

LIMPOPO ALTERNATIVE ENERGY SEMINAR

**Dave Long
Secretary General
SAIPPA**

9 & 10th December, 2021



SAIPPA - Membership (~50)

Industrial IPPs including
Pulp & Paper, Chemical,
Biomass, Sugar, Food, Coal & Gas
Project developers
Equipment suppliers
Service providers
Consultants
Energy lawyers
Funding institutions (IDC)

SAIPPA is technologically agnostic.

Mission

The goals of the Independent Power Producers Association of South Africa are to promote the collective interests of IPP's in South Africa, to assist with public policy formation and implementation, and to serve as a platform for information dissemination to its members.

We seek to pro-actively engage with legislators, government officials, planners and regulators as part of our initiatives to achieve energy security in South, as well as Southern Africa.

SAIPPA does.....

Not replace/compete with the technology specific

IPP bodies such as:-

- Wind (SAWEA)
- PV (SAPVIA)
- Biogas (BIOGAS SA)

Does represents “Other” technologies:

- Industrial, Commercial and IPP sellers
- Cogeneration, coal, gas and bio-fuels

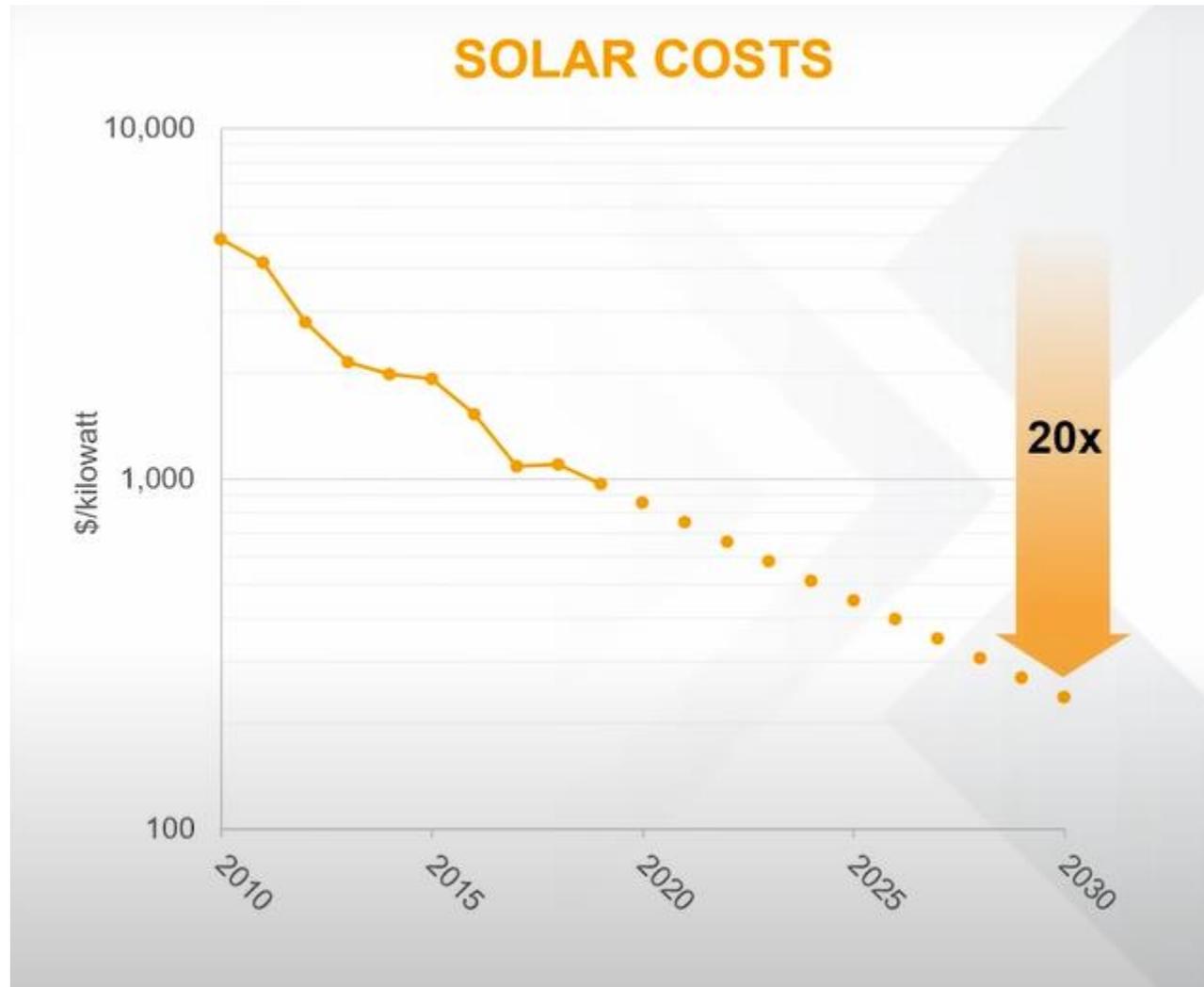
Play a role in national bodies such as:

- PAMSA, SASA, AMEU & SAREC
- BUSA Energy (Business Unity SA)
- Nedlac (IRP, B4SA)

Declining Costs of Renewables

- The decline in PV, wind and battery storage (BESS) has been, and continues to be dramatic.
- Renewables + BESS provide quasi base load solutions
- BESS >> more expensive than generation
- Energy U-curve and Super Power

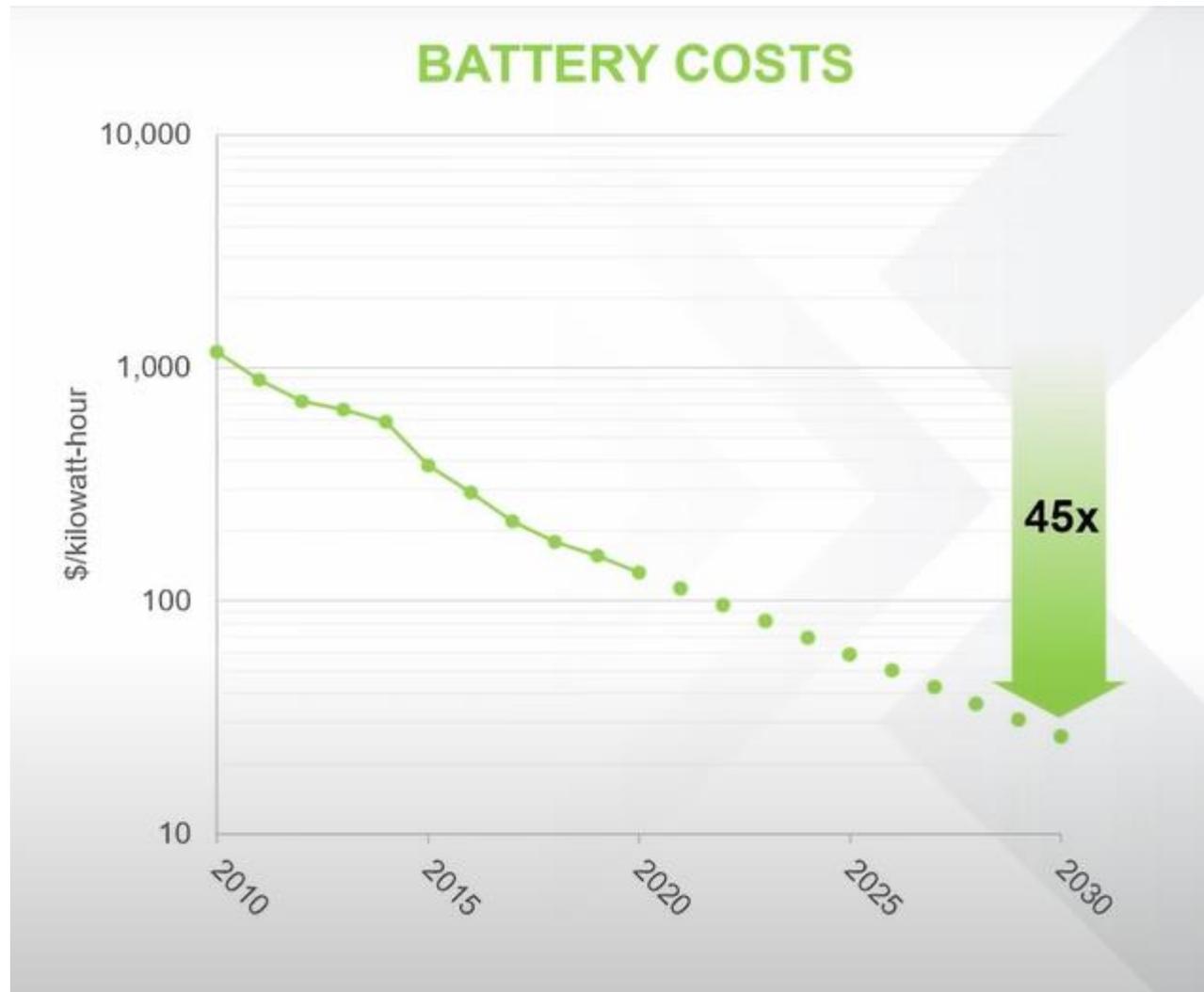
Declining Cost of Renewables



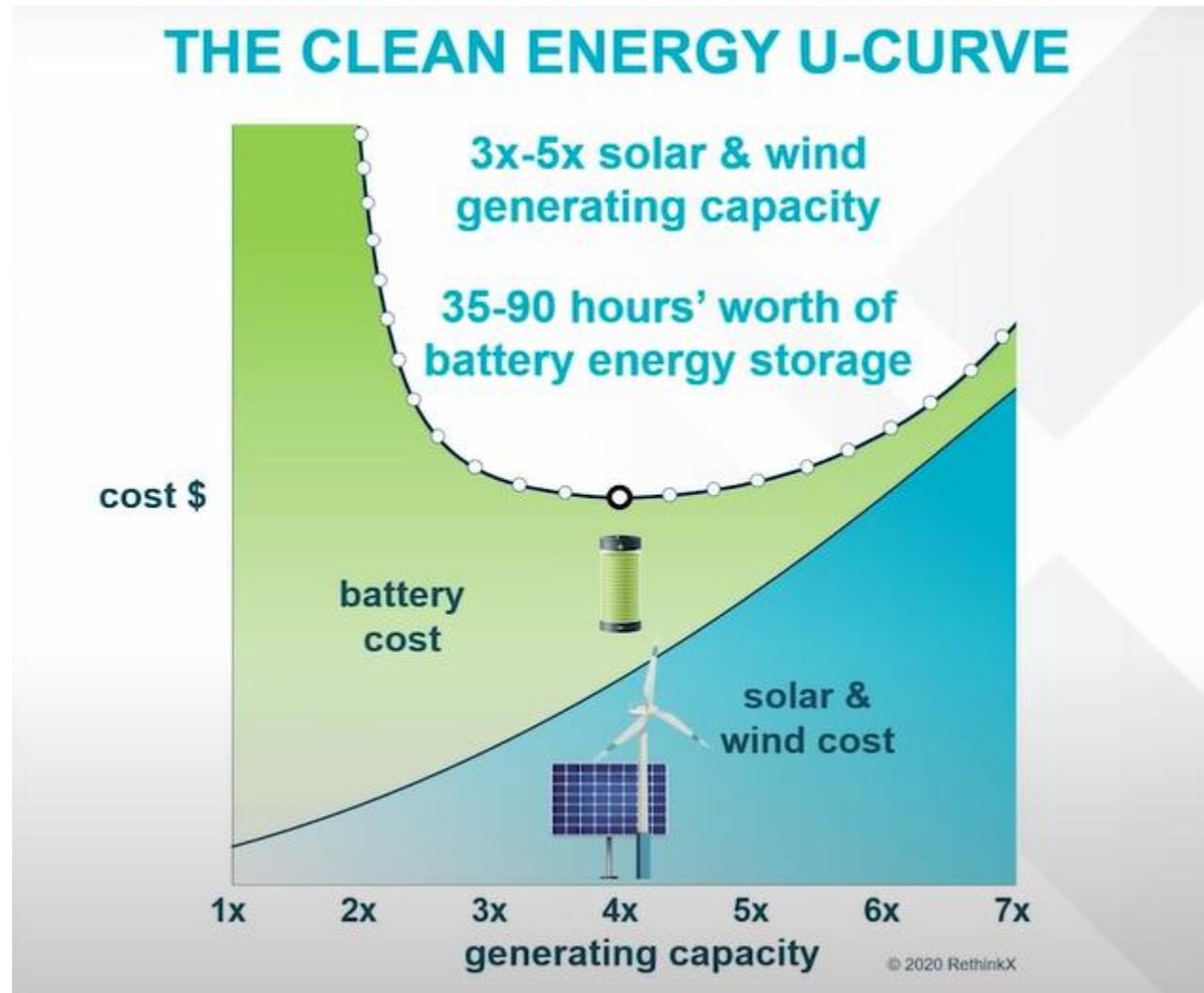
Declining Cost of Renewables



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Declining Cost of Renewables



SAIPPA Work Groups - 1

- We currently run 6 Work Groups
 - Focussed attention by interested members
 - Respond to requests for information and commentary
 - Represent SAIPPA
 - Convened by a specialist
 - Come and Go dependent upon need.
 - Cogeneration & Exporting power disbanded
 - Transmission and Regional SAIPPA being considered.

SAIPPA Work Groups - 2

Wheeling Work Group

- Long standing
- Regulatory Rules on the Third Party Transportation.....etc
- 2015 NERSA Advisory Forum
- GIZ support & recent workshop
- ERA Schedule 2 opening up possibilities
- Easy through Eskom
- Munics are a challenge
- Wheeling Help Desk
- NERSA's initiatives with AMEU – in progress.

SAIPPA Work Groups - 3

Gas Work Group

- RM-IPPPP
- Gas Master Plans – SA & SADC
- Support similar forum at BUSA

SSEG Work Group

- Schedule 2 has dominated since 2017
- Welcomed the 100MW registration limit
- Happy with the support for wheeling

Just Energy Transition

- Focus on IPPs role in JET
- Works with NBI, BLSA and BUSA

SAIPPA Work Groups - 4

Grid Code Work Group

- SAIPPA represented on GCAC
- Grid Codes not always user friendly
- Cogeneration GC currently being addressed.

Networking Work Group

- Handles media interviews and comments
- Regular flow of requests for SAIPPA opinion

Cogeneration in Paper Plants in SA



Turbo - Generators

1 Gas Turbine + WHB

15 Steam

6 sites

301 MW

PAPER

MANUFACTURERS ASSOCIATION
OF SOUTH AFRICA (PAMSA)

What is Cogeneration?

Cogeneration is the simultaneous production of power and heat, in processes where heat is needed:-

- Elevated temperatures in manufacturing
- Drying of manufactured products (paper, sugar, soap powders, etc)
- Space and water heating in buildings, shopping centers, hospitals and public institutions

Also known as Combined Heat and Power (CHP)

In South Africa (NERSA) incl. power production from:

- Waste heat
- CHP
- Biomass and industrial residues

Cogeneration in SA - Summary

| | 2015 Report (MW) | 2017 Update (MW) | |
|-----------|---------------------|---------------------|--------|
| Existing | 1379 | 1511 | Note 1 |
| Potential | 5536 | 6219 | Note 2 |

1. Increases in large manufacturing, waste water and commercial.

2. Limited industrial increase, mostly commercial, hospitals and waste water.

The Sky is the Limit!



Thank you !