



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
WASHINGTON, D.C. 20460

March 1, 2023

OFFICE OF  
AIR AND RADIATION

Mr. Todd Dixon  
Vice President  
Martinez Renewables, LLC  
539 S. Main Street  
Findlay, Ohio 45840

Dear Mr. Dixon:

Martinez Renewables, LLC, petitioned the Agency to approve a pathway for the generation of advanced biofuel (D-code 5) RINs for liquefied petroleum gas (LPG) made from biogenic waste fats, oils, and greases (“biogenic waste FOG”) feedstock through a hydrotreating production process. Martinez Renewable’s facility, located in Martinez, California, produces LPG fuel from biogenic waste FOG using a process involving hydrotreating with grid electricity, natural gas, and hydrogen produced from natural gas via steam methane reforming as energy sources (the “Martinez Process”).

Through the petition process required under 40 CFR 80.1416, Martinez Renewables submitted data to EPA, and EPA performed a lifecycle greenhouse gas analysis of the LPG fuel produced from biogenic waste FOGs through the Martinez Process. This analysis involved application of the same methodology, and much of the same modeling, used for previous RFS rulemakings, including the March 2010 RFS rule (75 FR 14670); the March 2013 RFS rule (78 FR 14190); and the December 2022 Canola Oil Pathways rule (87 FR 73956). All of the elements (i.e., feedstock, production process technology, and fuel type) in this analysis have been evaluated through previous RFS rulemakings. The difference between this analysis and the modeling completed for previous RFS rulemakings is EPA’s evaluation of a new combination of these elements and our facility-specific evaluation of the Martinez Process.

The attached document, “Martinez Renewables Biogenic Waste FOG to LPG Fuel Pathway Determination under the RFS Program” describes the data submitted by Martinez Renewables, the analysis conducted by the EPA, and our determination of the lifecycle greenhouse gas emissions associated with the fuel production pathway described in Martinez Renewables petition.

Based on our assessment, LPG produced from biogenic waste FOG through the Martinez Process qualifies under the Clean Air Act (CAA) for advanced biofuel (D-code 5) RINs, assuming the fuel meets the other definitional criteria for renewable fuel (such as being produced from renewable biomass and being used to reduce or replace the quantity of fossil fuel present in transportation fuel, heating oil, or jet fuel) specified in the CAA and the EPA implementing regulations.

This approval applies specifically to the Martinez Renewables facility in Martinez, CA, and to the process, materials used, fuels produced, and process energy types and amounts outlined and described in the petition submitted by Martinez Renewables.

The OTAQ Reg: Fuels Programs Registration and OTAQ EMTS Application will be modified to allow Martinez Renewables to register and generate advanced biofuel RINs for LPG produced from biogenic waste FOG using the “Martinez Process.”

Sincerely,

Sarah Dunham, Director  
Office of Transportation and Air Quality

Enclosure

Martinez Renewables Biogenic Waste FOG to LPG Fuel Pathway Determination under the RFS  
Program

EPA Office of Transportation and Air Quality

**Summary:** Martinez Renewables petitioned the Agency under the Renewable Fuel Standard (RFS) program to approve a pathway that would allow them to generate advanced biofuel (D-code 5) renewable identification numbers (RINs) for liquefied petroleum gas (LPG) produced at Martinez Renewable’s facility located in Martinez, California. This facility uses biogenic waste fats, oils, and greases (“biogenic waste FOG”) as feedstock, and a hydrotreating production process using grid electricity, natural gas, and hydrogen produced from natural gas via steam methane reforming as energy sources (the “Martinez Process”).<sup>1</sup>

The feedstock, process technology and fuel described in the Martinez Renewables petition have each been evaluated as part of prior RFS rulemakings. Based on the data submitted by Martinez Renewables, the methodology, and much of the same modeling used for prior RFS rulemakings, we conducted a lifecycle assessment. Based on this analysis we estimate that LPG produced from biogenic waste FOG using the Martinez Process reduces lifecycle greenhouse gas (GHG) emissions compared to the statutory petroleum baseline by approximately 78 percent. Based on the results of our lifecycle GHG assessment, LPG produced from biogenic waste FOG feedstock through the Martinez Process would qualify for advanced biofuel (D-code 5) RINs.

Through the petition process described under 40 CFR 80.1416, Martinez Renewables submitted data to EPA to perform a lifecycle GHG analysis of the LPG fuel produced through the Martinez Process from biogenic waste FOG feedstock. This analysis involved a straightforward application of the same methodology and much of the same modeling used for previous RFS rulemakings. All of the elements of this pathway (i.e., feedstock, process and fuel types) have been evaluated through notice and comment rulemakings. The difference between this analysis and the modeling completed for prior RFS rulemakings is the evaluation of a new combination of these elements and our facility-specific evaluation of the Martinez Process. Based on EPA’s assessment, using conservative assumptions,<sup>2</sup> LPG produced through the Martinez Process from biogenic waste FOG feedstock achieves lifecycle GHG emissions reductions that qualify it as advanced biofuel.

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<sup>1</sup> Under the RFS program, a fuel pathway consists of a unique combination of a feedstock, a fuel production process and a type of transportation fuel. In this determination document the term “Martinez Process” refers only to the hydrotreating fuel production process and energy sources used by Martinez Renewables at their facility in Martinez, CA, to convert feedstocks to fuel products, including LPG.

<sup>2</sup> The purpose of lifecycle assessment under the RFS program is not to precisely estimate lifecycle GHG emissions associated with particular biofuels, but instead to determine whether or not the fuels satisfy specified lifecycle GHG emissions thresholds to qualify as one or more of the four types of renewable fuel specified in the statute. Where there is a range of possible outcomes and the fuel satisfies the GHG reduction requirements when “conservative” assumptions are used, then a more precise quantification of the matter is not required for purposes of a pathway determination.

This document is organized as follows:

- *Section I. Required Information and Criteria for Petition Requests:* Information on the background and purpose of the petition process, the criteria EPA uses to evaluate the petitions and the information that is required to be provided under the petition process as outlined in 40 CFR 80.1416. This section is not specific to Martinez Renewables' request and applies to all petitions submitted pursuant to 40 CFR 80.1416.
- *Section II. Available Information:* Background information on Martinez Renewables, the information they provided and how it complies with the petition requirements outlined in Section I.
- *Section III. Analysis and Discussion:* Description of the lifecycle analysis done for this determination and how it differs from the analyses done for previous assessments. This section also describes how we have applied the lifecycle results to determine the appropriate D-code for LPG fuel produced through the Martinez Process from biogenic waste FOG feedstock.
- *Section IV. Conditions and Associated Regulatory Provisions:* Registration, reporting, and recordkeeping requirements for LPG fuel produced through the Martinez Process from biogenic waste FOG feedstock.
- *Section V. Public Participation:* Description of how this petition is an extension of the analyses done as part of the March 2010 RFS rule and the March 2013 RFS rule.
- *Section VI. Conclusion:* Summary of our conclusions regarding Martinez Renewable's petition, including the D-code they may use in generating RINs for LPG fuel produced through the Martinez Process from biogenic waste FOG feedstock.

## **I. Required Information and Criteria for Petition Requests**

### **A. Background and Purpose of Petition Process**

The RFS program is contained in CAA 211(o). EPA's regulations implementing this program are published at 40 CFR part 80, subpart M. The RFS regulations implement the statutory requirements regarding the types of renewable fuels eligible to participate in the RFS program and specify the procedures by which renewable fuel producers and importers may generate RINs for the qualifying renewable fuels they produce through approved fuel pathways.<sup>3</sup>

Pursuant to 40 CFR 80.1426(f)(1):

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<sup>3</sup> See EPA's website for information about the RFS regulations and associated rulemakings: <https://www.epa.gov/renewable-fuel-standard-program>

*Applicable pathways.* D-codes shall be used in RINs generated by producers or importers of renewable fuel according to the pathways listed in Table 1 to this section, subparagraph 6 of this section, or as approved by the Administrator.

Table 1 to 40 CFR 80.1426 lists the three critical components of a fuel pathway: (1) fuel type; (2) feedstock; and (3) production process. Each specific combination of the three components, or fuel pathway, is assigned a D-code. EPA may also independently approve additional fuel pathways not currently listed in Table 1 for participation in the RFS program, or a third party may petition for EPA to evaluate a new fuel pathway in accordance with 40 CFR 80.1416. In addition, renewable fuel producers qualified in accordance with 40 CFR 80.1403(c) and (d) for an exemption from the 20 percent GHG emissions reduction requirement of the Act for a baseline volume of fuel (“grandfathered fuel”) may generate RINs with a D-code of 6 pursuant to 40 CFR 80.1426(f)(6) for that baseline volume, assuming all other regulatory requirements are satisfied.<sup>4</sup>

The petition process under 40 CFR 80.1416 allows parties to request that EPA evaluate a new fuel pathway’s lifecycle GHG emissions and provide a determination of the D-code for which the new pathway may be eligible.

## **B. Required Information in Petitions**

As specified in 40 CFR 80.1416(b)(1), petitions must include all of the following information, and should also include supporting documents such as independent studies, engineering estimates, industry survey data, and reports or other documents supporting any claims:

- The information specified under 40 CFR 80.76 (Registration of refiners, importers or oxygenate blenders).
- A technical justification that includes a description of the renewable fuel, feedstock(s), biointermediate(s), and production process. The technical justification must include process modeling flow charts.
- A mass balance for the pathway, including feedstocks and biointermediates, fuels produced, co-products, and waste materials production.
- Information on co-products, including their expected use and market value.
- An energy balance for the pathway, including a list of any energy and process heat inputs and outputs used in the pathway, including such sources produced off site or by another entity.

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<sup>4</sup> “Grandfathered fuel” refers to a baseline volume of renewable fuel produced from facilities that commenced construction before December 19, 2007, and which completed construction within 36 months without an 18-month hiatus in construction and is exempt from the minimum 20 percent GHG reduction requirement that applies to general renewable fuel. A baseline volume of ethanol from facilities that commenced construction after December 19, 2007, but prior to December 31, 2009, qualifies for the same exemption if construction is completed within 36 months without an 18-month hiatus in construction and the facility is fired with natural gas, biomass, or any combination thereof “Baseline volume” is defined in 40 CFR 80.1401.

- Any other relevant information, including information pertaining to energy saving technologies or other process improvements.
- The petition must be signed and certified as meeting all the applicable requirements of 40 CFR 80.1416 by the responsible corporate officer of the applicant company.
- Other additional information as requested by the Administrator to complete the lifecycle greenhouse gas assessment of the new fuel pathway.

In addition to the requirements stated above, parties who use a feedstock not previously evaluated by EPA must also include additional information. This information was not required for the Martinez Renewables petition because their proposed pathway uses a feedstock, biogenic waste FOG (e.g., use cooking oil, animal tallow), that EPA has previously evaluated.

## **II. Available Information**

### **A. Information Available Through Existing Modeling**

The feedstock, process technology and fuel described in the Martinez Renewables petition have all been evaluated as part of prior RFS rulemakings. We evaluated the feedstock, biogenic waste FOG, as part of multiple RFS rulemakings, including but not limited to the March 2010 RFS rule (75 FR 14670) and the March 2013 RFS rule (78 FR 14190). We have evaluated the production technology, hydrotreating, in multiple RFS rulemakings, including but not limited to the March 2010 RFS rule, the March 2013 RFS rule, and the December 2022 Canola Oil Pathways rule (87 FR 73956). We have also evaluated the fuel type, LPG in prior RFS rulemakings, including the March 2010 RFS rule, the March 2013 RFS rule, and the December 2022 Canola Oil Pathways rule. Compared to these prior evaluations, our analysis for this determination considers the production of LPG from biogenic waste FOG through a hydrotreating process, the facility-specific data for the Martinez Process, and more recent background data (e.g., on emissions associated with grid electricity, natural gas and fuel distribution). This was a straightforward analysis based on existing modeling done for previous rulemakings for the RFS program, and facility-specific data for the Martinez Process.

**Table 1: Relevant Excerpts of Existing Fuel Pathways from Table 1 to 40 CFR 80.1426**

Row	Fuel Type	Feedstock	Production Process Requirements	D-Code
F	Biodiesel, renewable diesel, jet fuel and heating oil	Biogenic waste oils/fats/greases	One of the following: Trans-Esterification Hydrotreating (Excluding processes that co-process renewable biomass and petroleum)	4 (Biomass-based diesel)
H	Biodiesel, renewable	Biogenic waste oils/fats/greases	One of the following: Trans-Esterification	5 (Advanced)

	diesel, jet fuel and heating oil		Hydrotreating (Includes only processes that co-process renewable biomass and petroleum)	
I	Naphtha, LPG	<i>Camelina sativa</i> oil; Distillers sorghum oil; Distillers corn oil; Commingled distillers corn oil and distillers sorghum oil; Canola/Rapeseed oil	Hydrotreating	5 (Advanced)

## **B. Information Submitted by Martinez Renewables**

Martinez Renewables supplied all the information as required in 40 CFR 80.1416 that EPA needed to analyze the lifecycle GHG emissions associated with the LPG produced through the Martinez Process from biogenic waste FOG. The information submitted included a technical justification describing the fuel, feedstocks used, and the facility-specific hydrotreating production process with modeling flow charts, a detailed mass and energy balance of the process with information on co-products as applicable, and other additional information as needed to complete the lifecycle GHG assessment. The process modeling flow charts, mass and energy balance data and other details about the production process were submitted under claims of confidential business information.

## **III. Analysis and Discussion**

### **A. Lifecycle Analysis**

Determining a fuel pathway's compliance with the lifecycle GHG reduction thresholds specified in the CAA 211(o) for different types of renewable fuel requires a comprehensive evaluation of the renewable fuel, as compared to the gasoline or diesel that it replaces, on the basis of its lifecycle GHG emissions. As mandated by CAA 211(o), the lifecycle GHG emissions assessments must evaluate the aggregate quantity of GHG emissions (including direct emissions and significant indirect emissions such as significant emissions from land use changes), as determined by the Administrator, related to the full lifecycle, including all stages of fuel and feedstock production, distribution, and use by the ultimate consumer.

In examining the full lifecycle GHG impacts of renewable fuels for the RFS program, EPA considers the following:

- Feedstock production – based on agricultural sector models that include direct and indirect impacts of feedstock production.
- Biointermediate production (when applicable).<sup>5</sup>
- Fuel production – including process energy requirements, impacts of any raw materials used in the process, and benefits from co-products produced.
- Fuel and feedstock distribution – including impacts of transporting feedstock from production to use, and transport of the final fuel to the consumer.
- Use of the fuel – including combustion emissions from use of the fuel in a vehicle.

EPA’s evaluation of the lifecycle GHG emissions related to the LPG produced through the Martinez Process from biogenic waste FOG under this petition request is consistent with the CAA’s applicable requirements, including the definition of lifecycle GHG emissions and threshold evaluation requirements.

**Feedstock Production** – According to their petition, the biogenic waste FOG feedstock that Martinez Renewables intends to use includes yellow grease (also known as waste grease, used cooking oil or UCO) and animal tallow. For the March 2010 RFS rule, EPA estimated the lifecycle GHG emissions associated with biodiesel produced from UCO feedstock (75 FR 14789-90), which formed the basis for the Agency’s determination that biodiesel produced from a variety of biogenic waste FOG, including animal tallow, satisfies the RFS program’s 50 percent GHG reduction requirement for fuel to qualify as advanced biofuel (75 FR 14794). We are using the methodology and modeling approach specific to the UCO feedstock in our evaluation of the Martinez Renewables petition. For our analysis of the Martinez Renewables petition, we evaluated the lifecycle GHG emissions associated with using UCO feedstock. Following the approach used for the March 2010 RFS rule, we consider the GHG emissions associated with the use of UCO as feedstock to be representative of such emissions associated with the use of other qualifying biogenic waste FOG feedstocks, such as animal tallow.

Following the methodology developed for the March 2010 RFS rule, our analysis does not include any significant indirect GHG emissions associated with the use of UCO feedstock. We follow this modeling approach but use more recent data on UCO from The Greenhouse Gases, Regulated Emissions, and Energy Use in Transportation Model (GREET-2022).<sup>6</sup> EPA relied extensively on the

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<sup>5</sup> Provisions covering biointermediates were finalized in the 2020-2022 RFS Standards final rule (87 FR 39600). Revisions to the facility specific petition process defined under 40 CFR 80.1416, finalized under this rule, now require parties to submit for EPA’s consideration information related to any biointermediates used in the requested pathways.

<sup>6</sup> Wang, Michael, Elgowainy, Amgad, Lee, Uisung, Baek, Kwang H., Bafana, Adarsh, Benavides, Pahola T., Burnham, Andrew, Cai, Hao, Cappello, Vincenzo, Chen, Peter, Gan, Yu, Gracida-Alvarez, Ulises R., Hawkins, Troy R., Iyer, Rakesh K., Kelly, Jarod C., Kim, Taemin, Kumar, Shishir, Kwon, Hoyoung, Lee, Kyuha, Liu, Xinyu, Lu, Zifeng, Masum, Farhad, Ng, Clarence, Ou, Longwen, Reddi, Krishna, Siddique, Nazib, Sun, Pingping, Vyawahare, Pradeep, Xu, Hui, and Zaimes, George. *Greenhouse gases, Regulated Emissions, and Energy use in Technologies Model ® (2022 Excel)*. Computer Software. USDOE Office of Energy Efficiency and Renewable Energy (EERE). 10 Oct. 2022. Web. doi:10.11578/GREET-Excel-2022/dc.20220908.1.



REET model for lifecycle GHG analysis in the March 2010 RFS rule, and has continued to rely on more recent versions of REET for other RFS rulemakings and pathway evaluations. In our analysis of the Martinez Renewables petition, the GHG emissions from the feedstock stage include emissions associated with collecting UCO from restaurants and other collection points and transporting it to rendering facilities, rendering to dewater and remove impurities, and transporting the rendered UCO to the Martinez Facility.

**Fuel Production** – The Martinez Process fits in the category of a hydrotreating process already analyzed for previous RFS rulemakings. The Martinez Process is similar to the hydrotreating processes previously studied by EPA, with the difference being that the Martinez Process uses different amounts of process energy per unit of fuel produced.

Our lifecycle analysis accounts for all of the material and energy inputs and outputs specific to the Martinez Process. In this case the co-products include renewable diesel, naphtha and LPG. In the December 2022 Canola Oil Pathways rule we requested comment on the allocation approach for hydrotreating co-products and, after considering the comments received, decided for the purpose of that pathway that the energy allocation approach was appropriate (87 FR 73958). For the same reasons described in that rulemaking, we are also using the energy allocation approach to evaluate the co-products from the Martinez Process.

With the energy allocation approach, all the emissions from the hydrotreating process are allocated across all of the co-products based on the energy content (using lower-heating values) of these products. Emissions from the process were allocated equally to all of the British thermal units (Btus) of fuel produced. Therefore, on a per Btu basis all of the primary products coming from the process have the same emissions from the fuel production stage of the lifecycle.

**Fuel Transportation and Distribution** – Following the approach in the December 2022 Canola Oil Pathways rule, we use the REET model to estimate the emissions associated with transporting and distributing LPG from the Martinez Facility to fueling locations. REET-2022 assumes that, on average, LPG is transported by pipeline (60%), rail (34%), ocean tanker (5%) and barge (6%). Following transportation, REET assumes the LPG is trucked to fueling locations. For more information on these assumptions, see the publicly available REET-2022 model.

**Fuel Use** – For this analysis, we use the emissions factors from REET-2022 for LPG combustion in a dedicated LPG vehicle.<sup>7</sup> The tailpipe emissions are relatively small, and the threshold GHG reduction results are not sensitive to these emission factor assumptions.

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<sup>7</sup> Following the methodology developed for the March 2010 RFS2 rule after notice, public comment, and peer review, the carbon in the finished fuel derived from renewable biomass is treated as biologically derived carbon originating from the atmosphere. In the context of a full lifecycle analysis, the uptake of this carbon from the atmosphere by the renewable biomass and the CO<sub>2</sub> emissions from combusting it cancel each other out. Therefore, instead of presenting both the carbon uptake and tailpipe CO<sub>2</sub> emissions, we leave both out of the results. Note that our analysis also accounts for all significant indirect emissions, such as from land use changes, meaning we do not simply assume that biofuels are “carbon neutral.”

**Global Warming Potentials** – In order to present lifecycle GHG emissions including different gasses in the common unit of carbon dioxide equivalence (CO<sub>2</sub>e), we use estimates of the 100-year global warming potentials (GWPs) for carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O) which are published in the Intergovernmental Panel on Climate Change (IPCC)’s periodic Assessment Reports. The lifecycle GHG analyses published in the March 2010 RFS2 rule used GWPs from IPCC’s Second Assessment Report (SAR) which was published in 1995. More recent IPCC reports have revised the estimated GWPs of CH<sub>4</sub> and N<sub>2</sub>O based on advancements in climate science. GREET-2022 defaults to using GWPs from IPCC’s Sixth Assessment Report (AR6) which was completed in 2021. For our lifecycle GHG analysis of the Martinez Renewable petition, we also adopt the default GWP values in the GREET-2022 model, as we have done for other RFS rulemakings, such as the December 2022 Canola Oil Pathways rule, and other facility-specific evaluations.<sup>8</sup>

**Lifecycle GHG Results** – Based on our analysis of the full fuel lifecycle described above, we estimated the lifecycle GHG emissions associated with LPG produced from UCO through the Martinez Process. Table 2 summarizes the results of our lifecycle analysis. We compare the lifecycle GHG emissions associated with LPG to the emissions associated with the 2005 petroleum baseline. LPG can be used in a range of applications, including heating oil and transportation fuel. Section 211(o)(1)(C) of the CAA defines baseline lifecycle GHG emissions as “the average lifecycle greenhouse gas emissions . . . for gasoline or diesel (whichever is being replaced by the renewable fuel sold or distributed as transportation fuel in 2005).” Since LPG may replace either gasoline or diesel, as a conservative approach, in this case we compared the LPG to baseline diesel. We view this as a conservative approach because for the March 2010 RFS rule EPA determined that the lifecycle GHG emissions for baseline diesel are slightly lower than for baseline gasoline. As shown in the table, LPG produced from UCO through the Martinez Process exceeds the CAA 50 percent GHG reduction threshold for advanced biofuel.

**Table 2: Lifecycle GHG Emissions Estimates (kg CO<sub>2</sub>e/mmBtu)<sup>9</sup>**

	LPG from UCO through the Martinez Process	2005 Diesel Baseline
Feedstock	6.9	8.4
Fuel Production	13.8	9.6
Fuel Transport and Distribution	0.7	0.9

<sup>8</sup> See, for example, the REG Geismar Carinata Oil Renewable Fuel Pathway Determination available on EPA’s website at <https://www.epa.gov/system/files/documents/2022-07/reg-geismar-carinata-deter-ltr-2022-06-30.pdf>.

<sup>9</sup> Totals may not be the sum of the rows due to rounding.

Fuel Use	0.4	78.8
Net emissions	21.8	97.7
Percent GHG Reduction Relative to Baseline	78%	--

\* Emissions included in the Fuel Production stage.

## **B. Application of the Criteria for Petition Approval**

The Martinez Renewables petition request involved a production process, feedstock and fuel products already considered as part of previous RFS rulemakings. Martinez Renewables provided all necessary information that was required for this type of petition request.

Based on the data submitted and information already available through analyses conducted for previous RFS rulemakings, EPA conducted a lifecycle assessment and determined that the renewable LPG produced from UCO through the Martinez Process meets the 50 percent lifecycle GHG threshold requirement specified in the CAA for advanced biofuel. Based on prior assessments for RFS rulemakings, we extend these estimates, based on UCO as feedstock, to biogenic waste FOG in general, including other waste FOG materials such as animal tallow. The relatively large degree that the UCO-based results exceed the 50% GHG reduction threshold increases our confidence in extending these estimates to LPG produced from other biogenic waste FOG materials through the Martinez Process.

The lifecycle GHG results presented above justify authorizing the generation of advanced biofuel (D-code 5) RINs for LPG produced through the Martinez Process from biogenic waste FOG feedstock, provided the fuel satisfies all of the associated regulatory requirements, as discussed in Section IV of this determination.

## **IV. Conditions and Associated Regulatory Provisions**

EPA's approval of LPG produced from biogenic waste FOG through the Martinez Process is predicated on the circumstances and analysis described in the information Martinez Renewables has provided and the circumstances and analysis described in this document. While EPA is not requiring any pathway-specific conditions or requirements in this instance, the ability of and authority for Martinez Renewables to generate RINs for LPG produced through the Martinez Process from biogenic waste FOG feedstock is expressly conditioned on Martinez Renewables satisfying all of the applicable requirements for renewable fuel producers set forth in the RFS regulations. For example, in accordance with 40 CFR 80.1426(f)(5), in order to be accepted by EPA, Martinez Renewables' registration application will need to provide adequate information to demonstrate that the feedstock material used is biogenic waste FOGs, including information on the source and composition of the materials and how

they are collected.<sup>10</sup> As another example, Martinez Renewables needs to keep records related to feedstocks in 40 CFR 80.1453(d) and 40 CFR 80.1454(j)(1)(i) and related to fuel in 40 CFR 80.1426(f)(17). In addition, or in the alternative to bringing an enforcement action under the CAA for any violations, EPA may revoke this pathway approval if it determines that Martinez Renewables has failed to comply with any applicable requirements.

## **V. Public Participation**

The definition of advanced biofuel in CAA 211(o)(1) specifies that the term means renewable fuel that has “lifecycle greenhouse gas emissions, as determined by the Administrator, after notice and opportunity for comment, that are at least 50 percent less than the baseline lifecycle greenhouse gas emissions...” The fundamental analyses relied on for this decision have been made available for public comment as part of previous rulemakings, consistent with the reference to notice and comment in the statutory definitions of “advanced biofuel.” Our approach today is also consistent with our description of the petition process in the preamble to the March 2010 RFS Rule, as our work in responding to the petition was a logical extension of analyses already conducted.

Our analysis of LPG produced from biogenic waste FOG through the Martinez hydrotreating process involved a straightforward application of the same methodology and much of the same modeling used for prior notice and comment RFS rulemakings (for details see Section II.A above). Compared to these prior evaluations, our analysis for this determination considers the facility-specific data for the Martinez Process, and more recent background data (e.g., on emissions associated with grid electricity, natural gas and fuel distribution) from the GREET model.

In the March 2010 RFS2 rule we acknowledged that our final regulations did not address all possible qualifying fuel production pathways. After considering comments, we finalized the current petition process at 40 CFR 80.1416, where we allow for EPA approval of certain petitions without going through additional notice and comment if we can do so as a reasonably straightforward extension of previous assessments, whereas rulemaking would typically be conducted to respond to petitions requiring new modeling. See 75 FR 14797 (March 26, 2010).

## **VI. Conclusion**

Based on our assessment, LPG produced from biogenic waste FOG through the Martinez Process qualifies under the CAA for advanced biofuel (D-code 5) RINs, assuming the fuel meets the other definitional criteria for renewable fuel (e.g., produced from renewable biomass, and used to reduce or replace the quantity of fossil fuel present in transportation fuel, heating oil or jet fuel) specified in the CAA and EPA implementing regulations.

This approval applies specifically to Martinez Renewables and to the process, materials used, fuels produced, and process energy types and amounts outlined and described in the petition request

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<sup>10</sup> All of the registration materials required by 80.1450(b)(1), including those specifically described in this document, must be reviewed and verified pursuant to the independent third party engineering review required in 80.1450(b)(2).

submitted by Martinez Renewables.<sup>11</sup> This approval is effective as of signature date. RINs may only be generated for non-grandfathered LPG produced from biogenic waste FOG feedstock through the Martinez Process that is produced after the date of activation of Martinez Renewables' registration for the new pathway.<sup>12</sup>

The OTAQ Reg: Fuels Programs Registration and OTAQ EMTS Application will be modified to allow Martinez Renewables to register and generate D-code 5 RINs for LPG produced from biogenic waste FOG through the "Martinez Process."

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<sup>11</sup> As with all pathway determinations, this approval does not convey any property right of any sort, or any exclusive privilege.

<sup>12</sup> A fuel pathway is activated under the RFS program when EPA accepts the registration application for the pathway, allowing it to be used in EMTS for RIN generation. When EPA accepts a registration application, an email is automatically sent from [otaqfuels@epa.gov](mailto:otaqfuels@epa.gov) to the responsible corporate officer (RCO) of the company that submitted the registration application. The subject line of such an email includes the name of the company and the company request (CR) number corresponding with the registration application submission, and the body of the email says the company request "has been activated."