DOCKETED	
Docket Number:	21-RPS-02
Project Title:	Renewables Portfolio Standard 10th Edition Guidebook Update
TN #:	264050
Document Title:	Engine Tech Forum Comments on Renewable Portfolio Std Guidebook June 205
Description:	the Commission should update the Guidebook to specifically include Hydrogenated Vegetable Oils (HVO), also known as Renewable diesel fuel. Also consideration of renewable hydrogen for use in internal combustion engines is discussed.
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Submitter Role:	Other Interested Person
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June 5, 2025

Via e-filing

California Energy Commission Docket Unit, MS-4 Docket No. 21-RPS-02 715 P Street Sacramento, CA 95814

### In Re: DOCKET NO. 21-RPS-02 "Renewables Portfolio Standard 10<sup>th</sup> Edition Guidebook Update; Notice and Request for Comment on Proposed Scope for the RPBS GB 10<sup>th</sup> Edition

Dear Commissioners and CEC Staff,

We are writing in regard to the above captioned request for comment on the proposed scope for the Renewables Portfolio Standard Guidebook, ("Guidebook").

In summary, the Commission should properly update the Guidebook to specifically include Hydrogenated Vegetable Oils (HVO), also known as Renewable diesel fuel. HVO/RD should receive explicit and specific recognition within the guidebook for reasons outlined below, including the need for differentiation from biodiesel, the expanding use of HVO/RD in California today, its superior affordability compared to other technologies, its widespread acceptance by engine manufacturers and customers deploying generator-based power systems throughout California, the increasing investment by the refining sector to produce more HVO/RD, and most importantly, its proven and immediate capacity to help California achieve its commitments to reducing greenhouse gas emissions.

The Engine Technology Forum, Inc. ("ETF") is a not-for-profit educational association that represents manufacturers of internal combustion engines, vehicles, and equipment including mobile and stationary generators, along with component manufacturers and renewable and petroleum fuel producers. ETF collects and commissions research that attests to the environmental and economic importance of engine technology and serves to advocate these benefits broadly. More information including a list of members is available at <a href="https://www.enginetechforum.org">www.enginetechforum.org</a>.

 CEC has failed to take into consideration the inclusion of Hydrotreated Vegetable Oils ("HVO") as part of the Guidebook revisions. This is our second set of comments on this issue and follows the May 21 Scoping Meeting held by the Commission that considered changes to the RPS. In this proceeding, the Commission failed to mention or discuss HVOs eligibility. By continuing to remain silent, the Commission is failing to leverage one of the most proven, affordable, and available options for reducing greenhouse gas and other emissions.

II. **The Guidebook's Current Treatment of Biodiesel is not inclusive of HVO.** In Chapter 2, Energy Resource Eligibility Requirements, the Guidebook's current reference to biodiesel and related biomass is captured below:

**A**. **Biodiesel** A facility may qualify for RPS certification if it generates electricity using biodiesel derived from biomass feedstock or from an eligible solid waste conversion process using municipal solid waste. When applying for RPS certification, the applicant must submit information on the feedstock used to produce the biodiesel. For energy resource requirements, see Chapter 2.B Biomass, 2.C: Biomethane, or 2.G.2: MSW Conversion.

**B. Biomass** A facility may qualify for RPS certification if it generates electricity using biomass fuel. When applying for RPS certification of a facility using biomass, the applicant must submit information on the type and source of the biomass used, or planned to be used, at the facility. If the facility is using fuel that results from "biomass conversion" as defined in Public Resources Code Section 40106, documentation must be submitted to confirm the fuel was produced through a process that meets the definition of "biomass conversion" and satisfies the requirements of Public Resources Code Section 44107.

## III. Chapter 2 of The Scope Of The Guidebook Should Be Updated To Incorporate Hydrotreated Vegetable Oil (HVO)

A significant deficiency in the current Guidebook scope is that it is lacking appropriate recognition of Hydrotreated Vegetable Oil ("HVO"), also known as Renewable Diesel (RD) as a distinct qualifying renewable fuel in Chapter 2.

While it can be produced using the same feedstocks as biodiesel, the chemical process to produce Hydrotreated Vegetable Oil (HVO) is different and results in a far different fuel than biodiesel, which warrants its own specific and separate energy resource listing in the Guidebook.

HVO can be used in all existing diesel engines up to 100 percent without modification and is compatible with existing diesel infrastructure. HVO meets California Air Resource Board (CARB) motor vehicle fuel specifications under Title 13, California Code of Regulations (CCR), section 2281 et seq., and meets the aromatic, sulfur, and lubricity standards, of ASTM specification D975-12a.1.

As a "drop in" alternative to diesel fuel, HVO provides significant carbon reductions when compared to diesel fuel or lesser blends of biodiesel, and as such has a potentially significant role to play in the decarbonization of California's Electrical grid.

HVO's benefits are already being realized by the transportation sector as a means of sector decarbonization as part of the Low Carbon Fuel standard administered by the California Air Resources Board (CARB). In the most current edition of the Low Carbon Fuels Data Dashboard, (May 21, 2025) Figure 2, renewable diesel fuel is the largest generator of renewable fuel credits and the largest low carbon fuel by volume of all low carbon eligible fuels in 2024; more than twice as much as ethanol, accounting for over 2738 million GGE (gasoline gallon equivalents).

Both the California Public Utilities Commission (CPUC) and CEC have acknowledged the benefits of HVO, which makes the current state of failing to consider HVO in the current Guidebook revision so bewildering. The CPUC, in regulating PG&E's temporary generation program to combat Public Safety Power Shutoffs (PSPS), has encouraged the maximization of the use of HVO in liquid fueled temporary generation installations. Similarly, the CEC's division staff has encouraged the use of HVO as a fuel of choice in the data center applications before the Commission.

Manufacturers of reciprocating internal combustion engines used in power generation settings have all endorsed the use of HVO in their products. Back-up power system users are increasingly exploring ways to reduce their carbon intensity. Choosing to utilize renewable HVO in their units is a strategy we anticipate increasing in the coming years.

# IV. CEC should utilize established performance targets rather than name specific allowed technologies, and this should include the use of Hydrogen in Internal Combustion Engine Applications ("H2-ICE").

In this revision, the CEC has -- complying with recently enacted legislation -- incorporated the inclusion of Linear Generators by name as qualifying technology.

Other technologies that have similar carbon reduction potential— when using fuels such as hydrogen used in internal combustion engines ("H2 ICE") for power generation were not included by the CEC in these proposed Guidebook revisions.

Public Resources Code 25741(a)(1) defines a mix of technologies, feedstocks, or resources that qualify under the RPS. The statute does not prescribe a specific manner in which these resources must be used.

Based on prior filings to the 21-RPS-02 Docket, the CEC guidebook treatment on Hydrogen eligibility in fuel cell applications has raised concern with those in the hydrogen supply community. We urge the CEC to preserve the eligibility of renewable hydrogen derived from RPS-eligible resources for

use in whatever electricity-generating technology it may be used in whether fuel cell, linear generator or reciprocating internal combustion engines ("ICE").

### Summary

California's ambitious energy and climate goals demand a full range of solutions of fuels and technologies that are able to reduce carbon emissions. HVO/RD is one of those solutions and for the second time in these proceedings strongly urge that it be included in the Guidebook. HVO/RD should receive explicit and specific recognition within the guidebook for reasons outlined above including the expanding use of HVO/RD in California today, its superior affordability compared to other technologies, its widespread acceptance by engine manufacturers and customers deploying generator-based power systems throughout California, the increasing investment by the refining sector to produce more HVO/RD, and most importantly, its proven and immediate capacity to help California achieve its commitments to reducing greenhouse gas emissions.

Considering the sheer size of the diesel generation fleet in California, including HVO/RD ensures that those utilizing diesel technologies will strive to maximize the use of renewable fuels, which has the potential for a significant reduction in greenhouse gas emissions from the energy sector.

The Guidebook revisions should be based on carbon reduction based performance standards and properly recognize the eligibility of hydrogen as a fuel for both fuel cell and combustion-based applications.

Thank you for considering these comments, and we are happy to respond to any questions.

Sincerely yours,

Allen R. Schuetten

Allen Schaeffer Executive Director

Attachment: Exhibit 1: Figure 2 from the CARB LCFS Data Dashboard, Accessed May 30, 2025



#### EXHIBIT 1

The LCFS recognizes that the use of certain fuels results in greater greenhouse gas reductions than others; comparing volumes of each fuel and the total credits generated by that fuel reveals trends both in supply changes as well as the shifts in a fuel's source or innovation in its production. For instance, while ethanol makes up the largest amount of alternative fuel on a volume and energy basis, in 2020 about eighty-six percent of the LCFS credits were generated by non-ethanol fuels with lower carbon intensities. All other fuel types reported to the LRT-CBTS make up less than 1% of the total volume and credits and are not visually represented.

https://ww2.arb.ca.gov/resources/documents/lcfs-data-dashboard