

Side Event

Showcasing Innovative Austrian Clean Energy Technologies

Timing and Venue

Wednesday, 10 May 2017, 14:00 – 15:30

Room C5, Vienna International Centre

Background

The transformation of the global energy system requires widespread innovation at several levels, including innovative business models and financing, social and technology innovation as well as appropriate policies. However, holistic solutions are needed that do not see technological innovation in isolation. In many countries, suitable clean energy innovations exist, but have not obtained market-wide penetration due to a lack of regulatory frameworks and funding to scale them up. In order to enable a full transition to clean energy in developing countries, multiple actors have to be involved to provide effective and sustainable solutions. Long-term partnerships, which take local conditions into consideration and enable cooperation between policymakers, citizens and members from the industry, academia and research, will play an increasingly important role in the future. There is an urgent need to combine different knowledge to deliver affordable and clean energy services that suit local demands.

The Global Forum on Sustainable Energy-ADVANTAGE AUSTRIA Side Event brought together different stakeholders including representatives from the private sector and international organisations, to discuss clean energy solutions for the developing world. The event showcased examples of innovative technologies from Austria that could be deployed in developing countries, while also emphasizing the importance of effective partnerships to strengthen local energy systems. After initial impulse statements, participants exchanged experiences and discussed framework conditions for comprehensive solutions to enabling a transition towards sustainable energy in developing countries. This Side Event contributed to Panel VIII “Innovation for Appropriate and Sustainable Solutions”.

Key Questions

Which political, regulatory, legal and economic framework conditions lead to successful diffusion of clean energy technologies? What are the challenges that developing countries face in introducing clean energy technologies into the local markets? How can Austrian companies with their diverse technological expertise contribute to sustainable energy in developing countries? How can partnerships between the private sector and local/regional organisations strengthen existing energy systems?

Key Messages

- Lack of quality and robustness of energy-efficient products or renewable energy technologies can have serious repercussions, since lower income segments of the populations cannot afford expensive repairs or the purchase of replacement products. In order to sustainably deploy

energy efficiency and renewable energy technologies, technologies have to be both durable and appropriate to local conditions; furthermore, it is necessary to develop the local value chain, by creating jobs and attracting private investments. The local workforce must be trained and educated to build, assemble, install, repair and maintain these technologies.

- The private sector has a key role and the combination of innovative business models and technology advances is already enabling a market-based clean energy transition in developing countries. Appropriate policy frameworks and support instruments are needed to enhance private sector engagement in low-income markets.
- Match-marking networks, like the Climate Technology Centre & Network (CTCN), can help bring together financiers, private sector actors, and policymakers to find the most appropriate solutions for the challenges at hand.
- Some renewable energy technologies such as large-scale solar thermal solutions require substantial up-front capital investments, but have low-operating costs and can lead to substantial costs savings in the long term. Innovative financial instruments are necessary to finance the high capital costs. In addition, awareness-raising among financial institutions that are unfamiliar with renewable energy technologies is necessary to avoid high lending rates. Climate financing instruments can support the mobilisation of the required upfront investments and help making access to affordable capital for renewable energy and energy technologies easier.
- Innovative financing structures are necessary for renewable energy technologies. It is necessary to overcome barriers such as the lack of equity financing and lack of long-term financing. There is also a need to implement risk mitigation instruments against project risks such as unstable regulatory frameworks, uncertainties about resource availability, operational risks and currency, legal or political risks, among others. In addition, conditions to stimulate the involvement of private investors must be created. In doing so, it is necessary to facilitate interactions between project developers, investors, policy makers and service and technology providers.
- Energy efficiency and renewable energy technologies can already provide cost-effective energy services in a number of markets. Through innovation, the costs of the technologies have been reduced substantially in the past years. However, some technologies have initially high capital costs and low-income households may not be able to afford them. Therefore, innovative, affordable financing schemes (ex. pay-as-you-go) are required to enable low-income people to purchase energy efficient products and/or renewable energy services.
- Building up trust and confidence between involved stakeholders is a key factor in various contexts and takes time to develop. A relationship of mutual trust is a precondition for entrepreneurial activities related to energy efficiency and renewable energy services, for making use of a product or service and for developing innovative solutions further. Increased knowledge enhancement on the local and national levels in developing countries is needed. Awareness-raising about innovative renewable energy technologies is part of the trust building process and contributes to convince stakeholders about their potential and the services they can offer.

- Greater emphasis has to be placed on engaging consumers in developing and emerging markets in order to improve product design, educating consumers on the benefits of innovative and sustainable products and thereby raising consumer acceptance. Without consumer acceptance of new innovative products, deployment and long-term diffusion of these products will not be guaranteed.
- Austrian actors offer a number of innovative renewable energy and energy efficiency technologies: for instance, solar thermal technologies for large-scale heating & cooling and industrial process heat applications, solar thermal collectors made of sustainable plastic materials that offer comparative advantages and modular, container-based electricity storage systems that can support micro-grid solutions.

Moderator

Ms. Cornelia Schenk, Advisor Sustainable Energy, Austrian Development Agency (ADA)

Panelists

Mr. Federico Villatico-Campbell, Climate Technology Manager, Climate Technology Centre & Network (CTCN)

Mr. Robert Soell, Head of Project Development, SOLID - solarinstallation+Design

Mr. Andreas Feichtinger, Area Sales Manager EMEA, Gildemeister Energy Solutions

Mr. Manfred Stockmayer, Carbon Asset Manager, Likano Climate Protection Projects

Mr. Robert Buchinger, CEO, Sunlumo Technology

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Organizers

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ADVANTAGE AUSTRIA

Austrian Development Agency (ADA)

Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management (BMLFUW)