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Eaton Corporation would like to respond to the Environmental Protection Agency (EPA) cover letter and Framework Specification covering ENERGY STAR® for Uninterruptible Power Supply (UPS) dated February 16, 2010. We thank you for the opportunity to participate in the specification development process for Version 1.0.

Being a UPS manufacturer, Eaton believes it is well positioned to contribute to EPA's efforts. Eaton views UPS operational efficiency as a matter of continuous technology improvement, with high efficiency being a primary performance target. We demonstrate this through UPS product innovations that deliver efficient power solutions of real value to our customers and their end user communities. Our products are in compliance with best practices and efficiency initiatives from industry groups, standards bodies, and government agencies. Here are some of Eaton Corporation's notable initiatives:

- ENERGY STAR Partner
- Active member of The Green Grid, the North American Electrical Manufacturers Association (NEMA), and other respected industry groups.
- Participates in the Code of Conduct for UPS (European Union)
- Awarded a US Department of Energy (DOE) contract to develop efficient power solutions for datacenters in partnership with Hewlett-Packard (HP).

**Eaton's comments relating to the EPA ENERGY STAR UPS Framework:**

1. Eaton supports the EPA desire to define standardized measurement and test methods with the objective of achieving uniform efficiency testing conditions. Eaton believes this EPA objective can best be achieved by aligning its ENERGY STAR measurement and tests methods with the current IEC 62040-3 Standard for UPS Performance and Test Requirements. A Committee Draft for Vote (CDV) update version is out currently for international vote. Eaton strongly supports the contents of the CDV and urges the EPA to consider it as the basis for ENERGY STAR measurements and methods.

2. The EPA framework suggests some preference for topology based UPS classifications. Eaton believes performance based ENERGY STAR classifications are a better choice both in terms of maintaining ENERGY STAR UPS differentiation levels and encouraging continuous improvement to UPS product efficiency. Performance based classifications are technology agnostic and allow for innovative techniques that raise the bar on efficiency performance, including advanced UPS topologies and controls. Again, Eaton urges the EPA to consider the performance classifications contained in the CDV for IEC 62040-3 for its ENERGY STAR requirements.
3. Eaton supports the EPA desire to define information and reporting qualifications for UPS products with some concerns:

- a) Standard Information Reporting (SIR)

Eaton supports the use of Power and Performance Data Sheets to publish UPS product performance including efficiency performance, energy saving features, and output reporting capabilities. We believe that it is important to provide the public with information on performance, advanced power saving features, and other operational characteristics to the extent that intellectual property is in no way compromised.

- b) Data Measurement and Output Requirements

Eaton supports the development of UPS product real-time reporting features to improve datacenter operations. Real-time reporting allows the UPS to become a more integral part of the datacenter with the potential benefit of reducing total energy consumed by the datacenter. However, this is true to the extent that real-time reporting information is currently utilized and supported by datacenter components in general. Moreover, accuracy requirements for real time data should be tempered by specific, datacenter efficiency targets and objectives.

Real-time reporting, if instituted, should be governed by an industry standard communication protocol that defines how real time data is delivered to the end user. We are pleased to see that the ENERGY STAR for UPS Framework recognizes that a “universal standard protocol” is currently not available.

Eaton urges caution in any proposed use of real-time reporting as a qualification for the ENERGY STAR label, particularly in the initial versions of the UPS program. As the ENERGY STAR program’s major goal is to promote efficient power usage, it should not initially exclude some very efficient power conversion products due to a lack of real-time network reporting capability. Eaton suggests that the ENERGY STAR real-time report requirements for UPS be phased in over a reasonable timeframe.

4. Eaton understands the EPA's position that 25% of the products available in the market should be able to achieve compliance. Eaton urges the EPA to be quite clear and deliberate in its communication of the process steps that will be used to determine the performance cutoff levels intended to cover this percentage of the market.

Eaton appreciates this opportunity to comment and looks forward to reviewing and commenting on Version 1.0 of the ENERGY STAR for UPS Specification.

Best Regards,



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