

**Southeast Asia Regional Training Programme on Renewable Energy Resource
Assessment and Mapping**
28 – 30 September 2015, Davao City, Philippines

Tentative Agenda

Monday, 28 September	
08:30-10:00	Registration/ Welcome address 09:00 – 09:10: Welcome address – TAPI/DOST 09:10 – 09:25: Inaugural address – Dr Krishnan S. Raghavan, Coordinator, Technology Transfer, APCTT-ESCAP 09:25 – 09:40: Inaugural address – IRENA 09:40 – 10:00: Key objectives of the workshop – APCTT/IRENA
10:00-10:30	Group photo/ Coffee break
10:30-12:30	Technical Session I & 2 10:30 - 11:00: Technical Session 1: Introduction to Renewable Energy Resource Assessment – Solar and Wind energy – Dr Krishnan S. Raghavan, Coordinator, Technology Transfer, APCTT-ESCAP 11:00 - 12:30: Technical Session 2: Global Initiatives, Online Tools and Regional Best Practices in Solar and Wind Energy Resource Assessments – International / regional organisations <ul style="list-style-type: none"> - Presentation by Mr. Abdulmalik Ali, Global Atlas for Renewable Energy, IRENA - Presentation by Mr. Oliver James Knight, ESMAP Project, World Bank - Presentation by Dr. Jake Badger, Global Wind Atlas project, Technical University of Denmark
12:30-13:30	Lunch
13:30 – 15:00	Technical Session 3 & 4 13:30 - 15:00: Technical Session 3: Selected Country Best Practices in Undertaking Solar and Wind Resource Assessments - Country presentations <ul style="list-style-type: none"> - Brunei Darusalam - Cambodia - Indonesia - Lao DPR 15:00- 15:20: Discussion Session 1: Training opportunities on solar and wind
	15:20 - 15:30 Coffee break
	15:30 – 16:30: Technical Session 3: Selected Country Best Practices in Undertaking Solar and Wind Resource Assessments - Country presentations (cont'd) <ul style="list-style-type: none"> - Malaysia - Philippines (Mr. Nonilo Pena, Chief SRS, DOST-PCIEERD) - Thailand 16:30 – 17:00: Discussion Session 1: Training opportunities on solar and wind

	Tuesday, 29 September	Wednesday, 30 September
09:00-10:45	<p>Introduction to IRENA's Global Atlas; Abdulmalik Oricha Ali</p> <ul style="list-style-type: none"> • Introduction of participants • Overview on the seminar, <i>L. Koerner</i> • 09:45 – 10:45 Introduction to IRENA's Global Atlas and hot spot identification; A. Ali 	<p>Strategies: From the technical potential to the realizable potential; <i>Dr. D. Jacobs</i></p> <p>Limiting factors</p> <ul style="list-style-type: none"> • The availability of resources • The availability of space • Power system flexibility • The availability of grid infrastructure and grid expansion <ul style="list-style-type: none"> ○ Grid expansion planning ○ Increasing interconnection ○ Clean Energy Corridors
10:45-11:00	Coffee break	Coffee break
11:00-12:45	<p>Wind power spatial planning techniques; <i>L. Koerner</i></p> <ul style="list-style-type: none"> • Overview on wind energy estimation • Spatial setup of wind farms • Estimating wind electricity yield • Worked example: Estimating wind capacity and yield at a given site 	<p>Strategies (continued) and Policy mechanisms; <i>Dr. D. Jacobs</i></p> <p>Target setting based on the realizable potential (Ms. Diala)</p> <p>Policy instruments: Feed-in tariffs (Dr. D. Jacobs)</p> <ul style="list-style-type: none"> • FIT design features and locational signals <p>Hands-on exercise: tariff calculation (approx... 60 minutes):</p> <ul style="list-style-type: none"> • Delegates use RENAC's financial analysis tool for wind and solar feed-in-tariff estimation and present their tariffs.
12:45-13:45	Lunch	Lunch
13:45-15:15	<p>Solar power spatial planning techniques; <i>L. Koerner</i></p> <ul style="list-style-type: none"> • Solar resource • Spatial setup of large-scale PV plants • Estimating PV electricity yield • Worked example: Estimating PV capacity and yield at a given site 	<p>Policy mechanisms; <i>Dr. D. Jacobs</i></p> <p>Hands-on exercise: tariff calculation (continued) (Dr. D. Jacobs)</p> <ul style="list-style-type: none"> • discussion of results • Lessons learned <p>Policy instruments Auction Design (Ms. Diala)</p> <ul style="list-style-type: none"> • Crucial auction design issues • Combining FITs and auctions?
15:15-15:30	Coffee break	Coffee break
15:30 -17:00	<p>Hot spot analysis workshop; Economic assessment of solar and wind power for energy planning; <i>L. Koerner</i></p> <p>Hands-on exercise part 1 (ca. 60 minutes):</p> <ul style="list-style-type: none"> • Delegates use Global Atlas and identify hot spot areas in their country for wind and solar energy deployment. <p>Economic assessment of wind for energy planning:</p> <ul style="list-style-type: none"> • Levelised cost of electricity (LCOE) • Worked example: LCOE sensitivity of solar projects • Worked example: LCOE sensitivity of wind projects 	<p>Policy instruments: Net Metering; <i>Dr. D. Jacobs</i></p> <ul style="list-style-type: none"> • Policies for distributed generation • Net Metering design <p>Mini-grids and hybrids: (L. Koerner; Dr. D. Jacobs)</p> <ul style="list-style-type: none"> • Technical and policy issues <p>Hybridization of Diesel mini-grids with PV; <i>L. Koerner</i></p> <ul style="list-style-type: none"> • What is hybridization and where are its limits? • Until what point can we go without storage? • Impact of hybridization on the economics of a mini-grid <p>16:30 -17:00: Panel Discussion and closing remarks – APCTT / IRENA</p>