



### **Programme**

| Day 1: Sunday 4 <sup>th</sup> October 2015 |   |                          |                               |   |  |
|--|---|--------------------------|-------------------------------|---|--|
| 08:00 – 18:00                              | Registration  |                          |                               |   |  |
| 10.00 – 17.30                              |   | SAIREC Side Events       |                               |   |  |
| 18:00 – 21:00                              | Welcome Cocktail Reception  |                          |                               |   |  |
| Day 2: Monday 5 <sup>th</sup> October 2015 |   |                          |                               |   |  |
| 07:00 - 08:45                              | Registration  |                          |                               |   |  |
| 09:00 – 10.30                              | Official Conference Opening  Auditorium 1   |                          |                               |   |  |
| 10:30 – 11:00                              | Tea Break and Media Briefing  |                          |                               |   |  |
|  | High-level Panels   |                          |                               |   |  |
| 11:00 – 12:00                              | Sustainable Energy for All: Renewable Energy, a tool for economic development and poverty alleviation  Auditorium 1 |                          |                               |   |  |
| 12:00 – 13:00                              | Energy Transition with Renewables in Africa and Globally  Auditorium 1  |                          |                               |   |  |
| 13:00 – 14:30                              | Lunch / SAIREC Side Events  |                          |                               |   |  |
|  | Afternoon Parallel Sessions   |                          |                               |   |  |
| Room                                       | Ballroom East   | Hall 1A                  | Hall 1B                       | Ballroom West                                   |  |
| 14:30 – 16:00                              | Africa Continental<br>Interconnectivity<br>including Africa Clean<br>Energy Corridor                                | Regulatory<br>Frameworks | Socio-economic<br>Development | Road to COP21:<br>Renewables solution<br>agenda |  |
| 16:00 – 16:30                              | Tea Break   |                          |                               |   |  |



| Room          | Ballroom East                    | Hall 1A            | Hall 1B            | Ballroom West   |
|---------------|----------------------------------|--------------------|--------------------|---|
| 16:30 – 18:00 | Energy Access                    | Finance Mechanisms | Skills Development | Road to COP21:<br>Renewables solution<br>agenda (cont.) |
| 18:00 – 19:30 | SAIREC Side Events               |                    |                    |   |
| 19.30 – 23.00 | Gala Dinner (by invitation only) |                    |                    |   |

09:00 – 09:30 Day 3 Opening Plenary
Auditorium 1

#### **Morning Parallel Sessions**

| Room          | Ballroom East | Auditorium 2  | Ballroom West    | Hall 1A                  | Hall 1B     |
|---------------|---------------|---------------|------------------|--------------------------|-------------|
| 09:30 - 11:00 | Energy-smart  | Transport and | Technology       | Technology               | Technology  |
|               | cities        | Eco-mobility  | Innovations      | Innovations              | Innovations |
|               |               |               | Wind: Grid-based | Solar PV: Grid-<br>based | CSP         |

| 11:00 – 11:30 | Tea Break                  |                |                      |              |                 |
|---------------|----------------------------|----------------|----------------------|--------------|-----------------|
| Room          | Ballroom East              | Auditorium 2   | Ballroom West        | Hall 1A      | Hall 1B         |
| 11:30 - 13:00 | Cooking Energy             | Energy Storage | Integration of       | Technology   | Technology      |
|               |                            |                | Renewable Energy     | Innovations  | Innovations     |
|               |                            |                | and Energy           |              |                 |
|               |                            |                | Efficiency into High | Wind: Hybrid | Solar: Off-grid |
|               |                            |                | Temperature          |              |                 |
|               |                            |                | Applications         |              |                 |
| 13:00 - 14:30 | Lunch / SAIREC Side Events |                |                      |              |                 |

#### Afternoon Parallel Sessions

| Room          | Ballroom East  | Ballroom West | Hall 1A     | Hall 1 B    |  |
|---------------|--|---------------|-------------|-------------|--|
| 14:30 – 16:00 | Rural  | Technology    | Technology  | Technology  |  |
|               | Electrification:   | Innovations   | Innovations | Innovations |  |
|               | Decentralised  |               |             |             |  |
|               | aspects  | Geothermal    | Hydro       | Biomass     |  |
|               |  |               |             |             |  |
| 16:00 – 16:30 | Tea Break  |               |             |             |  |
| 16:30 – 18:00 | Closing Plenary: Key findings from SAIREC and adoption of SAIREC declaration |               |             |             |  |
| 10.30 - 18.00 | Auditorium 1   |               |             |             |  |



| Day 4: Wednesday 7 <sup>th</sup> October 2015        |  |  |  |  |
|--|--|--|--|--|
| SAIREC site visits to renewable energy installations |  |  |  |  |



# List of confirmed Ministers attending SAIREC (as of 30<sup>th</sup> September 2015)

| African Union | H.E. Dr. Elham M.A. Ibrahim    | Commissioner for Infrastructure and Energy   |
|---------------|--------------------------------|--|
| Albania       | Hon. Mr. Ardit Kamberi         | Chief of Cabinet: Albanian Ministry of Energy and Industry (Deputy Minister)         |
| Angola        | Hon. Mr. Joao Baptista Borges  | Minister of Energy and Water   |
| Egypt         | Dr. Mohamed Salah El Sobki     | Head of Egyptian New and Renewable Energy<br>Authority (Deputy Minister)             |
| Germany       | Hon. Mr. Rainer Baake          | State Secretary of the German Federal Ministry of Economic Affairs and Energy (BMWi) |
| Lesotho       | Hon. Mr. Selibe Mochoboroane   | Minister of Energy and Meteorology   |
| Libya         | Hon. Dr. Elmahdi Elkhazmi      | Deputy Minister of Electricity and renewable energy.                                 |
| Namibia       | Hon. Ms. Kornelia Shilunga     | Deputy Minister of Mines and Energy of Namibia                                       |
| Russia        | Hon. Mr. Vyacheslav Kravchenko | Deputy Minister of Energy  |
| Sudan         | Hon. Dr. Tabita Butros Shokai  | State Minister of Energy   |
| Swaziland     | Ms. Winnie T. Stewart          | Permanent Secretary of Natural Resources and Energy                                  |
| Zambia        | Hon. Mr. Charles Zulu          | Deputy Minister of Mines, Energy and Water<br>Development                            |
| Zimbabwe      | Hon. Ms. Tsitsi Muzenda        | Deputy Minister of Energy and Power Development                                      |



**Time:** 09:00 – 10:30

Room: Auditorium 1

#### **Official Conference Opening**

Facilitator: Mr. Victor Kgomoeswana

#### **Key-note speakers:**

Mr. Arthouros Zervos, Chair, Renewable Energy Policy Network for the 21st Century (REN21)

Mr. Adnan Z. Amin, Director-General, International Renewable Energy Agency (IRENA)

H.E. Walter Lindner, German Ambassador in South Africa

H.E. Ms. Elham M.A. Ibrahim, Commissioner for Infrastructure and Energy, African Union Commission (AUC)

Ms. Tina Joemat-Pettersson, Minister of Energy of the Republic of South Africa



Time: 11:00 – 12:00

**Room: Auditorium 1** 

Session Title: Sustainable Energy for All: Renewable energy, a tool for economic development and poverty alleviation

#### Questions to be addressed by the session

- 1. Traditional methods for measuring energy access significantly underestimate the scale of the challenge. How do we go about improving the data collection process so as to better track the uptake of renewables?
- 2. Understanding the interactions between energy and such priority areas of development as water, food, health, and gender are fundamental to meeting the objectives of the SE4AII. How can we best identify these linkages early so as to target synergies and pre-empt subsequent potential tensions?
- 3. Energy has been proposed as 1 of 17 sustainable development goals (SDGs). What concrete actions need to be taken to achieve access to affordable, reliable, sustainable, and modern energy for all?

#### Session composition

Keynote: Ms. Rachel Kyte, Special Representative of the Secretary-General for Sustainable Energy for All

and CEO of Sustainable Energy for All Partnership designate, SE4ALL

Moderator: Ms. Tania Roediger-Vorwerk, Deputy Director General, Federal Ministry for Economic

Cooperation and Development (BMZ), Germany

Panellists: Ms. Juliette Biao Koudenoukpo, Director & Regional Representative, Regional Office for Africa,

United Nations Environment Programme (UNEP)

Mr. Pradeep Monga, Director, Energy and Climate Change Branch, United Nations Industrial

**Development Organization (UNIDO)** 

Mr. Roberto Ridolfi, Director for Sustainable Growth and Development, DG International

Cooperation and Development, European Commission

Mr. Daniel Schroth, Coordinator, SE4All Africa Hub



**Time:** 12:00 – 13:00

**Room: Auditorium 1** 

Session Title: Energy Transition with Renewables in Africa and Globally

#### Questions to be addressed by the session

- 1. What are the key characteristics of the energy transition happening in your country? Why did you engage in it?
- 2. Which key players need to be involved to make the energy transition happen?
- 3. What has to happen to make the shift towards a sustainable energy system happen quicker?
- 4. How do business models of utilities have to evolve to cope with changing cost and production patterns?
- 5. What can be done to dynamise the energy transition in the heating & cooling sector?
- 6. What needs to be done on an international level to advance the global energy transition?

#### **Session composition**

Keynote: Mr. Paul Simons, Deputy Executive Director, International Energy Agency (IEA)

Moderator: Mr. Wolsey Barnard, Acting Director General, Department of Energy, South Africa

Panellists: H.E. Ms. Elham M.A. Ibrahim, Commissioner for Infrastructure and Energy, African Union

Commission (AUC)

Mr. Rainer Baake, State Secretary, Federal Ministry for Economic Affairs and Energy (BMWi),

Germany

Mr. Kumi Naidoo, Executive Director, Greenpeace International

Ms. Ayanda Nakedi, Senior General Manager: Renewables Business Unit, Eskom, South

Africa

Mr. Yi Yuechun, Deputy Director General, National Energy Administration, China



Time: 14:30 - 16:00

**Room: Ballroom East** 

Session Title: Africa Continental Interconnectivity including Africa Clean Energy Corridor

#### Questions to be addressed by the session

1. There are significant barriers to a renewable powered future such as: an inefficient and under-financed power sector, low tariffs, distorted pricing in energy resources, lack of awareness of renewable energy potentials and opportunities. How can governments, private sector and international community best join hands in supporting Africa harness its tremendous renewable energy resources and advancing the continent's vision to promote green investment?

- 2. Building on the foundation established by African countries and regional bodies aiming to address Africa's rapidly growing electricity demand with clean, indigenous, cost-effective power options, what are the challenges and opportunities to achieve the Africa Continental Interconnectivity in a sustainable manner? To what extent can renewable energy technologies support the Africa Continental Interconnectivity and in the process address challenges of security of supply, energy access while promoting sustainable economic growth?
- 3. We are witnessing regional initiatives, both home-grown and international-driven, working on providing a secure Africa-wide electricity system. How can regional initiatives such as Africa Clean Energy Corridor help address these challenges? How can the international community better support such initiatives that promote Africa Continental Interconnectivity in a sustainable manner?

#### Session composition

Keynote: Mr. Sisa Njikelana, Chairperson, South African Independent Power Producers Association

(SAIPPA), South Africa

Moderator: Ms. Thembakazi Mali, Senior Manager Clean Energy, South African National Energy

Development Institute (SANEDI), South Africa

Panellists: Mr. Gurbuz Gonul, Acting Director – Country Support and Partnerships, International Renewable

Energy Agency (IRENA)

Mr. Remigious Makumbe, Director of Infrastructure and Services, SADC Secretariat

Mr. Segomoco Scheppers, Senior General Manager, Eskom, South Africa

Mr. Elijah Sichone, Executive Secretary, Regional Electricity Regulators Association of

Southern Africa (RERA), Namibia



Time: 14:30 – 16:00

Room: Hall 1A

**Session Title: Regulatory Frameworks** 

#### Questions to be addressed by the session

1. What are the critical factors needed to allow competition to drive down generation costs?

- 2. What measures can be adopted to mitigate investment risk and foster deployment of renewables in new markets?
- 3. How can the opportunities for renewable heat be given higher priority by policy makers and industry?
- 4. How can sustainability criteria be developed and enforced to provide confidence in biofuels as a sustainable resource?

#### Session composition

**Keynote:** Mr. Tomas Kåberger, Executive Board Chairman, Japan Renewable Energy Foundation

Moderator: Mr. Paolo Frankl, Head of Renewable Energy Division, International Energy Agency

Panellists: Mr. Martin Schöpe, Head of Division II A1 – General issues of international and external energy

policy, Federal Ministry for Economic Affairs and Energy (BMWi), Germany

Mr. Li Junfeng, President, Chinese Renewable Energy Industry Association, China

Mr. Ompi Aphane, Deputy Director General, Department of Energy, South Africa

Mr. Mbulelo Ncetezo, Executive Manager: Electricity Regulation, National Energy Regulator of

South Africa (NERSA)



**Time:** 14:30 – 16:00

Room: Hall 1B

**Session Title: Socio-economic Development** 

#### Questions to be addressed by the session

- 1. Is renewable energy deployment perceived as an opportunity for economic growth and value creation?
- 2. What are the instruments from various policy areas that facilitate the development of a domestic renewable energy sector and maximise the socio-economic benefits of renewable energy deployment? What is the right mix of instruments?
- 3. In recent years, some countries have imposed local content requirements. What are the lessons learnt from these measures?
- 4. How should policy makers strike the balance between the promotion of local economic development and the risk of unnecessary high costs impeding deployment especially in small renewable energy markets?
- 5. What lessons can be learnt from developments in other sectors that have benefited from an enabling industrial policy (e.g., the automotive industry)?
- 6. Is the potential for value creation beyond that for the manufacturing segment of the value chain of wind and solar energy technologies (installation, operation and maintenance), fairly recognised and included in political priorities?

#### Session composition

**Keynote:** Mr. Pradeep Monga, Director, Energy and Climate Change Branch, United Nations Industrial

**Development Organization (UNIDO)** 

Moderator: Ms. Christine Lins, Executive Secretary, REN21

**Panellists:** Ms. Rabia Ferroukhi, Head of Policy and Deputy Director - Knowledge, Policy and Finance Centre

(KPFC), International Renewable Energy Agency (IRENA)

Ms. Meryem Lakhssassi, Sustainable Development Officer, Moroccan Agency for Solar Energy

(MASEN), Morocco

Mr. Jannie Retief, CEO, AIIM Renewable Companies, South Africa

Mr. Evan Rice, CEO, GreenCape, South Africa



**Time:** 14:30 – 16:00

**Room: Ballroom West** 

Session Title: Road to COP21: Renewables solution agenda

#### Questions to be addressed by the session

- 1. Some commenters have voiced fears that renewable energy commitments by non-state actors reduce the pressure on governments to take action. Is this fear realistic or are commitments inducing governments to move more aggressively by demonstrating what is possible?
- 2. What can be done to reduce the risks that many disconnected actions to promote renewable energy—
  the "let a thousand flowers bloom" approach—result in inefficiencies or confusion? What role can
  REN21 play?
- 3. Although the renewable solutions agenda contains many commitments these are only a fraction of the renewable energy activities taking place around the world. Is there a place for (and value of) capturing these in the solutions agenda, and if so what is the best way to bring them in? How can actions or decisions taken at SAIREC help do this in a consistent, transparent manner?
- 4. Double counting of emissions reductions that are claimed by more than one initiative is a distinct possibility. This would give false assurances regarding the degree to which the world is on a stabilisation path. What can be done to avoid this problem?
- 5. Renewable energy and energy efficiency commitments have so far been put in separate solutions agenda categories; yet there are clear synergies to using renewable energy more efficiently. How might this division be bridged? What can SAIREC do to help bring about a faster and more systematic transition to a low carbon and clean energy system?

#### Session composition

**Keynote:** Ms. Marie-Hélène Aubert, Special Advisor on climate change to the French President,

France

Moderator: Mr. Mark Radka, Director Energy, Climate and Technology Branch, United Nations Environment

Programme (UNEP)

Panellists: Ms. Vera Rodenhoff, Head of Division, International Affairs for Environment and Energy,

Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety,

Germany

Mr. Stephan Singer, Director Global Energy Policy, WWF International

Mr. Mokshanand Dowarkasing, Climate and Energy Coordinator, Greenpeace International, The

Netherlands



**Time:** 16:30 – 18:00

**Room: Ballroom East** 

**Session Title: Energy Access** 

#### Questions to be addressed by the session

1. What will it take to achieve SE4All's three energy objectives globally by 2030?

- 2. How can we reach scale in the energy access sector in a uniform, sustainable and replicable way when decentralised energy solutions are by nature geography and context dependent? Is it realistic to expect harmonisation of global standards and evaluation metrics for a given technology to assist in this?
- 3. For achieving real scale in the decentralised energy sector, what are some concrete measures to ensure coordination of off-grid energy policies at the national, local and regional levels? Can countries with similar needs or resources work together to build their rural electrification plans?
- 4. How can the international community channel and aggregate financing for the sector, especially for companies in the challenging mid-life phase? What are some innovative financing mechanisms, including an energy access fund that could assist in this?
- 5. Are mini-/micro-grids viable, scalable and most economical solutions for a more permanent approach to providing energy access, particularly in rural settings, to reach IEA's estimate that over 40% of installed capacity to achieve universal energy access by 2030?

#### **Session composition**

Keynote: Mr. Mahama Kappiah, Executive Director, ECOWAS Centre for Renewable Energy and

Energy Efficiency (ECREEE)

Moderator: Mr. Mike Enskat, Head of Section Energy, Water and Transport, Deutsche Gesellschaft für

International Zusammenarbeit (GIZ), Germany

Panellists: Mr. Robert Aitken, Managing Director, Restio Energy, South Africa (tbc)

Ms. Grace Mukasa, Regional Director, Practical Action Eastern Africa

Mr. Koen Peters, Executive Director, Global Off-Grid Lighting Association (GOGLA)

Mr. Daniel Schroth, Coordinator, SE4All Africa Hub



**Time:** 16:30 – 18:00

Room: Hall 1A

**Session Title: Finance Mechanisms** 

#### Questions to be addressed by the session

- 1. What are easy, low-cost options for mitigation finance and how can we avoid crowding out the private sector?
- 2. There are many design options available for tailoring the financial mechanisms to national policy goals. What are some which you consider most important?
- 3. Besides the four mechanisms listed in the paper, which others do you feel are effective for scaling up investment in renewable energy, in particular in Africa? What are their benefits and draw-backs?
- 4. Building on lessons learned from mitigation finance, what benefits might adaptation finance offer the private sector?

#### Session composition

Keynote: Ms. Silvia Kreibiehl, Head of Centre, Frankfurt School - UNEP Collaborating Centre for Climate &

Sustainable Energy Finance, Germany

Moderator: Mr. Kadri Nassiep, CEO, South African National Energy Development Institute (SANEDI), South

Africa

Panellists: Ms. Karen Breytenbach, Head IPP Office, Department of Energy, South Africa

Ms. Silvia Martinez Romero, Senior Renewable Energy Specialist, World Bank

Mr. Mike Peo, Head Infrastructure, Energy and Telecommunications, Nedbank, South Africa

Mr. Busso von Alvensleben, Director Office Pretoria, KfW, Germany

Ms. Rentia van Tonder, Head: Renewables, Power & Infrastructure, Standard Bank, South Africa



**Time:** 16:30 – 18:00

Room: Hall 1B

**Session Title: Skills Development** 

#### Questions to be addressed by the session

1. What are the emerging job profiles in the African renewable energy sector?

- 2. What actions need to be taken to meet this emerging demand?
- 3. What role does the private sector play in training skilled workforce?
- 4. How does the availability of skilled workforce effect green economic development?
- 5. How can training and education improve gender equality in the sector?

#### **Session composition**

Keynote: Mr. Marcel Alers, Head of Energy, Infrastructure, Transport & Technology, United Nations

Development Programme (UNDP)

Moderator: Mr. Rainer Hinrichs-Rahlwes, Vice-President, European Renewable Energies Federation (EREF)

Panellists: Mr. Wim Jonker Klunne, Programme Director, Energy and Environment Partnership Southern

and East Africa (EEP)

Mr. Jose Angel Perez, Vice President, Spain & Africa Renewable Energy Consortium, Spain

Mr Mohammed Naim Rassool, Director, The South African Renewable Energy Technology

Centre (SARETEC), South Africa

Ms. Karen Surridge-Talbot, Centre Manager Renewable Energy Centre of Research & Development, South African National Energy Development Institute (SANEDI), South Africa



**Time:** 09:00 – 09:30

Room: Auditorium 1

**Opening Plenary** 

Day: Tuesday, 6<sup>th</sup> October 2015

**Time:** 9:30 – 11:00

**Room: Ballroom East** 

**Session Title: Energy-smart Cities** 

#### Questions to be addressed by the session

1. How can integrated planning processes be established to effectively prepare, test, monitor and evaluate the deployment of smart energy resilient systems in cities?

- 2. There are multiple clean energy technology options available to city governments to meet their targets. What are key considerations for policy making (including regulations and incentive schemes)? What financing is available? How can cities integrate the most important private sector actors Small and Medium Enterprises (SMEs) to effectively deploy smart energy systems and efficiently utilise water, energy and food resources?
- 3. How do clean energy ambitions and commitments for decarbonisation at the global, regional or national-levels trickle down to policy making at the municipal level, and how can cities most effectively contribute to those processes?

#### Session composition

**Keynote:** Mr. Thabo Manyoni, Chairperson, South African Local Government Association (SALGA), South

Africa (tbc)

Moderator: Mr. Kadri Nassiep, CEO, South African National Energy Development Institute (SANEDI), South

Africa

Panellists: Mr. Ali Alshafar, Ministry of Foreign Affairs, United Arab Emirates (tbc)

Mr. Martin Hiller, Director General, Renewable Energy & Energy Efficiency Partnership

(REEEP)

Mr. Emani Kumar, Deputy Secretary General, ICLEI - Local Governments for Sustainability

Mr. Sithole Mbanga, CEO, South African Cities Network, South Africa





**Time:** 9:30 – 11:00

**Room: Auditorium 2** 

Session Title: Transport and Eco-mobility

#### Questions to be addressed by the session

1. How many vehicles should EcoMobility displace to make a significant difference in:

- Oil imports?
- Carbon release?
- Foreign exchange?
- 2. Can the shift to public transport and EcoMobility reduce the need for:
  - Another coal fired power station?
  - Another synthetic fuel plant?
- 3. How safe are EcoMobility commuting options?
- 4. Does this mean I do not have to buy another car?
- 5. Will all my movements be traced/monitored now?

#### **Session composition**

Keynote: Mr. Cornie Huizenga, Secretary-General, Partnership on Sustainable Low Carbon Transport

(Slocat)

Moderator: Mr. Carel Snyman, Senior Manager Green Transport, South African National Energy

Development Institute (SANEDI), South Africa

Panellists: Ms. Tania Roediger-Vorwerk, Deputy Director General, Federal Ministry for Economic

Cooperation and Development (BMZ), Germany

Ms. Nickey Janse van Rensburg, Manager, Faculty of Engineering and the Built Environment,

Mechanical Engineering Science, University of Johannesburg, South Africa

Mr. Andrew Taylor, Managing Director, Cape Advanced Engineering (CAE), South Africa

Ms. Monika Zimmermann, Deputy Secretary-General, ICLEI - Local Governments for

Sustainability



**Time:** 9:30 – 11:00

**Room: Ballroom West** 

Session Title: Technology Innovations - Wind: grid-based

#### Questions to be addressed by the session

1. What is wind power's role in a 100% renewable energy economy?

- 2. Is the REIPPPP in South Africa an emergent example of sustainable development and people-planet-prosperity?
- 3. How replicable is the REIPPPP model on socio-economic development around wind farms in Africa?
- 4. What should the role be of community involvement/ownership?
- 5. What is the role of multi-laterals (World Bank, AFD, DFI's etc.) in supporting national treasuries that underwrite long term Power Purchase Agreements that enable the roll out of bankable wind and other RE projects? How can the contingent liability be taken off the balance sheets?
- 6. What will the value be of wind power in other energy constrained economies in Africa?

#### Session composition

**Keynote:** Mr. Steve Sawyer, Secretary-General, Global Wind Energy Council (GWEC)

Moderator: Mr. Johan Van den Berg, Chairman of Board & CEO, South African Renewable Energy Council &

South African Wind Energy Association, South Africa

Panellists: Ms. Stefanie Bourne, Senior Consultant, DNV GL

Ms. Ayanda Nakedi, Senior General Manager: Renewables Business Unit, Eskom, South

Africa

Mr. George Pergamalis, Head Business Development Africa & Middle East, Enel Green Power,

South Africa

Mr. Flemming Schlier, Advisor, VESTAS, South Africa



**Time:** 9:30 – 11:00

Room: Hall 1A

Session Title: Technology Innovations - Solar (PV): Grid-based

#### Questions to be addressed by the session

1. As we have seen, flexibility should become a main feature of future power systems. What in your view are the main solutions to provide such flexibility? How should this be reflected in the regulatory framework? What are the best options open to a country to take advantage of the significant renewable energy tariff reductions experienced over the last four years?

2. The energy transition requires capital-intensive investments, which means that the high cost of capital could make this transition more expensive. How to create long-term visibility for investors and drive investments in the renewable energy sector? What are the enablers or obstacles in allowing specific medium- and long term national renewable energy targets to be defined? Once medium- and long-term targets for renewable energy are defined, what options are there regarding processes that should be followed?

3. Being a cost-competitive energy source is not enough - markets should be adapted to ensure they properly remunerate all actors. What are in your opinion the main market reforms which are needed to properly remunerate renewable electricity? In a market such as South Africa, what are the obstacles to introducing dynamic cost reflective Time of Use tariffs?

#### **Session composition**

Keynote: Mr. Paddy Padmanathan, President & CEO, ACWA Power, Saudi Arabia

Moderator: Mr. Moeketsi Thobela, CEO, South African Photovoltaic Industry Association (SAPVIA), South

Africa

Panellists: Mr. Agostinho Miguel Garcia, Principal Consultant, Sun Business Development Lda, Portugal

Mr. Frank Spencer, Chair of the Embedded Generation Sub-Committee, SAPVIA, South Africa

Ms. Jasandra Nyker, CEO, Bio Therm Energy (Pty) Ltd, South Africa

Mr. Senzosenkosi M Myeni, Renewable Technologies Manager, Eskom, South Africa



Time: 9:30 - 11:00

Room: Hall 1B

Session Title: Technology Innovations - CSP

#### Questions to be addressed by the session

- 1. CSP power stations have the ability to provide dispatchable, peaking and baseload solar power. What measures need to be put in place for SADC to become the global hub for the deployment and manufacturing of CSP components for the regional and international markets?
- 2. For CSP power stations to become more competitive from a tariff standpoint what type of procurement framework needs to be put in place to drive down the costs of CSP?
- 3. Would an airbus model of industrialisation and manufacturing of CSP components in SADC region where different countries manufacture certain components be a sound framework for the uptake of CSP across the region?

#### Session composition

Keynote: Mr. Pancho Ndebele, Chief Executive Officer, Emvelo, South Africa

Moderator: Mr. Saheed Okuboyejo, OEM Representative, SASTELA Executive Committee, BrightSource

Energy/SASTELA, South Africa

Panellists: Dr. Luis Crespo, President, European Solar Thermal Electricity Association (ESTELA), Belgium

Mr. Chris Ehlers, Business Director Southern Africa, ACWA Power, South Africa

Mr. Michael Geyer, Director International Business Development Europe, Africa, Middle East, Abengoa Solar, Spain

Mr. Wallace Manyara, Business Development Manager, Cobra, South Africa

Mr. Vikesh Rajpaul, Programme Manager – Concentrating Solar Power, Renewables Business Unit, Eskom, South Africa



Time: 11:30 - 13:00

**Room: Ballroom East** 

**Session Title: Cooking Energy** 

#### Questions to be addressed by the session

1. Is the problem of cooking energy receiving sufficient international attention to release the required resources to tackle the issue?

2. How significant are leap frog technologies for the sector? Is LPG the future?

3. How can we translate political commitment into real action?

4. Local vs. global – how can we ensure that differing dissemination approaches do not harm, but rather complement each other and jointly build a thriving market?

#### **Session composition**

Keynote: Mr. Waltaji Terfa Kutane, World Health Organisation (WHO), Ethiopia

Moderator: Mr. Gama Mutemeri, CEO, TTO Climate, South Africa

Panellists: Mr. Sire Abdoul Diallo, WACCA Coordinator, ECOWAS Centre for Renewable Energy and Energy

Efficiency (ECREEE) - West Africa Clean Cookstove Alliance (WACCA)

Ms. Maria del Rosario Loayza C., Deputy Director, GIZ EnDev, Mozambique

Mr. Johan de Koker, Director: Sustainable Energy Technology and Research Centre, University of

Johannesburg, South Africa

Mr. Carl B Pendragon, Carbon Wealth Scandinavia AB, Sweden



Time: 11:30 - 13:00

**Room: Auditorium 2** 

**Session Title: Energy Storage** 

#### Questions to be addressed by the session

1. What will drive the future battery market?

- 2. Is energy storage a necessary condition for a large uptake of variable renewable energy?
- 3. Will solar PV and batteries be the only components of the future power system?
- 4. What impact would a steep cost reduction of utility scale batteries have on the energy mix?
- 5. What are the major barriers to the uptake of battery storage for various applications?

#### **Session composition**

Keynote: Mr. Cédric Philibert, Energy and Climate Change Analyst, International Energy Agency (IEA)

Moderator: Mr. Bernard Bladergroen, Associate Professor, University of the Western Cape, South Africa

Panellists: Mr. Tobias Bischof-Niemz, Chief Engineer: R&D Core (Energy), Council for Scientific and

Industrial Research (CSIR), South Africa

Ms. Daniela Schmidt, Innovation and Technology Centre, International Renewable Energy

Agency (IRENA)

Mr. Barry MacColl, General Manager - Research, Testing and Development, Eskom, South Africa



**Time:** 11:30 – 13:00

**Room: Ballroom West** 

Session Title: Integration of Renewable Energy and Energy Efficiency into High Temperature Applications

#### Questions to be addressed by the session

- 1. Market: How can public policy lead (e.g., similar to feed-tariffs, bidding rounds, other support for renewable electricity) to a market for renewable technologies in high temperature applications with the objectives of higher deployment and cost reductions?
- 2. What models could be used to make these technologies market viable?
- 3. Competitive position: in what areas does the use of heat from concentrating solar and solar thermal technologies present a competitive advantage over heat generated from electricity generated from other renewables in high temperature applications, now and in the future?

#### **Session composition**

**Keynote:** Mr. Robbie McNaughton, Team Leader Solar Thermal Processes, The Commonwealth Scientific

and Industrial Research Organisation (CSIRO), Australia

Moderator: Mr. Jan van Ravenswaay, SolarPACES National Solar Fuels Representative, North West

University, South Africa

Panellists: Mr. Werner Weiss, Managing Director, AEE - Institute for Sustainable Technologies, Austria

Mr. Douglas Arent, Executive Director of the Joint Institute for Strategic Energy Analysis, NREL

Mr. Martin Roeb, Deutsches Zentrum für Luft- und Raumfahrt (DLR), Germany

Mr. Thomas Roos, Council for Scientific Industrial Research (CSIR), South Africa



**Time:** 11:30 – 13:00

Room: Hall 1A

Session Title: Technology Innovations - Wind: Hybrid

#### Questions to be addressed by the session

1. How to improve availability of finance, via governments, the private sector and the international finance architecture? Could there be more support for investment in hybrid systems, through setting of tariffs, micro-credit schemes, and through internationally backed programmes such as the Green Climate Fund?

- 2. How can local productive initiatives be encouraged that support the productive use of energy? How to set best practice standards?
- 3. Which policies would be appropriate to support the establishment of a local supply chains for hybrid systems?
- 4. How can the quality of the technical equipment available in a country be ensured? Which international standards need to be applied, which standards require amendments?
- 5. How could international programmes support capacity building and knowledge transfer?

#### **Session composition**

Keynote: Mr. Stefan Gsänger, Secretary General, World Wind Energy Association (WWEA)

Moderator: Mr. Morten Petersen, Chair, Danish Small Wind Association, Denmark

Panellists: Ms. Dipolelo Elford, Member and former Chairperson, South African Wind Energy Association

(SAWEA), South Africa

Mr. Tetsunari lida, Chairperson and Founder, Institute for Sustainable Energy Policies, Japan

Mr. Gadi Hareli, CEO, Israeli Wind Energy Association, Israel

Mr. André Otto, Technical Advisor Renewable Energy, SANEDI, South Africa



**Time:** 11:30 – 13:00

Room: Hall 1B

Session Title: Technology Innovations – Solar: Off-grid

#### Questions to be addressed by the session

- 1. How can financial institutions and policy makers provide better access to financing, especially for the "base of the pyramid"?
- 2. How can communities, planners, etc., define realistic, affordable and reliable, long term electrification pathways using solar PV systems for users without previous experience with electricity?
- 3. How will access to the free basic alternative energy (FBAE) grants in South Africa change (these are not quite working and local authorities struggle to roll this out)?
- 4. What policy mechanisms should be considered to encourage the dissemination of end-use technologies that complement off-grid PV supplies and improve efficiency (e.g. efficient lighting, low voltage DC appliances, etc.)
- 5. How should developers address communities' fear that once off grid PV is installed, this means that the grid will not ever reach this area (and off grid PV is seen as inferior)? How can the perception be overcome that off-grid solar power is inferior to grid power?
- 6. How will planners and developers manage the scaling up of energy services to meet increased demands, for example increasing PV systems from 1 to 5 KW?
- 7. How should life-cycle challenges and the environmental impact of technologies be addressed (i.e. recycling, increased battery lifetime)?
- 8. What should be done to ensure that systems are installed and maintained properly and operators are trained so systems operate as planned?
- 9. Should there be more stringent standards for the technologies installed and should all countries meet quality standards and certification for technologies, installation and operation?

#### **Session composition**

**Keynote:** Mr. David Renné, President, International Solar Energy Society (ISES)

Moderator: Ms. Mokgadi Modise, Chief Director, Department of Energy, South Africa

Panellists: Mr. Sifiso Dlamini, Director, NuRa, South Africa

Mr. Ernesto Macias, President, Alliance for Rural Electrification (ARE), Belgium

Mr. Klaus Maier, Corporate Development Manager, Mobisol, Germany

Ms. Tania Roediger-Vorwerk, Deputy Director General, Federal Ministry for Economic Cooperation and Development (BMZ), Germany



**Time:** 14:30 – 16:00

**Room: Ballroom East** 

Session Title: Rural Electrification: Decentralised aspects

#### Questions to be addressed by the session

- 1. Having improved all technical aspects relevant to guarantee access to reliable, clean rural electrification and services and having achieved competitive electricity generation costs, what are the lessons learnt and best ways in the future to:
  - a. **identify** and develop more numerous sites to fill a project pipeline for rural electrification in developing countries?
  - b. **assist** technology providers and local business partners in establishing partnerships for common benefits?
  - c. form collaborations between international and local finance as well as between public and private investors and attract more funding to meet the needs of energy poor communities in developing countries?
  - d. **launch** new or increase existing financing facilities, so as to increase the number of projects that can be implemented (stressing the importance of 'good' projects that can e.g. be replicated and scaled up)?
- 2. What finance schemes exist for supporting high capital costs of higher cost renewable energy projects versus grid power?
- 3. What are the major barriers that typically face project developers when it comes to raising capital to deploy renewable energy rural electrification projects?
- 4. What specific aspects of rural electrification projects make modelling the business challenging?
- 5. What countries are perceived to be thought-leaders when it comes to rural electrification policy based on renewable energy?

#### Session composition

Hon. Ms. Kornelia Shilunga, Deputy Minister of Mines and Energy, Namibia

**Keynote:** Mr. Ernesto Macias, President, Alliance for Rural Electrification (ARE), Belgium

Moderator: Ms. Ina de Visser, Renewable Energy Cooperation Programme, Africa – EU Energy Partnership

Panellists: Mr. Wolsey Barnard, Acting Director General, Department of Energy, South Africa

Mr. Roberto Ridolfi, Director for Sustainable Growth and Development, DG Development Cooperation, European Commission

Mr. Fuad Siala, Consultant, Corporate Planning and Economic Services Unit, OPEC Fund for International Development (OFID)

Mr. Ibrahim Togola, Director, Mali Folkecenter, Mali



Time: 14:30 - 16:00

**Room: Ballroom West** 

Session Title: Technology Innovation: Geothermal

#### Questions to be addressed by the session

1. How can the growth of geothermal energy use be increased?

- 2. Which technology innovations can benefit Southern Africa?
- 3. Is the policy framework beneficial for geothermal energy development in those countries with this renewable energy resource?
- 4. How can REN21 and SAIREC help to boost geothermal deployment?

#### **Session composition**

Keynote: Ms. Marietta Sander, Executive Director, International Geothermal Association (IGA)

Moderator: Mr. Philippe Niyongabo, Head of the Energy Division, African Union Commission (AUC)

Panellists: Ms. Safiatou Alzouma, International Renewable Energy Agency (IRENA)

Mr. Jón Örn Jónsson, Country General Manager Ethiopia, Reykjavik Geothermal, Iceland

Mr. Markos Melaku, Independent Geothermal Consultant, Ethiopia



**Time:** 14:30 – 16:00

Room: Hall 1A

Session Title: Technology Innovation - Hydro

#### Questions to be addressed by the session

1. Given the multiple energy and water management services that hydropower provides, how can hydropower development be optimised to meet the growing water and energy needs?

- 2. How can we ensure that hydropower will be developed sustainability, ensuring that lessons learned on good practice are incorporated into hydropower planning and operation?
- 3. How can regional/cross-border development of hydropower help stimulate development of the available resources, while also maximising benefits?
- 4. How can the private sector be engaged in hydropower development, and how can markets rewards the multiple services that hydropower offers?
- 5. Given the high investment costs of hydropower, where will the investment come from for developing the world's hydropower potential and how can we mobilise it?

#### **Session composition**

**Keynote:** Mr. Richard Taylor, Chief Executive, International Hydropower Association (IHA)

Moderator: Mr. Bo Barta, Energy and Water Resources Engineer, South Africa

Panellists: Mr. Rudy De la Cruz, Manager Project Integration, Eskom, South Africa

Mr. Freddy Lafos Yave Lamfel, Chief of Staff to the Minister of Hydraulic Resources and

Electricity, Democratic Republic of the Congo (tbc)

Mr. Ato Abdulhakim Mohammed, Senior Executive Advisor, Ethiopian Electric Power

Corporation, Ethiopia



**Time:** 14:30 – 16:00

Room: Hall 1B

**Session Title: Technology Innovations: Biomass** 

#### Questions to be addressed by the session

- 1. What can be done to promote collaboration between government and private sector on the collection and dissemination of local and national bioenergy data?
- 2. Where do you see the role of governments to help entrepreneurs secure funding for early stage project development costs that will ensure more bankable projects get implemented?
- 3. Whose responsibility is sustainability and where are the dividing lines of that responsibility?
- 4. What are the key technical and economic barriers in realising the full potential of bioenergy in the African subcontinent and how to overcome the challenges?
- 5. What will governments in Africa be looking forward to at COP21 in Paris as they only emit approximately 3-4 % of the world's GHG?

#### **Session composition**

**Keynote:** Ms. Meghan Sapp, Secretary General, Partners for Euro-African Green Energy (PANGEA),

Belgium

Moderator: Dr. Heinz Kopetz, President, World Bioenergy Association (WBA)

Panellists: Dr. Benard Muok, Director of Program, African Centre for Technological Studies, Kenya

Mr. Gerard J. Ostheimer, Global Lead, SE4All Sustainable Bioenergy High Impact Opportunity,

**United States** 

Mr. Sean Thomas, CEO, Bio2Watt, South Africa

Mr. Mark Tiepelt, Chairman, Southern African Biogas Industry Association (SABIA), South Africa

Mr. Michael Wild, President, International Biomass Torrefaction Council (IBTC), Belgium



**Time:** 16:30 – 18:00

Room: Auditorium 1

Session title: Key findings from SAIREC and adoption of SAIREC declaration

Ms. Mokgadi Modise, Chief Director, Department of Energy, South Africa

Ms. Christine Lins, Executive Secretary, REN21

H.E. Irene Giner-Reichl, President, Global Forum for Sustainable Energy (GFSE)

Ms. Tina Joemat-Pettersson, Minister of Energy of the Republic of South Africa