



## ENERGY VISION – THE HIGHLIGHTS OF 2010 AND PLANS FOR THE NEW YEAR

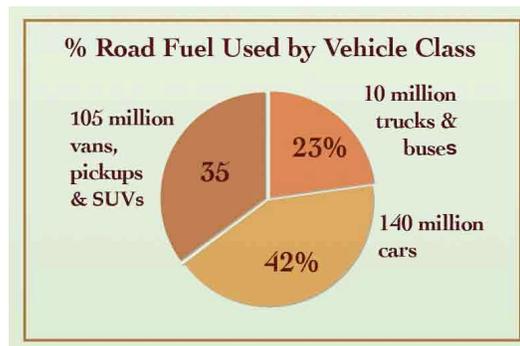
**Joanna D. Underwood, President, Energy Vision**

2010 has been a year of exciting growth and impact for Energy Vision, our four-year-old national non-profit organization. I would like to give you a look at our initial vision, the strategies EV is pursuing, the progress we made this year and our plans for 2011.

### **EV's Energy Vision**

When EV was launched in 2007, our aim was to use the research and outreach skills of the founding team to drive a fuels revolution forward in this country, propelling a shift in US transportation (where the lion's share of our oil is consumed) from reliance on the high-carbon oil-based fuels of the last century to the pollution-free, renewable fuels of the future. A sustainable future for our country and our world must be grounded in the use of renewable, pollution-and-carbon-free fuels and energy sources.

Two decades of research by EV's initial staff showed us where to begin – with the 10 million buses and trucks on our roadways, which consume 23% of U.S. vehicle fuel. They are also major polluters of urban air and the reason why we are sending more than \$100 million a day abroad to buy the oil we need, sapping our economy. Buses and trucks no longer have to rely on diesel fuel. They make up the only transportation sector TODAY able to shift to a cleaner alternative fuel that also puts them on a path to true sustainability.



### **The Strategy EV is Pursuing**

The fleets of US buses and trucks burning diesel fuel can be replaced now by models burning natural gas. Why is this a smart move? Natural gas is a secure domestic fuel (97% of the gas we use comes from North America.) It burns cleaner, virtually eliminating particulates (soot) and cutting smog-forming nitrogen oxides by 60% to 80%. Vehicles burning natural gas generate 20% to 30% fewer greenhouse gases because this fuel contains much more hydrogen and less carbon than diesel fuel.<sup>1</sup>

<sup>1</sup> (A natural gas molecule contains just 1 carbon atom for every 4 hydrogen atoms (CH<sub>4</sub>). Because of the simplicity of this structure, it burns quite completely. A diesel molecule, by contrast, contains 16 carbon atoms and 34 hydrogen atoms (C<sub>16</sub>H<sub>34</sub>). With this complex structure, it does not burn as completely.)

Best of all, fleets adapted to use natural gas will soon be able to make a transition to a renewable form of this gas<sup>2</sup>, called biomethane. Biomethane does not require drilling because it is made from the organic wastes that Americans now throw away. Europeans are already turning their garbage into transportation fuel. Vehicles powered by biomethane include 500 refuse trucks in Madrid, Spain; 300 city buses in Lille, France; more than 760 buses and most of the refuse trucks in sixteen cities in Sweden; dozens of buses in Bern and Basel, Switzerland; 100 buses in Haarlem, the Netherlands, and 200 buses in Oslo, Norway.

It is an important time for US communities to get on board, freeing up tens of millions of dollars a day for investment in the domestic economy, generating fuel locally, cutting waste disposal costs, and creating new green energy jobs.

### **The Progress EV has Made in 2010**

- Since 2007, EV's speeches, articles, reports and workshops have inspired the East Coast "green fuels revolution." EV convinced the first communities - in Smithtown, NY, and Hamilton, NJ, to pursue conversion of their refuse fleets to 100% natural gas, and ten more communities have followed suit. This is putting almost 500 CNG trucks and buses into operation, eliminating six million gallons of diesel fuel a year and over 900,000 pounds of health-threatening air pollutants and greenhouse gases. In 2010, EV's targeted campaign in New Jersey has recruited the interest of 16 more refuse fleets. Two have initiated projects that will replace 21 diesel trucks with CNG trucks. The others are in stages of consideration or project development.



CJW's Vice President Michael Fiumefreddo and EV President Joanna Underwood with first New Jersey natural gas refuse truck.

- EV prepared the most thorough independent analysis for members of Congress of the significant environmental and energy benefits achievable by extending the federal economic incentives for use of alternative fuel vehicles. (See the White Paper on our website: [www.energy-vision.org](http://www.energy-vision.org)) These incentives were due to expire this yearend, which would have a potentially devastating impact on alternative fuels initiatives. EV staff put in considerable time educating key members of Congress.

At last, there is some good news. During the lame duck session, the new tax bill signed into law extended the alternative fuel tax credit (\$.50 a gallon) through 2011. It also extended the infrastructure tax credit to cover 30% of the incremental cost (or \$30,000, whichever is highest) for building new natural gas refueling stations. While tax credits were not extended for alternative fuel vehicles, these vehicles will have accelerated depreciation (100% in 2011 and 50% in 2012.) These measures buy more time for further debate but they are not, in and of themselves, sufficient to drive the scale of change needed. A government commitment is vital to long-term credits (10-15 years) or to other incentives such as loans, rebates, or grants for planning by vehicle manufacturers and municipalities. EV will continue to document how essential strong long term incentives are if this country aims to shape a sustainable future as the 2011 policy debate continues.

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<sup>2</sup> Biomethane is exactly the same as natural gas (CH<sub>4</sub>), but it comes from processing organic wastes rather than extracting fossil sources.

- We addressed the issue of “hydrofracking” head on, affirming the need for better understanding of the impacts of this contentious gas drilling technology, for effective EPA regulation, and for full disclosure of toxic substances used in the drilling process and generated when shale formations are fractured. With transparency regarding the type and amount of toxins used and produced, and clarification of the “state of the art” in environmental protection, communities, working with environmental experts, will have key tools they need (beyond EPA requirements) to evaluate plans, support or reject projects, and monitor industry performance.

Regarding use of natural gas to power this country’s heavy duty vehicles, our outreach has emphasized that use of the cleanest and most abundant fuel option this country has does not rely on expanded hydrofracking. The shift from diesel to natural gas by every urban bus and truck fleet in the US would take just a fraction of this country’s already developed natural gas supplies. No new drilling is needed.



Energy Vision’s May seminar in New York City on hydrofracking, hosted by Linklaters, LLP.

- We worked with the US Department of Energy (DOE) in planning the first national workshop for 90 local community coalitions, educating them about the first truly sustainable transportation fuel –biomethane – made from organic wastes. (EV’s groundbreaking 2009 analysis of New York City’s wastes -3 million tons a year - now exported for disposal in landfills at a cost of \$325 million annually, found that these wastes would be sufficient to produce fuel that could power 10,000 trucks for two decades or more – a compelling example.)
- We launched in collaboration with Rutgers University Eco-Complex a renewable natural gas work group in New Jersey – possibly a model for other states - to identify steps needed for building a strong biomethane production industry in the State. New Jersey’s vast organic waste ‘resources’ could fuel 25% of its diesel vehicles.

## EV Goals for 2011

In 2011 we will publish EV’s update report on East Coast progress since 2008 in converting refuse fleets to natural gas. We will also complete our third national survey of the refuse sector’s move away from oil. These reports will keep one of our country’s most polluting and fuel-consuming vehicle sectors in the public spotlight – showing the dramatic change achieved in recent years but also the long way there is to go.

EV’s regional outreach in 2010 was focused in New Jersey, and, with some continuing outreach there to support change in the coming year, EV will expand to Westchester County and the Hudson Valley region, looking at both refuse trucks and bus fleets. Working with government and business leaders, we will use our expertise, contacts, and workshop capabilities with a goal of achieving a 20% increase in the number of natural gas buses and trucks in this region.

With an expanding emphasis on the use of biomethane in transportation, EV will be reporting on companies that are pioneering in biomethane production. We will also be collaborating with Rutgers in guiding the newly-launched biomethane work group in New Jersey - bringing

together several dozen industry and government experts to explore obstacles to biomethane production and ways to promote the strong biomethane industry that can mean so much to the future of the State.

In addition, EV will prepare a guidebook, in collaboration with the US DOE, on the steps communities can take to develop local renewable natural gas fuel projects using organic wastes discarded by households, institutions, industries, and farms. This guidebook will be widely publicized and distributed. It will be the first of a kind energizing communities to ramp up efforts to turn their wastes into fuel.

## **The Growth of Energy Vision**

At Energy Vision's 4<sup>th</sup> anniversary celebration on November 18<sup>th</sup> in New York City, (photos from the festivities are on our website) we were proud to hear our event Co-Chair Ed Begley, Jr. summarize our role:

*"Energy Vision is a great organization! It is out there promoting practical steps we can take today to slash this country's dependence on foreign oil, reduce pollution and cut greenhouse gases – moving us toward sustainability. EV is taking the biggest, most fuel-consuming fleets off diesel fuel and putting them on a new diet of cleaner natural gas on the way to "biomethane" made from waste and hydrogen!"*

The winners of our Energy Vision Awards at the event were Andrew Littlefair, CEO of Clean Energy, a California-based company and leader in expanding natural gas refueling infrastructure in the US, and Russell K. Barnett, Director of Environment for Smithtown, NY, who put in place the first 100% natural gas refuse fleet on the East Coast and whose example has inspired many others. The event and awards got significant coverage across the country. Press is also included on our website.

Energy Vision's team now consists of a fulltime staff of five, 6 part-time consultants, 4 college interns, and a group of great volunteers. Our budget for 2011 is estimated at \$532,500 – an essential step up from the \$302,974 we raised this year. We have accomplished a great deal with a lean but gradually growing resource base. Embarking on this venture in the toughest of economic times, we are proud of the steps forward we have taken and the impact EV's work is having.

"Without the research on refuse trucks that Energy Vision's team did, showing these fleets could operate on natural gas instead of diesel, Clean Energy wouldn't be where it is today."

Andrew J. Littlefair  
CEO, Clean Energy

The growth of Energy Vision would not have been possible without the generous backing of our supporters: foundation, government, business, and individual. EV's board and staff join me in expressing our thanks for those who have become partners in our work. We invite those who have not done so to join Energy Vision so that we may expand the contribution EV is making to a sustainable transportation future for this country

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Energy Vision is a New York-based, national non-profit organization and a leading authority and public educator on alternative vehicle fuels - promoting ways to make the swiftest transition to the clean, petroleum-free transportation fuels of the future. For more information on Energy Vision: visit our website, [www.energy-vision.org](http://www.energy-vision.org) or contact Energy Vision at 212 228-0225 or [info@energy-vision.org](mailto:info@energy-vision.org).