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**[6450-01-P]**

**DEPARTMENT OF ENERGY**

**Office of Energy Efficiency and Renewable Energy**

**[Docket No. EERE-2014-BT-NOA-0016]**

**Buildings-to-Grid Integration and Related Areas of Research**

**AGENCY:** Office of Energy Efficiency and Renewable Energy, Department of Energy.

**ACTION:** Notice of availability and request for public comment.

**SUMMARY:** The Department of Energy (DOE) announces for public comment the availability of the draft document titled “Transaction-Based Building Controls Framework, Volume 1: Reference Guide”.

**DATES:** DOE will accept written comments regarding the draft document until **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

**ADDRESSES:** The draft document is available at:

<http://www.regulations.gov/#!docketDetail;D=EERE-2014-BT-NOA-0016>

Any comments submitted must identify the request for comment for buildings-to-grid integration and related areas of research and provide docket number EERE-2014-BT-NOA-0016 by any of the following methods:

- E-mail: [ConnectedBuildings2014NOA0016@ee.doe.gov](mailto:ConnectedBuildings2014NOA0016@ee.doe.gov) Include the docket number EERE-2014-BT-NOA-0016 in the subject line of the message.
- Mail: Mr. Joseph Hagerman, U.S. Department of Energy, Building Technologies Office, Mailstop EE-5B, 1000 Independence Avenue, SW., Washington, DC 20585-0121. If possible, please submit all items on a compact disc (CD), in which case it is not necessary to include printed copies. [Please note that comments and CDs sent by mail are often delayed and may be damaged by mail screening processes.]
- Hand Delivery/Courier: Mr. Joseph Hagerman, U.S. Department of Energy, Building Technologies Program, 950 L'Enfant Plaza, SW., Suite 600, Washington, DC 20024. If possible, please submit all items on CD, in which case it is not necessary to include printed copies.

Docket: The docket is available for review at [www.regulations.gov](http://www.regulations.gov), including Federal Register notices, framework documents, summary notes, comments, and other supporting documents/materials. All documents in the docket are listed in the [www.regulations.gov](http://www.regulations.gov) index.

**FOR FURTHER INFORMATION CONTACT:** Mr. Joseph Hagerman, U.S. Department of Energy, Office of Building Technologies (EE-5B), 950 L'Enfant Plaza SW, Washington, DC 20024. Phone: (202) 586-4549. Email: [joseph.hagerman@ee.doe.gov](mailto:joseph.hagerman@ee.doe.gov)

**SUPPLEMENTARY INFORMATION:**

This notice announces the availability for public comment of the draft document “Transaction-Based Building Controls Framework, Volume 1: Reference Guide”.

A new building diagnostic and controls revolution is underway within the buildings sector, primarily in the commercial buildings sector. In it, application-based systems are presenting an opportunity to implement strategies in which highly “optimized” control capable of constantly increasing efficiency levels while improving resource allocation is an inherent attribute of the strategy rather than an explicitly programmed feature. These building controls and algorithms can also be part of deep retrofits in existing buildings that result in energy savings not just today, but also ensure persistent energy savings over the life of the buildings. At the same time, the introduction of sensors and controls, as well as information technology and communication protocols between the buildings and the electric grid, has led to digitized sensing, metering, communication and controls.

Using these technological advances and careful coordination, buildings could provide valuable comfort and productivity services to building owners and occupants, such as automatically and continuously improving building operations and maintenance, while at the same time reducing energy costs. The above-mentioned document proposes a framework concept to achieve the objectives of raising buildings’ efficiency and energy savings potential benefiting building owners and operators. We call it a transaction-based building controls’ framework, wherein mutually-beneficial and cost-effective market-based transactions can be enabled between multiple players across different domains.

DOE is particularly interested in public comment on the following list of questions embedded within the document.

1. What do you think of the Transactive Energy future state described here?
2. Are there other or better ways to make buildings smarter?
3. How smart do buildings need to be and why?
4. Are there other examples of Transactive Energy implementation that should be included?  
  
Please provide details, reports and studies that you might be aware of documenting the results of such implementations.
5. Are these four categories of exchangeable services comprehensive enough? If not, should they be expanded in scope? Or, should additional categories be defined?
6. What are some other reports/studies that cover/support/illustrate these topics of services and service categories?
7. Are there other important networks that need to be illustrated?
8. Are there other (project) demonstration examples to be included? Are there other important categories of transactions?
9. What are some additional use cases for this end-user service category? Please see the use-case template in section 8.0 to provide your inputs.
10. Are there additional or better use cases for this energy market service category? Please see the use-case template in section 8.0 to provide your inputs.
11. Can you describe additional use cases for this grid service category? Please see the use-case template in section 8.0 to provide your inputs.
12. What are some additional use cases for this societal service category? Please see the use-case template in section 8.0 to provide your inputs.

The public comment period ends [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] to provide interested parties adequate time to prepare and submit comments and DOE will consider any comments received by that date. The report is available at <http://www.regulations.gov/#!docketDetail;D=EERE-2014-BT-NOA-0016>.

Issued in Washington, DC, on September 30, 2014.

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Deputy Assistant Secretary for Energy Efficiency  
Energy Efficiency and Renewable Energy

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