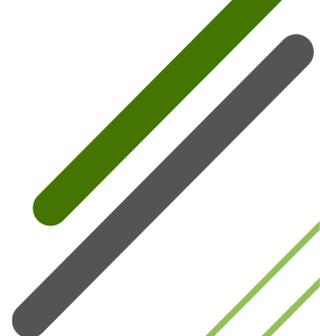




mineral resources & energy

Department:
Mineral Resources and Energy
REPUBLIC OF SOUTH AFRICA



The Risk Mitigation Independent Power Producer Procurement Programme (RMIPPPP) in Context





In response to recent articles in the media following the announcement of the Preferred Bidders under the RMIPPPP, there is a need to provide context around the objectives, design and the outcome of the RMIPPPP.

Objectives of the RMIPPPP

The 2 000 MW Ministerial Determination that was gazetted on 7 July 2020, following NERSA public consultation and concurrence, has two objectives, namely to **procure new generation capacity:**

- **from a range of source technologies** to address the electricity capacity supply gap as identified in the IRP2019; and
- to reduce the extensive utilisation of expensive diesel-based peaking open cycle gas turbine (OCGT) generators in the medium-to-long-term.

The RMIPPPP was designed with these two objectives in mind.

Unique design of the RMIPPPP

It is important to understand from the outset that this procurement cannot be compared with previous Bid Windows procured by the DMRE where specific technologies were targeted. The performance specifications of the RMIPPPP were stipulated by the Transmission System Operator (SO) which, among others, included the need for each Project to be dispatchable between 05:00 and 21:30 daily in response to the instruction from the SO. In addition, each project is required to provide Ancillary Services, which are necessary for grid stability. These design features, combined with the need to keep the tariff low, resulted in the unique RMIPPPP design that was to be implemented for the first time in South Africa.

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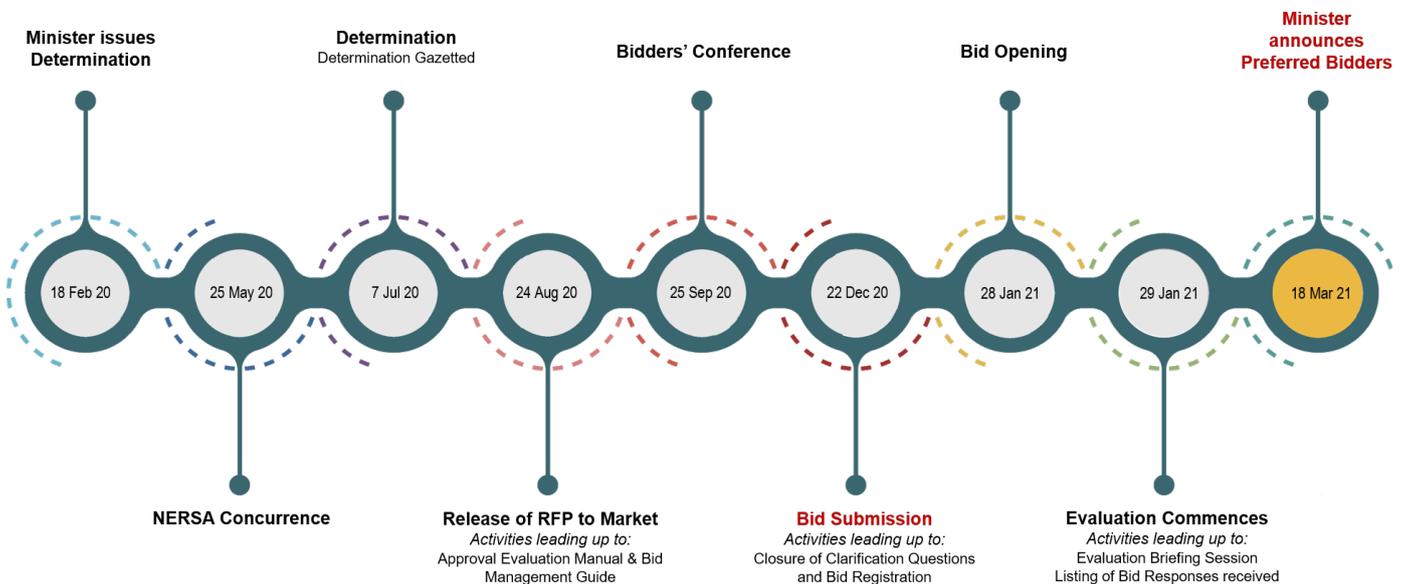
The defining and innovative technical feature of the RMIPPPP is that multiple generation facilities located at different geographical locations could be bid as a single dispatchable Project, without being prescriptive on the types of technologies. This was to enable developers to take advantage of the cheaper non-dispatchable technologies that could be bundled together with the dispatchable facility to create an economically competitive dispatchable Project. As all projects are to be dispatchable, the SO will have the choice of dispatching each project on the basis of an economic merit order, which will ultimately benefit the South African consumer.

In response to the current supply constraints the RMIPPPP had very tight deadlines to reach commercial operation as soon as possible, but no later than December 2022. The RMIPPPP was specifically aimed at attracting the participation of projects that meet the technical requirements, and that are fully developed or near ready to be able to connect to the national grid and be operational within a short space of time.

The RMIPPPP is therefore fundamentally different from the self-dispatch nature of the Renewable



Energy Independent Power Producer Procurement Programme (REIPPPP) and other programmes that targeted specific technologies (e.g. coal). Not only is the design of the RMIPPPP RFP unique, procurement documents were also produced on record time in response to the current electricity supply challenges. Thankfully the market also responded timeously during bid submission as demonstrated in this timeline:



*Risk Mitigation IPP Procurement Programme
Timeframes as at 15 March 2021*

Bid Evaluation is based on robust qualification and competitive criteria, and conducted independently

The IPPPPP RFPs are designed based on the principles of minimum technical, financial, economic development and legal qualification criteria that a bidder is required to comply with prior to the price evaluation process. This procurement approach is in compliance with the procurement laws of South Africa. The procurement documents are developed by IPP Office with support from independent reputable transaction advisory firms, and evaluation is undertaken by an independent evaluation committee, similarly made up of an independent team of transaction advisors.

The RMIPPPP RFP design and evaluation was conducted on this exact basis. Bids needed to meet the minimum technical, financial, economic development and legal qualification criteria for the procurement of specific power system services and performance criteria, from various generation technologies, prior to being evaluated on a 90/10 weighting basis of Evaluation Bid Price and Economic Development commitments. The qualification criteria included, amongst others:

- Technical criteria in respect of generation capacity to be provided, the availability of the energy in terms of SO requirements, and confirmation from Eskom of access to the national grid;
- Confirmation that the Bidder has the required financial backing and a bid guarantee from financiers;
- Confirmation of the status of the company or the Joint Venture, including the required BB-EEE Contributor Level status;

- Confirmation that the bidder meets the required South African Entity Participation (SAEP) requirements of 49%, which specifically refers to shareholding by South African Citizens in the Project Company undertaking the Project;
- Compliance with the minimum thresholds of the Economic Development obligations in respect of Job creation, Local Content, Ownership, Management Control, Enterprise and Supplier Development, Socio Economic Development and Skills Development; and
- Price, which is evaluated against internationally benchmarked prices for various technologies.

The Compliant Bids that achieved the highest scores in terms of the 90/10 principle based on the lowest bid evaluation tariff and highest economic development commitments, and within a cumulative contracted capacity of 2,000MW, were then selected as a Preferred Bidder for the RMIPPPP.

Bid Evaluation of RMIPPPP

A total of 8 Preferred Bidders and 3 Eligible Bidders were announced by the Minister on 18th March 2021, totalling 1 845.76MW and 150MW respectively. Detailed information of the Preferred Bidder projects is available here www.ipp-projects.co.za/PressCentre.

The different technologies bid are indeed all envisaged under the IRP including Gas (LNG) and Storage (Batteries). The hybrid nature of most of the projects, and the competition, achieved a level playing field under the RMIPPPP (28 Bids submitted, totalling 5117MW).

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Key facts regarding the RMIPPPP qualification criteria

Some of the misconceptions in the media around the cost, technical and environmental requirements of the RMIPPPP need specific clarification.

Firstly, the minimum dispatch commitment under the RMIPPPP is for a 50% load factor in a year, over the lifetime of the Power Purchase Agreement (20 years).

Bidders were required to provide Charge Rates to be used for the calculation of Underlying Price A (at 100% load factor), Underlying Price B (at 75% load factor) and to calculate the Evaluation Price in accordance with the specific requirements set out in Financial Qualification Criteria in the RFP.

The Evaluation Price is a weighted price made up of 95% for Capacity and Energy Output and 5% for the provision of Ancillary Services. The Evaluation Price is also required to include all grid connection costs, the impact of carbon tax if applicable and the cost of fuel (based on the forecast provided by the Department), if applicable.

The Evaluation Price furthermore represents an aggregated price that is built up from the Capacity, Fixed O&M, Variable Cost and Fuel Charge Rates (collectively 95% of the Evaluation Price) together with an allowance for Ancillary Services (5% of the Evaluation Price). The relative weightings between the various Charge Rates reflect the particular technology solution proposed by a Bidder.

For the first time, an IPP Programme has introduced foreign currency based fuel technologies in the Gas (LNG) projects that were selected.. In the case of these gas projects, it is important to note that NERSA will regulate the maximum price of LNG which is no different than what is currently the case for LPG and Diesel.

The 20-year term of the PPA is aligned to the REIPPPP, however there are fundamental differences in the risk allocation to the Buyer. Whereas under the self-dispatch regime of the REIPPPP there is a take or pay obligation from the Buyer, this is not the case under the RMIPPPP. The minimum dispatch commitment from the Buyer means that the projects will have to rely on the Buyer to issue a dispatch instruction. The tariff is an all-in tariff with the IPP taking all risks associated with availability and performance. The PPA provides for a penalty deduction from the Capacity Charge if there is no availability. Energy output will only be paid for if delivered in response to a dispatch instruction, taking into account the minimum load commitment from the Buyer.

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The 20-year term of the PPA is necessary to enable the project to recover the cost of establishing the generation capacity and ensure its availability to generate electricity when called upon through a dispatch instruction from the Buyer. The term of the PPA enables the IPP to be able to serve its debt, equity and other obligations including fuel off take agreements. Without this longer term certainty of the 20-year PPA, the prices of these projects could have as much as tripled.

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Local Content is a key qualification criteria in the RFP. As part of the qualification criteria Bidders have to demonstrate a 40% threshold to pass the qualification criteria. Thereafter, Bidders were scored on the commitment made on Local Content in the Bespoke Scorecard, which was developed in consultation with dtic and National Treasury, and for which exemptions were required under the PPPFA and BBB-EE legislation. The benefit of this is that it allows the programme to make forward looking commitments which will last over the 20 years of the contract.

It is important to understand that Local Content is calculated as a percentage of Total Project Value. Total Project Value is calculated taking into account certain excluded amounts such as banking cost and lease cost in respect of the project site or the project. It is also a feature of the RMIPPPP, acknowledging the shortcomings in the local manufacturing sector, that all Bidders could apply to the dtic for exemptions from certain Local Content designations as published by National Treasury and that such exemptions would be taken into account during the evaluation. This regime was available to all Bidders and was granted on a case by case basis in respect of the applications received from Bidders. The DMRE is not involved in the process of granting exemptions.

The decision by government to appoint the RMIPPPP preferred bidders was also informed by a number of economic considerations. The ability to get MW on line quickly through these projects was a key factor, but broader economic multiplier impacts were just as, if not more, important.



Through the RMIPPPP it has been proven that gas is one of the cheaper options to balance the energy system, with combined renewables and battery energy storage being competitive, but not necessarily the cheapest.

The introduction of Natural Gas in the broader South African energy mix is an important step in our energy transition. The FSRU infrastructure at the ports can be used as a stepping stone to enable further opportunities for local industrialization and manufacturing that are currently utilizing higher cost fuel, as recognised in the IRP2019.

The new gas supply infrastructure also opens discussions on the possibility of repurposing old Eskom coal-fired power stations to operate on gas, in the areas where there are concerns about the decommissioning of the old coal-fired power plants.

As we develop a gas industry in South Africa, we have to appreciate that we are not going to manufacture everything locally from day one. This was exactly the same situation when we introduced renewables into the energy mix 10 years ago. We will have to rely on international suppliers to kick start this process. Similarly, we do not currently have local LNG supply available in the economy, but recent explorations and findings offer very exciting prospects and it is likely that, in the future, local gas will become the cheapest fuel option, because it will be sourced closest to where it will be required and used.

What happens next?

There are several steps to be taken for these projects to reach financial close, most of which are the preferred bidders' risk and responsibility. This includes obtaining the necessary final environmental authorisations, based on the draft final scoping reports and studies that were required to have been submitted by the bidders during bid submission. Other requirements include finalising relevant rights and permits from other entities, including the National Port Authorities, as well as generation licences from the Energy Regulator (Nersa). The RFP is very specific on the requirements that need to be fulfilled in order for the project to sign a Power Purchase Agreement (PPA), including legal and regulatory approvals, rights, licenses and permits. No PPA can be entered into unless all the requirements as set out in the RFP have been fulfilled.

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In summary

The outcomes of the RMIPPPP will, once the contracts are concluded, provide the Buyer with powers system services procured in a fair, transparent and competitive way. These projects will be available to generate energy output when called upon (to avoid load shedding) and provide ancillary services to reduce the significant cost of using diesel that is currently the only option available to the Buyer. At the same time the programme will support socio-economic development, job creation, local manufacturing and South African participation.

