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7 UNITED STATES DISTRICT COURT  
8 NORTHERN DISTRICT OF CALIFORNIA  
9 SAN FRANCISCO DIVISION

10  
11  
12 IN RE: VOLKSWAGEN 'CLEAN DIESEL'  
13 MARKETING, SALES PRACTICES, AND  
PRODUCTS LIABILITY LITIGATION

MDL 2672 CRB (JSC)

14 This Document Relates to:

15 *A to Z Autosports, LLC, and MSI Auto Sales*  
16 *And Repair, Inc., v. Volkswagen Group of*  
17 *America, Inc., Case No. 3:15-cv-05963-CRB*  
18 *(transferred from W.D. Wis., Case No. 3:15-*  
*cv-00664-WMC)*

**SECOND AMENDED  
CONSOLIDATED RESELLER  
DEALERSHIP CLASS ACTION  
COMPLAINT**

**TABLE OF CONTENTS**

	<b>Page</b>
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
	INTRODUCTION ..... 1
	JURISDICTION AND VENUE ..... 5
	PARTIES ..... 6
	A. Individual and Representative Plaintiffs ..... 6
	B. Defendants ..... 6
	1. Volkswagen Defendants ..... 6
	a. Volkswagen AG ..... 6
	b. Volkswagen Group of America, Inc. .... 7
	c. Audi AG ..... 7
	d. Audi of America, LLC ..... 8
	e. Dr. Ing. h.c. F. Porsche AG ..... 8
	f. Porsche Cars North America, Inc. .... 8
	g. Martin Winterkorn ..... 9
	h. Matthias Müller ..... 9
	i. Michael Horn ..... 10
	j. Rupert Stadler ..... 10
	2. Bosch Defendants ..... 11
	b. Robert Bosch GmbH ..... 11
	c. Robert Bosch, LLC ..... 12
	d. Volkmar Denner ..... 12
	COMMON FACTUAL ALLEGATIONS ..... 13
	A. Volkswagen’s Plot to Dominate the Automotive Market ..... 13
	B. Defendants’ Illegal “Defeat Device” Scheme ..... 19
	C. Bosch Played a Critical Role in the Defeat Device Scheme ..... 25
	1. Volkswagen and Bosch Conspire to Develop the Illegal Defeat Device ..... 25
	2. Volkswagen and Bosch Conspire to Conceal the Illegal “Akustikfunktion” ..... 33
	3. Volkswagen and Bosch Conspire in the U.S. and Germany to Elude U.S. Regulators ..... 36
	4. Bosch Keeps Volkswagen’s Secret Safe and Pushes “Clean” Diesel in the U.S. .... 40
	5. Defendant Denner Also Played a Critical Role in the Scheme ..... 43
	D. Porsche Knowingly Adopts the Defeat Device in Its 3.0-liter Class Vehicles ..... 44
	E. Volkswagen’s “Clean” Diesel Advertising Campaign ..... 46

1                   2.    VW’s False and Misleading Advertisements..... 46

2                   3.    Audi’s False and Misleading Advertisements ..... 56

3                   4.    Porsche’s False and Misleading Advertisements..... 60

4                   5.    Volkswagen’s Nationwide Advertising Campaign Was Highly  
                      Effective, and Volkswagen Profited Handsomely from Selling the  
                      Class Vehicles..... 61

5                   F.    Defendants’ Dirty Diesel Scheme Starts to Unravel..... 62

6                   G.    Once Caught, Volkswagen Admits its Fraud—in Part ..... 64

7                   H.    Volkswagen’s Failed Attempts at Remedial Action..... 75

8                   I.    Volkswagen Caused Billions of Dollars in Harm to U.S. Consumers..... 76

9    TOLLING OF THE STATUTES OF LIMITATIONS ..... 80

10   PLAINTIFFS’ FACTS..... 82

11   CLASS ACTION ALLEGATIONS ..... 82

12   CLAIMS FOR RELIEF ..... 87

13        FIRST CLAIM FOR RELIEF: Violation of 18 U.S.C. § 1962(c)-(d) The  
14                Racketeer Influenced And Corrupt Organizations Act (“RICO”) ..... 87

15        B.    Description of the Defeat Device RICO Enterprise..... 89

16                2.    The Volkswagen Entity Defendants ..... 90

17                3.    The Volkswagen Entity Defendants’ Directors, Officers, and  
18                        Engineers ..... 92

19                        b.    Martin Winterkorn..... 92

20                        c.    Matthias Müller ..... 93

21                        d.    Michael Horn..... 93

22                        e.    Rupert Stadler..... 94

23                        f.    Scott Keogh ..... 94

24                        g.    Detlev von Platen ..... 95

25                        h.    Ulrich Hackenberg..... 95

26                        i.    Frank Tuch..... 96

27                        j.    Wolfgang Hatz..... 97

28                4.    The Bosch Defendants ..... 97

              C.    The Defeat Device RICO Enterprise Sought to Increase Defendants’  
                      Profits and Revenues..... 98

              D.    Mail and Wire Fraud..... 102

              SECOND CLAIM FOR RELIEF: FRAUD..... 107

              THIRD CLAIM FOR RELIEF: FAILURE TO RECALL/RETROFIT ..... 109

              FOURTH CLAIM FOR RELIEF: UNJUST ENRICHMENT ..... 110

              PRAYER FOR RELIEF ..... 110

              DEMAND FOR JURY TRIAL ..... 111

1 Plaintiffs bring this action on behalf of themselves and all others similarly situated,  
2 against (1) the Defendants collectively known as “Volkswagen”: Volkswagen Aktiengesellschaft  
3 (“VW AG”), Volkswagen Group of America, Inc. (“VW America”) (together, “VW”), Audi  
4 Aktiengesellschaft (“Audi AG”), Audi of America, LLC (“Audi America”) (together, “Audi”),  
5 Dr. Ing. h.c. F. Porsche Aktiengesellschaft (“Porsche AG”), Porsche Cars North America, Inc.  
6 (“Porsche America”) (together, “Porsche”), Martin Winterkorn (“Winterkorn”), Matthias Müller  
7 (“Müller”), Michael Horn (“Horn”), and Rupert Stadler (“Stadler”); and (2) the Defendants  
8 collectively known as “Bosch”: Robert Bosch GmbH (“Bosch GmbH”), Robert Bosch, LLC  
9 (“Bosch LLC”), and Volkmar Denner (“Denner”) (together, “Bosch”). Plaintiffs allege the  
10 following based upon information and belief, the investigation of counsel, and personal  
11 knowledge as to the factual allegations pertaining to themselves.

## 12 INTRODUCTION

13 1. This case arises out of one of the most brazen corporate crimes in history, a  
14 cautionary tale about winning at any cost. Volkswagen cheated its way to the top of the  
15 automotive food chain and spared no victim along the way, targeting its customers, U.S. and  
16 foreign regulators, and even the very air we breathe. The linchpin of Volkswagen’s fraudulent  
17 scheme was the deliberate use of a “defeat device,” a secretly embedded software algorithm that,  
18 as Volkswagen has since admitted, was designed and installed to cheat emission tests, thereby  
19 fooling the Environmental Protection Agency (“EPA”), among other regulators, into approving  
20 for sale hundreds of thousands of non-compliant cars (the “Class Vehicles,” defined below). For  
21 years, Volkswagen got away with it, and the Class Vehicles were sold at record numbers into our  
22 stream of commerce. Once on the roads, these cars spewed millions of tons of harmful nitrogen  
23 oxide (“NOx”) pollutants into our air at a rate of up to 40 times the legal limit. All the while,  
24 Volkswagen pitched itself to the American public as the world’s foremost innovator of “clean”  
25 diesel technology, duping hundreds of thousands of environmentally-conscious consumers who  
26 were willing to pay a premium for “clean” diesel vehicles.

27 2. This case arises out of one of the most brazen corporate crimes in history, a  
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1 automotive food chain and spared no victim along the way, targeting its customers, U.S. and  
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8 stream of commerce. Once on the roads, these cars spewed millions of tons of harmful nitrogen  
9 oxide (“NOx”) pollutants into our air at a rate of up to 40 times the legal limit. All the while,  
10 Volkswagen pitched itself to the American public as the world’s foremost innovator of “clean”  
11 diesel technology, duping hundreds of thousands of environmentally-conscious consumers who  
12 were willing to pay a premium for “clean” diesel vehicles.

13 3. Fraud fueled Volkswagen’s success, and its only real “clean” diesel innovation  
14 was how it played dirty. Its ingeniously-designed defeat devices, software installed on engine  
15 management systems supplied by defendant Bosch, detected when its dirty diesel engines were  
16 being tested in a laboratory or smog station and triggered performance-sapping controls to  
17 simulate compliance with emission laws. But when the test ended, and the driver returned to the  
18 road under normal operation and use, the performance—and the illegal belch of pollution—  
19 returned. Everything about Volkswagen’s fraudulent scheme was coolly calculated, as defendant  
20 Horn, CEO of VW America, confessed in the fall of 2015 at Congressional hearings: “[the defeat  
21 device] was installed for this purpose, yes.”<sup>1</sup>

22 4. Volkswagen promised low-emission, environmentally friendly vehicles, with high  
23 fuel economy and exceptional performance. Consumers believed Volkswagen and bought  
24 Volkswagen’s VW-, Audi-, and Porsche-branded “clean” diesel vehicles in record numbers. In  
25 fact, during the relevant time period, Volkswagen sold more diesel cars in the U.S. than every  
26

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27 <sup>1</sup> See Bill Chappell, *‘It Was Installed For This Purpose,’ VW’s U.S. CEO Tells Congress About*  
28 *Defeat Device*, NPR (Oct. 8, 2015), available at <http://www.npr.org/sections/thetwo-way/2015/10/08/446861855/volkswagen-us-ceo-faces-questions-on-capitol-hill>.

1 other automaker combined.<sup>2</sup> From 2009 to 2015, Volkswagen sold and/or leased approximately  
2 580,000 dirty diesels that its defeat device disguised as clean. In doing so, Volkswagen secretly  
3 turned the most environmentally-conscious consumers into some of the biggest polluters on the  
4 road—and charged them a premium in the process.

5 5. As a result, there are over half a million cars on American roads with illegal  
6 emission systems that never should have left the factory, and would not have, but for  
7 Volkswagen’s fraudulently obtained EPA Certificates of Conformity (“COCs”), as well as  
8 California Air Resources Board (“CARB”) Executive Orders (“EOs”). Since the revelation of  
9 Volkswagen’s scheme, the Department of Justice (“DOJ”) has filed a complaint alleging  
10 numerous violations of the Clean Air Act (“CAA”), California and other state attorneys general  
11 have announced investigations or filed lawsuits concerning Defendants’ fraudulent scheme, and  
12 countless other government entities have launched criminal and civil investigations around the  
13 globe.

14 6. Volkswagen’s fraud has also taken a human toll. According to statistical models,  
15 the pollution spewed by the Class Vehicles will cause “somewhere between 16 and 94 deaths  
16 over seven years, with the annual count increasing more recently as more of the diesels were on  
17 the road.”<sup>3</sup> Meanwhile a peer-reviewed study by researchers at MIT and Harvard University has  
18 estimated that the pollution from the illegal Vehicles will cause 59 early deaths and result in  
19 environmental costs exceeding \$450 million.<sup>4</sup>

20 7. Plaintiffs and the Class (defined below) are automobile dealers that acquired a  
21 Class Vehicle for the purpose of resale and had said vehicle in inventory on or after September  
22 18, 2015. Class Vehicles include the following models:

---

24 <sup>2</sup> *Clean Diesel*, Volkswagen (last visited Feb. 8, 2016), *previously available at*,  
25 <http://www.vw.com/features/clean-diesel/>.

26 <sup>3</sup> Seth Borenstein, *AP analysis: VW evasion likely leads to dozens of deaths*, Associated Press  
(Oct. 5, 2015), [http://bigstory.ap.org/article/1670ed00be824b4cbbf414ed1d637428/ap-analysis-  
vw-evasion-likely-led-dozens-deaths](http://bigstory.ap.org/article/1670ed00be824b4cbbf414ed1d637428/ap-analysis-vw-evasion-likely-led-dozens-deaths).

27 <sup>4</sup> Stephen R. H. Barrett, *et al.*, *Impact of the Volkswagen emissions control defeat device on US*  
28 *public health*, IOPScience (Oct. 29, 2015),  
[http://iopscience.iop.org/article/10.1088/1748326/10/11/114005/meta?mbid=synd\\_flipboard](http://iopscience.iop.org/article/10.1088/1748326/10/11/114005/meta?mbid=synd_flipboard).

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<b>2.0-liter Class Vehicles</b>	
Volkswagen Jetta TDI	2009-2015
Volkswagen Jetta SportWagen TDI	2009-2014
Volkswagen Beetle TDI	2012-2015
Volkswagen Beetle Convertible TDI	2012-2015
Audi A3 TDI	2010-2015
Volkswagen Golf TDI	2010-2015
Volkswagen Golf SportWagen TDI	2015
Volkswagen Passat TDI	2012-2015

<b>3.0-liter Class Vehicles</b>	
Volkswagen Touareg TDI	2009-2016
Porsche Cayenne Diesel	2013-2016
Audi A6 Quattro TDI	2014-2016
Audi A7 Quattro TDI	2014-2016
Audi A8 TDI	2014-2016
Audi A8L TDI	2014-2016
Audi Q5 TDI	2014-2016
Audi Q7 TDI	2009-2016

8. Volkswagen induced Plaintiffs and Class members to purchase or lease the Class Vehicles, which are illegal because they violate the CAA (among other laws) and, on top of that, admittedly do not perform as represented. No one would—or could—have purchased the Class Vehicles but for Volkswagen’s fraudulent scheme, because Volkswagen obtained EPA COCs (and CARB EOs) only by cheating. In addition to now owning illegal, dirty diesels, Plaintiffs have suffered economic damages due to the steep diminution in value of their Class Vehicles, which pollute the environment at levels far in excess of the legal limits, cannot pass required emissions tests, and are subject to a planned recall in the indefinite future (even though no complete fix has yet been announced). To the extent the Class Vehicles can be repaired or retrofitted to pass federal and state emission requirements, they will, absent a full and comprehensive compensation program by Defendants, continue to suffer in diminution in value and cause economic loss. This is so because any such repairs or retrofits will reduce mileage per gallon, increase costs of operation, and cause the vehicles to suffer lower performance, durability, and reliability, reducing market value and increasing cost of ownership and operation.





**PARTIES**

**A. Individual and Representative Plaintiffs**

14. Plaintiff A TO Z SPORTS, LLC (“A to Z”) is a limited liability corporation organized and existing under the laws of Wisconsin, with its principal place of business in Madison, Dane County, Wisconsin. A to Z is an independent used automobile dealer that purchased a Class Vehicle prior to the disclosure of Defendants’ fraudulent defeat device scheme. A to Z has since disposed of the vehicle at a loss.

15. Plaintiff MSI AUTO SALES AND REPAIR, INC. (“MSI”) is a corporation organized and existing under the laws of Wisconsin, with its principal place of business in Middleton, Dane County, Wisconsin. MSI is an independent used automobile dealer that purchased a Class Vehicle prior to the disclosure of Defendants’ fraudulent defeat device scheme. MSI has been unable to sell the Class Vehicle.

**B. Defendants**

**1. Volkswagen Defendants**

**a. Volkswagen AG**

16. Volkswagen AG (“VW AG”) is a German corporation with its principal place of business in Wolfsburg, Germany. VW AG is one of the largest automobile manufacturers in the world, and is in the business of designing, developing, manufacturing, and selling automobiles. VW AG is the parent corporation of VW America, Audi AG, and Porsche AG. According to VW AG, it sold 10.14 million cars worldwide in 2014 – including 6.12 million VW-branded cars, 1.74 million Audi-Branded cars, and 189,849 Porsche-branded cars. Combined with other brands, VW AG boasts a 12.9% share of the worldwide passenger car market. VW AG’s sales revenue in 2014 totaled €202 billion (approximately \$221 billion) and sales revenue in 2013 totaled €197 billion (approximately \$215 billion). At €2.7 billion (approximately \$13.9 billion), VW AG generated its highest ever operating profit in fiscal year 2014, beating the previous record set in 2013 by €1.0 billion (approximately \$1.1 billion).

17. VW AG engineered, designed, developed, manufactured, and installed the defeat device software on the Class Vehicles equipped with the 2.0-liter and 3.0-liter TDI engines and

1 exported these vehicles with the knowledge and understanding that they would be sold throughout  
2 the United States. Audi developed the 3.0-liter TDI diesel engine utilized in the VW Touareg and  
3 Porsche Cayenne Class Vehicles. VW AG also developed, reviewed, and approved the marketing  
4 and advertising campaigns designed to sell the Class Vehicles.

5 **b. Volkswagen Group of America, Inc.**

6 18. Volkswagen Group of America, Inc. (“VW America”) is a New Jersey corporation  
7 with its principal place of business located at 2200 Ferdinand Porsche Drive, Herndon, Virginia  
8 20171. VW America is a wholly-owned subsidiary of Volkswagen AG, and it engages in  
9 business, including the advertising, marketing and sale of Volkswagen automobiles, in all 50  
10 states. In 2014 alone, VW America sold 552,729 vehicles from its 1,018 dealer locations in all 50  
11 states, including 95,240 TDI “clean” diesel vehicles.

12 **c. Audi AG**

13 19. Audi AG (“Audi AG”) is a German corporation with its principal place of business  
14 in Ingolstadt, Germany. Audi AG is the parent of Audi of America, LLC and a subsidiary of the  
15 Audi Group, which is a wholly-owned subsidiary of VW AG. Audi AG designs, develops,  
16 manufacturers, and sells luxury automobiles. According to Audi AG, the Audi Group sold 1.74  
17 million cars worldwide in 2014, with sales revenues in 2014 totaling €3.8 billion (approximately  
18 \$58.5 billion). Audi AG’s operating profit in fiscal year 2014 was €1.15 billion (approximately  
19 \$5.63 billion).

20 20. Audi AG engineered, designed, developed, manufactured and installed the defeat  
21 device software on the Class Vehicles equipped with the 3.0-liter TDI diesel engine, and exported  
22 these vehicles with the knowledge and understanding that they would be sold throughout the  
23 United States. Audi AG also developed, reviewed, and approved the marketing and advertising  
24 campaigns designed to sell its Audi Class Vehicles. According to the U.S. government,  
25 approximately 80,000 3.0-liter TDI® diesel engine vehicles containing the defeat device were  
26 sold by VW, Audi and Porsche in the United States.

27  
28

1                                    **d.     Audi of America, LLC**

2            21.     Audi of America, LLC (“Audi America”) is a Delaware limited liability company  
3 with its principal place of business located at 2200 Ferdinand Porsche Drive, Herndon, Virginia  
4 20171. Audi America is a wholly-owned U.S. subsidiary of Audi AG, and it engages in business,  
5 including the advertising, marketing and sale of Audi automobiles, in all 50 states.

6                                    **e.     Dr. Ing. h.c. F. Porsche AG**

7            22.     Dr. Ing. h.c. F. Porsche AG (“Porsche AG”) is a German corporation with its  
8 principal place of business located in Stuttgart, Germany. Porsche AG designs, develops,  
9 manufacturers, and sells luxury automobiles. Porsche AG is a wholly-owned subsidiary of VW  
10 AG. According to Porsche AG, it sold 187,208 cars worldwide in 2014, with sales revenues in  
11 2014 totaling €7.2 billion (approximately \$18.8 billion). Porsche AG’s operating profit in fiscal  
12 year 2014 was €2.79 billion (\$2.97 billion).

13            23.     Porsche AG installed the defeat device software on the Class Vehicles equipped  
14 with the 3.0-liter TDI diesel engine, designed by Audi and calibrated for use in the Porsche  
15 Cayenne, and exported these vehicles with the knowledge and understanding that they would be  
16 sold throughout the United States. Porsche executives and engineers had previously worked at  
17 Audi, including overseeing development of the 3.0-liter TDI diesel engine, and Porsche personnel  
18 had knowledge of the defeat device. Porsche AG also developed, reviewed, and approved the  
19 marketing and advertising campaigns designed to sell its Class Vehicles.

20                                    **f.     Porsche Cars North America, Inc.**

21            24.     Porsche Cars North America, Inc. (“Porsche America”) is a Delaware corporation  
22 with its principal place of business located at 1 Porsche Drive, Atlanta, Georgia 30354. Porsche  
23 America is a wholly-owned U.S. subsidiary of Porsche AG, and it engages in business, including  
24 the advertising, marketing and sale of Porsche automobiles, in all 50 states. According to Porsche  
25 AG, 2014 represented its best annual results in Porsche history in the U.S., with 47, 007  
26 automobiles delivered. Porsche America now maintains a network of 189 dealers nationwide.



1 directed, ratified, and/or participated in the acts complained of herein. Müller is subject to the  
2 personal jurisdiction of this Court because he has availed himself of the laws of the United States  
3 through his management and control of the American Volkswagen Defendants, as well as the  
4 design, manufacture, distribution, testing, and/or sale of hundreds of thousands of Class Vehicles  
5 imported and sold across the United States. Furthermore, Müller has consistently travelled to the  
6 U.S. to attend and make presentations at various car shows across the country in order to promote  
7 the sale of the Class Vehicles.

8 **i. Michael Horn**

9 27. Michael Horn is a resident of Virginia. Horn was President and CEO of VW  
10 America until he resigned on March 9, 2016. Horn received compensation from the illegal  
11 scheme and course of conduct based on the revenues and profits from the Class Vehicles, and  
12 Volkswagen's increased market share. Horn approved, authorized, directed, ratified, and/or  
13 participated in the acts complained of herein. Horn has admitted that he was aware of the  
14 vehicles' emissions non-compliance since at least 2014.

15 **j. Rupert Stadler**

16 28. Rupert Stadler is a resident of Germany. Stadler became the CEO of Audi AG on  
17 January 1, 2010. Stadler joined Audi AG in 1990 and has held various roles at Audi and VW,  
18 including the Head of the Board of Management's Office for Volkswagen and the Head of Group  
19 Product Planning. In 2003, Stadler became an Audi AG Board Member and was later responsible  
20 for the Finance and Organisation Division. Stadler joined the Board of Management of  
21 Volkswagen when he was appointed to his current role as CEO of Audi AG. Stadler received  
22 millions of dollars from the illegal scheme and course of conduct based on the revenues and  
23 profits from the Class Vehicles and Volkswagen's increased market share. Stadler approved,  
24 authorized, directed, ratified, and/or participated in the acts complained of herein. Stadler is  
25 subject to the personal jurisdiction of this Court because he has availed himself of the laws of the  
26 United States through his management and control over Audi America as well as the design,  
27 manufacture, distribution, testing, and/or sale of hundreds of thousands of Class Vehicles  
28 imported and sold across the United States. Furthermore, Stadler has consistently travelled to the

1 U.S. to attend and make presentations at various car shows across the country in order to promote  
2 the sale of the Class Vehicles.

3 **2. Bosch Defendants**

4 29. From at least 2005 to 2015, Bosch GmbH, Bosch LLC and CEO Volkmar Denner  
5 (together, “Bosch”) were knowing and active participants in the creation, development,  
6 marketing, and sale of illegal defeat devices specifically designed to evade U.S. emissions  
7 requirements in vehicles sold solely in the United States. Even though Bosch has produced little  
8 discovery, the evidence obtained by Plaintiffs to date shows that Bosch participated not just in the  
9 development of the defeat device, but in the scheme to prevent U.S. regulators from uncovering  
10 the device’s true functionality. Moreover, Bosch’s participation was not limited to engineering  
11 the defeat device (in a collaboration described as unusually close). Rather, Bosch marketed  
12 “Clean Diesel” in the United States and lobbied U.S. regulators to approve Class Vehicles,  
13 another highly unusual activity for a mere supplier. These lobbying efforts, taken together with  
14 evidence of Bosch’s actual knowledge that the “akustikfunktion” operated as a defeat device, and  
15 participation in concealing the true functionality of the device from U.S. regulators, can be  
16 interpreted only one way under U.S. law: Bosch was a knowing and active participant in a  
17 massive, decade-long conspiracy with VW to defraud U.S. consumers.

18 **b. Robert Bosch GmbH**

19 30. Robert Bosch GmbH (“Bosch GmbH”) is a German multinational engineering and  
20 electronics company headquartered in Gerlingen, Germany. Bosch GmbH is the parent company  
21 of Robert Bosch LLC. Bosch GmbH, directly and/or through its North-American subsidiary  
22 Robert Bosch LLC, at all material times, designed, manufactured, developed, tailored, reviewed,  
23 approved, and supplied elements of the defeat device to Volkswagen for use in the Class  
24 Vehicles. Bosch GmbH is subject to the personal jurisdiction of this Court because it has availed  
25 itself of the laws of the United States through its management and control over Bosch, LLC, and  
26 over the design, development, manufacture, distribution, testing, and sale of hundreds of  
27 thousands of the defeat devices installed in the Class Vehicles sold or leased in the U.S.  
28



1 Automotive Electronics division. In 2006, Denner became a member of Bosch GmbH's Board of  
 2 Management and was later responsible for research and advance engineering, product planning,  
 3 and technology coordination across the company's three business sectors from July 2010 until his  
 4 appointment as CEO. Denner received millions of dollars from the illegal scheme and course of  
 5 conduct based on the revenues and profits from the sale of defeat devices to Volkswagen. Denner  
 6 approved, authorized, directed, ratified, and participated in the acts complained of herein. He is  
 7 subject to the personal jurisdiction of this Court because he has availed himself of the laws of the  
 8 United States through his management and control over Bosch LLC, as well as the design,  
 9 development manufacture, distribution, testing, and sale of hundreds of thousands of the defeat  
 10 devices installed in the Class Vehicles sold or leased in the U.S.

### COMMON FACTUAL ALLEGATIONS

#### **A. Volkswagen's Plot to Dominate the Automotive Market**

11  
 12  
 13 34. Volkswagen's illegal scheme was born out of greed and ambition to dominate the  
 14 global automotive market at any cost. By Volkswagen's own admissions, the seeds for the  
 15 scandal were planted in 2005, as Volkswagen was repositioning its fleet in light of tightening  
 16 emission regulations in our country with "a strategic decision to launch a large-scale promotion of  
 17 diesel vehicles in the United States in 2005."<sup>6</sup> While other automakers focused on hybrid or  
 18 hydrogen-fueled vehicles, Volkswagen pivoted toward "clean" diesel technology as its primary  
 19 strategy to reach the growing market of environmentally-conscious consumers.

20 35. In 2004, the second generation Toyota Prius became an explosive success, tripling  
 21 global sales from years prior and changing environmentally-friendly vehicles from a niche market  
 22 to a standard consumer option. Although it was the first mainstream hybrid vehicle, the Prius was  
 23 widely viewed as a "boring" vehicle, as the improvements in fuel efficiency and emissions were  
 24 offset by relatively bland styling and lackluster driving performance.

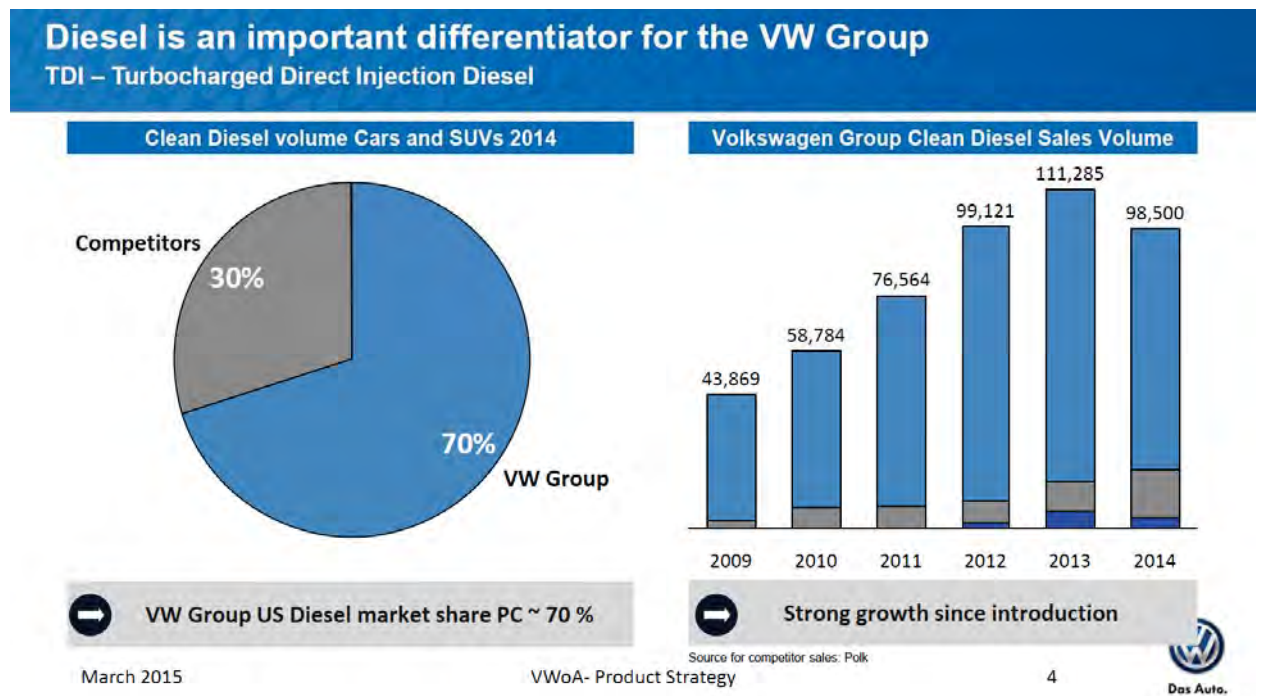
25 36. Volkswagen took note of the success and sought to achieve the same (or better)  
 26 efficiency benchmarks as the Prius, but in a "fun-to-drive," high-performance vehicle. This was

27 <sup>6</sup> *Volkswagen making good progress with its investigation, technical solutions, and Group*  
 28 *realignment*, Volkswagen AG (Dec. 10, 2015),  
[http://www.volkswagenag.com/content/vwcorp/info\\_center/en/news/2015/12/VW\\_PK.html](http://www.volkswagenag.com/content/vwcorp/info_center/en/news/2015/12/VW_PK.html).



1 to be achieved with a supposedly remarkable breakthrough in diesel technology: the EA 189 TDI  
 2 engine. Volkswagen’s TDI (short for “turbocharged direct injection,”) diesel engines were the  
 3 culmination of millions of dollars in research and development, and were heralded as the critical  
 4 factor that would be responsible for Volkswagen’s growth and success in the U.S.

5 37. In 2007, defendant Winterkorn left his position at Audi to become VW AG’s CEO.  
 6 Winterkorn set goals for Volkswagen to become a world leader in automobile manufacturing.  
 7 This included a target of tripling U.S. sales to at least 800,000 vehicles by 2018.<sup>7</sup> At the time,  
 8 diesel-engine vehicles made up just 5% of the U.S. car market, and Winterkorn recognized this as  
 9 the perfect opportunity to expand Volkswagen’s market share. As shown below in a VW  
 10 America presentation touting the success of “clean diesel,” this strategy was employed with great  
 11 success:<sup>8</sup>



23 38. To expand its diesel market penetration in the U.S., Volkswagen needed to  
 24 overcome the stigmas associated with diesel vehicles. Foremost among these was the consumer  
 25 perception that diesel engines emit thick, toxic smoke full of dangerous and destructive

26 <sup>7</sup> William Boston, *Volkswagen Emissions Investigation Zeroes In on Two Engineers*, Wall Street  
 27 Journal (Oct. 5, 2015), <http://www.wsj.com/articles/vw-emissions-probe-zeroes-in-on-two-engineers-1444011602>.

28 <sup>8</sup> *Volkswagen AG, TDI: U.S. Market Success, Clean Diesel Delivers* (March, 2015),  
[http://cleandieseldelivers.com/media/Douglas-Skorupski-VWoA\\_DTF\\_March2015.pdf](http://cleandieseldelivers.com/media/Douglas-Skorupski-VWoA_DTF_March2015.pdf).

1 pollutants, relegated to the smog-filled cities of the past. Volkswagen claimed to have solved all  
2 of these environmental problems with the new EA 189 engine, which it aggressively marketed as  
3 the clean, green alternative to hybrid engines, such as those in the Prius.

4 39. Behind the scenes, however, Volkswagen realized internally that it was not  
5 possible to roll out these so-called “clean” diesel vehicles within its self-imposed budgets and  
6 engineering constraints. To get the job done, Winterkorn appointed two engineers with whom he  
7 had worked closely at Audi (Ulrich Hackenberg and Wolfgang Hatz<sup>9</sup>) to head up R&D and  
8 engine development for this project. These two engineers were the chief developers of the TDI  
9 engine.<sup>10</sup> Their primary mandate from management was to develop a diesel engine that  
10 maintained the performance of traditional gasoline engines with reduced CO<sub>2</sub> emissions and fuel  
11 consumption, all while meeting the strict NO<sub>x</sub> emission standards in the U.S. Winterkorn also  
12 relied upon and worked closely with Frank Tuch, VW’s head of quality assurance, who was  
13 intimately familiar with the engines and transmissions across all Volkswagen brands.

14 40. NO<sub>x</sub> is a generic term for the mono-nitrogen oxides NO and NO<sub>2</sub> (nitric oxide and  
15 nitrogen dioxide), which are predominantly produced from the reaction of nitrogen and oxygen  
16 gases in the air during combustion. NO<sub>x</sub> is produced by the burning of all fossil fuels, but is  
17 particularly difficult to control from the burning of diesel fuel. NO<sub>x</sub> is a toxic pollutant, which  
18 produces smog and a litany of environmental and health problems, as detailed further below.

19 41. Diesel fuel is traditionally denser than gasoline, and the syrupy fuel contains  
20 longer hydrocarbon chains, which tends to produce a more efficient vehicle. In fact, diesel  
21 engines can convert over 45% of diesel’s chemical energy into useful mechanical energy,  
22 whereas gasoline engines convert only 30% of gasoline’s chemical energy into mechanical  
23 energy.<sup>11</sup> To make use of this dense diesel fuel, diesel engines combine high pressure to ignite a

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24 <sup>9</sup> Hatz, head of engine development at Volkswagen, and formerly at Audi, subsequently became  
25 head of development for Porsche.

26 <sup>10</sup> Jack Ewing, *Volkswagen Engine-Rigging Scheme Said to Have Begun in 2008*, N.Y. Times  
(Oct. 5, 2015), [http://www.nytimes.com/2015/10/05/business/engine-shortfall-pushed-  
27 volkswagen-to-evade-emissions-testing.html](http://www.nytimes.com/2015/10/05/business/engine-shortfall-pushed-volkswagen-to-evade-emissions-testing.html).

28 <sup>11</sup> *Just the Basics, Diesel Engine*, U.S. Dept. of Energy, Office of Energy Efficiency and  
Renewable Energy (last visited Feb. 8, 2016), available at  
[http://www1.eere.energy.gov/vehiclesandfuels/pdfs/basics/jtb\\_diesel\\_engine.pdf](http://www1.eere.energy.gov/vehiclesandfuels/pdfs/basics/jtb_diesel_engine.pdf).

1 combination of diesel fuel and air through “compression ignition,” as opposed gasoline engines  
2 that typically use electric discharge from a spark plug to ignite a combination of gasoline and air  
3 through “spark ignition.” Though more efficient, diesel engines come with their own set of  
4 challenges, as emissions from diesel engines can include higher levels of NO<sub>x</sub> and particulate  
5 matter (“PM”), or soot than emissions from gasoline engines due to the different ways the  
6 different fuels combust and the different ways the resulting emissions are treated following  
7 combustion. One way NO<sub>x</sub> emissions can be reduced by adjusting the compression and  
8 temperature, but that in turn produces PM, a similarly-undesirable hydrocarbon-based emission.  
9 Another way NO<sub>x</sub> emissions can be reduced is through expensive exhaust gas aftertreatment  
10 devices, primarily, catalytic converters, that use a series of chemical reactions to transform the  
11 chemical composition of a vehicle’s NO<sub>x</sub> emissions into less harmful, relatively inert, and triple  
12 bonded nitrogen gas (N<sub>2</sub>; just over 78% of the Earth’s atmosphere by volume consists of N<sub>2</sub>) and  
13 carbon dioxide (CO<sub>2</sub>).

14 42. Diesel engines thus operate according to this trade-off between price, NO<sub>x</sub> and  
15 PM, and for the EPA to designate a diesel car as a “clean” vehicle, it must produce *both* low PM  
16 and low NO<sub>x</sub>. In 2000, the EPA announced stricter emission standards requiring all diesel  
17 models starting in 2007 to produce drastically less NO<sub>x</sub> than years prior.

18 43. These strict emission standards posed a serious challenge to Volkswagen’s  
19 engineers. In fact, during a 2007 demonstration in San Francisco, engine R&D chief Hatz  
20 lamented presciently that “[Volkswagen] can do quite a bit and we will do a bit, but ‘impossible’  
21 we cannot do. . . . From my point of view, the CARB is not realistic . . . I see it as nearly  
22 impossible for [Volkswagen].”<sup>12</sup>

23 44. But it was of utmost importance for Volkswagen to achieve (or at least appear to  
24 achieve) this “impossible” goal, for it could not legally sell a single vehicle that failed comply

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25 <sup>12</sup> Danny Hakim, *et al.*, *VW Executive Had a Pivotal Role as Car Maker Struggled With*  
26 *Emissions*, N.Y. Times (Dec. 21, 2015),  
27 [http://www.nytimes.com/2015/12/22/business/international/vw-executive-had-a-pivotal-role-as-](http://www.nytimes.com/2015/12/22/business/international/vw-executive-had-a-pivotal-role-as-car-maker-struggled-with-emissions.html?mtrref=undefined&gwh=7E46E42F7CCC3D687AEC40DFB2CFA8BA&gwt=pa)  
28 [car-maker-struggled-with-](http://www.nytimes.com/2015/12/22/business/international/vw-executive-had-a-pivotal-role-as-car-maker-struggled-with-emissions.html?mtrref=undefined&gwh=7E46E42F7CCC3D687AEC40DFB2CFA8BA&gwt=pa)  
[emissions.html?mtrref=undefined&gwh=7E46E42F7CCC3D687AEC40DFB2CFA8BA&gwt=pa](http://www.nytimes.com/2015/12/22/business/international/vw-executive-had-a-pivotal-role-as-car-maker-struggled-with-emissions.html?mtrref=undefined&gwh=7E46E42F7CCC3D687AEC40DFB2CFA8BA&gwt=pa)  
[y.](http://www.nytimes.com/2015/12/22/business/international/vw-executive-had-a-pivotal-role-as-car-maker-struggled-with-emissions.html?mtrref=undefined&gwh=7E46E42F7CCC3D687AEC40DFB2CFA8BA&gwt=pa)

1 with the governmental emission regulations. Before introducing a Class Vehicle into the U.S.  
2 stream of commerce (or causing the same), Volkswagen was required to first apply for, and  
3 obtain, an EPA-administered COC, certifying that the vehicle comported with the emission  
4 standards for pollutants enumerated in 40 C.F.R. §§ 86.1811-04, 86.1811-09, and 86.1811-10.

5 45. The CAA expressly prohibits automakers, like Volkswagen, from introducing a  
6 new vehicle into the stream of commerce without a valid EPA COC. *See* 42 U.S.C. § 7522(a)(1).  
7 Moreover, vehicles must be accurately described in the COC application “in all material respects”  
8 to be deemed covered by a valid COC. *See* 40 C.F.R. §§ 86.1848-10(c)(6). California’s emission  
9 standards were even more stringent than those of the EPA. California’s regulator, CARB,  
10 requires a similar application from automakers to obtain an EO, confirming compliance with  
11 California’s emission regulations, before allowing the vehicle onto California’s roads.

12 46. Thus, in order to successfully grow the U.S. diesel market and meet its ambitious  
13 objectives, it was critical that Volkswagen develop the technology to maintain the efficient,  
14 powerful performance of a diesel, while drastically reducing NOx emissions to comply with the  
15 CAA and state emission standards.

16 47. This high-stakes engineering dilemma led to a deep divide within the company, as  
17 two divergent exhaust gas aftertreatment technical approaches emerged. One approach involved  
18 a selective catalytic reduction (“SCR”) system that proved to be effective but expensive. The  
19 other, which utilized a lean NOx trap, was significantly cheaper but was less effective and  
20 resulted in lower fuel efficiency.

21 48. In 2006, Wolfgang Bernhard, then a top executive at VW AG (and former Daimler  
22 executive), advocated for the SCR system and championed a technology-sharing agreement with  
23 Mercedes-Benz and BMW to jointly develop a SCR emission control system utilizing urea— a  
24 post-combustion emission reductant generically referred to as “Diesel Exhaust Fluid” or “DEF”  
25 and marketed as “Bluetec” by Mercedes and “AdBlue” by Volkswagen and other German vehicle  
26 manufacturers. When injected into the exhaust stream in a catalyst chamber, converts NOx into  
27 nitrogen gas, water, and carbon dioxide. This SCR system was expensive, costing \$350 per  
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1 vehicle and came with other compromises, including, primarily, the need for installation of a DEF  
2 tank that would require regular refills.

3 49. Hatz initially supported this solution as well, stating publicly at the Detroit Auto  
4 Show in early 2007 that “Bluetec technology allows us to demonstrate Audi’s commitment to  
5 always being at the very forefront of diesel technology.”<sup>13</sup> Although the SCR system was  
6 ultimately utilized for the larger, 3.0-liter TDI engine, Hatz withdrew his support for using the  
7 system in the 2.0-liter engine as Volkswagen’s leadership balked at the \$350 per-vehicle cost of  
8 the SCR system. Bernhard ultimately lost the internal battle at Volkswagen and resigned.

9 50. Hatz remained and was tasked with implementing the alternative, lower-cost  
10 strategy for the 2.0-liter TDI engine: NO<sub>x</sub> traps. This technology involved the storage of NO<sub>x</sub>  
11 emissions in a catalyst substrate during vehicle operation. Once that substrate filled up, the  
12 system burned off the stored NO<sub>x</sub> by pumping an extra burst of fuel into the cylinders, most of  
13 which passed through to the converter, where it then converts the NO<sub>x</sub> into less harmful  
14 emissions. This method was cheaper and easier to implement than the SCR system. The NO<sub>x</sub>  
15 trap system was less effective at reducing emissions, however, and, like the more effective SCR  
16 system used in the 3.0-liter engine, still resulted in lower miles-per-gallon fuel efficiency, directly  
17 contradicting one of the key elements (high miles-per-gallon fuel efficiency) necessary to execute  
18 Volkswagen’s ambitious diesel sales goals. Accordingly, this option, too, was unacceptable.

19 51. But at Volkswagen, failure was not an option. According to many sources  
20 (including journalists, industry insiders, and Volkswagen whistleblowers), Volkswagen’s top  
21 brass directed its engineers to find a way to meet emission standards despite tight budgetary and  
22 technical constraints, or suffer the consequences. VW AG’s former CEO, Ferdinand Piëch,  
23 created “a culture where performance was driven by fear and intimidation,” and his leadership  
24 was characterized as “a reign of terror.”<sup>14</sup> Employees were told, “[y]ou will sell diesels in the  
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26 <sup>13</sup> *Id.*

27 <sup>14</sup> Bob Lutz, *One Man Established the Culture That Led to VW’s Emissions Scandal*, Road &  
28 Track (Nov. 4, 2015), <http://www.roadandtrack.com/car-culture/a27197/bob-lutz-vw-diesel-fiasco/>.

1 U.S., and you will not fail. Do it, or I'll find somebody who will.”<sup>15</sup> Piëch was infamous for  
2 firing subordinates who failed to meet his exacting standards: “Stories are legion in the industry  
3 about Volkswagen engineers and executives shaking in their boots prior to presentations before  
4 Piech, knowing that if he was displeased, they might be fired instantly.”<sup>16</sup> And so it seems, out of  
5 self-preservation, the defeat device scandal was born.

6 **B. Defendants’ Illegal “Defeat Device” Scheme**

7 52. Volkswagen engineers had to find a solution to the “impossible” problem of  
8 passing stricter emission standards while maintaining performance and fuel efficiency, all while  
9 hamstrung by cost-cutting measures. And it had to be done fast, because the new diesel vehicles  
10 were scheduled for imminent release in the U.S.

11 53. Ultimately, time ran out, and Volkswagen executives and engineers were either  
12 unable or unwilling to devise a solution within the constraints of the law and their self-imposed  
13 cost-cutting measures. So instead of being honest (and risk being summarily fired), they and  
14 others conspired to cheat by installing a “defeat device” in the new diesel vehicles so that those  
15 vehicles could “pass” the EPA and CARB emission testing, and Volkswagen could obtain COCs  
16 and EOs to sell the vehicles to make its sales targets throughout the U.S and in California.

17 54. Volkswagen had a ready-made solution at hand. As reported by the New York  
18 Attorney General, starting as far back as 1999, Audi engineers had come up with a similar  
19 solution to a problem they were facing related to the development of the 3.0-liter diesel engine for  
20 Audi models sold in Europe. The engineers had eliminated a noise problem associated with  
21 diesel engines by injecting additional fuel into the engine on ignition. But as a result, the engine  
22 could not meet European emissions standards during testing. To solve this problem, they  
23 developed defeat device software that could recognize when the car was being tested and  
24 deactivate the fuel injection function during testing, then reactivate it during normal driving  
25 conditions. From 2004-2008, Audi incorporated the defeat device software in its 3.0-liter diesel  
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27 <sup>15</sup> *Id.*

28 <sup>16</sup> Doron Levin, *The man who created VW’s toxic culture still looms large*, Fortune (Oct. 16, 2015), <http://fortune.com/2015/10/16/vw-ferdinand-piech-culture/>.

1 engines sold in Europe. Since the defeat device software was related to the goal of reducing  
2 engine noise, it became known as the “Acoustic Function” or, in German, the “Akustikfunktion.”

3 55. When it became clear that the 2.0-liter TDI engine being developed for the U.S.  
4 market could not meet U.S. emission regulations, and initial emission testing failed, the launch of  
5 the Jetta TDI “clean” diesel, initially scheduled for 2007, had to be delayed.<sup>17</sup> The prospect of  
6 failure was unacceptable, so Volkswagen decided to cheat instead. Starting in the mid-2000s,  
7 Volkswagen engineers, working with Bosch—as detailed further below—and with the knowledge  
8 of management, adapted Audi’s “akustikfunktion” concept to the 2.0-liter and 3.0-liter diesel  
9 engines for Volkswagen, Audi, and Porsche models to be sold in the U.S. It has been reported  
10 that the decision to cheat the EPA, CARB, and countless other regulators worldwide was an  
11 “open secret” in Volkswagen’s engine development department,<sup>18</sup> as it was necessary for the “EA  
12 189 engine to pass U.S. diesel emissions limits within the budget and time frame allotted.”<sup>19</sup> The  
13 resulting defeat device was incorporated into the software required to operate the 2.0-liter and  
14 3.0-liter TDI engines in the Class Vehicles.

15 56. As explained further below, the defeat device that Defendants installed in the Class  
16 Vehicles to evade emission testing is software code residing the vehicles’ control unit. All  
17 modern engines are integrated with sophisticated computer components to manage the vehicle’s  
18 operation, such as, in the case of diesel vehicles, an electronic diesel control (“EDC”). The EDC  
19 equipped in the Class Vehicles is formally referred to as the Electronic Diesel Control Unit 17  
20 (also known as “EDC Unit 17,” “EDC 17,” and “EDC17”). Defendant Bosch tested,  
21 manufactured, and sold customized EDC Unit 17’s to Volkswagen for use in the Class Vehicles.

22 57. The EDC Unit 17 was widely used throughout the automotive industry, including  
23 by BMW and Mercedes, to operate modern “Clean Diesel” engines. Bosch worked with each

24 <sup>17</sup> *VW delays Jetta TDI diesel into the US*, Clean MPG (last visited Feb. 8, 2016),  
25 <http://www.cleanmpg.com/community/index.php?threads/7254/>.

26 <sup>18</sup> Georgina Prodham, *Volkswagen probe finds manipulation was open secret in department*,  
Reuters (Jan. 23, 2016), [http://www.reuters.com/article/us-volkswagen-emissions-investigation-  
idUSKCN0V02E7](http://www.reuters.com/article/us-volkswagen-emissions-investigation-idUSKCN0V02E7).

27 <sup>19</sup> Jay Ramey, *VW chairman Poetsch: Company ‘tolerated breaches of rules’*, Autoweek  
28 (Dec. 10, 2015), [http://autoweek.com/article/vw-diesel-scandal/vw-chairman-poetsch-company-  
tolerated-breaches-rules](http://autoweek.com/article/vw-diesel-scandal/vw-chairman-poetsch-company-tolerated-breaches-rules).

1 vehicle manufacturer that utilized a EDC Unit 17 to create a unique set of specifications and  
2 software code to manage the vehicle's engine operation.

3 58. With respect to the Class Vehicles, however, EDC Unit 17 was also used to  
4 surreptitiously evade emissions regulations. Bosch and Volkswagen worked together to develop  
5 and implement a specific set of software algorithms for implementation in the Class Vehicles,  
6 including algorithms to adjust fuel levels, exhaust gas recirculation, air pressure levels, and urea  
7 injection rates.<sup>20</sup>

8 59. Bosch's EDC Unit 17 was necessary for the Class Vehicles to "pass" emission  
9 tests in the U.S. When carmakers test their vehicles against EPA emission standards, they place  
10 their cars on dynamometers (large rollers) and then perform a series of specific maneuvers  
11 prescribed by federal regulations. Bosch's EDC Unit 17 allowed the Class Vehicles to detect test  
12 scenarios by monitoring vehicle speed, acceleration, engine operation, air pressure and even the  
13 position of the steering wheel. When the EDC Unit 17's detection algorithm detected that the  
14 vehicle was on a dynamometer (and undergoing an emission test), additional software code  
15 within the EDC Unit 17 downgraded the engine's power and performance and upgraded the  
16 emissions control systems' performance by switching to a "dyno calibration," temporarily  
17 reducing emissions to legal levels. Once the EDC Unit 17 detected that the emission test was  
18 complete, the EDC Unit would then enable a different "road calibration" that caused the engine to  
19 return to full power while reducing the emissions control systems' performance, and  
20 consequently, caused the car to spew the full amount of illegal NO<sub>x</sub> emissions out on the road.<sup>21</sup>

21 This process is illustrated in the following diagram:  
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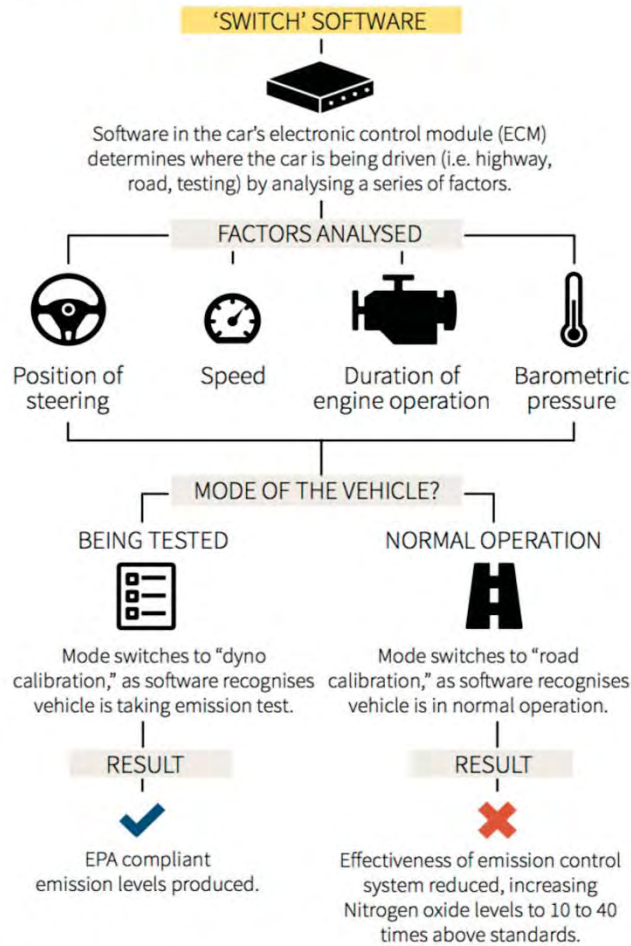
25 <sup>20</sup> See, e.g., *Engine management*, Bosch Auto Parts (last visited February 8, 2016),  
26 [http://de.bosch-  
27 automotive.com/en/parts and accessories/motor and sytems/diesel/engine management 2/engi  
28 ne control unit 1](http://de.bosch-automotive.com/en/parts_and_accessories/motor_and_sytems/diesel/engine_management_2/engine_control_unit_1).

<sup>21</sup> Russell Hotten, *Volkswagen: The scandal explained*, BBC (Dec. 10, 2015),  
<http://www.bbc.com/news/business-34324772>.



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## How Volkswagen's defeat device works



Source: U.S. Environmental Protection Agency

J. Wang, 22/09/2015

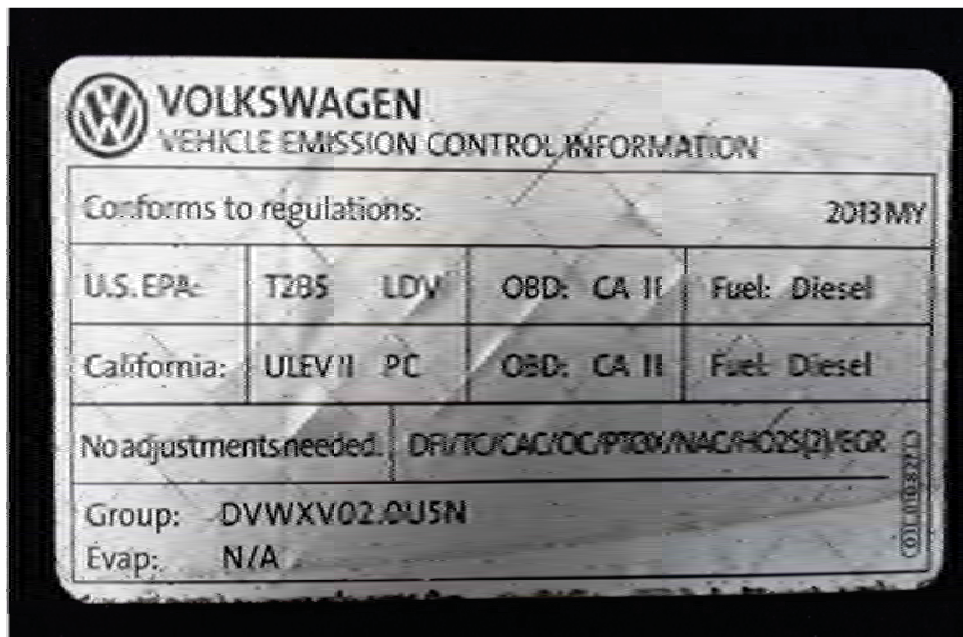
REUTERS

60. Make no mistake: this workaround was highly illegal. And, according to the New York Attorney General, Volkswagen management was well aware of this fact, as they studied the issue extensively during 2006-2007 when preparing to launch their vehicles in the U.S. market.

61. The CAA expressly prohibits "defeat devices," defined as any auxiliary emission control device "that reduces the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal vehicle operation and use." 40 C.F.R. § 86.1803-01; *see also id.*, § 86.1809-10 ("No new light-duty vehicle, light-duty truck, medium-duty passenger vehicle, or complete heavy-duty vehicle shall be equipped with a defeat device."). Moreover, the CAA prohibits the sale of components used as defect devices, "where

1 the person knows or should know that such part or component is being offered for sale or  
 2 installed for such use or put to such use.” 42 U.S.C. § 7522(a)(3). Finally, in order to obtain a  
 3 COC, automakers must submit an application, which lists all auxiliary emission control devices  
 4 installed in the vehicle, a justification for each, and an explanation of why the control device is  
 5 not a defeat device.

6 62. Thus, in order to obtain the COCs necessary to sell their vehicles, Volkswagen did  
 7 not disclose, and affirmatively concealed, the presence of the test-detecting and performance  
 8 altering software code within the EDC Unit 17 from government regulators, thus making that  
 9 software an illegal “defeat device.” In other words, Volkswagen lied to the government, its  
 10 customers, and the public at large. An example of one of Volkswagen’s vehicle stickers  
 11 reflecting its fraudulently-obtained COCs is pictured below:



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23 63. Because the COCs were fraudulently-obtained, and because the 2.0-liter and 3.0-  
 24 liter Class Vehicles did not conform “in all material respects” to the specifications provided in the  
 25 COC applications, the Class Vehicles were never covered by a valid COC, and thus, were never  
 26 legal for sale, nor were they EPA and/or CARB compliant, as represented. Volkswagen hid these  
 27 facts from the EPA, other regulators, and consumers, and it continued to sell and lease the 2.0-  
 28 liter and 3.0-liter Class Vehicles to the driving public, despite their illegality.

1           64. Volkswagen knew better—VW America itself is a recidivist violator of the CAA.  
2 In July of 1973, the EPA sought legal action against VW America from the DOJ based on a claim  
3 that defeat devices were installed in 1973 Volkswagen vehicles. The matter was swiftly settled  
4 for \$120,000 the following year.<sup>22</sup> And, in June of 2005, VW America entered into a consent  
5 decree with the DOJ, wherein it paid a \$1.1 million penalty for failing to notify the EPA of  
6 emissions problems in certain vehicles manufactured by VW in Mexico.<sup>23</sup>

7           65. Volkswagen cheating continued. With respect to the Class Vehicles, Volkswagen  
8 hid the fact of the defeat devices from the EPA, such that the COCs were fraudulently obtained.  
9 Specifically, VW America submitted COC applications on behalf of VW AG, Audi AG, and  
10 itself, for the 2.0-liter and VW-and Audi-branded 3.0-liter Class Vehicles, describing compliant  
11 specifications and concealing the dual-calibration strategy of the defeat device. Similarly,  
12 Porsche America submitted COC applications on behalf of Porsche AG and itself for the Porsche-  
13 branded 3.0-liter Class Vehicles, describing compliant specifications and concealing the dual-  
14 calibration strategy of the defeat device. VW America coordinated the submission of these and  
15 other regulatory submissions with Audi and Porsche to ensure that discrepancies among the  
16 companies' submissions did not alert regulators to emission problems with the Class Vehicles.<sup>24</sup>  
17 Executives from the companies even devised a policy of cross brand communication and  
18 coordination to minimize the risk that U.S. regulators would learn of fraudulent representations  
19 contained in regulatory filings.<sup>25</sup> But, the Class Vehicles differed in “material respects” from the  
20 specifications described in the COC applications because they were equipped with undisclosed  
21 auxiliary emissions control devices, specifically, the software code described above, that  
22 functioned as an illegal “defeat device.”

23           66. Because the COCs were fraudulently obtained, the Class Vehicles were never  
24 covered by valid COCs, and thus, were never offered legally for sale. Volkswagen hid these facts

25 <sup>22</sup> Rich Gardellsa, *et al.*, *VW had previous run-in over 'defeat devices'*, NBC News (Sept. 23,  
26 2015), <http://www.cnbc.com/2015/09/23/vw-had-previous-run-in-over-defeat-devices.html>.

27 <sup>23</sup> Consent Decree, *United States v. Volkswagen of Am., Inc.*, Case No. 1:05-cv-01193-GK  
(D.D.C. June 15, 2005 and Nov. 4, 2005), ECF Nos. 1-2.

28 <sup>24</sup> VW-MDL2672-00570461

<sup>25</sup> VW-MDL2672-00412718

1 from the EPA, CARB and other regulators, and consumers, and it continued to sell and lease the  
2 illegal Class Vehicles to the public with the help of Bosch.

3 **C. Bosch Played a Critical Role in the Defeat Device Scheme**

4 67. Discovery of Bosch has just begun, but the evidence already proves that Bosch  
5 played a critical role in scheme to evade U.S. emission requirements in the Class Vehicles.<sup>26</sup> *In*  
6 *2008, Bosch wrote Volkswagen and expressly demanded that Volkswagen indemnify Bosch for*  
7 *anticipated liability arising from the use of the Bosch-created “defeat device” (Bosch’s words),*  
8 *which Bosch knew was “prohibited pursuant to . . . US Law.”*<sup>27</sup> Volkswagen apparently  
9 refused to indemnify Bosch, but Bosch nevertheless continued to develop the so-called  
10 “akustikfunktion” (the code name used for the defeat device) for Volkswagen for another seven  
11 years. During that period, Bosch concealed the defeat device in communications with U.S.  
12 regulators once questions were raised about the emission control system in the Class Vehicles,  
13 and went so far as to actively lobby lawmakers to promote Volkswagen’s “Clean Diesel” system  
14 in the U.S. Bosch’s efforts, taken together with evidence of Bosch’s actual knowledge that the  
15 “akustikfunktion” operated as an illegal defeat device, demonstrate that Bosch was a knowing and  
16 active participant in the decade-long illegal enterprise to defraud U.S. consumers.

17 **1. Volkswagen and Bosch Conspire to Develop the Illegal Defeat Device**

18 68. Bosch tightly controlled development of the control units in the Class Vehicles,  
19 and actively participated in the development of the defeat device.

20 69. As discussed above, Bosch introduced a new generation of diesel ECUs for  
21 Volkswagen. The development of the EDC17 was a massive undertaking, which began years  
22 before Volkswagen began its push into the U.S. market. At least twenty Bosch engineers were  
23 working full-time on writing the code for the EDC17 in the 2001 time frame. By 2004, long  
24 before the November 20, 2006 meeting at which Volkswagen apparently decided to use the defeat  
25

26 <sup>26</sup> Plaintiffs’ detailed and specific allegations against Bosch are based almost entirely on  
27 information produced by Volkswagen, publicly-available documents, and Plaintiffs’ own  
28 research. Bosch has produced a small number of documents, none of which merit consideration  
for Plaintiffs’ allegations against Bosch.

<sup>27</sup> VW-MDL2672-02570091 (English translation) (emphasis added).

1 device to “pass” emission certification standards in the U.S., Bosch and Volkswagen had already  
2 entered into preliminary agreements for further development of the EDC17.<sup>28</sup>

3 70. A February 28, 2006, Bosch press release introduced the “New Bosch EDC17  
4 engine management system” as the “brain of diesel injection” which “controls every parameter  
5 that is important for effective, low-emission combustion.” The EDC17 offered “[e]ffective  
6 control of combustion” and a “[c]oncept tailored for all vehicle classes and markets.” In the press  
7 release, Bosch touted the EDC17 as follows:

8 **EDC17: Ready for future demands**

9 Because the computing power and functional scope of the new  
10 EDC17 can be adapted to match particular requirements, it can be  
11 used very flexibly in any vehicle segment on all the world’s  
12 markets. In addition to controlling the precise timing and quantity  
13 of injection, exhaust gas recirculation, and manifold pressure  
14 regulation, it also offers a large number of options such as the  
15 control of particulate filters or systems for reducing nitrogen  
16 oxides. The Bosch EDC17 determines the injection parameters for  
17 each cylinder, making specific adaptations if necessary. This  
18 improves the precision of injection throughout the vehicle’s entire  
19 service life. The system therefore makes an important contribution  
20 to observing future exhaust gas emission limits.<sup>29</sup>

21 71. Bosch’s EDC17 was the technology behind Volkswagen’s ambition. The EDC17  
22 and the development of its underlying software were integral to Volkswagen’s entire diesel  
23 strategy, which by late 2006 included creating software to sense when the vehicles were in test  
24 mode and then manipulate the emission control system at that time. This could not have been  
25 accomplished without years of collaborative work with Bosch.

26 72. As early as February 2005, an internal feasibility study drafted by Ulrich  
27 Hackenberg (Audi Development Chief) mentioned Bosch’s EDC17 as part of a strategy to reduce  
28 diesel vehicle emissions of nitrogen oxides (“NOx”) by creating a change in engine electronics.<sup>30</sup>

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24 <sup>28</sup> See PowerPoint presentation at VW-MDL2672-02559528. This internal Volkswagen  
25 PowerPoint describes the “akustikfunktion” as activated in “recognition of emission related  
26 environment conditions” and proposed it as a solution to the “registration/certification [problem]  
27 in the US.”

28 <sup>29</sup> See Feb. 28, 2006 Bosch press release, “The brain of diesel injection: New Bosch EDC17  
engine management system,” [http://www.bosch-  
presse.de/presseforum/details.htm?txtID=2603&locale=en](http://www.bosch-<br/>presse.de/presseforum/details.htm?txtID=2603&locale=en).

<sup>30</sup> VW-MDL2672-00744825.

1 The study discussed diesel strategies in the U.S. market in light of tightening U.S. emission  
2 standards. As discussed above, shortly after the cheating scandal became public, Volkswagen  
3 suspended Hackenberg, and he later resigned.<sup>31</sup>

4 73. Bosch made clear that the EDC17 was not one-size-fits-all. Instead, it was a  
5 “[c]oncept tailored for all vehicle classes and markets” that could “be adapted to match particular  
6 requirements [and] ... be used very flexibly in any vehicle segment on all the world’s markets.”  
7 The EDC17 was tailored and adapted by modifying the sophisticated software embedded within  
8 the electronic control unit (“ECU”). Bosch manufactured, developed, and provided the ECU and  
9 its base of software to Volkswagen for the Class Vehicles.

10 74. Bosch and Volkswagen worked together closely to modify the software, and to  
11 create specifications for each vehicle model. Indeed, customizing a road-ready ECU is an  
12 intensive three- to five-year endeavor involving a full-time Bosch presence at an automaker’s  
13 facility. Bosch and its customers work so closely that Bosch purposefully locates its component  
14 part manufacturing facilities close to its carmaker customers’ manufacturing plants.

15 75. All Bosch ECUs, including the EDC17, run on complex, highly proprietary engine  
16 management software over which Bosch exerts near-total control. In fact, the software is  
17 typically locked to prevent customers, like Volkswagen, from making significant changes on their  
18 own. The defeat device was just such a software change—one that would allow modifications to  
19 the vehicle’s emission control to turn on only under certain circumstances—that Volkswagen  
20 could not have made without Bosch’s participation.

21 76. Bosch’s security measures further confirm that its customers cannot make  
22 significant changes to Bosch software without Bosch involvement. Bosch boasts that its security  
23 modules protect vehicle systems against unauthorized access in every operating phase, meaning  
24 that no alteration could have been made without either a breach of that security—and no such  
25 claims have been advanced—or Bosch’s knowing participation.<sup>32</sup>

26 \_\_\_\_\_  
27 <sup>31</sup> Jack Ewing, *Audi Executive Resigns After Suspension over VW Emissions Scandal*, NY. Times  
(Dec. 4, 2015), [http://www.nytimes.com/2015/12/05/business/international/ulrich-hackenberg-](http://www.nytimes.com/2015/12/05/business/international/ulrich-hackenberg-suspended-over-volkswagen-emissions-scandal-resigns.html)  
28 [suspended-over-volkswagen-emissions-scandal-resigns.html](http://www.nytimes.com/2015/12/05/business/international/ulrich-hackenberg-suspended-over-volkswagen-emissions-scandal-resigns.html).

<sup>32</sup> *Reliable Protection for ECUs* (May 12, 2016), <https://www.escript.com/company/single->

*Footnote continued on next page*

1           77.     Unsurprisingly, then, at least one car-company engineer has confirmed that Bosch  
2 maintains absolute control over its software as part of its regular business practices:

3                     I've had many arguments with Bosch, and they certainly own the  
4 dataset software and let their customers tune the curves. Before  
5 each dataset is released it goes back to Bosch for its own validation.

6                     Bosch is involved in all the development we ever do. They insist on  
7 being present at all our physical tests and they log all their own  
8 data, so someone somewhere at Bosch will have known what was  
9 going on.

10                    All software routines have to go through the software verification  
11 of Bosch, and they have hundreds of milestones of verification,  
12 that's the structure . . . .

13                    The car company is *never* entitled by Bosch to do something on  
14 their own.<sup>33</sup>

15           78.     Thus, Bosch cannot convincingly argue that the development of the “akustik”  
16 device was the work of a small group of rogue engineers.

17           79.     In fact, Volkswagen's and Bosch's work on the EDC17 reflected a highly unusual  
18 degree of coordination. It was a massive project that required the work of numerous Bosch  
19 coders for a period of more than ten years, or perhaps more.<sup>34</sup> Although Bosch publicly  
20 introduced the EDC17 in 2006, it had started to develop the engine management system years  
21 before.<sup>35</sup>

22           80.     The size and complexity of the undertaking is captured by a spreadsheet that lists  
23 entries for work done by Volkswagen and Bosch employees on the EDC17 from late 2003 to  
24 2009. Each entry is given one of six descriptors: enhancement, new feature, service, support,

25 *Footnote continued from previous page*  
26 [news/detail/reliable-protection-for-ecus/](http://news/detail/reliable-protection-for-ecus/).

27 <sup>33</sup> Michael Taylor, *EPA Investigating Bosch over VW Diesel Cheater Software*, Car and Driver  
28 (Nov. 23, 2015), <http://blog.caranddriver.com/epa-investigating-bosch-over-vw-diesel-cheater-software/>.

<sup>34</sup> Approximately 50,000 of Bosch's 375,000 employees worked in the diesel-technology  
operations branch of Bosch, and Volkswagen was the biggest diesel manufacturer in the world.  
*See Bosch Probes Whether Its Staff Helped VW's Emissions Rigging*, Automotive News (Jan. 27,  
2016), <http://www.autonews.com/article/20160127/COPY01/301279955/bosch-probes-whether-its-staff-helped-vws-emissions-rigging>.

<sup>35</sup> Feb. 28, 2006 Bosch press release, “The brain of diesel injection: New Bosch EDC17 engine  
management system,” [http://www.bosch-  
presse.de/presseforum/details.htm?txtID=2603&locale=en](http://www.bosch-presse.de/presseforum/details.htm?txtID=2603&locale=en).

1 integration, or bug/defect. In total, the spreadsheet contains 8,565 entries and lists hundreds of  
2 Bosch individuals.<sup>36</sup>

3 81. The joint enterprise is also memorialized in a series of agreements between Bosch  
4 and Volkswagen dating back to as early as mid-2005, reflecting negotiations that date prior to  
5 January, 2005. On April 7, 2005, for example, Bosch GmbH's [REDACTED] and [REDACTED]  
6 executed the "Framework Development Agreement for Software Sharing in EDC/MED17  
7 Control Unit Projects from the Robert Bosch (RB) Diesel Systems (DS) And Gasoline Systems  
8 (GS) Motor Vehicle Units." VW AG countersigned the agreement on September 26, 2005.  
9 Importantly, the agreement defined software sharing as "the handing over of BOSCH software in  
10 the form of object code by BOSCH to VW, so that VW can use this BOSCH software as a basis  
11 for developing VW modules for specific EDC/ME(D)17 projects using software development  
12 environments from BOSCH." The agreement states that "[p]roviding the VW modules and  
13 integrating them to form a complete software product requires close cooperation between the  
14 Parties."

15 82. The contract also outlined responsibilities for software sharing and co-  
16 development. Throughout development, the contract dictated, Bosch was to retain control over  
17 the software. While Bosch provided (and owned) the object code, and Volkswagen developed  
18 (and owned) the modules, the parties agreed that "BOSCH carries out any modifications to the  
19 BOSCH software that are necessary in order to integrate the intended VW modules at the expense  
20 of VW." The agreement further specifies that Bosch would monitor the software, test the  
21 implementation of Volkswagen modules, and grant written approval to Volkswagen modules.  
22 Only if everything met Bosch's standards would it then "deliver[] the final complete software  
23 product for VW to use in combination with a BOSCH control unit."<sup>37</sup> Thus, Bosch needed to  
24 conduct extensive testing before delivering the product to V.

25 83. Yet another document demonstrates the tight grip that Bosch maintained over  
26 EDC17 software and any modifications made to it. On February 20, 2006, VW AG and Bosch

27 <sup>36</sup> VW-MDL2672-02559780.

28 <sup>37</sup> Volkswagen produced an English translation of the agreement at VW-MDL2672-03752699.



1 (signed by Bosch GmbH's [REDACTED], [REDACTED] of the Diesel Systems  
2 division), entered into a supplemental agreement concerning the use of "expanded software"  
3 documentation for the EDC17 and EDC16 (its predecessor).<sup>38</sup> Pursuant to this agreement, Bosch  
4 identified 35 named individuals, affiliated with either VW AG or IAV (Ingenieurgesellschaft  
5 Auto und Verkehr), who were granted access to expanded documentation for the EDC17 for  
6 specific functions relating to emissions. Any changes to the list of persons to be given access  
7 required the explicit consent of Bosch GmbH, and the access was temporary and non-transferable.  
8 Critically, the agreement stated that "[t]his right of use shall not include the right to the change,  
9 modify or use the DOCUMENTATION with third-party control units."<sup>39</sup> Bosch thereby tightly  
10 controlled both who could access the expanded documentation and the scope of their use of such  
11 materials.

12 84. A later agreement between Bosch GmbH and Volkswagen, this one from a June  
13 12, 2006, governed the implementation, integration, project management, and delivery of certain  
14 EDC 17 software functions for diesel vehicles that VW AG had requested from Bosch. This  
15 agreement, too, made clear that any changes not explicitly detailed in the agreement would  
16 require further approval from Bosch.

17 85. Along the same lines, several years later, in a February 5, 2011 agreement, Bosch  
18 granted VW AG a license to further develop Bosch Denoxtronic functions for the treatment of  
19 exhaust from diesel engines. Again, the contract is clear that Bosch maintains rights over the  
20 Denoxtronic functions.

21 86. To recap, as the EA 189 project moved to series production in 2009, Bosch's  
22 documented role was to provide to Volkswagen executable software for installation in the EDC17  
23 controller at the VW production line.<sup>40</sup> Bosch insisted that Bosch control the definition of the  
24 EDC17 software, that Bosch test the software using bench top and vehicle testing, that Bosch  
25 produce the final software release for series production, and that Bosch deliver the software to

26 \_\_\_\_\_  
27 <sup>38</sup> Volkswagen produced an English translation of the agreement at VW-MDL2672-03752757.

28 <sup>39</sup> VW-MDL2672-03752757.

<sup>40</sup> VW-MDL2672-03752699.

1 Volkswagen for installation in the EA 189 engines used in the Class Vehicles. Bosch's firm  
 2 control over the development of and modifications to EDC17 is undeniable. It is inconceivable,  
 3 then, that Bosch did not know that the software it was responsible for defining, developing,  
 4 testing, maintaining and delivering contained an illegal defeat device.

5 87. In fact, Bosch was in on the secret and knew that Volkswagen was using Bosch's  
 6 software algorithm as an "on/off" switch for emission controls when the Class Vehicle was  
 7 undergoing testing. As noted above, it has been said the decision to cheat was an "open secret" at  
 8 Volkswagen.<sup>41</sup> It was an "open secret" at Bosch as well.

9 88. Volkswagen and Bosch personnel employed code language for the defeat device,  
 10 referring to it as the "acoustic function" (in German, "akustikfunktion"). As described above, the  
 11 roots of the "akustikfunktion"—and likely the cheating—can be traced back to the late 1990's  
 12 when Audi devised software called the "akustikfunktion" that could switch off certain functions  
 13 when the vehicle was in a test mode.<sup>42</sup> The "akustik" term is derived from the function's ability  
 14 to modify the noise and vibration produced by the engine. News articles report that, in 2006, VW  
 15 AG further developed this "akustikfunktion" for the Class Vehicles.<sup>43</sup>

16 89. Written communications between and within Bosch and Volkswagen describe the  
 17 "akustikfunktion" in surprising detail. In emails sent as early as July 2005 from VW AG's  
 18 Andreas Specht to Bosch's [REDACTED], [REDACTED], [REDACTED], and [REDACTED],  
 19

20 <sup>41</sup> Georgina Prodham, *Volkswagen probe finds manipulation was open secret in department*,  
 21 Reuters (Jan. 23, 2016), [http://www.reuters.com/article/us-volkswagen-emissions-investigation-  
 22 idUSKCN0V02E7](http://www.reuters.com/article/us-volkswagen-emissions-investigation-idUSKCN0V02E7). See also Jay Ramey, *VW chairman Poetsch: Company 'tolerated breaches of  
 23 rules'*, Autoweek (Dec. 10, 2015), [http://autoweek.com/article/vw-diesel-scandal/vw-chairman-  
 24 poetsch-company-tolerated-breaches-rules](http://autoweek.com/article/vw-diesel-scandal/vw-chairman-poetsch-company-tolerated-breaches-rules) (it was necessary for the "EA 189 engine to pass U.S.  
 25 diesel emissions limits within the budget and time frame allotted.").

26 <sup>42</sup> [https://global.handelsblatt.com/edition/413/ressort/companies-markets/article/dieselgates-roots-  
 27 stretch-back-to-audi?ref=MTISODU1](https://global.handelsblatt.com/edition/413/ressort/companies-markets/article/dieselgates-roots-stretch-back-to-audi?ref=MTISODU1).

28 <sup>43</sup> Volkswagen Probe Finds Manipulation Was Open Secret in Department: Newspaper", *Reuters*  
 (Jan. 23, 2016), [http://www.reuters.com/article/us-volkswagen-emissions-investigation-  
 idUSKCN0V02E7](http://www.reuters.com/article/us-volkswagen-emissions-investigation-idUSKCN0V02E7). VW Group Chairman, Hans Dieter Poetsch, explained that a small group of  
 engineers and managers was involved in the creation of the manipulating software. See VW  
 Chairman Poetsch: Company 'Tolerated Breaches of Rules'", *Auto Week* (Dec. 10, 2015),  
[http://autoweek.com/article/vw-diesel-scandal/vw-chairman-poetsch-company-tolerated-  
 breaches-rules](http://autoweek.com/article/vw-diesel-scandal/vw-chairman-poetsch-company-tolerated-breaches-rules). See also "Scandal Explained", *BBC*, Dec. 10, 2015,  
<http://www.bbc.com/news/business-34324772>; Sept. 18, 2015, [http://www.autocar.co.uk/car-  
 news/industry/vw-emissions-scandal-how-volkswagens-defeat-device-works](http://www.autocar.co.uk/car-news/industry/vw-emissions-scandal-how-volkswagens-defeat-device-works).

1 Specht discussed emissions measurements from vehicles using the “akustikfunktion” in  
2 connection with U.S. emission compliance.<sup>44</sup> A February 2014 PowerPoint prepared by VW AG  
3 explained that the akustikfunktion measured speed, acceleration, and engine operation to  
4 determine whether a vehicle is undergoing testing.<sup>45</sup>

5 90. On November 13, 2006, VW AG’s Dieter Mannigel (Software Design, U.S. Diesel  
6 Engines, Drivetrain Electronics) circulated via email a PowerPoint presentation prepared for VW  
7 AG’s Rudolf Krebs (who joined Volkswagen from Audi in 2005) about how the  
8 “akustikfunktion” is activated and deactivated in recognition of emissions-related environmental  
9 conditions, such as temperature and pressure. The presentation explained that the existing  
10 vehicles functioning with different drive cycles could not pass U.S. emission tests, and thus  
11 proposed the release of the “akustikfunktion” to be driving dependent.<sup>46</sup>

12 91. On November 20, 2006, Mannigel emailed his colleagues to summarize a meeting  
13 with Krebs, at which the PowerPoint described above was likely presented. Krebs had  
14 emphasized the importance of not getting caught by U.S. regulators using the “akustikfunktion,”  
15 and warned that the function must be explainable to regulators. Krebs was skeptical about using  
16 the akustikfunktion in the U.S. market due to potential regulatory and legal exposure, and  
17 Mannigel was nervous that regulators would be able to detect the “akustikfunktion.”  
18 Nevertheless, Mannigel reported, Volkswagen was going ahead with the expanded  
19 “akustikfunktion” with Bosch.<sup>47</sup> It is likely this was the meeting at which VW decided to use the  
20 “akustikfunktion” as a defeat device to evade compliance with U.S. emission requirements.

21 92. Well after the defeat device was developed and integrated into hundreds of  
22 thousands of Class Vehicles, Volkswagen and Bosch continued to work together to refine and  
23 maintain it. For example, both Bosch and Volkswagen were involved in the calibration of the

24 \_\_\_\_\_  
25 <sup>44</sup> VW-MDL2672-02559611.

26 <sup>45</sup> VW-MDL2672-02572122.

27 <sup>46</sup> VW-MDL2672-02559527. The email attached an internal Volkswagen PowerPoint that  
28 describes the “akustikfunktion” as activated in recognition of emission related environment  
conditions and proposed it as a solution to the registration emissions certification problems in the  
U.S. (VW-MDL2672-02559528)

<sup>47</sup> VW-MDL2672-02559526.

1 defeat devices for the Class Vehicles. A November 2014 email from VW AG's Juergen Hintz,  
 2 entitled "Akustikfunktion," relayed a telephone call with Bosch's [REDACTED] about the  
 3 "akustikfunktion" and Volkswagen's role. VW AG's C. Arenz responded that while he had been  
 4 responsible for the operation of the "akustikfunktion," Bosch was responsible for its calibration.  
 5 In fact, Arenz disclosed that he planned to meet with Bosch (along with Michael Brand) about  
 6 calibrating the "akustikfunktion" the following week.<sup>48</sup> In another email, Hintz wrote that  
 7 Bosch's [REDACTED] told him that Bosch would be making certain changes to the "akustikfunktion"  
 8 based on Volkswagen's specifications.<sup>49</sup>

9 93. In sum, Bosch worked hand-in-glove with Volkswagen to develop and maintain  
 10 the akustikfunktion/defeat device.<sup>50</sup>

11 **2. Volkswagen and Bosch Conspire to Conceal the Illegal**  
 12 **"Akustikfunktion"**

13 94. By 2007, and likely earlier, Bosch was critical not only in developing the  
 14 "akustikfunktion," but also in concealing it. On March 9, 2007, Bosch's [REDACTED]  
 15 emailed VW AG's Mathias Klapproth (a technical developer) and Mannigel with the subject of  
 16 "Erweiterungen Akustikfunktion" (in English, "Further Development of the Acoustic  
 17 Function").<sup>51</sup> [REDACTED] *confirmed that Bosch would remove the description of the enhanced*  
 18 *"akustikfunktion" from Volkswagen's fuel pump specification sheets D2250 and D2278.*  
 19 Klapproth and Mannigel agreed not to list the function in documentation in the U.S., but disagreed  
 20 whether to disclose it in Europe. Klapproth then took [REDACTED] off the email chain and insisted the  
 21 "akustikfunktion" would be applied to the European projects, to which Mannigel responded that  
 22 he would contact Klapproth off-line.

23 <sup>48</sup> VW-MDL2672-02569895.

24 <sup>49</sup> Translation at 00387135.

25 <sup>50</sup> From the information available to date, it appears that at least nine individuals from Bosch were  
 26 involved in the scheme to develop the illegal defeat device: [REDACTED], [REDACTED], [REDACTED], and [REDACTED]  
 27 (based on a July 2005 email from VW AG's Specht); [REDACTED] (based on a March 2007 email with  
 28 VW AG's Klapproth and Mannigel); [REDACTED], [REDACTED], and [REDACTED] (based on a June 2, 2008 letter  
 attempting to limit Bosch's liability); and [REDACTED] (recipient of the letter attached to VW AG's June  
 6, 2008 response). VW-MDL2672-02570091; VW-MDL2672-02559611; VW-MDL2672-  
 02559515.

<sup>51</sup> VW-MDL2672-02559515.

1 95. Bosch was concerned about getting caught participating in the defeat device fraud.  
 2 As reported in the German newspaper, *Bild am Sonntag*, and a French publication, a Volkswagen  
 3 internal inquiry found that in 2007 Bosch warned Volkswagen by letter that using the emissions-  
 4 altering software in production vehicles would constitute an “offense.”<sup>52,53</sup>

5 96. Bosch expressed similar concerns that use of the defeat device it had created  
 6 would violate U.S. law. These concerns culminated in a June 2, 2008, letter from Bosch’s [REDACTED]  
 7 [REDACTED] to Volkswagen’s Thorsten Schmidt in which Bosch demanded that Volkswagen  
 8 indemnify Bosch for any liability arising from the creation of a “defeat device,” as Bosch itself  
 9 called it in English. Through the letter, Bosch sought to clarify the roles and responsibilities of  
 10 Volkswagen and Bosch regarding the development of the EDC 17, and demanded that  
 11 Volkswagen indemnify Bosch for any legal exposure arising from work on the defeat device:

12 The further development [of the EDC17] requested by your  
 13 company will result, in addition to the already existing possibility  
 14 of activating enriched data manually, *in an additional path for the  
 15 potential to reset data to act as a “defeat device.”* We ask you to  
 16 have the attached disclaimers executed by your company.<sup>54</sup>

17 The letter uses the words “defeat device” in English, and further explained that “[t]he usage of a  
 18 **defeat device is prohibited pursuant to . . . US Law (CARB/EPA)** (see definition footnote  
 19 2).”<sup>55</sup>

20 97. Bosch’s June 2, 2008 letter also warned Volkswagen that the software  
 21 modifications Volkswagen requested could allow “the certified dataset [to be] replaced with  
 22 another, possibly non-certified data set[.]” which could, in turn, cause “the vehicle’s general  
 23 operating license (registration) [to] become void.”<sup>56</sup> Creating two data sets on emission

24 <sup>52</sup> Automotive News (Sept. 27, 2015)  
 25 (<http://www.autonews.com/article/20150927/COPY01/309279989/bosch-warned-vw-about-illegal-software-use-in-diesel-cars-report-says>); VW Scandal: Company Warned over Test  
 26 Cheating Years Ago”, *BBC*, Sept. 27, 2015, <http://www.bbc.com/news/business-34373637>.

27 <sup>53</sup> <http://www.autonews.com/article/20150927/COPY01/309279989/bosch-warned-vw-about-illegal-software-use-in-diesel-cars-report-says>

28 <sup>54</sup> VW-MDL2672-02570091 (English translation) (emphasis added).

<sup>55</sup> *Id.* at -92 (emphasis added).

<sup>56</sup> *Id.* at -93.

1 compliance was illegal under U.S. law. Bosch knew this, and that is why it requested  
2 indemnification from Volkswagen.

3 98. [REDACTED] and [REDACTED] at Bosch signed the proposed indemnification;  
4 the signature lines for Volkswagen were left blank. When Volkswagen's Hermann Middendorf  
5 responded to [REDACTED] at Bosch. He did not deny the existence of a defeat device, but instead  
6 attacked Bosch for involving "the lawyers."

7 99. Discovery is ongoing, and Plaintiffs do not have a full record of what unfolded in  
8 response to Bosch's June 2, 2008 letter. However, it is indisputable that Bosch continued to  
9 develop and sell to Volkswagen hundreds of thousands of the defeat devices for U.S. vehicles  
10 following Bosch's express, written recognition that its software was being used in the Class  
11 Vehicles as a "defeat device" that was "prohibited pursuant to . . . US Law."

12 100. VW AG and Bosch continued over the next few years to refine the defeat device.  
13 This was a lengthy and complicated process that required concealing its existence from the  
14 onboard diagnostic system, which was intended to report emission controls to comply with U.S.,  
15 and particularly California's, requirements. In a July 18, 2011 email, Audi's Olaf Busse proposed  
16 tying the activation of the "akustikfunktion" more directly to steering angle, instead of vehicle  
17 temperature, which was proving to be problematic. This request coincided with inquiries from  
18 CARB about on-board diagnostics issues. VW AG's Hanno Jelden (Head of Powertrain  
19 Electronics), worried that the change would be too obvious and could not be explained to  
20 regulators.<sup>57</sup>

21 101. Defendant Denner and the other Individual Defendants were also in on the secret.  
22 Notes from a May 28, 2014 meeting between Bosch and Volkswagen executives at VW  
23 headquarters reflect that the topic of "akustikfunktion" was discussed in the context of  
24 Volkswagen's and Bosch's partnership in the U.S. market. VW AG's Friedrich Eichler  
25 (Powertrain Development Chief) mentioned the importance of the "akustikfunktion" in Bosch  
26 diesel engines. Bosch participants at the meeting included Defendant Denner, as well as [REDACTED]

27 \_\_\_\_\_  
28 <sup>57</sup> VW-MDL2672-0259489. Jelden was subsequently suspended in connection with the  
emissions scandal.

1 [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED],  
2 [REDACTED], [REDACTED], [REDACTED], and [REDACTED]. For VW AG, Defendant Winterkorn was also present.<sup>58</sup>

3 **3. Volkswagen and Bosch Conspire in the U.S. and Germany to Elude**  
4 **U.S. Regulators**

5 102. The purpose of the defeat device was to evade stringent U.S. emissions standards.  
6 Once Bosch and VW perfected the defeat device, therefore, their attention turned to deceiving  
7 U.S. regulators.

8 103. Evidence already shows that Bosch GmbH employees expressly conspired with  
9 VW to hide the function of the defeat device. Shortly after the March 2007 email exchange  
10 detailed above, in which VW AG's Klaproth and Mannigel confirmed to Bosch GmbH's [REDACTED]  
11 that the "akustikfunktion" would not be listed in the U.S. documentation for the Class Vehicles,  
12 an internal email from VW AG's Frank Alich (Development, OBD Diesel) to various individuals  
13 at VW AG about scheduling a May 9, 2007 meeting, lamented the trouble distinguishing between  
14 acoustic and non-acoustic modes relating to soot simulation. Alich complained that he did not  
15 know how he would explain the problem to CARB.<sup>59</sup>

16 104. Bosch's North American subsidiary, Defendant Bosch LLC, was also part of and  
17 essential to the fraud. Bosch LLC worked closely with Bosch GmbH and Volkswagen, in the  
18 United States and in Germany, to ensure that the non-compliant Class Vehicles passed U.S.  
19 emission tests. As set forth below, Bosch LLC employees frequently communicated with U.S.  
20 regulators, and actively worked to ensure the Class Vehicles were approved by regulators.

21 105. Employees of Bosch LLC and Bosch GmbH provided specific information to U.S.  
22 regulators about how Volkswagen's vehicles functioned and unambiguously stated that the  
23 vehicles met emissions standards. Bosch LLC regularly communicated to its colleagues and  
24 clients in Germany about ways to deflect and diffuse questions from US regulators about the  
25 Class Vehicles - particularly CARB. For example, in a May 15, 2008 email from Audi AG's  
26 Martin Hierse to Bosch GmbH's [REDACTED] (Diesel Systems, Engineering Powertrain

27 <sup>58</sup> VW-MDL2672-02569909.

28 <sup>59</sup> VW-MDL2672-02555825.

1 Diagnosis), copying Audi's Stefan Forthmann, Hierse noted that auxiliary emission control  
2 devices ("AECs") were a very important subject for certification of U.S. diesels, and admitted  
3 discrepancies with the U.S. authorities in AECD documentation.<sup>60</sup> The regulators' questions  
4 were chipping away at the discrepancies between on board diagnostic systems, and the emission  
5 controls.

6 106. Accordingly, Hierse worried that there was a possibility that one of the  
7 Volkswagen Group's representatives in the U.S. was providing the regulators too much  
8 information and data concerning AECD disclosure. He then asked to discuss the matter with  
9 Bosch's [REDACTED] either by telephone or in private at one of their offices due to the  
10 confidentiality of the issue.

11 107. Bosch and VW worked together to craft responses to CARB's questions. For  
12 example, an April 2009 email, Suanne Thomas (VW America Regulatory Strategist) and Bosch  
13 LLC's [REDACTED] discussed results from tests sent from an individual at IAV showing defects in  
14 the Class Vehicles' in-use ratios and missing readiness information.

15 108. On July 1, 2009, VW America's Thomas emailed colleagues, again raising  
16 concerns about documenting AECDs in Model Year 2010-11 Class Vehicles to U.S. authorities.  
17 At issue was the "low level of detail in the AECD documents [so that] ARB is not able to confirm  
18 which strategies are for component protection." Thomas then relayed that CARB asked whether  
19 there was a problem getting Bosch to disclose its strategy.<sup>61</sup> In a related email, Thomas  
20 commented: "I was not involved in the discussions . . . with ARB on diesel, however I get the  
21 impression that there is a misunderstanding at VW regarding AECDs. That this  
22 misunderstanding is the root of the issue – why ARB is not satisfied with the AECD disclosure  
23 for diesels."<sup>62</sup> CARB was asking the right questions, and not getting honest answers.

24 109. Nor can Bosch persuasively distance Bosch GmbH from the communications with  
25 regulators, as Bosch GmbH employees directly participated in meetings with CARB. For

26 \_\_\_\_\_  
27 <sup>60</sup> VW-MDL2672-11873274.

28 <sup>61</sup> VW-MDL2672-02469411.

<sup>62</sup> VW-MDL2672-02120937.



1 example, in January, 2015, Bosch GmbH (specifically, Bosch LLC's [REDACTED], [REDACTED]  
2 [REDACTED], [REDACTED], Quality Control, and [REDACTED], Sales Quality and  
3 Warranty) conferred about setting up a conference call with Audi and CARB to explain problems  
4 with the diagnostics relating to faulty fuel pumps, issues that likely arose because the defeat  
5 device was causing problems with the on board diagnostic system in certain Class Vehicles.  
6 Suanne Thomas of VW coordinated the call between Bosch and CARB.

7 110. Volkswagen and Bosch held CARB and the EPA at bay with finesse (and fraud) to  
8 obtain the necessary COCs and EOs to keep Class Vehicles on the road. In an August 2009 email  
9 from VW America shared a comment from CARB regarding 2009 Volkswagen Jetta TDIs test  
10 results that "VW 'blatantly did the wrong thing'" and asking Volkswagen if this "is a base  
11 strategy from Bosch." Volkswagen responded, "yes."<sup>63</sup>

12 111. This is not the only document crediting Bosch strategies to obtain regulatory  
13 approval. A May 17, 2011 email from CARB to Thomas regarding Volkswagen 2014 TDIs  
14 referenced a 2010 conference call where they discussed "the bosch ZFC [Zero Fuel Calibration]  
15 strategy and a possible fuel rail pressure disablement." VW AG's Alich then relayed that "ARB  
16 accepted our proposal to implement the ZFC 'time to closed loop' monitor with MY [model year]  
17 2013."<sup>64</sup> And in a May 31, 2013 email regarding 2.0-liter Class Vehicles, Thomas referenced a  
18 "[p]roposed strategy" to "get the executive order [from CARB] based on the 'Bosch' strategy."<sup>65</sup>  
19 These communications demonstrate Bosch's deep understanding of what regulators allowed and  
20 would not allow, and what Bosch did to help VW obtain approval.

21 112. In short, there can be no argument that Bosch left communications with the  
22 regulators to VW, or that Bosch did not understand the regulatory implications of the defeat  
23 device software VW paid Bosch to develop. Employees of Bosch GmbH and Bosch LLC worked  
24 together with VW to convince U.S. regulators to approve the Class Vehicles for sale and use in  
25 this country. The examples below identify at least six additional instances in which Bosch

26 \_\_\_\_\_  
27 <sup>63</sup> VW-MDL2672-00912096.

28 <sup>64</sup> VW-MDL-2672-02464246.

<sup>65</sup> VW-MDL2672-00530556.

1 communicated directly with U.S. regulators to discuss concerns with emissions detection and  
 2 compliance in the Class Vehicles. During each communication, Bosch LLC provided specific  
 3 information about how Volkswagen's vehicles functioned and unambiguously stated that the  
 4 vehicles met emissions standards:

- 5 a. In December 2009, Bosch presented CARB with a strategy  
 6 to allow usage of Injection Quantity Adjustment codes in  
 7 2013 Volkswagen diesel models.<sup>66</sup>
- 8 b. In or around December 2012, Volkswagen and Bosch  
 9 submitted separate written responses, including requested  
 10 documents, to the U.S. National Highway Traffic Safety  
 11 Administration in response to its investigation into high-  
 12 pressure fuel pump failures in certain Class Vehicles.<sup>67</sup>
- 13 c. A January 15, 2014 email from CARB to Thomas with the  
 14 subject, "RE: VW response Re: V6TDI clarifications,"  
 15 CARB's Peter Ho referenced "previous discussions with  
 16 Bosch," and inquired about false detections in the field.<sup>68</sup>
- 17 d. July 23, 2014 notes from Volkswagen referenced a phone  
 18 call between Volkswagen, Bosch, CARB, and other  
 19 automakers during which Bosch raised the issue of pin-  
 20 pointing of wire faults of NOx and particulate matter  
 21 sensors with a separate control unit.<sup>69</sup>
- 22 e. A February 9, 2015 email from VW AG's Steffen Vieser  
 23 relayed an update from Bosch GmbH about a discussion  
 24 between CARB and Bosch LLC's ██████████ re: a "non-  
 25 erasable permanent fault code issue of the fuel pump  
 26 electronic driver stage diagnostic," which Volkswagen  
 27 suggested could be fixed by a "software update" requiring  
 28 Bosch's assistance, which CARB approved.<sup>70</sup>
- f. Notes from a June 10-11, 2015 meeting between CARB and  
 Volkswagen reference a "Bosch discussion with ARB  
 regarding PM [particulate matter] sensor introduction with  
 Fe-doping." The meeting notes also record that CARB told  
 Volkswagen that CARB did not want the emission monitors  
 in a "contrived condition."<sup>71</sup>

66 VW-MDL2672-07235955.

67 VW-MDL2672-00762181.

68 VW-MDL2672-00465156 (emphasis added). These discussions began in 2011.

69 VW-MDL2672-00887996.

70 VW-MDL2672-00902633; VW-MDL2672-02449923.

71 VW-MDL2672-02296983.

1 113. Bosch did not disclose its knowledge of the illegal defeat device in any of these  
2 meetings or communications with U.S. regulators.

3 4. **Bosch Keeps Volkswagen's Secret Safe and Pushes "Clean" Diesel in**  
4 **the U.S.**

5 114. Bosch not only kept Volkswagen's dirty secret safe, it went a step further and  
6 actively lobbied lawmakers to push "Clean Diesel" in the U.S., including making Class Vehicles  
7 available for regulators to drive.

8 115. As early as 2004, Bosch announced a push to convince U.S. automakers that its  
9 diesel technology could meet tougher 2007 U.S. emission standards.<sup>72</sup> Its efforts ended up being  
10 a multiple-year, multi-million dollar effort, involving key players from both Bosch Germany and  
11 Bosch America. Following the launch of its new EDC systems in 2006, Bosch hired mcapitol  
12 Managers, a lobbying firm to promote its "Clean Diesel" products on Capitol Hill and with the  
13 EPA. In Washington, DC, mcapitol Managers lobbied on Bosch's behalf to defeat a proposal that  
14 would have favored hybrid vehicle technology over "Clean Diesel" vehicles.

15 116. Bosch also coordinated studies to advance diesel technology in the U.S. In  
16 September 2006, Bosch's ██████████ reached out to Volkswagen and Audi to request their  
17 participation in the "Martec Light Duty Diesel Market Opportunity Assessment." The study's  
18 goal was to develop coordinated strategies to accelerate advancements of light duty diesel  
19 technology in the U.S.<sup>73</sup>

20 117. Bosch's promotion of diesel technology specifically targeted the U.S. For  
21 example, Bosch put on "Diesel Days in California," "Deer Conference: EGT Focus," and "SAE  
22 World Congress in Detroit." In 2008, Bosch LLC and VW America co-sponsored the "Future  
23 Motion Made in Germany-Second Symposium on Modern Drive Technologies" at the German  
24 Embassy in Washington, D.C., with the aim of providing a venue for "stakeholders to gain insight  
25  
26

27 <sup>72</sup> Mar. 8, 2004, Edmund Chew, Autonews.

28 <sup>73</sup> VW-MDL2672-06136031.

1 into the latest technology trends and engage in a vital dialogue with industry leaders and  
2 policymakers.”<sup>74</sup>

3 118. Bosch LLC hosted multi-day conferences open to many regulators and legislators  
4 and held private meetings with regulators, in which it proclaimed extensive knowledge of the  
5 specifics of Volkswagen technology, including calibrations necessary for the Class Vehicles to  
6 comply with emissions regulations.

7 119. For example, in April 2009, Bosch organized and hosted a two-day “California  
8 Diesel Days” event in Sacramento, California. Bosch invited a roster of lawmakers, journalists,  
9 executives, regulators, and NGOs with the aim of changing perceptions of diesel from “dirty” to  
10 “clean.” The event featured Class Vehicles as ambassadors of “Clean Diesel” technology,  
11 including a 2009 VW Jetta “green car.” The stated goals were to “generat[e] a positive  
12 perception of Clean Diesel in passenger vehicles” and to “educate California stakeholders about  
13 the immediate benefits [of] Clean Diesel passenger vehicles” in reducing emissions. A key  
14 feature of the event included “Bosch Vehicles Being Deployed.”<sup>75</sup> Attendees included [REDACTED]  
15 [REDACTED] ( [REDACTED] ), Diesel Systems, Bosch LLC); [REDACTED] ( [REDACTED]  
16 [REDACTED] ), Diesel Engineering, Bosch Support Staff, Bosch GmbH); [REDACTED] ( [REDACTED] ),  
17 Marketing, Diesel Systems, Robert Bosch LLC); and [REDACTED] ( [REDACTED] ), External  
18 Affairs, Robert Bosch LLC).

19 120. In 2009, Bosch also became a founding member of the U.S. Coalition for  
20 Advanced Diesel Cars. One of this advocacy group’s purposes included “generating awareness to  
21 legislators and regulators on the benefits of “Clean Diesel” technology for passenger cars,  
22 through engagement in policy, regulatory and advocacy activities.”

23 121. Another example of Bosch’s U.S. lobbying is the 2009 “California Green  
24 Summit.” As part of its “Clean Diesel” partnership with Volkswagen, Bosch deployed two 2009  
25 Jetta TDI Volkswagens to attendees with the express purpose of “Influencing California,” and  
26 inviting CARB, the Western Automotive Journalist Organization, and many others.

27 <sup>74</sup> VW-MDL2672-00234383.

28 <sup>75</sup> *Id.* 115-45; VW-MDL2672-03331605.

1 122. In September 2009, Bosch held a Diesel Technology Forum in California. [REDACTED]  
 2 [REDACTED] (Diesel Systems/Engineering; Vehicle and Engine Laboratory of Bosch) attended, as did  
 3 VW's Stuart Johnson, R. Dorenkamp and G. Pamio, along with Juergen Peter. Following this  
 4 forum, in October 2009, Mightycomm (Bosch's California lobbyist) outlined a proposal for  
 5 "OEM Vehicle Placement Program targeting influential California NGOs and Regulators."<sup>76</sup>  
 6 This memo was addressed to Bosch's [REDACTED], [REDACTED], and Bosch Diesel Systems.  
 7 **Mightycomm specifically stated "[v]ehicles placed with CARB would have to be . . . newer**  
 8 **models that can withstand possible dynamometer testing. While we do not anticipate a vehicle**  
 9 **placed with CARB would be inspected, examined, or tested on a dynamometer, there is no**  
 10 **assurance some CARB staff won't want to do this.**"<sup>77</sup> On the other hand, Mightycomm advised  
 11 not to worry about a vehicle being tested by the California Energy Commission ("CEC") "as the  
 12 CEC is not equipped to conduct such inspections."<sup>78</sup>

13 123. In 2010, Bosch sponsored the Virginia International Raceway with the support of  
 14 the 2010 Volkswagen Jetta Cup Series. This included the 2009 "Sidewinder" which Bosch  
 15 featured for its "performance exhaust system."

16 124. In its lobbying on behalf of "Clean Diesel," Bosch had to continually cover up the  
 17 dirty secret of the defeat device in the Class Vehicles. In a January 13, 2010 memo addressed to  
 18 Bosch's [REDACTED] and [REDACTED], Mightycomm noted that "Clean Diesel has been ranked  
 19 the green car of the year" two years in a row—2009 and 2010. And yet Bosch knew the Class  
 20 Vehicles could not obtain the results being advertised without activating the defeat device.

21 125. Bosch's [REDACTED] ([REDACTED])  
 22 presented on "Clean Diesel" technology before the CEC on June 19, 2013, specifically  
 23 pinpointing "key influencers," such as specific NGOs that have not traditionally engaged CARB,  
 24 "who we need to reach, rally and motivate."<sup>79</sup>

26 <sup>76</sup> VW-MDL2672-15182932

27 <sup>77</sup> *Id.* (emphasis added).

28 <sup>78</sup> *Id.*

<sup>79</sup> VW-MDL2672-00885348.

1           126. In its efforts to promote “Clean Diesel,” including the Class Vehicles, Bosch acted  
 2 on behalf of its global group. As an example, Bosch put on a two-day presentation on June 27-  
 3 28, 2007, about meeting the demands of U.S. emission legislation, where it focused on lowering  
 4 emissions in diesel vehicles. Each of the presentation’s 30 pages bears both the “Bosch” name  
 5 and “Bosch Engineering GmbH” but makes no mention of Bosch LLC.<sup>80</sup> The aforementioned  
 6 memo from Mightycomm was addressed to “Bosch Diesel Systems.” And each page of the  
 7 presentation for California Diesel Days bears the label “BOSCH” in emboldened red type.<sup>81</sup> This  
 8 is consistent with the ongoing representations that the Bosch entities, overseas and in the U.S.  
 9 were “one-for-all-and-all-for-one” in promoting “Clean Diesel” technology to U.S. stakeholders.

#### 10                           **5. Defendant Denner Also Played a Critical Role in the Scheme**

11           127. Prior to becoming CEO in 2012, Denner climbed the corporate ladder in Bosch’s  
 12 Engine ECU Development division, managing the development and sale of automotive engine  
 13 computers, such as the EDC units that Volkswagen used as defeat devices. In 2006, Denner  
 14 joined Bosch Germany’s Board of Management and was later responsible for research and  
 15 advance engineering, product planning, and technology coordination across the company’s three  
 16 business sectors from July 2010 until his appointment as CEO. Denner has agitated for the  
 17 company to become more like a “start-up,”<sup>82</sup> and to develop a “culture of failure,”<sup>83</sup> where risk  
 18 taking is rewarded, in an attempt to replicate the “California venture capitalist model.”<sup>84</sup> Denner  
 19 set the tone at the top of Bosch as a member of Bosch’s Board of Management and later CEO.

20  
 21 <sup>80</sup> VW-MDL2672-05676990.

22 <sup>81</sup> VW-MDL2672-03331605.

23 <sup>82</sup> See Interview with Bosch Director Volkmar Denner, Jan. 21, 2015, available at  
[http://www.uni-stuttgart.de/forschung-leben/forschung-persoendlich/persoendlich\\_artikel0005.en.html](http://www.uni-stuttgart.de/forschung-leben/forschung-persoendlich/persoendlich_artikel0005.en.html).

24 <sup>83</sup> See Martin-Werner Bucdhenau, The Multinational Start-up: The engineering and electronics  
 25 giant Bosch is putting aside its conservative tendencies and investing in a new innovation unit  
 26 that it hopes will rival successful start-up incubators, Handelsblatt, Nov. 28, 2014, available at  
<https://global.handelsblatt.com/edition/64/ressort/companies-markets/article/the-multinational-start-up>.

27 <sup>84</sup> See Nick Gibbs, German auto firms try to nurture Silicon Valley boldness, Automotive News,  
 28 Nov. 22, 2015, available at  
<http://www.autonews.com/article/20151122/OEM06/311239956/german-auto-firms-try-to-nurture-silicon-valley-boldness>

1 He embraced the Silicon Valley culture of moving fast, taking risks, and asking for forgiveness  
2 rather than permission.

3 128. As he rose in the ranks, Denner worked to foster Bosch's relationship with key  
4 corporate partners, like Volkswagen, which brought in billions of dollars in annual revenues.  
5 Denner immersed himself in the day-to-day business of Bosch's important customers. Illustrating  
6 how important Volkswagen was to Bosch, Denner communicated directly with Volkswagen's  
7 Winterkorn about the companies' relationship and Bosch products sold to Volkswagen. For  
8 example, when Bosch ran out of oxygen sensor parts that Volkswagen ordered for its vehicles,  
9 Denner reached out directly to Winterkorn. Denner and Winterkorn directly communicated over  
10 parts delays and shortages, implying that each was not a manager who governed from afar, but  
11 rather was intricately involved in the details of operations.

12 129. In May 28, 2014, Denner participated in a meeting with Defendant Winterkorn and  
13 other Bosch and Volkswagen executives at Volkswagen headquarters concerning their  
14 partnership in the U.S. market. Among other topics, participants discussed the "akustikfunktion"  
15 in Volkswagen diesel vehicles.<sup>85</sup> Thus, Denner and Winterkorn were aware of the illegal use of  
16 the defeat devices at least by May 2014.

17 130. In sum, Bosch played a crucial role in the fraudulent enterprise and profited  
18 handsomely from it. It is no exaggeration to say that Bosch provided Volkswagen with the most  
19 critical elements necessary to create an engine capable of being (fraudulently) represented as  
20 achieving the most stringent U.S. emission standards. All of the Bosch content provided to the  
21 Volkswagen production line combined—including the ECU, software, fuel system, sensors, and  
22 harness—accounted for a sizeable portion of the total material cost of the engines. This is very  
23 big business for Bosch.

24 **D. Porsche Knowingly Adopts the Defeat Device in Its 3.0-liter Class Vehicles**

25 131. Porsche also knew that its class vehicles—the Porsche Cayenne Diesel—contained  
26 defeat devices that resulted in NO<sub>x</sub> and other emissions exceeded the allowable EPA emission  
27 standards under normal driving conditions. Indeed, Porsche's head of development, Hatz, was

28 <sup>85</sup> VW-MDL2672-02569909.

1 formerly head of engine development at VW and Audi and, as alleged above, *was one of the*  
2 *architects of the defeat device scheme*. Although Porsche would later disclaim any responsibility  
3 for the 3.0-liter TDI engine, Porsche was fully aware of the defeat device that the engine utilized,  
4 and fully embraced the “Clean Diesel” engine for purposes of marketing its cars to the public.

5 132. At the very least, Porsche learned of the defeat device during the design and  
6 manufacture of the Porsche Cayenne Diesel and the installation of its 3.0-liter TDI engine and  
7 ECU, which were developed and integrated into the Cayenne with the assistance of Audi and  
8 Bosch. When Porsche decided to enter the U.S. market, Porsche representatives worked closely  
9 with Audi and Bosch engineers on the development, installation, and integration of the Audi-  
10 developed 3.0-liter TDI engine used in the Porsche Cayenne Class Vehicles. During this process,  
11 Audi personnel educated Porsche personnel about the defeat device used in the 3.0-liter engine.  
12 This included communications between Audi engineers, Porsche’s electronics development chief,  
13 and the head of engine development at Volkswagen, Ulrich Hackenberg, that described the EPA  
14 requirements and the strategy devised to circumvent those requirements.

15 133. Furthermore, although the Porsche Cayenne uses a 3.0-liter TDI engine developed  
16 by Audi, it is distinct and required its own unique calibrations. Any changes specific to the  
17 Cayenne required Porsche to collaborate with Audi and Bosch engineers to ensure that the  
18 modifications were advisable given the configuration of the engine software and would not  
19 negatively impact overall vehicle performance.

20 134. Additionally, Porsche was ultimately responsible for obtaining the necessary  
21 emissions certification required to market the Porsche Cayenne Diesels in the United States.  
22 Porsche was therefore aware of the input values and other engine calibrations required for the  
23 Cayenne to undergo the emissions testing necessary to obtain a COC, and it well understood that  
24 the Cayenne could maintain comparable levels of power and fuel efficiency during testing and  
25 real-world driving conditions while simultaneously generating drastically different emissions  
26 results during these two scenarios, only because of the presence of the defeat device in the  
27 Cayenne’s ECU.  
28



1           **E. Volkswagen’s “Clean” Diesel Advertising Campaign**

2           135. While secretly using defeat devices to bypass emission testing, Volkswagen  
3 publicly declared a landmark victory—touting that it had successfully optimized its engines to  
4 maintain legal emissions, while simultaneously enjoying the cost savings and convenience factors  
5 of a lean NO<sub>x</sub> trap system. Volkswagen claimed it accomplished this by monitoring and  
6 adjusting combustion conditions and using a two-stage exhaust gas recirculation system to reduce  
7 initial emissions, while neutralizing the remaining ones with a lean NO<sub>x</sub> trap to comply with U.S.  
8 law.<sup>86</sup> Volkswagen branded and advertised this purportedly revolutionary technology to  
9 American consumers as “Clean Diesel” TDI technology.

10           136. As we now know, Volkswagen’s “clean” diesel campaign was built upon a lie.  
11 Indeed, the Class Vehicles were so “dirty” that they could not pass the minimum emission  
12 standards in the U.S., and Volkswagen had to lie to the EPA in order to sell them in the U.S. But,  
13 of course, Volkswagen marketed and sold these Class Vehicles without ever disclosing to  
14 consumers that they were unlawful to sell or drive due to their high levels of NO<sub>x</sub> emissions.

15           **2. VW’s False and Misleading Advertisements**

16           137. VW’s “clean” diesel campaign was its key selling point for consumers  
17 increasingly concerned about the environment. Its marketing mission was to “get clean-diesel  
18 power the recognition it deserves as a true ‘green’ technology,” thereby growing Volkswagen’s  
19 market share to match Winterkorn’s lofty goals.<sup>87</sup> The objective was to change the way  
20 consumers thought of diesel technology, by replacing the mental image of sulfur emissions amid  
21 clouds of thick soot with that of heightened efficiency and reduced CO<sub>2</sub> emissions. In fact, the  
22 VW website stated: “This ain’t your daddy’s diesel. Stinky, smoky, and sluggish. Those old  
23 diesel realities no longer apply. Enter TDI ‘clean’ diesel. Ultra-low-sulfur fuel, direct injection  
24 technology, and extreme efficiency. We’ve ushered in a new era of diesel.”<sup>88</sup>

25 \_\_\_\_\_  
26 <sup>86</sup> See Hadler, *et al.*, *Volkswagen’s New 2.0l TDI Engine Fulfils the Most Stringent Emission*  
27 *Standards*, Internationales Wiener Motorensymposium 2008; *see also Self Study Program*  
28 *826803: 2.0 Liter TDI Common Rail BinS ULEV Engine*, Volkswagen of America, Inc. (2008).

<sup>87</sup> See, e.g., *TDI Clean Diesel*, <http://www.venturavw.com/TDI-clean-diesel.html>.

<sup>88</sup> *Supra* note 3.

1 138. Dubbing these diesel engines as “Clean Diesel” was a symptom of the brazen  
 2 arrogance underlying the fraud. VW’s entire marketing campaign, from the branding of the  
 3 products to the advertisements, focused on convincing consumers that the Class Vehicles were  
 4 not merely compliant with emission regulations, but that they exceeded them. This deception  
 5 culminated in a Guinness World Record attempt in a 2013 Volkswagen Passat TDI, which  
 6 ironically won an award for “lowest fuel consumption—48 U.S. states for a non-hybrid car.”<sup>89</sup>

7 139. VW professed that its diesel-based technology was equal or superior to hybrid and  
 8 electric options offered by its competitors. As described by Mark Barnes (COO of VW America)  
 9 when asked, “What is the advantage of a diesel over a hybrid?”

10 It’s a fantastic power train. It gives very good fuel economy. It’s  
 11 also good for the environment because it puts out 25% less  
 12 greenhouse gas emissions than what a gasoline engine would. And  
 13 thanks to the uniqueness of the TDI motor, it cuts out the particulate  
 14 emissions by 90% and the emissions of nitrous oxide are cut by  
 15 95%. So, a very very clean running engine. Clean enough to be  
 16 certified in all 50 states. It’s just like driving a high-powered  
 17 gasoline engine so you are not giving up one bit of the driving  
 18 experience that you’d expect from a regular gasoline engine.<sup>90</sup>

19 140. Facing skepticism, Barnes had a ready, if imaginative, response to the question,  
 20 “How do you re-brand something that’s dirty like diesel as something that’s green?”

21 The way we’ve gone about it is through a number of  
 22 communication pieces. One of them we’ve used is TDI Truth &  
 23 Dare. It is a very good website that compares some older diesels  
 24 versus the current TDI clean diesel. And one of the things we do is  
 25 we put coffee filters over the exhaust pipes of both cars. We let  
 26 them run for five minutes and after they are done, we take them off  
 27 and the older diesel product (not a VW diesel) has a round sooty  
 28 spot on that coffee filter. Ours is very clean. In fact they actually  
 make coffee out of the filter that was attached to the Volkswagen  
 clean diesel tail pipe and they drink it.<sup>91</sup>

25 <sup>89</sup> Nick Palermo, *Volkswagen Passat TDI Sets World Record for Fuel Economy*, Autotrader (July  
 26 2013), [http://www.autotrader.com/car-news/volkswagen-passat-tdi-sets-world-record-for-fuel-  
 economy-210689](http://www.autotrader.com/car-news/volkswagen-passat-tdi-sets-world-record-for-fuel-economy-210689).

27 <sup>90</sup> Gayathri Vaidyanathan, *Volkswagen: Our Diesel Cars Whup The Prius And Other Hybrids*,  
 Business Insider (Oct. 9, 2009), [http://www.businessinsider.com/volkswagen-preps-for-a-diesel-  
 revolution-2009-10](http://www.businessinsider.com/volkswagen-preps-for-a-diesel-revolution-2009-10).

28 <sup>91</sup> *Id.*

1 141. VW also advertised that its vehicles performed better on the road than in test  
 2 conditions, touting in a 2008 press release: “While the Environmental Protection Agency  
 3 estimates the Jetta TDI at an economical 29 mpg city and 40 mpg highway, Volkswagen went a  
 4 step further to show real world fuel economy of the Jetta TDI. Leading third-party certifier,  
 5 AMCI, tested the Jetta TDI and found it performed 24 percent better in real world conditions,  
 6 achieving 38 mpg in the city and 44 mpg on the highway.”<sup>92</sup> This discrepancy between the EPA  
 7 certified mpg figures (which are reverse calculated based on vehicle performance on a  
 8 dynamometer) and the real world mpg figures came about because, in real world driving,  
 9 Volkswagen’s defeat device *disabled* the full functioning of the NO<sub>x</sub> trap system exhaust gas  
 10 after treatment control (which needed to burn more fuel to work properly), thereby decreasing  
 11 vehicle operating costs at the expense of massively increased NO<sub>x</sub> emissions.

12 142. Volkswagen distinguished the TDI “clean” diesel engines from other, “stinky,  
 13 smoky, sluggish” diesels, proclaiming its “eco-conscious” status and of course failing to disclose  
 14 that the Class Vehicles were “dirty” themselves. These messages were prevalent in  
 15 Volkswagen’s extensive marketing campaign.

16 143. Some advertisements, for example, specifically emphasized the low emissions and  
 17 eco-friendliness of the vehicles:



27 <sup>92</sup> Jake Fisher, *Did Volkswagen Use ‘Cheat Mode’ as a Selling Point?*, Consumer Reports  
 28 (Oct. 19, 2015), <http://www.consumerreports.org/volkswagen/did-volkswagen-use-cheat-mode-as-a-selling-point?loginMethod=auto>.

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144. Others touted the combination of fuel efficiency and power:



**Volkswagen Turbo Diesel Injection.**  
Less fuel consumption with added engine power.



Das Auto.

**A little fuel goes a long way.**



Combining legendary performance and fuel economy, the TDI Clean Diesel is our least thirsty engine yet, delivering up to 1,235 kilometres (highway) per tank on models like the Touareg and Passat.\*

Come test drive one today.



Das Auto.

1 145. Yet others addressed the full package, implying that in contrast to the “stinky,  
2 smoky, and sluggish” diesel vehicles of old, Volkswagen’s new diesel vehicles were clean,  
3 efficient, and powerful all at once:

## 4 **This ain’t your daddy’s 5 diesel.**

6 Stinky, smoky, and sluggish. Those old diesel realities no  
7 longer apply. Enter TDI Clean Diesel. Ultra-low-sulfur fuel,  
8 direct injection technology, and extreme efficiency. We’ve  
9 ushered in a new era of diesel.

- 10 • Engineered to burn low-sulfur diesel fuel
- 11 • “Common Rail” direct injection system

12 View key fuel efficiency info ?



## 16 **Diesel has really cleaned 17 up its act.**

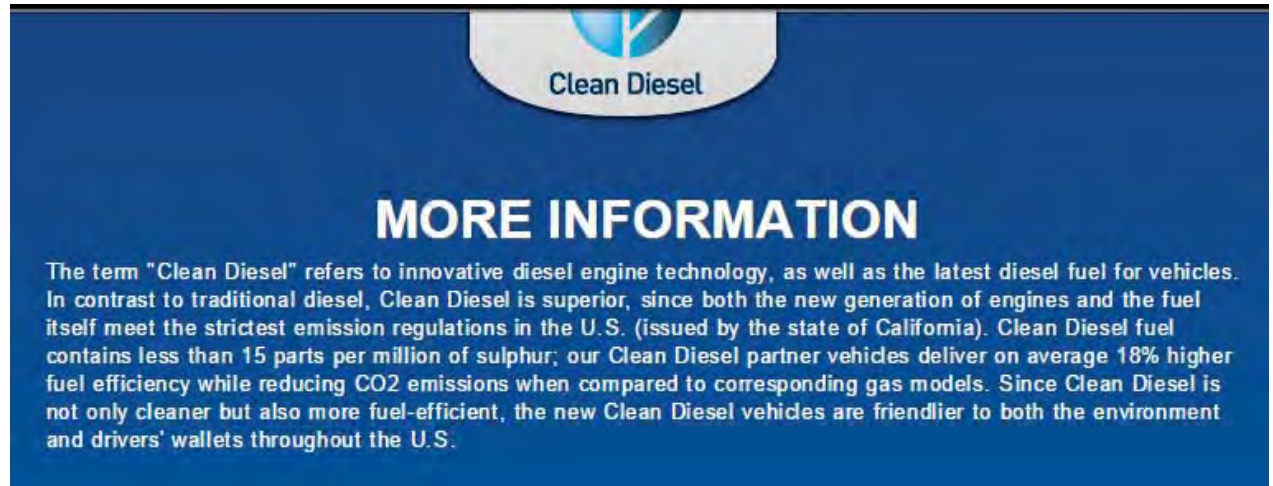
18 Find out how clean diesel technology impacts fuel efficiency  
19 and performance, while also being a more eco-conscious  
20 choice.

21 + [Go to clearlybetterdiesel.org](http://www.clearlybetterdiesel.org)

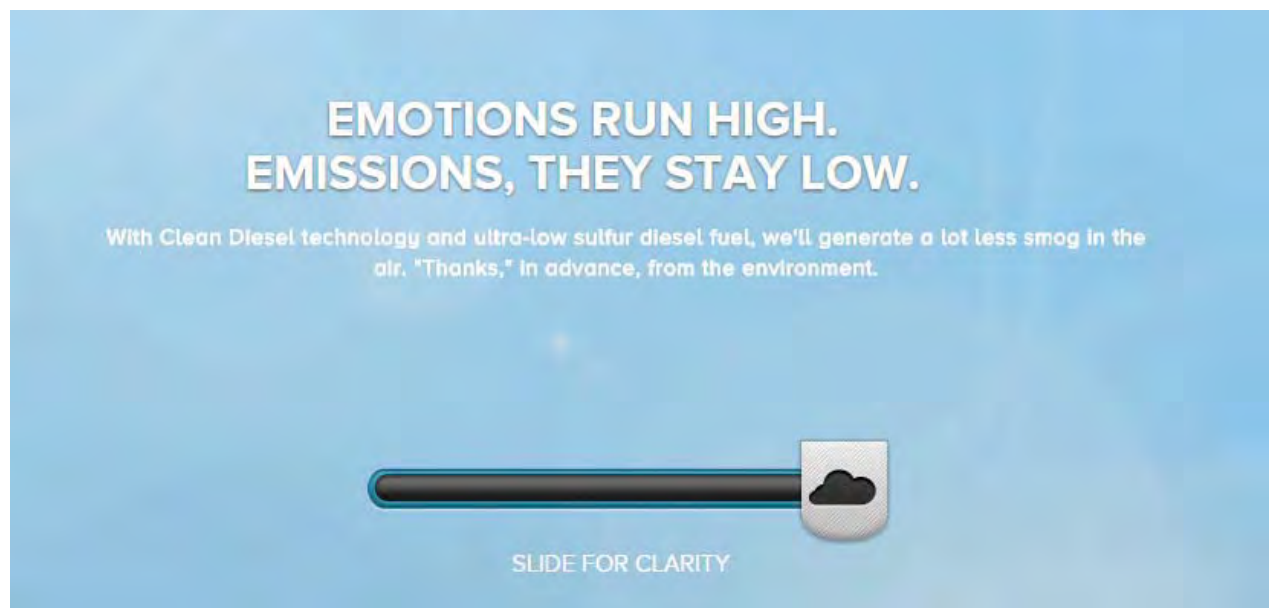


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27 146. In addition, VW directed consumers to the [www.clearlybetterdiesel.org](http://www.clearlybetterdiesel.org) website,  
28 which partnered with affiliates Audi and Porsche, as well as Bosch, Mercedes, and BMW. This

1 website touted the benefits of newly developed diesel technology as “clean” and environmentally  
 2 friendly. Although it has been scrubbed of all content, the website previously contained false and  
 3 misleading statements, such as:



12 147. The website also offered a graphic slider, specifically representing that “clean”  
 13 diesel produced less emissions and dramatically reduced smog, as shown by the following:



24 148. This website may have accurately portrayed the environmental advantages of  
 25 BMW diesel vehicles, which have not been implicated in the defeat device scandals, to date.  
 26 However, Volkswagen’s partnership with “[www.clearlybetterdiesel.org](http://www.clearlybetterdiesel.org)” falsely or misleadingly  
 27 portrayed the Class Vehicles as an environmentally friendly, low emissions choice for discerning  
 28 and socially responsible consumers.

1 149. VW also produced a series of TV advertisements for the U.S. market, intended to  
2 debunk myths about diesel engines. One ad, titled “Three Old Wives Talk Dirty,” featured three  
3 elderly women debating whether diesels, though “beautiful,” are dirty vehicles:



14 150. To ostensibly debunk the “Old Wives’ Tale” that diesel produced dirty exhaust  
15 and hazardous emissions, one of the women held her white scarf to the exhaust to convince the  
16 passengers that the exhaust was environmentally friendly, and not, in fact, dirty:



27 151. She removed the scarf, gestured at it, and asked her friends “see how clean it is?”  
28



152. Like others in VW’s “clean” diesel campaign, this ad falsely or misleadingly portrayed the exhaust emissions from the Class Vehicles as clean and safe. In reality, the Class Vehicles actually emitted invisible and extremely hazardous levels of NO<sub>x</sub>.

153. These themes extended to print brochures at dealerships and to VW’s website. The brochures emphasized that VW’s “clean” diesel was “clean,” “green,” and low emission. For example, a “2012 Volkswagen Family” brochure for all VW models, states:

Let TDI “clean” diesel set you free from the filling station. Our TDI engines achieve astonishing mileage and range—up to 43 highway mpg and 795 miles on a single tank without sacrificing one bit of turbocharged performance. ***That’s all thanks to the TDI technology that uses a direct injection system and runs on ultra-low-sulfur diesel, helping reduce sooty emissions by up to 90% compared to previous diesel engines.*** On most models, you can even choose the available DSG automatic transmission with Tiptronic to take that turbo engine to a whole new level.<sup>93</sup> (Emphasis added.)

154. Similarly, a “2013 Volkswagen Family” brochure, applicable to all models, states:

When you’ve had your fill of filling stations, hit the road in your TDI “clean” diesel Volkswagen. These engines achieve astonishing

<sup>93</sup> Brochure: 2012 Volkswagen Family, <http://cdn.dealereprocess.com/cdn/brochures/volkswagen/2012-family.pdf>.



1 mileage and range-up to 43 highway mpg and 795 miles on a single  
2 tank without sacrificing one bit of turbocharged performance.  
3 *That's all thanks to the TDI technology that uses a direct*  
4 *injection system, and runs on ultra-low-sulfur diesel, helping*  
5 *reduce emissions by up to 90% compared to previous diesels.* Far  
6 and away, it's our best diesel yet.<sup>94</sup> (Emphasis added.)

7 155. And a 2012 "Volkswagen TDI "clean" diesel" brochure for the six models of  
8 Volkswagen TDIs then on the market (Jetta, Jetta SportWagen, Golf, Passat, Beetle, and Touareg)  
9 states:

10 **These are not the kind of diesel engines that you find spewing**  
11 **sooty exhaust like an old 18-wheeler.** Clean diesel vehicles meet  
12 the strictest EPA standards in the U.S. Plus, TDI technology helps  
13 reduce sooty emissions by up to 90%, giving you a fuel-efficient  
14 and eco-conscious vehicle.

15 ...

16 **Think beyond green.** TDI represents one part of the Volkswagen  
17 Think Blue initiative, our goal of creating and encouraging eco-  
18 conscious products and behaviors. Join us in being more  
19 responsible on the road and on the planet.<sup>95</sup>

20 156. Further, a Volkswagen 2010 TDI Jetta and Jetta SportWagen brochure states:

21 The 2.0L TDI® "clean" diesel engine gives you 140hp and 236 lbs-  
22 ft of torque. This engine is the toast of Europe for its quickness, low  
23 emissions, and fuel efficiency—a staggering 38 city/44 highway  
24 mpg (automatic) based on real-world AMCI-certified testing (30  
25 city/42 highway mpg. EPA estimates).

26 ...

27 Jetta TDI "clean" diesel offers fuel efficiency, power, performance,  
28 and a \$1,300 tax credit from Uncle Sam because it qualifies as an  
Advanced Lean Burn Credit. *Or, in other words, lean, mean,*  
*cleaner burning machines. Volkswagen believes in delivering a*  
*no-compromise German-tuned auto that performs, and still leaves*  
*a small carbon footprint. The Volkswagen TDI engine is cleaner*  
*than conventional diesels, emitting as much as 95% less soot than*  
*previous diesel engines, as well as a reduction in oxides of*  
*nitrogen and sulfur.* It's powerful, with the kind of low-end torque  
that racers and tuners demand. It's efficient, using a turbocharger  
and smart exhaust design to burn fuel more effectively. So much so,

94 Brochure: 2013 Volkswagen Family,  
<http://cdn.dealereprocess.com/cdn/brochures/volkswagen/2013-volkswagenfamily.pdf>.

95 Brochure: 2012 Volkswagen TDI® Clean Diesel,  
<http://cdn.dealereprocess.com/cdn/brochures/volkswagen/2012-family.pdf>.

1 in fact, that Volkswagen was the first automaker to make clean  
 2 diesel cars certified in all 50 states. And best of all, it will help save  
 3 you money with an out-of-this-world AMCI-estimated mileage of  
 38 city/44 highway mpg (automatic) and over 594 miles on a single  
 tank of fuel.

4 There's even a Jetta SportWagen TDI "clean" diesel, with the same  
 5 astonishing clean diesel technology, plus a whopping 66.9 cubic  
 feet of cargo room.<sup>96</sup> (Emphasis added.)

6 157. And a Volkswagen 2011 Golf TDI brochure states:

7 Regardless of which Golf model you get, you'll be seeing a lot  
 8 fewer gas stations and a lot more road. The 2.5L Golf comes  
 standard with a 170-hp, in-line five-cylinder engine with 177 lbs/ft  
 9 torque and impressive fuel efficiency rated at 23 city/30 highway  
 mpg. Opt for the Golf TDI model and you'll enjoy a turbocharged  
 10 clean diesel engine with 140 hp and 236 lbs/ft of torque that will  
 run you even farther at a whopping 30 city/42 highway mpg. That's  
 11 up to 609 miles per tank. ***And you'll do it all with 95 percent fewer  
 sooty emissions than diesel engines of old, making it cleaner for  
 both you and the planet.*** So whether you're in the market for  
 12 IntelliChoice's 2010 "Best Overall Value Compact Car over  
 \$17,000," or you want to go for a variation on that theme and get  
 13 the ever-popular TDI model, you can't go wrong. In fact, you can  
 go very right for a long, long time."<sup>97</sup>

14  
 15 158. A Volkswagen 2012 Passat TDI brochure states:

16 Let the Passat TDI "clean" diesel set you free from the filling  
 17 station. It achieves an astonishing 43 highway mpg and travels 795  
 miles on a single tank without sacrificing one bit of turbocharged  
 18 performance. ***That's all thanks to its TDI technology that uses a  
 direct injection system and runs on ultra-low-sulfur diesel,  
 helping reduce sooty emissions by up to 90% compared to  
 previous diesel engines.*** You can even choose the available DSG  
 19 automatic transmission with Tiptronic to take that turbo engine to a  
 20 whole new level.

21 . . .

22 The TDI "clean" diesel engine was designed and engineered around  
 23 one simple belief: driving is more fun than refueling. ***So besides the  
 reduced emissions and torque-filled benefits you experience  
 behind the wheel of the Passat TDI, it also saves you money at the  
 pump.***<sup>98</sup> (Emphasis added.)

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 26 <sup>96</sup> Brochure: 2010 Volkswagen Jetta and Jetta SportWagen,  
<http://www.slideshare.net/SteveWhiteVW/2010-volkswagen-jetta-brochure-greenville>.

27 <sup>97</sup> Brochure: 2011 Volkswagen Golf,  
<http://cdn.dealereprocess.com/cdn/brochures/volkswagen/2011-golf.pdf>.

28 <sup>98</sup> Brochure: 2012 Volkswagen Passat, <https://static.beepi.com/Brochures/17001.pdf>.

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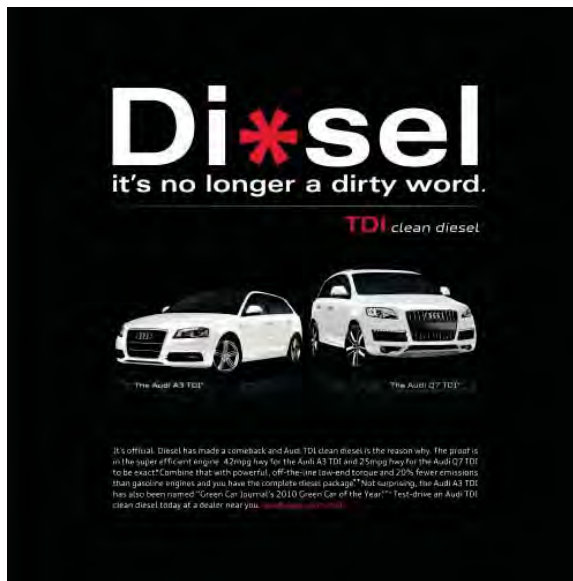
159. A Volkswagen 2013 Beetle TDI brochure states:  
  
Start the TDI® “clean” diesel model and hear the surprisingly quiet purr of *the first clean diesel Beetle*, designed for both power and efficiency.<sup>99</sup> (Emphasis added).

160. A Volkswagen 2014 Beetle TDI brochure states:  
  
2.0L TDI “clean” diesel engine. Engineered with the idea that less is more. The Beetle TDI has lower CO<sub>2</sub> emissions compared to 84% of other vehicles. *So every getaway you make will be a cleaner one.*<sup>100</sup> (Emphasis added.)

161. A Volkswagen 2014 TDI Touareg brochure states:  
  
3.0L TDI “clean” diesel engine. Engineered with the idea that less is more. The Touareg TDI has lower CO<sub>2</sub> emissions compared to 88% of other vehicles. *So every getaway you make will be a clean one.*<sup>101</sup> (Emphasis added.)

**3. Audi’s False and Misleading Advertisements**

162. Audi, like VW, pitched its 2.0-liter and 3.0-liter diesel engines as environmentally friendly, powerful, and efficient. Drawing heavily from the themes in VW’s advertisements, Audi deceptively portrayed its Class Vehicles as clean and safe for the environment, unlike the diesels of yesteryear. Examples of such advertisements include:



<sup>99</sup> Brochure: 2013 Volkswagen Beetle, <https://static.beepi.com/Brochures/22980.pdf>.

<sup>100</sup> Brochure: 2014 Volkswagen Beetle, <https://static.beepi.com/Brochures/23900.pdf>.

<sup>101</sup> Brochure: 2014 Volkswagen Touareg, <https://static.beepi.com/Brochures/18663.pdf>.



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12        163. Audi proclaimed that “[d]iesel [was] no longer a dirty word,” but failed to disclose  
13 that its vehicles were so dirty that they could not pass emission standards in the U.S. and that the  
14 only reason why they were introduced into the stream of commerce here is because Audi  
15 fraudulently obtained COCs from the EPA for these vehicles. With equal audacity, Audi  
16 advertised that, by driving an Audi TDI, you could “[p]rotect the environment and look good  
17 doing it,” while failing to disclose the pernicious NO<sub>x</sub> spewed into the environment.

18        164. Audi also ran numerous TV commercials for its “clean” diesel vehicles, many of  
19 which touted the “eco-friendly” characteristics of its diesel technology. One ad, “The Green  
20 Police” (which aired during the 2010 Super Bowl) portrayed a world in which the environmental  
21 police (“Green Police”) arrested people for using Styrofoam cups, failing to compost, asking for  
22 plastic bags at the grocery store, throwing out batteries, and drinking water from plastic bottles.  
23 And at a highway checkpoint, the “ECO ROADBLOCK,” the Green Police flagged cars that were  
24 harmful to the environment:  
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12           165. When the Green Police at the ECO ROADBLOCK see an Audi A3 TDI  
13 SportWagen, they give the car a “thumbs up” and allow the driver to bypass the roadblock.



24           166. After the white A3 TDI cruises past the other vehicles, the screen fades to black  
25 and falsely touts the supposed “green credentials” of the A3 TDI.

26           167. Like VW, Audi also made false representations in print brochures available at  
27 dealerships and on Audi’s website. For example, an Audi 2011 A3 TDI brochure states:  
28

1 With the potent combination of direct diesel injection and  
 2 turbocharging, the 2.0-liter TDI® clean diesel engine delivers an  
 3 impressive 236 lb-ft. of torque and produces 140hp. The power and  
 4 performance is complemented with impressive EPA-estimated 30  
 5 MPG city and 42 MPG highway ratings. ***Producing 30 percent  
 6 fewer CO<sub>2</sub> emissions than a comparable gasoline engine, the 2.0  
 7 TDI clean diesel also meets or exceeds the 50 state emissions  
 8 requirements.***

9 . . .

10 ***Long gone are the days of dirty, smoking diesel engines. Audi  
 11 TDI clean diesel technology is responsible for the cleanest diesel  
 12 engines in the world, with 30 percent fewer CO<sub>2</sub> emissions than  
 13 comparable gasoline engines, making it an environmentally friendly  
 14 alternative to gasoline power. In fact, TDI clean diesel is  
 15 compliant with California 's ULEV II requirement—the world's  
 16 most stringent emission standard. The result is a significant  
 17 reduction in emissions that contribute to global warming.***<sup>102</sup>  
 18 (Emphasis added.)

19 168. Audi's 2016 A6 and A7 brochures similarly (and falsely) stated that the 3.0-liter  
 20 TDI versions of these cars meet emission rating "ULEV II," and the 2016 A6, A7, and Q5  
 21 brochures all similarly stated:

22 Taking advantage of the greater power density of diesel fuel over  
 23 traditional gasoline, the available 240-hp 3.0-liter TDI® clean  
 24 diesel V6 delivers incredible torque (428 lb-ft) and passing power,  
 25 while boasting impressive fuel efficiency numbers. ***It also produces  
 26 fewer emissions with a combination of Piezo direct injection, a  
 27 high compression ratio, and innovative after-exhaust treatment  
 28 that helps eliminate up to 95% of diesel NOx emissions.***<sup>103</sup>  
 (Emphasis added.)

169. An Audi 2016 A8 brochure also listed the TDI models as meeting emission rating  
 "ULEV II," and further stated:

With 240 hp and 428 lb-ft of torque on tap, the available 3.0-liter  
 TDI® clean diesel engine's elasticity in the passing lane is almost  
 as impressive as its ability to take on even the longest road trips.  
***And with features like AdBlue® exhaust after-treatment helping***

<sup>102</sup> Brochure: 2011 Audi A3, <http://www.slideshare.net/MichiganCarSales/2011-audi-a3-detroit-mi-fred-lavery-company>.

<sup>103</sup> Brochures 2016 Audi A6, <https://www.audiusa.com/content/dam/audiusa/Documents/2016-Audi-A6-brochure.pdf.pdf>, and 2016 Audi A7, <https://www.audiusa.com/content/dam/audiusa/Documents/2016-Audi-A7-brochure.pdf>.

1 *to make every journey a little cleaner, this is a performance win*  
 2 *for all sides.*<sup>104</sup> (Emphasis added.)

3 170. Contrary to these advertisements, Audi employees knew the Class Vehicles' real  
 4 world NO<sub>x</sub> and other emissions exceeded the allowable EPA emission standards.

5 **4. Porsche's False and Misleading Advertisements**

6 171. Porsche similarly exploited the "clean" diesel branding for the 3.0-liter TDI engine  
 7 used in its Cayenne SUV to falsely convey that the vehicle was environmentally friendly and  
 8 legal to drive. The "clean" diesel marketing and advertising for the Cayenne SUV also omitted  
 9 the material fact that the COC issued by the EPA for the vehicle in response to Porsche's  
 10 submission was based on a fundamental lie. Those ads were unfair, deceptive, false, and  
 11 misleading for the same reasons, as stated above.

12 172. For example, Porsche expressly marketed the fuel-efficiency of the Cayenne  
 13 Diesel, even though such efficiency could not be achieved while complying with applicable  
 14 emission regulations.



27 173. Moreover, the brochure for Porsche's diesel-powered 2013 Cayenne SUV,  
 28 available online and at dealerships, touted the vehicle's "Intelligent Performance and efficiency—

<sup>104</sup> Brochure: 2016 Audi A8, <http://pa.motorwebs.com/audi/brochure/a8.pdf>.

1 the core characteristics of Porsche engineering.”<sup>105</sup> It boasted that “[t]his is no ordinary diesel.  
 2 This is a Porsche 3.0-liter V6 turbo diesel engine. It’s a technological marvel, able to take its  
 3 unique fuel source and transform it into clean, efficient, and incredibly torque-rich power.”  
 4 Further, the brochure exclaimed Porsche “refined” diesel engine technology, which made its  
 5 diesel engine “far advanced from what many people perceive—especially in terms of its  
 6 acceleration, clean emissions, and quiet running operation.”<sup>106</sup> The brochure even touted its “low  
 7 emissions” on a page entitled: “A cleaner diesel. Exhaust technologies.”<sup>107</sup> Porsche described the  
 8 exhaust system and stated that its exhaust technologies “help to ensure the reduction of harmful  
 9 pollutants into the environment and make the Cayenne diesel compliant with U.S. emission  
 10 standards.”<sup>108</sup> Unfortunately, for thousands of American consumers, these statements were all  
 11 false.

12 **5. Volkswagen’s Nationwide Advertising Campaign Was Highly**  
 13 **Effective, and Volkswagen Profited Handsomely from Selling the**  
 14 **Class Vehicles**

14 174. Volkswagen’s massive advertising campaign for the Class Vehicles proved highly  
 15 successful, as Volkswagen took a commanding lead in U.S. diesel vehicle sales. Volkswagen’s  
 16 diesel vehicles were profiled on environmental websites and blogs as the responsible choice,  
 17 relying on Volkswagen’s representations of high mileage and low emissions.<sup>109</sup>

18 175. And the success of Volkswagen’s advertising campaign resulted in skyrocketing  
 19 sales. In 2007, VW America sold 230,572 cars in the United States—a far cry from Winterkorn’s  
 20 goal of 800,000 sales in 2018—and a negligible number of those were diesel vehicles. In fact, in  
 21 2007 only approximately 16,700 light-duty diesel vehicles were sold in the United States.<sup>110</sup> As

22 <sup>105</sup> Brochure: 2012 Cayenne Diesel, <https://static.beepi.com/Brochures/17053.pdf>.

23 <sup>106</sup> *Id.*

24 <sup>107</sup> *Id.*

24 <sup>108</sup> *Id.*

25 <sup>109</sup> See, e.g., Jim Motavalli, *Clean diesel: What you need to know*, Mother Nature Network  
 26 (Apr. 5, 2013), [http://www.mnn.com/green-tech/transportation/blogs/clean-diesel-what-you-need-](http://www.mnn.com/green-tech/transportation/blogs/clean-diesel-what-you-need-to-know)  
 27 [to-know](http://www.mnn.com/green-tech/transportation/blogs/clean-diesel-what-you-need-to-know); Anthony Ingram, *2015 VW Golf, Beetle, Passat, Jetta All Get New Clean Diesel Engine*,  
 Green Car Reports (Mar. 19, 2014), [http://www.greencarreports.com/news/1090957\\_2015-vw-](http://www.greencarreports.com/news/1090957_2015-vw-golf-beetle-passat-jetta-all-get-new-clean-diesel-engine)  
 27 [golf-beetle-passat-jetta-all-get-new-clean-diesel-engine](http://www.greencarreports.com/news/1090957_2015-vw-golf-beetle-passat-jetta-all-get-new-clean-diesel-engine) (last visited on Sept. 28, 2015).

28 <sup>110</sup> Paul Eisenstein, *Volkswagen Scandal Delivers ‘Black Eye’ to Diesel Tech as a Whole*, NBC  
 News (Sept. 24, 2015), <http://www.nbcnews.com/business/autos/volkswagen-scandal-delivers->

*Footnote continued on next page*



1 Volkswagen released its “clean” diesel lineup and fraudulent advertising campaign, sales of the  
 2 Class Vehicles grew dramatically, from 43,869 in 2009 to a peak of 111,285 in 2013.<sup>111</sup> This  
 3 largely accounted for VW America’s sales growth to over 400,000 sales in 2013, nearly double  
 4 the sales in 2007.<sup>112</sup> Likewise, the Class Vehicles contributed significantly to Audi’s growth from  
 5 93,506 sales in 2007 to 182,011 in 2014.<sup>113</sup> According to the U.S. government, approximately  
 6 80,000 of the illegal vehicles sold by VW, Audi and Porsche in the United States had 3.0-liter  
 7 TDI diesel engines.

8 176. Volkswagen reaped considerable benefit from their fraud, charging premiums of  
 9 thousands of dollars for the “clean” diesel models of the Class Vehicles.

10 177. Volkswagen also engaged in an aggressive lobbying campaign for federal tax  
 11 credits for the Class Vehicles, akin to the credits offered for electric cars.<sup>114</sup> These efforts were  
 12 met with some success, as many of the Class Vehicles were deemed eligible for federal income  
 13 tax credits in order to spur “clean” diesel technology. In fact, at least \$78 million was earmarked  
 14 for TDI Jetta buyers in 2009 and 2010.<sup>115</sup>

15 **F. Defendants’ Dirty Diesel Scheme Starts to Unravel**

16 178. Defendants’ illegal scheme started to unravel approximately five years after  
 17 Volkswagen introduced its first diesel model containing the defeat device into the U.S. stream of  
 18 commerce. In May 2014, West Virginia University’s Center for Alternative Fuels, Engines &  
 19 Emissions published results of a study commissioned by the International Council on Clean  
 20

21 \_\_\_\_\_  
 22 *Footnote continued from previous page*  
 23 [black-eye-diesel-tech-whole-n433016](#).

24 <sup>111</sup> *Supra* note 7.

25 <sup>112</sup> *Volkswagen Reports December 2013 and Year-End Results*, Volkswagen (Jan. 3, 2014),  
 26 <http://media.vw.com/release/592/>.

27 <sup>113</sup> *Audi achieves fifth straight year of U.S. record sales with 182,011 vehicles in 2014*, Audi USA  
 28 (Jan. 5, 2015), <https://www.audiusa.com/newsroom/news/press-releases/2015/01/audi-achieves-fifth-straight-year-of-us-record-sales-with-182011-vehicles-in-2014>.

<sup>114</sup> Steve Birr, *Volkswagen Lobbied Obama Administration For Green Tax Credits*, The Daily  
 Caller (Oct. 13, 2015), <http://dailycaller.com/2015/10/13/volkswagen-lobbied-obama-administration-for-green-tax-credits/>.

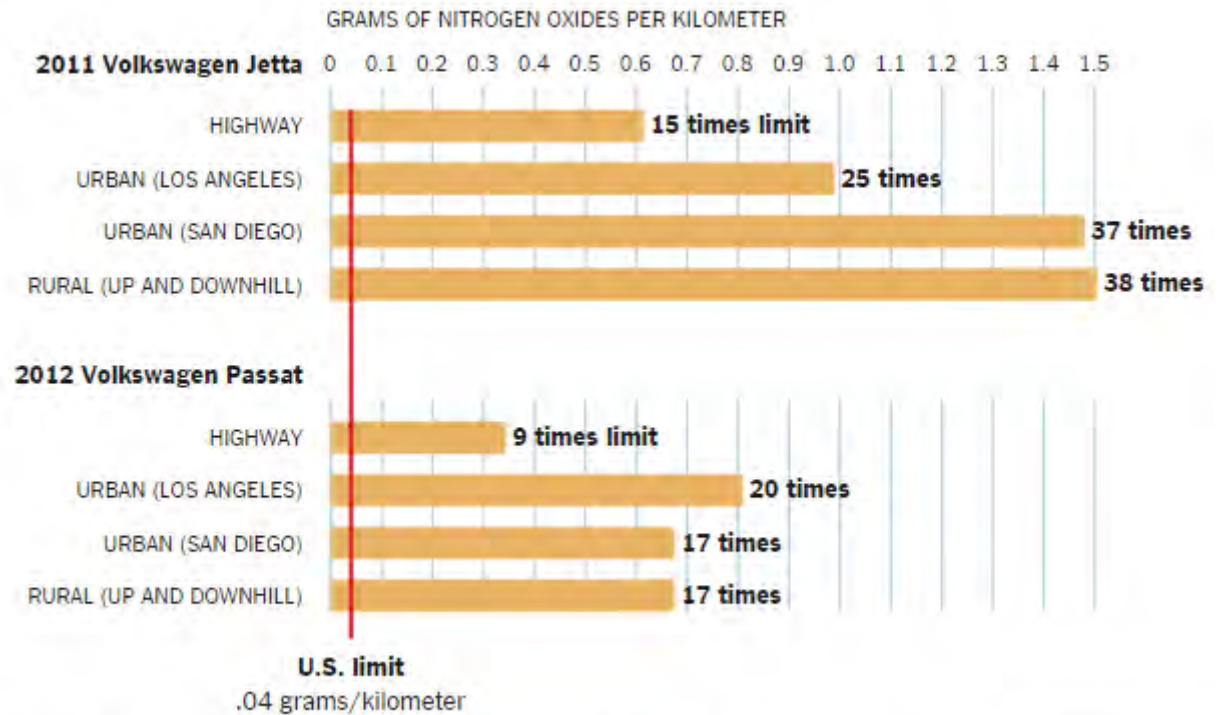
<sup>115</sup> *Volkswagen shares plunge on emissions scandal; U.S. widens probe*, Reuters (Sept. 21, 2015),  
<https://finance.yahoo.com/news/volkswagen-shares-plunge-most-six-071319964.html>.

1 Transportation (“ICCT”), which found that certain of the Class Vehicles’ real world NO<sub>x</sub> and  
 2 other emissions exceeded the allowable EPA emission standards.<sup>116</sup>

3 179. The ICCT researchers had been comparing the real-world performance of “clean”  
 4 diesel vehicles in Europe with reported results and noted numerous discrepancies. Since the U.S.  
 5 emission regulations were significantly more stringent than its European counterparts, the ICCT  
 6 sought to test the equivalent U.S. “clean” diesel cars, presuming that they would run cleaner.  
 7 West Virginia University’s team of emissions researchers was a qualified and enthusiastic  
 8 partner, as they had already been engaged in the study of heavy truck emissions.

9 180. Shockingly, the study showed that, contrary to testing lab results, real world  
 10 driving of Volkswagen “clean” diesel vehicles produced levels of NO<sub>x</sub> up to 40 times higher than  
 11 legal limits promulgated by the EPA and CARB:

12 **Average emissions of nitrogen oxides in on-road testing**



14 Source: Arvind Thiruvengadam, Center for Alternative Fuels, Engines and Emissions at West Virginia University

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<sup>116</sup> See *Final Report: In Use Emissions Testing of Light-Duty Diesel Vehicles in the United States*, International Council on Clean Transportation (May 15, 2015), [http://www.theicct.org/sites/default/files/publications/WVU\\_LDDVin-use\\_ICCT\\_Report\\_Final\\_may\\_2014.pdf](http://www.theicct.org/sites/default/files/publications/WVU_LDDVin-use_ICCT_Report_Final_may_2014.pdf).

1 181. The results of this study prompted an immediate investigation by the EPA and  
2 CARB, both of whom demanded an explanation from Volkswagen. Despite knowing that the  
3 Class Vehicles contained illegal emission systems—and defeat devices intentionally designed to  
4 comply with emission standards on a test bench but not under normal driving operation and use—  
5 Volkswagen failed to come clean. Instead, Volkswagen denied the allegations and blamed faulty  
6 testing procedures.

7 182. Audi conducted internal testing on the 3.0-Liter TDI engine starting in Fall 2014,  
8 and found driving emissions of NO<sub>x</sub> that greatly exceeded U.S. standards. Volkswagen officials  
9 conveyed this information to CARB, but without disclosing the true source and nature of the  
10 problem.

11 183. In December 2014, Volkswagen issued a recall purportedly to update emission  
12 control software in the Class Vehicles, and CARB (along with the EPA) conducted follow-up  
13 testing of the Class Vehicles in the laboratory and during normal road operation. CARB  
14 attempted to identify the source and nature of the Class Vehicles' poor performance and  
15 determine why their on-board diagnostic systems did not detect the increased emissions. None of  
16 the technical issues suggested by Volkswagen adequately explained the NO<sub>x</sub> test results as  
17 confirmed by CARB.

18 184. Dissatisfied with Volkswagen's explanations, EPA and CARB officials finally  
19 threatened to withhold the COCs for Volkswagen's 2016 diesel vehicles until it adequately  
20 explained the anomaly of the higher emissions. Then, and only then, did Volkswagen finally  
21 relent and start to lift the curtain on its illegal scheme.

22 **G. Once Caught, Volkswagen Admits its Fraud—in Part**

23 185. On September 3, 2015, Volkswagen officials finally disclosed in writing and at a  
24 meeting with the EPA and CARB that it had installed a sophisticated software algorithm on the  
25 2.0-liter Class Vehicles, which could detect when the car was undergoing emission testing on a  
26 test bench and switch the car into a cleaner running mode. During that meeting, Volkswagen  
27 admitted that the software was a “defeat device” forbidden by the CAA and state regulations.  
28

1           186. On September 18, 2015, the EPA issued a Notice of Violation of the CAA (the  
2 “First NOV”) to VW AG, Audi AG, and VW America for installing illegal defeat devices in  
3 2009-2015 Volkswagen and Audi diesel cars equipped with 2.0-liter diesel engines. That same  
4 day, CARB sent a letter to VW AG, Audi AG, and VW America, advising that it had initiated an  
5 enforcement investigation of Volkswagen pertaining to the vehicles at issue in the First NOV.

6           187. Two days later, Volkswagen made its first public admission of wrongdoing in a  
7 written statement and video by VW AG’s then-CEO Winterkorn (who would soon resign as a  
8 result of this scandal), posted on VW AG’s website. Winterkorn’s statement read, in pertinent  
9 part:

10                   I personally am deeply sorry that we have broken the trust of our  
11 customers and the public. We will cooperate fully with the  
12 responsible agencies, with transparency and urgency, to clearly,  
13 openly, and completely establish all of the facts of this case.  
14 Volkswagen has ordered an external investigation of this matter. . . .  
15 We do not and will not tolerate violation of any kind of our internal  
16 rules or of the law.<sup>117</sup>

17           In his video, Winterkorn further apologized by stating:

18                   The irregularities in our group’s diesel engines go against  
19 everything Volkswagen stands for. To be frank with you,  
20 manipulation at Volkswagen must never happen again. . . . I  
21 personally am deeply sorry that we have broken the trust of our  
22 customers. I would like to make a formal apology to our customers  
23 to the authorities and to the general public for this misconduct.<sup>118</sup>

24           188. That same day, Volkswagen confirmed that it had ordered dealers to stop selling  
25 both new and used vehicles with 2.0-liter diesel engines.<sup>119</sup> Volkswagen continued to sell its 3.0-  
26 liter diesel models, despite containing similar, but not-yet-disclosed defeat devices.

27 <sup>117</sup> See *Statement of Prof. Dr. Martin Winterkorn, CEO of Volkswagen AG*, Volkswagen AG  
28 (Sept. 20, 2012), [http://www.volkswagenag.com/content/vwcorp/info\\_center/en/news/2015/09/statement\\_ceo\\_of\\_volkswagen\\_ag.html](http://www.volkswagenag.com/content/vwcorp/info_center/en/news/2015/09/statement_ceo_of_volkswagen_ag.html).

<sup>118</sup> See Joe Lorio, *VW Chairman Martin Winterkorn Releases Video Addressing Scandal, Is Not Stepping Down*, Car and Driver (Sept. 22, 2015), <http://blog.caranddriver.com/vw-chairman-martin-winterkorn-releases-video-addressing-scandal-is-not-stepping-down/>.

<sup>119</sup> Jack Ewing, *Volkswagen to Stop Sales of Diesel Cars Involved in Recall*, N.Y. Times (Sept. 20, 2015), <http://www.nytimes.com/2015/09/21/business/international/volkswagen-chief-apologizes-for-breach-of-trust-after-recall.html>.

1 189. On September 21, 2015, Volkswagen spokesman John Schilling stated in an email  
2 that Volkswagen was “committed to fixing this issue as soon as possible” and to “developing a  
3 remedy that meets emissions standards and satisfies our loyal and valued customers.”<sup>120</sup>

4 190. Defendant Horn, President and CEO of VW America, echoed this sentiment when  
5 he took the stage later that evening at a launch event for the 2016 Volkswagen Passat in  
6 Brooklyn, New York, telling reporters:

7 Our company was dishonest, with the EPA and the California Air  
8 Resources Board, and with all of you and in my German words, *we*  
9 *have totally screwed up*. We have to make things right, with the  
10 government, the public, our customers, our employees and also  
11 very important, our dealers.<sup>121</sup> (Emphasis added.)

12 Defendant Horn’s presentation on the new Passat, notably, did not promote the environmental  
13 efficiency of the car’s “clean” diesel model.

14 191. On September 22, 2015, Volkswagen announced that 11 million diesel cars  
15 worldwide were installed with the same defeat device software that had evaded emission testing  
16 by U.S. regulators. Contemporaneously, Volkswagen announced that it had set aside reserves of  
17 6.5 billion euros (\$7.3 billion) in the third quarter to address the matter.<sup>122</sup>

18 192. On September 23, 2015, Winterkorn resigned from his position as CEO of VW  
19 AG. In his resignation statement, Winterkorn insisted that he was not personally involved in the  
20 emissions scandal: “Above all, I am stunned that misconduct on such a scale was possible in the  
21 Volkswagen Group. I am doing this in the interests of the company even though I am not aware  
22 of any wrongdoing on my part.”<sup>123</sup>

23 <sup>120</sup> Jad Mouadwad, *et al.*, *The Wrath of Volkswagen’s Drivers*, N.Y. Times (Sept. 21, 2015),  
<http://www.nytimes.com/2015/09/22/business/the-wrath-of-volkswagens-drivers.html>.

24 <sup>121</sup> Christine Seib, *Volkswagen’s US Boss: We Totally Screwed Up*, CNBC (Sept. 22, 2015),  
<http://www.cnbc.com/2015/09/21/volkswagen-us-ceo-screwed-up-on-eca-emissions-diesel-test-rigging.html>.

25 <sup>122</sup> Nathan Bomey, *Volkswagen Emission Scandal Widens: 11 Million Cars Affected*, USA Today  
26 (Sept. 22, 2015), <http://www.usatoday.com/story/money/cars/2015/09/22/volkswagen-emissions-scandal/72605874/>.

27 <sup>123</sup> Graham Ruddick, *Volkswagen chief quits over emissions scandal as car industry faces crisis*,  
28 *The Guardian* (Sept. 23, 2015), <http://www.theguardian.com/business/2015/sep/23/volkswagen-chief-martin-winterkorn-quits-emissions-scandal>.

1           193. Following Winterkorn’s resignation, Volkswagen released a statement that it had  
 2 set up a special committee to lead its own inquiry into the scandal and expected “further  
 3 personnel consequences in the next days.” It added: “The internal group investigations are  
 4 continuing at a high tempo. All participants in these proceedings that have resulted in  
 5 immeasurable harm for Volkswagen will be subject to the full consequences.” However, the  
 6 committee insisted that Winterkorn “had no knowledge of the manipulation of emissions data.”<sup>124</sup>

7           194. On September 25, 2015, Matthias Müller, the Chairman of Porsche AG, was  
 8 named as Winterkorn’s successor. Immediately upon assuming his new role, Müller issued a  
 9 press release stating:

10                   My most urgent task is to win back trust for the Volkswagen  
 11                   Group—by leaving no stone unturned and with maximum  
 12                   transparency, as well as drawing the right conclusions from the  
 13                   current situation. Under my leadership, Volkswagen will do  
 14                   everything it can to develop and implement the most stringent  
 15                   compliance and governance standards in our industry.<sup>125</sup>

16           195. On October 8, 2015, Defendant Horn made frank admissions of culpability in his  
 17 testimony before the House Committee on Energy and Commerce’s Subcommittee on Oversight  
 18 and Investigations. Under oath, Defendant Horn testified: “On behalf of our Company, and my  
 19 colleagues in Germany, I would like to offer a sincere apology for Volkswagen’s use of a  
 20 software program that served to defeat the regular emissions testing regime.”<sup>126</sup> In response to a  
 21 question from the Subcommittee Chairman, Representative Tim Murphy, whether the software  
 22 was installed “for the express purpose of beating tests,” Horn testified, “it was installed for this  
 23 purpose, yes.”<sup>127</sup>

24           196. On November 2, 2015, the EPA issued a second Notice of Violation of the CAA  
 25 (the “Second NOV”) to VW AG, Audi AG, and VW America, this time directed at the larger 3.0-  
 26 liter, 6-cylinder diesel models—the same vehicles that Volkswagen continued to sell through its

27 <sup>124</sup> *Id.*

28 <sup>125</sup> *Matthias Müller appointed CEO of the Volkswagen Group*, Volkswagen AG (Sept. 25, 2015),  
[http://www.volkswagenag.com/content/vwcorp/info\\_center/en/news/2015/09/CEO.html](http://www.volkswagenag.com/content/vwcorp/info_center/en/news/2015/09/CEO.html).

<sup>126</sup> *Supra* note 1.

<sup>127</sup> *Id.*

1 dealers after the First NOV.<sup>128</sup> The Second NOV, which was also issued to Porsche AG and  
2 Porsche America, disclosed that the EPA had sent a letter to manufacturers on September 25,  
3 2015, stating it was assessing all diesel engine cars for defeat devices. The Second NOV stated  
4 that Volkswagen had installed illegal defeat devices in certain vehicles equipped with 3.0-liter  
5 diesel engines for model years 2014–16. Although not identical, the cheating alleged of  
6 Volkswagen in the Second NOV concerned essentially the same mechanism Volkswagen used—  
7 and admitted to using—in the First NOV.

8 197. However, shortly after it received the Second NOV, Volkswagen fired back at the  
9 EPA’s new claims of fraud, denying that it installed defeat device software in the identified 3.0-  
10 liter diesel vehicles. In response to the Second NOV, Volkswagen issued the following bold  
11 statement: “Volkswagen AG wishes to emphasize that no software has been installed in the 3.0-  
12 liter V6 diesel power units to alter emissions characteristics in a forbidden manner.”<sup>129</sup>

13 198. Yet, the following day, despite Volkswagen’s insistence that the 3.0-liter diesel  
14 emission system was legal, Volkswagen ordered dealers to stop selling all six models at issue in  
15 the Second NOV, in addition to the Audi Q7, which was also equipped with a 3.0-liter diesel  
16 engine.<sup>130</sup> Porsche likewise discontinued sales of the 3.0-Liter Cayenne, despite claiming the  
17 EPA notice was “unexpected.”

18 199. On November 4, 2015, following its directive to halt sales of the 3.0-liter diesel  
19 models, Volkswagen announced that an internal investigation revealed “unexplained  
20 inconsistencies” with the carbon-dioxide output of 800,000 of its gasoline-powered vehicles.<sup>131</sup>

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22 <sup>128</sup> Letter from Susan Shinkman, Director, EPA Office of Civil Enforcement to Volkswagen dated  
23 Nov. 2, 2015, <http://www.epa.gov/sites/production/files/2015-11/documents/vw-nov-2015-11-02.pdf>.

24 <sup>129</sup> Emily Field, *Volkswagen Slams Newest EPA Emissions Fraud Claims*, Law360 (Nov. 3,  
25 2015), <http://www.law360.com/articles/722478/volkswagen-slams-newest-epa-emissions-fraud-claims>.

26 <sup>130</sup> Paul Lienert, *Volkswagen tells dealers to stop selling some 3.0 V6 diesel models*, Reuters  
(Nov. 4, 2015), <http://www.reuters.com/article/us-volkswagen-emissions-stopsale-idUSKCN0ST2E420151104>.

27 <sup>131</sup> Benedikt Kammel, *VW Emissions Issues Spread to Gasoline Cars*, Bloomberg (Nov. 3, 2015),  
28 <http://www.bloomberg.com/news/articles/2015-11-03/volkswagen-emissions-woes-deepen-as-800-000-more-cars-affected>.

1           200. At a meeting on November 19, 2015, after almost three weeks of denying the  
2 EPA's allegations contained in the Second NOV, Audi finally admitted that defeat device  
3 software was installed not only in the vehicles identified in the Second NOV, but in all 3.0-liter  
4 Class Vehicles sold by Volkswagen, Audi, and Porsche. Porsche met separately with the EPA on  
5 the same day. Specifically, Audi stated that it had failed to disclose three auxiliary emissions  
6 control devices in its 3.0-liter diesel engines to U.S. regulators, and further admitted: "One of  
7 them is regarded as a defeat device according to applicable U.S. law. Specifically, this is the  
8 software for the temperature conditioning of the exhaust-gas cleaning system."<sup>132</sup> On November  
9 20, 2015, the EPA and CARB issued notices giving a complete list of 3.0-liter Class Vehicles that  
10 were affected. On November 25, 2015, CARB sent a letter to Audi, Volkswagen and Porsche  
11 stating that the same 3.0-liter engine, with the same defeat device, was used in all of the 3.0-liter  
12 Class Vehicles sold by Volkswagen, Audi and Porsche. Volkswagen had publicly acknowledged  
13 in a press release dated November 23, 2015, that the 3.0-liter engine "was developed by Audi"  
14 and had been used in the Porsche Cayenne since 2013.

15           201. This admission came almost three months after Volkswagen's initial, more limited  
16 *mea culpa*. It came years after Audi employees first learned that their 3.0-liter diesel vehicles,  
17 even when equipped with the more expensive SCR system, still could not pass NO<sub>x</sub> emission  
18 tests. Moreover, Audi had known for years that, with the installation of the defeat device, its 3.0-  
19 liter diesel engines exceeded the legal limits of NO<sub>x</sub> levels when operated in real world  
20 conditions.

21           202. It also came and years after Porsche employees first attended meetings with Bosch  
22 to discuss the diesel engine, began coordinating regulatory submissions regarding NO<sub>x</sub> levels  
23 with Audi and Volkswagen America, and learned, following the installation of the defeat device,  
24 that their vehicles exceeded the legal limits of NO<sub>x</sub> levels when operated in real world conditions.

25           203. Still, despite the admissions and apologies that followed each time a Volkswagen  
26 lie was exposed, it became apparent that Volkswagen was not ready to fully accept responsibility

27 <sup>132</sup> *Statement on Audi's discussions with the US environmental authorities EPA and CARB,*  
28 Volkswagen AG (Nov. 23, 2015),  
[http://www.volkswagenag.com/content/vwcorp/info\\_center/en/news/2015/11/epa.html](http://www.volkswagenag.com/content/vwcorp/info_center/en/news/2015/11/epa.html).



1 for its actions. Indeed, merely one month after Volkswagen admitted to the findings in the  
2 Second NOV, Hans-Gerd Bode, Volkswagen's Group Communications Chief, told a group of  
3 reporters: "I can assure you that we certainly did not, at any point, knowingly lie to you. . . . We  
4 have always tried to give you the information which corresponded to the latest level of our own  
5 knowledge at the time."<sup>133</sup>

6 204. On January 4, 2016, the DOJ, on behalf of the EPA, filed a civil complaint against  
7 VW AG, VW America, Volkswagen Group of America Chattanooga Operations LLC, Audi AG,  
8 Audi, Porsche AG, and Porsche America for injunctive relief and the assessment of civil penalties  
9 for their violations of the CAA. In addition to alleging the various violations of the CAA, the  
10 complaint states that the Defendants impeded the government's efforts to learn the truth about the  
11 emission irregularities related to the Class Vehicles with material omissions and misleading  
12 information.

13 205. On January 10, 2016, in an interview with NPR at the North American  
14 International Auto Show, Müller claimed that Volkswagen *did not lie* to U.S. regulators about  
15 emissions problems with its diesel engines, and suggested that the whole thing had been a  
16 misunderstanding of U.S. law. Müller stated:

17 Frankly spoken, it was a technical problem. We made a default, we  
18 had a . . . not the right interpretation of the American law. And we  
19 had some targets for our technical engineers, and they solved this  
20 problem and reached targets with some software solutions which  
21 haven't been compatible to the American law. That is the thing.  
22 And the other question you mentioned—it was an ethical problem?  
23 I cannot understand why you say that. . . . We didn't lie. We didn't  
24 understand the question first. And then we worked since 2014 to  
25 solve the problem.<sup>134</sup>

26 206. Moreover, since the fraud was first exposed, Volkswagen has consistently denied  
27 that its top executives were involved with, or had knowledge of, the fraudulent scheme, instead  
28 pinning the blame on the work of a few rogue engineers.

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25 <sup>133</sup> Andreas Cremer, *Das Auto' no more: Volkswagen plans image offensive*, Reuters (Dec. 22,  
26 2014), [http://www.reuters.com/article/us-volkswagen-emissions-communications-i-  
idUSKBN0U514L20151222](http://www.reuters.com/article/us-volkswagen-emissions-communications-i-idUSKBN0U514L20151222).

27 <sup>134</sup> Sonari Ginton, *'We Didn't Lie,' Volkswagen CEO Says Of Emissions Scandal*, NPR (Jan. 11,  
28 2016), [http://www.npr.org/sections/thetwo-way/2016/01/11/462682378/we-didnt-lie-volkswagen-  
ceo-says-of-emissions-scandal](http://www.npr.org/sections/thetwo-way/2016/01/11/462682378/we-didnt-lie-volkswagen-ceo-says-of-emissions-scandal).

1           207. As an alternative tactic, during defendant Horn’s Congressional hearing on  
2 October 8, 2015, Horn testified that the installation of the defeat device in certain Volkswagen  
3 diesel vehicles was the work of “a couple of software engineers who put this in for whatever  
4 reason.”<sup>135</sup> Horn’s explanation is not only contrary to prior admissions, but entirely implausible.

5           208. To date, at least eleven of Volkswagen’s top executives have either resigned under  
6 pressure or been fired. Among the top executives dismissed are defendant Winterkorn, CEO and  
7 Chairman of Volkswagen, who resigned almost immediately once the scandal became public;  
8 Dr. Ulrich Hackenberg, a top engineering boss in the Audi Group, who was suspended and later  
9 resigned; Heinz-Jakob Neusser, described as a Volkswagen “development” boss, who was  
10 suspended and later resigned; and Wolfgang Hatz, Porsche’s “development” boss and previously  
11 Volkswagen’s head of engine development, who was suspended and then resigned. Furthermore,  
12 one of Volkswagen’s top advertising executives purportedly “resigned” (although the company  
13 has said that the resignation was unrelated to the present scandal), and VW America has replaced  
14 their general counsel and head of public affairs, David Geanacopoulos. Frank Tuch, VW AG’s  
15 head of quality assurance, resigned on February 8, 2016—his departure likely tied to leadership  
16 overhauls as Volkswagen’s internal investigations continue. Michael Horn, head of VW  
17 America, resigned on March 9, 2016.

18           209. That a few rogue engineers could orchestrate this massive, worldwide scheme is  
19 implausible not only because of the firings of the above-listed executives, but also because  
20 Volkswagen has been implicated using not just one, but *two* sophisticated defeat device software  
21 programs, in *two* separate engines designed and manufactured by different engineers in different  
22 corporate facilities. In addition, more than a dozen different Class Vehicles, involving three  
23 separate brands—Volkswagen, Audi and Porsche—have been implicated in a fraud that began  
24 more than a decade ago.

25           210. On October 17, 2015, Reuters reported that anonymous insiders, including a  
26 Volkswagen manager and a U.S. official close to the government’s investigation of the company,

27 <sup>135</sup> Paul A. Eisenstein, *Could Rogue Software Engineers Be Behind VW Emissions Cheating?*,  
28 NBC News (Oct. 9, 2015), <http://www.nbcnews.com/business/autos/could-rogue-software-engineers-be-behind-vw-emissions-cheating-n441451>.

1 claimed that Volkswagen made several modifications to its emission defeat device software over  
 2 the seven years the company has admitted to cheating.<sup>136</sup> Such incremental updates to the  
 3 software, which were made to accommodate new generations of engines during that timeframe,  
 4 evidences a larger group of employees making an ongoing effort to continue their deception.

5 211. As discussed above, on January 22, 2016, Germany's *Sueddeutsche Zeitung*  
 6 newspaper reported that Volkswagen's development of defeat device software to cheat diesel  
 7 emissions tests was an "open secret" in its engineering development department. Staff members  
 8 in engine development have stated that they felt pressure from the top of Volkswagen's corporate  
 9 hierarchy to find a cost-effective solution to develop "Clean Diesel" engines to increase U.S.  
 10 market share. Rather than concede that such engines could not be built (*i.e.*, were "impossible" as  
 11 R&D chief Hatz once proclaimed), the development team decided to push ahead with  
 12 manipulation.<sup>137</sup>

13 212. Quoting documents from Volkswagen's internal investigation, which included  
 14 testimony from a staff member who took part in the fraud, the German newspaper said: "Within  
 15 the company there was a culture of 'we can do everything', so to say something cannot be done,  
 16 was not acceptable. . . . Instead of coming clean to the management board that it cannot be done,  
 17 it was decided to commit fraud."<sup>138</sup> The newspaper further reported that staff in Volkswagen's  
 18 engine development department took comfort from the fact that regulators would not be able to  
 19 detect the fraud using conventional examination techniques.

20 213. The role of Volkswagen's top management in the fraud has recently come under  
 21 increased scrutiny after reports have emerged that Winterkorn was aware that Volkswagen was  
 22 rigging emissions tests on its vehicles more than a year before the scandal emerged, yet did  
 23 nothing to stop the practice.<sup>139</sup>

24 <sup>136</sup> Andreas Cremer, *et al.*, *VW made several defeat devices to cheat emissions tests: sources*,  
 25 Reuters (Oct. 17, 2015), <http://www.reuters.com/article/us-volkswagen-emissions-software-idUSKCN0SB0PU20151017>.

26 <sup>137</sup> Georgina Prodhan, *Volkswagen probe finds manipulation was open secret in department:*  
 27 *newspaper*, Reuters (Jan. 23, 2016), <http://www.reuters.com/article/us-volkswagen-emissions-investigation-idUSKCN0V02E7>.

28 <sup>138</sup> *Id.*

<sup>139</sup> Geoffrey Smith, *VW's ex-CEO Winterkorn 'Knew About Defeat Device in Early 2014,'*

*Footnote continued on next page*

1           214. According to German newspaper *Bild-Zeitung*, Winterkorn and other high-level  
2 Volkswagen managers were warned by a senior executive about the risk of a U.S. investigation  
3 into the use of the defeat devices back in May 2014.<sup>140</sup> The newspaper reported that the warning  
4 came in the form of a letter from Bernd Gottweis, an employee known internally as the “fire-  
5 fighter,” who led a team called the “Product Safety Taskforce,” which concentrated on crisis  
6 prevention and management. The letter, which was uncovered by the internal investigation  
7 carried out on Volkswagen’s order, stated: “There is no well-founded explanation for the  
8 dramatically higher NOX emissions that can be given to the authorities. It is to be suspected, that  
9 the authorities will examine the VW systems to see whether Volkswagen has installed engine  
10 management software (a so-called Defeat Device).” Thus, senior Volkswagen executives were  
11 well aware of the issue a year and a half before the company’s admission. In fact, issues related  
12 to the defeat device had been presented in meetings with senior management at least by  
13 November 2013. According to *Fortune* magazine, Audi engineers had considered use of defeat  
14 device software as early as 1999, when Winterkorn was head of Audi.

15           215. The *Bild-Zeitung* newspaper also reported that a senior Volkswagen manager had  
16 admitted the true level of emissions to a CARB official on August 5, 2015, over a month before  
17 the EPA issued the First NOV I, and that Volkswagen brand chief Herbert Diess had convened  
18 meetings on August 24th and August 25th to discuss how to react to the scandal that was about to  
19 break.<sup>141</sup>

20           216. The letter, of which *Bild-Zeitung* claims to have a copy, is the second leak  
21 suggesting that knowledge of the emissions problems and use of the defeat devices extended far  
22 higher, far earlier, than Volkswagen has admitted. Indeed, the German magazine *Manager* has  
23 reported that Volkswagen’s management had already discussed the issue in the spring of 2014 in  
24 reference to a letter received from the EPA.<sup>142</sup> The revelations from these reports directly

25 \_\_\_\_\_  
26 *Footnote continued from previous page*

27 Fortune (Feb. 15, 2016), <http://fortune.com/2016/02/15/vw-ceo-winterkorn-defeat-device/>.

28 <sup>140</sup> *Id.*

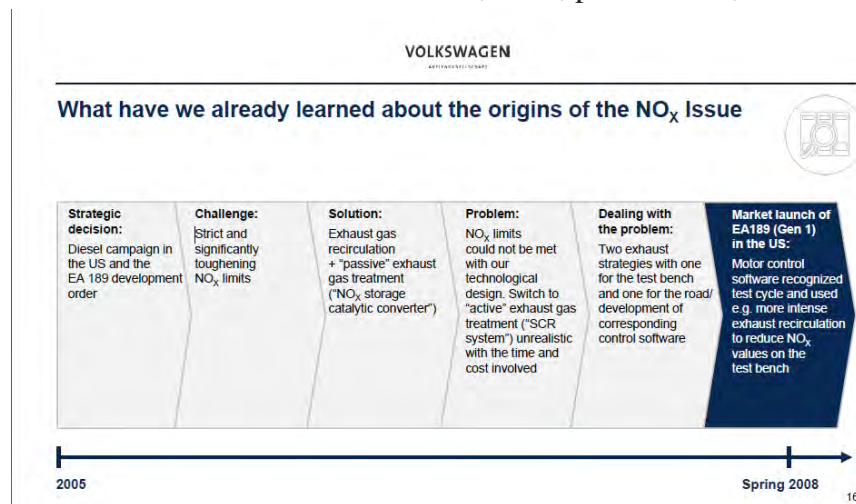
<sup>141</sup> *Id.*

<sup>142</sup> *Id.*

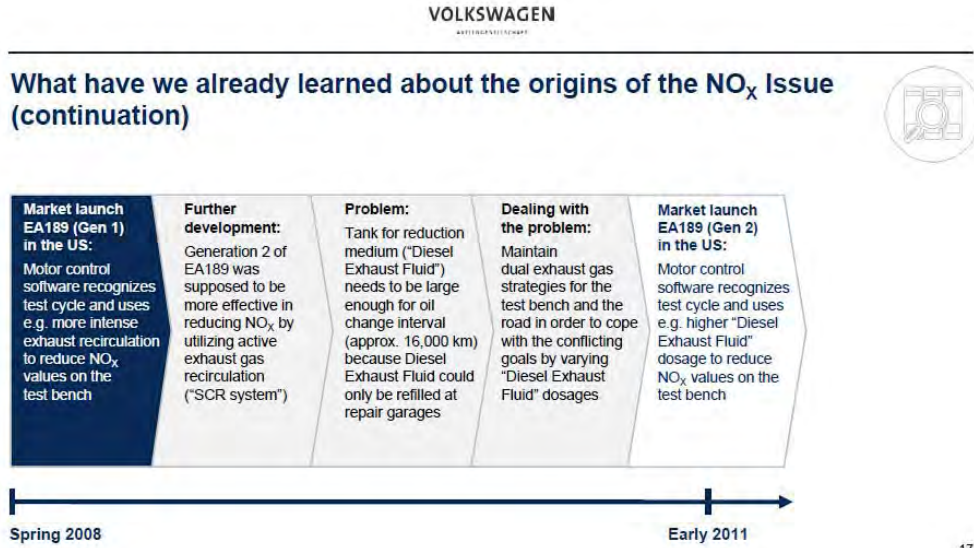
1 contradict arguments made by Winterkorn and Horn that they were unaware of the use of defeat  
 2 devices applied specifically to circumvent U.S. regulations.

3 217. At a December 10, 2015, press conference, during which Volkswagen discussed  
 4 preliminary results of their internal investigation, executives summed up the state of affairs, and  
 5 admitted that Volkswagen had installed defeat devices to take shortcuts around engineering  
 6 challenges. Faced with “[s]trict and significantly toughening NO<sub>x</sub> limits,” Volkswagen knew  
 7 those “NO<sub>x</sub> limits could not be met with [their] technological design” for lean NO<sub>x</sub> traps so  
 8 instead they dealt with the problem by installing defeat devices on those Class Vehicles. The  
 9 Class Vehicles with urea treatments faced a separate problem: the urea tanks were too small for  
 10 consumers to maintain urea levels at standard maintenance intervals. Volkswagen also took  
 11 shortcuts around these engineering challenges by implementing a defeat device to reduce urea  
 12 consumption and illegally stretch the capacity of its urea tanks outside of test  
 13 conditions. Volkswagen concluded this presentation by implicitly acknowledging the toxicity of  
 14 its corporate culture, as Volkswagen announced it would establish a “new mindset” among  
 15 Volkswagen leadership that has “[m]ore capacity for criticism.”<sup>143</sup>

16 218. The entire after-the-fact chronology and explanation of how and why Volkswagen  
 17 perpetrated its fraud is set forth in its December 10, 2015, presentation, as follows:



143 Volkswagen AG, *The Volkswagen Group is moving ahead: Investigation, customer solutions, realignment*, Volkswagen AG (Dec. 10, 2015), [http://www.volkswagenag.com/content/vwcorp/info\\_center/en/talks\\_and\\_presentations/2015/12/Presentation\\_MUE\\_POE.bin.html/binarystorageitem/file/2015\\_12\\_10\\_Pr%C3%A4sentation+PK\\_Final\\_ENG.pdf](http://www.volkswagenag.com/content/vwcorp/info_center/en/talks_and_presentations/2015/12/Presentation_MUE_POE.bin.html/binarystorageitem/file/2015_12_10_Pr%C3%A4sentation+PK_Final_ENG.pdf).



17

## H. Volkswagen's Failed Attempts at Remedial Action

219. While Volkswagen has repeatedly expressed its commitment to fix the problem and restore the public's trust, its attempts at remedial action have been wholly inadequate.

220. On November 8, 2015, Volkswagen announced a "goodwill package" to owners of Class Vehicles subject to the First NOV, but not the Second NOV.<sup>144</sup> The "goodwill package" consisted of a \$500 Volkswagen Prepaid Visa Loyalty Card, a \$500 Volkswagen Dealership Card, and 24-hour Roadside Assistance for three years. Volkswagen is on record that this package is provided to consumers "without any strings attached," and disavowed any attempt to claim offset for this "goodwill." U.S. Senators Richard Blumenthal and Edward J. Markey decried the program as "insultingly inadequate" and "a fig leaf attempting to hide the true depths of Volkswagen's deception." Volkswagen has since expanded the "goodwill package" to owners of 3.0-liter TDI Touareg models; however, the remaining vehicles at issue in the Second NOV are still excluded.

221. While Volkswagen claims to have a software fix for European cars, it has struggled to find a solution for U.S. cars. In a statement discussing the European fix, it said:

<sup>144</sup> Joseph White, *et al.*, *Volkswagen Offers U.S. Diesel Owners \$1,000 in Credit Cards*, Reuters (Nov. 9, 2015), <http://www.reuters.com/article/2015/11/09/volkswagen-emissionsid-idUSL1N1341ET20151109#eARbZZJFylQvGmG1.99>.

1 Due to far stricter nitrogen oxide limits in the United States, it is a  
 2 greater technical challenge to retrofit the vehicles such that all  
 3 applicable emissions limits can be met with one and the same  
 4 emissions strategy. . . . To this end, Volkswagen is cooperating  
 5 closely with the United States Environmental Protection Agency  
 6 and the California Air Resources Board.<sup>145</sup>

7 222. However, that cooperation has not yet been met with any success. On January 12,  
 8 2016, CARB rejected Volkswagen's proposal to recall and remedy Class Vehicles equipped with  
 9 2.0-liter diesel engines, finding that the plans were "incomplete, substantially deficient, and fall  
 10 far short of meeting the legal requirements to return these vehicles to the claimed certification  
 11 configuration."<sup>146</sup> Following the rejection, CARB initiated an enforcement action against  
 12 Volkswagen and CARB Chair Mary D. Nichols released the following statement:

13 Volkswagen made a decision to cheat on emissions tests and then  
 14 tried to cover it up. They continued and compounded the lie and  
 15 when they were caught they tried to deny it. The result is thousands  
 16 of tons of nitrogen oxide that have harmed the health of  
 17 Californians. They need to make it right. Today's action is a step in  
 18 the direction of assuring that will happen.<sup>147</sup>

19 Shortly thereafter, the EPA issued a statement of its own backing CARB's decision not to  
 20 approve Volkswagen's recall plans.<sup>148</sup> Volkswagen's efforts to meet EPA and CARB emission  
 21 standards are ongoing, and are a component of currently proposed governmental and class action  
 22 settlements addressing Volkswagen's 2.0-liter vehicles, which are pending before this Court and  
 23 undergoing an approval process.

24 **I. Volkswagen Caused Billions of Dollars in Harm to U.S. Consumers**

25 223. Volkswagen's illegal scheme duped hundreds of thousands of U.S. consumers into  
 26 buying Class Vehicles that never should have left the factory, let alone been sold, at a cost of  
 27 billions of dollars. Similarly, automobile dealers like Plaintiffs and the Class members were

28 <sup>145</sup> Jay Ramey, *VW chairman Poetsch: Company 'tolerated breaches of rules,'* Autoweek  
 (Dec. 10, 2015), <http://autoweek.com/article/vw-diesel-scandal/vw-chairman-poetsch-company-tolerated-breaches-rules>.

<sup>146</sup> Ashlee Kieler, *California Rejects VW Proposal To Fix Emissions-Cheating Vehicles,*  
 Consumerist (Jan. 12, 2016), <http://consumerist.com/2016/01/12/california-rejects-vw-proposal-to-fix-emissions-cheating-vehicles/>.

<sup>147</sup> *Id.*

<sup>148</sup> *Id.*

1 duped into acquiring scores of Class Vehicles for the purpose of resale to equally unwitting  
2 consumers.

3 224. In addition, Volkswagen charged premiums of several thousands of dollars for the  
4 Class Vehicles, as compared to non-diesel vehicles. Using recent pricing figures, it has been  
5 estimated that Volkswagen charged premiums of from 7 to 27 percent for its 2.0-liter diesel  
6 models.<sup>149</sup> For example, the non-diesel 2015 Passat started at \$21,340, while the “clean” diesel  
7 fetched at least \$27,100.<sup>150</sup> Though the “clean” diesel model achieves greater mileage, the  
8 premium—some \$5,755—would buy enough gas to drive the non-diesel model approximately  
9 88,000 miles at current gas prices.<sup>151</sup> Automobile dealers like Plaintiffs and the Class Members  
10 were willing to pay such a premium because of the Volkswagen vehicles’ popularity with  
11 American consumers.

12 225. Automobile dealer Class Members purchased the Class Vehicles only because  
13 Volkswagen fraudulently obtained COCs from the EPA to illegally introduce them into the U.S.  
14 stream of commerce. In addition, Volkswagen engaged in a false and misleading advertising  
15 campaign that the Clean Diesel engine system was an environmentally friendly, fuel efficient, and  
16 low emission vehicle with high performance. Plaintiffs and the Class Members acquired the  
17 Class Vehicles based on these claims, and were harmed as the cars were neither legal nor clean.

18 226. While Volkswagen once claimed that these vehicles would have “a higher resale  
19 value versus comparable gasoline vehicles,”<sup>152</sup> the cars are, in fact, now virtually unsellable and  
20 subject to a recall for the indefinite future. With the revelations of Volkswagen’s fraud, the Class  
21 Vehicles have decreased sharply in value. Within several weeks of the announcement of  
22 Volkswagen’s emissions fraud, the value of the Class Vehicles plummeted by nearly 16%.<sup>153</sup> In

23 <sup>149</sup> Kyle Stock, *Volkswagen’s Other Diesel Ruse: Premium Pricing*, Bloomberg (Sept. 23, 2015),  
24 <http://www.bloomberg.com/news/articles/2015-09-23/volkswagen-s-other-diesel-ruse-premium-pricing>.

25 <sup>150</sup> *Id.*

26 <sup>151</sup> *Id.*

27 <sup>152</sup> See Audi of America, TDI® clean diesel (2015),  
28 <http://drivedigitalgroup.com/Dealer/classaudi/brochures/tdi.pdf>.

<sup>153</sup> See Ryan Beene, *Used VW diesel prices nosedive as fix remains unclear*, Autoweek (Oct. 26,  
2015), <http://autoweek.com/article/vw-diesel-scandal/used-vw-diesels-prices-nosedive-while-waiting-repair-news>.



1 fact, VW, Audi, and Porsche have halted all sales of the Class Vehicles, new or used, so that even  
2 dealers are stuck with tainted, stigmatized, and unsellable Class Vehicles.

3 227. As an illustration of the quantifiable financial loss suffered by Class Members, the  
4 charts below demonstrate that the retail values prices of Audi, Porsche, and Volkswagen models  
5 equipped with 3.0-liter engines that incorporated the “defeat device” experienced significantly  
6 greater rates of depreciation than competitive models following revelation of the scandal in or  
7 about September of 2015. Examples of the accelerated monthly depreciation rates illustrative of  
8 the decline in the NADA Clean Retail Values of the affected models appear below.

9 **Average (Geometric Mean) Monthly Depreciation Rates**

10 <b>Q7 TDI vs. Competitive Vehicles by Model Year</b>		
	11 <u>Q7 TDI</u>	12 <u>Competitive Vehicles</u>
13 2009 Model Year (1/2012 – 9/2015)	1.23%	1.46%
14 (10/2015 – 6/2016)	2.80%	1.65%
15 2010 Model Year (1/2012 – 9/2015)	1.30%	1.41%
16 (10/2015 – 6/2016)	1.86%	1.26%
17 2011 Model Year (1/2012 – 9/2015)	1.23%	1.43%
18 (10/2015 – 6/2016)	1.70%	1.24%
19 2012 Model Year (1/2012 – 9/2015)	1.17%	1.24%
20 (10/2015 – 6/2016)	2.62%	1.63%
21 2013 Model Year (11/2013 – 6/2016)	1.23%	1.10%
22 (10/2015 – 6/2016)	2.35%	1.28%
23 2014 Model Year (5/2014 – 9/2015)	0.96%	0.90%
(10/2015 – 6/2016)	1.89%	0.95%
24 <b>CAYENNE DIESEL vs. Competitive Vehicles by Model Year</b>		
	25 <u>Cayenne Diesel</u>	26 <u>Competitive Vehicles</u>
27 2013 Model Year (11/2013 9/2015)	1.22%	1.16%
28 (10/2015 – 6/2016)	2.31%	1.18%

1	2014 Model Year (1/2015 – 9/2015)	1.50%	1.10%
2	(10/2015 – 6/2016)	1.84%	1.12%
3	<b>Q5 TDI vs. Competitive Vehicles by Model Year</b>		
4		<u>Q5 TDI</u>	<u>Competitive Vehicles</u>
5			
6	2014 Model Year (9/2014 – 9/2015)	-0.24%	0.11%
7	(10/2015 – 6/2016)	2.04%	1.07%
8	<b>TOUAREG TDI vs. Competitive Vehicles by Model Year</b>		
9		<u>Touareg TDI</u>	<u>Competitive Vehicles</u>
10	2009 Model Year (1/2012 – 9/2015)	1.30%	1.40%
11	(10/2015 – 6/2016)	2.27%	1.52%
12	2010 Model Year (1/2012 – 9/2015)	1.40%	1.35%
13	(10/2015 – 6/2016)	2.01%	1.43%
14	2011 Model Year (1/2012 – 9/2015)	0.98%	1.22%
15	(10/2015 – 6/2016)	2.30%	1.26%
16	2012 Model Year (8/2012 – 9/2015)	0.99%	1.08%
17	(10/2015 – 6/2016)	2.49%	1.44%
18	2013 Model Year (5/2013 – 9/2015)	1.06%	0.86%
19	(10/2015 – 6/2016)	1.95%	1.20%
20	2014 Model Year (7/2014 – 9/2015)	1.09%	0.42%
21	(10/2015 – 6/2016)	2.57%	1.12%
22	<b>A6 TDI vs. Competitive Vehicles by Model Year</b>		
23		<u>A6 TDI</u>	<u>Competitive Vehicles</u>
24	2014 Model Year (7/2014 – 9/2015)	1.29%	1.20%
25	(10/2015 – 6/2016)	2.53%	1.55%
26			
27			
28			

<b>A7 TDI vs. Competitive Vehicles by Model Year</b>		
	<u>A7 TDI</u>	<u>Competitive Vehicles</u>
2014 Model Year (5/2014 – 9/2015)	0.90%	0.53%
(10/2015 – 6/2016)	2.32%	1.51%
<b>A8 TDI vs. Competitive Vehicles by Model Year</b>		
	<u>A8 TDI</u>	<u>Competitive Vehicles</u>
2014 Model Year (6/2014 – 9/2015)	1.53%	0.70%
(10/2015 – 6/2016)	2.04%	1.76%

228. Volkswagen cannot fix the Class Vehicles without degrading their performance, including horsepower and/or efficiency. As a result, even if Volkswagen is able to make the Class Vehicles compliant, Class Members will nonetheless suffer actual harm and damages because their vehicles will no longer perform as promised. Car buyers, now aware of the defeat device scandal, are no longer willing to pay a premium for Volkswagen's discredited technology. This has resulted in a diminution in value of every Class Vehicle in the Class Members' inventory.

229. The harm described herein is quantifiable and ongoing. As a result of Volkswagen's illegal scheme, owners and lessees of the Class Vehicles have suffered losses—and continue to lose—money and property in the many millions of dollars.

### **TOLLING OF THE STATUTES OF LIMITATIONS**

#### **Discovery Rule**

230. The tolling doctrine was made for cases of concealment like this one. Plaintiffs and Class members did not discover, and could not have discovered through the exercise of reasonable diligence, that Defendants had conspired to install software that would evade emissions regulations, and that Volkswagen was concealing and misrepresenting the true emissions levels of its vehicles.



1 knowingly made misrepresentations about the quality, reliability, characteristics, and performance  
2 of the Class Vehicles.

3 240. Plaintiffs and Class members reasonably relied upon Volkswagen's knowing and  
4 affirmative misrepresentations and/or active concealment of these facts.

5 241. Based on the foregoing, Defendants are estopped from relying on any statutes of  
6 limitation in defense of this action.

7 **PLAINTIFFS' FACTS**

8 242. Plaintiff A to Z acquired one of the Class Vehicles, a 2012 VW Jetta TDI, on July  
9 1, 2015. A to Z purchased the vehicle at auction for \$10,715, and incurred additional costs  
10 including inspection fees, auction fees, delivery fees, maintenance and repair costs, and  
11 advertising costs totaling \$1,615.00, for a total investment in the vehicle of \$12,330.00. A to Z  
12 expected to sell the vehicle for \$13,995.00, and advertised the vehicle for sale on its lot and on the  
13 internet. After news of the defeat device scandal, A to Z dropped the list price four times in  
14 increments of \$500 each, and ultimately sold the vehicle on November 23, 2015, for \$11,995, an  
15 out-of-pocket loss of \$335.00 and additional expected lost profits of 1,665.00.

16 243. Plaintiff MSI acquired one of the Class Vehicles, a 2013 VW Jetta TDI, on July  
17 29, 2015. MSI purchased the vehicle at auction for \$10,575.00, and incurred additional costs  
18 including auction fees, delivery fees, maintenance and repair costs, and advertising costs totaling  
19 \$6,815.00, for a total investment in the vehicle of \$17,390.00. Prior to purchasing the Class  
20 Vehicle, MSI's owner, Abdulrahman Al Dachach, had seen television commercials touting the  
21 benefits of VW's clean diesel engines. According to Al Dachach, "Customers liked VW's clean  
22 diesels because of the good gas mileage and they were cleaner for the environment than other  
23 diesels." MSI expected to sell the vehicle for \$19,500.00, and advertised the vehicle for sale on  
24 its lot and also on various websites. MSI has not been able to sell the vehicle to date.

25 **CLASS ACTION ALLEGATIONS**

26 244. Plaintiffs bring this lawsuit as a class action pursuant to Federal Rules of Civil  
27 Procedure 23(a); (b)(1); (b)(2); (b)(3); and/or (c)(4), on behalf of themselves and all others  
28

1 similarly situated as members of the following Independent Automobile Dealership Reseller  
2 Class (the “Class”).

3 245. This action concerns the following Class Vehicles:

2.0-liter Class Vehicles	
Volkswagen Jetta TDI	2009-2015
Volkswagen Jetta SportWagen TDI	2009-2014
Volkswagen Beetle TDI	2012-2015
Volkswagen Beetle Convertible TDI	2012-2015
Audi A3 TDI	2010-2015
Volkswagen Golf TDI	2010-2015
Volkswagen Golf SportWagen TDI	2015
Volkswagen Passat TDI	2012-2015

3.0-liter Class Vehicles	
Volkswagen Touareg TDI	2009-2016
Porsche Cayenne Diesel	2013-2016
Audi A6 Quattro TDI	2014-2016
Audi A7 Quattro TDI	2014-2016
Audi A8 TDI	2014-2016
Audi A8L TDI	2014-2016
Audi Q5 TDI	2014-2016
Audi Q7 TDI	2009-2016

11 246. The proposed Class is defined as the :

12 **Independent Automobile Dealership Reseller Class**

13 All automobile dealers in the United States, or its territories, with  
14 one or more previously owned VW Class Vehicles in inventory as  
15 of September 18, 2015, and/or previously owned Audi or Porsche  
16 Class Vehicles in inventory as of November 2, 2015.<sup>154</sup>

17 247. Excluded from the Classes are: (A) Defendants, including any entity or division in  
18 which Defendants have a controlling interest, as well as their agents, representatives, officers,  
19 directors, employees, trustees, parents, children, heirs, assigns, and successors, and other persons  
20 or entities related to, or affiliated with Defendants; (B) automobile dealerships affiliated with  
21

22  
23  
24  
25  
26  
27  
28  
<sup>154</sup> September 18, 2015, is the date the EPA and the California Air Resources Board revealed to the public the existence and nature of Defendants’ defeat device scheme with respect to VW brand Class Vehicles. On November 2, 2015, the existence of the defeat device scheme with respect to Audi and Porsche brand Class Vehicles became public knowledge as well.

1 defendants VW, Audi, or Porsche; (C) the Judges to whom this case is assigned, their staff, and  
2 their immediate families; and (D) governmental entities. Plaintiffs reserve the right to amend the  
3 Class definitions if discovery and further investigation reveal that any Class should be expanded,  
4 divided into additional subclasses under Rule 23(c)(5), or modified in any other way.

5 248. Certification of Plaintiffs' claims for class-wide treatment is appropriate because  
6 Plaintiffs can prove the elements of their claims on a class-wide basis using the same evidence as  
7 would be used in individual actions alleging the same claims.

8 249. This action has been brought and may be properly maintained on behalf of each of  
9 the Classes proposed herein under Federal Rule of Civil Procedure 23 and satisfies the  
10 numerosity, commonality, typicality, adequacy, predominance, and superiority requirements of its  
11 provisions.

12 **Numerosity and Ascertainability**

13 250. Although the exact number of Class Members is uncertain, there is no doubt that  
14 the number is great enough that joinder is impracticable. Hundreds of automobile dealers have  
15 one or more of the Class Vehicles in inventory, and thus are Class Members within the proposed  
16 class definition. The disposition of the claims of these Class Members in a single action will  
17 provide substantial benefits to all parties and to the Court. Class Members are readily identifiable  
18 from Volkswagen's internal records and from state vehicle registration records such as those  
19 compiled by independent vendor R.L Polk & Company.

20 **Typicality**

21 251. The claims of the representative Plaintiffs are typical of the claims of the Class in  
22 that the representative Plaintiffs, like all Class Members, acquired a Class Vehicle prior to  
23 September 18, 2015, when the defeat device scandal was revealed to the public. The  
24 representative Plaintiffs, like all Class Members, have been damaged by Defendants' misconduct  
25 in that they have incurred losses relating to the Class Vehicles. Furthermore, the factual bases of  
26 Defendants' misconduct are common to all Class Members and represent a common thread of  
27 misconduct resulting in injury to all Class Members.  
28





- 1 i. whether Defendants’ concealment of the true nature of the  
2 Class Vehicles would have induced a reasonable consumer  
3 to act to their detriment by purchasing and/or leasing the  
4 Class Vehicles;
- 5 j. whether the Class Vehicles can be made to comply with  
6 EPA and state emission standard without substantially  
7 degrading their performance and/or efficiency;
- 8 k. whether Bosch supplied the “defeat device” to Volkswagen  
9 with the knowledge that Volkswagen would use it in  
10 production of Class Vehicles;
- 11 l. whether Bosch acted in concert with Volkswagen and aided  
12 and abetted Volkswagen’s fraud;
- 13 m. whether Defendants’ conduct violated RICO, fraud, and  
14 negligence laws, among others laws, as alleged herein;
- 15 n. whether Plaintiffs and Class members are entitled to a  
16 declaratory judgment;
- 17 o. whether Plaintiffs and Class members are entitled to  
18 equitable relief, including, but not limited to, a preliminary  
19 and/or permanent injunction; and
- 20 p. whether Plaintiffs and Class members are entitled to  
21 damages and other monetary relief, and, if so, of what types  
22 and under what formula.

23 **Superiority**

24 254. Defendants’ scheme treated Class members as a Class to be uniformly deceived.  
25 A class action is superior to all other available methods for the fair and efficient adjudication of  
26 this controversy. Plaintiffs and Class members have all suffered and will continue to suffer  
27 economic harm and damage as a result of Defendants’ unlawful and wrongful conduct, which was  
28 directed toward Class members and the public as a whole, rather than specifically or uniquely  
against any individual Class members.

23 255. Defendants have acted in a uniform manner with respect to the Plaintiffs and Class  
24 members. Absent a class action, most Class members would likely find the cost of litigating their  
25 claims prohibitively high and would therefore have no effective remedy at law. Because of the  
26 relatively small size of the individual Class members’ claims, it is likely that only a few Class  
27 members could afford to seek legal redress for Defendants’ misconduct. Absent a class action,  
28

1 Class members will continue to incur damages, and Defendants’ misconduct will continue  
2 without effective remedy.

3 256. Class treatment in this Court, as a court with original jurisdiction over the Class  
4 claims and as an MDL Transferee Court under 28 U.S. § 1407, will conserve the resources of the  
5 courts and the litigants, and will promote consistency and efficiency of adjudication by providing  
6 common answers to the common questions of knowledge, conduct, duty and breach, that  
7 predominate in this action.

8 257. Classwide declaratory, equitable, and injunctive relief is appropriate under  
9 Rule 23(b)(1) and/or (b)(2) because Defendants have acted on grounds that apply generally to the  
10 class, and inconsistent adjudications with respect to the Defendants’ liability would establish  
11 incompatible standards and substantially impair or impede the ability of Class members to protect  
12 their interests. Classwide relief and Court supervision under Rule 23 assures fair, consistent, and  
13 equitable treatment and protection of all Class members, and uniformity and consistency in  
14 Defendants’ discharge of their duties to perform corrective action regarding the Class Vehicles.

15 **CLAIMS FOR RELIEF**

16 **FIRST CLAIM FOR RELIEF:**  
17 **Violation of 18 U.S.C. § 1962(c)-(d)**  
18 **The Racketeer Influenced And Corrupt Organizations Act (“RICO”)**

19 258. Plaintiffs incorporate by reference each preceding paragraph as though fully set  
20 forth herein.

21 259. Plaintiffs bring this Count on behalf of the Nationwide Class against the following  
22 Defendants: VW AG, Audi AG, Porsche AG, Winterkorn, Müller, Horn, Stadler, Bosch GmbH,  
23 Bosch LLC, and Denner (inclusively, for purpose of this Count, the “RICO Defendants”).

24 260. Volkswagen conducts its business—legitimate and illegitimate—through various  
25 affiliates and subsidiaries, each of which is a separate legal entity. Bosch also conducts its  
26 business, both legitimate and illegitimate, through hundreds of subsidiaries and affiliates.<sup>155</sup> At

27 <sup>155</sup>[http://www.bosch.com/en/com/bosch\\_group/business\\_sectors\\_divisions/business\\_sectors\\_divisions\\_2.php](http://www.bosch.com/en/com/bosch_group/business_sectors_divisions/business_sectors_divisions_2.php) (last visited on Feb. 20, 2016).  
28

1 all relevant times, the RICO Defendants have been “persons” under 18 U.S.C. § 1961(3) because  
2 they are capable of holding, and do hold, “a legal or beneficial interest in property.”

3 261. Section 1962(c) makes it “unlawful for any person employed by or associated with  
4 any enterprise engaged in, or the activities of which affect, interstate or foreign commerce, to  
5 conduct or participate, directly or indirectly, in the conduct of such enterprise’s affairs through a  
6 pattern of racketeering activity.” 18 U.S.C. § 1962(c).

7 262. Section 1962(d) makes it unlawful for “any person to conspire to violate” Section  
8 1962(c), among other provisions. *See* 18 U.S.C. § 1962(d).

9 263. For many years, the RICO Defendants aggressively sought to increase their sales  
10 of the Class Vehicles (and components contained therein) in an effort to bolster their revenues,  
11 augment profits, and increase their market share of the diesel vehicle market. Finding it  
12 impossible to achieve their ambitious goals lawfully, however, the RICO Defendants resorted to  
13 cheating through their fraudulent scheme and conspiracy. The illegal scheme was hatched  
14 overseas by VW AG, Audi AG, and/or Porsche AG (“the German Volkswagen Defendants”),  
15 brought to U.S. shores by and through the vehicles of VW America, Audi America, and Porsche  
16 America (collectively, the “American Volkswagen Defendants”), and executed in conjunction  
17 with Bosch. In particular, the RICO Defendants, along with other entities and individuals, were  
18 employed by or associated with, and conducted or participated in the affairs of, one or several  
19 RICO enterprises (defined below and referred to collectively as the “Defeat Device RICO  
20 Enterprise”), whose purpose was to deceive regulators and the driving public into believing that  
21 the Class Vehicles were compliant with emission standards, “clean,” and “environmentally  
22 friendly” so as to increase revenues and minimize losses from the design, manufacture,  
23 distribution and sale of the Class Vehicles and the defeat devices installed therein. As a direct  
24 and proximate result of their fraudulent scheme and common course of conduct, Defendants were  
25 able to extract revenues of billions of dollars from Plaintiffs and the Class. As explained in detail  
26 below, the RICO Defendants’ years-long misconduct violated Sections 1962(c) and (d).

1           **B.     Description of the Defeat Device RICO Enterprise**

2           264.     In an effort to expand its global reach, market share, and standardized marketing  
3 and sales in the U.S., VW AG, a publicly-traded German company, formed VW America, a  
4 separate New Jersey company, which is headquartered in Virginia. VW America is not publicly  
5 traded and thus has no SEC reporting obligations, but it does have reporting obligations,  
6 protections and responsibilities unique to the State of New Jersey. VW AG also controls Audi  
7 AG and Porsche AG which, in turn, formed separate U.S. subsidiaries that are not publicly traded  
8 – Audi America and Porsche America, respectively – to market and sell the Class Vehicles  
9 throughout the U.S. At all relevant times, VW AG maintained tight control over the design,  
10 manufacture, and testing of the Class Vehicles.

11           265.     At all relevant times, the RICO Defendants, along with other individuals and  
12 entities, including unknown third parties involved in the design, manufacture, testing, and sale of  
13 the Class Vehicles, operated an association-in-fact enterprise, which was formed for the purpose  
14 of fraudulently obtaining COCs from the EPA (and EOs from CARB) in order to import and sell  
15 the Class Vehicles containing the defeat device throughout the U.S., and through which they  
16 conducted a pattern of racketeering activity under 18 U.S.C. § 1961(4).

17           266.     Alternatively, each of the American Volkswagen Defendants constitutes a single  
18 legal entity “enterprise” within the meaning of 18 U.S.C. § 1961(4), through which the RICO  
19 Defendants conducted their pattern of racketeering activity in the U.S. Specifically, VW America  
20 is the entity through which Volkswagen applied for, and obtained, the EPA COCs for the VW-  
21 and Audi-branded Class Vehicles with material misrepresentations and omissions about their  
22 specifications in order to introduce them into the U.S. stream of commerce. Similarly, Porsche  
23 America is the entity through which Volkswagen applied for, and obtained, the EPA COCs for  
24 the Porsche-branded Class Vehicles with material misrepresentations and omissions about their  
25 specifications in order to introduce them into the U.S. stream of commerce. And, on information  
26 and belief, the German Volkswagen Defendants and Individual Volkswagen Defendants  
27 (Winterkorn, Müller, Horn, and Stadler) used each of the American Volkswagen Defendants to  
28 distribute and sell the illegal Class Vehicles throughout the U.S. Finally, Bosch participated,

1 either directly or indirectly, in the conduct of the enterprise's affairs by developing, supplying,  
2 and concealing the defeat devices. The American Volkswagen Defendants' separate legal  
3 statuses facilitated the fraudulent scheme and provided a hoped-for shield from liability for the  
4 RICO Defendants and their co-conspirators. The enterprises, alleged in this and the previous  
5 paragraph, are referred to collectively as the "Defeat Device RICO Enterprise."

6 267. At all relevant times, the Defeat Device RICO Enterprise constituted a single  
7 "enterprise" or multiple enterprises within the meaning of 18 U.S.C. § 1961(4), as legal entities,  
8 as well as individuals and legal entities associated-in-fact for the common purpose of engaging in  
9 RICO Defendants' profit-making scheme.

10 268. The association-in-fact Defeat Device RICO Enterprise consisted of the following  
11 entities and individuals.

## 12 **2. The Volkswagen Entity Defendants**

13 269. Each Volkswagen Entity Defendant is a distinct legal entity, but they are all  
14 controlled (directly or indirectly) by Defendant VW AG.<sup>156</sup> Specifically, Audi AG is a majority-  
15 owned subsidiary of VW AG. Audi America is also a subsidiary of VW AG. Porsche AG is a  
16 wholly-owned subsidiary of VW AG, and Porsche America is, in turn, a wholly-owned subsidiary  
17 of Porsche AG.

18 270. As noted previously, the Volkswagen RICO Defendants made it their mission to  
19 become the dominant automotive manufacturing conglomerate in the world. At the time they  
20 articulated this goal, however, Volkswagen was struggling to retain its foothold in the U.S.  
21 market. The strategy of wooing customers with premium products was not paying off, and VW  
22 America's costly plant in Chattanooga, Tennessee was "woefully underutilized."<sup>157</sup>

23 271. In response to these obstacles, VW AG and its leader at the time, Defendant  
24 Winterkorn, set in motion an ambitious plan to triple Volkswagen's sales in the U.S. The  
25

26 <sup>156</sup> [http://www.volkswagenag.com/content/vwcorp/content/en/brands\\_and\\_products.html](http://www.volkswagenag.com/content/vwcorp/content/en/brands_and_products.html);  
27 [http://www.volkswagenag.com/content/vwcorp/info\\_center/en/publications/2015/03/Y\\_2014\\_e.bi](http://www.volkswagenag.com/content/vwcorp/info_center/en/publications/2015/03/Y_2014_e.bi)  
28 [n.html/binarystorageitem/file/GB+2014\\_e.pdf](n.html/binarystorageitem/file/GB+2014_e.pdf)

<sup>157</sup> Anton Watts. VW Drama: *Why Piech Wants Winterkorn Out-and What the Future May Hold*.  
Car and Driver (Apr. 16, 2015).

1 linchpin of this strategy was increasing sales of “diesel-powered cars . . . [and] promising high  
2 mileage and low emissions without sacrificing performance.”<sup>158</sup>

3 272. Additionally, to achieve their lofty sales goals, the Volkswagen RICO Defendants  
4 made a business-driven decision to move away from the original selective catalytic reduction  
5 (“SCR”) emission control systems they had previously used in their vehicles and focused instead  
6 on a less expensive and easier to maintain lean NO<sub>x</sub> trap system.<sup>159</sup> Critically, however, the NO<sub>x</sub>  
7 trap technology that the Volkswagen RICO Defendants implemented could not effectively reduce  
8 the Class Vehicles’ toxic NO<sub>x</sub> emissions to lawful levels under normal operating conditions.

9 273. Accordingly, working with the other members of the Defeat Device RICO  
10 Enterprise, including the Bosch Defendants, the Volkswagen RICO Defendants devised a scheme  
11 to illegally circumvent the U.S.’s stringent emissions standards by incorporating a “defeat device”  
12 into the Class Vehicles’ Electronic Diesel Control Units. Employing this technology, Defendants  
13 fraudulently obtained COCs (and EOs) for the Class Vehicles even though they emit unlawful  
14 levels of toxic pollutants into the atmosphere during normal operating conditions.<sup>160</sup>

15 274. Moreover, in order to profit from the scheme and increase their sales according to  
16 plan, the Volkswagen RICO Defendants falsely marketed the Class Vehicles as not only  
17 compliant but “*clean*” and “*environmentally friendly*” vehicles.<sup>161</sup>

18 275. In sum, as part of their effort to become the dominant automotive manufacturing  
19 conglomerate in the world, the Volkswagen RICO Defendants controlled and directed a decade-

21 \_\_\_\_\_  
22 <sup>158</sup> Danny Kim, Aaron Danny Hakim, Aaron Kessler, and Jack Ewing, “*As Volkswagen Pushed to Be No. 1, Ambitions Fueled a Scandal*,” New York Times (Sept. 26, 2015).

23 <sup>159</sup> The term “NO<sub>x</sub> trap” refers to any device whose purpose is to reduce the oxides of nitrogen.  
24 See [https://en.wikipedia.org/wiki/NOx\\_adsorber](https://en.wikipedia.org/wiki/NOx_adsorber). However, the term here is used as a shorthand,  
25 informal reference to the emissions control system developed by the Volkswagen Defendants as  
26 an alternative to the SCR system. Unlike the NO<sub>x</sub> trap, SCR systems require vehicles to carry an  
onboard tank of an exhaust additive, often urea crystals in mineralized water, that has to be  
refilled every 10,000 miles at a cost of around \$300. Additionally, SCR systems also increase the  
vehicles’ initial purchase price.

<sup>160</sup> *Id.*

27 <sup>161</sup> See Jad Mouawad & Sydney Ember, *VW’s Pitch to Americans Relied on Fun and Fantasy*,  
28 New York Times (Sept. 27, 2015), <http://nytimes.com/2015/09/28/business/media/vws-pitch-to-americans-relied-on-fun-and-fantasy.html?ref=business>.

1 long enterprise with the common purpose of deceiving regulators and the public through lies and  
2 deception to increase their market shares and profits, and minimize losses.

3 **3. The Volkswagen Entity Defendants' Directors, Officers, and Engineers**

4 276. Volkswagen's leaders—including the Individual Defendants (Winterkorn, Müller,  
5 Horn, and Stadler) and their unnamed co-conspirators—Ulrich Hackenberg ("Hackenberg"),  
6 Frank Tuch ("Tuch"), Wolfgang Hatz ("Hatz"), Scott Keogh ("Keogh"), and Detlev von Platen  
7 ("von Platen")—played pivotal roles in the Defeat Device RICO Enterprise's unlawful scheme,  
8 common course of conduct, and conspiracy.

9 **b. Martin Winterkorn**

10 277. Defendant Winterkorn took the helm of VW AG in 2007 and was the chief  
11 architect of Volkswagen's strategy to triple sales in the U.S. market by relying more heavily on  
12 "clean" diesel vehicles.<sup>162</sup>

13 278. Winterkorn quickly realized his strategy could not succeed if Volkswagen relied  
14 on the same SCR technology that they had used up until then. Winterkorn instead advocated an  
15 alternative course of action that enabled Volkswagen to cut costs and offer the public lower-  
16 priced diesel vehicles. To that end, he appointed Hackenberg and Hatz, two former Audi  
17 engineers and unnamed co-conspiring members of the Defeat Device RICO Enterprise, to lead  
18 the research and development facet of the "clean" diesel project.

19 279. Nevertheless, despite Hackenberg and Hatz's efforts, the technological hurdles  
20 were too formidable, and a lawful alternative could not apparently be found. Although Defendant  
21 Winterkorn was routinely apprised of these obvious technical setbacks, he continued to pursue the  
22 aggressive cost-cutting, profit driven plan he had originally envisioned. In so doing, he set into  
23 motion the fraudulent scheme to defraud regulators and consumers.

24 280. Winterkorn knew that the Class Vehicles were unable to comply with emission  
25 standards and thus utilized defeat devices in order to evade federal and state emission standards.

26  
27  
28 <sup>162</sup> Volkswagen AG, *TDI: U.S. Market Success, Clean Diesel Delivers* (March, 2015),  
[http://cleandieseldelivers.com/media/Douglas-Skorupski-VWoA\\_DTF\\_March2015.pdf](http://cleandieseldelivers.com/media/Douglas-Skorupski-VWoA_DTF_March2015.pdf).

1                                   **c.     Matthias Müller**

2           281. Defendant Müller has worked at Volkswagen for nearly his entire life, starting as  
3 an Audi toolmaker and climbing the corporate ladder to become VW's Head of Product  
4 Management in 2007, and later, became the CEO of Porsche AG in October 2010. As CEO of  
5 Porsche AG, Müller was a trusted "longtime lieutenant of Mr. Winterkorn,"<sup>163</sup> and grew sales and  
6 profits at Porsche AG dramatically.

7           282. During Müller's reign over Porsche AG, he oversaw the release of the Porsche  
8 Cayenne Diesels discovered by the EPA to be equipped with defeat devices.

9           283. Further, after the revelation of Volkswagen's fraud, Müller was appointed CEO of  
10 VW AG on September 25, 2015. He is suspected to be a protégé of VW AG's former CEO  
11 Ferdinand Piëch, whom some blame for propagating the Volkswagen culture that ultimately led  
12 to the defeat device conspiracy alleged herein.<sup>164</sup>

13           284. Müller knew or recklessly disregarded that the Class Vehicles utilized defeat  
14 devices to evade federal and state vehicle emissions standards.

15                                   **d.     Michael Horn**

16           285. On January 1, 2014, Defendant Horn became CEO and President of VW America  
17 after 23 years working at Volkswagen in various sales leadership positions, until he resigned on  
18 March 9, 2016. Defendant Horn was tasked with continuing Winterkorn's aggressive ambitions  
19 to reach 800,000 in U.S. sales by 2018. As part of his position, Defendant Horn oversaw VW  
20 America emissions labs, regulatory compliance efforts, and development of new vehicles.

21           286. As alleged above, Defendant Horn admitted to Volkswagen's intentional use of  
22 defeat devices to overcome state and federal regulation.

23           287. Moreover, Defendant Horn admittedly knew about Volkswagen's use of defeat  
24 devices at least as early as 2014, and also knew (and concealed) the existence of defeat devices in  
25 Class Vehicles when Volkswagen initiated a recall in December 2014 to purportedly update

26 <sup>163</sup> Danny Hakim and Jack Ewing, *Matthias Müller, in the Driver's Seat at Volkswagen*, New  
27 York Times (Oct. 1, 2015), [http://www.nytimes.com/2015/10/02/business/international/matthias-  
muller-in-the-drivers-seat-at-volkswagen.html](http://www.nytimes.com/2015/10/02/business/international/matthias-muller-in-the-drivers-seat-at-volkswagen.html).

28 <sup>164</sup> Victor Luckerson, *5 things to know about Volkswagen's new CEO Matthias Müller*, Fortune  
(Sept. 25, 2015), <http://fortune.com/2015/09/25/volkswagen-ceo-muller/>.



1 emission control software in the Class Vehicles without notifying regulators, or the Class, about  
2 the use of the illegal defeat devices.

3 **e. Rupert Stadler**

4 288. In 1990, Defendant Stadler joined Audi AG, assuming various roles in Audi and  
5 VW as he ascended the ranks at Volkswagen. On January 1, 2010, he was appointed CEO of  
6 Audi AG, which he remains to present day. As the CEO of Audi AG, Stadler was tasked with  
7 implementing Winterkorn's lofty growth goals, as well as overseeing unnamed co-conspirators  
8 Hatz and Hackenberg's development of the "clean" diesel engines in Audi vehicles.

9 289. Though presumed by many to be Winterkorn's heir apparent, the revelation of  
10 Volkswagen's emissions and Audi's extensive involvement in the conspiracy caused Stadler to be  
11 passed over for the position of VW AG CEO in favor of Matthias Müller.<sup>165</sup>

12 290. Stadler knew or recklessly disregarded that the Class Vehicles utilized defeat  
13 devices in order to evade federal and state vehicle emissions standards.

14 **f. Scott Keogh**

15 291. Since June 2012, unnamed co-conspirator Keogh has served as President of Audi  
16 America, after a six period as the Chief Marketing Officer of Audi America. His primary  
17 missions was "rallying the company's internal and external constituencies to focus on Audi goals  
18 for further expansion in the U.S. market,"<sup>166</sup> as promulgated by Winterkorn.

19 292. After the revelation of Volkswagen's fraud, Keogh publicly apologized for Audi  
20 America's involvement in the defeat device scandal<sup>167</sup> and agreed to return "Green Car of the  
21 Year" awards,<sup>168</sup> though he continues to tout the future of Audi diesel vehicles in the U.S.<sup>169</sup>

22 <sup>165</sup> *Audi CEO Rupert Stadler to continue with his post*, THE ECONOMIC TIMES (Sept. 25, 2015),  
23 <http://auto.economictimes.indiatimes.com/news/industry/audi-ceo-rupert-stadler-to-continue-with-his-post/49103955>.

24 <sup>166</sup> *Scott Keogh*, AUDI USA (last visited Feb. 27, 2016),  
<https://www.audiusa.com/newsroom/corporate/executive-team/scott-keogh>.

25 <sup>167</sup> Michael Walker, *L.A. Auto Show: VW, Porsche, Audi Execs Address Diesel Emissions Scandal*, THE HOLLYWOOD REPORTER (Nov. 20, 2015),  
26 <http://www.hollywoodreporter.com/news/vw-porsche-audi-execs-apologize-842581>.

27 <sup>168</sup> Jackie Wattles, *Volkswagen stripped of two 'Green Car of the Year' titles*, CNN MONEY (Oct.  
28 1, 2015), <http://money.cnn.com/2015/10/01/news/companies/volkswagen-green-car-of-year-awards-rescinded/>.

<sup>169</sup> Mike Duff, *Audi Chief Thinks Diesel Has a Future in the U.S.*, CAR AND DRIVER (Jan. 19,  
*Footnote continued on next page*)

1           293. Keogh knew or recklessly disregarded that the Class Vehicles utilized defeat  
2 devices in order to evade federal and state vehicle emissions standards.

3                               **g. Detlev von Platen**

4           294. In 1997, unnamed co-conspirator von Platen joined Porsche AG, managing the  
5 Porsche brand in France. Over the following decade, von Platen climbed the ranks at Porsche to  
6 assume the position of President and CEO of Porsche America on April 1, 2008.

7           295. As President and CEO of Porsche America, von Platen was charged with  
8 implementing Winterkorn’s vision for the Porsche brand in the U.S., as he had oversight  
9 “responsibility for the importation and distribution of Porsche cars in North America.”<sup>170</sup> Porsche  
10 America was expected to contribute to Winterkorn’s lofty sales goals, bolstered by the  
11 introduction of “clean” diesel engines for the Porsche Cayenne and increasing sales from 26,035  
12 to a record 47,007 sales in 2014.

13           296. On November 1, 2015, as part of a management shakeup in the wake of  
14 Volkswagen’s diesel scandal, von Platen left his position at Porsche America to become a  
15 member of the Executive Board for Sales and Marketing at Porsche AG.

16           297. Von Platen knew or recklessly disregarded that the Class Vehicles utilized defeat  
17 devices in order to evade federal and state vehicle emissions standards.

18                               **h. Ulrich Hackenberg**

19           298. On February 1, 2007, unnamed co-conspirator Hackenberg was appointed to  
20 Volkswagen’s Brand Board of Development. In this capacity, he was responsible for the  
21 technical development of all of the Volkswagen Defendant’s brands.<sup>171</sup>

22           299. On July 1, 2013, Hackenberg was appointed to the Board of Management of Audi  
23 AG and made responsible for its Technical Development department. In this capacity,  
24 Hackenberg spearheaded the development of Audi’s TDI “CleanDiesel” engines, which

25 \_\_\_\_\_  
*Footnote continued from previous page*

26 2016), <http://blog.caranddriver.com/audi-chief-thinks-diesel-has-a-future-in-the-u-s/>.

27 <sup>170</sup> *President and Chief Executive Officer - PCNA, Inc.*, PORSCHE CARS NORTH AMERICA (last  
visited Feb. 7, 2016), [http://press.porsche.com/more\\_about/executives/pcna/platen.php](http://press.porsche.com/more_about/executives/pcna/platen.php).

28 <sup>171</sup> <https://www.audiusa.com/newsroom/corporate/audi-ag-board-of-management/ulrich-hackenberg>

1 ultimately contained the illegal defeat devices at issue in this case. As he explained in a press  
2 release, Hackenberg's strategy for Audi's technical development included the following:

3 [P]ushing forward with development in . . . our TDI engines in the  
4 USA -- our clean diesel offensive is bearing substantial fruit. In  
5 China, too, we are already introducing the first clean diesel models  
6 and watching developments there very closely. We also expect a  
7 great deal from g-tron technology, the most sustainable type of gas  
8 drive.<sup>172</sup>

7 Hackenberg's statement is illustrative of the Volkswagen Defendants' efforts to falsely bill Class  
8 Vehicles as "clean," "environmentally friendly," and "fuel efficient" when the opposite was true.

9 **i. Frank Tuch**

10 300. In 2010, unnamed co-conspirator Tuch was appointed head of quality control  
11 across the various Volkswagen Defendants' brands. Defendant Winterkorn hoped Tuch would  
12 bring the Volkswagen Defendants "forward in the USA."<sup>173</sup> Volkswagen's in-house magazine  
13 reported that Tuch and Winterkorn worked closely to honor that pledge, meeting "every Monday  
14 to discuss quality issues, often taking test drives in vehicles manufactured by the company." In  
15 his role as head of quality assurance, Tuch was also intimately familiar with Volkswagen, Audi,  
16 and Porsche engines and transmissions. Among his duties was "the development and production  
17 of components such as engines, transmissions, seats and suspension parts" for small, compact,  
18 midsize, and full size product lines, including all the Class Vehicles.<sup>174</sup>

19 301. Significantly, Tuch also oversaw "36 laboratory locations throughout the world in  
20 terms of training and auditing and also finds staff to fill laboratory manager positions," including  
21 the Volkswagen Defendants' laboratories in the United States, which were primarily responsible  
22 for emissions testing of the Class Vehicles.<sup>175</sup>

24 <sup>172</sup> "Gentlemen Start Your Engines," <http://audi-encounter.com/magazine/technology/01-2015/126-gentlemen-start-your-engines> (2014).

25 <sup>173</sup> <http://www.marketwatch.com/story/volkswagen-suspends-quality-control-chief-2015-10-20-84855452>

26 <sup>174</sup> Jack Ewing. "Volkswagen Suspends 5th Executive in Emissions Scandal," The New York  
27 Times (Oct. 20, 2015).

28 <sup>175</sup> [http://www.volkswagen-larriere.de/en/what\\_we\\_do/corporate\\_divisions/quality\\_assurance.html](http://www.volkswagen-larriere.de/en/what_we_do/corporate_divisions/quality_assurance.html)

1           302.   Tuch knew or recklessly disregarded that the Class Vehicles used defeat devices to  
2 evade federal and state vehicle emissions standards.

3                               **j.       Wolfgang Hatz**

4           303.   Unnamed co-conspirator Hatz directed engine development for the Porsche, Audi  
5 and Volkswagen brands. In this role, he supervised the development of the engines and  
6 transmissions for the Class Vehicles issue and had intimate knowledge of their technical details.

7           304.   Hatz knew or recklessly disregarded that the Class Vehicles used defeat devices to  
8 evade federal and state vehicle emissions standards.

9                               **4.       The Bosch Defendants**

10          305.   As explained above, Bosch supplied the EDC Unit 17 that was used as the defeat  
11 device in the Class Vehicles.<sup>176</sup>

12          306.   Defendant Bosch GmbH is a multinational engineering and electronics company  
13 headquartered in Gerlingen, Germany, which has hundreds of subsidiaries and companies. It  
14 wholly owns defendant Bosch LLC, a Delaware limited liability company headquartered in  
15 Farmington Hills, Michigan. As explained above, Bosch's sectors and divisions are grouped by  
16 subject matter, not location. The Mobility Solutions (formerly Automotive Technology) is the  
17 Bosch sector at issue, particularly its Diesel Services division, and it encompasses employees of  
18 Bosch GmbH and Bosch LLC. These individuals were responsible for the design, manufacture,  
19 development, customization, and supply of the defeat device to Volkswagen for use in the Class  
20 Vehicles.

21          307.   Defendant Denner has been Chairman and CEO of Bosch since July 2012, after  
22 decades of working in Bosch's Engine ECU Development division, managing the development  
23 and sale of automotive engine computers, such as the EDC units that Volkswagen used as defeat  
24 devices. Denner fostered Bosch's relationship with key corporate partners, such as Volkswagen,  
25 which brought in billions of dollars in annual revenue for Bosch. Denner communicated directly  
26 with Winterkorn about products sold to Volkswagen. For example, when Bosch had a shortage of  
27 oxygen sensor parts that Volkswagen had ordered, Denner reached out directly to Winterkorn.

28 <sup>176</sup> [http://www.bosch-presse.de/presseforum/details.htm?txtID=7421&tk\\_id=108](http://www.bosch-presse.de/presseforum/details.htm?txtID=7421&tk_id=108)

1 Further, Bosch met in 2014 in person with Winterkorn at VW AG headquarters to discuss, among  
2 other topics, the “akustikfunktion” in diesel engines.

3 308. Bosch worked with Volkswagen to develop and implement a specific and unique  
4 set of software algorithms to surreptitiously evade emissions regulations. Bosch customized their  
5 EDC Unit 17s for installation in the Class Vehicles with unique software code to detect when it  
6 was undergoing emissions testing, as described above.<sup>177</sup>

7 309. Bosch was well aware that the EDC Unit 17 would be used by Volkswagen to  
8 cheat on emissions testing. As described above, on June 2, 2008, Bosch’s ██████████ wrote to  
9 his counterparts at Volkswagen, seeking legal indemnification from Volkswagen for the  
10 “expanded use” of the EDC Unit 17s which it called a “defeat device.”<sup>178</sup> ██████████ explained that  
11 “[t]he usage of a defeat device is prohibited pursuant to . . . US Law (CARB/EPA) (see definition  
12 footnote 2),”<sup>179</sup> and warned that the agreed-to software modifications would allow “the certified  
13 dataset [to be] replaced with another, possibly non-certified data set,” which could cause “the  
14 vehicle’s general operating license (registration) [to] become void.”<sup>180</sup> Volkswagen rebuffed  
15 Bosch’s request, yet Bosch nonetheless shipped the modified software to Volkswagen for use in  
16 the Class Vehicles for another seven years. Bosch was also critical to the concealment of the  
17 defeat device in communications with U.S. regulators and went even further to actively lobby  
18 U.S. lawmakers on behalf of Volkswagen and its “Clean Diesel” vehicles.

19 **C. The Defeat Device RICO Enterprise Sought to Increase Defendants’ Profits**  
20 **and Revenues**

21 310. The Defeat Device RICO Enterprise began as early as 2005, when an internal  
22 feasibility study at VW AG identified Bosch’s EDC17 as a solution to their engineering dilemma  
23 by reducing diesel vehicle emissions of nitrogen oxides (“NOx”) through a change in engine  
24 electronics. Starting in mid-2005, Volkswagen and Bosch entered into a series of agreements to  
25 develop what ultimately became the defeat device for the Class Vehicles. The Defeat Device

26 <sup>177</sup> <http://blog.caranddriver.com/epa-investigating-bosch-over-vw-diesel-cheater-software>

27 <sup>178</sup> VW-MDL2672-02570091 (English translation).

28 <sup>179</sup> *Id.* at -92.

<sup>180</sup> *Id.* at -93.

1 RICO Enterprise continued without interruption for a decade, as Defendants successfully installed  
2 Bosch EDC Unit 17's in hundreds of thousands of the Class Vehicles sold in the U.S. It was not  
3 until September 2015 that the Defeat Device RICO Enterprise began to unravel, when U.S.  
4 regulators finally uncovered Defendants' scheme.

5 311. At all relevant times, the Defeat Device RICO Enterprise: (a) had an existence  
6 separate and distinct from each RICO Defendant; (b) was separate and distinct from the pattern of  
7 racketeering in which the RICO Defendants engaged; and (c) was an ongoing and continuing  
8 organization consisting of legal entities, including the Volkswagen Defendants, their network of  
9 dealerships, the Individual Defendants, the Bosch Defendants, and other entities and individuals  
10 associated for the common purpose of designing, manufacturing, distributing, testing, and selling  
11 the Class Vehicles to Plaintiffs and the Nationwide Class through fraudulent COCs and EOs, false  
12 emissions tests, deceptive and misleading sales tactics and materials, and deriving profits and  
13 revenues from those activities. Each member of the Defeat Device RICO Enterprise shared in the  
14 bounty generated by the enterprise, *i.e.*, by sharing the benefit derived from increased sales  
15 revenue generated by the scheme to defraud Class members nationwide.<sup>181</sup>

16 312. The Defeat Device RICO Enterprise functioned by selling vehicles and component  
17 parts to the consuming public. Many of these products are legitimate, including vehicles that do  
18 not contain defeat devices. However, the RICO Defendants and their co-conspirators, through  
19 their illegal Enterprise, engaged in a pattern of racketeering activity, which involves a fraudulent  
20 scheme to increase revenue for Defendants and the other entities and individuals associated-in-  
21 fact with the Enterprise's activities through the illegal scheme to sell the Class Vehicles.

22 313. The Defeat Device RICO Enterprise engaged in, and its activities affected  
23 interstate and foreign commerce, because it involved commercial activities across state  
24 boundaries, such as the marketing, promotion, advertisement and sale or lease of the Class  
25 Vehicles throughout the country, and the receipt of monies from the sale of the same.

26 <sup>181</sup> The Volkswagen Defendants sold more Class Vehicles by utilizing an emissions control  
27 system that was cheaper than SCRs, all the while charging consumers a premium for purportedly  
28 "clean," "environmentally friendly" and "fuel efficient" Class Vehicles. Bosch, in turn, sold  
more EDC Units because the Volkswagen Defendants manufactured and sold more Class  
Vehicles.

1           314. Within the Defeat Device RICO Enterprise, there was a common communication  
2 network by which co-conspirators shared information on a regular basis. The Defeat Device  
3 RICO Enterprise used this common communication network for the purpose of manufacturing,  
4 marketing, testing, and selling the Class Vehicles to the general public nationwide.

5           315. Each participant in the Defeat Device RICO Enterprise had a systematic linkage to  
6 each other through corporate ties, contractual relationships, financial ties, and continuing  
7 coordination of activities. Through the Defeat Device RICO Enterprise, the RICO Defendants  
8 functioned as a continuing unit with the purpose of furthering the illegal scheme and their  
9 common purposes of increasing their revenues and market share, and minimizing losses.

10           316. The RICO Defendants participated in the operation and management of the Defeat  
11 Device RICO Enterprise by directing its affairs, as described herein. While the RICO Defendants  
12 participated in, and are members of, the enterprise, they have a separate existence from the  
13 enterprise, including distinct legal statuses, different offices and roles, bank accounts, officers,  
14 directors, employees, individual personhood, reporting requirements, and financial statements.

15           317. The Volkswagen RICO Defendants exerted substantial control over the Defeat  
16 Device RICO Enterprise, and participated in the affairs of the Defeat Device RICO Enterprise by:

- 17           a. transitioning their diesel vehicle design away from an effective SCR emissions  
18           control system and adopting instead the ineffective NO<sub>x</sub> trap technology that  
19           generates high levels of toxic pollutants;
  - 20           b. designing the Class Vehicles with defeat devices;
  - 21           c. failing to correct or disable the defeat devices when warned;
  - 22           d. manufacturing, distributing, and selling the Class Vehicles that emitted greater  
23           pollution than allowable under the applicable regulations;
  - 24           e. misrepresenting and omitting (or causing such misrepresentations and  
25           omissions to be made) vehicle specifications on COC and EO applications;
  - 26           f. introducing the Class Vehicles into the stream of U.S. commerce without a  
27           valid EPA COC and/or CARB EO;
- 28

- 1 g. concealing the existence of the defeat devices and the unlawfully high
- 2 emissions from regulators and the public;
- 3 h. persisting in the manufacturing, distribution, and sale of the Class Vehicles
- 4 even after questions were raised about the emissions testing and discrepancies
- 5 concerning the same;
- 6 i. misleading government regulators as to the nature of the defeat devices and the
- 7 defects in the Class Vehicles;
- 8 j. misleading the driving public as to the nature of the defeat devices and the
- 9 defects in the Class Vehicles;
- 10 k. designing and distributing marketing materials that misrepresented and
- 11 concealed the defect in the vehicles;
- 12 l. otherwise misrepresenting or concealing the defective nature of the Class
- 13 Vehicles from the public and regulators;
- 14 m. illegally selling and/or distributing the Class Vehicles;
- 15 n. collecting revenues and profits from the sale of such products; and
- 16 o. ensuring that the other RICO Defendants and unnamed co-conspirators
- 17 complied with the fraudulent scheme.

18 318. Bosch also participated in, operated and/or directed the Defeat Device RICO  
19 Enterprise. Bosch participated in the fraudulent scheme by manufacturing, installing, testing,  
20 modifying, and supplying the EDC Unit 17 which operated as a “defeat device” in the Class  
21 Vehicles. Bosch exercised tight control over the coding and other aspects of the defeat device  
22 software and was closely collaborated with Volkswagen to develop, customize, and calibrate the  
23 defeat devices. Additionally, Bosch continuously cooperated with the Volkswagen Defendants to  
24 ensure that the EDC Unit 17 was fully integrated into the Class Vehicles. Bosch also participated  
25 in the affairs of the Enterprise by concealing the defeat devices on U.S. documentation and in  
26 communications with U.S. regulators. Finally, Bosch actively lobbied lawmakers in the U.S. on  
27 Volkswagen’s behalf. Bosch collected tens of millions of dollars in revenues and profits from  
28 the hidden defeat devices installed in the Class Vehicles.



1           319. Without the RICO Defendants' willing participation, including Bosch's active  
2 involvement in developing and supplying the critical defeat devices for the Class Vehicles, the  
3 Defeat Device RICO Enterprise's scheme and common course of conduct would not have been  
4 successful.

5           320. The RICO Defendants directed and controlled the ongoing organization necessary  
6 to implement the scheme at meetings and through communications of which Plaintiffs cannot  
7 fully know at present, because such information lies in the Defendants' and others' hands.

8           **D. Mail and Wire Fraud**

9           321. To carry out, or attempt to carry out the scheme to defraud, the RICO Defendants,  
10 each of whom is a person associated-in-fact with the Defeat Device RICO Enterprise, did  
11 knowingly conduct or participate, directly or indirectly, in the conduct of the affairs of the Defeat  
12 Device RICO Enterprise through a pattern of racketeering activity within the meaning of 18  
13 U.S.C. §§ 1961(1), 1961(5) and 1962(c), and which employed the use of the mail and wire  
14 facilities, in violation of 18 U.S.C. § 1341 (mail fraud) and § 1343 (wire fraud).

15           322. Specifically, the RICO Defendants have committed, conspired to commit, and/or  
16 aided and abetted in the commission of, at least two predicate acts of racketeering activity (*i.e.*,  
17 violations of 18 U.S.C. §§ 1341 and 1343), within the past ten years. The multiple acts of  
18 racketeering activity which the RICO Defendants committed, or aided or abetted in the  
19 commission of, were related to each other, posed a threat of continued racketeering activity, and  
20 therefore constitute a "pattern of racketeering activity." The racketeering activity was made  
21 possible by the RICO Defendants' regular use of the facilities, services, distribution channels, and  
22 employees of the Defeat Device RICO Enterprise. The RICO Defendants participated in the  
23 scheme to defraud by using mail, telephone and the Internet to transmit mailings and wires in  
24 interstate or foreign commerce.

25           323. The RICO Defendants used, directed the use of, and/or caused to be used,  
26 thousands of interstate mail and wire communications in service of their scheme through virtually  
27 uniform misrepresentations, concealments and material omissions.

28

1           324. In devising and executing the illegal scheme, the RICO Defendants devised and  
2 knowingly carried out a material scheme and/or artifice to defraud Plaintiffs and the Nationwide  
3 Class or to obtain money from Plaintiffs and the Nationwide Class by means of materially false or  
4 fraudulent pretenses, representations, promises, or omissions of material facts. For the purpose of  
5 executing the illegal scheme, the RICO Defendants committed these racketeering acts, which  
6 number in the thousands, intentionally and knowingly with the specific intent to advance the  
7 illegal scheme.

8           325. The RICO Defendants' predicate acts of racketeering (18 U.S.C. § 1961(1))  
9 include, but are not limited to:

- 10           a. Mail Fraud: The RICO Defendants violated 18 U.S.C. §  
11 1341 by sending or receiving, or by causing to be sent  
12 and/or received, materials via U.S. mail or commercial  
13 interstate carriers for the purpose of executing the unlawful  
14 scheme to design, manufacture, market, and sell the Class  
15 Vehicles by means of false pretenses, misrepresentations,  
16 promises, and omissions.  
17           b. Wire Fraud: The RICO Defendants violated 18 U.S.C. §  
18 1343 by transmitting and/or receiving, or by causing to be  
19 transmitted and/or received, materials by wire for the  
20 purpose of executing the unlawful scheme to defraud and  
21 obtain money on false pretenses, misrepresentations,  
22 promises, and omissions.

23           326. The RICO Defendants' use of the mails and wires include, but are not limited to,  
24 the transmission, delivery, or shipment of the following by the RICO Defendants or third parties  
25 that were foreseeably caused to be sent as a result of Defendants' illegal scheme:

- 26           a. the Class Vehicles themselves;  
27           b. component parts for the defeat devices;  
28           c. essential hardware for the Class Vehicles;  
            d. falsified emission tests;  
            e. fraudulent applications for EPA COCs and CARB EOs;  
            f. fraudulently-obtained EPA COCs and CARB EOs;  
            g. vehicle registrations and plates as a result of the fraudulently-obtained EPA  
            COCs and CARB EOs;

- 1 h. documents and communications that facilitated the falsified emission tests;
- 2 i. false or misleading communications intended to lull the public and regulators
- 3 from discovering the defeat devices and/or other auxiliary devices;
- 4 j. sales and marketing materials, including advertising, websites, product
- 5 packaging, brochures, and labeling, which misrepresented and concealed the
- 6 true nature of the Class Vehicles;
- 7 k. documents intended to facilitate the manufacture and sale of the Class
- 8 Vehicles, including bills of lading, invoices, shipping records, reports and
- 9 correspondence;
- 10 l. documents to process and receive payment for the Class Vehicles by
- 11 unsuspecting Class members, including invoices and receipts;
- 12 m. payments to Bosch;
- 13 n. millions of dollars in compensation to the Individual Defendants;
- 14 o. deposits of proceeds; and
- 15 p. other documents and things, including electronic communications.

16 327. The RICO Defendants also used the internet and other electronic facilities to carry  
17 out the scheme and conceal the ongoing fraudulent activities. Specifically, the American  
18 Volkswagen Defendants, under the direction and control of the German Volkswagen and  
19 Individual Volkswagen Defendants, made misrepresentations about the Class Vehicles on their  
20 websites, YouTube, and through ads online, all of which were intended to mislead regulators and  
21 the public about the fuel efficiency, emissions standards, and other performance metrics.

22 328. The RICO Defendants also communicated by U.S. mail, by interstate facsimile,  
23 and by interstate electronic mail with various other affiliates, regional offices, divisions,  
24 dealerships and other third-party entities in furtherance of the scheme.

25 329. The mail and wire transmissions described herein were made in furtherance of  
26 Defendants' scheme and common course of conduct to deceive regulators and consumers and lure  
27 consumers and reseller dealers into purchasing the Class Vehicles, which Defendants knew or  
28

1 recklessly disregarded as emitting illegal amounts of pollution, despite their advertising campaign  
2 that the Class Vehicles were “clean” diesel cars.

3 330. Many of the precise dates of the fraudulent uses of the U.S. mail and interstate  
4 wire facilities have been deliberately hidden, and cannot be alleged without access to Defendants’  
5 books and records. However, Plaintiffs have described the types of, and in some instances,  
6 occasions on which the predicate acts of mail and/or wire fraud occurred. They include  
7 thousands of communications to perpetuate and maintain the scheme, including the things and  
8 documents described in the preceding paragraphs.

9 331. The RICO Defendants have not undertaken the practices described herein in  
10 isolation, but as part of a common scheme and conspiracy. In violation of 18 U.S.C. §1962(d),  
11 the RICO Defendants conspired to violate 18 U.S.C. §1962(c), as described herein. Various other  
12 persons, firms and corporations, including third-party entities and individuals not named as  
13 defendants in this Complaint, have participated as co-conspirators with the RICO Defendants in  
14 these offenses and have performed acts in furtherance of the conspiracy to increase or maintain  
15 revenues, increase market share, and/or minimize losses for the Defendants and their unnamed  
16 co-conspirators throughout the illegal scheme and common course of conduct.

17 332. The RICO Defendants aided and abetted others in the violations of the above laws,  
18 thereby rendering them indictable as principals in the 18 U.S.C. §§1341 and 1343 offenses.

19 333. To achieve their common goals, the RICO Defendants hid from the general public  
20 the unlawfulness and emission dangers of the Class Vehicles and obfuscated the true nature of the  
21 defect even after regulators raised concerns. The RICO Defendants suppressed and/or ignored  
22 warnings from third parties, whistleblowers, and governmental entities about the discrepancies in  
23 emissions testing and the defeat devices present in the Class Vehicles.

24 334. The RICO Defendants and each member of the conspiracy, with knowledge and  
25 intent, have agreed to the overall objectives of the conspiracy and participated in the common  
26 course of conduct to commit acts of fraud and indecency in designing, manufacturing,  
27 distributing, marketing, testing, and/or selling the Class Vehicles (and the defeat devices  
28 contained therein).

1           335.   Indeed, for the conspiracy to succeed, each of the RICO Defendants and their co-  
2 conspirators had to agree to implement and use the similar devices and fraudulent tactics against  
3 their intended targets.

4           336.   The RICO Defendants knew and intended that government regulators, as well as  
5 Plaintiffs and Class members, would rely on the material misrepresentations and omissions made  
6 by them and the American Volkswagen Defendants about the Class Vehicles. The RICO  
7 Defendants knew and intended that consumers and reseller dealers would incur costs as a result.  
8 As fully alleged herein, Plaintiffs, along with hundreds other automobile dealers, relied upon  
9 Defendants' representations and omissions that were made or caused by them. Plaintiffs' reliance  
10 is made obvious by the fact that they purchased illegal vehicles that never should have been  
11 introduced into the U.S. stream of commerce and whose worth has now plummeted since the  
12 scheme was revealed. In addition, the EPA and regulators relied on the misrepresentations and  
13 material omissions made or caused to be made by the RICO Defendants; otherwise Volkswagen  
14 could not have obtained valid COCs and EOs to sell the Class Vehicles.

15           337.   As described herein, the RICO Defendants engaged in a pattern of related and  
16 continuous predicate acts for years. The predicate acts constituted a variety of unlawful activities,  
17 each conducted with the common purpose of obtaining significant monies and revenues from  
18 Plaintiffs and Class members based on their misrepresentations and omissions, while providing  
19 Class Vehicles that were worth significantly less than the purchase price paid. The predicate acts  
20 also had the same or similar results, participants, victims, and methods of commission. The  
21 predicate acts were related and not isolated events.

22           338.   The predicate acts all had the purpose of generating significant revenue and profits  
23 for the RICO Defendants at the expense of Plaintiffs and Class members. The predicate acts were  
24 committed or caused to be committed by the RICO Defendants through their participation in the  
25 Defeat Device RICO Enterprise and in furtherance of its fraudulent scheme, and were interrelated  
26 in that they involved obtaining Plaintiffs' and Class members' funds and avoiding the expenses  
27 associated with remediating the Class Vehicles.  
28

1           339. During the design, manufacture, testing, marketing and sale of the Class Vehicles,  
2 the RICO Defendants shared technical, marketing, and financial information that revealed the  
3 existence of the defeat devices contained therein. Nevertheless, the RICO Defendants shared and  
4 disseminated information that deliberately misrepresented the Class Vehicles as legal, “clean,”  
5 “environmentally friendly,” and “fuel efficient.”

6           340. By reason of, and as a result of the conduct of the RICO Defendants, and in  
7 particular, their pattern of racketeering activity, Plaintiffs and Class members have been injured in  
8 their business and/or property in multiple ways, including but not limited to:

- 9           a. Purchase or lease of an illegal, defective Class Vehicle;
- 10           b. Overpayment for a Class Vehicle, in that Plaintiffs and Class members  
11           believed they were paying for a vehicle that met certain emission and fuel  
12           efficiency standards and obtained a vehicle that was anything but;
- 13           c. The value of the Class Vehicles has diminished, thus reducing their resale  
14           value;
- 15           d. Other out-of-pocket and loss-of-use expenses;
- 16           e. Payment for alternative transportation; and
- 17           f. Loss of employment due to lack of transportation.

18           341. The RICO Defendants’ violations of 18 U.S.C. § 1962(c) and (d) have directly and  
19 proximately caused injuries and damages to Plaintiffs and Class members, and Plaintiffs and  
20 Class members are entitled to bring this action for three times their actual damages, as well as  
21 injunctive/equitable relief, costs, and reasonable attorneys’ fees pursuant to 18 U.S.C. § 1964(c).

22   **SECOND CLAIM FOR RELIEF:**  
23   **FRAUD**

24           342. Plaintiffs reallege and incorporate by reference each preceding paragraph as  
25 though fully set forth herein.

26           343. Plaintiffs bring this Count on behalf of the Class against all Defendants.

27           344. As set forth above, Defendants concealed and/or suppressed material facts integral  
28 to the environmental compliance, performance, fuel efficiency, and value of the Class Vehicles.

1 Defendants knew that the Class Vehicles were designed and manufactured with defeat devices,  
2 but Defendants concealed this material information from federal regulators and the consuming  
3 public. Defendants recklessly manufactured and distributed the Class Vehicles in the United  
4 States, even though Defendants knew, at the time of distribution, that the Class Vehicles  
5 contained a significant material defect. Plaintiffs and Class members had no knowledge of this  
6 defect, the presence of the defeat device, at the time they acquired the Class Vehicles in  
7 inventory.

8 345. Defendants made material omissions and/or affirmative misrepresentations  
9 regarding the environmental compliance, performance, fuel efficiency, and value of the Class  
10 Vehicles.

11 346. Defendants knew these representations were false when they were made.

12 347. The Class Vehicles acquired by Plaintiffs and Class members were, in fact,  
13 defective because the vehicles contained undisclosed defeat devices designed to evade the CAA  
14 and other applicable laws.

15 348. Defendants had a duty to disclose this defect to Plaintiffs, Class members, the  
16 public, and the United States government, but failed to do so.

17 349. Defendants had a duty to disclose the true facts about the Class Vehicles because  
18 Defendants had superior knowledge and access to those facts, and the facts were not known or  
19 reasonably discoverable by Plaintiffs and Class members. Defendants knew that Plaintiffs and  
20 Class members had no knowledge of the defeat devices in the Class Vehicles, and that neither  
21 Plaintiffs nor other Class members had an equal opportunity to discover the facts to inform  
22 themselves of the defect. Indeed, the Plaintiffs and Class members trusted Defendants not to sell  
23 vehicles that were defective or that violated the CAA or other applicable laws.

24 350. Defendants had a duty to disclose that the Class Vehicles were defective in that  
25 they contained undisclosed defeat devices because Plaintiffs and Class members relied on  
26 Defendants' representations that the vehicles were regulatory compliant, "green," "clean," and  
27 otherwise free from defects.  
28

1           351. The aforementioned concealment was material because, if it had been disclosed,  
2 Plaintiffs and Class members would not have purchased or otherwise acquired their Class  
3 Vehicles.

4           352. The aforementioned representations were also material because they were facts  
5 that typically would be relied upon by a person or entity purchasing a used motor vehicle.  
6 Defendants knew or recklessly disregarded that the representations and/or statements regarding  
7 the Class Vehicles' environmental friendliness and regulatory compliance were false.

8           353. By misrepresenting and/or failing to disclose these material facts, Defendants  
9 intended to induce, and did in fact induce, Plaintiffs and Class members to purchase the Class  
10 Vehicles.

11   **THIRD CLAIM FOR RELIEF:  
12   FAILURE TO RECALL/RETROFIT**

13           354. Plaintiffs reallege and incorporate by reference each preceding paragraph as  
14 though fully set forth herein.

15           355. Plaintiffs bring this Count on behalf of the Class against Volkswagen.

16           356. Volkswagen manufactured, marketed, distributed, sold, or otherwise placed in the  
17 stream of U.S. commerce the Class Vehicles, as set forth above.

18           357. Volkswagen knew or reasonably should have known that, at the time the Class  
19 Vehicles were placed in the stream of U.S. commerce, said Class Vehicles would be defective  
20 when used in a reasonably foreseeable manner.

21           358. Volkswagen failed to recall the Class Vehicles in a timely manner or warn of the  
22 defects inherent in the Class Vehicles. In addition, Volkswagens' December 2014 recall in  
23 connection with the 2.0-liter Class Vehicles in December 2014 was ineffective because it did not  
24 mitigate or otherwise resolve the illegal and excessive NOx emissions.

25           359. A reasonable manufacturer in same or similar circumstances would have timely  
26 and properly recalled the Class Vehicles.

27           360. Volkswagen's failure to timely recall the Class Vehicles was a substantial factor in  
28 causing the harm to Plaintiffs and the Class as alleged herein. If the Class Vehicles had been



1 properly recalled in a timely manner, Plaintiffs and the Class Members would have invested their  
2 money in vehicles other than the Class Vehicles.

3 361. As it stands, the Plaintiffs and Class Members have been stuck with Class Vehicles  
4 that, because they have not been properly recalled, remain illegal, defective, and virtually  
5 unsellable.

6 **FOURTH CLAIM FOR RELIEF:**  
7 **UNJUST ENRICHMENT**

8 362. Plaintiffs reallege and incorporate by reference all paragraphs as though fully set  
9 forth herein.

10 363. Plaintiffs bring this Count on behalf of the Class against all Defendants.

11 364. Defendants have benefitted from selling at an unjust profit defective Class  
12 Vehicles whose value was artificially inflated by Defendants' concealment of the "defeat device,"  
13 and Plaintiffs and Class Members have overpaid for the vehicles.

14 365. Defendants have received and retained unjust benefits from the Plaintiffs and Class  
15 Members, and inequity has resulted.

16 366. It is inequitable and unconscionable for Defendants to retain these benefits.

17 367. Because Defendants concealed their fraud and deception, Plaintiffs and Class  
18 Members were not aware of the true facts concerning the Class Vehicles and did not benefit from  
19 Defendants' misconduct.

20 368. Defendants knowingly accepted the unjust benefits of their fraudulent conduct.

21 369. As a result of Defendants' misconduct, the amount of its unjust enrichment should  
22 be disgorged and returned to Plaintiffs and the Class Members, in an amount to be proven at trial.

23 **PRAYER FOR RELIEF**

24 WHEREFORE, Plaintiffs, individually and on behalf of members of the Class and State  
25 Classes, respectfully request that the Court grant certification of the proposed Independent  
26 Automobile Dealership Reseller Class, including the designation of Plaintiffs as the named  
27 representatives of the Class, the appointment of the undersigned as Class Counsel, and the  
28 designation of any appropriate subclasses, under the applicable provisions of Fed. R. Civ. P. 23,

1 and that the Court enter judgment in their favor and against Defendants, providing for recovery of  
2 compensatory and consequential damages, including lost profits, for the economic loss  
3 independent reseller dealers have incurred by virtue of the Class Vehicles' diminution in value;  
4 treble damages for Defendants' violation of Civil RICO; punitive and compensatory damages for  
5 Defendants' fraud; and such other and further legal, injunctive and equitable relief as the court  
6 deems just and proper.

7 **DEMAND FOR JURY TRIAL**

8 Pursuant to Federal Rule of Civil Procedure 38(b), Plaintiffs demand a trial by jury of any  
9 and all issues in this action so triable of right.

10 Dated: August 16, 2016

Respectfully submitted,

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