

# EKURHULENI IPP POWER PROCUREMENT PROGRAM

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**City of  
Ekurhuleni**

# Why are we doing this



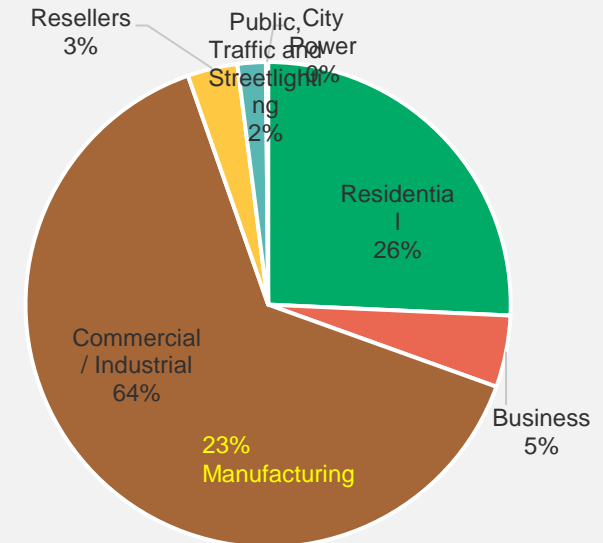
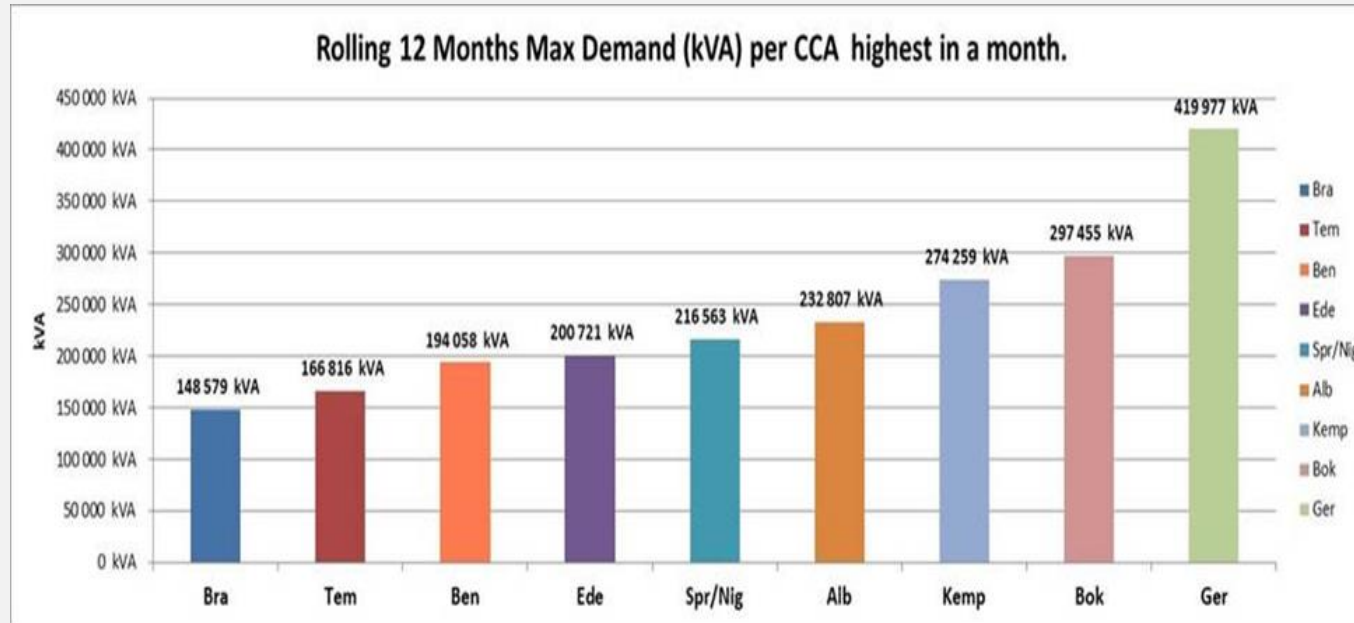
## *What are the problems we hope to solve*

- No utility scale generation plant in CoE
- Unreliable supply – load shedding is a threat to energy security (*De-load Eskom*)
- Rising Eskom electricity prices – Buffer customers against rising cost of electricity
- Lack of job opportunities – to stimulate economic growth
- High level of GHG emission – contribute towards lowering carbon footprint and meet CoE energy and climate change targets(30% renewable energy by 2030)

# Background



- CoE is a category A Municipality
- One of the country's largest Metros, as well as one of the largest electricity distributors.



- CoE has no power stations and reliant on Eskom for power requirements with a total of 2500MVA demand (7% contribution to SA demand)
- The city approved an Energy and Climate Change Strategy and one of the objectives is to diversify energy supply to include renewable and cleaner energy sources with a target of 10% by 2020 and 30% by 2030

# Programme Implementation



- ❖ 47 IPPs appointed through an RFP process (Mainly BBBEE and SMME)
- ❖ Eskom Megaflex tariff plus discount for 17 years
- ❖ Accepted only embedded IPPs (no wheeling), capacity 5MW and above
- ❖ MFMA section 33 process conducted and completed (NT views & Recom),(Council resolution)
- ❖ Section 34 of ERA on new generation regulations applied for - ***concurrency stage /schedule 2***
- ❖ Contracted IPPs to be licensed against CoE capacity allocation – ***if applicable***
- ❖ 20 years PPA
- ❖ 85% signature rate
- ❖ First generations units within 12 months

IPP Procurement Programme rollout						
Year	Solar PV (MW)	Fine Coal Gasification (MW)	Natural Gas (MW)	Kinetic Power (MW)	Landfill Gas Recovery (MW)	Waste to Energy (MW)
2022/2023	150		74	10	2	49
2023/2024	148	36	124		3	90
<b>Total Capacity</b>	<b>298</b>	<b>36</b>	<b>198</b>	<b>10</b>	<b>5</b>	<b>139</b>

# Renewable/Clean technologies considered



Technology	Number of service providers	Range (MW)	Total Proposed Capacity (MW)
Solar PV	31	5 - 10	298
Waste to Energy	6	5 - 33	139
Landfill Gas	1	5	5
Gas	7	17 - 50	195
Fine Coal Gasification	1	36	36
Kinetic Power Production	1	10	10
<b>Total</b>	<b>47</b>		<b>683</b>

✓ **25% reduction of COE demand from Eskom (SSEG 150MW currently registered and est 30 MW)**

# Risks and risk mitigation

## Risks

- Long term contracts
- Deemed energy payments
- Litigation
- Regulations uncertainty

## Risks Mitigation

- Adequate skills and proper programs to run the project
- Setting up accurate hours for allowable grid unavailability period based on stability of the grid – to avoid deemed payments
- Connecting IPP generators on stable grids
- Avoiding load shedding IPP generators integration substations
- Proper dispute resolution process to avoid litigation
- Continuous engagement with relevant stakeholders



# BENEFITS



- Renewable / Clean Energy
- Savings on Eskom bulk purchases – Estimated 13.9 bn

<b>Summary of Savings per technologies</b>	<b>Total</b>	<b>Percentage saving compared to the overall saving</b>
PV Solar	1,692,354,826	12.09%
Waste to Energy	4,904,828,318	35.05%
GAS	7,122,267,468	50.90%
Landfill Gas	14,025,655	0.10%
Fine Coal Gasification	-	0.00%
KPP	258,727,349	1.85%
<b>Total</b>	<b>13,992,203,616</b>	

- Affordable energy for customers
- Reduction of fossil Fuel reliance
- Reduction of Power losses – *No long transmission lines (load closer to point of generation)*
- Job opportunities – *10 000 temporary and 1000 permanent jobs*
- Climate Change - *Reduction of GHG Emission*
- Economic growth – *Through investment to the local economy*

# Support required from other stakeholders

## SALGA

- Fight for Munics not to be excluded from licensing exemption

## National Treasury

- Special Municipal guarantees to increase PPA fundability & security

## DMRE

- Decisive and give straight answers on Sec 34 and Schedule 2 ERA
- License exempt also IPPs doing business with Munics.

## Nersa

- What is Nersa standpoint on amendments to schedule 2 ERA concerning organs of state??



# Lessons learned

- **Benchmarking against Eskom Megaflex tariff – *Megaflex is volatile and difficult to predict***
- **Start with small but fundable projects**
- **A fundable PPA will attract investors**
- **Good Credit rating of Munic can aid PPA fundability**
- **Good Eskom payment history can also aid PPA fundability**
- **Proper PPA risk allocation**
- **Land – Scarcity of land in Metropolitan areas**
- **PPP for electricity generation from Municipal landfill sites with gate fees**

