

# The Obama Energy Plan: a reality check

The US needs to move in the direction President Obama's new Energy Plan calls for. At the same time, we need to be more realistic about costs and lead times and take a more balanced approach towards domestic oil and natural gas, or the plan will fail as all the previous presidential energy plans have.

| By *Herman Franssen*

For the past 40 years, all American presidents except for Ronald Reagan have pursued energy independence through various schemes to improve energy efficiency and increase domestic oil production. In 1970, President Nixon inaugurated a plan to make virtually pollution free automobiles within five years and promised energy independence by 1980.

President Ford's Project Independence Blueprint called for energy independence by 1985, with the possibility of the US becoming a net oil exporter in 1985 in the high oil price case.

President Carter, calling the fight for energy independence the 'moral equivalent of war' set the goal in 1979 to cut oil imports by one half over a ten year period or by 4.4 million barrels per day (mbd). He initiated the CAFE (automobile fuel efficiency) standards and called for a program to reinvent the car. President Clinton announced a partnership for a new generation of vehicles and President Bush funded research on hydrogen and plug-in vehicles. President Bush also called for a reduction of oil imports from

the Middle East by 75 percent (about 2 mbd) by 2025. Each president hoped that he would be the one to end the national security threat of dependence on foreign oil and the inability of the nation to influence (let alone control) world oil prices.

Despite all those efforts, US oil production continued to fall on average by 1.5 percent annually; consumption fell after the oil shocks of the late 1970's but rose again steadily from the late 1980's. Instead of reaching zero oil imports by 1980 or 1985, oil imports more than doubled to about 12.5 mbd by 2007. The policies to achieve energy independence failed for technical, economic and political reasons. The exclusion of SUV's and RV's (recreational vehicles) from President's Carter's CAFE standards offset whatever efficiency gains were made from cars subjected to those standards. The population expanded. Americans bought more cars per family than anywhere else in the world. Gasoline remained relatively cheap. Alternative fuel cars (including

diesel) never took off and since the Santa Barbara oil spill of 1969, much of the outer continental shelf and the Alaskan Naval Reserve IV (ANWR) have been off limits for exploration and production of oil and natural gas.

The impact of the 9/11 attacks and sharply rising oil prices since 2004, stimulated a new debate on energy security leading to the passage of the 2005 Energy Policy Act and more importantly the 2007 Energy Independence and Security Act (EISA). Tougher CAFE standards ( this time including SUV's) and mandates for the use of first and second generation biofuels are expected to reduce oil imports by some 3 mbd by 2020 (more than the 2.2 mbd of US oil imports from the Middle East in 2007). The CAFE standards in the 2007 EISA were realistic but the mandated use of 36 billion gallons (of which 21 billion second generation biofuels) of ethanol is extremely optimistic. The Bush Administration also favored opening much of the outer continental shelf for oil and natural gas exploration and development.



*President Carter called the fight for energy independence the moral equivalent of war*

The publication of alarming new scientific studies on the impact of CO<sub>2</sub> emissions on climate change and the release of Al Gore's "An Inconvenient Truth" in 2006 caused renewed concern about the possible impact of global warming among the American people. This was not lost on the political establishment who, in addition to genuine concern about the environment, considered climate change policy an attractive way to collect new taxes and expand the role of government. Senators Obama and McCain campaigned on an energy and environment platform favoring significant reductions in CO<sub>2</sub> emissions. McCain favored opening large new offshore acreage for oil and gas development and a major plan to build more nuclear power plants. In contrast, the Obama campaign emphasized the need to regulate carbon emissions and the promotion of renewable energy.

#### New plan |

President Obama's "New Energy and Environment Plan for America" is focused



President Ford signs the proclamation that imposes higher tariffs on imported oil in January 1975. Alan Greenspan (centre) is watching. Photo by: Bettmann/Corbis

on the desire to move the country away from dependence on fossil fuels towards a new sustainable and environmentally friendlier system. The plan has very ambitious targets for raising energy efficiency, reducing CO<sub>2</sub> emissions through cap-and-trade, beginning a transformation away from the internal combustion engine and stimulating massive penetration of renewable energy sources.

The original plan was designed in the midst of the biggest oil price run-up in history and at a time when the economy was still growing and environmental issues were close to the top of voters concerns. Initially, the plan included short term relief to American families faced with very high gasoline prices, to be paid for by a windfall profit tax on the oil industry. When gasoline prices fell by almost two-thirds in the fall of 2008, this issue was removed from the priority list as did a proposed crackdown on excessive oil market speculation. The new number one and two major concerns of the American people as expressed in a recent Pew Foundation poll are the economy and the job situation. Global warming as an issue has moved to the 20th place.

The comprehensive Obama-Biden New Energy for America Plan has remained

pretty much unchanged from the pre-election version but the creation of five million new green jobs has been put high on top of the list of priorities. These jobs will be created by strategically investing \$150 billion over the next ten years to catalyze private efforts to build a clean energy future. This amount is over and above the \$62.5 billion spending on green initiatives and \$20 billion in green tax

*It will take an act of faith to believe that one million expensive electric vehicles will be on the road by 2015*

incentives as part of the Stimulus package signed by the President in February. Attempts by some Congressmen to insert funding for nuclear and coal projects were dropped from the final version of the Stimulus plan.

President Obama has appointed the top tier of high level officials to implement the Obama energy and environmental policies. The team is dominated by committed environmentalists with limited background in the traditional energy industry. It is apparent that in the

area of energy and environmental policy the President and his new team are aiming at a major break with the Bush Administration, whose energy policy was dominated by increasing domestic production of hydrocarbons, nuclear power and first generation biofuels and had little patience for addressing CO<sub>2</sub> emissions.

On the Congressional side, Michigan Congressman and elder statesman John Dingell, who represented the interests of Detroit's car industry, was replaced as Chairman of the House Energy and Commerce Committee with Congressman Henry Waxman of California. Waxman is a proponent of the Californian plan to tax carbon emissions in the transportation sector by means of further tightening and speeding up of CAFE standards beyond the 35mpg (miles per gallon) commitment in the 2007 Energy Independence and Security Act. Senator Barbara Boxer of California, Chairman of the Senate Environment Committee and House Speaker Nancy Pelosi, also from California, consider global warming and renewable energy priority issues. California's innovative Silicon Valley industries expect to be major benefactors of the proposed push towards renewable energy and efficiency.

In the past the State of California has always been the leader in the push for tightening environmental standards.

#### Working Americans |

The new energy and environment policy aims at a rapid transformation of the road transportation sector, calling for strict implementation of CAFE standards and steep gasoline taxes as part of the cap-and-trade policy. The National Association of Manufacturers (NAM) has calculated that implementation of cap-

and-trade will add an additional tax on motor fuels of 13-50 percent and MIT (Massachusetts Institute of Technology) calculated it would add about 29% to the cost of gasoline by the middle of the next decade. The plan calls for using much of the income from cap-and-trade to reimburse "working Americans" and about one third to finance new and renewable energy sources. The higher cost of gasoline will help the drive towards more efficient cars and plug-in hybrids but it will also hurt middle class consumers and will have an adverse impact on the economy. NAM and MIT also projected major increases in the cost of electricity and natural gas to the consumer. "Working Americans" will get some of the higher energy costs reimbursed in the form of a tax credit and all other Americans will have to pay the full cost of cap-and-trade. For middle class consumers who fall outside of the definition of "Working Americans", the added energy costs will come at a time of a major national and global economic transformation which may well reduce future GDP growth rates from those of the past few decades.

As for lead times to achieve the volumetric contribution of new and renewable energy and green cars, the energy plan is very ambitious. It calls for a million plug-in cars on the road by 2015 (introduction of the Chevrolet Volt is expected sometime in 2010). In better economic times, it took seven years and ever higher gasoline prices for gasoline hybrid cars to move from about 20,000 in

1999 to 350,000 in 2007. Sales of hybrids fell sharply in late 2008 when gasoline prices were cut by almost two-thirds from the summer 2008 peak. Unless gasoline prices will escalate sharply in the next few years, it will take an act of faith to believe that one million expensive (expected to cost initially more than \$40,000) untested electric vehicles will be on the road by 2015. The future of alternative fuels for cars and trucks is bright, but the transformation is expected to take decades. It took fifty years for nuclear power (once called "too cheap to meter") to capture 5% of global energy and 15% of global electricity consumption. It took more than half a century for oil to surpass coal consumption and more than four decades for natural gas to move from 7 to 24 percent of primary energy consumption in the EU. Every president since Nixon (except for Ronald Reagan) called for energy (read oil) independence in 5, 10 or 20 years but, except for the mid 1980's, oil imports have continued to rise through 2007. As for new and renewable energy sources, the International Energy Agency (IEA) projects that the contribution of renewable energy in the US will increase from 4 percent in 2006 to 10 percent by 2030 (from 3 to 12 percent for electricity). To count on untested and not yet commercial second generation biofuels to make a major contribution to liquids supply in the US as early as 2015-2020 is another act of faith. To increase supply to 60 billion gallons by 2030 is next to impossible. Massive energy transformation simply takes time

and historically, the costs and lead times have always been underestimated.

The Obama energy and environment plan is no doubt bold and ambitious. Early success can be expected from new incentives and mandates for energy efficiency. The contribution of alternative fuel cars (CNG, E85 and in particular plug-in hybrids) is likely to be much slower than the Plan calls for. Carbon cap-and-trade policies, if implemented, will add significant costs to consumers and business at a time when US industry is struggling to compete with the parts of the world which will not implement carbon cap-and-trade policies. At the very least, an honest debate on the pros and cons and the cost of cap-and-trade implementation is needed. Cap-and-trade will penalise regions in the US where coal-fired electricity is dominant and favor other regions.

There is little discussion in the Plan about the prospects for natural gas. Non-conventional gas prospects in the US are very promising and further penetration of highly efficient combined-cycle natural gas power plants will be needed to offset expected reduced investment in coal-fired power plants due to carbon constraints.

The nation needs to move in the direction the energy and environment plan calls for. What is needed, however, is an honest debate on costs and lead times and a more balanced approach towards domestic oil and natural gas which will be required for many decades before other forms of energy will have captured a significant share of the transportation fuel market. ■

## Who is Herman Franssen?

*Herman Franssen is President of International Energy Associates. He is Senior Associate with the CSIS Energy Program, Senior Associate with MEC and Centre for Global Energy Studies in London, adjunct scholar with the Middle East Institute Washington, a fellow of the Yamani Centre London. Prior to that he was the Senior Advisor to the Minister of Petroleum and Minerals in Oman. He also served in various positions with the US Congress, The US Department of Energy and as Chief Economist of the International Energy Agency. He is a member of the editorial board of European Energy Review.*