



ECOWAS Regional Centre for  
Renewable Energy and Energy Efficiency

Centre Régional pour les Energies Renouvelables  
et l'Efficacité Energétique de la CEDEAO

Centro Regional para Energias Renováveis e  
Eficiência Energética da CEDEAO



**IRENA**  
International Renewable Energy Agency



## IRENA-ECREEE workshop on energy planning

10-12 December 2012, Abidjan, Cote D'Ivoire

### Objectives:

- To discuss the role of energy planning in the energy sector development, and penetration of renewable in particular
- To present ECOWAS Renewable Energy Planning Tool (EREP) modeling tool and discuss how to make it more relevant
- To identify areas of collaborations in the field of energy planning

### 10 December

- 8:00 Transportation to venue
- 9:00-9:15 Opening address by ECREEE
- 9:15-9:30 Welcome address by Dolf Gielen (IRENA)
- 9:30-9:45 Self-introduction of participants
- 9:45-10:30 IRENA-ECREEE capacity building framework by David Vilar (ECREEE)
- 10:30-10:45 Coffee break
- 10:45-11:15 Introduction to the workshop by Asami Miketa (IRENA)
- IRENA's mandate and work program
  - Scenario and strategy work
  - EREP model
  - Objective of the workshop
- 11:15-11:30 Energy planning approaches by Dolf Gielen (IRENA)
- 11:30-12:15 IRENA's EREP model: Modeling approach MESSAGE by Mario Tot (IAEA)
- General introduction of MESSAGE modeling approach
  - Optimization
  - Scenario approach
  - Process of model development
- 12:15-13:15 Lunch break
- 13:15-14:45 IRENA's EREP model: Main modeling assumptions by Bruno Merven (IRENA consultant)
- Model structure
  - Scenario definitions
  - Data sources
  - Resource data
  - Characterization of RE technologies (capacity credit, diurnal variation etc)
  - Characterization of non RE technologies (costs, fuel price etc)
  - Characterization of transmission and distribution technologies (loss, cost, reserve margin etc)
- 14:45-15:00 Coffee break
- 15:00-16:00 IRENA's EREP model: Main results by Asami Miketa (IRENA)
- Generation
  - Inter-country trade
  - Grid vs Off grid
  - Generation costs
  - Investment needs
- 16:00-17:00 Discussion on data improvement/alternative assumptions/alternative scenarios moderated by Mario Tot (IAEA)
- 17:00-17:30 Administrative announcements and installation of the model
- 17:30 Transportation to hotel



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## 11 December

- 8:00 Transportation to venue
- 9:00-9:30 Setting up a scenario using the EREP: introduction by Asami Miketa (IRENA)
- 9:30-10:30 Setting up a scenario using the EREP: demonstration by Bruno Merven (IRENA consultant)
- Reference energy system
  - Demand data
  - Generation technology data
  - Investment projects
  - Resource data
  - Trade data
  - T&D data
  - System characteristics
  - Constraints
- 10:30-10:45 Coffee break
- 10:45-12:00 Analyzing results using the EREP: demonstration by Bruno Merven (IRENA consultant)
- Generation
  - Inter-country trade
  - Environmental implications
  - Grid vs off grid power supply
  - Alternative demand
  - Impose on technology choice
  - Alternative technology/fuel costs
  - Trade policy
  - T&D assumptions
- 12:00-13:00 Lunch break
- 13:00-13:45 ECOWAS Regional RE Baseline and Policy (including WAPP Master Plan) by David Vilar (ECREEE)
- 13:45-14:15 Setting up alternative scenarios: introduction by Asami Miketa
- 14:15-15:00 Setting up alternative scenarios: demonstration by Bruno Merven
- 15:00-15:15 Coffee break
- 15:15-17:00 Interactive hands-on session
- 17:00 Transportation to hotel

## 12 December

- 8:00 Transportation to venue
- 9:00-9:30 Objective of the day: introduction by Asami Miketa (IRENA)
- 9:30-10:15 IRENA's approach to energy planning by Dolf Gielen (IRENA)
- 10:15-11:00 IAEA's capacity building activities in the region by Mario Tot (IAEA)
- 11:00-11:15 Coffee break
- 11:15-12:45 Discussion on way forward (moderated by David Vilar)
- The role of energy planning in the energy sector development, and penetration of renewable in particular
  - How to make EREP more relevant: methodology, data, and processes
  - Areas of collaboration in the field of energy planning
- 12:45-13:00 Closing remarks and end of workshop by Dolf Gielen (IRENA)



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13:00-14:00	Lunch break
14:00	Photo session
14:30	Transportation to the hotel