

IRP INPUT PARAMETERS

S10: Generating Plant Location - IRP 2010 Input Parameter

Parameter	Generating Plant Location	
Parameter Value	No account is made of location in the IRP model, but a location analysis will be conducted for each scenario following the model outputs as an input to the criteria analysis.	
Rationale	<p>Certain technology options will require additional infrastructure (either through transport, transmission, water, amongst others) in order to make the projects viable in particular regions. This requires an understanding of potential locations for each technology, and then an assessment of the infrastructure requirement into that location. Inputs from stakeholders will be used to make this assessment, of location and associated infrastructure requirements, including Eskom's Transmission Strategic Grid Plan. Additional information will be required on water sources and infrastructure needs, gas pipelines and LNG infrastructure development, railway and road linkages (if necessary).</p> <p>The positive impacts of certain location development will also be included in this assessment, in particular the saving of infrastructure investment for Transmission, amongst others.</p>	
Responses to Public Inputs	Summary of specific comments	Response
	The IRP model should consider the location of a plant as it has implications across the board from fuel supply to transmission costs and supply to local air quality limits to water supply to job creation. (90x2030, CIC, CJN!-WC, Coega Development Corporation, DoE, ELA, NECSA, NIASA, Private-AR, Private-WB, SAWEA, Windlab Developments SA)	As indicated above, there will be a locational analysis as part of the criteria assessment to determine the additional costs associated to generation locations.
	Distributed grid generation must form an important input parameter. (ACMP, 90x2030, CJN!-WC, Just Energy, Private-WB) Broad implications of this decentralising, particularly in terms of avoided distribution losses trend should be included. (Just Energy, Mbani Wesizwe, SAWEA, Windlab Developments SA)	Noted. The benefits of distributed generation can be included as part of the location analysis.
	Private Power, including solar often means rural development with wind generation being coastal. All have the ability to offset the coal dependent concentration in Mpumalanga, as well as reduce the water burden in the Highveld. (IES)	Noted.
	Nuclear plants are able to produce water outside of the peaking period, not only via conventional reverse osmosis, which is extremely energy intensive, but also via very efficient thermal desalination processes that directly employ steam produced by the reactor. Given the looming water shortages this could pose a significant benefit that is not feasible at inland power plants. (NIASA)	Noted.