

PickensPlan

T. Boone Pickens Media Coverage 7.19.10

Total of 10 Placements

- Print: 5
- Blog/Online: 3
- Broadcast: 2

Coverage Summary:

The Santa Fe New Mexican ran an editorial after its recent conversation with Pickens discussing his plan to run 18-wheelers on natural gas. The piece references new legislation – Oil Independence for a Strong America Act – which was introduced last week with the goal of achieving independence from overseas oil within 20 years. The piece points out that transportation amounts to 70 percent of our oil consumption, drawing the conclusion that Pickens’ plan is in harmony with this legislation.

Clean Skies Sunday ran a piece on LNG fueled trucks, speaking with a trucker who has made the conversion. The story quotes a study by Resources for the Future which found converting the nation’s 8 million big rigs to LNG would save nearly 2.5 million barrels of oil a day, cutting the U.S. Mid East imports in half. Pickens is credited in the piece with promoting this idea. Video of him and a soundbite is also used. The piece can be viewed here, starting at the 16:21 mark: <http://www.cleanskies.com/videos/cs-sunday-leak-capped>.

Highlighted Placements (Full Articles Below)

- **As Gulf Gusher Eases, A Plan To Ease Our Oil Dependence** – *Santa Fe New Mexican* – 7/17/10

Print Placements (Full Articles Below)

- **Hailing A NY Cab, 2014-Style** – *Crain's New York* – 7/18/10
- **Winds Of Macondo Won't Take Century To Blow In Change** – *The National* – 7/19/10
- **'Greater Scrutiny' Seen For Energy Projects** – *The Globe and Mail* – 7/19/10
NeSmith: America, Let's Not Waste This Crisis – *Athens Banner-Herald* – 7/17/10

Blog/Online Placements (Full Articles Below)

- **What's Faster than Tesla? Wrightspeed's Hybrid Car & Truck Dreams** – *Earth2Tech* – 7/18/10
- **Staying Connected On The Plains** – *St. Augustine Record Blog* – 7/19/10
- **Part of Pickens Plan Gets New Life in Senate (Just Not the Wind Part)** – *EcoPolitology* – 7/17/10

HIGHLIGHTED COVERAGE

As Gulf Gusher Eases, A Plan To Ease Our Oil Dependence – *Santa Fe New Mexican* – 7/17/10

This might be music of sorts to Boone Pickens' ears: The oil billionaire, who for the past couple of years has been working on a plan to end dependence on foreign sources of energy, last week was adding a lesser-known ingredient to his highly publicized, and mildly surprising, push for wind energy.

In phone calls to newspapers here and there, Pickens said we could knock a dent in the "enemy" he identifies as the Organization of Petroleum Exporting Countries, by converting our country's trucking fleet to natural gas.

He's lobbying for a "nat gas" bill loaded with incentives for putting in gas-burning engines when the diesels propelling those 18-wheelers wear out.

Pickens, who has plenty of money tied up in the commodity he's peddling, has a notion of adding natural-gas bays to today's truck stops. Eventually, he figures, they'd save truckers vast numbers of dollars — and at the same time wean us from the sheiks and tinpot dictators from whom we buy so much oil.

Editorially, we're not so worried about where oil comes from — in fact, a case could be made for using up other countries' supplies of the finite stuff first. What's really needed is independence from anyone's oil — for environmental as well as economic reasons. Spare us the jingoism, which, as New Mexico's ex-Sen. Pete Domenici used to spout it, was a cover for opening up America to more drilling — and damn the environmental effects.

Sure, most of our oil imports come from countries whose regimes aren't our friends — and who, in some cases, use money from America to support terrorism. But oil being the fungible stuff it is, the shipment we buy from Saudi Arabia might wind up coming from the North Sea. The greater reason for self-sufficiency has to do with balance of payments and domestic jobs.

So as our nation holds its breath over the beginning to the end of the Deepwater Horizon disaster, we and Mr. Pickens might find encouragement from what Domenici's Senate successor announced on Thursday: Tom Udall, along with fellow Democratic Sens. Jeff Merkley of Oregon, Tom Carper of Delaware and Michael Bennet of Colorado, introduced the Oil Independence for a Stronger America Act.

Unlike other high-sounding bills, so many of which mean just the opposite of their titles, this one has a goal laudable enough for both parties to approve: independence from overseas oil within 20 years — and specific ways to win it.

Since transportation amounts to 70 percent of our oil consumption, this bill pushes engine efficiency and alternative energy sources. Pickens, with his proposal to convert big rigs, appears to be in harmony with Udall and Co.

While they're about it, the senators should consider converting our country's diesel locomotives to electricity — the more wind- and solar-generated, the better. Meanwhile, they're likely to join President Barack Obama in support of faster development of electric automobiles.

More for confronting oil dependence than for making a big deal about where we get it, we salute Sen. Udall and his colleagues on this nicely timed initiative.

PRINT COVERAGE

Hailing A NY Cab, 2014-Style – *Crain's New York* – 7/18/10

By Jeremy Smerd

In a meeting with automakers in January, the Bloomberg administration pitched an ambitious idea to reinvent one of the city's most ubiquitous symbols: the taxi.

Scrap the 16 different car models that make up today's 13,000-cab fleet and create what city officials call the Taxi of Tomorrow. Make it “small on the outside, but large on the inside,” one City Hall aide said, more fuel-efficient and easier to climb into. It's got to ride 150,000 potholed city miles. Paint it yellow, of course, but above all, they said, build an icon, something that could help city government market the essence of Gotham itself.

“We want people to be able to look at this cab and in a glance say, 'New York City,' “ a Bloomberg aide told the audience, according to a transcript.

At least five automakers submitted proposals in May to become the brand behind the new icon. Ford, Nissan and General Motors have each delivered plans, according to officials at those companies. (The globe's No. 1 automaker, Toyota, declined to bid on the project, a spokesman says.)

Karsan, a Turkish manufacturer that builds vans for Peugeot, also submitted plans. And a Miami-based company called The Vehicle Production Group, or VPG, is also believed to have bid. Its wheelchair-accessible vehicles are partially financed by T. Boone Pickens and a company of his that builds refueling stations for cars that run on compressed natural gas.

The city's Taxi & Limousine Commission and the automakers declined to discuss the proposals. But early details are emerging based on interviews with current and former city officials,

industry executives and design consultants, as well as an analysis of the TLC's original request for proposals. The first versions of the Taxi of Tomorrow are expected to hit the streets in 2014. Ready or not, here we go:

1. Think minivan

How to make money on a car when automakers can only expect to sell around 2,650 taxis in New York City each year? The answer may be to base the Taxi of Tomorrow on a vehicle of today—the short, boxy minivans popular in Europe.

Peter Schenkman, a former assistant commissioner at the TLC, worked on the project in its initial stages. “What we heard from everybody is, 'We're not building any custom vehicle for you. Go away. It will be a derivative of an already produced vehicle somewhere else in the world,'” he says.

Leading the pack during early discussions were Nissan and Karsan, Mr. Schenkman says. Nissan focused on its NV200 van. According to sources familiar with Karsan's design, the Turkish manufacturer used the Taxi of Tomorrow project as an opportunity to design an urban van that it plans to sell globally. The company is unveiling its design in Turkey on Thursday.

Both vans have much in common with Ford's 22-mile-per-gallon Transit Connect, the company's new taxi that will replace the Crown Victoria next year. (Two of every three New York City cabs today are Crown Victorias.) All are built overseas and designed to have low floors and be fuel-efficient.

VPG's wheelchair-accessible cab, the MV-1, is the largest of the possible taxi models, almost as long as a Crown Vic and taller than a Hummer H3. In fact, the taxi is manufactured by AM General at the same factory that made the nonmilitary Hummer

2. Think swivel seats

Making cabs wheelchair-accessible is a priority for the city but not a requirement for the new cab. TLC Commissioner David Yassky says it's unclear whether demand for accessible cabs

among the city's 60,000 wheelchair users is strong. Instead, the new cab must make it easy for “reduced-mobility” riders to get into it from the curb.

That's where the swivel seat comes in, says Jerry Koss, Ford's fleet marketing manager. The swivel seats can be placed in the backseat of the van and rotate 90 degrees so riders can step from the seat onto the curb. Karsan's van, which is not in production yet, has been designed to be wheelchair-accessible.

3. Think natural gas

The cars being considered by Nissan, Karsan, Ford and VPG can all be outfitted to run on compressed natural gas. The fuel—normally stored in a metal canister that sits in the trunk of the car—has been proposed before but never caught on because the city's CNG-refueling infrastructure is inadequate.

For any alternative fuel to work, the TLC has told carmakers they must ensure that such a refueling infrastructure exists. That may strengthen VPG's proposal because Mr. Pickens' Clean Energy Fuels Corp. is likely to have a credible plan to provide a refueling infrastructure.

One of the city's largest taxi-fleet operators, Gene Friedman, is currently working with Clean Energy to install a CNG filling station, which should be completed in mid-August, according to the Greater New York Taxi Association, an association of fleet operators.

Ultimately, city officials prefer zero-emission battery-powered cars. Both Nissan and Ford expect to have all-electric versions of their vans next year. Karsan's van is designed with a rear-mounted engine that could be converted to battery power.

The new taxis must be able to travel 150 to 200 miles during a 12-hour shift, but Ford's electric Transit Connect can go only 80 miles on a charge. That means electric taxis will need to have easy access to battery-swapping stations of the kind currently being tested in Tokyo by Palo Alto, Calif.-based startup Better Place.

4. Think lawsuits

The city wants carmakers to reimagine not only the design of the car, but the elements that make it a taxi—rooftop lights and advertising, meters, in-taxi TV screens. Carmakers are considering new ideas: Seats covered in cloth, not vinyl. Partitions that protect without severing communication. Doors that open with flashing LEDs to give bicyclists a heads-up. Doing something with that awkward shotgun seat, such as bringing back the jump seat and having it double as a spot for wheelchairs, like those flip-down seats on new subway trains. Using GPS technology to advertise based on the car's location in the city.

Carmakers are required to deliver these possible redesigns when they sell the car to cabbies, but in order to make these changes economical, automakers are not required to build or assemble the car's parts in the city, as is the custom today. That has angered small businesses that depend on this kind of work.

“This could hurt a lot of small businesses in the Bronx, Queens and Brooklyn,” says a lawyer representing one of the city's two providers of TV screens in taxis.

Cost is another issue. Today's cars range from about \$23,000 for a Crown Victoria to close to \$30,000 for a hybrid. Outfitting the cars with wheelchair ramps can cost an additional \$8,000. The VPG is expected to cost under \$40,000.

The city has suggested that it will negotiate the cab's price on behalf of buyers, irking fleet operators, which buy in bulk and negotiate discounts from automakers. “That's a stretch legally,” says Mr. Schenkman, who now works for the Greater New York Taxi Association.

5. Think about it a while longer

The city has reserved the right to pull the plug on the project if it doesn't like what it sees, according to its RFP, leading some insiders to believe that the Taxi of Tomorrow may never get rolling.

Already, the TLC's Mr. Yassky has pushed the proposed start date for the contract from October to a time closer to the end of this year.

“We're not required to make a selection,” he says, adding that his agency is still reviewing proposals to see which ones are viable. “We're serious about the process and we're going to have an end result, and that's about as much as I know now.”

Winds Of Macondo Won't Take Century To Blow In Change – *The National* – 7/19/10

By Robin Mills

In Gabriel Garcia Marquez's classic novel *One Hundred Years of Solitude*, the cursed town of Macondo is finally destroyed by a powerful wind.

Similarly, many hope the leaking Macondo well in the Gulf of Mexico will be the catalyst to abandon oil and move to a clean energy future based on wind power and other renewable energies.

In response to the disaster Barack Obama, the US president, said: “The tragedy unfolding on our coast is the most painful and powerful reminder yet that the time to embrace a clean energy future is now,” pointing to three reasons for ending dependence on oil: “our economy, our national security and our environment”.

Is renewable energy a feasible replacement for oil? And should Middle East oil exporters be concerned by such campaigns?

Mr Obama's goal of ending US oil imports from the Middle East and Venezuela within a decade would mean cutting some 3 million barrels per day of US oil imports, or about a sixth of total consumption.

The US's own oil production will probably slowly decline, especially given increased suspicion of offshore drilling. So this target demands rapid improvements in efficiency and the introduction of alternative fuels.

Renewable energy is certainly growing quickly around the world. More than half of the new US electricity generation capacity built last year was renewable, mostly wind power.

And how much oil has this new renewable energy replaced? The answer is perhaps surprising: almost none.

In developed countries most oil, about 70 per cent, is used in transport – cars, lorries, ships and aeroplanes. About 20 per cent goes for petrochemicals and lubricants. Only a small amount is used for heating, cooking and electricity generation, and this proportion has been steadily declining for years.

So there can be no serious reductions in oil use without tackling transport. Stricter economy standards for new vehicles come into force in the US in 2016, although they will still be laxer than China's current rules.

Encouraged by high oil prices, the trend towards more efficient vehicles is relentless but slow. With the average car in the US now more than nine years old, it takes time for the fleet to renew itself.

Hybrid vehicles such as the Toyota Prius, which combine a petrol engine with a battery, make up barely 2 per cent of new sales in the US. Diesel cars, more efficient than petrol, comprise more than half of new sales in Europe, but only a few per cent in America.

Plug-in hybrids can be recharged from an electric socket and only switch over to the petrol engine when the battery is exhausted. The General Motors says its new Chevy Volt will have an all-electric range of 66km, but its batteries alone reportedly cost US\$14,000 (Dh51,380).

For this reason, without some fundamental breakthrough in battery technology, plug-in hybrids are not expected to make a major contribution to reducing oil use before 2030.

The Texan billionaire T Boone Pickens has proposed lavish incentives to convert buses and lorries to natural gas, suddenly in abundance in the US. Yet these conversions are expensive and face logistical issues.

Producing an alternative liquid fuel, methanol, from gas is a cost-competitive possibility, but does not offer much advantage in carbon dioxide emissions.

The one renewable technology that has made significant inroads into oil use is biofuels: ethanol and biodiesel, made from sugar cane, corn, palm oil and other crops. Biofuel use is equal to 5 per cent of global petrol use. But heavily subsidised US corn ethanol is more a sop to farmers in important electoral states than a viable part of energy policy, and several ethanol producers have recently gone bankrupt.

And biofuels have been blamed for rising food prices and environmental damage such as deforestation. Fertiliser-laden run-off into the Mississippi River as it flows through agricultural states has created a large so-called Dead Zone in the Gulf of Mexico, devoid of oxygen. Expanded cultivation of nitrogen-hungry corn will exacerbate this, ironically inflicting damage just as the oil spill has.

Without significant advances in second-generation methods using waste and non-food crops, it is difficult to see biofuels' role expanding much more.

Overall, increased US government investment of between \$2 billion and \$4bn in research and development across all alternative energies is only a modest part of a huge market.

With no really compelling alternative transport technologies in view, the US has little option but to tighten efficiency standards and watch the slow progress of hybrid vehicles.

The simple fact is that it would be vastly expensive to reduce oil use much faster and the government has other financial priorities.

The more effective idea of increasing petrol taxation towards European or Japanese levels seems politically impossible. The US is already moving away from oil but slowly, and politicians' rhetoric can do little to speed things. A single disaster, however shocking, is no match for the inertia of economic realities.

For tackling climate change, there are much quicker and cheaper places to reduce carbon dioxide emissions: expansion of wind and nuclear power; switching coal-fired power stations to gas; better insulation; and more efficient appliances in buildings.

The policy imperatives of environment, economy and energy security thus point in different directions. The threat for big oil exporters is not the wind turbine or the solar panel, but the steady transformation of the world's transport fleet.

The curse of Macondo will not strike within a decade, but it will come quicker than a century.

Robin Mills is a Dubai-based energy economist and the author of *The Myth of the Oil Crisis*

'Greater Scrutiny' Seen For Energy Projects – *The Globe and Mail* – 7/19/10

By Nathan Vanderlippe

CALGARY -- The Gulf of Mexico oil spill could do more harm than good to Canada's oil sands by accentuating the environmental record of Alberta's massive oil resource, one of the leading U.S. energy thinkers says.

Alberta politicians have argued that the impact Gulf spill will improve the environmental image of the oil sands, and some in Calgary believe capital dollars will be diverted from the deepwater projects to Fort McMurray. But the chief energy strategist with IHS CERA says the U.S. disaster may also create a rougher ride for Alberta.

“The impact will be probably greater scrutiny,” said David Hobbs, who is based in Cambridge, Mass., and works for one of North America's most respected energy analysis firms.

“What [the Gulf spill] has done is to raise the general profile on energy investments,” he said, citing as an example the growing controversy about TransCanada Corp.'s Keystone XL pipeline, which would carry oil sands crude to U.S. refineries.

“The environmental footprint of energy has risen up the ladder,” he said. “That's particularly important at the point where the Canadian oil sands has just become the largest source of imports into the United States.”

Critics argue that the Alberta oil sands use large amounts of energy to produce oil, produce greenhouse-gas emissions, and create huge tailings ponds filled with toxic effluent.

But whatever attention the Gulf spill brings to massive energy projects, it is unlikely to diminish foreign interest in Canada's oil sands, Mr. Hobbs said in an interview. “To the extent that they're welcomed by Canadian policy, I think we'll see expanding investment in the Canadian oil sands,” he said. “If you're an energy-hungry economy, you invest where the resources are. And there is undoubtedly a huge resource in Canada.”

China, in particular, could be drawn by a potential that has been seen little discussion in Canada: a closed supply system that would draw crude exclusively to its shores.

“I can foresee a situation in which ... there is a physical integration of the supply chain, which means it's very hard for that oil to go elsewhere,” Mr. Hobbs said.

That could involve doing barely enough refining – what the industry calls “upgrading” – to make the thick oil sands bitumen flow in a pipeline, but not enough to bring it to the specifications required by U.S. refineries.

That would effectively take that crude away from the markets that currently count on oil sands supply, and could have implications for plans to build pipeline capacity both to the U.S. and to the Canadian West Coast, where it could be shipped across the Pacific.

“I think what we'll find is an attempt to customize the integrated supply chain such that it becomes quite expensive to divert out of that supply chain,” Mr. Hobbs said.

Although the billions of dollars in Chinese oil sands investments are “a prelude to physical crude moving to China only if that is demonstrably, economically, attractive for that to happen,” he said, other factors could influence decisions to transport oil to Asia.

Establishing a supply chain would give companies “long-term predictability,” he added. “And that has a value: knowing it's a structure [a company] can rely on for 10, 20, 30, 50 years. People forget that with the oil sands, you're making an investment that is going to outlive most of the people who took the decision to make the investment.”

He also cautioned that those who want to make natural gas into a transportation fuel (such as Encana Corp. and U.S. oilman T. Boone Pickens, who have advocated refitting diesel semi-trucks) may find it hard to do so without governments requiring the switch.

“The difficulty is the loss of payload, or the shorter distance between refuelling [with gasoline-powered trucks]. That's the profit in as competitive a market as long-haul trucking. So it only really starts to make sense if everyone has to convert.”

NeSmith: America, Let's Not Waste This Crisis – *Athens Banner-Herald* – 7/17/10

By Dink NeSmith

Other than Old Glory, what symbol comes to mind when you think "America"?

Second to the stars and stripes, I imagine the majestic bald eagle spreading its wings over our democracy.

And when you think of our great nation's dependency on foreign oil, what feathered symbol comes to mind? I see the ostrich, with its head stuck in the Middle East sands since 1973. That's the year the Organization of Petroleum Exporting Countries put Israel's allies on notice that they had us by the neck, and were going to squeeze us, enjoying every moment of our suffering.

For almost 37 years, neither Democrats nor Republicans have done much to throttle our addiction to imported oil. Why has there been no progress? I believe there are three reasons:

- ▶ The clout of the rich oil lobby protects its cash-cow industry.

- ▶ America and Israel are codependent, and a powerful lobby keeps us engaged in Middle East affairs.

- ▶ We, the gas-guzzling consumers, won't curb our fossil-fuel appetite.

Now, we have the horrific BP disaster in the Gulf of Mexico. Surely, somebody somewhere knows a remedy. How can we be so smart, and so clueless, at the same time?

I have no answers, but do have a suggestion - America should not waste this oil spill crisis. A crisis can be a catalyst to rally. And if what's happening in the Gulf doesn't stir us into action to break our dependency on crude oil, what will it take?

I don't understand why we haven't already found an alternative energy source. Americans have a history of achieving what others considered impossible. Boone Pickens says we should tap our unlimited supply of natural gas. Others tout batteries to make the wheels roll. How about hydrogen?

Where's our brain power?

Remember when the Russians scared us, launching Sputnik into space? We got busy. In 1962, in a Rice University speech, President John F. Kennedy challenged us to aim high: "We choose to go to the moon. We choose to go to the moon in this decade and to do other things, not because they are easy, but because they are hard, because that goal will serve to organize and measure the best of our energies and skills, because that challenge is one that we are willing to accept, one we are unwilling to postpone, and one which we intend to win." JFK died, but not his dream, before Neil Armstrong walked on the moon in 1969.

President Franklin D. Roosevelt had the same brand of vision and guts to invest in the Manhattan Project. Under the direction of physicist Robert Oppenheimer, Americans were successful in splitting the atom. The \$2 billion research initiative spawned the atomic bomb. Otherwise, our flag might be waving with a Japanese sun instead of stars and stripes.

In the name of national security, how much are we spending to fight in Iraq and Afghanistan? Is it \$3 billion a week? Trillions will be consumed before there is a cease fire, if one ever comes.

Yes, we must aggressively fight terrorism. And we must support our troops in their gallant efforts. But I believe our thirst for oil is one of the main items on our Middle East agenda. I grieve to know American blood is being bartered for barrels of oil.

Imagine what a trillion dollars could do in a Manhattan- or NASA-style project to solve our oil dilemma. JFK was right - it won't be easy. But we are Americans. We could run cars on bubble gum, if we accepted the challenge. So, let's not waste the current BP-caused crisis.

First, though, we must pull our heads out of the sand.

• Dink NeSmith is president of Community Newspapers Inc. in Athens and a member of the University System of Georgia Board of Regents. Send e-mail to dnesmith@cninewspapers.com.

BLOG/ONLINE COVERAGE

What's Faster than Tesla? Wrightspeed's Hybrid Car & Truck Dreams – *Earth2Tech* – 7/18/10

By Katie Fehrenbacher

Shortly after Ian Wright, founder of startup Wrightspeed and part of the founding team of Tesla Motors, drove his electric race series hybrid car the X1 around the track at the Mazda Raceway in Laguna Seca, Calif. earlier this month, I grabbed him for an interview. “How was the ride?” I asked, under a bright blue tent shading his race car’s batteries (which can quickly overheat) from the hot blaring sun. He joked: “It would have been a lot quicker except for all of the Teslas holding me up.”

Electric drive-train performance is Wright’s passion. It’s what drove him to leave Tesla a year after Tesla’s original CEO and co-founder Martin Eberhard convinced Wright to help build the (now public) electric vehicle startup in 2003, and it’s why he left Tesla to found the high performance electric drive-train startup that now bears his name. The X1 — which is an early version of the drive train that will be the heart of a high performance hybrid he calls the Supercar — can go 0 to 60 mph in 2.9 seconds. Tesla’s Roadster can go 0 to 60 in 3.7 seconds.

Wright, who while at Tesla helped write their business plan, raise money from investor and now-CEO Elon Musk and seal Tesla’s Lotus deal, tells me he built the X1 to demonstrate how much performance he could get out of electric and series hybrid cars (electric vehicles with a combustion engine assist) without having to sacrifice efficiency. “You can get as much power as you want and it doesn’t make them any less efficient,” said Wright. Contrast that with traditional cars, where the trade-off for efficient cars is that you can only have a certain amount of power, he explained. The license plate of the X1 reads “170MPGE.”

There’s enough power in his design that for the next generation of his X1 prototype (which will be a series hybrid), he’s hoping to be able to go 0 to 60 in under 2.5 seconds with continuous 1,000 horse power. The barrier to getting more power than that will be the fact that the X1 uses

street tires (not high-performance racing tires), and Wright says he's put 8,500 mostly street miles on the X1, commonly driving his kids to school in the car.

Unlike the Tesla vision of using an electric sports car to move into selling mainstream electric family cars (Tesla's Model S sedan is due out in 2012) Wright has designed his high performance electric drive train to sell first to race car builders — cars that need 1,000 horse power with a weight of 2,500 pounds. Wright says he already has two automaker customers that are building Supercar designs, one building a high performance car based on the power train design, and the other converting an existing car using Wright's power train. Wright says the customers created their products in about 18 months.

The race car market is only so big, however — although as Wright puts it, it's got “great halo effects and good margins.” That's why Wrightspeed also plans to use its hybrid drive-train system technology to eventually sell into the medium-duty truck market, and is starting out by selling a hybrid conversion kit to companies with truck fleets.

As TruckingInfo put it, medium duty trucks — those commercial vehicles that haul anything from food to furniture — are “the workhorses of the American economy,” and use over 8 billion gallons of fuel per year. Reducing this fuel consumption by just a fraction is both a major market opportunity and can also make a significant dent in carbon emissions. Financier T. Boone Pickens is also eyeing this market by backing natural gas truck conversion kits.

Wright explained to me that because his hybrid drive-train tech has significant power compared to its light weight, it's a good fit for converting trucks and can save companies some 3,000 to 5,000 gallons of gas per year. That turns out to be a 3-year return on investment for the cost of fuel. Companies that use trucks in urban areas — which are constantly stopping and starting — or that drive a lot of hills (Wright has one customer in a hilly part of New Zealand) will be able to get particularly good fuel efficiencies with the conversion kit.

Truck fleets are also a good market opportunity for the startup because companies need to upgrade their fleets to meet the latest diesel emissions standards and Wright says his hybrid gas turbine design has already been certified by the California Air Resource Board for 2010 emission standards. Powertrains for fleet trucks also commonly wear out, and could use 2 or 3 throughout the lifetime of a truck, so a retrofit market already exists for trucks, says Wright.

Wright says in terms of both the Supercar and the truck conversion kits, you'll be able to see products on the market in "about a year." The business model at this point is to make the technology to sell to automakers, not for Wrightspeed to become an automaker itself, says Wright — noting how much money it took Tesla to become a car producer (including a \$226 million IPO, a \$465 million DOE loan, and \$200 million in six rounds of equity financing).

At this point the technology is still under development. The X1 could only do 2 laps around the track at the Laguna Seca raceway at full power because it's so high performance that it quickly eats up the battery life. Or at least two laps are the sensible limit before the battery gets so hot that it gets "closer to thermal run away," says Wright. (i.e. it could blow the heck up). When he says this during our interview, I look to my right, where an ambulance is casually idling on the track.

Wright clearly likes to push boundaries — he's an electrical engineer, who spent 20 years building broadband networking products and later electric drive train technology, and has worked mostly for startups first in New Zealand and later in Silicon Valley. It's a quality he shares with Tesla's now dominant force, investor and CEO Elon Musk, who Wright says invested in Tesla after just a 2-hour meeting with him and co-founders Eberhard and Marc Tarpinning: "That's the kind of investor you want to find," says Wright. (Perhaps not the kind Eberhard wanted, but that's a different story).

Like Musk, Wright also made a nice chunk of change with the recent Tesla IPO (albeit at a lot smaller scale than Musk), and on the day of the IPO Wright's 180,000 shares (at \$17 a share) were worth about \$3.1 million. We'll see if Tesla's stock can maintain that price up until the 6-month lock-up period, where most of the shareholders can then start converting stock into cash.

Overall, Wright says he's happy with the way the Roadster turned out. "It might have taken longer and cost more than we had wished, but at the end of the day the Roadsters are really good cars," says Wright. Tesla's recent successes with its IPO and its latest Toyota deal will also no doubt pave the way for battery-based car startups going forward. And in particular, it could open up a lot of doors for the high performance vision of one of Tesla's original pioneers.

Staying Connected On The Plains – *St. Augustine Record Blog* – 7/19/10

By Ronnie and Martha Hughes

After visiting the birthplace of that great American John Wayne and driving dusty gravel roads to see a bunch of wooden bridges near Des Moines, Iowa, it's time to move on to Omaha.

T. Boone Pickens, the Texas oilman who says wind farms and natural gas can help solve this country's dependence on foreign oil, must be proud of western Iowa and other states in the upper Midwest. For the first time on this trip, the horizon along I-80 near Adair, Iowa is filled with huge wind mills that are generating electricity with each revolution. Within view are at least 50 of the giant airplane type propeller fans and probably twice that many over the hill. They are so tall that blinking lights are installed on the top of each structure to warn airplane pilots. Thousands are working silently 24 hours a day throughout the Midwest and more are under construction.

At Omaha, the mighty Missouri River, made famous by Lewis and Clark, is crossed for the first time. As the song "Shenandoah" says, it's "wide."

After the surprise introduction with the famous 1800 explorers at Paducah, Ky., the traveling Hughes's will unwittingly follow the Missouri and the Lewis and Clark trail off and on for the next three months.

After checking in at the KOA West Omaha, the laptop and an adult beverage go outside with "Handy" to a picnic table. He is planning the next stops at Sioux City and Sioux Falls.

Our camping neighbors from Panama City are in town to attend the graduation of their granddaughter. Severe thunderstorm warnings, a regular occurrence in the plains this time of year, are announced early in the evening. Like true Floridians, our new friends and neighbors offer their daughter's basement home for shelter if the weather worsens.

The laptop connects easily to the campground's WIFI and reservations are made further north. That's one of the advantages of the KOA system. Their WIFI works.

Although most campgrounds advertise WIFI hot spots, many are under-powered and cannot provide a connectible signal to all of its guests. Often a drive to town is necessary to find a Starbucks or other retailer with a WIFI connection.

The problem is just as bad if not worse for wireless cell phones. Of the two major wireless networks, the Hughes's subscribe to the one with poor signals in the upper Midwest.

Recreational vehicle owners depend heavily on laptop computers and wireless phones to conduct travel research and make future reservations, not to mention keeping in touch with family and friends back home.

A telephone with data connection would solve both problems, says a salesman in Omaha. It worked great in the store but failed to pick up a data signal after leaving the city limits. Frustrated when the phone and the data connection failed to work, two weeks later the 30 day return option was exercised and the phone was returned.

Part of Pickens Plan Gets New Life in Senate (Just Not the Wind Part) – *EcoPolitology* – 7/17/10

By Timothy B. Hurst

As Senate Democrats scramble to try and find a climate and energy bill they can get at least some Republican support for, a plan to expand the use of natural gas as a transportation fuel in truck fleets is getting a second look by the U.S. Senate. The chance of getting a cap and trade bill done like the one the House passed last year is pretty slim. So that means the Senate, never a

body to move with much haste, is going with a much more narrow approach to control greenhouse gas emissions -- focusing on the electric power plants.

But this new proposal put forth by Senators Orrin G. Hatch (R-Utah), and Robert Menendez (D-N.J.) and championed by the the oil and gas executive turned energy crusader, T. Boone Pickens, would provide tax breaks for natural-gas-powered vehicles and fueling stations. The proposal does not, however, include any provisions for the massive wind farms and transmission corridors of a scale this planet has never seen -- as the original Pickens' Plan so boldly (or naively) envisioned.

BROADCAST COVERAGE

1. Washington Journal

CSPAN 1, National | DMA: 0

07/18/2010, 07:00 AM - 10:00 AM

[CC] 02:37:20 (guest is Ben Geman, energy reporter).... Host: on the line for democrats. Go ahead. Caller: I have never called before. I have watched a few documentaries on different EPA studies...about frack testing. I think it is funny how everyone in the United States now has to drink bottled water when at one time we could drink our water right out of the faucet. Now they're talking about how New York and how they cannot frack test and they are pissed. Host: we will leave it there. Guest: the U.S. has a lot of natural gas A lot of these reserves are trapped in rock formations. The way to get to them is called hydraulic fracturing. It is the injection of high pressure of certain chemicals and other things to allow the trapped gas to flow. What has been so controversial is the extent to which these technologies which are being employed in a growing number of states are creating a big risk to ground water and drinking supplies. The EPA just launched a big study of this very question. There are a lot of interests on both sides. This has been a real boom for the U.S. Natural gas industry. Even though it is a fossil fuel, the greenhouse gas emissions profile of natural gas is much lower than that of coal or oil. On the one hand, there's a lot of support for coal as a source of electric power, but also for and this is something that **T. Boone Pickens** talks about a lot, is for use in vehicles, municipal bus fleets and that sort of thing. There is a sense here that if we see this massive expansion of gas drilling that we will see some environmental contamination. That question is front and center in the ongoing EPA study.02:41:19

Audience: N/A Spot Cost: N/A

2. Clean Skies Sunday

WJLA-TV (ABC) CH 7, Washington, DC | DMA: 9

07/18/2010, 09:30 AM - 10:00 AM

[CC] 00:15:28 An independent think tank says a new study may hold the key to reducing our dependence on oil and also cutting our carbon emissions. According to Resources For The Future, that key involves converting 18-wheelers to run on liquefied natural gas. Clean Skies' Lepatrick Sullivan recently went to California for a closer look at how these new big rigs measure up to their diesel counterparts. So, Wilson, this is your new ride. Yes, this is my 2009 Sterling. Fully automatic. And it runs on lng. Sullivan: Wilson Ascencio is a proud owner of a new lng-fueled truck. He's also from a family of truck drivers. And it took some convincing for

him to give up his powerful diesel rig. When they gave us the idea, we were very hesitant. "It's not going to work. "It's not going to be the same thing! It's not going to have the same power." We started to have some doubts. Sullivan: there was no doubt about lng trucks in a new RFF study. The report looked at different plans and new technologies to help reduce America's dependence on foreign **oil**. You get a lot of bang for your buck if you introduce liquefied **naturalgas** into utilization by long-haul trucks, the big 18-wheelers. Sullivan: the study says converting the **nation's** 8-million big rigs to lng would save nearly 2 1/2 million barrels of **oil** a day. That could cut the U.S. Mideast imports in half. In contrast, a tax credit for buying a hybrid car barely saves any **oil** at all. It's a plan that **T. BoonePickens** has been advocating since the 2008 elections. When the president said at that time, when he got the nomination, he said, "I expect in 10 years, we will not import any **oil** from the Mideast." Well, two years has passed, and he has not come up with a plan for it, and I have a plan for him. Sullivan: so do the operators of the ports of Long Beach in Los Angeles. That's where Wilson Ascencio's boss, Bob Curry, has been in the trucking business for more than 50 years. And we needed to know that the engine, which was a smaller engine, would be able to pull a container to and from the harbor. A heavy container. Sullivan: after the manufacturers brought in one of their lng garbage trucks and drove it fully loaded up a steep incline, Curry was convinced. He turned to alternatively **fueled** vehicles after new restrictions were put in place by the ports of Long Beach and Los Angeles. The clean trucks program only allows lng and clean diesel trucks to enter the ports. The two technologies have similar emission levels. The lng trucks aren't cheap....00:18:42

Audience: 14,647 **Spot Cost:** \$141