



Going Green from All Angles

Refurbishing preowned medical equipment with high quality standards is like giving these systems a second life. The environmentally friendly refurbished systems from Siemens Healthcare, manufactured under the Proven Excellence program, will now be combined with a plan aimed at breathing a second life into the ecosystem by aiding in reforestation efforts. Combating harmful carbon emissions from two angles makes this campaign a truly unique green solution in Siemens' environmental protection portfolio.

By Abigail Weldon

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approximately 5,700 households.

Refurbished systems from Siemens Healthcare are nothing new – literally and figuratively. The Proven Excellence (PE) program has been refurbishing pre-owned medical devices with the same quality standards as is required for new equipment for more than five years now. Healthcare providers have been able to acquire everything from ultrasound devices to computed tomography scanners to magnetic resonance imaging systems at high quality standards, while not breaking their budgets. However, the PE program is now getting a refurbishment of its own, which has even led to a name change: *Proven Excellence – Sustainable Impact*.

Even in times of economic instability and budget cuts, healthcare providers are also feeling the need to go green. Not only environmentally conscious consumers are recognizing the clear benefits of sustainability – for the ecosystem, but also for the bottom line.

Siemens recognized the movement toward green long ago and has one of the largest environmental portfolios on the market. As Heinrich von Wulfen, Regional CEO Europe, Africa, Middle East & Customer Relationship Management at Siemens Healthcare reports, “Cost pressures in particular put enormous strain on

hospitals. Siemens sees itself as a long-term partner that supports sustainability in healthcare for today and in the future.” Now, the Siemens business unit Refurbished Systems is further committing itself to the trend with a new environmental initiative called *Proven Excellence – Sustainable Impact*. This program will not only provide healthcare facilities with sustainable systems, but also aid in more direct environmental protection with reforestation activities using external service providers. The new environmental protection campaign is quite simple: buy a refurbished system and Siemens’ service providers plant trees in dedicated reforestation areas.

The Need for Healthcare to Go Green

It is no secret that environmental protection has become a hot topic in politics, the media, and industry. Healthcare may not be the first industry that is thought of in the push to go green; however, the green trend’s presence appears to be increasing and it is clear why. Climate change can have an effect on human health and the healthcare sector can play a vital role in not only helping to adapt to the health consequences of these changes, but also in combating them. The environmental impact of healthcare may – at first glance – seem inconsequential, but in reality, hospitals are energy-intensive institutions that contribute to climate change whether it be through procurement policies, resource usage and disposal, or energy usage, as well as through various other measures. The Environmental Panel on Climate Change reported in 2007, for instance, that in Brazil, hospitals make up 10.6 percent of the country’s overall commercial energy consumption.¹ England’s National Health Service reports that healthcare’s footprint can be attributed to 18 million tons of carbon dioxide (CO₂) emissions per year or 25 percent of total public sector emissions in the UK.² The World Health Organization (WHO) recognizes that healthcare co-benefits can be achieved by reducing the industry’s environmental impact, citing basic measures “from

improving hospital design to reducing and sustainably managing waste, using safer chemicals, sustainably using resources such as water and energy, and purchasing environmentally-friendly products.”³ For the latter, Siemens Refurbished Systems comes into play.

Saving Tons of Carbon Dioxide

Refurbishing preowned medical devices has always been an environmentally friendly option, allowing for an average material reuse of 90 percent in refurbished systems. While the refurbishment process contributes to sustainability and to extending the respective product life cycle by preserving as well as recycling valuable resources, the new environmental protection campaign will help Siemens combat CO₂ emissions from two angles: by reducing the emission of its own systems and by contributing to CO₂ absorption with each planted tree. These co-benefits represent a unique option in the Siemens environmental portfolio; the medical establishment receives a recycled system with the Proven Excellence seal while directly contributing to environmental protection.

Siemens Healthcare is registered with the Eco-Management and Audit Scheme (EMAS), an instrument developed by the European Union (EU) to assist companies in evaluating, reporting, and improving their environmental performance in industry. Each year, three audits are performed at Siemens Healthcare locations in Germany and environmental indicators are reported. In 2009, Siemens reported that 1,745 systems were refurbished in the 2007-08 fiscal year, which helped indirectly save nearly 20,000 tons of CO₂. In comparison to the manufacturing process of new systems, the refurbishment process contains fewer steps and the material provision phase of the product life cycle is cut out completely. The CO₂ emissions savings of 20,000 tons include the refurbishment and disposal process as well as greener transportation efforts and manufacturing conditions. This amount of savings is equal to the CO₂ storage of around 32 hectares of tropical rainforest or the electrical power con-

Summary

Challenge:

- Provide high-quality healthcare equipment with minimal environmental harm
- Developing sustainable solutions in the healthcare industry

Solution:

- Proven Excellence Refurbished Systems manufactured with reused material
- *Proven Excellence – Sustainable Impact* scheme for Siemens Refurbished Systems

Result:

- CO₂ savings of 20,000 tons per year
- Double the environmental benefits with reforestation in rainforests

Proven Excellence by Siemens Refurbished Systems

All systems refurbished by Siemens have to receive the Proven Excellence quality seal before being put back into operation. The seal represents the fulfillment of strict specifications from relevant international norms and standards as well as security regulations set by global institutions and organizations.

One such organization is COCIR (European Coordination Committee of the

European Radiological, Electromedical and Healthcare IT Industry), which seeks to promote the development of harmonized international standards and regulatory control with respect to the quality and effectiveness of medical devices. COCIR's *Green Paper on Good Refurbishment Practice*, which sets forth guidelines for the refurbishment process, has been seen as the standard for Siemens

Refurbished Systems for several years now. Siemens' refurbishment process is comprised of five steps – the stringent selection of used equipment; disassembly and de-installation; Proven Excellence refurbishment; professional reinstallation of refurbished equipment; and warranty and professional services – all of which are in line with the specifications set forth by COCIR.

Siemens Goes Green

Proven Excellence – Sustainable Impact is part of a larger Siemens movement toward green solutions. Green+ Hospitals is a new approach that Siemens is taking in sustainable healthcare infrastructure. This approach tackles the challenge of unifying ecological and economical demands in the healthcare industry, without only focusing on the more obvious green aspects. The focus lies not only in green measures but also in quality and efficiency. Hospitals are set to benefit from this approach in all three areas. The green effects are reduced energy costs, sustainable and careful use of

resources, and pollution reduction. The efficiency effects are optimized workflows and efficient assignment of time and cost. And, the quality effects are patient identification and safety, convenient and healthy procedures, and health-supporting environmental conditions. Heinrich von Wulfen, Regional CEO Europe, Africa, Middle East & Customer Relationship Management at Siemens Healthcare, explains, "The Green+ Hospitals project was developed as part of Siemens' commitment to long-term sustainability in healthcare. In addition to effective measures that increase perfor-



mance quality and optimize organizational efficiency, we support hospitals in reducing their costs and in acquiring environmental certificates – a decisive competitive advantage."

sumption of approximately 5,700 households.⁴

How the Program Works

The World Wildlife Fund (WWF), one of the largest environmental organizations worldwide, will be commissioned by Siemens to take on the reforestation efforts. Medical providers who purchase the refurbished equipment are also to receive promotional material for their facility from Siemens stating their commitment to the *Proven Excellence – Sustainable Impact* program. This way, their patients are also aware of the facility's choice to go green. Siemens will work with the WWF in Indonesia as part of their "NEWtrees" initiative. This replanting project operates in Sebangau National Forest in Central

Kalimantan. Protection and growth efforts are monitored through "geotags," which are placed on trees with the exact latitude and longitude coordinates. Medical facilities that opt for this program will receive the GPS (global positioning system) coordinates of the area that receives second life as a result of their purchase of a system that was given a second life as well. *Proven Excellence – Sustainable Impact* aims to reforest and sustainably protect 32 hectares of rainforest in order to double the reduction of CO₂ emission. The second life benefits thanks to CO₂ savings and absorption may very well be a revolutionary refurbishment for the Proven Excellence program. And this new program, introduced at the Radiological Society of North America's (RSNA) 2009 Annual Meeting, marks a definite move-

ment towards more green options in the healthcare industry, which is on its way to catching up with the rest of industry's green growth.

Abigail Weldon is a member of the Medical Solutions editorial team.

¹ Climate change 2007: synthesis report. Summary for policy makers. Intergovernmental Panel on Climate Change (IPCC-AR-4).

² Saving carbon, improving health: NHS carbon reduction strategy. National Health Service, Sustainable Development Unit, Cambridge 2009.

³ Healthy Hospitals. Healthy Planet. Healthy People. Addressing climate change in health care settings. World Health Organization and Health Care without Harm, 2009.

⁴ KfW development bank, "Tropenwaldschutz als Klimaschutz", Nov. 2008.

Further Information

www.siemens.com/hospitals