

WWF, Germanwatch, Vattenfall Europe Transmission and TeneT promote full grid integration of renewable energies

Renewables-Grid-Initiative brings together NGOs and TSOs and announces initial partners

Europe needs a better electricity grid for renewables. It is necessary to:

- Fully integrate localised and decentralised renewable supplies
- Fully integrate large-scale offshore wind and concentrated solar power
- Facilitate the possibility to recover investments in both high voltage DC and AC lines
- Deploy innovative and smart grid technologies to foster energy conservation potentials

Berlin, 03 July 2009

The **Renewables-Grid-Initiative** (RGI) promotes the expansion of distributed and bulk renewable energy generation and transmission capacity in Europe. To reach this target, the initiative brings together non-governmental organisations (NGOs) and transmission system operators (TSOs). For the first time, WWF, Germanwatch, Vattenfall Europe Transmission and TeneT join forces for a common cause.

A large-scale integration of renewable energy sources is deemed necessary to reach the European targets of 20 percent renewable energy by 2020 translating into about 35 percent renewable electricity and to comply further with the 2050 targets of cutting global climate pollution by at least 80 percent. However, a considerable expansion of renewable electricity into the European grid can only be achieved by upgrading and expanding transmission capacity. New strategic interconnections will be required to transport renewable electricity from remote locations to consumption centres. The **Renewables-Grid-Initiative** demands a new mandate for energy regulators to enable the development of a European grid architecture capable of rapidly and efficiently transmitting renewable energies.

Smart grid development is an essential precondition for substantive renewable energy integration for both decentralised renewables and large scale wind and solar power. At a time of serious economic distress and mounting pressure to address the widespread environmental, economic, and geopolitical consequences of our excessive reliance on fossil fuels, the case for sustainable investments in renewable energy generation and the transmission grid has never been stronger.

The representatives of the four initial partners WWF, Germanwatch, Vattenfall Europe Transmission and TeneT signed a **Memorandum of Understanding** during the press conference on 3 July 2009 in Berlin.

The **Renewables-Grid-Initiative** is based on scientific work of Antonella Battaglini, Senior Scientist at the Potsdam Institute for Climate Impact Research (PIK) and European Climate Forum SuperSmart Grid Process Leader. The RGI was launched by Berlin-based think-do-tank THEMA1 in January 2009 and is supported by the European Climate Foundation.

Attached: Background information and statements.

The Memorandum of Understanding and further information available on : www.renewables-grid.eu

Contact: Lucile Barras, THEMA1, +49 30 779 0 779 14, barras@thema1.de, www.renewables-grid.eu



tennet 

VATTENFALL 

GERMANWATCH 



ECF 

European
Climate Foundation 

Thema1 

The Renewables-Grid-Initiative

The **Renewables-Grid-Initiative** promotes the expansion of distributed and bulk renewable energy generation and transmission capacity in Europe. To reach this target, the initiative brings together relevant stakeholders. The Renewables-Grid-Initiative is based on the scientific work of Antonella Battaglini, Potsdam Institute for Climate Impact Research (PIK) Senior Scientist and European Climate Forum Process Leader for SuperSmart Grid. The Renewables-Grid-Initiative was launched by Berlin-based think-do-tank THEMA1 in January 2009 and is supported by the European Climate Foundation.

Antonella Battaglini – Senior Scientist at the Potsdam Institute for Climate Impact Research (PIK) and European Climate Forum SuperSmart Grid Process Leader:

“New thinking and new alliances are required to meet the challenges posed by increasing energy needs and climate change. Thanks to science and technology we have seen years of extraordinary development, but we have also created problems which we urgently need to solve. Our energy system needs to be transformed and become largely based on renewable energy sources. A large consensus across society is necessary for this transformation to take place. NGOs have a key role in representing general public long term interests, in supporting necessary infrastructure expansions and in contributing to the political process to develop clear, long term mechanisms and regulations. The transmission operators have a central role in planning and implementing the future grid architecture in full consideration of the decarbonisation requirements set by the 2050 targets. The Renewables-Grid Initiative sets the ground for speeding up investments in grid infrastructure, to fully integrate renewable energy sources wherever they are produced and whenever they become available, in full recognition of environmental concerns. A clear framework for tailored investments in grid expansion will enable simultaneously large renewable expansion projects, which substantially contribute to the 2020 and 2050 targets, while stimulating the economy.”

European Climate Forum

The European Climate Forum is a platform for joint studies and science-based stakeholder dialogue on climatic change. ECF brings together representatives of different parties concerned with the climate problem. The core activity of the Forum is to define and carry out joint studies; these provide arguments for long-term climate mitigation and adaptation policies ultimately leading toward a sustainable development path. www.european-climate-forum.net

Potsdam Institute for Climate Impact Research (PIK)

PIK addresses crucial scientific questions in the fields of global change, climate impacts and sustainable development. Researchers from the natural and social sciences work together to generate interdisciplinary insights and to provide society with sound information for decision making. The main methodologies are systems and scenarios analysis, modelling, computer simulation, and data integration. www.pik-potsdam.de

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European Climate Foundation

The European Climate Foundation aims to promote climate and energy policies that greatly reduce Europe's greenhouse gas emissions and help Europe play an even stronger international leadership role in mitigating climate change. www.european-climate.eu

Michael Hogan – Director, European Climate Foundation:

"The European Climate Foundation is excited to be associated with this important initiative. The realization of the full potential of renewable electricity, both large and small scale, will be contingent on massive investments in grid infrastructure. Such projects always raise important questions about environmental and social impacts, and they raise important financial challenges to utility shareholders and ratepayers. As such, it is tremendously encouraging to have leading transmission utilities and leading NGOs for the first time cooperating so closely to bring forward needed investment as quickly as prudently possible while ensuring that all stakeholders' interests are adequately addressed."

THEMA1

THEMA1 is an independent Berlin-based think-do-tank specialised in climate protection. THEMA1 launches and implements initiatives and stakeholder dialogues targeted at integrating climate protection in the market economy. Its key goal is a rapid transition towards a low carbon society. Based on scientific work by Antonella Battaglini, THEMA1 launched the Renewables-Grid-Initiative in January 2009. www.thema1.de

Guido Axmann – Initiator RGI / Managing Director, THEMA1:

"The expansion and renewal of the pan-European Grid to fully integrate renewables is an essential precondition for a successful climate protection. Such a fundamental project can only be implemented with the participation and the support of all sectors of society. Dialogue and understanding is key for change, progress and success."

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Initial Partners of the Renewables-Grid-Initiative

Germanwatch

Following the motto "Observing, Analysing, Acting", Germanwatch has been actively promoting North-South equity and the preservation of livelihoods since 1991. In doing so, Germanwatch focuses on the politics and economics of the North with their worldwide consequences. The situation of marginalised people in the South is the starting point of its work. Together with its members and supporters as well as with other actors in civil society, Germanwatch intends to represent a strong lobby for sustainable development. The NGO endeavours to approach its aims by advocating fair trade relations, responsible financial markets, compliance with human rights, and the prevention of dangerous climate change.

Christoph Bals – Political Director, Germanwatch:

"Campaigning for an ambitious Copenhagen Climate Deal is a vital part of our work. We will only reach the necessary reduction of CO₂ emissions by a massive extension of local renewable energies on the one hand and cross-regional renewable energy resources on the other hand. The expansion of the grid is therefore essential. By following such a strategy – combined with remarkable progress in energy efficiency – we can avoid dangerous climate change and keep global average temperature rise below the science based danger threshold of 2°C above pre-industrial times. The fast expansion of grid structure and renewable energies allows us to fight jointly against the climate crisis, the economic crisis and the imminent energy crisis."

TenneT

In its capacity of Transmission System Operator and administrator of the national high-voltage grid, TenneT is in charge of the 'highways' of the Dutch electricity grid, which interconnects all regional grids and the European grid. Besides managing the grid, TenneT also monitors the reliability and continuity of the electricity supply in the Netherlands.

Ben Voorhorst – COO, TenneT:

"Both the European Union and the Dutch Cabinet 's have formulated an ambition of realising a sustainable international energy landscape. This ambitious goal can't be reached without intensive cooperation between many stakeholders. This initiative is a import step in order to help each other to be able to develop and expand the electricity grids to integrate renewables as soon as possible. TenneT as a TSO will make all the necessary preparations to ensure optimum readiness of the electricity grids, for example to connect offshore wind farms, sufficient transport capabilities from large scale production to areas of consumption and to keep a reliable security of supply in the future."

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Vattenfall Europe Transmission

Vattenfall Europe Transmission is a company assuming all its technical and commercial management duties in the framework of the unbundling requirements separating generation, transmission, trade and sales activities within Vattenfall Europe AG.

Wolfgang Neldner – Technical Managing Director, Vattenfall Europe Transmission:

"We are very pleased to be part of this initiative for network extensions and renewable energies. It gives us, a transmission system operator, the opportunity to make, together with our partners, a direct contribution to implementing European Community law, and hence to the ability to reach climate pollution abatement and service security objectives in Germany and Europe. After all, the challenges of climate protection and service security in Europe cannot be resolved by a single player. Prompt network extensions are the only way to preserve our ability to transport every carbon emission-free kilowatt-hour. With regard to network extensions, we are interested in finding solutions that are suitable to both attain the overriding objectives of climate protection and service security and meet local concerns."

WWF International

WWF is one of the world's largest and most experienced independent conservation organizations, with almost 5 million supporters and a global network active in more than 100 countries. WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature, by conserving the world's biological diversity, ensuring that the use of renewable natural resources is sustainable, and promoting the reduction of pollution and wasteful consumption.

Dr. Stephan Singer – Director of Global Energy Policy, WWF:

"Renewable energy electricity mainly from wind, biomass and solar power is abundantly available all over Europe and neighboring regions including North Africa. To make those technologies work efficiently, spread them substantively, allow decentralised and large scale renewables such as off-shore wind work together smoothly and phase out fossil fuels and nuclear by mid century require a much more coordinated cross-border management and sophisticated upgrading of the existing old-fashioned grid infrastructure. If we don't get the grids 'right', we won't be able to meet ambitious climate targets such as staying below 2 degree requiring a zero-emitting Europe by mid century."

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First comments about the Renewables-Grid-Initiative

Ged Davis – Co-President, Global Energy Assessment, IIASA

"The rapid development of a Super and Smart Grid is essential if Europe is to meet its ambitious targets for renewables."

IIASA The International Institute for Applied Systems Analysis is an international research organization.

Daniel Dobbeni – President, ENTSO-E

"This initiative together with the EWIS study and other major EU R&D projects confirms the strong involvement of TSOs in achieving the ambitious environmental targets set up by the Member States for 2020 and later; NGO's and TSO's share the same concerns with respect, among other things, to the need for R&D studies focused on the integration of massive renewable energy sources in existing power systems, improved energy efficiency and shorter authorization procedures for new transmission infrastructure (as these assets are a prerequisite for the successful deployment in due time of more than 33% of renewable energy sources all over Europe). Climate change and sustainable development require a strong cooperation between all stakeholders and I am confident that NGO's and TSO's working together will be a major step in this direction."

ENTSO-E is the European Network of Transmission System Operators for Electricity with 42 TSOs from 34 countries

Prof. Dr. Peter Hoeppe – Head Geo Risks Research / Corporate Climate Centre, Munich Re

"We see the realization of the Renewables-Grid-Initiative as a necessary precondition to reach our desertec goals."

Claude Turmes – Vice-President of the Greens in the European Parliament and Rapporteur of the 2009 Renewables Energy Directive

"In December 2008, 27 EU governments and the European Parliament have through the new binding EU renewables energy directive decided to put green electricity sources at the very heart of the future EU electricity system; green electricity will grow between 2010 and 2020 from 15% to 35% of the total electricity demand in the EU and pave the way for a future close to 100% renewable energy sources electricity system in Europe. This effort will be achieved by investments in millions of decentralised renewables devices and by hundreds of large scale developments like on- and off-shore wind. The integration of these large new power capacities into the North-West European grid system is a key obligation in the future work of Transmission System Operators. I welcome the initiative to create a discussion platform between all stakeholders in society to develop a common understanding of the challenges and opportunities ahead."

Prof. Dr. Hans Joachim Schellnhuber CBE – Director, Potsdam Institute for Climate Impact Research

"If we are to avert at least the most dangerous impacts of climate change, then emissions of greenhouse gases in Europe will have to be decreased by 80% by the year 2050. This can only be achieved if we manage to extensively transform our present energy infrastructures. This is why I welcome the Renewables-Grid-Initiative."

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