

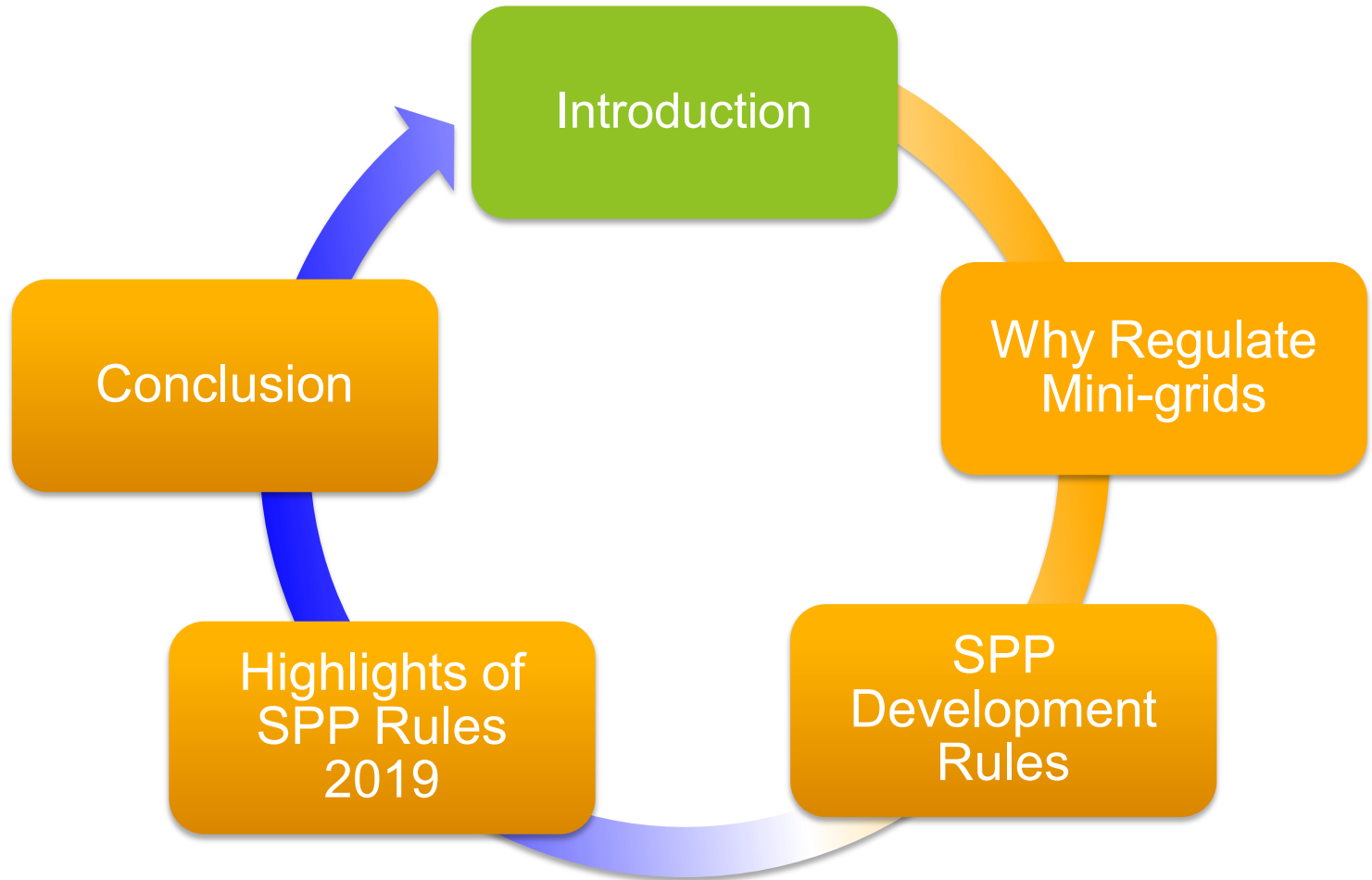


5th Mini-grids Action Learning Event Reaching Universal Energy Access in Ghana

SMALL POWER PROJECTS FRAMEWORK IN TANZANIA

Presented by: Eng. Victor S. Labaa

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MINISTRY OF ENERGY – Policies, Strategies, Master Plans

EWURA

Technical and Economic Regulation

- ❖ Licensing (Technical and safety Standards, Environment)
- ❖ Tariffs (Wholesale + Retail)
- ❖ Quality of Service and Supply Standards

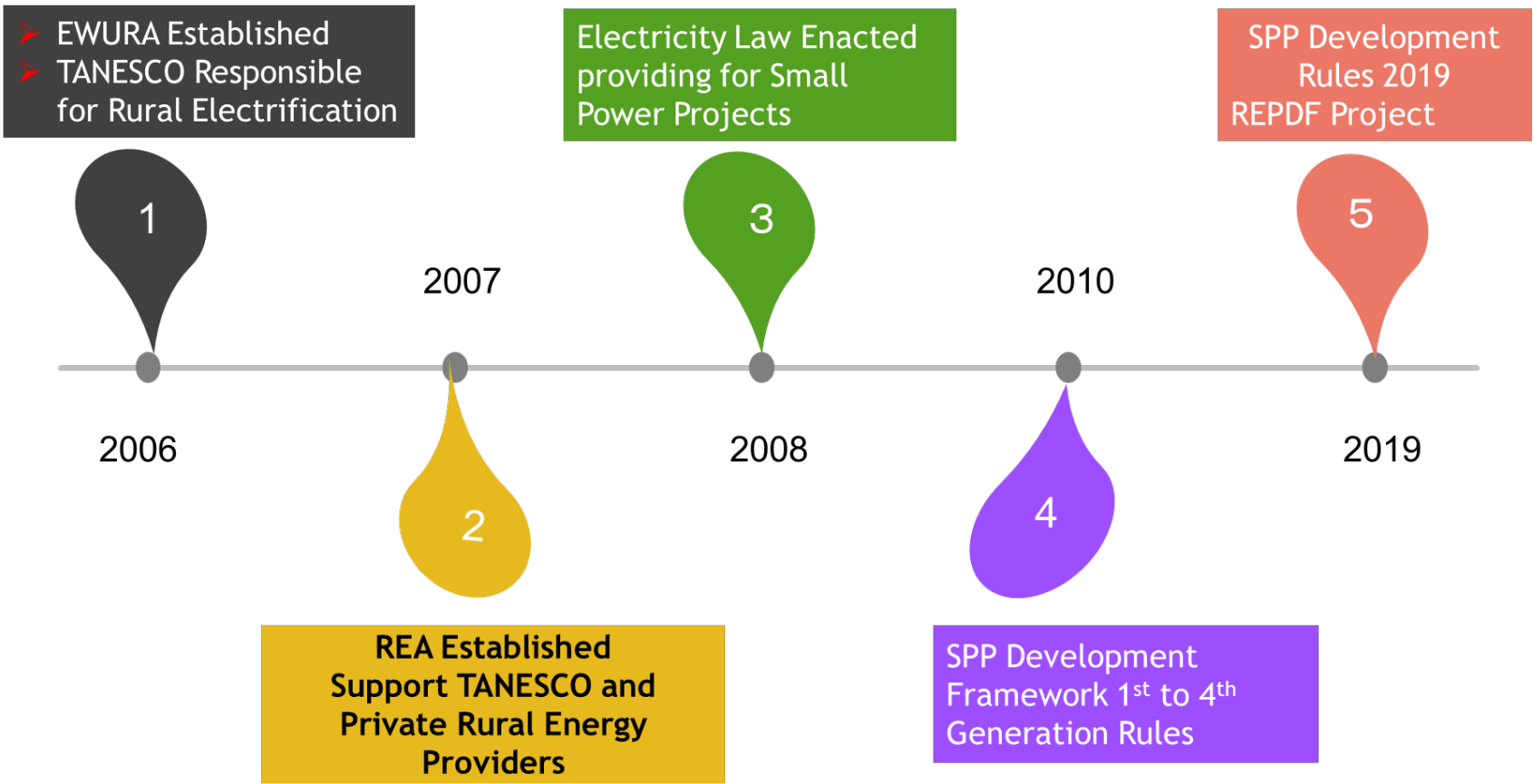
Rural Energy Agency

- ◆ Promotion of Modern Rural Energy Access (Capacity Building)
- ◆ Organize Financial Resources
 - Rural Energy Fund
- ◆ Technical Support

TANESCO

- Main + Isolated Grid Expansion (REA)
- **Whole sale buyer**
- Integrating Mini-grids (Developed by Private)

Evolution of the Mini Grids Framework



Protect Consumers

- Potential abuse of monopoly
 - Price gouging,
 - low standard of technical and safety,
 - and poor service quality

Protect Mini Grid owners

- Incentivize and Protect Investors
 - Remove barrier to Entry
 - Regulate tariffs to cost recovery
 - Reduce risk of main grid arrival

The Electricity (Development of SPP) Rules 2019

Published in the Govt Gazette on 21st June 2019 with GN. 462/2019 and Standardized Small Power Projects Tariff Order with GN. 464/2019

- Promotion of indigenous renewable energy sources
- Light-handed regulation principles
 - Simplified reporting
 - Simplified licensing and permitting procedures
 - Standardized Documentation (SPPA/SPPT Methodology)
- Cost reflective Tariffs
 - Avoided cost of DNO (TANESCO)
 - Technology specific tariffs
- Must take for eligible RE/hybrid
- Long term (20-25 years)

Upon arrival of the main grid, a mini-grid operator can apply to operate as:

- SPP selling electricity to Main Grid : *Mini grid distribution assets can be taken-over by DNO, and compensated provided meets criteria*
- SPD buying electricity from Main Grid and selling to retail customers
- Amend Licence or Permit accordingly
- Sign an SPPA and apply appropriate Tariff
- Meet Interconnection requirements

based on :

- If Mini grid built to TBS Standards
- Licensed or registered
- Interconnection takes place within 2 to 15 years;
- Provided Letter of Support from Government

Note: *Grant portion for distribution assets, deducted during compensation*

Tariffs for SPP, SPD and VSPPs

- Cost recovery / subsidies, technology specific
- Avoided Costs Tariffs looking with Seasonal Variation
- Retail Tariffs assumptions in the model approved

FIRST SCHEDULE

Approved Tariffs for SPPs Selling Electricity to the Grid

Capacity	Minihydro	Wind	Solar	Biomass	Bagasse
	USc/kWh	USc/kWh	USc/kWh	USc/kWh	USc/kWh
0.1 - 0.5MW	10.65	10.82	10.54	10.15	9.71
0.51 - 1 MW	9.90	9.95	9.84	9.34	9.09
1.01 - 5MW	8.95	9.42	9.24	8.64	8.56
5.01 - 10MW	7.83	8.88	8.34	7.60	7.55

SECOND SCHEDULE

Tariffs for Main Grid Connection under the First Generation SPP Framework

Description	2018 Tariff (TZS/kWh)	Approved Tariff effective 1 st May 2019 (TZS/kWh)	Percentage Change	
Standardized Small Power Purchase Tariff	203.11	203.11	0%	
Seasonally adjusted Standardized SPPT Payable in	Dry season	243.73	243.73	0%
	Wet season	182.80	182.80	0%

For VSPPs, we have developed the tariff model:

Taking into account some assumptions including:

- ❖ Installed capacity
- ❖ Cost of debt
- ❖ Return on equity
- ❖ Capacity factor
- ❖ OPEX

Conclusion

- ✓ A Regulator has to balance interests of investors and consumers
- ✓ Good SPP regulatory framework promotes private sector investments
- ✓ Well designed Mini grids increase the rate of access and allows diversification of resources to various sectors
- ✓ Utility can improve grid extensions to consumers but SPPs supply electricity to the consumers farthest from grids and off-grids
- ✓ Light handed regulation with suitable subsidies can make Off-grids sustainable



THANK YOU

**FOR YOUR
ATTENTION**

