Training #1 (06/2022) – Key elements of SPLAT-Africa *[AUDA-NEPAD & Power Pools]*

Day 1.1: Introduction to IRENA's SPLAT models

Monday 20 June 2022

Time (CET)	Session	Speaker / participants
9:30 – 9:45	Coffee	
9:45 – 10:00	**Opening remarks**	Remarks: TBD (AUDA-NEPAD)
10:00 – 10:15	**Self-introduction of the participants**	Intervention: All
10:15 – 10:45	**Overall results and interpretation of IRENA's SPLAT models** ▪ Objective of this training ▪ What is SPLAT? ▪ Results from previous studies (WAPP, ACEC, CAPP, NAPP) and implications for planning ▪ Summary of ongoing work ▪ Software development centrally controlled	Presentation: Sebastian STERL (IRENA)
10:45 – 11:30	**Ensuring correct software installations** ▪ MESSAGE software ▪ Correct solver (clp-cbc) ▪ Loading case	*Hands-on session:* Bruno MERVEN (IRENA)
11:30 – 12:00	**SPLAT: Reference Energy Systems and technology representations by country**	Presentation: Mario TOT (IAEA)
12:00 – 13:00	Lunch	
13:00 – 15:00	**SPLAT: Reference Energy Systems** (exercise) ▪ Objective: reach understanding of all participants of the energy flows and conversion processes represented in SPLAT ▪ Already work with SPLAT-Africa (working on single case / participant's own country)	*Hands-on session:* Mario TOT (IAEA)
15:00 – 15:15	Coffee	
15:15 – 17:15	**SPLAT: Reference Energy Systems** (contd.)	*Hands-on session*
17:15 – 17:30	**Conclusion and program for the following day**	Remarks: Sebastian STERL (IRENA)

Day 1.2: Introduction to bulk updates & results viewer with SPLAT Excel utility

Tuesday 21 June 2022

Time (CET)	Session	Speaker / participants
9:30 – 9:45	Coffee	
9:45 – 10:00	**Recap of previous day**	Remarks: Sebastian STERL (IRENA)
10:00 – 12:00	**Introduction to the Excel interface for SPLAT bulk updates** ▪ Excel configuration ▪ Overall purpose; functionalities ▪ Link between interface and MESSAGE files (incl. .adb and .ldb files) ▪ Extracting, viewing, updating generic and specific data for one country	Intervention: Bruno MERVEN (IRENA)
12:00 – 13:00	Lunch	
13:00 – 15:00	**Excel interface: Bulk updates** (exercise)	*Hands-on exercise*: Bruno MERVEN (IRENA)
15:00 – 15:15	Coffee	
15:15 – 16:30	**Introduction to the Excel interface for running SPLAT models and viewing results** ▪ Running SPLAT from interface ▪ Visualisation of results ▪ How to use pivot tables? ▪ Interpretation ▪ Recap of naming conventions	Intervention: Mohammed Bassam BEN TICHA (IRENA)
16:30 – 17:15	**Excel interface: Results** (exercise)	*Hands-on exercise*: Mohammed Bassam BEN TICHA (IRENA)
17:15 – 17:30	**Conclusion and program for the following day**	Remarks: Sebastian STERL (IRENA)

Day 1.3: Technology, resource and storage representation

Wednesday 22 June 2022

Time (CET)	Session	Speaker / participants
9:30 – 9:45	Coffee	
9:45 – 10:00	**Recap of previous day**	Remarks: Sebastian STERL (IRENA)
10:00 – 11:00	SPLAT: Time slices ▪ Temporal resolution ▪ Computational needs ▪ Load regions ▪ Quick demonstration of resolution upgrade with SPLAT	Presentation: Mario TOT (IAEA) & Mohammed Bassam BEN TICHA (IRENA)
11:00 – 12:00	SPLAT: Demand ▪ Needs for demand data ▪ How to update annual demand time series ▪ How to update demand load curves	
12:00 – 13:00	Lunch	
13:00 – 14:00	SPLAT: Data preparation and representation of generation and storage technologies ▪ Representation of hydropower availability profiles ▪ Model supply regions for solar PV, CSP and wind + clustering ▪ Representation of batteries technologies	Presentation: Sebastian STERL (IRENA)
14:00 – 15:00	SPLAT: Resource data (exercise) ▪ Visualisation of results by time slice ▪ Filtering out individual profiles (hydropower) for validation ▪ Feedback on season dates used in SPLAT-Africa ▪ Investigating solar, wind profiles using country-level maps	*Hands-on exercise:* Bruno MERVEN (IRENA)
15:00 – 15:15	Coffee	
15:15 – 17:15	SPLAT: Resource data (exercise, cont'd)	*Hands-on exercise*
17:15 – 17:30	**Conclusion and program for the following day**	Remarks: Sebastian STERL (IRENA)
17:30 – 18:00	**Optional session: Details on representation of batteries**	Presentation: Mohammed Bassam BEN TICHA (IRENA)

Day 1.4: Scenarios, interconnections and Power Pools

Thursday 23 June 2022

Time (CET)	Session	Speaker / participants
9:30 – 9:45	Coffee	
9:45 – 10:00	Recap of previous day	Remarks: Sebastian STERL (IRENA)
10:00 – 11:00	SPLAT: Difference between existing, committed and planned assets (tbd more in training 2)	Presentation: Sebastian STERL (IRENA)
11:00 – 12:00	SPLAT: Representation of cross-border interconnection in RES & Power Pools (introduction) ■ Theoretical background: why cover interconnections? ■ Connecting various country models into a Power Pool model ■ Connecting Power Pools for Continental Masterplan ■ RES representation of interconnections ■ Imports and exports	Presentation: Mario TOT (IAEA) & Mohammed Bassam BEN TICHA (IRENA)
12:00 – 13:00	Lunch	
13:00 – 15:00	SPLAT: RES representation of interconnections (exercise) ■ Running simple scenario without and with interconnections for simple case (e.g. single Power Pool)	*Hands-on exercise*: Bruno MERVEN (IRENA)
15:00 – 15:15	Coffee	
15:15 – 17:15	SPLAT: RES representation of interconnections (exercise, cont'd)	*Hands-on exercise*
17:15 – 17:30	Conclusion and program for the following day	Remarks: Sebastian STERL (IRENA)

Day 1.5: Discussion & way forward

Friday 24 June 2022

Time (CET)	Session	Speaker / participants
9:30 – 9:45	Coffee	
9:45 – 10:00	**Recap of previous days**	Remarks: Sebastian STERL (IRENA)
10:15 – 12:00	**Group discussion on data collection** ▪ Goal for next training: fully configured base case ▪ Data needed to create / validate SPLAT-CMP model base case ▪ Organisation of consultative sessions by AUDA-NEPAD for Power Pools ▪ Weekly update meetings and work by AUDA-NEPAD team before next workshop ▪ Need for version control (follow-up Git WS)	*Discussion:* Sebastian STERL (IRENA) & Asami MIKETA (IRENA)
12:00 – 13:00	Lunch	
13:00 – 15:00	**Group discussion on steps forward (contd.)**	*Discussion*
15:00 – 15:15	Coffee	
15:15 – 17:15	**Group feedback & closing remarks**	Remarks: Sebastian STERL (IRENA) & Asami MIKETA (IRENA)