



CRS

center for
resource
solutions

[SUBMITTED ELECTRONICALLY VIA EMAIL TO ZEB2014BLDG0050@ee.doe.gov]

February 20, 2015

Dr. David Danielson, Assistant Secretary
Office of Energy Efficiency and Renewable Energy (EERE)
U.S. Department of Energy (DOE)—Forrestal Building
1000 Independence Avenue, SW
Washington, DC 20585

Re: Comments of Center for Resource Solutions (CRS) on Request for Information (RFI) for Definition of Zero Energy Buildings, Docket No. EERE-2014-BT-BLDG-0050

Dear Assistant Secretary Danielson:

CRS appreciates this opportunity to respond to the January 2015 RFI for the Definition of Zero Energy Buildings¹ (“RFI”) and the Public Comment Period Draft of the “A Common Definition for Zero Energy Buildings” report² (“Report”) prepared by the National Institute of Building Sciences (“Institute”).

Introduction to CRS

CRS is a 501(c)(3) nonprofit organization that creates policy and market solutions to advance sustainable energy. Since 1997, CRS has been instrumental in the development of landmark state, regional and national renewable energy and climate policies. CRS has also provided regular technical assistance and guidance to attribute tracking systems and other renewable energy functional support entities around the country.

CRS also administers the Green-e® programs. Green-e Energy is North America’s leading independent consumer protection program providing certification and verification for renewable electricity and renewable energy certificates (RECs) in the U.S. voluntary market. In 2013, that program certified the majority of the U.S. voluntary renewable energy market and 89% of retail REC sales. Green-e Climate is a global retail standard for carbon offsets sold in the voluntary carbon market. Green-e Marketplace recognizes and verifies the claims of companies that use certified renewable energy and carbon offsets to reduce their impact. Stakeholder-driven standards supported by rigorous verification audits are a cornerstone of Green-e and enable CRS to provide independent third-party certification of environmental commodity transactions in voluntary markets. The Green-e environmental and consumer standards are overseen by an independent governance board of industry experts, including representatives from environmental nonprofits, consumer advocates, and purchasers. Our standards have been developed and are periodically revised through an open stakeholder process. Green-e

¹ Request for Information (RFI) for Definition for Zero Energy Buildings. 80 Fed. Reg. 499 (January 6, 2015). Department of Energy, Office of Energy Efficiency and Renewable Energy. Docket No. EERE-2014-BT-BLDG-0050. Retrieved from: <http://www.regulations.gov/#!documentDetail;D=EERE-2014-BT-BLDG-0050-0002>.

² Provided as Supporting & Related Material for Docket No. EERE-2014-BT-BLDG-0050. Retrieved from: <http://www.regulations.gov/#!documentDetail;D=EERE-2014-BT-BLDG-0050-0003>.

program documents, including the standards, contract templates, and the annual verification report, are available at www.green-e.org.

Our Understanding of ZEB

Our reading of the RFI and Report suggests that Zero Energy Building (ZEB) indicates a building that produces/generates/exports the same amount or more energy to the grid or other energy network as it consumes from the grid or energy network—that is, a building at which on-site renewable energy exported is greater than or equal to delivered/consumed energy (which need not be renewable) over the course of a year.

We understand that a ZEB does not necessarily use or consume 100% renewable energy. In fact, renewable energy usage/consumption is not included in the ZEB definition. Per the proposed definition, a ZEB can be a renewable energy generator only—that is, sell all of the electricity or RECs produced onsite provided that consumption of delivered energy does not exceed production over the course of a year, in which case the ZEB is not consuming/using renewable energy.

We understand that “source energy” calculations are necessary to compare the consumption of different fuels with the on-site production/generation of energy (for example, to compare exported electricity with imported natural gas).

If we are incorrect in any of these understandings, we suggest further clarification.

Comments on RFI, Report, and ZEB Definitions

1. The term ZEB may be misleading, as defined using the proposed base definition, considering how the public may understand/interpret the term. Testing must be done to confirm this, but it may be that the general public understands the term to identify a building that in fact consumes zero energy, or consumes zero energy from external sources over a time period shorter than a year (e.g. a month), in which case the term may be inappropriate for environmental marketing.³
2. To the extent that it is included in the ZEB definitions, “energy efficient” building/campus/portfolio/community is not defined in the Report. It is unclear what level of energy efficiency must be achieved and what kind of energy efficiency measures/mechanisms must be in place. It is also unclear whether this is included in what must be verified/demonstrated as a part of achieving the ZEB designation.
3. While it is clear that a ZEB is grid-connected, it would be helpful to include “grid-connected” in the definitions.
4. Finally, regarding the potential “REC-ZEB” definition and use of RECs to balance annual source energy consumption introduced under “Additional Considerations Under Review” in the Report, *RECs are used for renewable energy usage and consumption claims only. RECs do not convey a generation claim* to the owner/purchaser and so they cannot substitute for onsite energy

³ The Federal Trade Commission (FTC) uses this kind of testing to understand how average consumers understand a claim.

production/exports under the ZEB definition.⁴ Purchasing RECs changes the attributes of what is delivered/consumed onsite, from system mix to renewable, and therefore conveys a claim of renewable energy usage, but it would not affect the balance of power produced vs. power consumed at a site or reduce the amount of delivered energy.

For example, a building does not need to retain the RECs from on-site renewable energy production in order to claim that it generates or exports renewable energy to the grid. Also, whether a building purchases RECs or renewable electricity for 100% of its consumption or otherwise consumes renewable power from an on-site facility, if consumption exceeds production over the course of a year, it is still not “zero energy,” by this definition.

If a REC-ZEB is allowed to be a net importer of electricity (and so different in this way from a ZEB), then RECs should be paired with imported/delivered electricity in order to call the imported electricity green power or renewable energy. In this case, however, we recommend that this simply be characterized as a green power purchase.

Thank you for your consideration of our comments and please contact me with any questions, for more information, to discuss further, or if we can otherwise be of assistance.

Sincerely,

A handwritten signature in black ink, appearing to read 'Todd Jones', with a stylized flourish at the end.

Todd Jones
Manager

⁴ See Jones, T. (2014) *The Legal Basis of Renewable Energy Certificates*. Center for Resource Solutions. Available online at: http://www.resource-solutions.org/pub_pdfs/The%20Legal%20Basis%20for%20RECs.pdf. Also see U.S. Environmental Protection Agency (EPA). (2008) *Renewable Energy Certificates*. Available online at: http://www.epa.gov/greenpower/documents/gpp_basics-recs.pdf.