

Risk Mitigation Independent Power Producer Procurement Programme (RMIPPPP)

Overview of the RFP Design

25 September 2020

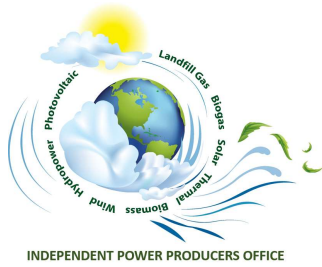
..."it (REIPPPP) has already established a flagship public-private partnership model for South Africa, and indeed the rest of Africa, and in the process is helping alleviate Eskom's current power crisis while also reducing greenhouse gas emissions."

- Enabling Renewable Energy in South Africa: Assessing the REIPPPP, WWF, August 2014



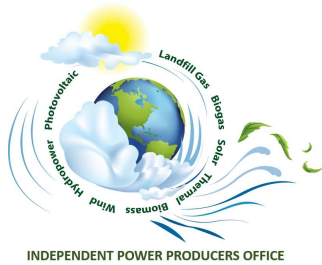
Presentation Outline

1. Background to the RMIPPPP
2. Design of the RFP
3. Innovative Key Features of the RFP
4. Key Milestones



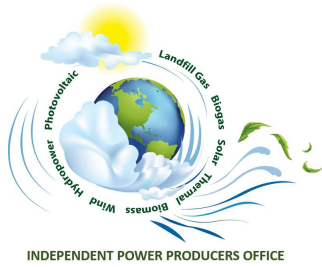
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Background

- South Africa is currently facing a power crisis and **expeditious procurement** of energy into the national grid is critical to maintain security of supply
 - The IRP 2019 indicates a **short-term electricity supply gap of approximately 2 000 MW** between 2019 and 2022
 - Eskom stated its own requirements of a 4000 MW of short to medium term supply gap and there are views in the market of a much larger gap
 - RMIPPPP is but one of the country's response to the current electricity shortages
 - The RMIPPPP is **FIRSTLY** a direct response to fill the supply gap and reduce the extensive utilisation of diesel-based peaking electrical generators in the medium to long term
- In the current environment, any procurement programme cannot disregard the socio-economic challenges in South Africa. As an important **SECOND** pillar, the RFP is designed to support the economic transformation agenda of government



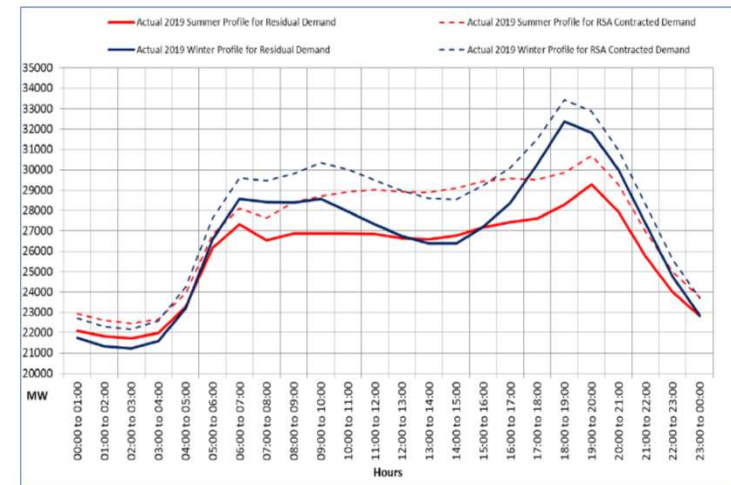
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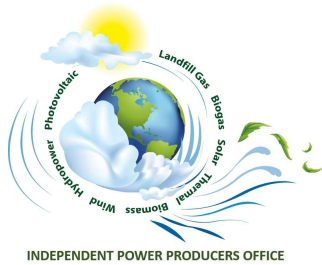


Overview of the Design of the RFP

- **System Requirements:** Given the current constraints, procurement should facilitate a power profile that would address the most critical, immediate requirements of the power system (as communicated by Eskom System Operator) to improve energy security.

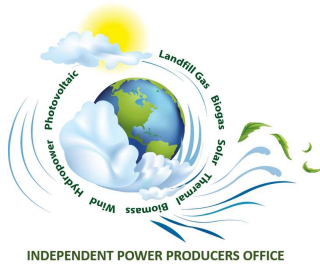


- **Least Cost:** given the current state of the economy, affordability and cost of new power to end consumers is critical. Any new power should be on a least-cost basis and allow value for money
- **Least Regret:** Any rapid procurement solution should not negatively impact, block, derail the future roll out of the IRP. It should ensure alignment and interface with long term procurement programmes as per the IRP 2019



Overview of the Design of the RFP (Cont'd)

- **Quick Connection:** The urgency of the situation requires the 'OPTIMAL POWER SOLUTION' be on line as soon as possible. Realized that Qualification Criteria would have to facilitate participation of projects that are 1) fully developed / near ready and that 2) could connect quick and be operational *as soon as possible*. **BUT** within the parameters of least cost, least regret and system requirement match
- **Grid availability:** Time and quick connection challenges **would not allow for deep grid strengthening or extensive grid and connection works**. Qualification criteria would have to facilitate projects where grid capacity is available and connection can take place within the targeted procurement timelines



Overview of the Design of the RFP (Cont'd)

■ **Investor Confidence:**

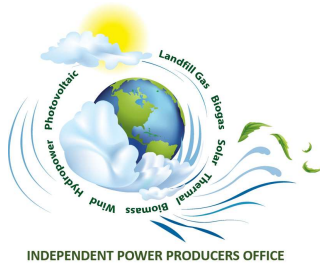
- The RFP and the fundamentals of its commercial arrangements should at all times ensure that it attracts investors through a commercially viable, bankable PPA with acceptable risk allocation

■ **Economic Transformation:**

- The programme will build and where possible intensifies support to the socio-economic transformation agenda of government, encourage opportunities for black industrialists and support the development of black IPPs
- Economic transformation should be promoted throughout the full value chain of a project.

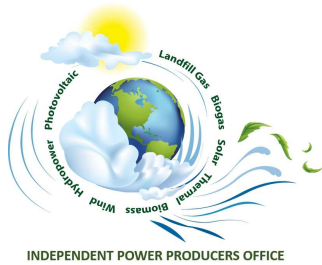
■ **Clean energy / reduction in carbon emissions / decarbonisation:**

- Any power procurement programme should be aligned with South Africa's COP 21 undertakings to reduce carbon emissions and in the structuring of the programme also promote clean energy technologies



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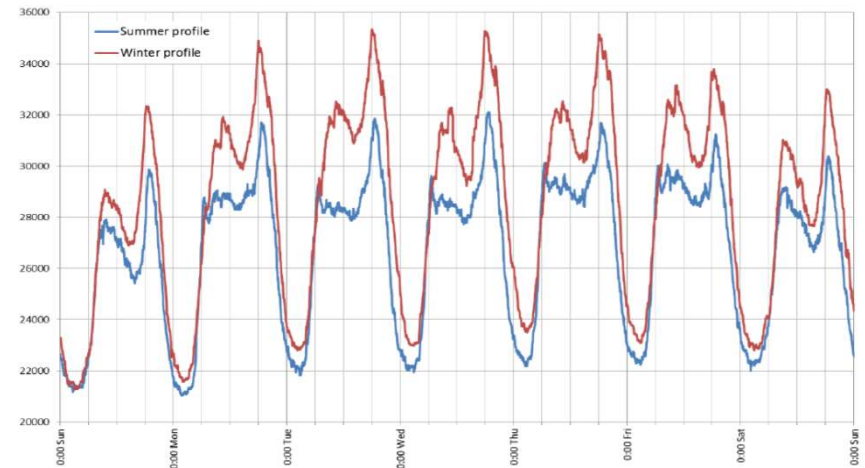
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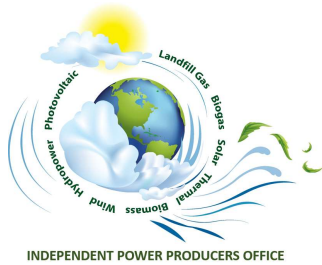
Innovative Key Features of the RMIPPPP RFP

- The RMIPPPP will be procuring generation capacity, as specified by Eskom, with the following **System Requirements**:

- Dispatchable flexible generation
- Should be able to operate between 5h00 to 21h30
- be able to provide energy, capacity and ancillary services
- minimum load factor of 50%
- Etc.



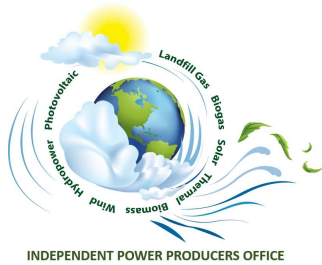
- A first **technology agnostic** and **output based RFP**:
 - Procuring a solution in terms of the system requirements
 - Not prescriptive in terms of the technology that should be used



Innovative Key Features of the RMIPPPP RFP (Cont'd)

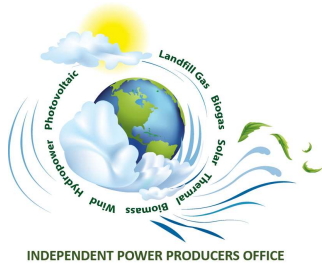
Portfolio Approach – promoting a least cost option

- The nature of the technical requirements will most likely attract fuel based technologies
- Cost of fuel expensive hence the RFP allows a **portfolio approach**
 - A developer can bid a portfolio of facilities which will constitute a “Project”
 - Could result in combination of dispatchable plant with a renewable plant
- ➔ Blended price of these two (or more) facilities will be much lower than a single fuel based plant
- ➔ Portfolio approach will **bring down the average cost** of the procurement programme to a more affordable level for Eskom and most importantly the end consumer
- In terms of the portfolio approach a Project may comprise of any of the following:
 - a single Facility using a single technology solution, on a single Project Site
 - multiple Facilities using different technology solutions (i.e. Fuel and non-fuel based generation), on a single Project Site, or
 - multiple Facilities using different technology solutions, on multiple Project Sites



Innovative Key Features of the RMIPPPP RFP (Cont'd)

- This multiple generation technologies potentially for a single Project without being prescriptive on the types of technologies, to enable the supply of electricity to the grid over a duration in a day as stipulated by Eskom and derive a blended cost of energy to system is a **defining feature of the RMIPPPP**
- **Pointing directives:**
 - The supply of electrical energy to the Seller, by the Buyer or from the system, is prohibited for the purpose of storing energy at an electrical energy storage facility
 - The wheeling contract arrangement is an external contract and it is not within the ambit of this programme
 - If the storage system and generation facility are not co-located at the same site and feeding power at the same connection point, then the facility according to the definition is not a Dispatchable Facility



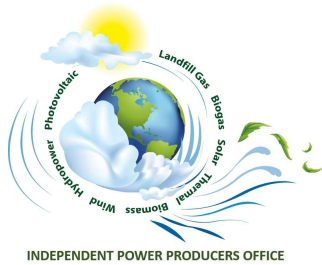
Innovative Key Features of the RMIPPPP RFP (Cont'd)

- Minimum **Contracted Capacity** shall be 50 (fifty) MW and the maximum 450 (four hundred and fifty) MW, subject to there being availability and transmission evacuation capacity at the connection point
- The RFP allows for a **phased grid connection, incentivizing early power** through an incentivized early operating payment mechanism
- All Bidders that are considering reciprocating engine and gas turbine technology are required to bid **dual fuel machines capable of burning natural gas** as one of the alternative fuel without the need for major conversions or refurbishments in the future
- Long stop date for the last permissible commercial operation dates before **end June 2022**



Innovative Key Features of the RMIPPPP RFP (Cont'd) Financial Criteria

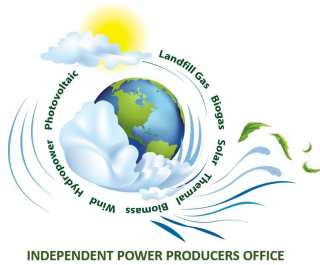
- The major difference of the financial criteria lies in the composition and measurement of the evaluation price:
 - The Evaluation Price will be a **Weighted Evaluation Price** calculated as:
 - the total of the Evaluation Price associated with the sale of energy representing 95%, which will also include the Bidder's cost for grid connection of all Facilities that may make up a Project to the System; and
 - the Evaluation Price associated with the **Ancillary Services** at 5%
 - **Fuel will be treated as a pass** through with the Fuel consumption forecasted in line with relevant indices during the Construction period and Operating Period respectively, of the PPA
- The Department will **benchmark** the Bidder's costs and rates embedded in the Evaluation Price against local and international published benchmark costs and rates
- Bidders must submit two pricing scenarios for **full and partial indexation** respectively. The option selected will be determined by the least cost to the consumer over the life time of the project.



Innovative Key Features of the RMIPPPP RFP (Cont'd))

Economic development Criteria

- ED framework based on REIPPPP + Coal bespoke scorecards but amended to be **more aligned with the Amended BBBEE Codes**
- **Progressive thresholds and targets for development commitments during the construction and operational lifetime of IPPs**
- Where a project consists of more than one facility, ED commitments also applicable to the **facilities.**
- **Local content** in particular more progressive:
 - Commitments also during the operational phase (although no minimum threshold given nature of operational expenditure requirements of different technologies)
 - Designated Local Content included under 40% threshold
 - If threshold cannot be met, Bidders apply to dtic for exemption at least 1 month before Bid Submission Date. Dtic to consider and expedite exemption requests, which will apply to all Bidders if granted
- Bidders further have to meet or exceed stringent minimum thresholds for various Economic Development Elements and Sub-Elements categorised and measured distinctly under Job Creation, Local Content, Ownership, Management Control, Enterprise and Supplier Development, Skills Development and Socio-Economic Development.



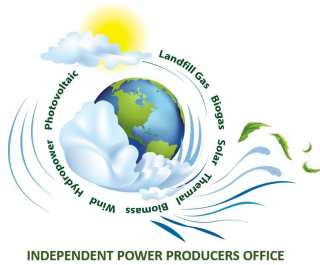
Innovative Key Features of the RMIPPPP RFP (Cont'd)

Economic development Criteria

- Given the long-term and forward looking nature of IPPs to support the economic development imperatives of Government and promote the objectives of the Broad-Based Black Economic Empowerment (B-BBEE) Act, the DMRE has submitted a motivation for exemption from the provisions of the **Preferential Procurement Policy Framework Act (PPPFA)** and the regulations thereto, as well as for a **deviation from the B-BBEE Act No. 53 of 2003 as amended by the B-BBEE Amendment Act No.46 of 2013.**

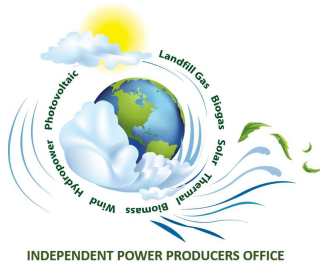


In anticipation of receiving an approval for the request, the RFP has been drafted on the recommended proposals and that the respective exemption and deviation requests will be granted.



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Key Milestones

- | | | |
|-------------------------|---|------------------------------------|
| - 30 October 2020 | ➔ | Closing of Bid Notification Period |
| - 24 November 2020 | ➔ | Bid Submission |
| - 25 – 27 November 2020 | ➔ | COVID Embargo |
| - 28 – 29 November 2020 | ➔ | Bid Opening |
| - 30 November 2020 | ➔ | Evaluation Commences |
| - Dec 2020 / Jan 2021 | ➔ | Preferred Bidder Announcement |
| - + 4 months | ➔ | Financial Close |
| - SCOD | ➔ | June 2022 |



Thank You

Sep-20

