For the last 12 months, the global conversation about climate, energy, transportation and mobility has significantly expanded. Cities around the world are focal points for action. In the U.S., states began making choices for spending billions of dollars in pollution settlement funds. Fuel and technology choices are at the center of each of these areas, just as is the voice and work of the Diesel Technology Forum.

The Forum’s portfolio of work in communications, research, education and outreach was on display daily throughout 2018. Whether collaborating with Environmental Defense Fund on new cost-effectivity research on large engines, launching a new clearinghouse of detailed spending data, organizing regional roundtables with port and marine customers, hosting automotive press associations or relentlessly engaging in the top social media conversations, the Forum is making a solid and effective case for the future of advanced diesel technologies.

Diesel technology continues to improve through innovative work happening at our member companies. The U.S. EPA has announced its Cleaner Trucks Initiative in partnership with industry to further reduce NOx from our products. Member companies continue to improve fuel economy, using hybrid technologies in some applications, and continue to make significant progress in improving the environmental sustainability of diesel products.

The Forum’s voice in the media has always been a consistent one of fact and perspective, and this year is no different. Whether it be The New York Times, The Washington Post or a trade publication, the Forum stands out clearly as the voice for diesel power, reaching more people in 2018 than in any previous year. And it is a voice that is heard beyond international borders, where the Forum’s exploratory work in Europe has provided important insights for action and future dividends.

Understanding and demonstrating the importance of diesel and how it fits into the energy future is top of mind every day. The Forum’s steady and clear voice is especially important now more than ever to ensure a viable future for advanced diesel engines and equipment in all applications.
MEDIA HIGHLIGHTS

DTF is the established go-to resource for national and trade media on the diesel issues of the day. The Forum’s continuing record of published opinions and views in high-profile media further enhances perspectives on diesel technology to the public and key audiences.

The New York Times
Letter: Fuel-Efficient Diesel Engines
March 8, 2018, by Allen Schaeffer
With greater range, cargo capacity and towing capabilities, the larger the vehicle, the more upside for a diesel engine option. This is why, perhaps, that starting this year, the Big Three manufacturers’ full-size pickup trucks have a diesel option, as several other models on offer do. There are many ways to embrace fuel efficiency. The new generation of diesel technology is one that cannot be ignored.

The New York Times
Letter: Taxis and Efficiency
June 21, 2018, by Allen Schaeffer
Perhaps these shortcomings will be overtaken with a return to the idea of markets and choice. It so happens that new taxi choices just unveiled by Ford — a 40-mile-per-gallon hybrid sedan and a diesel-powered van — demonstrate another important lesson: that efficiency and taxis can come in more than one shape, size or fuel type. This is a point we should consider broadly, beyond taxis and into personal transportation and other choices. It’s not a one-size or one-fuel-fits-all world.

The Washington Post
EPA to Weigh Tougher Pollution Standards for Heavy-Duty Trucks
November 13, 2018, by Brady Dennis
Industry groups also welcomed the EPA’s announcement. “This new initiative sets the next chapter for diesel technology,” said Allen Schaeffer, executive director of the Diesel Technology Forum, which represents engine manufacturers and suppliers. He said the effort probably will result in cleaner engines that perform better, last longer and improve air quality. “It’s the beginning of a journey, but I think a good one.”

2018 STATS:
5,727 media hits earned in 134 high-level media outlets and trade publications, to an audience of 787.72 million through 50 interviews, 13 letters to the editor, 17 placed articles, 66 press releases, and targeted outreach in 37 states
Electric Trucks Facing Long Road to Unseat Diesel Engines
August 22, 2018, by Brianna Jackson

“It’s easy if you’re just coming into this market to say ‘they’re $1.50 per mile and we can do it for $1.20.’... “But where’s the proof? I haven’t seen it.” Diesel trucks are well entrenched in the shipping industry, and there’s little need for a new entrant, Schaeffer said. The industry has made significant advances in reducing pollution. According to EPA estimates, emissions from current engines are about 85 percent lower than before 2007, when new standards took effect. “Diesel is the benchmark for energy efficiency,” Schaeffer said. “Diesel dominates the entire sector.”

VW Funds from Diesel Scandal Will Pay for Zero-Emission Buses, Trucks in California
May 25, 2018, by Russ Mitchell

The Diesel Technology Forum noted that the money directed at cleaner combustion-engine technology is less than the $63 million set aside by CARB to administer the entire program.

Click It
February 21, 2018, by Kelsey Tamborrino

The Diesel Technology Forum released a web page and widget to help determine what states can get from the Volkswagen settlement “when they replace their oldest fleets with clean diesel.”

The Renewable Energy You Want With the Reliability You Need – How a Mashup of Old and New Technologies Might Rewrite the Future of Electric Power
July 2018, by Allen Schaeffer

This is a role that diesel-generated power will continue to play for the future, in Puerto Rico and elsewhere.

Emission Scandal Smudged Diesel’s Image — GM Execs
September 10, 2018, by Maxine Joselow

Speaking at a Washington event led by the Diesel Technology Forum, the executives said American consumers must be able to trust automakers that sell diesel cars. “The diesel technology is the most fuel-efficient internal combustion engine that exists in the world today,” Siegrist said. “There’s no denying that. So it will play a part in any fuel economy standards that go into the future, period.”

VW’s Stains = $$$ for Trains
July 3, 2018, by TJ Mahoney

The environmental benefits of replacing older diesel engines with the latest clean diesel models are well documented. According to a report co-authored by the Diesel Technology Forum (DTF) and Environmental Defense Fund (EDF), NOx emissions can be cut 95%—or 9 tons per year—by each Tier 4-compliant switching locomotive that replaces an older unit.

States Look to Stretch VW Settlement Billions
March 13, 2018, by Patrick Ambrosio

Finkin told Bloomberg BNA that those trucks are generally eligible for funding under the VW mitigation trust, offering an opportunity for states to help replace older diesel technology with near-zero emissions engines.
Maritime to Get Biggest Bang for VW Settlement Bucks
March 27, 2018, by Patricia Keefe
As one example, according to the Diesel Technology Forum (DTF), of the roughly 47 marine workboats in New York Harbor, 28 are powered by pre-emission standard engines. Swapping out an older “uncontrolled” engine for a Tier 4 engine in just one old tugboat removes an estimated 96,000 lbs. of NOx per year, equivalent to replacing 76 older trucks or removing 74,000 cars for one year, according to a new report on “emission reductions and cost-effectiveness for marine and locomotive projects,” from the DTF, and the Environmental Defense Fund.

Reports of My Death Have Been Greatly Exaggerated
September 18, 2018, by David Boldt
As Allen Schaeffer, executive director of the Diesel Technology Forum, noted, “the new generation of diesel technology feels right at home in showrooms alongside advanced gasoline, battery-electric and plug-in hybrid vehicles. For consumers, diesel is a proven performer delivering real benefits – high efficiency, great driving range, and no sacrifices in vehicle size, fueling access, utility or towing capabilities. And with the capability to use advanced renewable low-carbon biodiesel, consumers can choose to do even more for the environment.”

Diesel Buses Stretch Funds Further Than Electric Buses
September 18, 2018, by Allen Schaeffer
Despite the buzz and novelty around new all-electric technology, diesel school buses continue to be the nation’s most trusted student transportation technology. For a low-cost, overnight enhancement, a growing number of school districts also now use blends of high-quality biodiesel to power school buses, further reducing emissions and reducing reliance on imported oil. What’s even better than these environmental strides? New-technology diesel school buses offer school districts more for their dollar. (Referenced by The New York Times, “The Wheels on These Buses Go Round and Round With Zero Emissions,” Nov. 12, 2018, by Brad Plumer).

Five Innovations Powering the Construction Equipment of the Future
August 6, 2018, by Allen Schaeffer
However, innovation in construction also is taking on new forms as it relates to efficiency and environmental sensibility in the design and operation of machines and equipment. For the last decade, machine design and manufacturing revolved substantially around achieving progressively more stringent emissions standards. Due to their unmatched combination of power, efficiency, performance, reliability and durability, diesel engines are the primary power source in the overwhelming majority of construction equipment.

PHOTO HIGHLIGHTS


DTF engages with city and municipal leaders at the National League of Cities City Summit - November 7-10, 2018, Los Angeles, CA.
2018 YEAR

MEDIA

6K: Media hits earned through interviews, letters to the editor, placed articles and press releases

134: High-level media outlets and trade publications in which DTF had visibility

66: Press releases distributed, earning 36,550 media views and 51,230 crawler hits

800M: Estimated audience for DTF’s 2018 coverage

1B: Estimated reach for DTF’s 2018 press releases

14: Opinion pieces published, including two in The New York Times and four in California media outlets

37: States which DTF targeted outreach related to the VW Trust, via commentary, letters, calls to reporters and press releases

OUTREACH & ENGAGEMENT

40: States where DTF briefed and filed comments with state policymakers, including state air quality directors on the VW settlement funds

29: Sets of comments filed by DTF with state and local agencies and Congressional Committees on other issues

12: NGO environmental, health and local community advocates with which DTF engaged

12: Groups DTF spoke before, including two regional diesel collaboratives, the National League of Cities, the American Association of Port Authorities, and state and local clean air agencies

14K: Targeted emails delivered by DTF to policymakers

19/22: DTF participated in 19 events attended by 22 policymaker and NGO organizations

14 PUBLISHED OPINION PIECES

495 NEW PIECES OF CONTENT

2,700 DIESEL DIRECT SUBSCRIBERS

68% INCREASE IN INSTAGRAM FOLLOWERS
**AT A GLANCE**

**DIGITAL**

- **11%:** Increase in DTF’s Twitter followers – the Forum developed social media relationships with state policymakers and elected officials through direct tweets and tagging
- **126%:** Increase in DTF’s LinkedIn followers
- **68%:** Increase in DTF’s Instagram followers
- **2,700:** Subscribers to Diesel Direct, DTF’s weekly email newsletter, the #2 referring source for DTF’s website traffic
- **300K:** Total visitors to www.dieselforum.org – a 3.65 percent increase in website traffic over 2017
- **33%:** Website traffic to www.dieselforum.org is from international audience — a 16 percent increase over 2017
- **495:** New pieces of content posted to www.dieselforum.org, including the members-only site and the VW Clearinghouse
- **23:** Infographics and sharable graphics created to highlight research and key data points for social sharing

**RESEARCH**

- **Projects focused on public opinion, market analysis, societal and customer benefits and cost effectiveness**
- **New Technology Penetration:** 50-state vehicles-in-operation data and analysis for light-duty and heavy-duty vehicles
- **Large Engine Benefits, Cost-Effectivity and Age:** A joint research project with EDF on heavy-duty benefits and the cost-effectiveness of large engine repowers and replacements
- **Heavy-Duty Truck Benefits:** A research report outlining the societal and customer benefits of clean diesel technology in heavy-duty trucks
- **Opinion Surveys:** First View election-night survey results evaluated voter opinions about diesel technology and issues of the day

**INFOGRAPHICS AND SHAREABLE GRAPHICS CREATED:** 23

**MEDIA HITS EARNED:** 5,727

**INCREASE IN LINKEDIN FOLLOWERS:** 126%

**TOTAL VISITORS TO DIESELFORUM.ORG:** 300K
**Talking Climate to a Global Audience**

World leaders, local communities, activists and thought leaders descended on San Francisco the week of September 10 for the Global Climate Action Summit (GCAS).

**To the Delegates, Leaders and Attendees of the Global Climate Action Summit:**
Former U.N. Secretary Ban Ki-Moon once said, “We need all hands on deck to combat climate change.”

**Our world runs on diesel.** Globally, one out of every two economic sectors depend on diesel power. Trucks, trains, buses, marine workboats, and agricultural, forestry, mining and construction equipment rely almost exclusively on diesel. Tackling the multiple challenges of reducing greenhouse gas emissions, implementing adaptation and mitigation measures requires many solutions.

**Diesel is one of those solutions.**

DTF issued a statement to world leaders outlining the importance of diesel technology to the global economy. The letter was also distributed to over 1,000 elected officials and sustainability managers attending the conference.

DTF’s Affiliate Event “Cutting Carbon. Industrial Size” was in partnership with the Truck and Engine Manufacturers Association, who joined the Forum and Neste to speak about the importance of diesel technology to advance global economic growth while contributing to the greenhouse gas reductions necessary to meet Paris Climate Accord goals.

In total there were 39 total registrations and 23 attendees, 46 percent of whom were high-level policymakers, NGOs and representatives from the media.

**Diesel is Part of the Climate Future: DTF Affiliate Event**

- 39 total registrations
- 23 attendees
- CARB, Coalition for Clean Air, Bay Area AQMD, MN Pollution Control Agency
- Transport Topics, Waste Advantage Magazine

**GCAS AFFILIATE EVENT ATTENDEES**

- 41% Policymakers
- 33% NGO
- 13% Media
- 8% Industry
- 5% Other
DTF created a digital campaign around the Global Climate Summit, including the online Affiliate Event and the Diesel Free by ’33 event, that included paid digital promotion and media outreach. As the focal point for all the content surrounding the digital campaign, DTF created a landing page with a unique URL – www.dieselforum.org/dieselpowersthefuture. This landing page featured a letter to world leaders about the vital role that diesel plays in the global economy. DTF’s message was that meeting the world’s energy and clean air goals will require a variety of solutions – and diesel is one them.

The digital promotion included paid posts on Facebook, Twitter and LinkedIn as well as paid search results via Google AdWords. Overall, the campaign, which ran September 11-17, led to a significant increase in DTF’s visibility across all of our social media platforms, brought a substantial number of new users to the Forum’s website and resulted in DTF being the top paid search result for the conference.

- Media Advisory: Carbon Cutting, Industrial Size
  - An advisory inviting media to attend DTF’s sanctioned event.

- An Open Letter to Delegates, Leaders and Attendees Of The Global Climate Action Summit
  - A message broadcast to attendees – delegates and reporters – of the Summit.

- Call to Climate Action: Today and Tomorrow, New-Generation Diesel Technology Reduces GHG Emissions
  - Crafted after careful analysis of the conversations and themes taking place at the Summit. This was issued across the U.S. and was translated into German, French, Chinese, Thai, Indonesian and Spanish.

Over the course of the GCAS event, DTF issued three press releases, which cumulatively earned 4,212 media views and 1,284 postings to an estimated 155.3 million potential audience.
# THE FORUM SPEAKS: Opinion Pieces and Editorials Placed by DTF in 2018

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<tr>
<th>Newspaper</th>
<th>Title</th>
<th>Date</th>
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<tr>
<td>The Fresno Bee</td>
<td>Put Valley First in Line for VW Settlement Funds</td>
<td>February 21, 2018</td>
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<tr>
<td>The Modesto Bee</td>
<td>CA Must Target Trucks to Clean Up the Air</td>
<td>March 19, 2018</td>
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<td>THE VILLAGER</td>
<td>Do It With Diesel!</td>
<td>March 8, 2018</td>
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<td>The New York Times</td>
<td>Fuel Efficient Diesel Engines</td>
<td>February 21, 2018</td>
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<td>PIONEER PRESS TwinCities.com</td>
<td>Diesel vs. Electric</td>
<td>December 20, 2018</td>
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<td>THE CAP TIMES</td>
<td>Diesel Buses Are a Clean Choice for Madison</td>
<td>December 31, 2018</td>
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<td>Clovis Roundup</td>
<td>Does ARB Care About Reducing Emissions?</td>
<td>March 21, 2018</td>
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<td>The Bakersfield Californian</td>
<td>CARB’s Misplaced Approach</td>
<td>May 17, 2018</td>
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<td>TORONTO STAR</td>
<td>Renewable Diesel Has Multiple Benefits</td>
<td>June 13, 2018</td>
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<td>The New York Times</td>
<td>Taxis and Efficiency</td>
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<td>TIMES ARGUS</td>
<td>Not All Diesel Is Dirty</td>
<td>June 28, 2018</td>
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<td>Frederick News-Post</td>
<td>More Clean Air for the Dollar</td>
<td>August 9, 2018</td>
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<td>The Washington Post</td>
<td>One Click Won’t Move 18 Wheels</td>
<td>December 14, 2018</td>
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<tr>
<td>The New York Times</td>
<td>How Best to Spend Maryland’s $76 Million in VW Settlement Funds?</td>
<td>September 3, 2018</td>
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## International Spotlight:
The Forum’s voice and resources are continuously expanding in scope to international audiences on key issues of technology, climate and air quality. In 2018, DTF targeted six press statements to an international audience.

### Diesel “Pickup” New Life in Detroit
- Translated Into: English, Chinese, French, Spanish, Italian, German

### Improving Global Air Quality by Accelerating the Introduction of Cleaner Fuels and the Newest Generations of Diesel Technology
- Translated Into: English, Chinese, French, Spanish, Italian

### Statement on the Ruling by the Federal Administrative Court in Germany
- Not Translated

### Progress and Potential for Achieving Cleaner Air on a Global Basis: Adoption of New Generation Diesel Technology Delivers Rapid Clean Air Benefits
- Translated Into: English, French, Spanish, German

### Call to Climate Action: Today and Tomorrow, New-Generation Diesel Technology Reduces GHG Emissions
- Translated Into: English, Spanish, Italian, Chinese, French, German

### Powering the Farm of the Future: Efficient, Clean Diesel
- Not Translated
Looking Ahead to 2019

It's all about fitting in, and standing out. With growing policy debates and media coverage on climate and clean energy issues, coupled with political changes in the U.S. House of Representatives, the Forum’s primary work in 2019 will be to further expand how diesel technology fits in the clean energy future, how manufacturers and suppliers are working on hybrid and electric powertrains as well as applications and areas where diesel has unique advantages, and why we need all fuels and technologies to serve diverse customer needs.

While we work to advance the story about the many clean air and climate benefits of increasing the use of new diesel technology, we also must stand up for ensuring that existing diesel technology is well-maintained. Tampering or abuse that disables or removes emissions control systems for the purposes of performance enhancements may have a limited incidence, but the potential for broader negative reputational impact is not to be ignored.

On the international stage, we must expand the understanding of the new generation of diesel technology as an empowering solution for economic, energy and environmental quality improvements around the globe. The need for cleaner diesel fuels and expanded use of renewables holds great promise in many countries. We must also broaden the reach of industry’s leadership on meeting the most stringent emissions standards and the desire for greater harmonization in future standards.

Wherever the future takes us, diesel power is...Clean, Renewable, Efficient, Reliable, Available, Connected, Autonomous, and Proven.

See more about the Forum’s work in 2018, including multimedia content. Visit www.dieselforum.org/annualreport