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Additional submitted attachment is included below.



SAMSUNG SEMICONDUCTOR, INC.

3655 North First Street San Jose, CA 95134 Tel: (408) 544-4000

Dear Sir/Madam:

The following is list of initiatives at Samsung Semiconductor, Inc. regarding energy conservation and efficiency. We hope that you may find them useful in assessing how incentive programs may promote energy production and conservation.

Regards,

Terrence H. Cross Vice President & General Counsel

# Memory Solutions Laboratory Research on Reducing the footprint and power consumption of computer memory chips

Background: Samsung pioneered the importance of semiconductors in driving power consumption and energy conservation in data centers and other power-intensive computing and communications applications. Samsung's "Green Memory" reduced power consumption for memory in servers by more than 80%. Mobile devices are also critical consumers of power. There are two sides to the equation in mobile: storage (battery life) and power demand. Power demand is driven by the components in the device. Samsung's energy efficient semiconductor and display technology has made the current generation of long-lasting super powerful mobile devices possible. We can provide you with more examples of our historic green initiatives upon request.

Samsung continues invest in low power/high performance developments and research in its new San Jose headquarters.

Currently, Samsung builds the world's largest and most power efficient SSDs, with research led from the US R&D team. Samsung leads the industry in the densest V-NAND technology, which, in turn, enables the innovation of the world's largest and most power efficient datacenter and enterprise solid state disks. Flash is inherently more power efficient than disk drives. Flash system also fit into a much smaller physical footprint, enabling far less rack level power consumption in the datacenter. At the recent HP Discover event, HP noted that Samsung based flash system consumed on 0.8 Watts per Terabyte of storage compared to 8-16 Watts per Terabyte in previous SSD systems. The gap is even wider when compared to convention Hard Disk based systems. The innovation to build the world's most dense enterprise drives is led from the US R&D team in San Jose. Funding these research efforts has a direct and substantial effect on energy consumption by the ever-expanding world-wide data storage infrastructure.

Samsung Semiconductor, Inc. Green Campus initiatives in North San Jose

Current programs under consideration include

### Installation of solar power farm on the top floor of the parking garage to power the North First Street HQ buildings

When the new headquarters building was constructed, provisions were made to install solar panels on the top floor of the parking garage to provide power to the buildings. Budgetary constraints caused the Company to put those facilities on hold, but the connections and space are still available to proceed, should it prove feasible to do so.

#### **Expanded charging stations for Electric Vehicles**

Samsung continues to increase the number and capacity of electric vehicle charging stations and provides free charging for employees. Financial support would enable further expansion of these facilities.

#### Smart Lighting and HVAC systems to enhance energy efficiency

Samsung is continuing to explore possible upgrades to the HVAC and lighting systems in the new headquarters building. As with the solar farm, these improvements will require retrofitting existing systems at substantial cost. Financial support for these efforts will expedite and expand the scope of the retrofits.