

2024 IECC

NBI has submitted public comments into the ICC process to advance the 2024 IECC. The proposed public comments cover a wide range of measures and improve the code by adding additional efficiency, clarifying requirements, and creating greater flexibility for code users and local jurisdictions. Learn more at newbuildings.org/code_policy/2024-iecc-national-model-energy-code-base-codes.

Revise text as follows:

RENEWABLE ENERGY RESOURCES. Energy derived from solar radiation, wind, waves, tides, ~~landfill gas, biogas, biomass~~ renewable fuels or extracted from hot fluid or steam heated within the earth.

Add new text as follows:

RENEWABLE FUEL. Fuels that achieve a 70% greenhouse gas emission reduction from a comparable fossil fuel calculated in accordance with California Air Resources Board’s Low Carbon Fuel Standard or Annex V or Annex VI of the European Union Renewable Energy Directive 2018/2001.

Add New Reference Standard:

CARB

California Air Resources Board.
1001 I Street
Sacramento, CA 95814

Low Carbon Fuel Standard: CA- GREET 3.0 model

C202

EU

European Parliament
2 Pl. de l'Europe
1499 Luxembourg

Annex V and VI of the European Union Renewable Energy Directive 2018/2001 (RED II)

C202

Reason:

NBI submitted proposal CEPI-12 Part II to revise the definition of renewable energy resource by removing the word “biomass” from the definition and substituting it with “biomass waste” to more accurately address the types of biomass that are likely to reduce and not increase pollutants and greenhouse gas emissions. Several conversations with industry stakeholders during the debate of this proposed amendment raised valid concerns with this approach namely, the revised definition approved

in the draft 2024 IECC may be both difficult to enforce and could eliminate certain fuels that reduce greenhouse gas emissions not sourced from biomass waste products.

The ICC should instead model the definition of a renewable fuel on existing policies used to reduce greenhouse gas emissions from fuels. This new proposed definition is based on current policies for transportation fuels in California, Washington and Oregon, Green-e's renewable fuel standard, and requirements for renewable fuels in Europe. Like the Green-e certified renewable fuel standard, the proposed definition relies on a method for calculating the greenhouse gas emission reduction from a renewable fuel product using California Air Resource Board's Low Carbon Fuel Standard. [1], [2] A similar calculation developed by the European Union for their Renewable Energy Directive II is also provided as an optional method for calculating emissions. Both methods include both direct greenhouse gas emission from the production and consumption of the fuel and indirect greenhouse gas emissions from land use changes. [3]

The required greenhouse gas emission reduction target of 70% when compared to fossil fuels is equivalent to the requirements for renewable building fuels in Europe as of 2021. Europe will increase the required percentage to 80% by 2026. [3] NBI believes the IECC should eventually follow Europe's lead and reduce the greenhouse gas emission requirement for renewable fuels as the US transitions to a more renewable grid.

This revised renewable fuel definition proposed is easier to enforce, technology neutral, and will ensure the renewable energy requirement proposed for inclusion in the 2024 IECC will prevent increased localized criteria air pollution while still reducing carbon emissions from the building. A similar amendment has been proposed for inclusion in the commercial energy code so that the definition for renewable energy resources can be consistent between both versions of the code.

Bibliography:

[1] California Air Resources Board. (2022, July 7). LCFS Pathway Certified Carbon Intensities. Retrieved from <https://ww2.arb.ca.gov/resources/documents/lcfs-pathway-certified-carbon-intensities>.

[2] Center for Resource Solutions. (2021, September 16). Green-e. Retrieved from Green-e Renewable Fuels Standard, Version 1.0: <https://www.green-e.org/docs/rf/Green-e%20Renewable%20Fuels%20Standard.pdf>

[3] European Commission. (2022, July 7). Renewable Energy – Recast to 2030 (RED II). Retrieved from EU Science Hub: https://joint-research-centre.ec.europa.eu/welcome-jec-website/reference-regulatory-framework/renewable-energy-recast-2030-red-ii_en