



California Environmental Protection Agency

# Air Resources Board

## Low Carbon Fuel Standard

### Application Instructions For

### *Hydrogen Refueling Infrastructure (HRI) Pathway*

**Release Date: February 11, 2019**

*CARB's Low Carbon Fuel Standard regulation, which appears at sections 95480 to 95503 of title 17, California Code of Regulations, is designed to reduce greenhouse gas emissions associated with the life cycle of transportation fuels used in California. Unlike the regulation itself, this user guide does not have the force of law. It is not intended to and cannot establish new mandatory requirements beyond those that are already in the LCFS regulation, nor supplant, replace or amend any of the legal requirements of the regulation. Conversely, any omission or truncation of regulatory requirements does not relieve entities of their legal obligation to fully comply with all requirements of the regulation.*

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## Contents

<b>ACRONYMS .....</b>	<b>3</b>
<b>1 INTRODUCTION.....</b>	<b>4</b>
<b>2 LRT-CBTS ACCOUNT REGISTRATION AND MANAGEMENT .....</b>	<b>4</b>
<b>3 APPLICATION FOR HYDROGEN REFUELING INFRASTRUCTURE .....</b>	<b>4</b>
<b>4 SUBMITTING AN APPLICATION FOR HYDROGEN REFUELING INFRASTRUCTURE .....</b>	<b>9</b>
<b>APPENDIX A – ZEV INFRASTRUCTURE REPORTING AND CREDITING TIMELINE .....</b>	<b>16</b>

## Acronyms

CARB	California Air Resources Board
CBTS	Credit Bank & Transfer System
CI	Carbon Intensity
DMS	LCFS Data Management System
EV	Electric Vehicle
FEIN	Federal Employer Identification Number
FPC	Fuel Pathway Code
FSE	Fueling Supply Equipment
HRI	Hydrogen Refueling Infrastructure
LCFS	Low Carbon Fuels Standard
LRT	LCFS Reporting Tool
ZEV	Zero Emission Vehicle

## 1 Introduction

The 2018 LCFS amendments added a new crediting mechanism to the LCFS designed to support the deployment of zero emission vehicle (ZEV) infrastructure. That new mechanism<sup>1</sup> bases crediting for ZEV infrastructure on a calculation of capacity of the hydrogen station or direct current (DC) fast charging site, less the actual fuel dispensed. The two categories for ZEV infrastructure are Hydrogen Refueling Infrastructure (HRI) and DC Fast Charging Infrastructure (FCI).

This document is a guide to submitting HRI Applications. A similar guide to submitting an FCI Application can be found here: [https://www.arb.ca.gov/fuels/lcfs/guidance/fci\\_userguide.pdf](https://www.arb.ca.gov/fuels/lcfs/guidance/fci_userguide.pdf)

## 2 LRT-CBTS Account Registration and Management

Organizations that intend to participate in the LCFS program, including the new ZEV fueling infrastructure crediting provisions, must register for an account in the LCFS Reporting Tool (LRT) for reporting purposes at: <https://ssl.arb.ca.gov/lcfsrt/Login.aspx>.

For assistance with registering for an account, please see the LRT-CBTS User Guide at: [https://www.arb.ca.gov/fuels/lcfs/reportingtool/userguide\\_lrt\\_cbts\\_v2\\_registration\\_010919.pdf](https://www.arb.ca.gov/fuels/lcfs/reportingtool/userguide_lrt_cbts_v2_registration_010919.pdf).

## 3 Application for Hydrogen Refueling Infrastructure

An application template for HRI will be available on February 11, 2019, and will be available for download here: [https://www.arb.ca.gov/fuels/lcfs/guidance/hri\\_application.xlsm](https://www.arb.ca.gov/fuels/lcfs/guidance/hri_application.xlsm). This section describes how to fill out the application template for HRI.

For each hydrogen refueling station, the station owner, who is the regulated entity, must submit an application in the LRT-CBTS that contains the information described below. All fields marked with an asterisk (\*) must be filled out for an application to be complete.

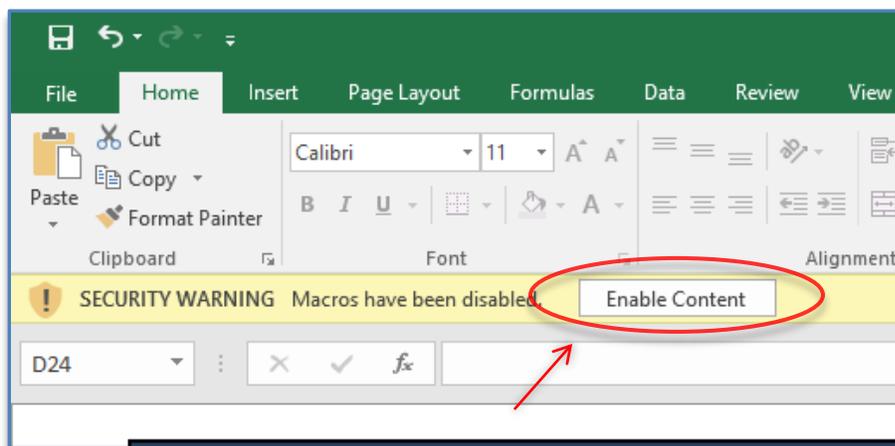
Please note that during this time, the application template may only be completed on Windows computers using Microsoft Excel because it will **not** work on Mac computers. When the fully functional system interface is available in the LRT (later in 2019), the application may be completed using a supported web browser on both Windows and Mac computers.

### **STEP 1**

Make sure that the macros are turned on the Excel file by clicking the “Enable Content” button.

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<sup>1</sup> 95486.2



**STEP 2**

Complete the Station Owner Details section with the name and address of the proposed station and the Applicant Representative section with the information of the contact person for the owner entity.

The Federal Employee Identification Number (FEIN) must be the same nine-digit number as currently registered by the entity in the Alternative Fuels Portal (AFP) and LRT.

<b>Station Owner Details</b>	
Organization Name * <input type="text"/> Address Line 1 * <input type="text"/> City * <input type="text"/> Zip Code * <input type="text"/>	Federal Employee Identification Number (FEIN) * <input type="text"/> Address Line 2 * <input type="text"/> State or Province * <input type="text"/> Country * <input type="text"/>
<p><b>Must be same FEIN as entity that is already registered in the AFP</b></p>	
<b>Applicant Representative</b>	
Primary Contact Name * <input type="text"/> Business Phone * <input type="text"/> Email * <input type="text"/>	Title Position * <input type="text"/> Mobile Phone * <input type="text"/>

**STEP 3**

Complete the Station Details with information for the proposed station. To more accurately locate the station, the latitude and longitude must be provided with at least 5 decimal places. However, if the fifth decimal place is a 0, then it must be provided with at least 6 decimal places.

**Station Details**

Station Name \*

Address Line 1 \*

Address Line 2

City \*

Zip Code \*

Location \* Latitude  Longitude

#### **STEP 4**

Complete the daily permitted hours of operation for the proposed station.

Expected Daily Permitted Hours \*

24 hours  
Less than 24 hours

If the daily permitted hours are less than 24 hours, indicate the hours of operation using the 24-hour clock. For example, if the station is permitted between 6 am and 8 pm, enter 06:00 and 20:00. Once entered, the format of the time will automatically shift to regular time. If less than 24 hours, the applicant must also attach a file providing evidence from a permitting authority of the station’s maximum allowable operation time.

Expected Daily Permitted Hours \*  Hours of Operation  to  24 hours

Make sure to include supporting documentation

**Attach pdf file** →  Hour of operation information

Not Included

#### **STEP 5**

Complete the station nameplate refueling capacity for the permitted hours of operation using the HySCapE 1.0 model.

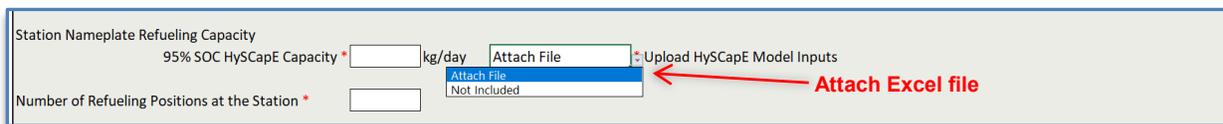
The HySCapE 1.0 model (with instructions on how to download the model) can be found here: [https://www.arb.ca.gov/fuels/lcfs/2018-0813\\_hyscape\\_download\\_instructions.pdf](https://www.arb.ca.gov/fuels/lcfs/2018-0813_hyscape_download_instructions.pdf).

Use the “Mass Dispensed at 95% SOC limit” option to determine the station nameplate capacity. For other settings, use the default HySCapE 1.0 settings<sup>2</sup>. The applicant must upload a completed model input sheet to the application. Note that the capacity should be less than or

<sup>2</sup> Default settings:

- Vehicle Demand Profile: ChevronFriday
- Time Between Fills: 255 seconds
- Vehicle Storage Volume: 126 liters
- Storage Level to Trigger Delivery: 30 percent
- Hourly Distribution: Even

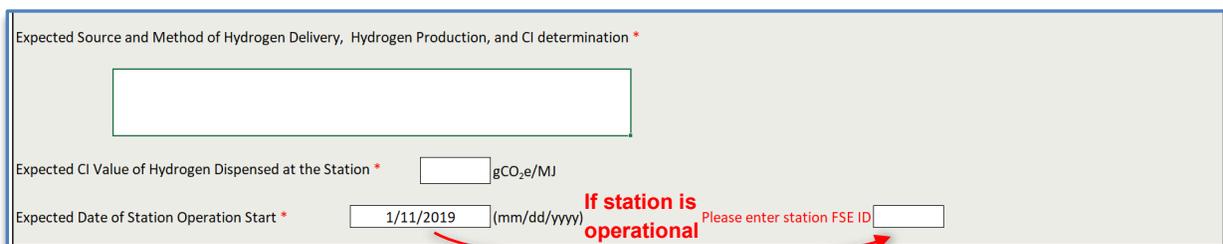
equal to 1,200 kg/day. Also indicate the number of light duty vehicle (H70) refueling positions at the proposed station.



## STEP 6

Indicate the expected source, method used for delivery, and CI value of the hydrogen dispensed at the station. If the CI value for hydrogen is not known at the time of application, provide the best estimate of the CI value that it will receive based on expectations for near-term (one to two years) hydrogen supply. Indicate also the expected date that the station will be operational.

If the station is already operational, as indicated by a operational date prior to the application date, please also enter the station FSE ID.



If the station is not yet operational, the station FSE ID is not needed and the field will disappear.



## STEP 7

Attach the justification for the station location and a signed attestation letter using the drop-down menu. Station location justification is required in all applications. If the station is approved under the California Energy Commission's AB 8 grant funding, please submit a letter that identifies the specific solicitation that funding was approved under and confirms that the applicant has not increased, and is not planning to increase, the capacity approved by the CEC. The signed attestation letter from the applicant must attest to the veracity of the information in the application packet. If necessary, upload all redacted information as a single zip file using the drop-down menu.

**Additional Documents to Include**

\* Station Location Justification **Attach pdf file**

\* Signed Attestation Letter

**Upload Redacted Information (zip all material into a single file)** **Attach zip file**

Zip-file Containing Any Redacted Material

The attachments will be indicated in the Attachment Box, as shown below. Note that the attachments are in .pdf, .xlsx, and .zip format depending on the attachment type. If the applicant has additional supporting documentation that cannot be converted to .pdf, then refer to them in the uploaded .pdf document and submit the additional documentation as separate attachments in the same LRT correspondence.

Expected Daily Permitted Hours \*  Hours of Operation  to  14:00 hours  
 Make sure to include supporting documentation  Hour of operation information

Station Nameplate Refueling Capacity  
 95% SOC HySCapE Capacity \*  kg/day  \* Upload HySCapE Model Inputs

Number of Refueling Positions at the Station \*

Expected Source and Method of Hydrogen Delivery, Hydrogen Production, and CI determination \*

Expected CI Value of Hydrogen Dispensed at the Station \*  gCO<sub>2</sub>e/MJ

Expected Date of Station Operation Start \*  (mm/dd/yyyy) Please enter station PSE ID

**Additional Documents to Include**

\* Station Location Justification

\* Signed Attestation Letter

**Upload Redacted Information (zip all material into a single file)**

Zip-file Containing Any Redacted Material

**I certify that the station meets the following requirements:**

\* Station Under Consideration Will Be Open to the Public

\* Station under consideration is not receiving funding pursuant to any settlement related to any California or Federal regulation enforcement

**Attachment Box**

<input type="text" value="C:\HRI_Application\location justification.pdf"/> Justification	<input type="text" value="C:\HRI_Application\attestation.pdf"/> Attestation	<input type="text" value="C:\HRI_Application\hyscape.xlsx"/> HySCapE
<input type="text" value="C:\HRI_Application\redacted.zip"/> Redacted	<input type="text" value="C:\HRI_Application\permitting.pdf"/> Permitting	

### STEP 8

Certify that the station under consideration will be open to the public, is not receiving funding pursuant to any settlement related to any California or Federal regulation enforcement, and is not built as a required mitigation measure for CEQA by choosing “Yes” from the drop-down menu.

I certify that the station meets the following requirements:

Yes \* Station Under Consideration Will Be Open to the Public

Yes \* Station under consideration is not receiving funding pursuant to any settlement related to any California or Federal regulation enforcement

No \* Station under consideration is not built as a required mitigation measure for CEQA

No  
 Yes



redacted.zip

Redacted

## 4 Submitting an Application for Hydrogen Refueling Infrastructure

All applications must be submitted to the LRT using the Correspondence feature.

### STEP 1

Log into the LRT-CBTS using your username and password.




Version: V2.9950

**For Reporting Use Only** [Contact ARB](#)

# LOW CARBON FUEL STANDARD

Reducing the Carbon Intensity of California Transportation Fuels

**LRT-CBTS & AFP Login**

Username:

Password:

Login

[Reset Password](#)



**Low Carbon Fuel Standard Reporting Tool and Credit Bank & Transfer System (LRT-CBTS)**

LRT-CBTS Account

CBTS Broker Account

Click the "LRT-CBTS Account" if you are the designated administrator or primary contact person for LCFS Quarterly and Annual Reporting and have not registered your organization. Upon account approval by ARB you will be able to login and assign roles to other users. Only users assigned "Signatory Authority" are able to submit LCFS reports. If you are an employee of a registered organization and you are only in need of a user account, please contact the administrator for your organization.

Click the "CBTS Broker Account" if you need an account solely for transferring LCFS credits. You will be registered as a "Broker" in the system upon account approval by ARB and will be notified by email. You will be added to the list of registered brokers. LCFS Regulated Parties will be able to select brokers from the list of registered brokers.

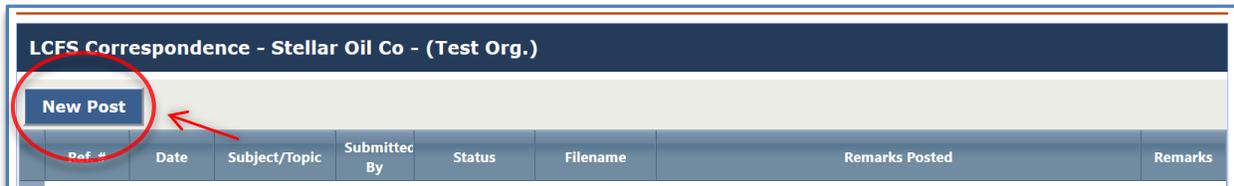
### STEP 2

Select the Correspondence tab.

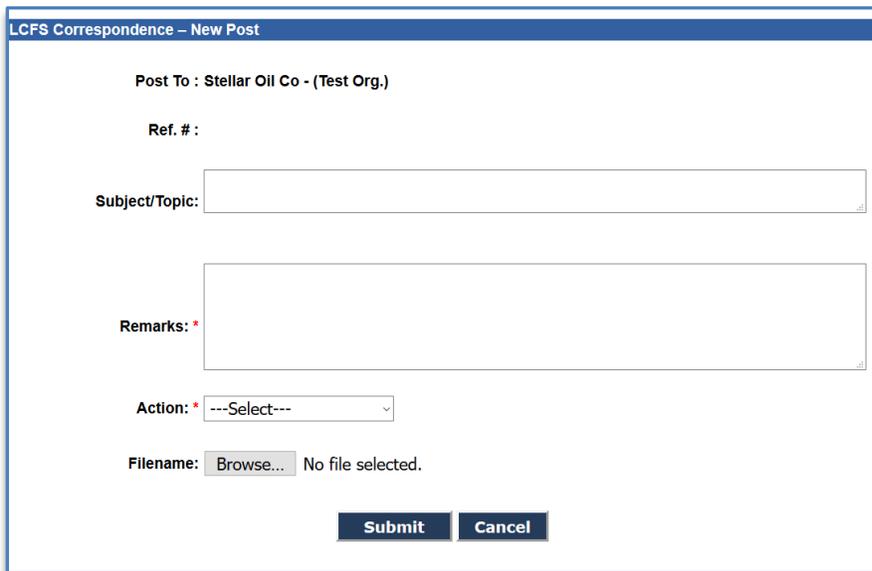


### **STEP 3**

Create a new post per application by clicking on the “New Post” button.



A new post will appear.



Enter “HRI Application” in the “Subject/Topic” text box. Enter a short description of the application in the “Remarks” text box. Choose “Post New Issue” in the “Action” drop-down menu.

LCFS Correspondence – New Post

Post To : Stellar Oil Co - (Test Org.)

Ref. # :

Subject/Topic: HRI Application

Remarks: \* HRI Application from Stellar Oil Co.

Action: Post New Issue

Filename: Post New Question  
Post New Issue  
Post Temporary Pathway Request

Cancel

Attach the HRI Application using the “Browse...” function.

Name	Date modified	Type	Size
attestation	12/27/2018 9:17 AM	Adobe Acrobat D...	418 KB
HRIApplication	12/28/2018 8:15 AM	Microsoft Excel M...	2,382 KB
hyscape	12/27/2018 9:09 AM	Microsoft Excel W...	8 KB
locationjustification	12/27/2018 9:17 AM	Adobe Acrobat D...	418 KB
permitting	12/27/2018 9:17 AM	Adobe Acrobat D...	418 KB
redacted	12/27/2018 10:23	Compressed (zipp...	1,151 KB

For Reporting Use Only

Remarks: \* HRI Application from Stellar Oil Co.

Action: \* Post New Issue

Filename: Browse... HRIApplication.xlsm

Submit Cancel

Submit the application Post by clicking the “Submit” button.

LCFS Correspondence – New Post

Post To : Stellar Oil Co - (Test Org.)

Ref. # :

Subject/Topic: HRI Application

Remarks: \*  
HRI Application from Stellar Oil Co.

Action: \* Post New Issue

Filename: Browse... HRIApplication.xlsm

Submit Cancel

When prompted to continue with submitting the post, click the “OK” button.

LCFS Correspondence – New Post

Post To : Stellar Oil Co - (Test Org.)

Ref. # :

Subject/Topic: HRI Application

Remarks: \*  
HRI Application from Stellar Oil Co.

Action: \* Post New Issue

Filename: Browse... HRIApplication.xlsm

Continue with the Submit Post?

OK Cancel

Submit Cancel

When the confirmation prompt appears confirming the post was submitted, click the “OK” button.

Your remarks have been posted.

OK

## STEP 4

If the applicant would like to submit additional attachments that were not attached to the application, the attachments must be submitted under the same correspondence reference number.

LCFS Correspondence - Stellar Oil Co - (Test Org.)								
New Post								
	Ref. #	Date	Subject/Topic	Submitted By	Status	Filename	Remarks Posted	Remarks
>	C1913	12/28/2018 08:37:11 AM	HRI Application	Name	Post New Issue	<a href="#">HRIApplication.xls</a>	HRI Application from Stellar Oil Co.	<a href="#">Add</a>

[LCFS RT Home](#) | [Terms of Use](#) | [Visit ARB LCFS Page](#) | [Back to Top](#)

To submit additional attachments, click on the “Add” button under the Remarks column.

Remarks Posted	Remarks
HRI Application from Stellar Oil Co.	<a href="#">Add</a>

Be sure to check mark the reference number in the “Ref. #'s (optional)” text box. In the “Remarks” text box, indicate that you are submitting an additional attachment and provide a short description of the attachment.

LCFS Correspondence – Add Remarks

Post To : Stellar Oil Co - (Test Org.)

Ref. # : C1913

Subject/Topic: HRI Application

Ref. #'s (optional):

- C1913 - HRI Application

Remarks: \*

C1913: Submitting additional attachment: [short description of attachment].

Action: \* ---Select---

Filename: Browse... No file selected.

Submit Cancel

Under the “Action” section, select the “Post Clarification” option in the drop-down menu.

Action: \* Post Clarification

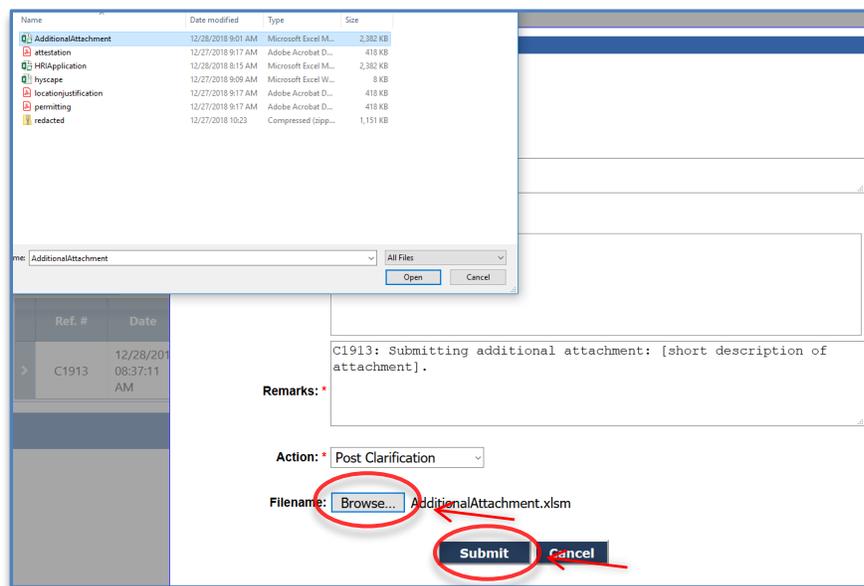
---Select---

Post Question

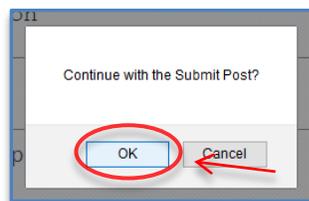
Post Clarification

Submit Cancel

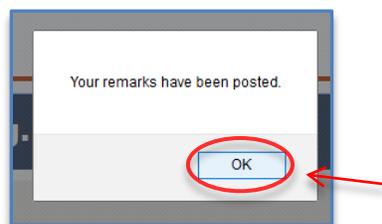
Attach the additional attachment using the “Browse...” button and submit the post by clicking the “Submit” button.



Click "OK" to submit the post when prompted.



Click "OK" when you receive confirmation that the post was submitted.



To submit additional attachments, repeat this step (STEP 4) of this section.

## APPENDIX A – ZEV Infrastructure Reporting and Crediting Timeline

