

2024 IECC

NBI has submitted proposals into the ICC process to advance the 2024 IECC. The proposed amendments 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.

Code Change Title: Biomass [C202] CEPI-12-21 Part 1

Summary: Clarifies the type of biomass that counts as a renewable energy resource.

Delete definition as follows:

~~**BIOMASS.** Nonfossilized and biodegradable organic material originating from plants, animals and/or microorganisms, including products, by products, residues and waste from agriculture, forestry and related industries as well as the nonfossilized and biodegradable organic fractions of industrial and municipal wastes, including gases and liquids recovered from the decomposition of nonfossilized and biodegradable.~~

Add new definition as follows:

BIOMASS WASTE. Organic non-fossil material of biological origin that is a byproduct or a discarded product. Biomass waste includes municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural crop byproducts, straw, and other biomass solids, liquids, and biogases; but excludes wood and wood-derived fuels (including black liquor), biofuel, feedstock, biodiesel, and fuel ethanol.

Revise definition as follows:

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

The existing definition for biomass in the IECC dates to the 2012 IECC. It was proposed by the team of New Buildings Institute, US Department of Energy and American Institute of Architects. It was one clause in a comprehensive overhaul of the 2009 IECC. When it was written in 2010, it was the first time that renewable energy had been defined in an I-code, and it reflected a very early understanding of a much less mature industry. It has not been significantly revised since.

This proposal updates the language by further refining biomass energy sources with terms that were not available at the time it was drafted in 2010. The revision also limits the biomass sources that count as renewable energy resources to those that are specified as waste products. There are many flavors of

biomass energy, but this proposal ensures that virgin material of unknown origin does not count as a renewable energy resource, which in the provisions of C406 is a trade-off for energy efficiency features of the building. Without an available standard to cite in the IECC for sustainable biomass, it is critical to ensure that biomass used in compliance with the IECC is derived from waste products or byproducts. The definition of biomass waste is from the glossary of the Energy Information Administration. A similar amendment has been submitted to amend the residential IECC to ensure the definition of renewable energy resources is consistent between the two codes.