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VIA ELECTRONIC DELIVERY

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Mr. Robert Meyers
United States Environmental Protection Agency
Product Manager, Energy Star Data Center Products
Office of Air and Radiation
Washington, D.C. 20460

Re: Development of an Energy Star specification for Large Network Equipment

Dear Mr. Meyers:

AT&T Inc. (“AT&T”), on behalf of itself and its affiliates, respectfully submits these comments in response to the U.S. Environmental Protection Agency’s (“EPA”) request for feedback on the development of an Energy Star specification for telecommunications Large Network Equipment (“LNE”) as set forth in the EPA’s Energy Star LNE Discussion Document issued October 18, 2012 (“Discussion Document”).

I Introduction

AT&T supports the efforts of the EPA and the U.S. Department of Energy (“DOE”) in developing a voluntary program to improve LNE energy efficiency through a concerted and collaborative work effort with industry leaders. As a major purchaser of equipment currently designated as LNE, AT&T recognizes the importance of improving the energy efficiency of the equipment that it employs, and is committed to continuing its corporate work, as well as partnering with the DOE, EPA, and the industry to accomplish these goals.

To the extent an Energy Star program is developed for LNE, the EPA should rely heavily upon and assure harmonization with the specifications for routers and Ethernet switches developed by the Alliance for Telecommunications Industry Solutions (“ATIS”). Specifically, Energy Star should incorporate the metric definition and testing methodology, generally referred to as the Telecommunications Energy Efficiency Ratio (“TEER”) methodology.

The TEER methodology is a comprehensive approach to defining and measuring network element efficiencies in a manner that provides for an accurate and carefully defined quantification of the useful work derived by a device per unit of energy consumed. This approach permits comparison of energy efficiency across potential equipment suppliers in a manner that encourages energy efficiency while promoting cost containment. As such, the TEER methodology has many parallels with the intent of the Energy Star program under consideration.

Furthermore, the TEER methodologies have been accredited by the American National Standards Institute (“ANSI”) as the North American standard for determining telecommunication equipment’s energy efficiency. In the last three years, there has been a positive momentum within the communications industry in relying on ATIS TEER to measure energy efficiency within its network equipment supply chain. Working with ATIS to adopt specifications consistent with these leading methodologies will maximize the benefits of the Energy Star’s voluntary program.

II Utilizing ATIS’ market driven TEER methodology will enable Energy Star to promote consistent comprehensive efficiency standards for routers and Ethernet switches in the Telecommunications Industry.

In 2009, ATIS began publishing TEER energy efficiency standards that provide a rigorously defined and comprehensive methodology for defining, measuring and reporting energy consumption, to uniformly quantify a network component’s ratio of “work performed” to energy consumed. Over 100 industry members participated in the development of these tools. In fact, two of the largest manufacturers of LNE products, CISCO Systems, Inc. and Juniper Networks, were actively involved in developing ATIS’ TEER methodologies, and endorse the TEER approach, particularly for the LNE under consideration in version 1.0 of LNE (i.e., routers and Ethernet switches).

The result of this collaborative effort was a set of efficiency standards specific to diverse equipment types, network locations and classifications that can systematize assessment results in a repeatable and comparable energy consumption measurement. The TEER methodology produces a consistent metric over devices manufactured by varying companies to create an “apples-to-apples” equipment comparison. This result is particularly noteworthy given the high degree of complexity reflected in the features and functions of LNE such as routers and switches.

The specific TEER methodologies applicable to the scope of the Discussion Document are:

- ATIS-0600015.2009, Energy Efficiency for Telecommunication Equipment: Methodology for Measurement and Reporting – General Requirements
- ATIS-0600015.03.2009, Energy Efficiency for Telecommunication Equipment: Methodology for Measurement and Reporting for Router and Ethernet Switch Products

Since publishing these methodologies, the telecommunications industry has seen a significant trend towards reliance on these documents. As a result, more companies are incorporating TEER efficiency measures when purchasing equipment and an increasing number of manufacturers are testing their products under TEER. Two of the largest communications providers, Verizon and AT&T, use and require TEER measurements for their supply chain.

A second critical benefit, should Energy Star rely on the TEER methodology, is the voluntary and anonymous collection of empirical data on efficiency levels by ATIS. As the industry expands its reliance on TEER, the increasing stream of data can be used to substantially improve power management and data availability. Over time, ATIS' data will enable the market and Energy Star to gauge accurate benchmarks for setting rational energy efficiency targets for manufacturers and vendors in the industry.¹ By adopting TEER measurements, Energy Star will promote use of ATIS methodology and, in turn, improve its recognition of high performing equipment through data availability.

Moreover, TEER's accreditation by ANSI as the standard for energy efficiency in North American has also permitted ATIS to have substantial influence internationally. Although LNE efficiency measurements/methodologies under international standards organizations, such as the European Telecommunications Standard Institute ("ETSI"), are not yet identical with TEER, the industry expects ongoing coordination among international institutes with the ultimate goal of reaching a consistent global standard. Should Energy Star adopt TEER it will have the benefit of staying consistent with a methodology widely used in the domestic market, and evolving towards consistent global standards.²

¹ By adopting TEER methodology, combined with the voluntary reporting of TEER, it becomes possible to establish statistical distributions of energy efficiency by equipment category. Because the majority of the equipment is reported (not just that which is submitted for Energy Star qualification), it becomes more practical to establish leading edge energy efficiency through the use of technology available to equipment manufacturers.

² Manufacturers of a LNE tend to address the global market and their customers' operations are likewise frequently global. An approach that promotes global consistency, as is inherent in the ATIS approach, will also foster industry participation.

III Failure to Harmonize with ATIS' TEER methodology may burden manufacturers and disadvantage the growth of Energy Star's LNE program.

The industry has seen a significant increase in use of ATIS' TEER by manufacturers and suppliers of routers and Ethernet switches, and other network equipment. In accordance with the methodology, the vendor conducts all testing, the results of which are certified by nationally recognized and accredited labs. This process has proven to be a streamlined and cost-effective approach for incorporating environmental sustainable standards in a company's supply chain.

Failing to harmonize the Energy Star program with TEER may lead to unanticipated consequences of unreasonable burdens on manufacturers. As indicated above, many telecommunications providers already require compliance with ATIS TEER in their supplier contracts. Should Energy Star adopt a different set of specifications, the manufacturer or vendor has to be willing to incur the cost of adopting a second and potentially costly methodology for quantifying energy efficiency in order to receive Energy Star certification. Because of the capacity and complexity of the equipment at issue, the testing infrastructure investment is not trivial. Coupled with the relatively small volume (compared to consumer devices), the cost of accurately testing a device can be substantial. For this reason, if Energy Star adopted a hybrid of the ATIS approach or an entirely different approach the action may sub-optimize the benefits of the Energy Star program by unintentionally discouraging vendor participation.

IV Conclusion

AT&T urges the EPA and DOE to adopt ATIS TEER metrics and related testing procedures for energy efficiency as Energy Star's LNE program. ATIS measurements and data collection processes will serve as a substantial resource for strengthening this program and creating incentives for energy efficient practices in the industry. By doing so, Energy Star will also help control costs for participating vendors. Relying on TEER methodology whenever Energy Star LNE is addressed by ATIS methodology, will also allow a more rapid introduction of voluntary standards to the marketplace.

Sincerely,



Anna Kapetanakos