

DOCKETED

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*Comment Received From: Caterpillar Inc.
Submitted On: 3/18/2022
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Caterpillar Inc comments to Docket 19-TRAN-02

Caterpillar Inc. is pleased to provide the attached comments in regards to Docket# 19-TRAN-02.

Sincerely, Mike Rochford

Additional submitted attachment is included below.



Large Power Systems Division
Caterpillar Inc.
2427 E Engine Drive
Chillicothe, IL 61523

17 March 2022

California Energy Commission
715 P Street
Sacramento, CA 95814

RE: Docket: 19-TRAN-02

Project Title: Medium- and Heavy-Duty Zero-Emission Vehicles and Infrastructure

Thank you for the opportunity to submit comments on the February 28, 2022 Staff Workshop on Funding Allocations for Future Medium- and Heavy-Duty Charging and Refueling Infrastructure Projects. We are pleased to provide Caterpillar's input.

As background, Caterpillar Inc. is the world's leading manufacturer of construction and mining equipment, off-highway diesel and natural gas engines, industrial gas turbines, and diesel-electric locomotives. Founded in Stockton, California, in 1925, we've been helping customers build a better, more sustainable world and are committed and contributing to a reduced-carbon future. Our innovative products and services, backed by our global dealer network, provide exceptional value that helps customers succeed.

The off-road equipment category presents both important opportunities and unique challenges to achieve reductions in greenhouse gas (GHG) and criteria emissions due to the diverse applications in which our machines operate. Caterpillar demonstrates its commitment to a reduced-carbon future in many ways including through our significant progress in reducing GHG emissions from our operations and our continued investment in new products, technologies and services to help our customers achieve their climate-related objectives as they build a better, more sustainable world. Our advanced power offerings facilitate fuel transition, increased operational efficiency and reduced emissions.

Some great examples of our efforts are in the rail space, including the recent purchase of 10 EMD Joule locomotives by Union Pacific, representing our largest battery-electric locomotive order to-date. It's also the largest investment in battery-electric technology by a U.S. Class I railroad. These locomotives, which do not use fuel and emit zero exhaust emissions, will be tested in rail yards including in California, helping identify the locomotives' capabilities and challenges for broader deployment. Additionally, Progress Rail, a Caterpillar Company, is working closely with Chevron U.S.A. Inc. and BNSF Railway Company to advance the demonstration of a locomotive powered by hydrogen fuel cells. In the agreement, Progress Rail plans to design and build a prototype hydrogen fuel cell locomotive for line-haul as well as short line and/or other types of rail service.

Chevron expects to develop the fueling concept and infrastructure to support this use of the locomotive. And BNSF is expected to demonstrate the prototype hydrogen fuel cell locomotive. The goal of the demonstration is to confirm the feasibility and performance of hydrogen fuel for use as a viable alternative to traditional fuels for line-haul rail.

With our construction equipment, Caterpillar is positioned to deliver the advantages of innovation and integration. Our engineers innovate at the component, system, product and worksite levels to develop integrated solutions to address customers' specific goals – including lower GHG, energy flexibility and business sustainability. We have the expertise to investigate alternatives to traditional diesel and natural gas today, including biodiesel, renewable diesel, synthetic fuel, renewable methane or biogas, and hydrogen blends. Beyond fuels, we continue to invest in electric drivetrains, hybrid powertrains and integrating batteries and energy storage options for those customers to address GHG concerns through improved energy efficiency and productivity.

While great strides have been made, significant opportunities remain. Caterpillar believes the California Energy Commission's Clean Transportation Program investments can accelerate the development and deployment of advanced off-road equipment. Public/private investments will help to maintain and advance the progress already being made in the marketplace. We are asking the Energy Commission staff to consider proposals that complement and accelerate development, demonstration and deployment of technologies by including a dedicated off-road equipment category in your program.

In closing, considering recent General Fund augmentations, Caterpillar encourages the California Energy Commission to seek changes in program-related statutes and rules that would provide the Commission with the flexibility to expand the program to a broader portfolio of worthy off-road projects as well as the required infrastructure investments to make them a reality.

Thank you for your consideration of these comments.

Sincerely,

A handwritten signature in black ink that reads "Mike Rochford". The signature is written in a cursive, flowing style.

Mike Rochford
General Manager
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