(d) The diesel non-renewable volume, \(DV_i\), for an obligated party for a given year as specified in paragraph (a) of this section is calculated as follows:

\[
DV_i = \sum_{x=1}^{n} D_x - \sum_{y=1}^{m} RBD_y
\]

Where:

- \(x\) = Individual batch of diesel produced or imported in calendar year \(i\).
- \(n\) = Total number of batches of diesel produced or imported, as defined in paragraph (e) of this section, in gallons.
- \(D_x\) = Volume of batch \(x\) of diesel produced or imported in calendar year \(i\).
- \(y\) = Individual batch of renewable fuel blended into diesel in calendar year \(i\).
- \(m\) = Total number of batches of renewable fuel blended into diesel in calendar year \(i\).
- \(RBD_y\) = Volume of batch \(y\) of renewable fuel blended into diesel, in gallons.

(e) Except as specified in paragraph (f) of this section, all products meeting the definition of MVNRMLM diesel fuel at §80.2(qqq) that are produced or imported during a compliance period, collectively called “diesel fuel” for the purposes of this section (unless otherwise specified), are to be included (but not double-counted) in the volume used to calculate a party’s Renewable Volume Obligations under paragraph (a) of this section.

(f) The following products are not included in the volume of gasoline or diesel fuel produced or imported used to calculate a party’s Renewable Volume Obligations according to paragraph (a) of this section:

1. Any renewable fuel as defined in §80.1401.
2. Blendstock that has not been combined with other blendstock, finished gasoline, or diesel to produce gasoline or diesel.
3. Gasoline or diesel fuel produced or imported for use in Alaska, the Commonwealth of Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands, unless the area has opted into the RFS program under §80.1443.
4. Non-ester renewable diesel with a lower heating value of at least 123,500 Btu/gal shall have an equivalence value of 1.7.
5. 77,000 Btu (lower heating value) of biogas shall represent one gallon of renewable fuel with an equivalence value of 1.7.
6. 22.6 kW-hr of electricity shall represent one gallon of renewable fuel with an equivalence value of 1.0.
7. Any gasoline or diesel fuel that is not transportation fuel.

§§ 80.1408–80.1414 | [Reserved]

§ 80.1415 How are equivalence values assigned to renewable fuel?

(a)(1) Each gallon of a renewable fuel, or gallon equivalent pursuant to paragraph (b)(5) or (b)(6) of this section, shall be assigned an equivalence value by the producer or importer pursuant to paragraph (b) or (c) of this section.

(2) The equivalence value is a number that is used to determine how many gallon-RINs can be generated for a gallon of renewable fuel according to §80.1426.

(b) Equivalence values shall be assigned for certain renewable fuels as follows:

1. Ethanol which is denatured shall have an equivalence value of 1.0.
2. Biodiesel (mono-alkyl ester) shall have an equivalence value of 1.5.
3. Butanol shall have an equivalence value of 1.3.
4. Non-ester renewable diesel with a lower heating value of at least 123,500 Btu/gal shall have an equivalence value of 1.7.
5. 77,000 Btu (lower heating value) of biogas shall represent one gallon of renewable fuel with an equivalence value of 1.7.
6. 22.6 kW-hr of electricity shall represent one gallon of renewable fuel with an equivalence value of 1.0.
7. For all other renewable fuels, a producer or importer shall submit an application to the Agency for an
equivalence value following the provisions of paragraph (c) of this section. A producer or importer may also submit an application for an alternative equivalence value pursuant to paragraph (c) if the renewable fuel is listed in this paragraph (b), but the producer or importer has reason to believe that a different equivalence value than that listed in this paragraph (b) is warranted.

(c) Calculation of new equivalence values.

(1) The equivalence value for renewable fuels described in paragraph (b)(7) of this section shall be calculated using the following formula:

\[
EV = \left(\frac{R}{0.972}\right) \times \left(\frac{EC}{77,000}\right)
\]

Where:

- \(EV\) = Equivalence Value for the renewable fuel, rounded to the nearest tenth.
- \(R\) = Renewable content of the renewable fuel. This is a measure of the portion of a renewable fuel that came from renewable biomass, expressed as a fraction, on an energy basis.
- \(EC\) = Energy content of the renewable fuel, in Btu per gallon (lower heating value).

(2) The application for an equivalence value shall include a technical justification that includes a description of the renewable fuel, feedstock(s) used to make it, and the production process.

(3) The Agency will review the technical justification and assign an appropriate equivalence value to the renewable fuel based on the procedure in this paragraph (c).

(4) Applications for equivalence values must be sent to one of the following addresses:


(5) All applications required under this section shall be submitted on forms and following procedures prescribed by the Administrator.

*§ 80.1416 Petition process for evaluation of new renewable fuels pathways.*

(a) Pursuant to this section, a party may petition EPA to assign a D code for their renewable fuel if any of the following apply:

(1) The renewable fuel pathway has not been evaluated by EPA to determine if it qualifies for a D code pursuant to §80.1426(f).

(2) The renewable fuel pathway has been determined by EPA not to qualify for a D code pursuant to §80.1426(f) and the party can document significant differences between their fuel production processes and the fuel production processes already considered by EPA.

(3) The renewable fuel pathway has been determined to qualify for a certain D code pursuant to §80.1426(f) and the party can document significant differences between their fuel production processes and the fuel production processes already considered by EPA that may qualify their fuel pathway for a different D code.

(b)(1) Any petition under paragraph (a) of this section shall include all the following:

(i) The information specified under §80.76.

(ii) A technical justification that includes a description of the renewable fuel, feedstock(s) used to make it, and the production process. The justification must include process modeling flow charts.

(iii) A mass balance for the pathway, including feedstocks, fuels produced, co-products, and waste materials production.

(iv) Information on co-products, including their expected use and market value.

(v) 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.

(vi) Any other relevant information, including information pertaining to energy saving technologies or other process improvements.

(vii) The Administrator may ask for additional information to complete the lifecycle greenhouse gas assessment of the new fuel or pathway.