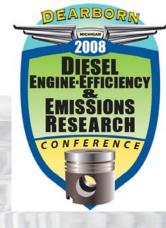
## 14th Diesel Engine-Efficiency and Emissions Research (DEER) Conference

August 4-7, 2008, Dearborn, Michigan



## Marketing Light-Duty Diesels to U.S. Consumers

Norbert Krause Director

Engineering and Environmental Office Volkswagen Group of America, Inc.











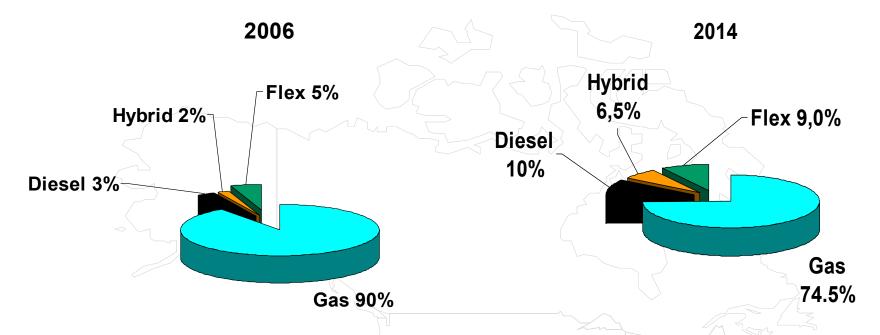


## The Competition

- Clean diesels will compete against and coexist with other technologies including
  - advances in gasoline technology
  - "success" of Hybrids
  - public focus on long term solutions (i.e. Hydrogen)
- Government should promote innovation and assure fair competition by establishing for example technology neutral incentive programs
- Industry must invest in development and production of clean diesel technology
  - → Volkswagen is committed to play a leading role



## J.D. Power: U.S. Light Vehicle Demand Breakdown by Fuel Type



- Flex fuel vehicles have the highest share of the alternative fuel market, but diesels catch up by the end of the forecast period
- J.D. Power expects 1 out of every 4 light vehicles sold in the U.S. to be an alternative fuel vehicle
- Alt fuel market grows from 1.65m units in 2006 to 4.2m units in 2014

Source: J.D. Power



## J.D. Power Summary

- Everyone is worried about fuel economy
- Hybrids are necessary from a competitive standpoint
- Good PR see Toyota
- CNG only Honda at the moment, and less than 1000 units p.a. The public isn't interested
- Electric vehicles nice in theory, but GM's EV1 experiment died a painful death and manufacturers are reluctant to try again
- Increasing awareness of alternative technologies in the United States
- Plug-in hybrids 60k Chevy Volts p.a. from 2011, Saturn Vue and possible Toyota Prius versions coming in the next 3-4 years. The next step in the hybrid revolution if we can get the costs down and batteries stable
- No clear winner for alternative fuels there's room for everyone









## **Marketing Strategy**

- Positioning: The future of performance is TDI Clean Diesel.
- Brand Value: German innovation produces a superior diesel engine that has the performance of a race car, yet is responsible enough to classify as an Ultra Low Emission Vehicle in California.
- Consumer Take Away: For the first time, I don't have to compromise my driving experience in order to save money on fuel and play my part in protecting the environment.
- Target: Twenty to thirty something married couple that is globally minded and cautiously optimistic. They feel that everybody needs to do their part to preserve the world and that culture still has time to change their ways. They love to be outdoors and enjoy spending time together. They want to make environmentally minded decisions. They are for grounded and pragmatic environmentalism vs. people who are fighting to show their environmentalist ways (Prius).



## People are used to compromising.

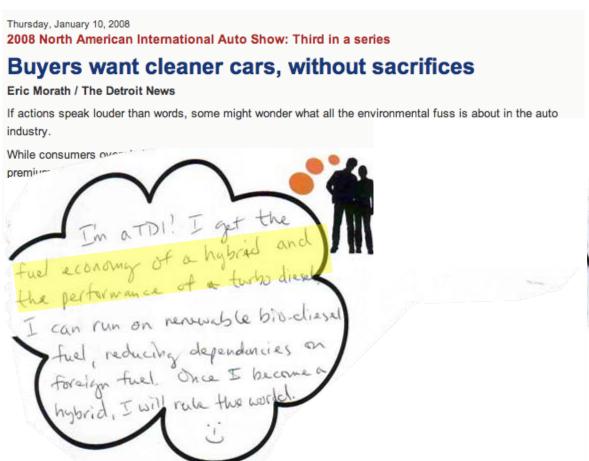
- Hybrids created a sense of innovation that allowed people to signal their values, but sent a strong message that responsibility is more important than fun (therefore performance is not important).
- People who want to make a choice they can feel good about are forced to compromise.

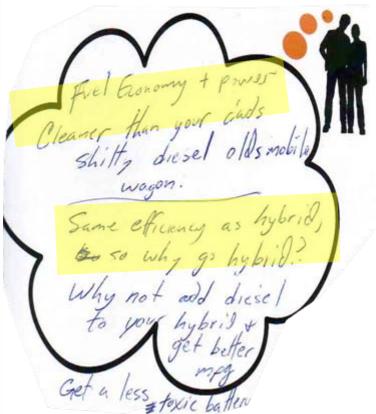


## But people don't want to compromise.

"I drove my grandmother's Toyota Prius once. I'll never drive that again, I need power."

■David, San Francisco, Honda Civic







### TDI Clean Diesel enters a consumer culture in search of reinvention.

### Live Consciously

Feel more alive—and aligned with your values...



- Kids & Commercialism
- Get More of What Matters
- Turn the Tide
- New Dream Publications
- More...

### **Buy Wisely**

Use your power as a consumer to make change...



- The Conscious Consumer
- Institutional Purchasing
- Back to School
- Less Can Mean More
- More...

#### Make a Difference

Let your actions speak for themselves—then speak up anyway...



- Take Action
- Green Cars Today
- Independence From Junk Mail
- Act Locally
- More...

New Individualists share these values and attitudes. They are environmentally concerned and active.

## GoodCleanDieselFun.com



## Welcome to the future of diesel. Today.

Starting this year, Volkswagen's Jetta TDI® Clean Diesel and Jetta SportWagen TDI® Clean Diesel will run on high-performance, ultra-low sulfur, clean diesel fuel. Clean diesel has 97 percent less sulfur content, radically reducing vehicle emissions. And our TDI Clean Diesel engines use a "common rail" direct injection system, so they also decrease over 95 percent of all sooty emissions.

#### Translation:

- TDI Clean Diesel engines put out more torque than even most traditional, gas-based engines. So you don't have to sacrifice power to be environmentally conscious.
- Remember, the "T" in TDI stands for turbocharged.





## Motorsports on vw.com



MOTORSPORT



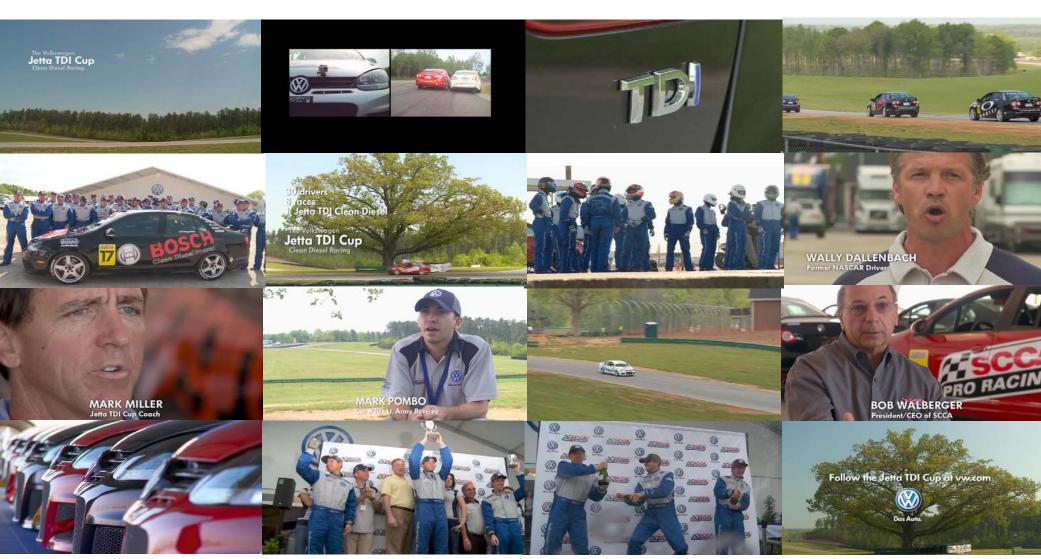
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Jimmy Underhill

as he was an ex-pro road racer.



## **ESPN Roadblock**





## **TDI Cup**



### The Winners

- VIRginia Mark Pombo, 25, GA
- Mosport David Jurca, 22, WA
- Portland Josh Hurley, 23, FL

## ... and the TDI Clean Diesel story







## Volkswagen and Audi ...

- ... are strongly committed marketing diesel powered vehicles also in the future, including the United States
- ... believe diesel will succeed by delivering
  - increased energy efficiency
  - reduced CO2 emissions
  - high levels of performance and convenience
  - the best platform for renewable fuels including Biodiesel, SunFuel, and SunDiesel



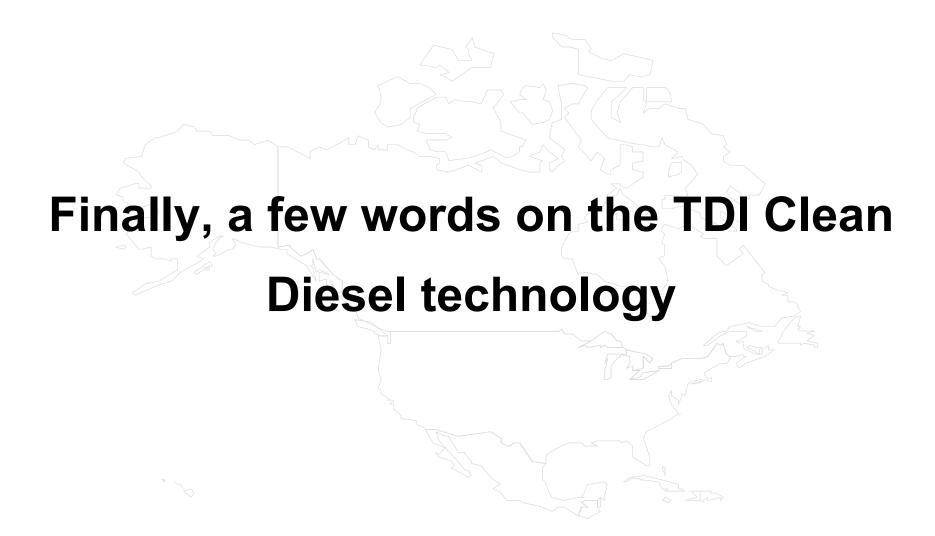
## Conclusion

- Modern TDI Diesel technology has come a long way since the old diesel engines of the past
- The modern TDI Diesel engine is not only powerful but also very economical
- A major progress in lowering the exhaust gas emission has taken place



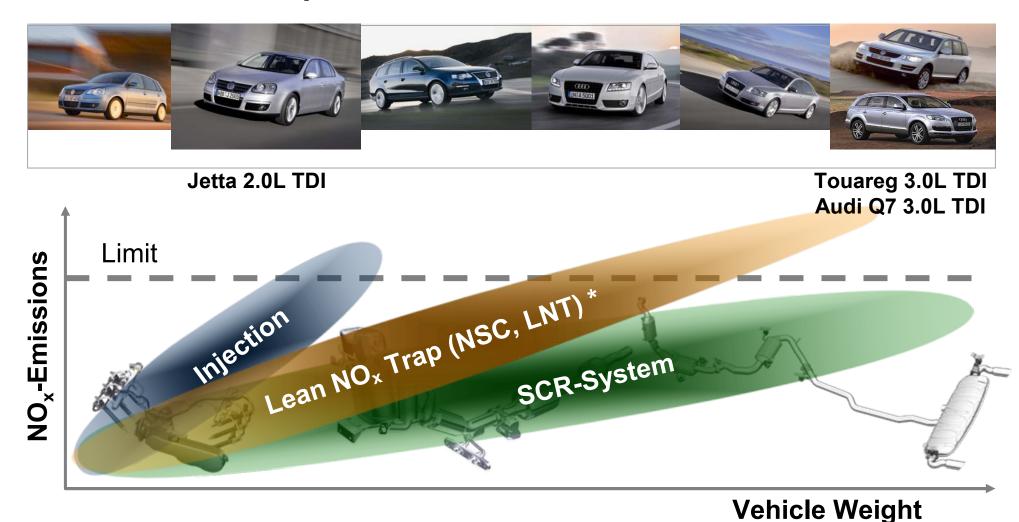
We are convinced that

- ✓ the TDI is a solution for future powertrains for light duty vehicles
- ✓ there is a further potential which will be realized.



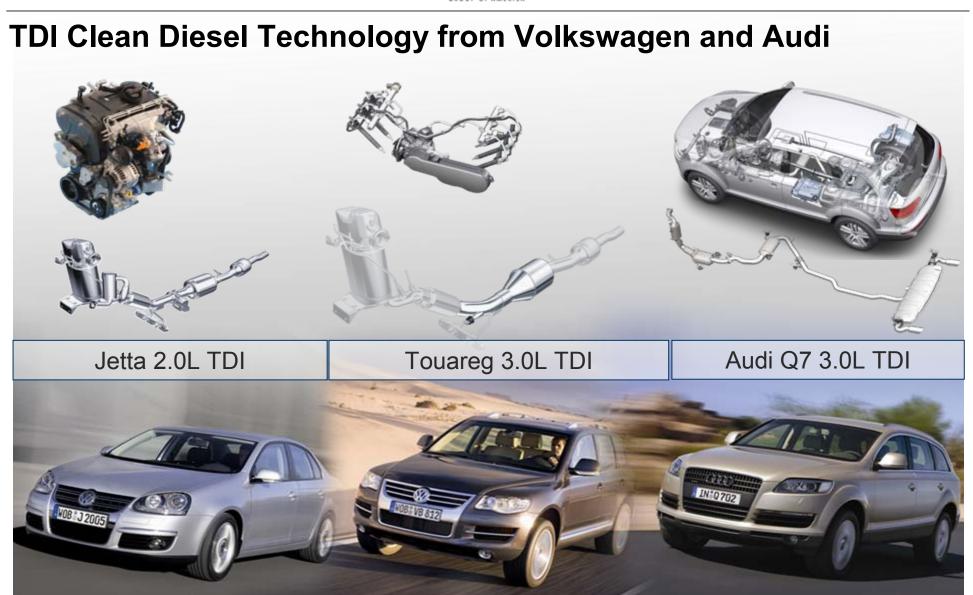


## **Measures for Compliance with lowest Limits**



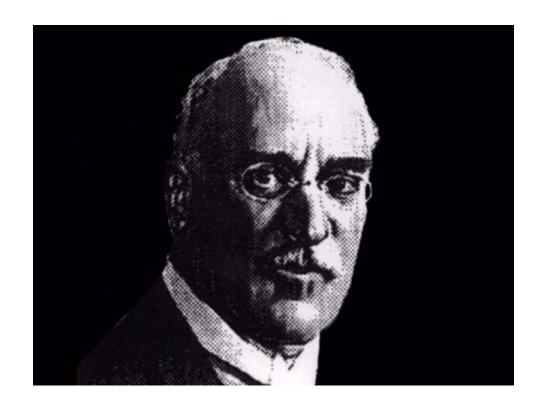
<sup>\*</sup> Needs no Urea solution







## Rudolf Diesel: Modern Volkswagen Diesel Engines



## **Grandfather's Diesel is dead!**

# Full Speed ahead into a Clean Diesel Future!

Thank You for Your Attention.



Take me for a Test Drive!

August 7, 2008, 10 am – 4 pm, North Parking Lot