



Press Release

Islamabad, Pakistan- November 4th, 2009

Telenor Pakistan opts for solar power to extend services to rural customers

Nokia Siemens Networks to provide cost efficient energy for off-grid sites

Telenor Pakistan can now cost effectively extend its network to untapped rural areas of the country. The mobile operator has signed a contract with Nokia Siemens Networks to build off-grid sites using energy harvested from the sun. Telenor Pakistan was the first cellular operator in Pakistan to have a site dependent on solar technology in January 2008.

“Expanding into rural areas is a challenge, as there is no access to the electricity grid to supply power to base stations. Traditional alternatives, such as diesel generators are neither environmentally-friendly nor cost-efficient,” said Khalid Shahzad, chief technology officer, Telenor Pakistan. “Nokia Siemens Networks not only offers a clean substitute, but will also reduce the cost of running these sites - allowing us to offer affordable communications to users in rural Pakistan.”

Under the contract, Nokia Siemens Networks will provide its off-grid site solutions that use solar energy to power base station sites in rural and remote areas. On a turnkey basis, Nokia Siemens Networks will design the sites, taking into account local solar mapping, site landscape and other factors to maximize the use of an abundant, clean, and natural energy source. Nokia Siemens Networks’ Green Energy Control will help deliver a sustainable solution while optimizing operating costs.

The solar-powered sites will be implemented using Universal Services Fund (USF) that was awarded to Telenor Pakistan in 2009. USF-based contracts aim to provide access to mobile services for underserved and unserved areas of Pakistan. Telenor Pakistan, till now, has been awarded three USF contracts for Mirpurkhas, Malakand and Bahawalpur region.

“It’s important that we connect the world in such a way that not only maximizes benefits for consumers and businesses, but also ensures the welfare of our planet,” said Saad Waraich, the Pakistan country director for Nokia Siemens Networks. “Providing communications to rural areas will become increasingly important and we believe renewable energy will be the first choice for such installations. In fact, the majority of base station sites installed by us by 2011 will use this form of energy. We are especially proud to partner with Telenor - a definite trend setter for the use of environmental technologies in network expansion.”

The GSMA has estimated that more than 75,000 new off-grid sites will be built each year through 2012 in developing countries. About 80% of the energy in a typical mobile telecommunication network is consumed by base stations. Renewable energy sources such as wind and solar power offer a reliable alternative to sites with limited or non-existent electrical grid access. Nokia Siemens Networks has already deployed more than 360 sites that exploit renewable energy and has over 25 years of experience in implementing solar-powered sites.

About Telenor Pakistan

The Telenor Group is an international provider of high quality tele, data and media communication services with mobile operations in 13 markets across the Nordic region, Central and Eastern Europe and in Asia. The Telenor Group is among the largest mobile operators in the world with over 172 million mobile subscriptions and a workforce of more than 40,000. Telenor Pakistan is 100% owned by Telenor ASA and adds on to its operations in Asia.

Growth comes from truly understanding the needs of people to drive relevant change.

About Nokia Siemens Networks

Nokia Siemens Networks is a leading global enabler of telecommunications services. With its focus on innovation and sustainability, the company provides a complete portfolio of mobile, fixed and converged network technology, as well as professional services including consultancy and systems integration, deployment, maintenance and managed services. It is one of the largest telecommunications hardware, software and professional services companies in the world. Operating in 150 countries, its headquarters are in Espoo, Finland.

www.nokiasiemensnetworks.com

Engage in conversation about Nokia Siemens Networks' aim to reinvent the connected world at <http://unite.nokiasiemensnetworks.com> and talk about its news at <http://blogs.nokiasiemensnetworks.com>
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Notes to Editor

Off-Grid Site solution

This solution is applicable on sites where there is no grid at all. These sites are typically located in rural areas, on hilltops, islands or in remote areas where population is scarce and the conventional setup is to have two generators running alternatively on 24 hour basis. Although the average telecom load on this particular type of site is less, the regular generator running not only causes high fuel consumption (20K liter/year), high transportation cost, high generator maintenance cost, it also adds to 50 tons of CO2 emission per year. Nokia Siemens Network's proprietary Off-Grid Site solution not only reduces the generator runtime and the fuel consumption (down to 2K liter/year), but also aids in reducing the CO2 emission per site proportionately to 5 tons/year.

Nokia Siemens Networks' Green Energy Control

The Nokia Siemens Networks' Green Energy Control interfaces all power sources and smartly manages the battery charging and discharging to induce increased fuel savings. It contains intelligent algorithms to control the generator and allow for benchmark fuel consumption and is able to exploit bad grid situations to a maximum. It captures other site related parameters to aid in better site maintenance. In addition the Nokia Siemens Networks' Green Energy Control enables a remote monitoring solution which provides an interface for remote data collection and control which in turn enables OPEX optimization.

<http://www.nokiasiemensnetworks.com/energysolutions>