

# Volkswagen California ZEV Investment Commitment Public Input Workshop

December 2, 2016

# The VW 2.0L Partial Consent Decree (CD)

- \* Approved by judge on October 25, 2016
- \* Applies to entire United States with California special provisions
- \* Consists of main body & Appendices A, B, C, and D
- \* Applies to VW 2.0-liter diesel engines
- \* Does not resolve claims for civil penalties
- \* Does not resolve claims concerning 3.0-liter diesel engines
- \* Does not address any potential criminal liability

# Consent Decree Appendices

- \* Appendix A and B
  - \* Applies to VW 2.0-liter subject vehicles already sold
  - \* Specifies buyback, lease termination, and potential vehicle modification terms
- \* **Appendix C - Today's topic**
  - \* **Specifies VW's ZEV Investment Commitment**
- \* Appendix D
  - \* Specifies Mitigation Trust to address past and future excess emissions of NOx from VW 2.0-liter subject vehicles sold in U.S.

# ARB intent when entering into Appendix C

- \* Support the growth of the ZEV Market
- \* Increased availability of ZEV Infrastructure
- \* Increased awareness of ZEVs
- \* Increased access to ZEVs across all Californians
- \* Guided by:
  - \* Governor's ZEV Action Plan
  - \* SB 350 - Clean Energy and Pollution Reduction Act of 2015
  - \* SB 1275 - Charge Ahead California Initiative (2014)
  - \* SB 535 - California Global Warming Solutions Act of 2006: Greenhouse Gas Reduction Fund (2012)

# CD Appendix C

## ZEV Investment Commitment

- \* Volkswagen is to spend \$2 billion nationally, of which \$800 million will be in California (40%)
- \* 10-year spending period, divided into four 30-month spending cycles
- \* Investments will be reviewed annually by third party
- \* Investment goals
  - \* Support transportation electrification
  - \* Support the next generation of zero-emission vehicles
  - \* Grow the State's burgeoning ZEV market
  - \* Support access to ZEVs, including for low- and moderate-income consumers in disadvantaged communities

# CD Appendix C

## VW Investment Commitment

- \* Eligible ZEV Investments include:
  1. ZEV Infrastructure
  2. Brand-neutral education and public awareness campaigns
  3. ZEV access improvements for all California consumers
  4. A Green City initiative

# Appendix C – Category 1: ZEV Infrastructure

- \* Design/planning, construction/installation, operation, and maintenance of ZEV Infrastructure
- \* Infrastructure should support and advance the use of ZEVs in U.S.
- \* May include installation of:
  - \* Level 2 chargers
  - \* DC Fast Chargers
  - \* Heavy-duty ZEV fueling infrastructure (California)
  - \* Later generation types of chargers
  - \* ZEV fueling stations
- \* Guidance exists (Readiness Plans) to assist VW in siting charging infrastructure

# Appendix C – Category 2: Education and Outreach

- \* Brand-neutral education or public outreach that builds or increases public awareness of ZEVs
  - \* Cannot feature or favor VW vehicles or services
  - \* May contain the statement, “sponsored by Volkswagen”



# Appendix C – Category 3: ZEV Access

- \* Programs or actions to increase public exposure and/or access to ZEVs
- \* Makes consumer ZEV access possible without purchase or lease
- \* Examples
  - \* Scrap and replace with ZEV programs (in California)
  - \* ZEVs in car-share services
  - \* ZEV rideshare or ride hailing services
  - \* ZEV autonomous vehicle services

# Category 4: Green City

- \* Demonstration in a concentrated fashion:
  - \* Operation of ZEV car sharing services
  - \* ZEV transit applications
  - \* ZEV freight transport projects

# California's Initial Guiding Principles for VW ZEV Investments

# First Investment Plan Priorities

- \* California's highest priorities for investment in the first 30-month cycle are public **ZEV infrastructure and public awareness**
  - \* This complements the California ZEV Action Plan, which identifies these as high priorities for supporting the ZEV market
- \* We urge VW to make **early, visible progress** in the beginning of the first 30-month cycle

# Additional and Complementary Investment

- \* The expenditures should be ***complementary and additional*** to investments being made by government and the private sector in California
- \* ZEV Investments should **add to and increase overall market support** to accelerate ZEV sales growth

# Transformation

- \* To complement SB350's transportation electrification goals, California encourages pursuit of **“transformational” programs** that provide mutually beneficial lessons to VW and the State on breakthrough e-mobility concepts that can catalyze widespread Transportation Electrification
- \* While the CD requires VW to invest across a variety of geographic regions of the state, we recommend **creating transformation in key markets through focused implementation in a variety of community types, particularly disadvantaged communities**

# Investment Where Most Needed

- \* A significant percentage (25%) of the funds should be dedicated to ***investments that serve disadvantaged communities***, matching the goals of SB535

# Hydrogen Investment

- \* **Hydrogen** as a transportation fuel is important to California
  - \* Technology diversity
  - \* Scalable to larger vehicle categories
  - \* Refueling range and speed
  - \* Assists with meeting air quality and GHG goals
- \* VW should be strongly encouraged to include hydrogen fueling investment



# Data Collection

- \* ***Data collection and reporting*** is very important to California
  - \* Transparency
  - \* Effectiveness of programs,
  - \* Implementation, durability and maintenance issues
  - \* Help inform funding programs and grid integration issues

# Business Considerations

- \* Investments should ***not interfere with or undermine established and emerging businesses*** in the market place
- \* VW's investments should ***demonstrate corporate social responsibility and a cradle-to-grave sustainable business case***

California

# Priorities & Examples

# Infrastructure - Priorities

*To Expand the Consumer Market for ZEVs:*

1. **Workplace** charging, including Level 2 and Level 1 stations
2. **Multi-unit dwelling** charging solutions

*To Support Extended Travel Range:*

3. **DC Fast Charge** stations, especially those that serve drivers that may not have access to home or workplace charging

*To Fill Gaps in Public, Long Dwell Time Charging Stations:*

4. **Public Charging Stations**, especially at airports and medical facilities like hospitals and doctors office complexes

# Infrastructure – Priorities (con't)

*To Support all ZEV Technologies:*

5. **Hydrogen refueling station investments**, including investment in new hydrogen stations, support of market development projects, including station commissioning, standards demonstrations and testing services

*To Expand ZEV Technology across more transportation sectors:*

6. Multi-sector type infrastructure capable of serving commercial (**medium- and heavy-duty**) vehicles as well as the public

# Infrastructure - Examples

1. *Workplace charging challenge*
2. *DC Fast Charge Plazas*
3. *Vehicle-grid Integration (VGI) cooperation*
4. *Plug-In Vehicle Garage*
5. *Curbside charging*
6. *Hydrogen station investment*
7. *Hydrogen station network support*

# Public Awareness - Priorities

- \* Work with existing stakeholder efforts to consolidate and leverage efforts, expanding the reach of public awareness efforts
- \* Market ZEV attributes in a way that builds interest
- \* Measurement metrics that include total reach by market and by media type
- \* Include experiential marketing – ride and drive opportunities and displays
  - \* Driving ZEVs is shown to be most influential reason for deciding to buy a ZEV

# Public Awareness - Examples

- \* Fund a contractor to offer ride and drive opportunities at public events with multiple ZEV models
- \* Offer challenge grants to bring other stakeholders into multi-stakeholder-funded outreach programs



# Increasing ZEV Access - Priorities

- \* Complementary to SB1275, investments should provide increased access to ZEVs for a broad cross-section of California
- \* California would prioritize projects as follows:
  1. Vehicle Scrap and ZEV replacement programs particularly in disadvantaged communities
  2. Community-based car-share programs, especially those serving disadvantaged communities
  3. Zero Emission Transit
  4. Ride Hailing services, especially those serving disadvantaged communities
  5. Autonomous ZEV demonstrations

# Green City - Priorities

- \* Expected to be transformative
- \* Selection criteria:
  - \* ARB recommends VW select a disadvantaged community using SB 535 definitions
  - \* Opportunities to improve transportation and vehicle emissions across multiple vehicle sectors
  - \* Leverages existing transportation plans and community efforts
  - \* Consideration of the level of impact that can be achieved

# Green City - Examples

- \* A Green City project should include multiple types of investments, such as:
  - \* Zero emission transit
  - \* Zero emission freight vehicles
  - \* Car Sharing
  - \* Vehicle grid integration implementation
  - \* Incorporation of renewable energy with ZEV infrastructure

# Timeline of Events

- \* Partial Consent Decree approved October 25, 2016
- \* Public Workshop December 2, 2016
- \* Board Hearing, December 8, 2016
- \* Public comment period ends December 16, 2016
- \* Post, and transmit to VW, recommendations, priorities, and goals by early January
  - \* [https://www.arb.ca.gov/msprog/vw\\_info/vsi/vw-zevinvest/vw-zevinvest.htm](https://www.arb.ca.gov/msprog/vw_info/vsi/vw-zevinvest/vw-zevinvest.htm)
- \* VW submits Draft ZEV Investment Plan to California by February 22, 2017
  - \* Proposed projects and estimated costs
- \* California approval of ZEV Investment Plan

# ZEV Investment Plan Approval Process

- \* VW submits to CARB a draft ZEV Investment Plan
  - \* Due by February 22, 2017
  - \* Includes proposed projects, estimated costs, timeline, and explanation of how each investment relates to identified goals
  - \* First 30-month period of \$200 million
- \* CARB approves plan in whole or in part

# Thank You

- \* Workshop materials will be available on the California ZEV Investments website  
[https://www.arb.ca.gov/msprog/vw\\_info/vsi/vw-zevinvest/vw-zevinvest.htm](https://www.arb.ca.gov/msprog/vw_info/vsi/vw-zevinvest/vw-zevinvest.htm).
- \* ARB has established a new list serve to notify stakeholders of upcoming events related to the Volkswagen ZEV Investment Commitment. If you would like to be notified of future meetings and the availability of materials, please sign up for our California ZEV Investments list server at:  
[https://www.arb.ca.gov/listserv/listserv\\_ind.php?listname=vw-zevinvest](https://www.arb.ca.gov/listserv/listserv_ind.php?listname=vw-zevinvest)
- \* Written comments by 12/16/16 to:  
[https://www.arb.ca.gov/lispub/comm2/bcsubform.php?listname=vw-zevinvest-ws&comm\\_period=1](https://www.arb.ca.gov/lispub/comm2/bcsubform.php?listname=vw-zevinvest-ws&comm_period=1)