## WRITTEN TESTIMONY OF DANIEL R. HESSE CHIEF EXECUTIVE OFFICER SPRINT NEXTEL CORPORATION ON IMPROVING ENERGY EFFICIENCY THROUGH TECHNOLOGY AND COMMUNICATIONS INNOVATION BEFORE THE SENATE COMMITTEE ON COMMERCE, SCIENCE AND TRANSPORTATION, SUBCOMMITEE ON COMMUNICATIONS, TECHNOLOGY AND THE INTERNET February 23, 2010

### Introduction

Good Morning, Chairman Kerry, ranking Member Ensign and Members of the Subcommittee. I am Dan Hesse, CEO of Sprint Nextel Corporation. Thank you for the opportunity to testify about how the progressive environmental path Sprint is forging is challenging the technology industry to create a greener, more sustainable future.

Our country has been transformed by numerous periods of historic and evolutionary change – from the Industrial Revolution to the dot-com bubble and the Age of the Internet. Today, we are in the midst of a new "green" era. Today's U.S. consumer and the members of this legislative body are sending a "call to action" to corporations to act in the best interests of our people and our planet. Sprint is proud to embrace this opportunity as we make environmental responsibility a cornerstone of our company. As a result, over the last year, Sprint has received numerous industry awards and accolades; however, perhaps the one I am most proud of is our recent #15 ranking on Newsweek's 2009 Green Rankings of top 500 US Corporations, the only U.S. telecom company listed in the top 100. Accolades such as Newsweek's Green Rankings are important; however, organizations need to continue to achieve tangible environmental progress toward measurable sustainability objectives. Research supports that the best business strategies effectively target the environmentally conscious consumer.

In my capacity as Sprint's CEO and the Chair of Sprint's Corporate Responsibility Steering Committee, let me take this opportunity to highlight just how seriously Sprint is heeding this call:

# Sprint's Corporate Sustainability Initiatives

In 2008, Sprint established and publicly announced a set of 10year environmental goals, including:

- Securing 10 percent of Sprint's commercial energy use from renewable sources by 2017
- Reducing greenhouse gas emission by 15 percent by 2017

- Achieving a wireless device collection rate of 90 percent as compared to device sales by 2017
- Ensuring that at least 90 percent, based on money Sprint spends, of all Sprint suppliers, comply with environmental standards
- Reusing or recycling 95 percent of Sprint's Network and Information Technology (IT) e-waste

Sprint is committed to the belief that we all share in the responsibility to conduct our businesses in a socially and environmentally responsible manner. We base this on the premise that a company is much more than the products and services it sells; the effect a company has on the environment, the people and the communities it serves reflects a company's dedication to being not only a good business, but to being a good corporate citizen.

## **Renewable Energy Use**

Sprint leads the wireless industry within the U.S. in terms of actual renewable energy use by the corporation. Sprint's greenenergy initiatives include wind, solar, hydrogen and geothermal power. Sprint began participating and promoting the testing of wind energy in 2004 with the purchase of Green-e wind energy certificates

for a building on the Sprint World Headquarters Campus in Overland Park, Kansas. In two years, Sprint prevented approximately 1,000 tons of carbon dioxide from entering the atmosphere with these Green-e wind energy certificate purchases.

Sprint expanded its commitment to green-power use, announcing an agreement with Kansas City Power & Light (KCP&L) that facilitated the building of the Spearville, KS Wind Farm. As part of that agreement, Sprint agreed to purchase 87M kilowatt hours per year for its 200-acre Overland Park, KS, headquarters campus from KCP&L via the Spearville, KS wind farm. In 2008, this accounted for 80 percent of Sprint's campus energy needs. This purchase provided a reduction of 87,519 metric tons of C02 equivalents in 2008 and is the equivalent of:

- Taking 16,029 passenger cars off the road for one year,
- Producing 203,533 fewer barrels of oil a year,
- The electricity used in 12,139 households each year, or
- Preserving 610 acres of forest.

Sprint plans to expand its use of green-power and currently ranks in the top 25 purchasers of green-power in EPA's Green Power Partnership Fortune 500 Registry.

# Energy efficiency and alternative energy use to Power Sprint's Wireless Network

Sprint's network consumes approximately 80 percent of its total corporate-energy use. With such a significant percentage, our network is our biggest priority in terms of finding energy improvement opportunities – both through energy efficiency and deployment of renewable-energy resources. Sprint has a partnership with the Department of Energy to conduct alternative-energy research and currently works with two national laboratories – Sandia in Albuquerque, New Mexico, and National Renewable Energy Lab (NREL) in Golden, Colorado. Their projects include energy storage and photovoltaic-panel research.

In an effort to produce green backup power during commercial power outages, Sprint has already deployed more than 250 hydrogen fuel cells at cell sites, with more installations planned. Sprint is also using solar-powered energy at cell sites in California and New York. The photovoltaic-panels capture solar energy and power the site using sunlight during the day, then switch back to commercial utility power at night. In addition, Sprint is exploring geothermal systems as a way to reduce electricity use by improving cooling efficiency and

improving reliability by avoiding high-heat equipment shutdowns. In these systems, the heat from a cell site is transferred to a heat exchange system and cooled through wells drilled in the ground.

In April 2007, Sprint installed a small wind turbine on its Overland Park, KS campus to test the use of wind as primary power for cell sites. The turbine was the first of its kind in the community and continues to provide excellent data for Sprint's energy researchers. It is also iconic of Sprint's commitment to alternative energy.

Sprint's most exciting new achievement on green network energy is its award of a \$7.3 million United States Department of Energy grant for the expansion of hydrogen fuel cell deployment. Sprint, already a leader in fuel cells, will use the grant funding to expand its hydrogen fuel cell program at cell sites throughout the United States – creating 72 hours of additional network resiliency, especially critical during emergencies and natural disasters. As part of the grant, Sprint will work with hydrogen fuel cell manufacturers, tank providers and hydrogen suppliers to extend the unassisted runtime to 72 hours (57 hours more than the typical amount currently available). Sprint's innovative work to extend the run-time of

hydrogen fuel cells will benefit any industry with a need for longer and cleaner back-up power.

Sprint possesses or has filed for 47 patents in green technology areas, and we have 15 issued patents in hydrogen fuel cell technologies.

# **Greenhouse Emissions**

Sprint understands that greenhouse gas is a critical issue and that reducing greenhouse gas (greenhouse gas emissions) is an important goal. As a large corporation with thousands of locations throughout the United States, Sprint has a role to play in the reduction of harmful greenhouse gas emissions, and is actively engaged in making a difference. Sprint has committed to absolutely reduce its greenhouse gas emissions by 15 percent by 2017 and to increase its use of renewable energy to 10 percent by 2017. The majority of Sprint's greenhouse gas emissions come from energy use in Sprint's network and facilities. Sprint has been actively working to reduce its energy impact for the past several years, as evidenced by our large purchases of renewable energy, investments in alternativeenergy research, and development of an energy-conservation program.

- Sprint was the first telecommunications carrier to join the EPA Climate Leaders Program in 2007, and was recognized for our goal to absolutely reduce greenhouse gas emissions 15 percent by 2017. Sprint is the only carrier participating in the EPA Climate Leaders Program and the only one to have published an absolute greenhouse gas emissions reduction goal.
- Sprint achieved a 6.8 percent greenhouse gas emission reduction in 2008 and expects further improvement when we finalize the 2009 results.
- Sprint also participates in the Carbon Disclosure Project (CDP) and received the highest ranking among wireless providers in 2009 for its carbon disclosure efforts. CDP is a non-profit organization, led by institutional investors in partnership with government and non-government organizations (NGOs).

# The Greening of Sprint Facilities and Retail Store Locations

Sprint's 200-acre Overland Park, Kansas, headquarters campus is one of the most environmentally responsible campuses in the country. It was designed with the environment and employees in mind and is a source of pride for both campus workers and the surrounding community. Some of the eco-friendly highlights include:

- Capture of site run-off water to use for landscape irrigation (no municipal water is used)
- Restoration of wetlands and natural landscape
- Plantings of more than 6,000 trees; use of landscaping for shade
- Dedicating 60 percent of the campus to green space
- Regional extraction of 81 percent of campus construction materials, reducing transportation emissions
- Use of People for the Ethical Treatment of Animals (PETA)certified border-collie program for migratory-bird control
- A comprehensive composting program that takes food waste and other compostable-waste, such as cardboard, and turns it into useful by-products
- Use of solar power for signage
- Preferred parking for drivers of hybrids or carpoolers to encourage reduction of employee greenhouse gas emissions

 A "Smart Commute" program to help employees find and use alternative transportation options.

Sprint received its first Leadership in Energy and Environmental Design (LEED) certification from the United States Green Building Council (USGBC) for new construction in April 2005, for a building (6480 Sprint Parkway) at our headquarters campus in Overland Park, KS. Sprint received its second LEED certification in mid-2009 through the LEED Retail pilot project for a Sprint retail store in the San Francisco, California area.

All new and refurbished Sprint retail stores will utilize numerous sustainable design elements consistent with LEED design standards that will reduce the carbon footprint of each store by about 19,000 pounds of carbon dioxide annually.

All Sprint retail stores feature a dedicated green section to highlight green products such as the eco-friendly Samsung Reclaim<sup>™</sup>, solar chargers and cell phone carrying cases made from recycled plastic water bottles. Sprint's eco-charger options include the All-In-One Vehicle and Wall Charger and the SOLIO<sup>™</sup> Mono Hybrid Charger. The All-In-One charger offers users the benefit of being an all-in-one car and home/office charger. It also features an

inline USB port that allows two devices to be charged simultaneously and operates within EPA's Energy Star guidelines. The SOLIO Mono Hybrid Charger allows mobile-phone users to charge their device from the sun or electrical socket allowing customers to recharge their mobile phone anytime, virtually anywhere. Sprint's carry case solutions include two from Nite Ize<sup>™</sup>, made from 100 percent recycled plastic water bottles and two universal cases made from cotton and linen.

## The Greening of Sprint's Accessory Packaging

In November 2009, Sprint expanded its responsible product efforts by launching redesigned and even more environmentally responsible packaging for its entire accessory line. The new designs are smaller, fully recyclable, free of PVC, and include recycled content. Sprint estimates that the redesigned accessory packaging will save 647 tons of waste annually and reduce packaging costs by 35 percent or \$2.1 million annually. Highlights of the new accessory packaging include:

- Overall packaging dimensions reduced by 20 to 40 percent.
- Polyvinyl chloride (PVC) clamshell eliminated and replaced with Polyethylene terephthalate (PET 1), a more recyclable

and environmentally friendly material that includes 30 percent recycled content.

- Soy- and vegetable-based inks replace petroleum-based ink, exceeding the American Soybean Association SoySeal Standards and reducing the level of volatile organic compounds (VOCs).
- Paperboard is Forest Stewardship Council (FSC) certified ensuring that the paper travels from an FSC-certified forest to a paper manufacturer, merchant and printer, all of whom have FSC "chain-of-custody" certification. The process promotes conservation and responsible management of forests. The paperboard includes 40 percent pre-consumer waste content and 10 percent post-consumer waste content.

## **Eco-Conscious Consumer Solutions**

One of the benefits of being a communications solutions provider is that Sprint is part of an incredible societal shift toward smart-mobility. Sprint customers use their wireless devices day-in and day-out to communicate remotely with their friends and family, to send pictures, conduct on-line banking, purchase items remotely, find the fastest route to the doctor's office, and even find out where they can recycle their glass bottles.

Sprint's wireless devices can replace alarm clocks, calculators, calendars, note pads, voice recorders, cameras and more. In the sustainability circle, this is called dematerialization, where one is able to eliminate material goods with virtual ones. Sprint hopes to help customers realize the environmental opportunities their devices offer and intends to provide specific solutions to enable a greener lifestyle.

One of the simplest environmentally responsible solutions Sprint offers its customers is eBilling. Sprint eBill Online Billing eliminates customers' paper bills and thus helps the environment and provides convenient access to customer invoices. Sprint offers consumers a service credit for signing up and staying with eBill. Millions of Sprint customers have already selected this option and avoided the use of an estimated 2 million pounds of paper and emitting 27 million pounds of greenhouse gases.

Sprint has expanded its eco-conscious offerings to include environmentally-themed ringers. In October 2009, Sprint announced the release of downloadable bird call ringtones in association with National Audubon Society. Customers can choose from among 28

ringtones include the Field Sparrow, Red-bellied Woodpecker and Black-capped Chickadee. Sprint and the National Audubon Society believe the bird song ringtones will help raise awareness of Audubon's mission to protect and conserve birds and their natural habitats. These ringtones are part of an official licensing program of the National Audubon Society from which Audubon will receive royalties.

## Sprint's Green IT Efforts

Green Information Technology (IT) is typically defined as the efficient design and use of computing resources. It includes using environmentally-friendly hardware and software, and deploying options such as virtualization, power management and recycling practices. Sprint is committed to being a green IT leader, and Sprint's efforts were recognized in September 2008 at *Computerworld's* Green IT Symposium where Sprint was named a top-five finalist for increasing "green IT" by reducing IT complexity. This recognition was based on Sprint's efforts to simplify its complex IT environment by identifying, consolidating and removing redundant or unused applications and their supporting infrastructures, and by simplifying the hardware and software footprint in Sprint's data centers.

Over a 20-month period, Sprint has significantly reduced its ITbased power consumption by retiring more than 3,850 servers. Not only did this improve energy efficiency, it reduced greenhouse gas emissions by 20,355 metric tons, which is the equivalent of removing more than 3,200 cars from the road.

Sprint has also transitioned to more energy-efficient servers and storage, has consolidated several of its data centers, significantly reduced the applications that are in use and implemented a much simpler hardware and software IT plan that incorporates virtualization and other green IT options.

#### Two New Environmental Initiatives from Sprint

At Sprint, the innovations we pursue and the new environmental programs in which we engage are both transparent and accountable. While recognition is inspiring, what counts most is tangible environmental progress. It is Sprint's hope to change norms so that what we define as "green" today is "average" tomorrow. Experience has taught us that collective action – working cooperatively with handset manufacturers, non-governmental organizations and government agencies – helps to quickly and

broadly establish common standards for better environmental performance.

Today I am proud to announce that Sprint is the first U.S. wireless carrier to establish a set of green design criteria for consumer devices. Moving forward, every handset vendor who manufactures handsets that operate on Sprint's networks must produce handsets that meet or exceed Sprint's new green design criteria and specifications. The green design criteria and specifications support Sprint's product development vision, which is to provide devices and accessories for our customers that are:

- Made of sustainable materials
- Manufactured and packaged sustainably
- Free of potentially hazardous materials
- Highly energy-efficient or even self-charging
- Compatible with interoperable accessories, and
- Fully and easily recyclable

Working in partnership with our handset manufactures, Sprint has developed an industry-first environmental "scorecard" to bolster progress toward Sprint's green design specifications. The criteria in the scorecard better enable Sprint and our vendors to gauge the degree to which each handset manufactured complies with our environmental standards. These handset manufactures include: Samsung, HTC, LG, Motorola, Palm, RIM and Sanyo. Handsets will be measured according to the following scorecard categories:

- Environmentally Sensitive Materials to improve the removal of environmentally sensitive materials such as Polyvinyl Chloride (PVC), Brominated Fire Retardants (BFR) Phthalates and Beryllium. This category also includes compliance with the European Union's Reduction of Hazardous Substances (RoHS) standards.
- End of Life Management to increase the average recyclability rate and the use of recycled plastics and other environmentally friendly parts.
- Sustainable Packaging to reduce a product's environmental-footprint by eliminating waste and using recycled or eco-friendly materials.
- **Energy Efficiency** to improve the energy efficiency and reduce the overall consumption of energy by the handset and charger.
- Innovation to raise the bar with new product innovations.

Sprint hopes by collaborating proactively with our handset vendors, we will encourage the entire wireless industry to develop new, innovative, greener handsets for all U.S. consumers.

# Wireless Recycling

Designing greener handsets is crucial for our industry and is also part of our larger goal to ensure that wireless devices do not end up in landfills. According to recent statistics from the Environmental Protection Agency (EPA) only 10 percent of cell phones are recycled each year in the U.S. Americans annually dispose of 140 million old or unused cell phones and send 65,000 tons of e-waste to landfills. While 40 to 50 percent of Americans recycle paper and other common materials regularly, the truth about e-cycling, which is the reuse or recycling of electronics, is that many U.S. consumers don't.

The implication of low e-cycling rates is significant. Many of these electronics contain valuable metals – such as gold and silver that could be recycled into jewelry, electronics, lawn furniture, car parts, shingles, plastic containers and more. A great example of an innovative use of these reclaimed materials from electronics can be seen in Vancouver, Canada where this year's athletes are receiving Gold, Silver and Bronze Olympic medals that contain materials

reclaimed from end-of-life electronics. A recent ABI Research Report found that of 1,000 people surveyed, 98 percent were prepared to return handsets to an operator's store, to a charity, to a refurbishing company or to the manufacturer – but only in return for some compensation; either cash, store credit, or a tax deduction.

Sprint has been at the forefront of recycling efforts in the wireless industry. In 2008, we made a public commitment to achieve a wireless reuse and recycling rate of 90 percent as compared to our device sales. Our current wireless reuse and recycling rate at the end of 2009 was just over 40 percent, well ahead of the industry average. Since 2001, Sprint has collected more than 19 million devices for wireless reuse and recycling.

Today we are announcing the launch of a new, vastly expanded wireless handset buyback program that offers a financial incentive, in the form of instant account credit, to current and new Sprint customers who turn in up to three eligible wireless devices. Sprint's new, expanded Buyback program now accepts <u>all</u> eligible wireless devices, regardless of manufacturer or carrier. Through this new Buyback program, current or new Sprint customers can go to one of the more than 1,000 participating Sprint-owned retail stores

nationwide or go online to <u>www.sprint.com/recycle</u> to convert any eligible old Sprint, Verizon Wireless, AT&T or T-Mobile network phone into an instant account credit.

## Conclusion

Chairman Kerry, Senator Ensign and Members of the Subcommittee, thank you for holding this hearing today to highlight how the U.S. wireless industry can take our environmental responsibility even more seriously. Sprint is committed, for the longhaul, to "green" our business operations, promote the design of more eco-friendly handsets, increase wireless industry recycling rates, and remain a leader in our industry. In partnership with our handset manufactures and other allies, Sprint will continue to work to introduce greener handsets similar to the Samsung Reclaim<sup>™</sup>, and to educate our customers about how they can make "greener," more sustainable choices when it comes to handset purchases and end-oflife device management.

I am happy to answer any questions you may have and Sprint looks forward to working with you and your staff on these mutual goals in the coming year.