




GFSE

GLOBAL FORUM on
SUSTAINABLE ENERGY

ACTIVITY REPORT

July 2012 - July 2014





Foreword by the GFSE President

Some 15 years after its launching in 1999, the Global Forum on Sustainable Energy can look back on a proud record. Through 8 global and several regional conferences GFSE has established itself as a truly global platform, yet one with a human face – because of the frequent interactions of members of the network with each other.

GFSE has successfully prepared the ground for the Vienna Energy Forum which has been organized, on a bi-annual basis, since 2009, as a collaboration between the Austrian Foreign Ministry, UNIDO and IIASA. It promotes awareness about and supports Sustainable Energy for All (SE4All) in all possible ways as its Global Facilitation Team takes root in Austria and from there animates activities across the globe.

Building on its achievements so far, GFSE is poised to work ever more closely with all interested Austrian stake-holders so that they can benefit more fully of the sustainable energy networks reaching especially into the African continent, but also into countries like Mongolia, Bhutan or Nepal.

We invite you to visit our web-site (www.gfse.at), become an active supporter of Sustainable Energy for All (www.se4all.org), welcome feedback to make GFSE ever more useful and look forward to hearing back from you!

Ambassador Irene Giner-Reichl



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The Global Forum on Sustainable Energy (GFSE) is a neutral multi-stakeholder platform facilitating international dialogue on energy for sustainable development by taking into accounts the special interests and challenges of developing countries. GFSE aims at the establishment of a sustainable world energy system from a social, economic and environmental perspective.

GFSE contributes to both international discourse and information dissemination on sustainable energy. The multi-stakeholder platform plays a crucial role in facilitating sustainable energy projects by bringing together donors, investors and project developers. Their interaction creates new opportunities and enhances existing initiatives in the field of sustainable energy.

GFSE operates at the intersection of international energy discourse and diplomacy. Conferences and regional fora or workshops are the visible peak of the GFSE activities. GFSE activities can be grouped into three categories – networking, dissemination of information and facilitation of project initiatives.

1. GFSE is a networking agent

The Global Forum on Sustainable Energy interacts and networks with other energy initiatives and organizations in the energy field and thereby enhances synergies and complementarities. GFSE has been playing an active role in bringing together several energy-related initiatives, launched at the World Summit on Sustainable Development in 2002 in Johannesburg. GFSE works as an information provider and networking agent for multitude of stakeholders, including the Sustainable Energy for All initiative (SE4ALL) of the United Nations.

2. GFSE informs on sustainable energy

GFSE prepares and initiates events devoted to the promotion and dissemination of energy technologies in the renewable energy and energy efficiency fields in the context of sustainable development, and to showcasing and discussing inclusive solutions for the transition towards a sustainable energy system.

3. GFSE facilitates project initiatives

GFSE fosters partnerships and facilitates energy for sustainable development initiatives. It supports private-public partnerships by presenting opportunities and identifying investment and partnership possibilities.

History of GFSE Activities

The Global Forum on Sustainable Energy has engaged in numerous activities since its establishment in 1999.

The first Meeting of GFSE on “Rural Energy- Priorities for Action, in December 2000 in Laxenburg, Austria, concluded with a strong plea for the central role of energy policy as a means to eradicate poverty and achieve the development targets agreed on a global scale.

The second GFSE Meeting, focusing on “Energy Technologies – Cooperation for Rural Development” (November 2001, Laxenburg, Austria) looked at different ways to facilitate and finance rural energy development technology transfer. Regional breakout sessions for African and Asian regions enabled networking and better understanding of the particular challenges in these regions. The conclusions of GFSE-2 informed the energy considerations of the World Summit on Sustainable Development in Johannesburg 2002.

The third GFSE Meeting was dedicated to the potential role of “Public Private Partnerships for Rural Energy Development” (November 2002, Graz, Austria). Held shortly after the World Summit for Sustainable Development (WSSD) in Johannesburg, the meeting assessed the results of the energy related WSSD discourse and identified ways for forwarding the agenda of energy for sustainable development in the post-WSSD context.

In 2004, several meetings were held next to the fourth GFSE Meeting on “Energy for Sustainable Development – Reconsidering the Role of Incentive Measures”.

The GFSE-4 Meeting put particular emphasis on renewable energy in order to provide input to the “Renewables 2004” conference, hosted by Germany in June 2004. Back to back with the GFSE-4, a joint Meeting of Energy Initiatives established within the framework of WSSD Type II Partnerships was held in order to give impetus for the implementation of these initiatives. In November 2004, the first Regional GFSE Meeting was held in Paro, Bhutan, concentrating on “Access to Rural Energy for Sustainable Development and Policies for Rural Areas”. The regional meeting was organised for member countries of the International Centre for Integrated Mountain Development (ICIMOD) and aimed to increase awareness on rural energy supply for sustainable development as part of the Millennium Development Goals (MDGs) among the countries of the Himalaya-Hindukush Region and donor countries.

The fifth GFSE Meeting in May 2005, in Vienna, Austria, explored possibilities for “Enhancing International Cooperation on Biomass” with special emphasis on building the needed institutional capacity to promote South-South cooperation.

In response to the many initiatives originating both from within the African continent and from the donor community, the 6th Meeting of GFSE “Africa is energizing itself” focused solely on Africa. It brought together representatives of the various regional and thematic approaches with financial engineers and identified ways and means of supporting African aspirations at the 15th Session of the Commission on Sustainable Development (CSD) in May 2007 in New York.

In 2007, two regional GFSE meetings were organised jointly by GFSE, the Energy and Environment Partnership with Central America and other partners. The first meeting in Guatemala City focused on “Financial Opportunities for Renewable Energy and Environmental Projects in Central America”, whereas the second meeting targeted “Renewable Energies in the Sugar Industry in Central America” (Ciudad de Belize). The 7th Meeting of GFSE addressed “Energy Efficiency for Developing Countries”. It showcased experiences, policies and tools on a global scale – including the EU’s initiative to partner with developing countries – and new modalities of financing energy efficiency measures.

GFSE activities in 2008 were as well determined by a number of regional meetings. The first Regional GFSE Meeting in April 2008 in Costa Rica, focused on “Renewable Energy from Farming Residues and Solid Wastes in Central America”. As a follow-up up to the 2007 meeting on „Energy Efficiency for Developing Countries“, the Austrian Development Cooperation together with the German Technical Cooperation and GFSE facilitated the 1st Caribbean Sustainable Energy Forum (CSEF) in Grenada in June. The CSEF meeting focused on energy efficiency, renewable energy and energy security for Small Island Developing States. The third regional GFSE forum 2008 dealt with “Bioenergy, Forest Resources and Energy Efficiency in Central America”, in San Pedro Sula, Honduras.

In 2009, the Global Forum on Sustainable Energy celebrated its 10th anniversary in the context of the energy conference “Towards an Integrated Energy Agenda Beyond 2020: Securing Sustainable Policies and Investments” in Vienna, Austria. Next to this, GFSE held a workshop on “Solar Thermal Applications in Central America” in the context of the Regional Forum on Rural Electrification with Renewable Energy in Isolated Places in Central America, in Managua, Nicaragua.

The 9th GFSE Meeting in Vienna, Austria, on “Energy between Danube and Caucasus” enabled dialogue on identifying potentials and addressing barriers for energy efficiency and renewable energy in these regions, examining policy and institutional frameworks as well as financial mechanisms, and examining experiences and best practice approaches.

On 16th of May 2012, GFSE organised the workshop “The contribution of Hydro Power to a Sustainable Energy Future” The workshop brought together national stakeholders, international experts and economic actors in the field of hydropower. The potential contribution of hydropower to climate change mitigation and electrification in developing countries was highlighted. Attention was given to best practice examples on implemented projects and to the socio-economic impact of hydropower on regional development.

ECOWAS-GFSE-GEF-UNIDO High Level Energy Forum 2012, Accra, Ghana

In October 2012, the High Level Energy Forum on “Paving the Way for Sustainable Energy for All in West Africa through Renewable Energy and Energy Efficiency” was jointly organised by the ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE)¹, the Global Forum for Sustainable Energy (GSFE), the Global Environmental Facility (GEF), the United Nations Industrial Development Organization (UNIDO) and the government of Ghana.



Source: IISD

The High Level Energy Forum aimed at the following objectives:

- Launch the UN Sustainable Energy For All Initiative (SE4ALL) in the ECOWAS region and establish an implementation framework for the ECOWAS region;
- Adopt the ECOWAS Renewable Energy Policy (EREP) and its corresponding Action Plan by the ECOWAS Energy Ministers;
- Adopt the ECOWAS Energy Efficiency Policy (EEEP) and its corresponding Action Plan by the ECOWAS Energy Ministers;
- Adopt the ECOWAS Small Scale Hydro Power Program;
- Present the ECOWAS energy efficiency initiatives on standards and labelling, lighting, electricity distribution, financing and efficient cooking;
- Report on the progress of the GEF-UNIDO Strategic Program for West Africa (SPWA);
- Launch the ECOWAS Observatory for Renewable Energy and Energy Efficiency (ECOWREX)²;

¹ The ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE) was established in 2009, with support from UNIDO, the Austrian Development Cooperation and the government of Cape Verde, where ECREEE has its seat and took up its operative business in 2010. In 2010 the Spanish Agency for International Development Cooperation (AECID) became a partner of ECREEE. The main tasks of ECREEE comprise: development of favourable framework conditions for renewable energy and energy efficiency as well as overcoming existing technical, economic, legal and other barriers.

² See <http://www.ecreee.org/page/observatory-renewable-energy-and-energy-efficiency-ecowrex>

In the framework of the High Level Forum, the Energy Ministers of the 15 ECOWAS member states enacted the ECOWAS Energy Efficiency Policy (EEEP) and the ECOWAS Renewable Energy Policy (EREP)³. The ECOWAS region, which is one of the target regions of the Austrian Development Cooperation, thereby contributes significantly to the SE4ALL Initiative, as it sets measures for improving access to energy, for enhancing the share of renewable energy sources and for implementing energy efficiency measures.



Figure 1: ECOWAS Member States

Source: Wikipedia

The diagrams below provide an indication of the pressing energy needs in the ECOWAS region. Many ECOWAS member states still heavily rely on traditional biomass to cover their energy needs, specifically related to cooking. Moreover, access to electricity must be substantially improved. Renewable energy sources and energy efficiency can play a key role in addressing these energy needs, improving living conditions and supporting economic development in West Africa, while safeguarding sustainability.

³ ECOWAS Member States are Benin, Burkina Faso, Cote d'Ivoire, The Gambia, Ghana, Guinea, Guinea-Bissau, Cape Verde, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo

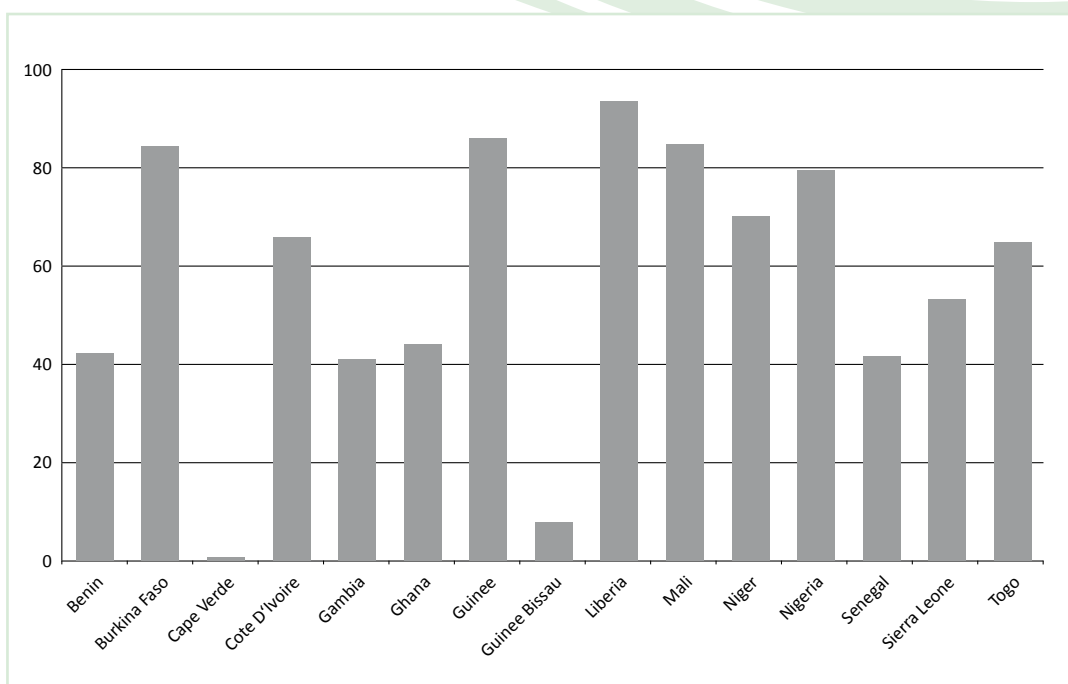


Figure 2: Share of traditional biomass in final energy consumption in 2010 (%) in West Africa.
Source: SE4ALL Global Tracking Framework

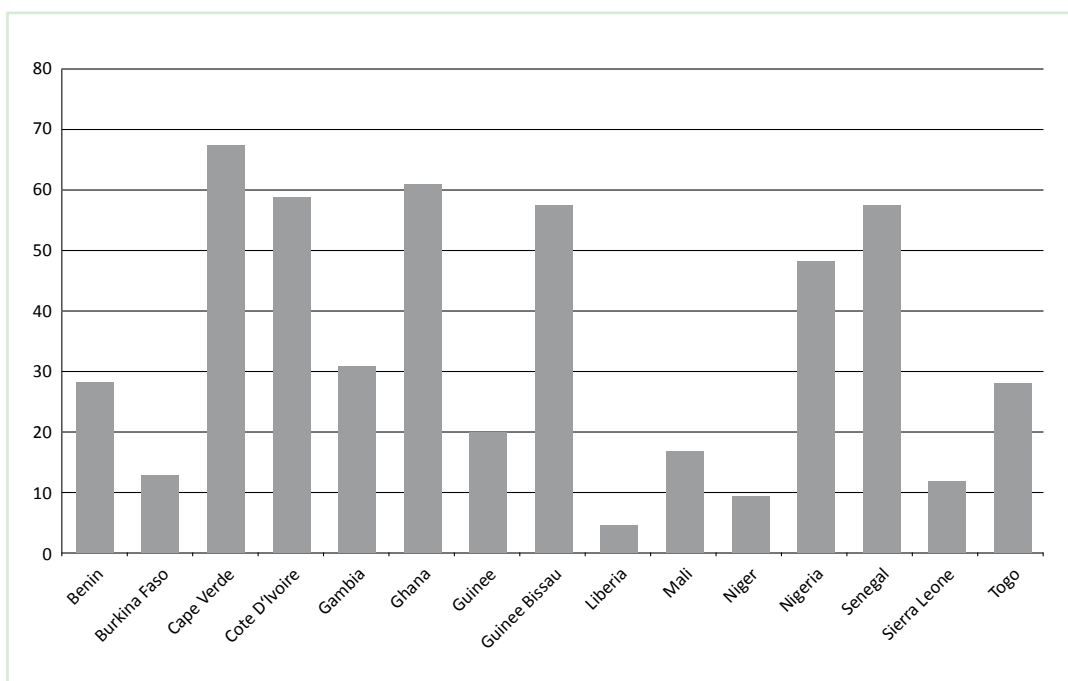


Figure 3: Share of population with access to electricity (%) in West Africa in 2010.
Source: SE4ALL Global Tracking Framework

In order to spur the implementation of the EREP and the EEEP, ECREEE seeks to cooperate with and to leverage financing of other organisations for its projects and programmes.

Five Flagship Initiatives were developed and officially launched at the Forum in Accra to implement the ECOWAS Energy Efficiency Policy. These include:

- Efficient Lighting
- High Performance Distribution of Electricity
- Safe, Sustainable and Affordable Cooking
(West African Clean Cooking Alliance, WACCA)
- Standards and Labelling
- Financing Sustainable Energy

The initiatives are managed by ECREEE, each of them being elaborated and implemented with different partners.



Source: ECREEE

At the High Level Energy Forum, the building sector was as well identified as being crucial for improving energy efficiency by the ECOWAS member states. Consequently, ECREEE started to cooperate with several partners (inter alia the Austrian Energy Agency, ADEME and the European Copper Institute) on the development of an initiative for energy efficient buildings for the ECOWAS member states.

All flagship energy efficiency initiatives comprise activities in the following fields of action:

- Energy policy measures
- Capacity building
- Awareness raising
- Financial instruments

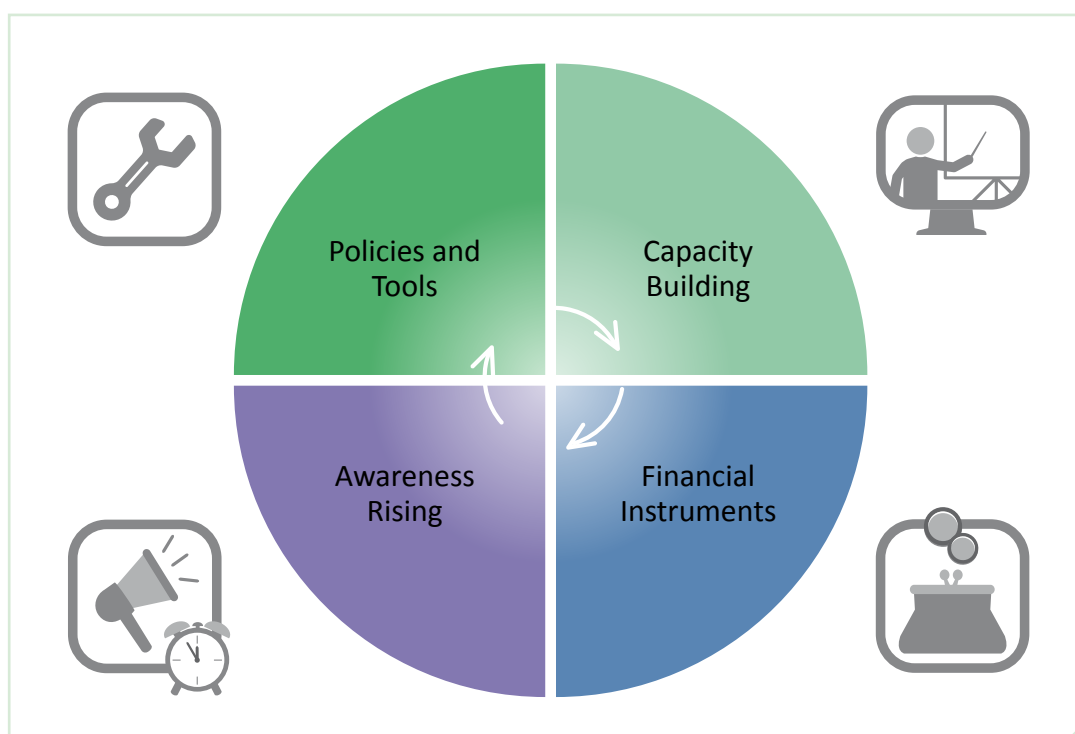


Figure 4: Four main components of ECOWAS energy efficiency initiatives

Following the adoption of the EREP and the EEEP, ECREEE initiated the process of facilitating and monitoring their implementation at the national level. As part of the ECOWAS Renewable Energy Policy, National Renewable Energy Action Plans (NREAPs) are being developed, which form the basis for the achievement of the renewable energy targets of the ECOWAS member states. Complementarily, as part of the ECOWAS Energy Efficiency Policy, National Energy Efficiency Action Plans (NEEAPs) are being developed. In addition, ECREEE is supporting the development of SE4ALL country action agendas and investment prospectuses.

Furthermore, ECREEE initiated financing mechanisms for investment projects in the renewables sector, such as the ECOWAS Renewable Energy Facility (EREF) for small installations, or the ECOWAS Renewable Energy Initiative (EREI) for bigger installations. These instruments aim to facilitate financing for the development of promising projects.



Source: GFSE

Austrian Side Event at the High Level Forum in Accra: A showcase of Renewable Energy and Energy Efficiency – Made in Austria!

At the High Level Energy Forum in Accra, GFSE organised a semi-diurnal Side-Event “A showcase of Renewable Energy and Energy Efficiency – Made in Austria!” on 30th October 2012.

In the areas of renewable energy sources and energy efficiency, Austrian companies and institutions have a number of capabilities to offer: extensive technological know-how (e.g. on hydropower, wind power, solar thermal and PV, biomass, biogas, energy efficient buildings and construction materials, silvicultural practice and waste management) as well as numerous accompanying services (planning, support to project development and implementation, design of framework conditions in terms of energy policy, training/capacity building, or networking).



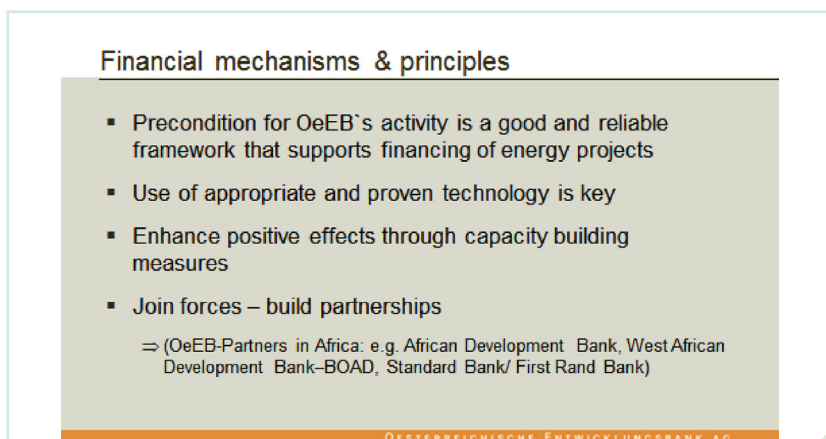
Source: GFSE

The Side Event presented the Austrian expertise and engagement in energy for sustainable development. Best practice examples for technology solutions, know-how and support instruments, such as the “Business Partnerships” programme of the Austrian Development Cooperation were presented. The programme provides support to Austrian entrepreneurs regarding project planning and implementation in developing countries. The Side Event further introduced project examples with the aim to train local energy experts, to implement demonstration projects and to create awareness for sustainable energy supply and consumption.



Source: Zeiner, R., (2012). Renewable Energy and Energy Efficiency: Business Partnerships as Instrument. Presentation by the Austrian Development Agency (ADA). Accra, October, 2012.

In a next step, available financial instruments of the Austrian Development Bank (OeEB) were introduced. Financing of private sector investments in renewable energy and energy efficiency is one of the typical focus areas of OeEB, which can grant credits at close-to-usual market terms, provide capital and support project related programmes, which strengthens the developmental impact of the projects. The portfolio of OeEB attracted particular attention of West-African stakeholders.



Source: Hagmann, A., (2012). The Financial Mechanisms and Principles of Cooperation of the Austrian Development Bank (OeEB). Presentation by the Austrian Development Agency (ADA). Accra, October, 2012.

Vienna Energy Forum 2013: Side Event Sustainable Energy Solutions for All: Made in Austria

The third Vienna Energy Forum (VEF 2013) was organised at the end of May 2013 in a cooperation between UNIDO, IIASA and the Austrian Federal Ministry for European and International Affairs. The main topics of the Vienna Energy Forum encompassed “The Global Energy Transition through Sustainable Energy for ALL” as well as the question “How shall energy be enshrined in the new global development paradigm as of 2015?”

The Sustainable Energy for All Initiative (SE4ALL, www.se4all.org), launched by UN Secretary General Ban Ki-Moon in 2011, aims to achieve the following targets by 2030⁴:

- Ensure universal access to modern energy solutions: sustainable electricity and efficient cooking solutions
- Doubling the global rate of improvement in energy efficiency
- Doubling the share of renewable energy in the global energy mix

Upon invitation of the Austrian government, the global SE4ALL initiative has the headquarters of its Global Facilitation Team (GFT) in Vienna.

More than 80 countries have avowed themselves to SE4ALL so far, among others all 15 ECOWAS member states. The SE4ALL initiative is supported , among others, by the World Bank, the European Commission, several relevant international organizations such as IRENA, the African Development Bank (AfDB), UNEP, the Interamerican Development Bank (IDB) and the Asian Development Bank (ADB) and numerous large enterprises.

Discussions on how energy shall be anchored in the new global development paradigm which is to lead international cooperation from 2015 on, started with the Rio+20 Conference in June 2012⁵. For the time being, there seems to be consensus to introduce an energy target into the new catalogue of Sustainable Development Goals (SDG), which will replace the Millennium Development Goals. Suggestions point towards a general target like “Sustainable Energy for ALL”, which can be further concretised through several subtargets (e.g. on the basis of the SE4ALL Initiative:

⁴ Roughly 1.4 billion people across the globe live without access to electricity, and about 2.4 billion people depend on solid fuels (traditional biomass) for cooking

⁵ Through electronic platforms such as www.worldwewant2015.org, and other initiatives

access to energy, energy efficiency and renewable energy). Further discussions centre around linking the monitoring of target achievement (by means of indicators) with other relevant areas, such as water and food security, health and climate change.

The well attended Vienna Energy Forum 2013, which was inaugurated by Vice Chancellor Spindelegger, UNIDO Director General Yumkella and IIASA Director General Kabat, targeted these and further questions. Presentations of and discussions with renowned representatives of international organisations (such as the Directors General of the International Energy Agency, Maria van der Hoeven, and the International Renewable Energy Agency, Adnan Amin, the vice president for sustainable development of the World Bank Rachel Kyte), the private sector as well as governmental representatives and stakeholders from civil society and academia, rendered the conference an important forum for dialogue on the highest scientific and political level.



Source: GFSE

The Global Forum on Sustainable Energy supported the VEF 2013 by organising the half-day Side Event „Sustainable Energy Solutions for All: Made in Austria“, on Wednesday, 29th of May 2013.

The side event presented the Austrian expertise and engagement in energy for sustainable development. Examples of technologies, know-how and support instruments in the fields of renewable energy and energy efficiency were given, illustrating the contribution that Austria can make to the achievement of SE4ALL objectives.

The event also highlighted the substantial opportunities available in developing countries for actors that decide to engage in the SE4ALL process. In this context,

West Africa and the activities of the ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE) were presented as a prominent example. ECREEE is acting as the regional focal point for SE4ALL in West Africa and has been successfully working to create an enabling regional environment for scaling-up renewable energy and energy efficiency investments and markets. Mr. Mahama Kappiah, executive director of ECREEE, emphasized the significant potential for energy efficiency and renewable energy in West Africa. In this respect, the energy efficiency and renewable energy targets agreed upon by ECOWAS member states are a significant step towards tapping these potentials. Mr. Kappiah also outlined the main components of ECREEE strategy, namely capacity building, knowledge management, business promotion and policy support. Further to this, Mr. Kappiah highlighted a number of ongoing programmes and projects at ECREEE, such as the ECOWAS small-scale hydro power programme, the bioenergy programme, the project “supporting energy efficiency for access in West Africa (SEEA-WA)” and the West African Clean Cooking Alliance (WACCA), among others.

As part of the business promotion component of its strategy, ECREEE has established the ECOWAS renewable energy business and investment initiative. The initiative aims at establishing a strong network of investment stakeholders in the region who meet annually, under the umbrella of ECOWAS governments, through its specialized agency ECREEE, to address the main issues related to RES investment in West Africa and propose solutions.

In addition, future opportunities for cooperation between Austrian actors in the energy and development cooperation fields and actors in developing countries were explored. Successful and sustainable energy solutions comprise inter alia appropriate technologies, targeted strategies, the sustainable involvement of local and regional actors, strengthening of existing institutions, solid business models and sufficient financial support. In this regard, the Side Event presented the potential of Austrian stakeholders to play a substantial part in the build up and connection of these areas.

GFSE, on its part, proved its catalytic role in bringing together relevant national and international actors and in presenting concrete possibilities for stakeholder engagement within the SE4ALL Initiative.

Sustainable Energy for All: Opportunities for Austrian NGOs

On 5th September 2013, the Global Forum on Sustainable Energy organised the event „The Sustainable Energy for All (SE4ALL) Initiative: Opportunities for Austrian NGOs“ as part of its activities to support the SE4ALL initiative. In line with the approach of the SE4ALL initiative, the stakeholder event aimed at fostering the involvement of civil society representatives in making universal access to sustainable energy a reality.



Secretary General Ban-Ki Moon identifies civil society as the “third pillar” to deliver SE4ALL, alongside business and government⁶. In this context, Susan McDade, country action team leader of the SE4ALL Global Facilitation Team (GFT) in Vienna, gave an overview on the current status of the initiative, its governance structure and next steps. A high-level Advisory Board co-chaired by UN Secretary-General Ban-Ki Moon and World Bank Group President Jim Yong Kim has been set up, and national, regional and global governance structures are currently being put in place. After opting-in, countries undertake a stock-taking and gap analysis in a first place, then develop national action agendas and Investment prospectuses for priority actions. Thereafter, implementation of activities and their monitoring can commence. The GFT aims, among others, at establishing a global network for sustainable energy and at improving information exchange among stakeholders such that synergies can be exploited and duplication of efforts avoided. The SE4ALL initiative has also tasked a group of NGOs, led by Practical Action, to develop a “Civil Society Roadmap”, which shall help shape civil society engagement at the international and national level⁷.

⁶ Garside, B, sustainable energy delivery models that target the poorest, Seminar for the UCL Energy Institute, 23 October 2012, IIED

⁷ Garside, B., 2012

Participants at the event discussed possibilities for an active engagement of NGOs in the SE4ALL initiative. The key role civil society can play in bringing SE4ALL to concrete results and keeping it close to the needs of the people, was strongly emphasized. NGOs can be a decisive factor in advancing policy reform and monitoring the performance of implementation. Some non-governmental organisations are very experienced in implementing concrete projects in the areas of energy access, energy efficiency and renewable energy. Capacity building and training measures are often core competencies of NGOs, and they contribute to the development, demonstration and dissemination of community-based business models. In doing so, civil society organisations can support the development of local value chains involving the local work force, and the sustainability of energy-related projects in the long run. This can also help the SE4ALL initiative scale up existing solutions and rely on hands-on experience.



Source: AEE INTEC

One potential role for NGOs would be to demonstrate the viability of business models and specific technologies and to document and disseminate the lessons learned and good practice examples, thereby reducing the risk for subsequent private sector investment in low-income segments⁸.

Non-governmental organisations can especially contribute to the global SE4ALL initiative in the following areas:

- Identification of suitable measures in energy policy and political engagement to ensure their implementation;
- Building up of networks and dissemination of best practice examples;
- Monitoring and evaluation of programmes and measures;

⁸ Interview with Andrew Barnet, The Policy Practice, April 2012, www.hedon.info/IIED+SE4All+Interview_ThePolicyPractice+ABarnet?bl=y

- Development and implementation of community-based business models, in order to demonstrate their viability, document and disseminate lessons learned;
- Support actions for the provision of sustainable energy to community services such as health clinics and hospitals, schools and training centers;
- Provision of financing through donations;
- Training and qualification of human workforce;
- Awareness raising;
- Support the implementation of gender and energy actions, facilitating women's access to sustainable energy as well as their economic empowerment through business development in the energy sector.⁹ In this context, NGOs can promote the participation of women in the planning and execution of energy policies and projects;
- Cross-cutting subjects like the water-energy-food nexus;
- Support to the creation and extension of financial instruments for decentralised sustainable energy solutions, in order to reach low-income communities;

Given the magnitude of the SE4ALL challenge, scaling-up and replication of sustainable energy solutions as well as the creation and expansion of markets for sustainable energy technologies are crucial aspects for its success. The experience of all relevant stakeholders as well as innovative solutions involving all possible players are greatly needed for delivering sustainable energy services to all.

⁹ See e.g. UNIDO and UN-WOMEN, 2012: Sustainable Energy for All: The gender dimensions. United Nations Industrial Development Organisation and United Nations Organisation for Gender Equality and the Empowerment of Women. Vienna, Austria.

SE4ALL - Sustainable Energy in Emerging Markets: Opportunities for private sector engagement

How SE4ALL, development finance and other initiatives address the growing energy demand in emerging markets

Emerging and developing countries may represent rather attractive markets for private companies, despite a number of existing challenges and barriers. Taking into account their expected economic growth, rapidly rising energy demand and key role regarding environmental and climate protection, these countries have a key role in achieving sustainable development goals.

On the other hand, the perception that poor people do not appear to constitute an attractive market, might constitute a barrier to enterprises, and private sector initiatives targeting the poor are quite often scaled up to more profitable markets. Nonetheless, this perception is not strictly correct. Low-income segments of the population can still constitute a profitable market. They spend significant shares of their income on energy technologies and fuels today, thus demonstrating that there is no lack of demand. The per-customer amounts are small but together they account for a sizeable market. Thus, the people at the bottom of the income pyramid represent a growing potential market for clean, affordable and reliable energy solutions. A market approach can represent a viable option to cover their energy needs in many countries ^{10,11}.

The SE4ALL initiative tries to mobilize action to ensure universal access to modern energy services, doubling the global rate of improvement in energy efficiency and doubling the share of renewable energy in the global energy mix across all relevant stakeholders and on a global scale. The Secretary General's Special Representative for SE4ALL and Chief Executive of the SE4ALL Initiative, Kandeh Yumkella recently called on the private sector to take the opportunity to innovate and invest in order to help achieve the three objectives of the SE4ALL Initiative. In his words, "the speed and scale of interventions we need to transform our current energy system and ensure shared prosperity lie in the private sector."¹²

On 20th March, 2014, the Global Forum on Sustainable Energy (GFSE), in cooperation with the Federal Ministry of Agriculture, Forestry, Environment and Water

¹⁰ Interview with Andrew Barnet, The Policy Practice, on Role of Business in the Sustainable Energy for All UN Initiative, April 2012, http://www.hedon.info/IIED+SE4ALL+Interview_ThePolicyPractice+ABarnet?bl=y

¹¹ Gradl, C., Knobloch, C., 2011: Energize the BoP: Energy Business Model Generator for low-income Markets. A practitioner's guide. ENDEVA. Enterprise Solutions for Development. June, 2011. http://www.energize-thebop.net/fileadmin/energize-the-bop/Endeva_Energize_the_BoP_Energy_Business_Model_Generator_2011.pdf

¹² <http://www.se4all.org/2014/04/09/un-decade-sustainable-energy-launched-business-community-private-sector-engagement-seen-crucial-meet-objectives/>

Management and the Austrian Economic Chamber, jointly organized a forum on “Sustainable Energy in Emerging Markets: Opportunities for private sector engagement - How SE4ALL, development finance and other initiatives address the growing energy demand in emerging markets”.

The event brought together stakeholders from international institutions, national public institutions, academia and the private sector in order to discuss latest developments within the global Sustainable Energy for All initiative, potentials for private sector engagement, available support instruments and successful project examples.



Source: GFSE

Susan McDade, Country Action Team Leader of the Global Facilitation Team, held an inspiring presentation on the SE4ALL initiative, country level actions and focus countries in 2014. SE4ALL Action Agendas and Investment Prospectuses, which might serve as an important means of information for the private sector, are currently being developed. Ms. McDade further highlighted the broad range of potential stakeholder engagement in emerging economies and developing countries, showing the need for both top-down and bottom-up solutions for achieving the SE4ALL targets. She further stressed the need for a significant increase of capital flows to the energy sector, in order to meet the SE4ALL objectives. This increase seems achievable provided that the policy environment for private investments in the energy sector can be improved, bridges between mainstream investors and sustainable energy project developers in emerging and developing countries are built and meaningful ways to aggregate small-scale projects in order to meet minimum financing thresholds are found, among other actions.

Stephan Sharma, representative of the World Energy Council Austria, presented the outcomes of the World Energy Congress 2013 in Daegu and some results from the Trilemma Report, revealing some caveats and issues to address if the world is to embark on a more sustainable, renewable development path.

The UN Global Compact and Accenture recently analysed the most important actions the private sector can take across 19 different industries to advance the objectives of SE4ALL, while simultaneously driving business value. The study identified four levers for driving business value through sustainable energy actions, including revenue growth, cost reduction, brand enhancement and risk management (see Figure 5)

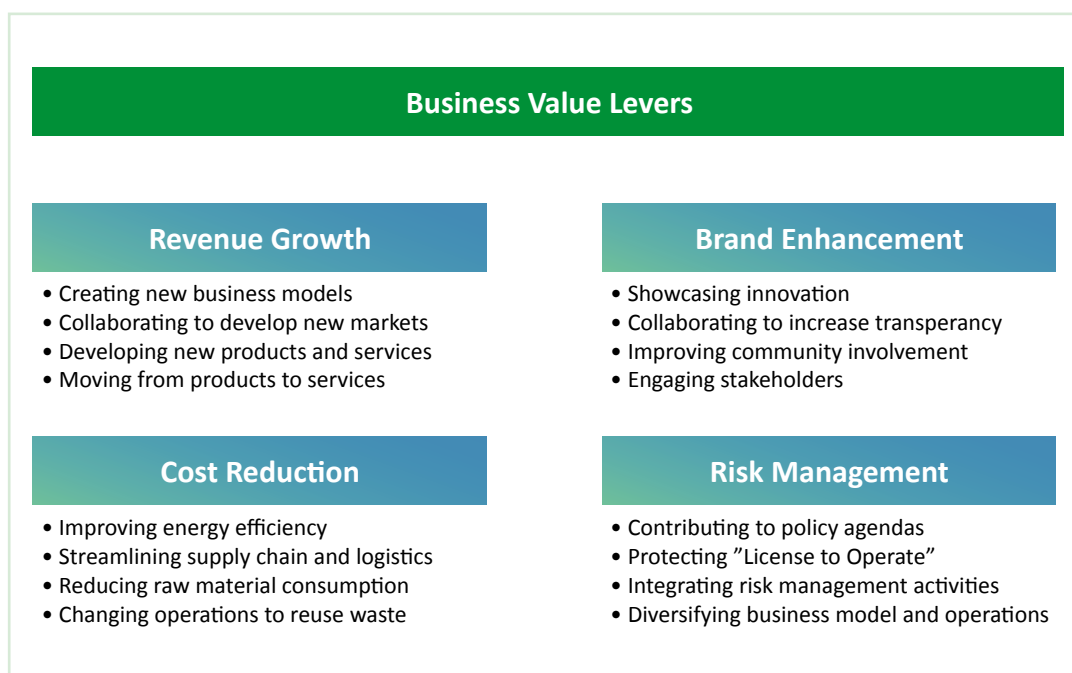


Figure 5: Four Levers for Driving Business Value through Sustainable Energy Actions

Source: Accenture, 2012¹³

Next to this, inclusive business models are increasingly acknowledged on the political level as a market-based approach to poverty alleviation and sustainable development. These models involve the poor on the demand side (as clients) and

¹³ Accenture, Sustainable Energy for All: The Business Opportunity, A comprehensive analysis of priority actions across 19 industry sectors, 2012

on the supply side (as distributors, suppliers of goods and services or employees at various point in the value chain), and thereby build bridges between the private sector and the poor for mutual benefit. While inclusive business models are mainly driven by the private sector, governmental support can have a decisive influence on the development and success of these initiatives (Tewes-Gratl, C. et al, 2014), and can be crucial to overcome existing barriers in low-income markets. Policy instruments applied may range from providing and sharing information, setting and enforcing favourable rules and framework conditions, levying and granting financial resources to employing governmental structures and capacities. Three basic approaches to applying these instruments were identified: enabling companies to enter the low-income market, encouraging companies to invest in these markets, and empowering poor people to engage with companies¹⁴.

Financing still constitutes one of the crucial barriers to private sector involvement. This is especially the case with regard to the so-called “dealflow”, where lack of knowledge about successful business models, technologies and finance, which are demonstrably profitable, may collide with the lack of capacity in financial institutions to understand that these energy proposals might be viable business. In this case, intermediaries, operating between the “new” energy companies and the financial institutions can be very useful in overcoming these barriers. Initiatives like the Africa Forum for Clean Energy Financing (AFRICEF-3) Business Plan Competition¹⁵, offering professional assistance in the development of sound business plans for promising energy projects, can also help overcome this gap.

In order to address some of these barriers, the Austrian Development Agency, the operative unit of the Austrian Development Cooperation, and the Development Bank of Austria, presented national solutions for overcoming some of these barriers at the forum.

Gottfried Traxler and Alexander Karner presented the Energy Programme and the Business Partnership Programme of the Austrian Development Agency (ADA), which promotes projects carried out by private Austrian/EU companies and their local partners, provided these projects have both commercial and development impacts.

¹⁴ Tewes-Gratl, C., et al, Inclusive Business Policies, How Governments can Engage Companies in Meeting Development Goals, corporAID 2014

¹⁵ <http://www.afdb.org/en/news-and-events/article/sefa-and-partners-launch-joint-competition-to-link-entrepreneurs-clean-energy-projects-and-investors-in-africa-12916/>

ADA offers financial support as well as support in the development of the project idea. The generation of local value (by building productive or service capacity) is one important selection criterion, given the need to ensure long-term economic and social sustainability of the projects. In this context, for instance, building local capacity to build, assemble, install, repair and maintain clean energy technologies is beneficial.

The financial mechanisms and cooperation instruments of the Development Bank of Austria (OeEB) were introduced by Andrea Hagmann, who gave a precise overview of project requirements, available OeEB-instruments and selected project references. As examples of OeEB activities, the support to the Lengarica hydropower plant in Albania and the loans for energy efficiency investment and training for the Sekerbank in Turkey were mentioned.

Next to financing, other key factors for successful projects need to be considered: Improving coordination and information dissemination between all stakeholders, a better and more strategic planning of interventions and the sharing and systematic application of the lessons learned from past experiences also determine successful collective action.

Especially in the poorest market segments, where investment tends to be a high risk business¹⁶ with low expected rates of return, the private sector alone will be unable to reach the poorest. In these cases, strategic partnerships with international organizations, governments and non-governmental organisations can provide a remedy.

New approaches based on collaborative relations with various stakeholders have emerged in recent years. Cooperation between donor agencies and companies has become more frequent, spanning a broad range of approaches for implementation (e.g. one-to-one approach, multi-stakeholder initiatives or platforms for achieving global development goals). Multi-donor initiatives seeking to engage numerous companies, public authorities and other relevant stakeholders appeared to be quite promising, if system-level issues need to be addressed, or a certain scale or impact achieved¹⁷.

¹⁶ Due to political and regulatory uncertainties, lack of infrastructure, market information and a sound knowledge base

¹⁷ Tewes-Gradi, C., et al, Inclusive Business Policies, How Governments can Engage Companies in Meeting Development Goals, corporAID 2014

Several opportunities for private sector contribution to these collaborative approaches have been identified, such as:

- Provision of expertise, funds and other resources
- Purchase and sale of goods and services through inclusive business models
- Implementation of projects and bringing them to scale
- Advice to governments and organisations on creating a business friendly environment

Donors on the other hand may contribute to joint initiatives not only by funding (outside the company's core business to avoid market distortions), but also by providing advice and brokerage, implementation support, as well as giving advice in the policy dialogue and in creating enabling framework conditions. In addition, donors can develop programmes to support small local entrepreneurs with interest in developing energy-related enterprises with the identification of viable energy market opportunities, adequate technologies and service structures to generate revenue and sustain business.¹⁸

The Forum on Sustainable Energy in Emerging Economies: Opportunities for private sector engagement also aimed at showcasing success stories of Austrian private sector engagement in emerging and developing countries. The challenges and success factors of these projects were presented by:

- Christian Holter of S.O.L.I.D., explaining experiences, chances and barriers in implementing solar heating and cooling projects in several emerging countries.
- Dean Marcelja of PV Styria, showing business opportunities and key elements of successful approaches to go international by means of reference projects in Europe and the MENA region.
- Florian Mayer of Windkraft Simonsfeld AG, portraying the company's successful CSR-project "Dynamizing the Development of Solar Thermal Energy in Bolivia".

S.O.L.I.D. solar installation and design, is an Austrian group of companies specialized in large solar thermal systems (including solar heating, cooling and process

¹⁸ Rai, K., Clough, L., 2014. Micro energy enterprise development in East Africa: Challenges for marketing technologies. Issue 60: Energy Market and Enterprise Development.

heat). Project experience in implementing solar thermal systems for water heating and space cooling in office and hotel buildings in the Caribbean showed huge technical and economic potential. Multiple benefits can be reaped with solar thermal applications. These benefits include reduction of fossil fuel consumption and related GHG and air pollutant emissions, reduced electricity consumption in peak hours as well as long-term money savings and risk-hedging against price fluctuations of other energy carriers. Nonetheless, upfront financing of investments remains the main barrier to project implementation.

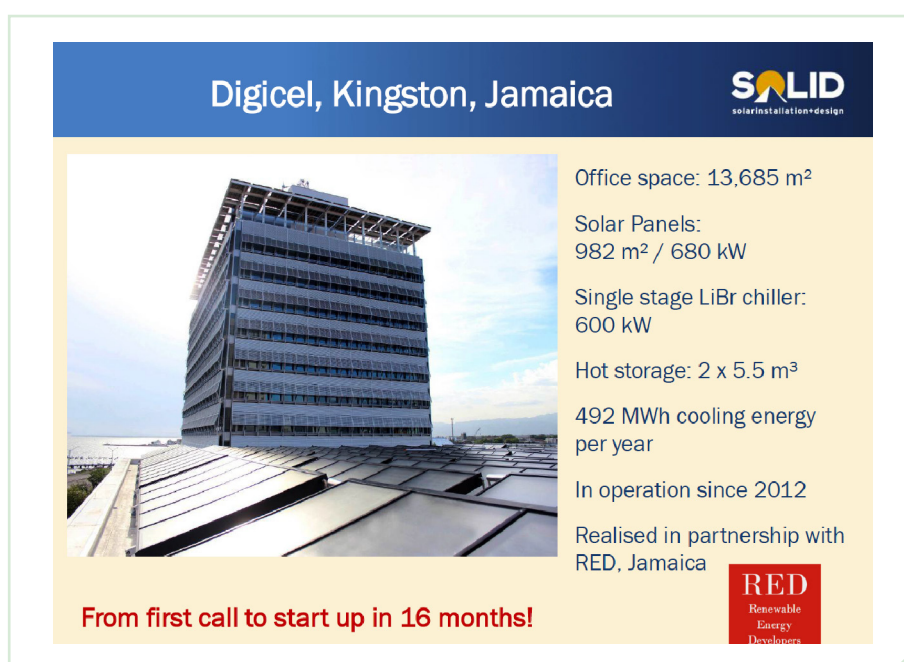


Figure 6: Digicel office building, Kingston, Jamaica

Source: Christian Holter, SOLID, Solar heating and cooling for emerging countries: Experiences, chances, barriers. Vienna, 2014.

PV Styria, which is part of ghb holding, is specialised in implementing photovoltaic power plants and solar thermal solutions, as well as in delivering services for investors in these areas. Furthermore, the company provides off-grid electricity solutions, clean energy solutions as well as trainings, schoolings and workshops. Engineering solutions included for example an off-grid telecommunication station in UAE, off-grid power supply for irrigation systems, rooftop PV plants in Croatia and PV power plants in several countries.



Figure 7: Off-grid telecommunication station, United Arab Emirates

Source: ghb holding, energy division

Experience from their core and target markets (European Union, South-East Europe, MENA-region) showed several key success factors for going international:

- Entrepreneurial thinking and approach
- Willingness to take risk
- Persistence
- Budget
- Personal and corporate adaptation to local conditions
- Trust in local partners and people
- Importance of local support (on site)
- Balance between attitudes: „I’m the leader“ vs. „Can’t do it all alone“

In order to overcome or prevent barriers for project implementation, thorough research and on-site due diligence are essential. These include core assessments of risk and reward, exit points and strategies, as well as other pre-checks (technical, legal, financial). As PV Styria’s best approach for commercial international projects, Mr. Marcelja recommended that when developing business models, there is a need to remain flexible in adapting them to existing and changing market conditions, to provide sound solutions to existing problems and to transfer long-term value to local communities (e.g. through education, know-how transfer, etc.).

Contrary to PV Styria's commercial approach to international project implementation, Florian Mayer of Windkraft Simonsfeld, presented the CSR-project "Dynamizing the Development of Solar Thermal Energy in Bolivia". The project first comprised several workshops on the construction of DIY-collectors and to train the trainers, which then evolved to the El Sol Development Partnership. The partnership aimed at stimulating both supply (theoretical and practical training for solar technicians, product improvement and coaching procedures) and demand (through financing mechanisms for solar thermal products and information dissemination activities). In 2013, the successful project was extended to a pilot region.



Figure 8: Practical training in Cocaraya, Bolivia

Source: Florian Mayer, Windkraft Simonsfeld, 2014

Information and Dissemination Activities

The website of the Global Forum on Sustainability www.gfse.at serves to inform national and international stakeholders about latest developments, initiatives and events regarding the global efforts to develop a sustainable energy system and ensure universal energy access, about activities of GFSE and important publications.

At the beginning of 2013, the GFSE website was completely revised, now featuring top news on its cover page, as well as an introduction to GFSE, its main activities over the years, and a service section. With its bi-annual Newsletter, GFSE updates interested followers on recent events, policy developments and other topics ranking high on the developmental agenda. Furthermore, the website provides the possibility to institutions and organisations to promote their own sustainable energy events, which are incorporated into the event calendar. A selection of relevant links displays the global network of GFSE and might act as a starting point for research on sustainable energy topics or potential partner institutions.

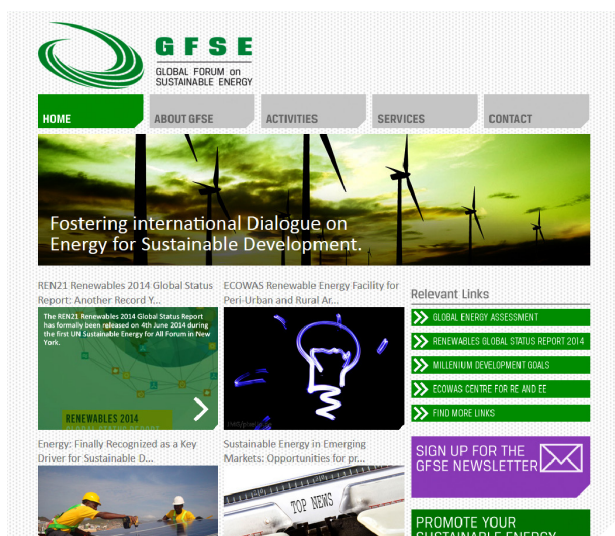


Figure 8: GFSE Website

Additional GFSE Networking and Outreach Activities

GFSE became a member of the global network REN 21 in late 2012 in the category of non-governmental organisations, and GFSE-President Irene Giner-Reichl was elected one of the REN 21 vice-chairs at the Steering Committee Meeting in January 2013 in Abu Dhabi. GFSE participates actively in networking and outreach activities of REN21, notably through supporting the Global Status Report (GSR) launches through various PR-activities.

In her capacity as GFSE-President and Vice-President of REN21, Irene Giner-Reichl i.a. facilitated

- A half-day workshop on the Global Energy Assessment (www.globalenergyassessment.org) on 14 November 2012 for Chinese and international participants at the Austrian Embassy in Beijing;
- A half-day workshop on the REN21 GSR on 15 October 2013 for Chinese and international participants at the Austrian Embassy in Beijing;
- A briefing for UN delegates on the REN21 GSR and the possibilities to include energy in the post-2015 development agenda on 10 November 2013 at the Austrian Mission to the UN in New York.

She continuously promotes the three main goals of SE4All and delivered relevant statements

- At the Eco Forum Global Guiyang in 2012 and again in 2013;
- At the Energy Africa Conference (<http://energyafricainitiative.com>) in Denver, Colorado, in November 2013, where she also serves on the Program Committee for the 2014 Conference;
- At a UN Conference on sustainable urbanization in Yangzhou in December 2013;
- As well as a UNITAR Conference on Global Governance in Shanghai 2014.

An article by her on the role of sustainable energy governance in the quest for new forms of global governance was published by the international magazine Global Energy Initiative (<http://globalenergyinitiative.org/insights/136-energy-finally-recognized-as-a-key-driver-for-sustainable-development.html>) in spring 2014.

The Sustainable Energy for All initiative (SE4ALL) opens up new possibilities for collaborative actions of international organisations, public sector institutions, the private sector, academia and civil society initiatives. The Global Forum on Sustainable Energy actively supports the SE4ALL initiative and undertakes to inform and broker between international and national stakeholders and thereby to prepare the ground for future cooperation and experience exchange.

GFSE can play the role of a knowledge broker and match-maker when it comes to sustainable energy solutions in the context of emerging and developing countries. Through a structured dialogue with key stakeholders, a better understanding of their needs and priorities can be achieved. Targeted research about pivotal topics can complement and enrich this dialogue, building on previous working areas of GFSE, such as the development of favourable framework conditions for renewable energy and energy efficiency, or the contribution of technologies like hydropower or biomass to a sustainable energy development path. With the combination of these two elements, targeted research and a structured dialogue, GFSE can support the closing of gaps in the conception and implementation of sustainable energy solutions in policy as well as in practice.

Among other relevant subjects, research and dialogue on strategies and measures to facilitate the involvement of the private sector and civil society in achieving SE4ALL goals could be pursued further. These actions include well-targeted policy frameworks, involvement of local actors in developing countries, development of successful business models and use of appropriate technologies.

To give an example, strategies to promote partnerships, in which companies in home markets and companies in aid-recipient markets act together, need to be pursued further. A combination of aid and private resources could support the creation of sustainable business cases. In addition, the involvement of local communities in sustainable energy solutions would facilitate acceptance and

increase ownership of projects and technologies. This involvement could take place, for instance, through community-based enterprises, which contribute to economic empowerment of local actors.



Source: Egger, L.

In this context, the implementation and dissemination of inclusive business models in the renewable energy and energy efficiency fields has become a priority¹⁹. In inclusive business models, low-income people are integrated into the value chain as target customers and/or as employees, producers or business owners on the supply side. There is a need for additional research on, and documentation of, commercially viable and replicable inclusive business models and an accompanying, open dialogue between companies, donors, think-tanks and NGOs. Dissemination of good-practice examples and exchange of experience would encourage sustainable business relationships between low-income communities, civil society organisations and private-sector companies and contribute to the implementation of sustainable energy solutions. Another aspect, which needs to be considered in the framework of inclusive business models (as well as in the context of sustainable development in general) is women empowerment as a means to promote gender equality.


¹⁹ Tewes-Gradt, C., Peters, A., Vohla, K., Lütjens-Schilling, L., 2013: Inclusive business policies: How governments can engage companies in meeting development goals. Endevo.Berlin, Germany.

Furthermore, a number of topics with potentially strong impact on enhancing renewable energy deployment and energy efficiency could be explored, including energy efficient buildings and urban planning, energy efficiency measures in industry, financing instruments for sustainable energy projects or support mechanisms for renewable energy technologies. This might be complemented by analyses and events regarding the contribution of specific technologies - like (small) hydropower, biomass, solar thermal applications or waste-to-energy concepts - to local challenges and sustainable development efforts.

The above are but examples of actions that could support domestic value creation in developing countries, while contributing to achieve SE4ALL's goals. In these and other areas, GFSE can contribute to draw, document and share insights relevant to key stakeholders in the sustainable energy field.



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