

EC RenewIT Project Announces Advisory Board to Support the Increased Use of Renewable Energy in Data Centres

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London, UK, November 25th, 2014 - RenewIT (<http://www.renewit.eu>), a European Commission research project focused on renewable energy and energy efficiency, today announced that it has appointed its advisory board.

With experts from industry and the scientific community including Schneider Electric (<http://www.schneider-electric.com>), Poznan Supercomputing and Networking Center (<http://www.man.poznan.pl>) and the University of Leeds (<http://www.leeds.ac.uk>), the board will provide feedback on the progress of the project and help ensure the tools and research developed within the project are adopted by the data centre industry.

The RenewIT project is developing software tools and research that will help data centre operators and designers create a more compelling business case for using on-site and grid sources of renewable energy as well as implementing energy efficiency measures.

The project is developing advanced concepts for integration of renewable energy, renewable source of cooling and energy efficiency technologies. Concepts being investigated include the use of seawater for cooling and wave power for energy generation in data centres, as well as other emerging technologies and methods such as re-use for waste heat and refrigeration recovery, fuel cells and direct liquid cooled IT equipment.

The Advisory Board includes experts from the commercial data centre industry as well as leading scientific researchers. The advisory board members have expertise that is relevant to the main themes of the RenewIT project:

- Renewable energy: Austrian solar energy specialists SOLID (<http://www.solid.at/en>) and the US National Renewable Energy Laboratory (NREL) (<http://www.nrel.gov>) strengthen the RenewIT consortium's expertise in renewable energy.
- Energy efficiency: Irish company Strategia (<http://www.strategia.com>), which also has strong research links with University College Dublin, has developed server, application and virtual machine power monitoring; Eco4Cloud (<http://www.eco4cloud.com>), a spin-off from the Institute for High Performance Computing and Networking of Italy's National Research Council (CNR) (<http://www.icar.cnr.it/>) and the University of Calabria (<http://www.unical.it/portale/international>), specialises in energy optimisation of workloads in virtualised data centres; and Poznan Supercomputing and Networking Center is a centre of excellence in efficient data centres and cooling.
- Integration with smart infrastructure: The University of Leeds and Iceotope (<http://www.iceotope.com>) are innovators in the use of direct liquid cooling, which, as well as being more efficient than air cooling, allows for the effective reuse of heat to local buildings; Ricerca sul Sistema Energetico (<http://www.rse-web.it>) from Italy brings expertise in smart grids and electrical storage; the German UPS manufacturer Piller (<http://www.piller.com>) specialises in power conditioning and the stabilisation of microgrids and co-generation applications; and TeraCool (<http://www.teracool-llc.com>) has developed technology that allows surplus refrigeration from Liquefied Natural Gas terminals to supply cooling and

zero-emissions power for data centres.

- Modelling and tools: Several Advisory Board members, including Schneider Electric, have experience in computer modelling of energy systems and tools to help data centre owners understand renewables and energy efficiency while the University of Lleida (<http://www.udl.es>) in Spain brings expertise in modelling and energy storage.

Meanwhile, RenewIT will contribute to new and established metrics, data centre management, and the wider policy implications of renewables in data centres. All members of the Advisory Board will contribute to these areas but particularly the Institut de Recherche en Informatique de Toulouse (IRIT) (<http://www.irit.fr/?lang=en>), Norland Managed Services (<http://www.norlandmanagedservices.co.uk>), major data centre operators and leaders in practical application of energy efficiency including Unilever (<http://www.unilever.com/sustainable-living-2014/reducing-environmental-impact/greenhouse-gases/reducing-office-impacts/re>) and strategists working with the government of Catalonia (<http://icaen.gencat.cat/ca>).

The Advisory Board members will provide feedback on technical development and will also act as ambassadors for the concepts and the software, playing a critical role in encouraging adoption by industry and other research institutions.

One of the key roles of the Advisory Board is to ensure that RenewIT retains an outward-looking approach that meets the needs of industry and research, vendors and end-users (such as data centre operators) while continuing to advance the state-of-the-art.

“Although only just established, the RenewIT Advisory Board is already delivering value by creating close links with industry and research institutions. Many board members either own or operate data centres, or deliver data centre software, technology and services. We want to ensure the project results in innovative research and is of real value to the data centre industry,” said Dr. Jaume Salom of IREC and RenewIT project co-ordinator.

“Traditionally, data centre managers have been reluctant to even consider renewable energy sources as they are generally perceived as expensive and risky,” said Andrew Donoghue of 451 Research (<http://www.451research.com>) and project spokesperson. “We are now making progress with tools that will make it easier for managers to better understand the benefits, and costs, of using on-site and grid-based renewable energy and how they can be integrated with other data centre energy efficiency measures.”

About RenewIT

RenewIT, which began on 1st October 2013, is made up of both commercial and scientific organisations and focuses on five main outcomes:

- An online planning tool to understand the economic, energy and sustainability impact of building a facility that uses on-site or renewable energy from the grid
- Workload management and scheduling to chase cheaper or greener power
- Development and quantification of advanced concepts for renewable energy sources and the efficient use of energy to power datacentres
- Validation of tools and concepts with real data centres
- Development of new metrics and contribution to standards.

The project is led by not-for-profit energy research centre Catalonia Institute for Energy Research (IREC). The other members are 451 Research, Barcelona Supercomputing Center (BSC), Loccioni Group of Italy, Aiguasol energy consulting and modelling specialists, Amsterdam-based sustainable engineering and data centre design specialist Deerns, and Technical University of Chemnitz Professorship in Technical Thermodynamics. The organisations bring a range of expertise to the project including green IT (IREC), renewable energy systems (AIGUASOL) and energy storage (Technical University of Chemnitz), data centre monitoring (Loccioni), workload and application energy management (BSC) and energy efficient data centre design (Deerns).

RenewIT is one of six related energy efficient data centre research projects funded by the EU under its Framework Programme 7 (FP7) initiative. The other projects are DOLFIN, GENiC, GEYSER, GreenDataNet and DC4Cities. The goal of these projects is to develop research and commercial tools to help increase the proportion of renewable energy generated and used by data centres.

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