
EPA Moderated Transaction System (EMTS)

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Office of Transportation and Air Quality
US Environmental Protection Agency



EPA Moderated Transaction System (EMTS)

- What is EMTS?
- Why did EPA develop EMTS?
- What does EMTS do?
- How can users interact with EMTS?
- How does OTAQ confirm capabilities in EMTS?
- What Exchange Network features are available in EMTS?
- What additional information is available?

What is EMTS?

- The EPA Moderated Transaction System is defined as a closed, moderated system for screening and trading Renewable Identification Numbers (RINs).
- EMTS has been developed for a number of reasons and has been widely accepted from many industry stakeholders.
- EMTS will screen and track all RINs generated under the Renewable Fuel Standard (RFS2) regulations starting July 1, 2010.

What is a Renewable Identification Number?

- The Renewable Identification Number (RIN) is a 38-character numeric code in the format:

KYYYYCCCCFFFFFFBBBBBRRDSSSSSSSSSEEEEEEEEE

- RINs are generated by renewable fuel producers and importers and assigned to batches that they transfer to others
- RINs form the basic currency for the RFS program
 - Currency for trades
 - Currency for credits
 - Currency for compliance

What is a Renewable Identification Number?

KYYYYCCCCFFFFFFBBBBBRRDSSSSSSSSSEEEEEEEEE

K	= RIN assignment code (1=assigned, 2=unassigned)
YYYY	= Year batch is produced/imported (when it leaves the facility)
CCCC	= Company registration ID
FFFF	= Facility registration ID
BBBBB	= Producer assigned batch number
RR	= Equivalence Value for the renewable fuel
D	= Renewable type code (1=cellulosic; 2=non-cellulosic)
SSSSSSSS	= RIN Block Starting Number
EEEEEEEE	= RIN Block Ending Number

Why did EPA develop EMTS?

- There were many issues with the manual nature of handling 38 digit RINs.
- RFS2 requires added complexity different RIN types and additional compliance requirements.
- Allows all regulated parties, who handle RINs, to receive immediate feedback.

What does EMTS do?

- EMTS allows RINs to be traded on a generic basis instead of handling 38 digit numbers.
- EMTS will notifies parties if a submission fails, a trade expires, a trade is pending, a trade has been denied, etc.
- EMTS' internal QA checks will help identify errors prior to submission.

How can I interact with EMTS?

Interaction Methods

There are multiple ways for a party to interact with EMTS

- EMTS Web Application
 - Wizard-like approach where EMTS will walk a user through every step to submit a transaction.
- Batch file submission
 - All transactional information provided in an XML file format.
 - EPA has developed an EMTS Conversion Tool (ECT) where a user can provide an Excel, CSV, TXT, file and the ECT will convert the file to a well formed XML file.
- File submission through the Exchange Network (Node to Node)
 - Machine to Machine
 - Allows users with internal transaction systems to directly send XML files to EMTS with very limited human interaction.

How does OTAQ allow enforce specific company capabilities in EMTS?

- EMTS is integrated with OTAQ's Fuels Programs Registration application (OTAQReg) that is hosted on CDX.
- OTAQReg and EMTS synchronize nightly through the Exchange Network.
- Based on a company's business activities, certain capabilities are enforced.

OTAQReg: Fuels Programs Registration

Help

Company
Details

Associated
Facilities

Company / Entity Name

Name *

Test Company 1

Valid From (Start Date
MM/DD/YYYY) *

03/12/2010

Calendar

Valid To (End Date
MM/DD/YYYY)

Calendar

Company / Entity Location

Address 1 *

123 Test Lane

Address 2

City *

Washington

State *

District of Columbia

Zip *

20005

Country

Select

Responsible Corporate Officer (RCO) Info

OTAQReg: Fuels Programs Registration

Program Type (Select all that apply)

- Gasoline Diesel Renewable Fuel Standard

Business Activities (Select all that apply)

- | | | |
|---|---|---|
| <input type="checkbox"/> Refiner | <input type="checkbox"/> Biodiesel Producer | <input type="checkbox"/> Oxygenate Blender |
| <input checked="" type="checkbox"/> RIN Generator | <input type="checkbox"/> Pipeline/Pass-Through Terminal | <input type="checkbox"/> Truck Loading Terminal |
| <input type="checkbox"/> Non Renewable Fuels Importer | <input type="checkbox"/> Transmix | <input type="checkbox"/> Independent Lab |
| <input type="checkbox"/> RIN Owner | <input type="checkbox"/> Mobile Facility | <input type="checkbox"/> Renewable Diesel |
| <input type="checkbox"/> Renewable Fuels Exporter | <input type="checkbox"/> Small Refiner | <input type="checkbox"/> Small Blender |
| <input type="checkbox"/> Renewable Fuels Importer | | |

Company Foreign Bond

Foreign Bond?(Y/N) *

Yes No

[Review & Submit](#)

[Refresh](#)

[Main Menu](#)

OTAQReg: Fuels Programs Registration

Facility Details

Gas/Ethanol Facility Diesel/Biodiesel Facility

Facility Information

Facility Activities *

Refiner

Non Renewable Fuels Importer

Oxygenate Blender

RIN Generator

Process Codes

- Biogas Production (850)
- Cellulosic Production Process (280)
- Dry Mill, Biogas Fired (50% or less of DGS dried annually) (300)
- Dry Mill, Biogas Fired (CHP, 65% or less of DGS dried annually) (310)
- Dry Mill, Biogas Fired (CHP, Corn Oil Fractionation) (320)
- Dry Mill, Biogas Fired (CHP, Corn Oil Fractionation, Corn Oil Extraction) (330)
- Dry Mill, Biogas Fired (CHP, Corn Oil Fractionation, Corn Oil Extraction, Membrane Separation) (340)
- Dry Mill, Biogas Fired (CHP, Corn Oil Fractionation, Corn Oil Extraction, Membrane Separation, Raw Starch Hydrolysis) (350)
- Dry Mill, Biogas Fired (Corn Oil Extraction, 65% or less of DGS dried annually) (360)
- Dry Mill, Biogas Fired (Corn Oil Extraction, Membrane Separation) (370)
- Dry Mill, Biogas Fired (Corn Oil Extraction, Membrane Separation, Raw Starch Hydrolysis) (380)
- Dry Mill, Biogas Fired (Corn Oil Fractionation, 65% or less of DGS dried annually) (390)
- Dry Mill, Biogas Fired (Corn Oil Fractionation, Corn Oil Extraction) (400)
- Dry Mill, Biogas Fired (Corn Oil Fractionation, Corn Oil Extraction, Membrane Separation) (410)
- Dry Mill, Biogas Fired (Corn Oil Fractionation, Corn Oil Extraction, Membrane Separation, Raw Starch Hydrolysis) (420)
- Dry Mill, Biogas Fired (Membrane Separation, 65% or less of DGS dried annually) (430)
- Dry Mill, Biogas Fired (Membrane Separation, Raw Starch Hydrolysis) (440)
- Dry Mill, Biogas Fired (Raw Starch Hydrolysis, 65% or less of DGS dried annually) (450)
- Dry Mill, Biomass Fired (50% or less of DGS dried annually) (460)
- Dry Mill, Biomass Fired (CHP, 65% or less of DGS dried annually) (470)

What information is checked by EMTS using OTAQReg information?

Generate RINs

- Fuel (D Code) of the renewable fuel volume **
- Renewable fuel production process **
- Production Date
- Fuel Type (e.g. Ethanol, Biodiesel, Non-ester Renewable Diesel) **
- Batch Volume
- Denaturant Volume (Ethanol only)
- RIN Quantity
- Batch Number
- Feedstock volumes
- Renewable Biomass Affirmation (as applicable)
- Renewable Fuel Co-products **

** Information confirmed by information from OTAQReg

What information do I need to submit to EMTS? – Generation (cont...)

Report Fuel

* Fuel (D Code):

* Production Process:

* Production Date:

* Fuel Category:

- Grandfathered (Dry Mill, Natural Gas Fired) (10)
- Grandfathered (Dry Mill, Biomass Fired) (110)
- Grandfathered (Wet Mill, Natural Gas Fired) (120)
- Grandfathered (Wet Mill, Coal Fired) (130)
- Grandfathered (Wet Mill, Biomass Fired) (140)
- Transesterification, Dedicated Renewable Biomass Facility (180)
- Hydrotreating, Co-processing Facility (190)
- Dry Mill, Natural Gas Fired (CHP, 65% or less of DGS dried annually) (20)
- Hydrotreating, Dedicated Renewable Biomass Facility (200)
- Cellulosic Production Process (280)
- Fischer-Tropsch Process (290)
- Dry Mill, Biogas Fired (50% or less of DGS dried annually) (300)
- Dry Mill, Biogas Fired (CHP, 65% or less of DGS dried annually) (310)
- Dry Mill, Biogas Fired (CHP, Corn Oil Fractionation) (320)
- Dry Mill, Biogas Fired (CHP, Corn Oil Fractionation, Corn Oil Extraction) (330)
- Dry Mill, Biogas Fired (CHP, Corn Oil Fractionation, Corn Oil Extraction, Membrane Separation) (340)
- Dry Mill, Biogas Fired (CHP, Corn Oil Fractionation, Corn Oil Extraction, Membrane Separation, Raw S) (350)
- Dry Mill, Biogas Fired (Corn Oil Extraction, 65% or less of DGS dried annually) (360)
- Dry Mill, Biogas Fired (Corn Oil Extraction, Membrane Separation) (370)

Identify RINs

* Batch Volume:

Denaturant Volume:

Equivalence Value:

* Quantity of RINs:

Identify Production Source

Originating Source: **TEST PETROLEUM CORPORATION 1**

* Facility:

* Batch Number:

1 Repo
2 Repo

What information do I need to submit to EMTS? – Generation (cont...)

Generate RINs - Report Feedstocks

Report one or more feedstocks used for the generation of the fuel.

Feedstock	Volume	Measure	Renewable Biomass
No feedstocks have been reported.			

Report Feedstocks

* Feedstock(Code):

* Volume:

* Unit of Measure:

Does this feedstock mee

- Starch - Corn(10)
- Select --
- Starch - Corn(10)
- Sugarcane(120)
- Cellulose and Hemicellulose - Yard Waste(140)
- Waste Oils /Fats /Grease (160)
- Non-food grade corn oil(200)
- Soybean Oil and other virgin plant oils(210)
- Cellulose and Hemicellulose - Municipal Solid Waste(220)
- Algal Oil (230)
- Oil from Annual Covercrops(240)
- Cellulosic Biomass - Annual Cover Crops (250)
- Cellulosic Biomass - Forest Product Residues (260)
- Cellulosic Biomass - Forest Thinnings(270)
- Cellulosic Biomass - Separated Food Wastes(280)
- Cellulosic Biomass - Slash (290)
- Starch - Agricultural Residues (300)
- Starch - Annual Covercrops (310)
- Manure Digesters (320)
- Landfills(330)
- Sewage and Waste Treatment Plants (340)

1401?

Add

Report Co-products >>

* = Required Field

1.0.2-beta-3 2010-02-17 14:03:46

What information do I need to submit to EMTS? – Generation (cont...)

Generate RINs - Report Co-products

Report any co-products produced by your fuel generation process. If there are no co-products to report, leave all fields blank and click the 'Add to Transaction Bin' button.

Co-product

No co-products have been reported.

Report Co-products

* Co-product:

Wet Distillers Grains
Dry Distillers Grains

Add

* = Required Field

<< Report Feedstocks

Add to Transaction Bin >>

Benefits of the EMTS Conversion Tool and Batch File Submissions

Parties may submit a batch XML file for all transactions to EMTS (Note: Transactions must be submitted within 5 business days)

Example:

1. A renewable fuel producer creates 10 generation transactions for one day.
2. The producer records the 10 generations in the ECT template.
3. At the end of the day, the producer converts the ECT template into an XML file.
4. The producer submits the XML file to EMTS directly on the Web Application.

Batch File Submission

The screenshot shows the EPA Moderated Transaction System (MTS) web interface. The top left features the MTS logo and the EPA logo with the text "Moderated Transaction System". Below this is a navigation bar with "Organization", "Submissions", and "Trades" tabs. The main content area is titled "Submit File" and contains the instruction: "Select an XML file to submit for your organization. The file must include the B validation for it to be submitted to the EMTS Node." Below this instruction is an "Identify File" section with a label "* File:" and a "Browse..." button. A "Submit" button is located at the bottom right of the interface.

Overlaid on the right side of the interface is a Windows "Choose file" dialog box. The "Look in:" field is set to "Good_Files". The file list contains the following entries:

- BuyTransaction4327_12-4-2009-11-16-53.xml
- BuyTransaction4327_12-4-2009-11-18-9.xml
- BuyTransaction4327_12-4-2009-11-19-46.xml
- BuyTransaction40998_12-10-2009-15-54-52.xml
- GenerateTransaction40998_1-26-2010-14-35-59.xml
- GenerateTransaction40998_12-4-2009-9-45-54.xml
- GenerateTransaction40998_12-7-2009-11-59-30.xml
- GenerateTransaction40998_12-14-2009-10-48-59.xml (highlighted)
- GenerateTransaction40998_12-22-2009-11-41-54.xml
- RetireTransaction4327_12-4-2009-10-50-7.xml
- RetireTransaction40998_12-10-2009-15-55-9.xml
- SellTransaction40998_12-4-2009-10-35-48.xml
- SellTransaction40998_12-4-2009-11-18-9.xml
- SellTransaction40998_12-10-2009-15-54-52.xml
- SeparateTransaction40998_12-10-2009-15-54-52.xml

A tooltip is visible over the highlighted file, displaying the following information:

- Type: XML Document
- Date Modified: 12/4/2009 9:45 AM
- Size: 2.60 KB

The "File name:" field in the dialog is set to "GenerateTransaction40998_12-14-2009-10-48-59.xml" and the "Files of type:" field is set to "All Files (*.*)". The "Open" and "Cancel" buttons are visible at the bottom right of the dialog box.

What Exchange Network features are available in EMTS?

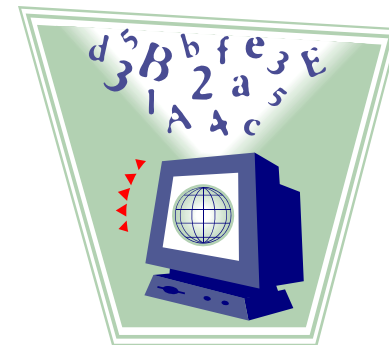
- Node options
 - Download
 - Query
 - Solicit
 - GetStatus
 - Download
- EMTS generates reports on a nightly, weekly, monthly, or quarterly basis for download through CDX node.

What else do I need to know?

- All transactions (generate, separate, sell, buy, and retire) must be submitted to EMTS within 5 business days of the transfer date.
- EMTS will provide reports for review and certification by a company's Responsible Corporate Officer (RCO) on a quarterly basis for all parties who owned RINs in a quarter.



Questions?



For more information:

- EPA EMTS webpage contains tutorials, webinars, and recorded presentations.
 - <http://www.epa.gov/otaq/fuels/renewablefuels/epamts.htm>

- Exchange Network Documents can be found at <http://www.exchangenetwork.net/exchanges/air/emts.htm>
 - Flow Configuration Document,
 - XML Schema,
 - Data Exchange Template, and
 - Sample XMI Instance file

Extra Slides

How do I sign up for EMTS?

First, read the EMTS Getting Started Guide and EMTS User's Guide

- EMTS testing is available for all users who are currently registered as submitters with our CDX Fuels Programs Registration Application (OTAQReg).
- All other participants in RFS and EMTS must first create a free CDX account and complete a user registration in the Fuels Programs Registration Application (OTAQReg).
- The EMTS web application can be accessed via a user's MyCDX page after their registration has been approved.
- For information on how to test EMTS prior to July 1, 2010, please visit the EMTS webpage at <http://www.epa.gov/otaq/fuels/renewablefuels/epamts.htm>