

**CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD**

TENDER BRIEFING: 131S/2023/24

Starting at 10:05

NB: If you have just joined, please mute your microphone

Type your name, company represented and e-mail address in the IM

This meeting will be recorded

Please keep questions for end of presentation

Making progress possible. Together.



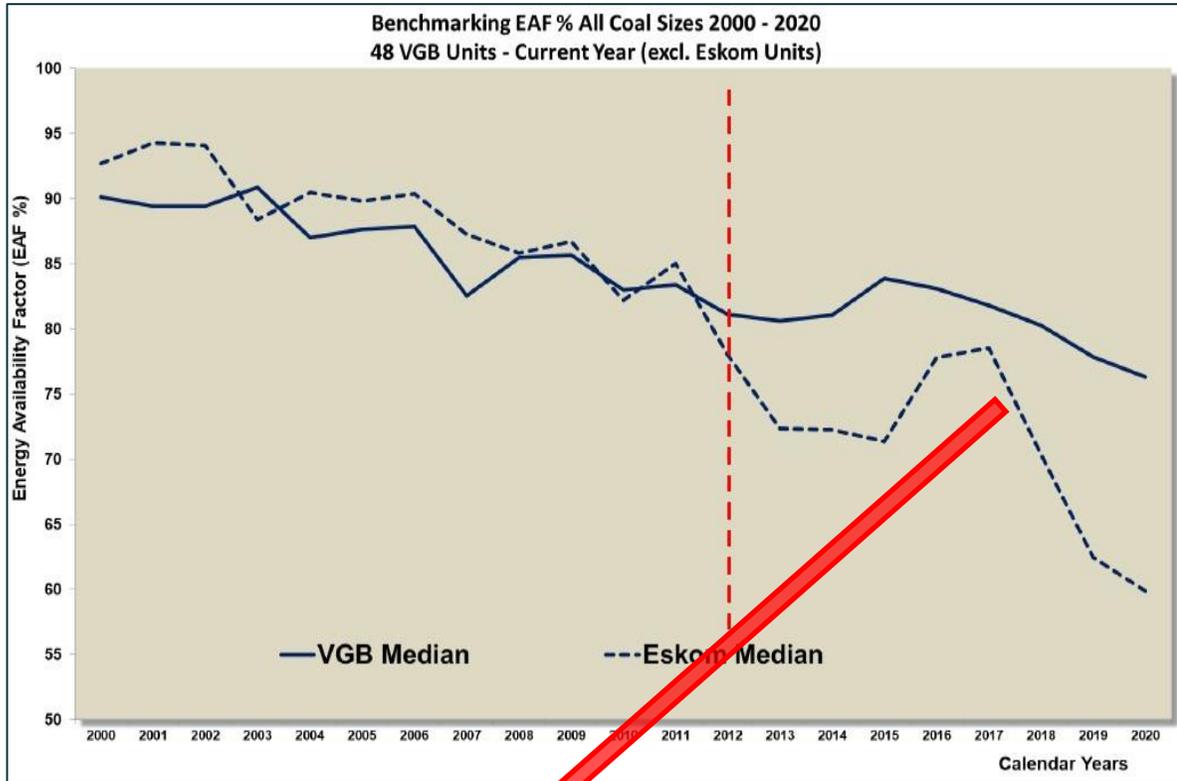
CITY OF CAPE TOWN
ISIXEKO SASEKAPA
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131S/2023/24 : Purchase of Power from Existing Generators Tender Clarification Meeting

Bashkaran Vandeyar
16 January 2024

Making progress possible. **Together.**

ENERGY CONTEXT: ESKOM AVAILABILITY

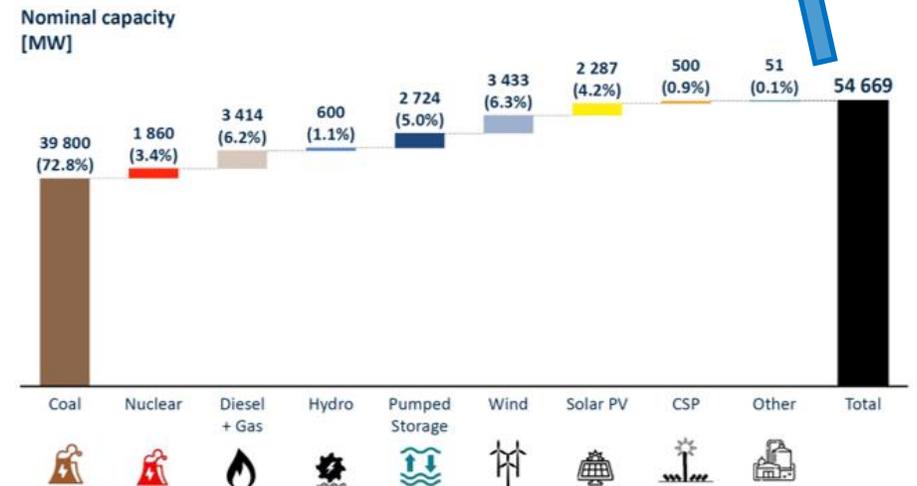


DECLINING EAF AND INCREASING EUF

MAXIMUM DEMAND < 34 GW (2022)

Nominal capacity by end of 2022

Actual nominal installed capacity at 31 Dec 2022 (excluding embedded generation capacity and private capacity)



2021 (31 Dec 2021, MW)	Coal	Nuclear	Diesel + Gas	Hydro	Pumped Storage	Wind	Solar PV	CSP	Other	Total
	39 314	1 860	3 414	600	2 724	3 023	2 212	500	26	53 673

Notes: RE = Renewable Energy; Total nominal installed capacity = Eskom capacity + IPPs; Embedded generation and municipal-owned capacity excluded
Sources: Eskom

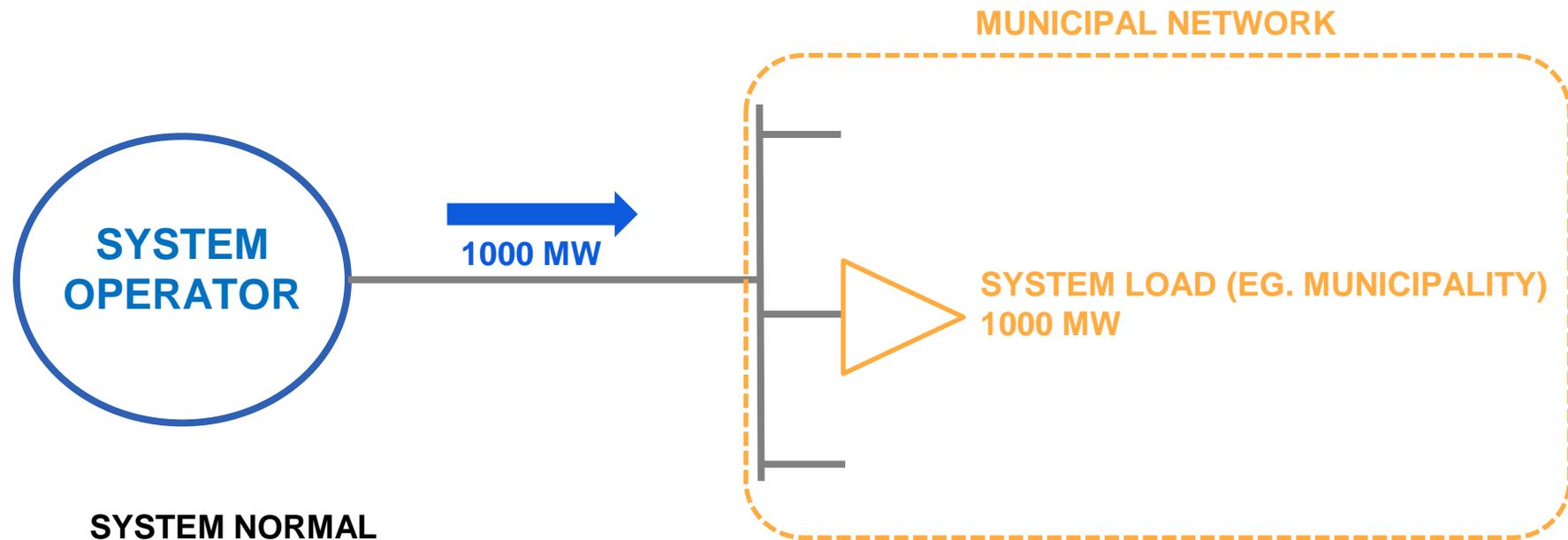
LOAD SHEDDING MITIGATION (LSM) CONTEXT

- Declining EAF and increasing EUF of aging Eskom coal fleet pointing towards potential collapse of the energy supply/demand balance
- LS not only used to protect system frequency over peaks anymore, but as an “energy management tool” to counter low reserve levels (water/ diesel)
- Loadshedding characteristics have changed over past few years:
 - Becoming more severe (Stage 4 now exceeds Stage 2 – “normalised”)
 - Loadshedding periods lasting longer (90+ days continuous LS)
 - Decoupled from seasonality (no longer a summer event)
- City response is not constrained to a capacity focused solution (MW installed capacity) but focus on broader system energy requirements and power management
- Adequate response must meet two fundamental criteria:
 - **Dispatchability** (output can be controlled and can be held in reserve until activated)
 - **Large Energy Output** (High power output over long periods)



APPROPRIATE FUNCTIONALITY FOR LSM – BASE SCENARIO

SYSTEM “NORMAL”



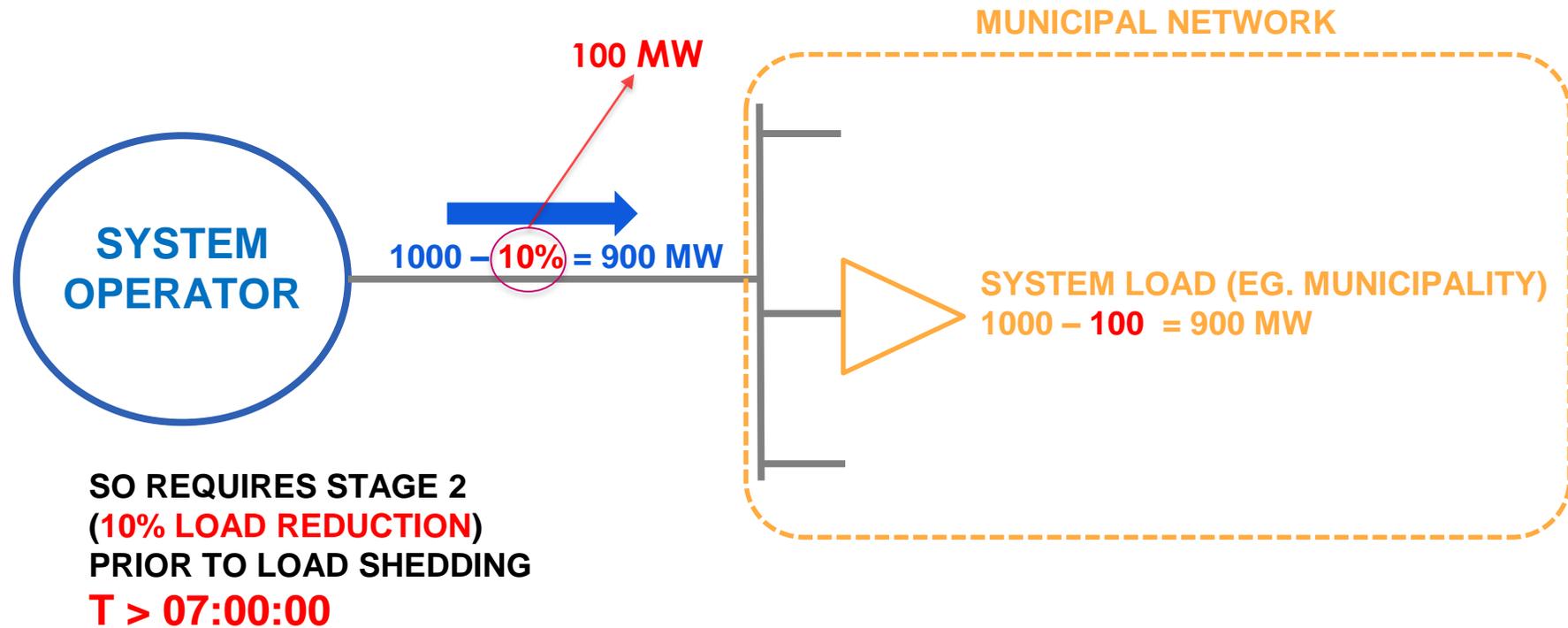
SYSTEM NORMAL
PRIOR TO LOAD SHEDDING

T = 07:00:00

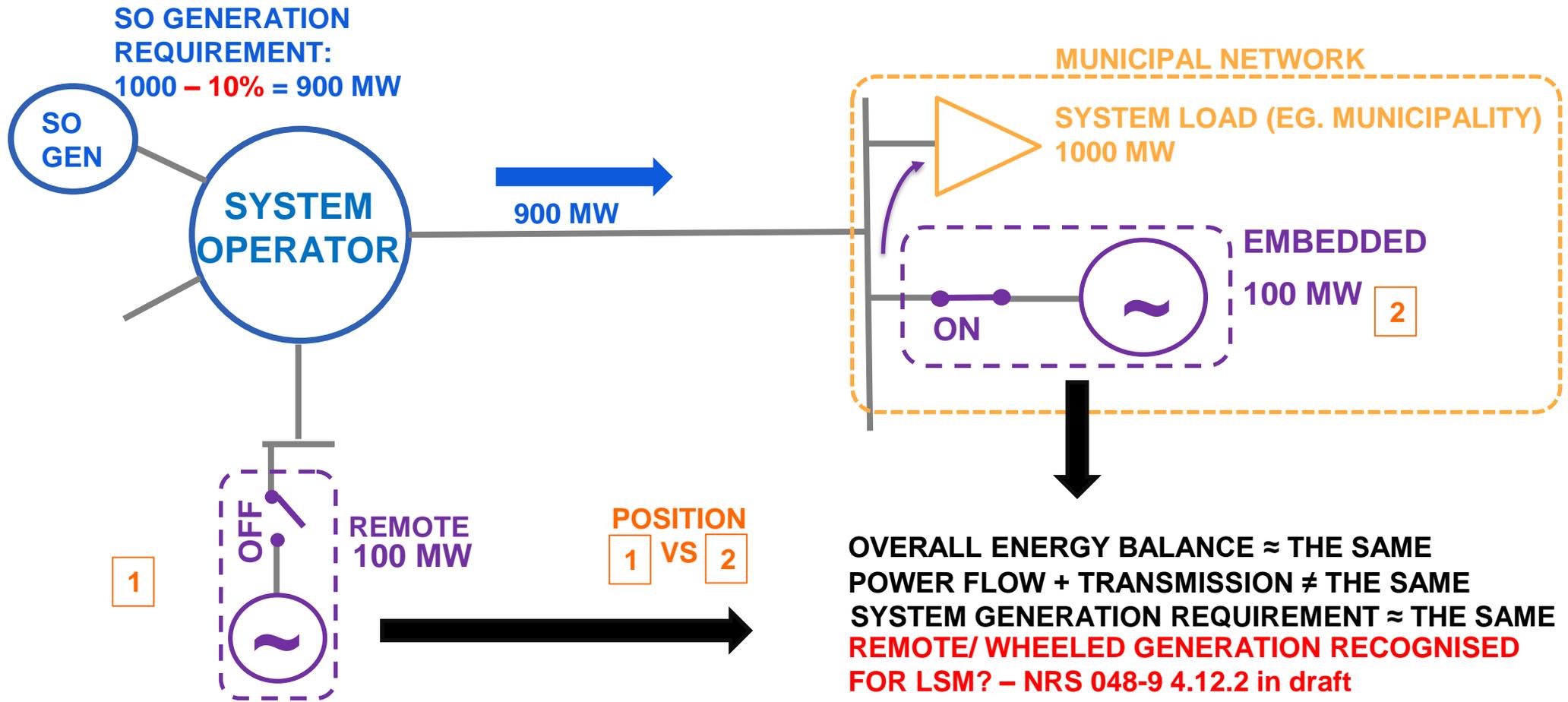


APPROPRIATE FUNCTIONALITY FOR LSM – BASE SCENARIO

SYSTEM “**ABNORMAL**”



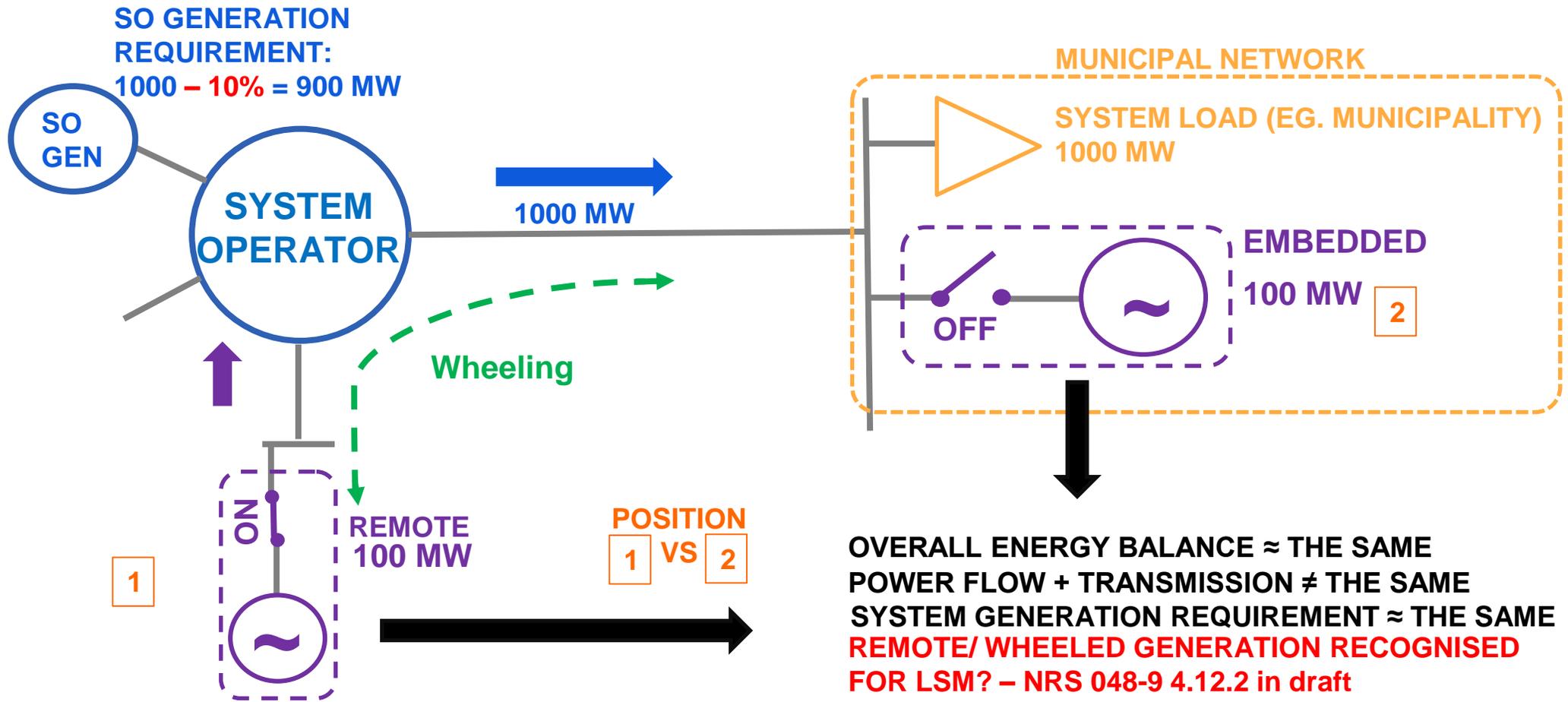
APPROPRIATE FUNCTIONALITY FOR LSM – LOCATION + OPERATION



OVERALL ENERGY BALANCE ≈ THE SAME
POWER FLOW + TRANSMISSION ≠ THE SAME
SYSTEM GENERATION REQUIREMENT ≈ THE SAME
REMOTE/ WHEELED GENERATION RECOGNISED
FOR LSM? – NRS 048-9 4.12.2 in draft

APPROPRIATE FUNCTIONALITY FOR LSM – LOCATION + OPERATION

1



PROCUREMENT DESIGN – BASIC DESCRIPTION

SEE SECTION 2.1.5.1 OF
TENDER DOCUMENT

Target Capacities of Procurement (500 MW AC):

- 300 MW of Reserve/ Dispatchable Power
5 MW ≤ Plant unit size < 300 MW
- 200 MW of Self-dispatchable Power (**optional***)
1 MW ≤ Plant unit size < 200 MW

*Optional self-dispatchable capacity offered to provide a steady flow of income from energy sales revenue to improve overall cost feasibility

Connection Points:

- Connection either to CCT grid **or** Eskom/ Municipality
- Grid connection costs for the bidder to factor into offering and determined prior to bid
- To obtain a Cost Estimate Letters from the CCT such requests shall be submitted 2 months prior to tender close
- Recognition of remote generation by Eskom for load-shedding assumed

Contract Duration (Short Term Power Purchase Agreement (STPPA)):

- **3 years starting asap (subject to procurement process and section 33)**



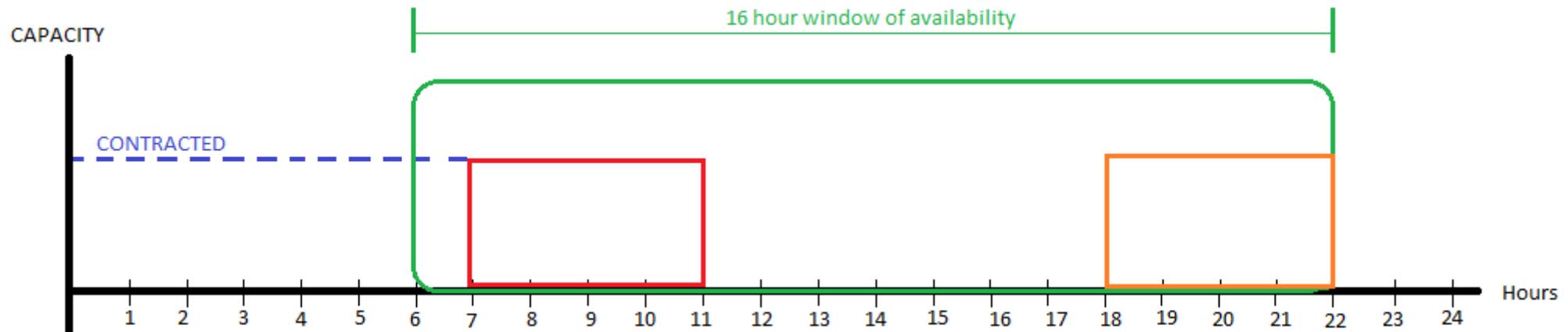
SPECIFICATION – Key points

SEE SECTION 13 OF TENDER DOCUMENT

“Existing Plant” refers to generation plant that has already been constructed and is functional (although not necessarily connected to the grid) at the time of tender

“Component power generation plants ” are defined as power generation plants that consist of a singular power generation technology, e.g., solar PV, wind power, energy storage, gas-to-power etc.

The contracted dispatchable/ reserve capacity of the power plant must be available between 6am and 10pm on any given weekday and at minimum be able to provide the contracted capacity for a contiguous period of at least 4 hours (or greater as specified in Schedule 14C). The dispatch regime is described in the STPPA.



PROCUREMENT DESIGN – PRICING STRUCTURE: DISPATCHABLE POWER

Schedule A: Dispatchable (Reserve) Power [Compulsory]

Plant Availability	
Maximum Weekday Hours available between 06:00 and 22:00 (hours)	As per Schedule 14C - 26

<i>Rates as at Base Date</i>					
Dispatchable (Reserve) Capacity** MW	Season	Time of Use Period	Weekday Energy Rate	Capacity Charge	Fuel Rate* Recovery
			R/kWh	R/kVA/month	R/kWh
As per Schedule 14C - 25	High Demand	Peak			
		Standard			
		Off-Peak			
	Low Demand	Peak			
		Standard			
		Off-Peak			

**Minimum of 5MW

*Applicable Fuel Index: _____
(either RSA CPI, LPG, DIESEL, BRENT CRUDE OR NATURAL GAS)

Plant availability captured in schedules and explained in specification

No guaranteed off-take

Lower prices increases probability and frequency of dispatch

SEE FORM OF OFFER AND ACCEPTANCE (SECTION 4) OF VOLUME 2 OF TENDER DOC



PROCUREMENT DESIGN – PRICING STRUCTURE: SELF-DISPATCHABLE POWER

Schedule B: Self-dispatchable [Optional]

<i>Rates as at Base Date</i>				
Self-dispatchable Capacity***	Season	Time of Use Period	Commercial Rate	Energy
MW			R/kWh****	
As per Schedule 14C - 28	High Demand	Peak		
		Standard		
		Off-Peak		
	Low Demand	Peak		
		Standard		
		Off-Peak		

***Minimum of 1 MW

****May not exceed the 2023/24 ESKOM Local Authority (Munic):

- a) Megaflex active energy charge [>132kV voltage, >900km transmission zone] for facilities **within the CCT Network**, or
- b) WEPS active energy charge (excl. losses) for facilities **outside the CCT Network**.

All power will be purchased (subject to allowed grid unavailability as described in STPPA)

Energy Charge Rate should be cheaper than current energy charge rates from Eskom

SEE FORM OF OFFER AND ACCEPTANCE (SECTION 4) OF VOLUME 2 OF TENDER DOC

PROCUREMENT DESIGN – EVALUATION OF OFFERS

- Bid prices will be used to calculate **OVERALL** cost difference (per kWh) with respect to Eskom over contract period. This must factor in:
 - Self-dispatchable profile (where opted for)
 - Cost price adjustment
 - Assumed dispatch profile
- Eskom tariff inflation of 12.74% for 2024/25 and 11% thereafter is assumed
- Consistent benchmark and calculation for all bidders
- Bids awarded on incremental basis, starting with the highest scoring bid and continuing with progressively lower scoring bids, up until the full targeted allocations have been reached or network capacity exhausted.
- Single STPPA per a bid



TENDER DOCUMENTS

-  Tender_doc_131s-2023-24
-  Copy of Financial_Input_Template..
-  Schedule 1_Details_of_facility
-  Schedule 2_Notice_of_contracted_capacity
-  Schedule 3_Outages and Deratings
-  Schedule 4_TestingandInspection
-  Schedule 5_CalculationofPayments
-  Short_term_PPA

TO BE COMPLETELY POPULATED AND
SUBMITTED AS PART OF SUBMISSION BY 8 APRIL

MUST BE READ BEFORE SUBMISSION BUT CAN
BE POPULATED AFTER CONTRACT AWARD

KEY ASPECTS TO TENDER PROCESS

- Single Stage Bidding process – Technical and Financial proposal in one submission
- Bidders with multiple proposals must submit separate bid documents for each, which will be evaluated as stand-alone bids. Where multiple bids use common components, only one bid can be successful
- CCT Grid capacity will only be reserved after award as stipulated in the tender
- It must be emphasized that schedules 14 and 15, the form of offer and acceptance as well as all documentation in Schedule 13, must be fully populated and submitted (along with standard tender returnables)
- Information submitted must be consistent
- The populated financial input sheet must be returned on a flash drive in excel format
- Tender Closing Date: 08 April 2024



ESTIMATED TIMELINES

Activity	Projected End Date
Tender Opens	8 December 2023
Tender Closes and Bidders submit Proposals	08 April 2024
Evaluation Completed and Preferred Bidders Selected	30 June 2024
S33 Process Completed	30 November 2024
Final Negotiations and Contract Award (STPPA Signature)	01 February 2025
Satisfying Conditions Precedent and Commercial Operation Date	Between March 2025 and 01 February 2026
Contract End	Between March 2028 and 01 February 2029



FAQs

Question	Response
If my plant is not constructed but will be ready before the anticipated COD, will it be eligible?	No, the plant must be fully constructed prior to tender close
If my plant was decommissioned, will it be able to be entered as part of my bid	Yes, if it meets the specification (functional) and can reach COD within the timelines stipulated
Can I alter my plant capacity after tender close?	The contracted capacity stipulated in the bid cannot be increased, but possibly reduced based on network
Can you stipulate a utilization factor?	Load shedding is not predicable, and for mitigation capacity has to be held in reserve and cannot be dispatched outside those periods
Could my plant be used for peak shaving or other applications other than LSM?	Yes, that is not the primary intention, but could be considered if it makes economic sense for the CCT
Can I stipulate conditions or amendments to the PPA	Material deviations from the tender document or any change that could impact fairness will not be accommodated



QUERIES

All queries should submitted to:

IPPExistingGenerators@Capetown.gov.za

CC: SCM.Energy@Capetown.gov.za

QUESTIONS

Feel free to raise any questions now, alternatively e-mail us.



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Thank You

Making progress possible. Together.