

## Trucking Firms Deploy Ultra Clean Near-Zero RNG Trucks at Ports of Long Beach and Los Angeles

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NEWPORT BEACH, Calif.--(BUSINESS WIRE)--May 8, 2018-- Six trucking firms operating in the Ports of Los Angeles and Long Beach are deploying trucks powered by Cummins Westport (CWI) near-zero ISX12N engines, and fueled with Clean Energy Fuels Corp.'s (Nasdaq: CLNE) Redeem TM brand renewable natural gas (RNG) in an effort to reduce emissions and improve air quality in the ports and surrounding communities.

This press release features multimedia. View the full release here: https://www.businesswire.com/news/home/20180508005516/en/



Clean zero-emissions trucks are being deployed in CA ports to improve air quality. (Photo: Business Wire)

The project's goal is to introduce this ultra clean technology, which is 90 percent to 99 percent cleaner than existing port trucks, to the port drayage industry. This project aims to inspire greater interest in near-zero RNG trucks, particularly with the incentive funding that California is providing to help truckers transition to this clean technology. Near-zero trucks are also one of the strategies for reducing emissions from trucks under the ports' recent update to their Clean Air Action Plan (CAAP).

"The realization by trucking companies that they need to do something to meet the upcoming and anticipated stricter emissions requirements in California is beginning to settle in," said Greg Roche, Clean Energy's vice president of sustainable trucking. "Fortunately, there are many ways to take advantage of grants and other resources to make the transition to the new engine technology and clean RNG virtually painless. We applaud these first-movers in being leaders in doing their part to make the air we all breathe cleaner."

The California Energy Commission and the South Coast Air Quality Management

District provided funding for 20 near-zero <u>Class 8 trucks</u>. The Ports of Los Angeles and Long Beach provided funding for two additional near-zero trucks. The first four near-zero trucks have been successfully operating since mid-2017 and an additional four have been operating since February 2018.

"The California Energy Commission is pleased to have supported the deployment of near-zero emissions trucks powered by Cummins Westport's advanced engines with our partners, the South Coast Air Quality Management District and Clean Energy," said Energy Commissioner Janea A. Scott. "Demonstration projects, like those being carried out by the Ports of Los Angeles and Long Beach, help show there are viable cleaner, more sustainable freight technologies available today and highlight the role these technologies can play as the State transitions to zero and near zero emission technologies to help achieve federal air quality standards and the state's greenhouse gas goals."

Project participants include Total Transportation Services, Inc. (TTSI), 4Gen Logistics, Orange Avenue Express, CR&R, and Pacific 9 Transportation.

The ultra clean CWI engines achieve the lowest emissions of any heavy-duty engine used in any truck in North America, yet deliver diesel caliber performance with reliability and durability.

The U.S. Environmental Protection Agency (USEPA) and California Air Resources Board (CARB) certified these engines in December 2017 at CARB's optional low-NOx standard of 0.02 g-NOx/bhp-hr, 90 percent lower NOx emissions than the current EPA NOx standard. In fact, the new engines were tested as low as 0.01 g-NOx/bhp-hr, achieving virtually zero tailpipe emissions. Factory production of <a href="ISX12N engines">ISX12N engines</a> began in February and they are soon expected to be powering many more trucks on California roads.

"ITSI has now been testing the new CWI natural gas engines since last year and have found that they work terrifically," said Vic LaRosa, President of TTSI. "We have run the trucks hard – in and out of the ports for long hours in all kinds of conditions – and have had no issues. TTSI is committed to going above and beyond what we can towards a more sustainable future and transitioning to renewable natural gas has made it easy."

All these trucks will be fueling at Clean Energy's <u>network of California stations</u> with Redeem fuel, which reduces greenhouse gas (GHG) emissions by 70 percent versus diesel. RNG is the cleanest fuel for trucking today, with some GHG sources even reducing GHG by over 100 percent.

Pacific 9 Transportation will soon deploy 20 other RNG-powered trucks in addition to their grant-funded ultra low-NOx trucks.

The Ports of Los Angeles and Long Beach enacted the latest version of their CAAP in November 2017, which adopts far reaching strategies to further reduce air emissions and support California's vision for more sustainable freight movement. Part of the CAAP could dramatically change the makeup of the 16,000 heavy-duty trucks that move in and out of the ports. The CAAP envisions transitioning the current fleet of port trucks to clean trucks through a new set of provisions that will begin to be implemented this year.

## **About Clean Energy**

Clean Energy Fuels Corp. is the leading provider of natural gas fuel and renewable natural gas (RNG) fuel for transportation in North America. We build and operate compressed natural gas (CNG) and liquefied natural gas stations (LNG) and deliver more CNG, LNG and RNG vehicle fuel than any other company in the U.S. Clean Energy sells Redeem RNG fuel and believes it is the cleanest transportation fuel commercially available, reducing greenhouse gas emissions by up to 70%. For more information, visit <a href="https://www.CleanEnergyFuels.com">www.CleanEnergyFuels.com</a>.

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