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Keeping the Pedal to the Floor: Driving Home Our Natural Gas Message

Jeff, your talk reminded me of a joke that has nothing to do with my presentation, but I thought I'd tell it anyway, and it was when you said that in China or India you've got to wait ten years to get a vehicle. It reminds me of a joke that I heard Ronald Reagan tell in a holding room once, and he said there were these two Soviets, and the one Soviet calls the other Soviet on the phone and says, "Comrade, good news. You're going to get a vehicle." And he says, "Oh, that's great news. When am I going to get it?" "Well —" this was a while ago. He says, "You're going to get it on April 12, 1989," six years away. And the guy says, "Oh, okay. Morning or afternoon?" And the guy says, "Morning or afternoon? Why do you ask?" And he says, "Well, make it the afternoon, because the plumber's coming in the morning." Old joke, sorry, but I couldn't help it.

Doug, thanks. And thank you, Doug and Stephe, for all that you've done, and everyone else that has worked so hard on this conference. Thank you for your time and interest and the effort that it took. I know it was brutal, but it was worth it.

There has never been a more challenging time for the NGV industry than right now, but let me tell you, I'm very optimistic about the future. I think that's why they asked me to speak here at the end, because we just have to keep plowing. If you've only read and listened to the naysayers and the advocates of the dark side, you'd think the sky is falling. One uninformed reporter in California, in fact, earlier this year listened to a proponent of the dark side, and proclaimed in print that natural gas for transportation is a failed experiment. And I say that's baloney. This could not be further from the truth. Oh, I know right now the bloom is a little bit off the rose for NGVs, but that's a factor of kind of a short-term perspective of many in the media, and it's also a lack of information or understanding by those who report the news and who may be confused by conflicting claims from those protecting the status quo. I think there's a lot of that going on.

And by those who are promoting other alternative fuels. We need to work harder to do something about that, and I'll talk a little bit about more of that in a minute.

The current media infatuation is really aided and abetted by the vehicle makers, and it's taking the shape right now with hybrids, from the small Toyota Prius to the large transit bus that GM is promoting. From an infatuation standpoint, hybrids are kind of like the pretty girl that you think it's time to take home to Mom but the question really is will it last? The jury is out on the question of hybrids, from the small consumer vehicles, whose battery life and cost of replacement is questionable, to the large unproven versions now showing up in buses, which cost a lot more than our proven natural gas transit buses. Truthfully, I really don't have any problem with hybrids. I think there is a role for them, and we'll see more of them soon. Some of my friends, in fact, in California are buying them, but not that many. With all the hype, only a small number will be built and sold over the next few years, relatively speaking. And they still use petroleum, just a little bit less of it. In fact, a U.S. Department of Energy study stated that even if all the U.S. cars were hybrids, this is something I think Rich talked about, by 2025 we would still consume the same amount of petroleum that we do today.

Now, let me digress for a minute, because I think we're at a time in this industry where we have to get a little tough and speak the truth. Some, I think, are using hybrids or hydrogen, or fuel cells, for that matter, as a diversionary tactic. Let's take Ford. In the dead of night when they abandoned their natural gas vehicle program after they said they were staying in, I think many of you remember that. At that very time they said they wanted out of the NGV program because they needed to focus on hybrids and hydrogen. And about fifteen days after that announcement, they decided to re-up the Excursion, one of the dirtiest vehicles on the road. So I think they've really hidden behind talking about hybrids and hydrogen, when they already had the cleanest vehicles on the road. Now, it turns out they say, and we're very thankful for it, that they're going to have a natural gas vehicle in Europe in 2006, and I hope they do. Of course we're disappointed by Ford, and we hope they'll come back to the market and of course, we need to make sure that we can have vehicle sales to get them back to the market. Please seek out representatives from the California Natural Gas Vehicle Education Campaign. This is a

grassroots campaign taking shape to highlight why we need OEMs in the market. If you have any questions about that, see me. Katie Romans is here in the audience, and she'll be happy to help you.

Back to the real story. NGVs are beginning to be recognized, I believe, as a near and mid-term answer. In 2004, we're beginning to get more traction on our story from higher and higher level sources. These are some of the statements we have gathered just in the past few months. Listen to what they're saying. Earlier in the year, David Garman, Assistant Secretary for Energy and Renewable Energy, not, frankly, always our friend, said this on *The Washington Journal* on C-SPAN. "I think it's very important that we not forget the role natural gas vehicles can play in cleaning up emissions in the near term. It's going to be quite a while before you see either hydrogen or electric vehicles become price-competitive and give the kind of range and performance consumers expect."

Later, Spence Abraham, who I think is a friend, and we're warming him up (Rich and the guys are working on that all the time), was quoted in an interview in *Natural Gas Fuels*, and I think some of you saw it in May: "We see natural gas vehicles as playing an important role, especially in target markets where the benefits of natural gas can have the biggest impact. Every dedicated natural gas vehicle in use displaces 100 percent of the petroleum that vehicles otherwise would use. Therefore, a growing NGV market in America is good for America, since it helps to reduce the amount of oil we need to import."

In June, our company, Clean Energy, formally inaugurated a public/private partnership with the State of New York, and at that time there were a couple of other important things said. Here's the first one. At the opening, Mike Scarpino, DOE/Clean Cities regional guy up there, said, "The reality is that hydrogen-powered vehicles are probably 15 to 20 years away from being able to be mass-produced for the general public. We can't afford to wait 15 or 20 years to address our nation's air quality and energy security. By developing a CNG fueling network and driving clean-burning CNG-powered vehicles today, we are addressing each of these important issues right now."

And finally, George Pataki showed that he really gets it with this message, and I was very impressed. He was standing in front of me at the podium, and he did all this without notes and here's what he said. He said, "CNG vehicles can enjoy better mileage, are much cleaner, as much as 95 percent lower emissions than petroleum-fueled vehicles, and because it's not dependent on foreign oil, it helps break the flow of our funds going overseas to support unstable, often hostile regimes." He was a great — he was great that day. I was really impressed with him. I invite you to visit our website, where we have these statements, and hopefully you can use them to spread the word.

What does all this say? Well, I think it says that natural gas vehicles are not a failed experiment. Hardly. But what it is says is we have to keep pushing and working aggressively to get our message out. And just let me mention some of the good things that are going on that I think it's important to know too. Not only are some people saying the right things, but listen to what's happening. In California, for instance, Governor Schwarzenegger fixed the Carl Moyer program — you remember that, that's where we give money out to the heavy-duty vehicles — and funded it with $60 million a year for the next several years. In fact, now they're talking about adding another $100 million a year to it. In California, the California Air Resources Board decided it wasn't such a good idea to unwrap and unwind the dual track transit rule. You remember, the diesel guys were trying to make it so that diesel would qualify as clean fuel, and that effort failed, so that's good news for us. Volume, in California, the same-store sales growth in California, ours, is up 21 percent, which is pretty impressive this year.

Seattle, Oakland, Phoenix and San Francisco airports have all adopted strong NGV policies that and they are staying in place. CARB and Governor Schwarzenegger are considering granting a waiver to clear up the South Coast fleet rules, and I think once that happens, and keep your fingers crossed — I think it's on their desk right now — I think you'll see the San Joaquin Valley and San Francisco, the Bay Area, go ahead and adopt the fleet rules as well. Boston has opened three transit fueling stations this year, and now has more than 500 natural gas transit buses operating in Boston. On Thursday, the New York City Council — the City Council will

have a bill to require 50 percent of their sanitation fleet to go to natural gas, so that's pretty exciting. In Los Angeles, Mayor Hahn has appointed a new blue ribbon committee to look at cleaning up the ports and I met with his sister, who is Vice Chairman — it's funny how that works — Janice Hahn, who is Vice Chairman of the Commission, and natural gas vehicles are on the agenda. In Texas, we've formed a natural gas vehicle partnership, which I think is very exciting, and I know the guys are coming together to push as to how we can get TERC money, and I think that's going to work. And, of course, we've got the upcoming introduction of the Phill, which I'm very excited about, and I hope that goes early next year. And there are some exciting things happening in Canada, and I can't go through all of them. So I think there are very concrete examples of good things that are going on.

Recently, however, a reporter for *The New York Times* began a story with this headline: "Natural Gas is Headed the Way of Oil — More Demand, Less Supply, Higher Cost." Well, guess what? She's right. But what does all that mean? It means we have to look at natural gas together with other available energy resources, including oil, as part of a continuum that requires kind of a balancing for the long-term and the common good. Our twin goals should be achieving energy security through less dependence upon foreign oil and protecting the environment. No resource alone is the villain, nor is any resource alone the answer. We need to balance our use of resources by weighing the cost, availability and benefits of each resource against its current and projected use.

I'm going to give you some facts, so bear with me. Over 20 million barrels of petroleum are used every day in the United States. Jeff, when we were working together years ago, that number was 42 percent and now it's 57 percent, so we're going the wrong way fast. From foreign sources, over 13 million barrels — 65 percent of that foreign oil is used for transportation every day. Yet only 2 percent (frankly, I think it's less than this) 2 percent of natural gas is used each day — is used in transportation. Eighty-five percent of natural gas is produced in the U.S., and the balance, of course, from Canada. Those numbers, by the way, come from the Department of Energy's EIA, the Energy Information Administration.

Here's the overall breakdown for natural gas, according to the same source. Manufactured products like fertilizers, over 25 percent. Now, that number, you may remember, used to be higher, but it seems — it still seems too high a number when you consider better uses such as transportation in my balanced energy scenario. Residential is about 23 percent, and of course this is a good use of natural gas and will remain about there. Electric utilities is over 20 percent, and here's where I think we need to do some rethinking of cost — cost and benefits. Is this the best use for natural gas? For example, does the benefit derived from lowering the use of natural gas by utilities for power generation in favor of other uses, such as transportation, outweigh the cost of switching to another fuel, say coal, which we have in abundance, and of outfitting with stacks and scrubbers to capture the plumes. An honest cost/benefit analysis may well show that this is the case. Other mixed commercial uses is about 25 percent, and finally, as I said before, transportation is only 2 percent. The bottom line is over a third of the current use of natural gas in the United States is for purposes that are suspect and could be changeable in a balanced energy resource scenario. So let's work on that. That's something that we're going to have to begin to be honest about and talk more about in the future.

What should we do? Like the program said, I think we have to keep the pedal to the floor, the metal, to drive home the natural gas message. We've got to focus on our strengths, which will continue to be price advantage and the cleanliness of our fuel. The facts are simple. As we have just seen, natural gas is largely a domestic fuel and should be used for transportation. Why? Well, because in the midst of a prolonged period of higher energy costs — because I think and we believe we're in the midst of a prolonged period of higher energy costs which may never come back down. As you know, I've work for Boone Pickens and have for many years, and I think he's been right on the money on this, and we believe — our company believes, and many do now, that worldwide oil production has peaked. And so you're in for a lot higher ceiling for oil, and we believe oil is going to be going higher. I think the days of the dollar diesel are gone. But natural gas in that environment stays very competitive, and we'll be able to beat them, because we'll stay under diesel and gasoline.

As we all know, natural gas is one of the cleanest fuels. NGV technology keeps sprinting ahead while those clinging to the status quo cannot meet their goals. You watch, the diesel guys will try to delay the 2000 set of standards — they are in the bullpen working on that right now. And what we need to do is get our technology right and get it ready. I know we're close. I think we have some 2007s already certified, emission standards engines already certified, and I know some are close to the 2010. We need to get those to the market as soon as we can, and we'll blow away diesel in that case. If they make it, and they will, don't underestimate the added cost and the efficiency decline that they'll enjoy and, again, that will accrue to our benefit.

Natural gas is one of the best — obviously one of the best alternatives around, perhaps the best, particularly for heavy-duty vehicles, where we achieve, I think, our maximum environmental benefit. We will look better and better as we compare to diesel, so I think the message here is we need to push, not only on some of our tried and true, tested light-duty segments, but we've got to also push as well the heavy-duty side.

As excited as everybody is about hydrogen, let me take a swipe at them for a minute. As much as certain folks are trying to put the focus on hydrogen for the future, and they're trying to put the focus out in the future and not on the situation where we currently live with dirty air, it is not the near-term answer, as all of you know. It's not even a mid-term answer. The reality is that hydrogen looms way off in the future, as you guys know. Jim Harger — I think Mitch said this other day, but Jim Harger of Clean Energy, who many of you know, is fond of saying that hydrogen is the fuel of the future and it always will be. And I second that — you know, let's stress that we are the pathway. I think that, frankly, is a very constructive message. I think we have a lot there to sell. I believe, as I think you heard Mitch Pratt yesterday say so well, that people are beginning to recognize that we really are the pathway to hydrogen. And I think the sunlight will begin to shine on us very soon as people figure out that the hydrogen deal is pretty far out.

I believe we will see a growing interest in the heavy-duty vehicle applications: refuse, long haul, transit and others, and a renewed interest in medium duty and certain light duty fleets as people

realize that natural gas for transportation is the only practical solution for the next 20 years or more. So when we look at higher oil prices, continued interest in air quality, the realization that hydrogen is far out, and that there's going to be a continued increase in the cost of diesel, all of this plays into our hands and it really will help us make even better than we have done before the case for natural gas.

I know it's been pretty tough. I know that as well as many of you. But a lot of outside factors now are coming together and are pushing things to us.

So my message is let's keep focused. Let's target the right fleets, the ones we know are the best fleets for us. Let's push the Phill. Let's focus on heavy-duty. Let's push LNG, let's push on the OEMs, make them be responsible, and let's work the media to correct the record, and I think we've been a little too silent on that. As our friend from the Department of Energy said in New York, we can't afford to wait 15 or 20 years to address our nation's air quality and energy security needs. The need is now, and we have the answer now, so let's continue to make the case to the media and to prospective customers, to government decision makers, and to the public everywhere we can.

Thank you very much.