy is a prime example of how government subsidies and mandates can turn a rational market into a nonsensical, confused, unpredictable, spiral of waste, all at the expense of taxpayers and investors. And when I say investors, I'm not just referring to venture capitalists who fully understand and accept the risks. I live in Seattle. At the height of the biodiesel craze, the City of Seattle Employee's Retirement Fund invested US\$ 10 million dollars in the largest biodiesel refinery on the West Coast, which shortly thereafter stopped production when its operating capital ran out. Thanks in large part to local State government purchases to meet

"Government is analogous to a referee on a football field. Referees exist for a reason, and it isn't to decide who gets to win."

previously legislated mandate deadlines, the plant started producing biodiesel again in 2009 for a brief period until an untimely explosion shut the refinery down ... again.

The investment in this industry, and

the attendant loss to the economy by its failure, would have been small to non-existent without the government attempting to pick winners for its consumer-citizens. Competing within the rules set by government is what markets do best. Government is analogous to a referee on a football field. Referees exist for a reason, and it isn't to decide who gets to win.

The industry is, not surprisingly, lobbying to re-instate the blenders' credit, arguing that it invested in good faith that government support would continue. Did they not know exactly when the tax credit was slated to end? Were they not gambling as entrepreneurs in assuming that it would be continued?

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COMMENTARY:

A grain of salt needed with promises of cheap desalination

by Peter Gleick, President, and Heather Cooley, Senior Research Associate, Pacific Institute, Oakland, California

The irony of water scarcity on a planet 70% covered by ocean does make us gaze longingly at the seas as the ultimate answer. The public, politicians and water authorities continue to hope that cost-effective and environmentally friendly desalination – the removal of salt from seawater to make it drinkable – will come to the rescue of water-scarce regions. In most places, however, desalination is a technology whose time has not yet come.

Desalination is currently in use in approximately 130 countries. The only significant capacity is in the Persian Gulf, on islands with limited freshwater supplies, and in selected other locations where water sources are limited and the public is willing to pay high prices. The installed desalination plants have the capacity to provide just three one-thousandths – 0.3% – of total world freshwater use.

From a technological standpoint,

"From a technological standpoint, desalination works – but in dollars, energy use and environmental impacts, it is an expensive way to meet freshwater needs."

desalination works – but in dollars, energy use and environmental impacts, it is an expensive way to meet freshwater needs. The actual price of desalinated water is site-specific. It depends on a number of factors, including labour costs, energy sources, land availability and the salinity of the water to be purified. Experience to date in California suggests that it cannot be delivered for anything less than the cost of production, which is unlikely to fall below the range of US\$ 3.00 to US\$ 3.50 per thousand gallons (kgal ; in standard international units, US\$ 0.79 to

US\$ 0.92 per cubic metre (m³)), even for large, efficient plants – and could be as much as US\$ 9.00 to US\$ 10.00 per kgal (US\$ 2.38–2.64 per m³). Only the low end of this range just touches the price of water that might be paid by urban water users, rarely more than US\$ 1.00 to US\$ 3.00 per kgal (US\$ 0.26–0.79 per m³). And it is far above the price typically paid by farmers in the western United States, whose costs may be as low as US\$ 0.20 to US\$ 0.40 per kgal (0.05–0.11 per m³), although this is to some extent due to federal and state investment in major water supply and delivery systems.

In part, costs are high because seawater desalination is among the most energy-intensive water supply options available. This also means that relying on it increases the water supplier's exposure to energy price variability and energy price increases over time. Desalination has

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environmental impacts that must be understood and mitigated as well. These include effects associated with the construction of the plant and, especially, its long-term operation, including the effects of withdrawing large volumes of water from the ocean and discharging large volumes of concentrated brine. Indirect impacts associated with the substantial use of energy must also be considered. There are some cases where desalination can provide environmental benefits by reducing withdrawals from rivers and streams – although usually there is no binding mechanism to ensure that these gains are actually delivered.

Explicit and implicit subsidies may also affect the price. For example, in Israel the Ashkelon desalination plant is constructed on land provided at no cost by the Israeli government. The trouble-plagued Tampa Bay desalination plant in the United States was provided low-cost capital by a Floridian regulatory entity but is ultimately producing water at US\$ 3.38 per kgal (US\$ 0.89/ m³) – nearly double the initial estimate. In the United Arab Emirates, the Taweelah A1 plant is provided energy at a subsidized cost of US\$ 0.02 per kWh. Given that it uses a process called reverse osmosis, where typically one-third to one-half of the water cost derives from the use of electrical energy, this is a substantial subsidy.

In many parts of the world, alternatives to desalination – such as improving conservation and efficiency, accelerating wastewater recycling and reuse, purifying low-quality local water sources, encouraging regional water transfers, and implementing smart land-use planning – can provide the same freshwater benefits at far lower economic and environmental costs. This is certainly true in California, where several new desalination plants

have recently been proposed.

Even where proponents say it is possible to produce freshwater at competitive prices, experience shows that these claims should be viewed critically. Projections can change once investments are underway, leading to higher than expected user costs or a call for subsidisation. Poseidon Resources,

“In many parts of the world, alternatives to desalination – such as improving conservation and efficiency, accelerating wastewater recycling and reuse, purifying low-quality local water sources, encouraging regional water transfers, and implementing smart land-use planning – can provide the same freshwater benefits at far lower economic and environmental costs.”

the group who initiated Florida’s Tampa Bay Project, repeatedly claimed it would bear all of the financial burden and risk associated with the plan to desalinate ocean water at an old power plant in the city of Carlsbad, California and sell it to public water agencies. But now it says that in order to be commercially viable, the project needs massive public subsidies of at least US\$ 530 million in tax-free state bonds and an annual subsidy of US\$ 250 per acre-foot (US\$ 0.20/ m³) of water produced from the Metropolitan Water District of Southern California.

These are public subsidies to fund a private project designed to produce

profits for private investors. Compared with more economical water sources of untapped conservation and efficiency, recycled water, capturing storm water, and transferring some water from use in agriculture, the experience with Carlsbad suggests that desalination is still too expensive for California. Furthermore, California’s coastal resources, including ocean waters, are part of the public commons and are protected under the public trust doctrine, and it is not clear whether public funding should be used to develop public resources for a private investor.

Desalination facilities should be approved only where water agencies have implemented all of the more cost-effective conservation and efficiency measures already. Public subsidies for desalination plants are inappropriate unless explicit public benefits are guaranteed, such as restoration of ecosystem flows. Most of the time, the economic evaluations of desalination presented to regulators and the public do not adequately account for the complicated benefits and costs associated with issues of reliability, quality, local control, environmental effects and impacts on development. Until they do, the true cost of desalination will remain a mystery.

The Pacific Institute (www.pacinst.org), based in Oakland, California, is a nonpartisan research institute that works to create a healthier planet and sustainable communities. Through interdisciplinary research and partnering with stakeholders, the Institute produces solutions that advance environmental protection, economic development, and social equity. The Pacific Institute Water Program seeks to transform the way societies perceive, manage, and use freshwater resources for more effective and sustainable strategies for meeting human and environmental needs for water.



ANALYSIS:

India's policy research shows way to energy subsidy reform, so far unheeded

The central Indian government began subsidizing petroleum derivatives as a result of the oil-price shocks of the 1970s, in order to soften the impact of oil price swings on the poor. According to several studies conducted in the last decade, it has become increasingly clear that the government's energy-subsidy programs are a costly way to achieve this goal and are not effective in meeting the needs of the less well-off.

In 2009, the burden of India's energy subsidy on the national budget climbed steadily with petroleum prices. In a statement to the Parliamentary Consultative Committee in December, Minister for Petroleum and Natural Gas Mr. Murli Deora estimated India's energy-subsidy spending at the end of the current fiscal year would be around US\$ 9.76 billion (based on December petroleum prices). Although this is less than half the amount spent on energy subsidies in the previous fiscal year, due to the lower oil prices caused by the world economic slowdown, the total still amounts to 4.5% of the country's estimated US\$ 219 billion budget.

Four petroleum products are subsidized by the central government: gasoline, diesel, domestic liquid petroleum gas (LPG) and kerosene. LPG and kerosene subsidies make up two-thirds of the spending, intended to help lower-income Indians gain access to cooking fuel. Yet a 2005 study by The Energy and Resources Institute (TERI), a New Delhi-based non-governmental organisation promoting sustainable development, found that the kerosene and LPG subsidies are inefficient and easily redirected to unintended purposes: "76% of the LPG subsidy goes to urban areas with 25% of [India's] total population, and... 52% of this urban subsidy is enjoyed by the top 27% of households."

"In order to reduce these problems the TERI study recommended that the government stop producer subsidies and instead use 'smart cards', special debit cards that can be used to transfer cash directly to low-income Indians."

Ruchika Chawla, Associate Fellow at TERI's Centre for Research on Energy Security and one of the authors of the study, confirmed for *Subsidy Watch* that the general distribution of benefits conferred by LPG subsidization remains unchanged.

"A similar situation is seen in the kerosene subsidies as well, where a large portion of subsidized kerosene is siphoned off to the black market, where either it is sold at higher prices or used to adulterate diesel," added Mr. Chawla.

In order to reduce these problems the TERI study recommended that the government stop producer subsidies and instead use 'smart cards', special debit cards that can be used to transfer cash directly to low-income Indians.

Similar conclusions were reached in August 2006 in a prominent study conducted by a government-appointed committee, the Planning Commission of India's Expert Committee on Integrated Energy Policy, chaired by Dr. Kirit S. Parikh.

According to the Parikh Committee "The current delivery system of [the] kerosene subsidy by keeping the price of kerosene to the consumer low and compensating

the oil companies for the difference in the consumer price and the import parity price has led to shockingly high rate of corruption in the petroleum distribution agencies."

A high percentage of the kerosene that is supposed to be distributed under the subsidy system is diverted for the adulteration of higher-priced diesel even at the depot level, leading to a leakage of 44% which amounts to approximately US\$ 2.29 billion, found the Committee.

"If kerosene is to be subsidised as a cleaner fuel, the only way of preventing this pernicious adulteration and the widely prevalent corruption is to make the price of kerosene and diesel very close and give the subsidy to the consumer directly by way of coupons or smart cards," it concluded.

More concretely, the Parikh Committee recommended that the best way to improve access to kerosene and LPG for poor consumers would be to create a targeted entitlement to energy products, equal to 30 kilowatt-hours and 6 kg of cooking gas, or an equivalent amount of kerosene to cover one or both needs. Like TERI, it also proposed managing distribution with smart cards, specifically designed to purchase entitlements.

Acknowledging that smart cards are not a fool-proof system, the report noted that they have been used before in India and are subject to black market sale. In order to prevent this, the Committee suggested using cards with physiological identification, though adding, "even if a household decides to sell the entitlement and not use power, LPG and kerosene, it would still be welfare improving."

The central government has yet to implement an energy subsidy smart card system, though pilot programs have

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been considered in the past. According to Mr Chawla, one of the hurdles has been a lack of coordination between the central and state governments, caused by disagreement over who should be entitled to the aid.

A pilot project that was to use smart cards for the delivery of the kerosene

subsidy was put on hold in May 2007, because the states selected to take part in the pilot – Bihar, Uttarakhand and Maharashtra – wanted the scheme to include families above the poverty level, according to Indian newspaper *Mint*.

The kerosene and LPG subsidies were originally supposed to be removed by

March of 2007, but have remained in place. As recently as September 2009, the central government delayed another planned withdrawal of the LPG subsidy due to the potential unpopularity of such a move. In the same month, India and the other G-20 member countries pledged to phase out fossil-fuel subsidies in the medium-term.

NEWS:

Car-scrapping schemes boost European market in 2009, but at what cost?

The European Automobile Manufacturer's Association (ACEA) reports that passenger car sales in the first eleven months of 2009 show that car-scrapping schemes – programs in which vehicle owners are given money by the state to trade in old vehicles for new, more efficient ones – are a successful way to support car industries struggling in the recession.

As of November, the ACEA states that thirteen such schemes exist in EU countries, largely in Western Europe: Austria, Cyprus, France, Germany, Greece, Italy, Luxembourg, the Netherlands, Portugal, Romania, Slovakia, Spain and the UK. It has produced an overview summarizing the details of the programs in each country, including the grant paid per consumer, the age and engine-efficiency requirements for new-car purchase, the total money allocated to the scheme and its lifetime.

The ACEA argues that countries with a car-scrapping scheme often fared better than others, and recommends that, "all 27 EU Member States should adopt fleet renewal schemes to soften the current decline in motor vehicle sales". According to the ACEA, these programs boost the ailing industry, improve environmental and safety

standards and reduce the resale of Western Europe's older, inefficient vehicles to consumers in Central and Eastern Europe. Three EU countries

"According to the ACEA, these programs boost the ailing industry, improve environmental and safety standards and reduce the resale of Western Europe's older, inefficient vehicles..."

– Poland, the Czech Republic and Hungary – are said to be discussing the possibility of introducing their own programs in the future.

However, an analysis of car-scrapping schemes carried out for the Global Subsidies Initiative (GSI) and reported in a *Policy Brief* in December 2009, ("[Car-scrapping schemes: an effective economic rescue policy?](#)"), provides another perspective on these kinds of policies. Reviewing programs in Germany, Spain, France, the U.K. and the U.S., it concludes that although such schemes may benefit the car industry, it is less clear how they affect a nation's economy overall or

contribute to environmental goals.

In some cases, it is pointed out that the majority of new vehicles being purchased are foreign brands, and car-scrapping schemes may encourage consumers to bring car-purchase decisions forward in time, simply shifting a decline in sales to a later date. Moreover, support programs can benefit the car industry at the expense of other economic sectors struggling in the recession. The GSI also argue that effects on the environment are demonstrated to be dependent on the design of the scheme in question. In Spain and France, for example, consumers only receive support if they purchase new cars with relatively stringent fuel-efficiency criteria. By contrast, consumers in Germany and the U.K. receive support regardless of the fuel-efficiency of the new vehicle purchased.

For more information about car-scrapping schemes in the European Union, see the ACEA's website: <http://www.acea.be>

The GSI's "Car-scrapping schemes: an effective economic rescue policy?" can be accessed at: http://www.globalsubsidies.org/files/assets/pb2_carscrap.pdf



NEWS:

Iran parliament rejects call to withdraw subsidy reform bill

Controversy continues to surround Iran's bill on subsidy reform, with the government and parliament unable to agree on how the saved revenues should be managed. Tension has simmered since the parliament introduced an amendment to the bill in November 2009, which established that revenues would be saved in a special account for public spending. The government did not want any restrictions to be placed on usage of the funds, and on these grounds requested that the entire bill be withdrawn.

On 3 January the Iranian parliament rejected the government's request and, two days later, approved the creation of an "Organisation of Targeted Subsidies", to be responsible for spending the saved revenues.

Iran's President Mahmoud Ahmadinejad has previously threatened to withdraw the bill himself, and it is not yet clear how the situation

"According to the Tehran Times, 'informed sources' report that 50% of the revenues will be used to fund these cash-transfers, 30% will "be paid to producers" and 20% used to "cover state expenses""

will be resolved. In the meantime, approval of the bill is still pending from the Guardian's Council, Iran's legislative 'watchdog'. The parliament is currently revising the bill to rectify problems previously identified by the Council. The disagreement takes place against a background of renewed political protest against the regime.

As reported in the December edition of *Subsidy Watch*, the reform bill

proposes phasing out subsidies on energy, water, food and some services over the next five years. A portion of the saved revenues is intended to fund a targeted cash-transfer system that will help low-income families cope with the increased prices. According to the *Tehran Times*, 'informed sources' report that 50% of the revenues will be used to fund these cash-transfers, 30% will "be paid to producers" and 20% used to "cover state expenses".

The political motivation behind the reform is said to be concern over potential trade sanctions. In December 2009, the U.S. House of Representatives passed legislation allowing sanctions to be levied on companies supplying fuel to Iran. According to Al Jazeera, Nancy Pelosi, the House Speaker, said the United States should "use all the tools at our disposal, from diplomacy to sanctions, to stop Iran's march toward nuclear capability."

STUDY:

Subsidy Scope: U.S. motorist fees contribute decreasing share of highway funding

According to an analysis conducted by the Pew Charitable Trust's Subsidy Scope project at the end of November 2009, road user fees paid in the United States – including fuel taxes, vehicle registration fees and tolls – make up a decreasing share of the cost of highway construction and maintenance.

The research, based on Federal Highway Administration statistics,

concludes that the percentage of revenue coming from road users was 51% in 2007, compared with 61% in 1997 and 71% in 1967. The remaining funds are sourced from general revenues.

Subsidy Scope attributes the trend to inadequate adjustment of user fees to inflation and rising road costs, as well as revenue instability, caused by driving patterns changing in response

to fuel prices, and engines becoming more fuel-efficient.

The summary of findings and the dataset developed in the course of the analysis can be found on Subsidy Scope's website: <http://www.subsidyscope.com/transportation/highways/funding/>



STUDY:

ECIPE conclude EU biofuels policy is costly, protectionist and risks violating WTO obligations

The European Centre for International Political Economy (ECIPE) has released a report criticizing the European Union's biofuels policy, Green Protectionism in the European Union: How Europe's Biofuels Policy and the Renewable Energy Directive Violate WTO Commitments.

According to the report, which reviews the history and programs behind the EU's biofuels policy, substantial subsidies, import tariffs and standards are used to favour domestically produced biofuels, in "a classic example of 'green protectionism' – protectionism that is not motivated for the benefit of the environment, but which uses environmental concerns to pursue non-environmental objectives."

The study gives particular attention to The Renewable Energy Directive (RED), which sets a binding target for

20% of the EU's energy use to come from renewable sources by 2020. Of this, biofuels are to make up a 10% share of transport-related energy in all E.U countries. In order to contribute towards these targets, biofuels producers are expected to meet complex production criteria, including a gradually increasing minimum level of saved greenhouse gas emissions, and to avoid converting biodiverse or carbon-rich soils for growing feedstocks (inappropriate land-use change).

ECIPE object that foreign exporters may not be able to prove compliance, effectively cutting them off from the EU market, especially where eligibility for subsidies may be tied to meeting the RED criteria. They also note that the EU fails to provide guidance on how it could prevent the manipulation of ambiguities in the calculation of carbon reductions, leaving it open to

accusations of bad faith. Europe's lack of negotiation with other countries is identified as the key problem with its approach.

The report argues that a careful reading of the General Agreement on Tariffs and Trade (GATT) and the Agreement on Technical Barriers to Trade (TBT) show that the EU's biofuels policy "clearly violates WTO principles and rules", and is unlikely to qualify under any of the GATT's criteria for exceptional treatment.

ECIPE conclude that if it seriously intends to increase the share of biofuels in its energy mix, "Europe... needs to reconsider the role of trade in achieving this ambition".

The full report can be downloaded from ECIPE's website: <http://www.ecipe.org/>

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Many insiders are predicting that legislation to extend the biodiesel tax credit will eventually be passed, and made retroactive to any biodiesel sold since the beginning of the year. That might make sense if there were any real prospect for biodiesel made from the chemical transformation of virgin vegetable oils becoming economically viable without subsidies. There isn't.

The technology for making biodiesel is already mature; its production costs, more than 70% of which are determined by feedstock costs, are unlikely to decline. Volatility in the markets for vegetable oils and petroleum products may mean that, for brief periods,

biodiesel may become competitive with diesel. But biodiesel producers compete with food processors for the same feedstocks, and as demand for them increases so does the price. The prices of vegetable oils are also closely linked to the price of fossil fuels, thanks to modern agriculture's dependence on them for everything from pesticides and fertilizers to transport and processing. In the summer of 2008, when food riots were occurring around the globe, biodiesel made from soy oil was selling for US\$ 6 per gallon in Seattle while regular diesel was selling for US\$ 4.

High prices for petroleum fuels are, in any case, making more of a dent

in fuel consumption and greenhouse gases than biodiesel ever did, helping encourage conservation and the development of new, energy-saving technologies in transport.

Congress should resist calls to extend the life of the blenders' credit, and let this never-ending story come to an end.

Russ Finley is author of Poison Darts: Protecting the Biodiversity of our World and a frequent commentator on environmental issues. He is based in Seattle, Washington.