

Auctions as a tool to improve investor confidence



IRENA ASEAN Regional
Workshop on
Accelerating Renewable
Energy Investments in
Southeast Asia

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A WORLD ELECTRIFIED BY
RENEWABLE ENERGY

Overview

- > Introduction to Mainstream Renewable Power
- > Case Study – the South African REIPPPP
- > Lessons learned

Introduction to Mainstream



- Mainstream Renewable Power Limited (“Mainstream”) is a leading **global international developer** of large **utility-scale** renewable energy projects

DELIVERED INTO
OPERATION



804MW

IN CONSTRUCTION



549MW

OFFSHORE ASSETS
SOLD WITH CONSENT



3,450MW

IN DEVELOPMENT



9,000MW

- **Four** platforms – onshore wind and solar ASEAN, LATAM, Africa and global Offshore wind
- **ASEAN** – actively developing wind and solar projects in Vietnam and the Philippines. Looking at Thailand, Malaysia and Indonesia
- **Offshore** – developing SE Asia’s largest offshore wind farm – 800MW Soc Trang, Vietnam

Competitive tenders won to date



450MW

- > The Scottish Government awarded Mainstream the licence to develop the Neart na Gaoithe offshore wind farm in 2009.
- > In 2015, the UK Government awarded the project a Contract for Difference (CfD).



4,000MW

- > The Crown Estate awarded SMart Wind the licence to develop the Hornsea Zone.
- > SMart Wind, a JV between Mainstream and Siemens was the only non-utility to be successful.



848MW

- > The South African Government has awarded Mainstream eight projects through its Independent Power Producers Programme (REIPPPP).
- > Jeffreys Bay wind project was one of the first and largest wind energy power plants on the continent of Africa.



250MW

- > The Egyptian Government awarded a 250MW wind project in the Gulf of Suez through the BOO program to our joint venture Lekela Power.



1,286MW

- > The National Energy Commission awarded contracts to build and operate nine wind and solar projects through its competitive energy tender.
- > The 2016 award of 986MW represents 27% of the total allocated capacity and a total investment value of USD \$1.65bn.

Case Study



South Africa – the REI4P



South Africa – the REI4P

National Development Plan

Sets the context for the country to invest in critical infrastructure to deliver economic growth and meet a range of policy goals

10GW of additional electricity capacity required by 2025

Integrated Resources Plan

Sets out the optimum generation mix for the country to meet its electricity obligations under the NDP

Gives a twenty year projection and is updated every political cycle
2018 Draft IRP forecasts additional Solar PV (8GW), Wind (11GW) and large-scale Hydro (4.7GW)

Investor Confidence

Ministerial Determination

New Generation Regulations issued by the Minister of Energy cognisant of the objectives set out in the NDP and IRP

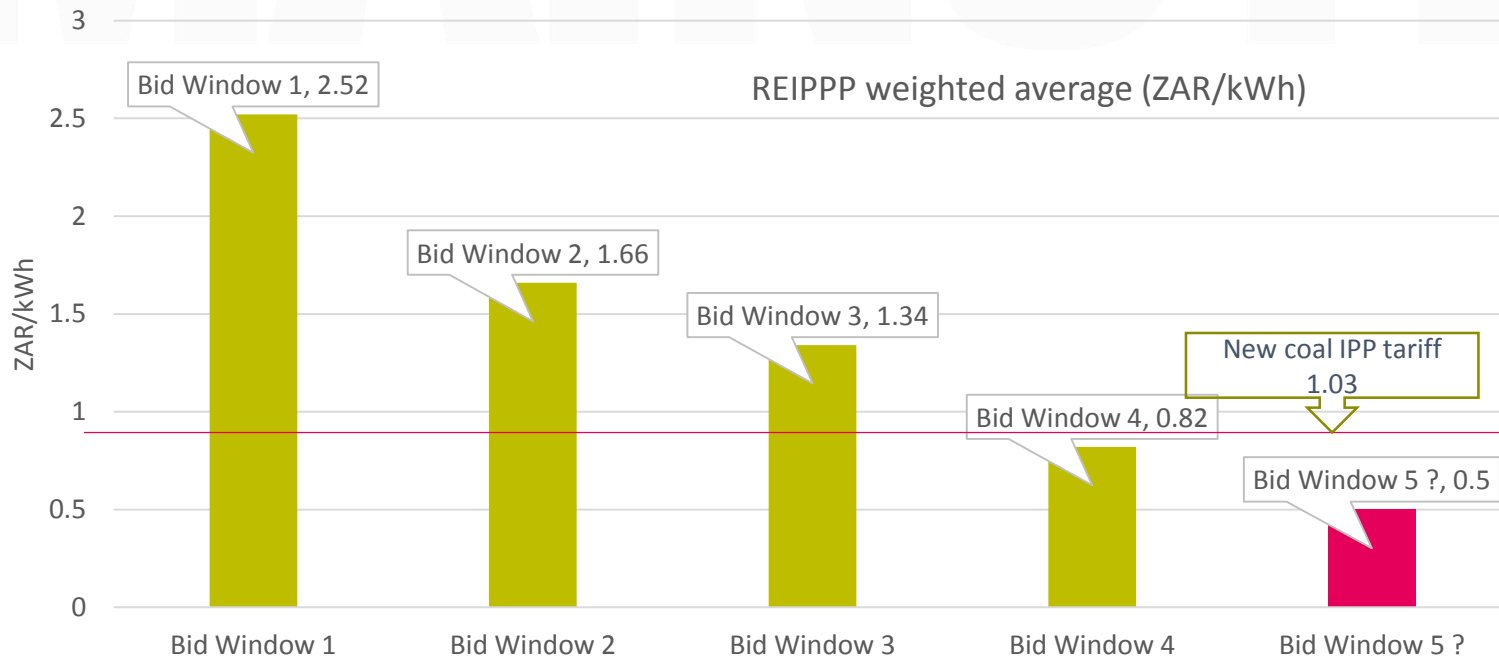
Determinations in 2011, 2012 and 2015

I4P

The Independent Power Producer Programme is established by the National Treasury, the Department of Energy and the Development Bank of South Africa

The IPP Office exists as a standalone entity to administer the I4P and procure the power sought under the Ministerial Determinations

The impact of certainty



The IPPO, through their mandate, have established a **transparent** procurement process that has attracted **international** and **local** investment.

REIPPPP has delivered **6.4GW** of new generation capacity in **8 years**, by successfully aligning to the NDP, IRP and RFP in a well-structured process.

As of June 2017, REIPPPP had created **32,532** direct, Full Time Equivalent (FTE) person-years of employment.

Over **ZAR201.8bn (USD14bn)** raised in committed capital to project costs, of which 24% has been sourced from foreign investors and financiers.

Local industry has grown out of the RFP requirements and this includes **factories** for wind turbine tower fabrication, PV panel assembly, **logistics** companies sourcing large cranes and abnormal local fleets and **interconnection** infrastructure (e.g. high voltage transformers).

Local investment entities have broadened their **asset investment** classes to include renewable generation facilities.

> Openness and Transparency

- Clear government medium term policy framework
- Multiple bid windows
- Independent IPP Office
- Transparent bidding and evaluation process – objective criteria
- Implementation Agreement and non-negotiable PPA

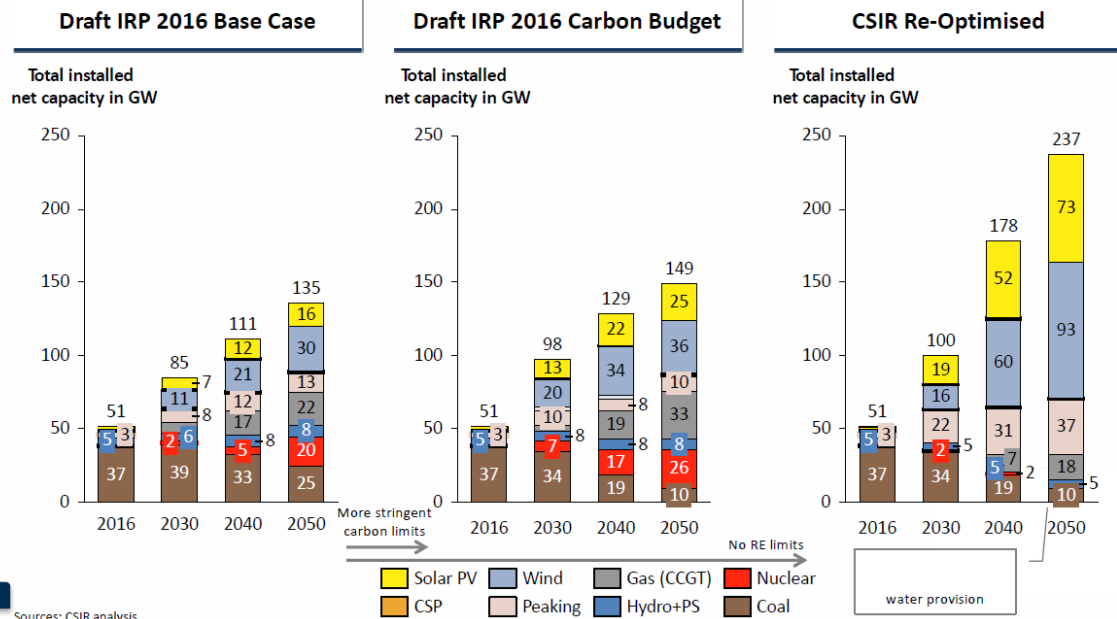
> More than simple price discovery

- Socio-economic criteria
- Supply chain criteria
- Wider government economic development and just transition objectives

New pathways

In the CSIR Re-Optimised case, 100 GW of wind & 60 GW of PV by 2050

As per Draft IRP 2016



CSIR Re-Optimised case without renewables limits is R90 billion/yr cheaper than both IRP 2016 Base Case & IRP 2016 Carbon Budget case

Preliminary Year 2050

Draft IRP 2016 Base Case

Draft IRP 2016 Carbon Budget

CSIR Re-Optimised



R580 billion/yr

CO₂ 200 Mt/yr

40 bn l/yr



R580 billion/yr

CO₂ 100 Mt/yr

16 bn l/yr



R490 billion/yr

CO₂ 70 Mt/yr

11 bn l/yr

Lessons learned



South Africa
Chile
United Kingdom



Lessons learned



- > **Build a market first – FiTs/ administrative round to encourage investment and clarify eligibility, offtake and grid rules**
- > **Medium-term, rolling programmes give Investor certainty and allows government planning**
- > **Clear Government (Finance Dept) backing and independent Bid Office**
- > **Beyond price discovery – what do you want – cheaper than coal/ firm power/ new industry?**
- > **Supply chain growth**
- > **Socio – economic and just transition objectives**

Thank you

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