

Peer Review of Renewable Fuels Lifecycle Analysis under EISA

What is the subject of this peer review?

One of the requirements in the Energy Independence and Security Act (EISA) of 2007 is for EPA to examine the lifecycle GHG impacts associated with different types of renewable fuels. The statute specifically requires that this assessment take into account “the full fuel lifecycle,” including, “significant indirect emissions, such as significant emissions from land use changes.” EPA decided to initiate this independent peer review to help respond to stakeholder concerns and to ensure that the Agency makes decisions based on the best science available.

What specific parts of the lifecycle analysis were peer reviewed?

Formal independent expert peer reviews were conducted on four areas of the lifecycle assessment that in particular charted new ground:

1. Land use modeling (use of satellite data/ land conversion GHG emission factors)
2. Methods to account for the variable timing of GHG emissions
3. GHG emissions from foreign crop production (modeling and data used)
4. How the models EPA relied upon are used together to provide overall lifecycle estimates

What guidelines did the peer review follow?

The expert reviews were conducted following OMB’s peer review guidance that ensures consistent, independent government-wide implementation of peer review and according to EPA’s longstanding and rigorous peer review policies.

How were the peer reviewers selected?

EPA used independent, third-party contractors to select highly qualified peer reviewers:

- EPA provided the contractors with a description of the expertise required, examples of experts that fit the qualifications, and names of reviewers recommended by stakeholders.

- The contractors independently developed their own list of expert reviewers. Candidates were screened for possible conflict of interest, bias due to strong editorial positions taken on issues related to this rulemaking, contractual relationships to EPA, and for overall perception of independence from the Agency.
- Of the candidates remaining, the contractors autonomously selected those with the greatest apparent expertise.

Who are the peer reviewers?

The peer reviewers are recognized as leading experts in their respective fields, which include: lifecycle assessment, economic modeling, remote sensing imagery, biofuel technologies, soil science, agricultural economics, and climate science.

How were the peer reviews conducted?

Contractors independently organized the external reviews:

- Contractors provided the expert reviewers with the material for review and charge questions developed by EPA. These questions, which were reviewed and edited by OMB, guided the review process.
- Contractors conducted meetings, teleconferences, etc., (as needed) in order to clarify technical components of the product and to develop the peer review record.
- Peer reviewers worked independently and are not asked to reach a consensus decision.

What information is publically available and how will EPA use the results?

All information related to the peer reviews is available in the public docket (Docket ID No. EPA-HQ-OAR-2005-0161, www.regulations.gov) for the National Renewable Fuel Standard (RFS) program. This public peer review record includes the following items:

- The materials provided to the peer reviewers.
- The procedures and criteria used to select reviewers.
- A list of the names, affiliations and professional resumes of the peer reviewers.
- The contractor summaries of comments, as well as original comments attributable to individual reviewers.

EPA will consider the peer review results along with public comments received, and implement the reviewer's technical recommendations to the greatest extent possible.