

## IRP INPUT PARAMETERS

### D10: Own generation - IRP 2010 Input Parameter

Parameter	Own Generation																																																												
Parameter Value	<p>The following generation capacity is seen as non-Eskom and it used to supply the energy that Eskom is not supplying:</p> <table><tr><th></th><th>Capacity (MW)</th><th>Load factor (%)</th></tr><tr><td>Coal-fired</td><td></td><td></td></tr><tr><td>Coal-fired</td><td></td><td></td></tr><tr><td>Kelvin A</td><td>50</td><td>62,4</td></tr><tr><td>Kelvin B</td><td>155</td><td>62,4</td></tr><tr><td>Rooiwal</td><td>155</td><td>62,4</td></tr><tr><td>Pretoria West</td><td>75</td><td>62,4</td></tr><tr><td>Sasol SSF - Coal-fired PF</td><td>520</td><td>62,4</td></tr><tr><td>Sasol Infrachem - Coal-fired PF</td><td>130</td><td>62,4</td></tr><tr><td>Pumped Storage</td><td></td><td></td></tr><tr><td>Steenbras</td><td>180</td><td>20</td></tr><tr><td>Limited Energy Plant</td><td></td><td></td></tr><tr><td>Mini Hydro (First Falls, Second Falls, Mbashe and Ncore)</td><td>70</td><td>62,4</td></tr><tr><td>Sappi Stanger</td><td>155</td><td>62,4</td></tr><tr><td>Mondi Merebank</td><td>50</td><td>62,4</td></tr><tr><td>Mondi Felixton</td><td>10</td><td>62,4</td></tr><tr><td>Mondi Umhlathuze</td><td>13</td><td>62,4</td></tr><tr><td>Methane Waste Gas</td><td>9</td><td>62,4</td></tr><tr><td>Sugar Mills</td><td>100</td><td>62,4</td></tr><tr><td>Mossgas</td><td>90</td><td>62,4</td></tr></table> <p>Notes:</p> <p>(1) Kelvin power station has had operational issues in the recent past – the proposal is to limit the capacity to that used in IRP 2010 Rev 1 (205MW, as above).</p> <p>(2) All non-Eskom emergency gas turbine capacity will not be included in the IRP 2010 model.</p> <p>(3) New capacity being developed (or in current operation) under the Medium Term Power Purchase Programme (MTPPP) are included in the Generation Life Cycle Cost parameter sheet (S9).</p>		Capacity (MW)	Load factor (%)	Coal-fired			Coal-fired			Kelvin A	50	62,4	Kelvin B	155	62,4	Rooiwal	155	62,4	Pretoria West	75	62,4	Sasol SSF - Coal-fired PF	520	62,4	Sasol Infrachem - Coal-fired PF	130	62,4	Pumped Storage			Steenbras	180	20	Limited Energy Plant			Mini Hydro (First Falls, Second Falls, Mbashe and Ncore)	70	62,4	Sappi Stanger	155	62,4	Mondi Merebank	50	62,4	Mondi Felixton	10	62,4	Mondi Umhlathuze	13	62,4	Methane Waste Gas	9	62,4	Sugar Mills	100	62,4	Mossgas	90	62,4
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Rationale	<p>Future non-Eskom capacity is not separately modelled, as the outcome of the IRP is the required capacity to fill demand gaps (and is not specifically owned by a provider). The determination of who builds the new capacity is made after the IRP is completed. Even though there is additional capacity being planned by private developers these have not been included as fixed programmes; the IRP will rather indicate how generic options should fill gaps, and these programmes can be identified in the Feasibility process after the IRP.</p>																																																												

**energy**Department:  
Energy  
REPUBLIC OF SOUTH AFRICA

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Responses to Public Inputs	Summary of specific comments	Response
	Inclusion of “clean coal power” problematic – requires definition (90x2030, ELA, Mbani Wesizwe)	The inclusion of “clean coal” was merely an indication of potential benefits of own generation. It was premature to make this distinction. Such technologies have yet to be proven commercially.
	Focus seems to be on industrial users – should also include potential self-generation from individuals, communities and municipalities – including renewable options (90x2030)	Noted. For the purposes of the IRP the key was identifying existing own generation – which is predominantly at a large industrial level. New generation, including decentralised generation or self-supply, would fill the generic capacity requirements indicated in the final IRP.
	Own generation should include renewable options. The IRP should give credit to environmentally friendly process such as waste heat recovery. (ACMP)	Noted.
	Parameter sheet is optimistic about the timescale for introducing own generation from waste coal resources. (CIC)	Noted. All potential for new generation will be treated as generic in the IRP (except for the gas of bagasse and imports) and potential projects will need to identify which capacity requirement in the IRP they will be fulfilling.
	What programmes are planned to enable/encourage industries and residents to self-supply? Is Own Generation regarded as a supply-side option (CJN!-WC)	The IRP does not incorporate any programmes to support self-supply. Existing non-Eskom capacity is included, but new capacity is treated as generic.
	Wheeling is a critical issue to be resolved (CIC, Coega Development Corporation, IES, Private-WB, SAWEA)	Noted.
	Own generation should be enforced through a combination of punitive tariffs and as a condition of license (for mines, etc.) (ELA)	Noted. The IRP does not incorporate any programmes to support self-supply.
	Inconsistent approach to transmission expenditure – excluded elsewhere, but is the reduction thereof is noted as a benefit of own generation (ELA)	As part of the criteria assessment the cost of transmission infrastructure will be determined for each scenario and evaluated.
	Strategy of encouraging CHP should be included in the IRP (up to the potential maximum of 2400MW indicated) (Energy Caucus)	All potential for new generation will be treated as generic in the IRP (except for the gas of bagasse and imports) and potential projects will need to identify which capacity requirement in the IRP they will be fulfilling.
	Own generation should be incentivised as it reduces the state funding burden for new generation (IES, Windlab Developments SA)	Noted.