



CITY OF CAPE TOWN  
ISIXEKO SASEKAPA  
STAD KAAPSTAD

## Impact of reduced electricity sales – an uncertain future?

KM NASSIEP / ENERGY AND CLIMATE CHANGE DIRECTORATE

Making progress possible. **Together.**

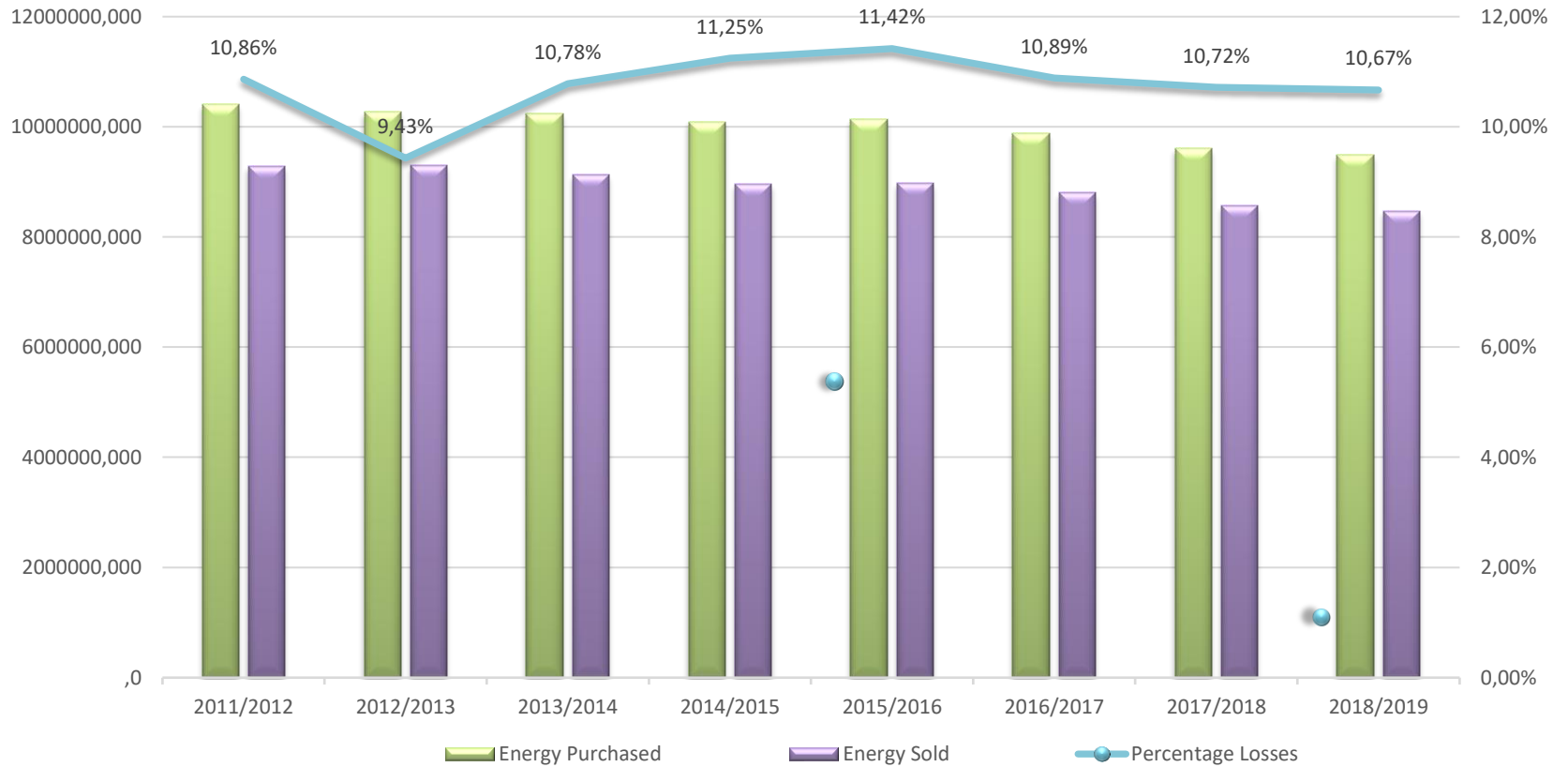
# The trend of diminishing sales....

# Declining Energy Sales

Month	Residential	Small Power	Large Power	Municipal	Total
Jul-17	-12,434,821	1,936,204	20,983,312	676,045	11,160,740
Aug-17	-11,472,129	4,589,268	2,860,664	-297,661	-4,319,857
Sep-17	-16,828,860	4,904,611	-75,354,122	-270,933	-87,549,303
Oct-17	-19,201,193	-2,860,429	32,512,941	-1,855,948	8,595,371
Nov-17	-13,359,535	-765,091	2,449,442	-1,068,110	-12,743,295
Dec-17	-13,254,161	836,663	-10,881,740	-3,053,685	-26,352,923
Jan-18	-16,669,995	-6,525,230	32,236,572	3,444,419	12,485,765
Feb-18	-15,341,845	6,581,031	-22,513,374	-7,977,937	-39,252,125
Mar-18	-8,779,459	-2,369,797	-36,858,862	1,093,561	-46,914,558
Apr-18	-18,302,407	-1,255,997	20,952,263	803,032	2,196,891
May-18	-5,449,988	-6,877,311	2,515,023	-5,326,430	-15,138,706
Jun-18	-8,730,871	-2,799,153	-25,166,958	58,581	-36,638,401
	<b>-159,825,265</b>	<b>-4,605,229</b>	<b>-56,264,841</b>	<b>-13,775,066</b>	<b>-234,470,400</b>
Percentage Decline	-5.28%	-0.27%	-1.51%	-3.81%	-2.66%



## Electricity Losses



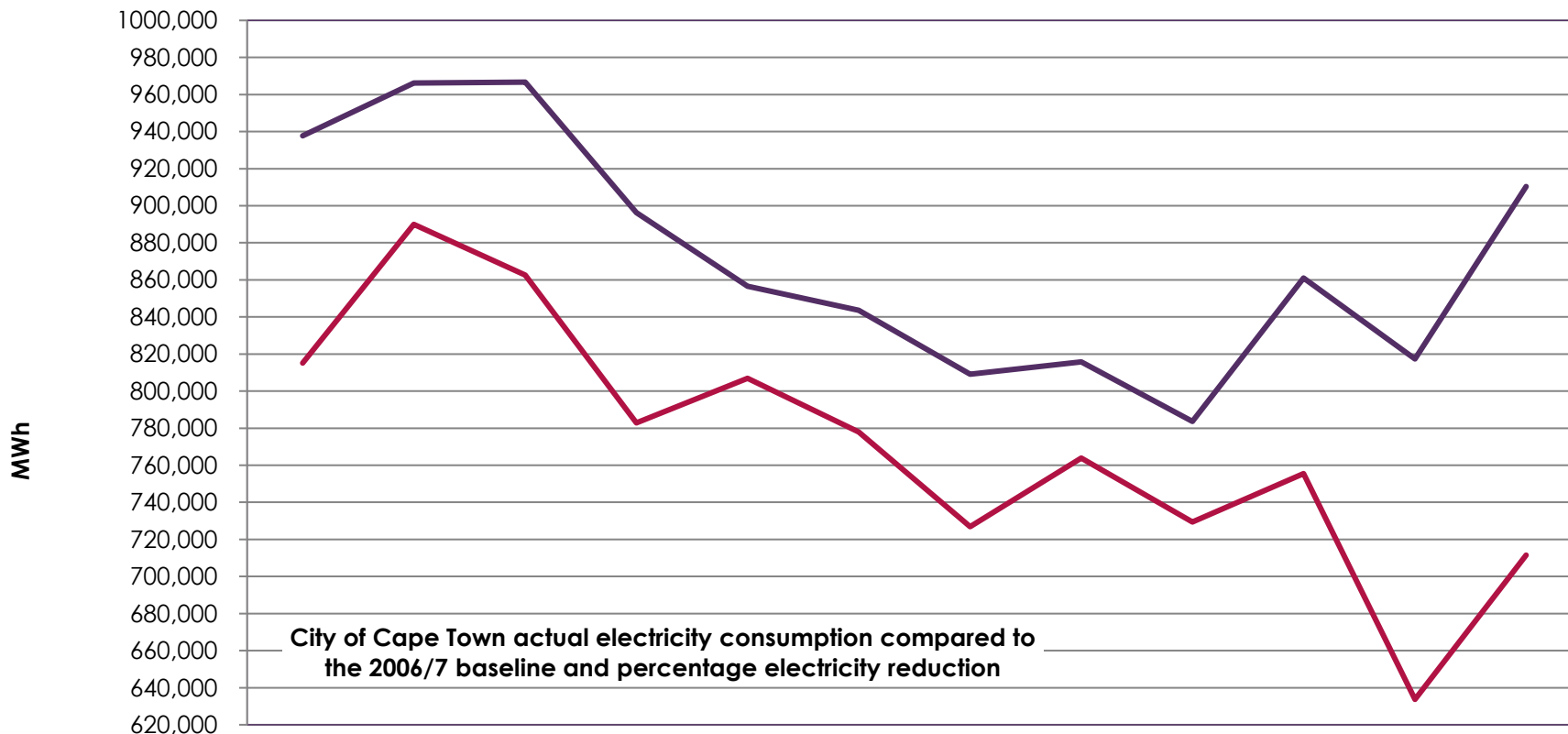
# Eskom Scenario

- We do not want to be in the same situation as Eskom with an inadequate budget for negative growth.

Figure 10: Total Eskom forecasted sales

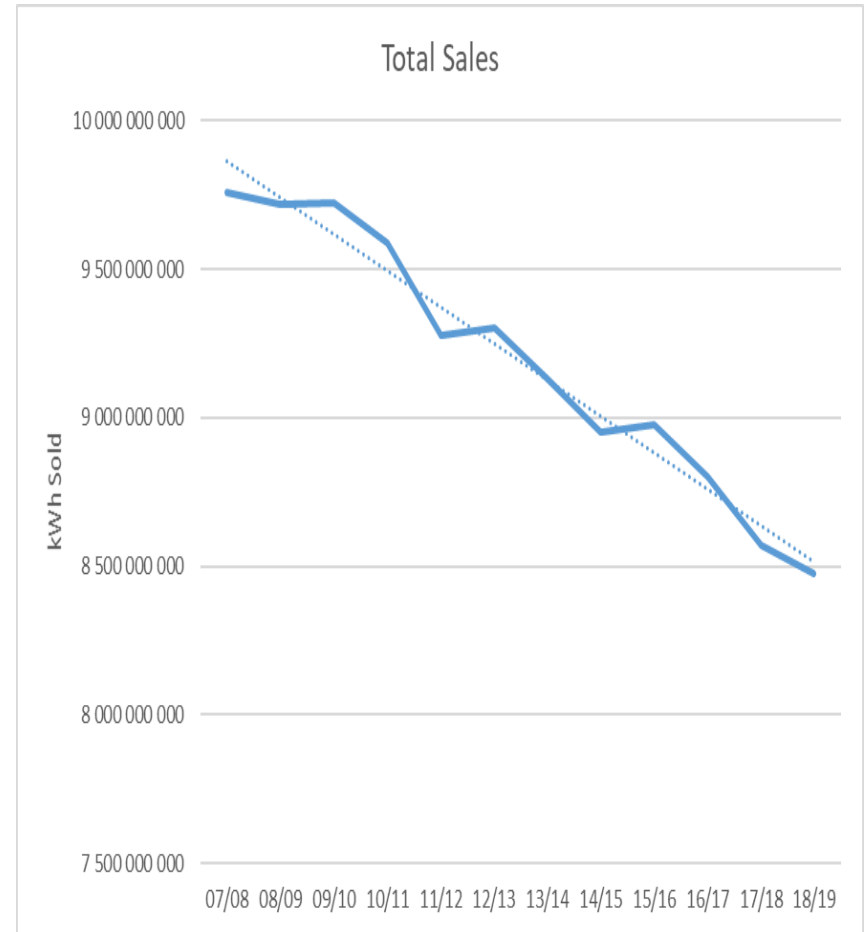
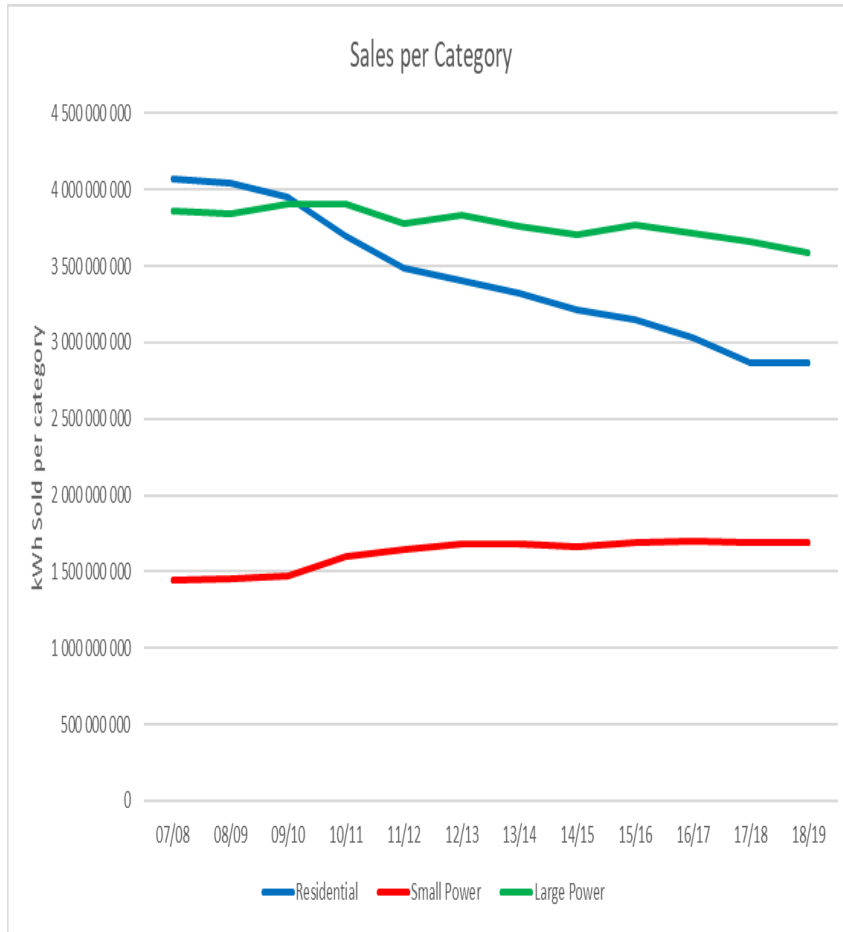


# Energy consumption CoCT for the year ending May 2020



	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20
Actual	815,154	889,939	862,562	782,870	806,905	777,987	726,838	763,839	729,314	755,486	633,736	711,486
2006/7	937,688	966,230	966,673	896,343	856,572	843,598	809,106	815,724	783,623	860,967	817,387	910,370
% Reduction	13,1%	7,9%	10,8%	12,7%	5,8%	7,8%	10,2%	6,4%	6,9%	12,3%	22,5%	21,8%

# Declining Sales



**Small Power** and **Large Power** sales have since fallen because of COVID 19. economic downturn potentially long lasting.

Overall decline over last number of years.

# City's response to reduced electricity sales

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# So what is the City doing in regards to this problem?

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- Reduce non-technical losses where possible
  - Revenue Protection recovering about R200m per annum in “lost” revenue
  - Conversion to split meters for repeat meter tampering cases
  - General conversion to prepaid meters resulted in about 99.7% collection rate (2019/20)
- Open the market to self generation and net metering
  - SSEG programme for residential and commercial customers
  - About 50 MW registered on the City's network
  - Plans to accelerate uptake of SSEG through innovative financing
- Liberalize the Electricity Supply Industry in the City
  - Promote purchase of power (cheaper, cleaner) from IPPs
  - City's court case in regards to IPPs seen as watershed for industry
  - Promote wheeling as a means of supporting willing seller willing buyer model
  - Promote city-owned generation where practical

# BACKGROUND TO THE IPP COURT CASE

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- Mayoral initiative to introduce a higher percentage of renewable energy into Cape Town's energy mix, 2014 – 2015.
- Legal input obtained on whether there is a sound legal basis for the initiative, and this was confirmed. (Internal opinion and opinion of Prof Pierre de Vos.)
- Mayor approached the Minister in November 2015 asking for a determination in terms of Section 34 of the Electricity Regulation Act to allow it to acquire approximately 400MW of combined solar and wind.
- Court application was launched approximately 18 months later after the City repeatedly asked for a response, and had been told that there is a moratorium on such applications.

# MAIN ARGUMENTS IN THE CASE

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## The City's position

In accordance with advice obtained from Wim Trengove SC, the main thrust of the City's arguments is :

- (a) Section 34 is empowering but not peremptory (it uses the word "may" in relation to the Minister's authority to make a determination. Therefore the City does not need such a determination in order to transact with an IPP.
- (b) If the court finds that a determination is needed, then Section 34 must be struck down for unconstitutionality.
- (c) If the court does not strike down Section 34, then it should order the Minister to make the determination requested by the City.

These arguments were supported by reference to the constitutional duties of municipalities to provide services.

The City was supported by argument from the Centre for Environmental Rights regarding the environmental benefits of renewable energy.

# EVALUATION/COMMENTS

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- Judgment was reserved and it is not known how long it will take.
- Nersa and the Minister did not offer any legal justification for the hegemonic role of Eskom as the sole buyer of electricity.
- Regulations published less than a week before the hearing purport to “permit” municipalities to apply to establish new generation capacity. They were always entitled to apply, as the City did in 2015. They offer no fundamental reforms to the energy procurement system.
- Determinations in terms of the IRP 2019 issued by the Minister in March, one for emergency power and another for a mixture of renewable sources, are both in favour of Eskom.

# ENERGY SECURE LOW CARBON FUTURE FOR CAPE TOWN

## Planning and Research: Energy Planning; Carbon Neutral Modelling & Planning; Feasibility Studies; Data Management; Policy Dev

1. Large Scale IPP Procurement



Roll out of Independent Power Producers (IPPs)

8. Energy Efficiency in City Building and Facilities  
9. Net Zero Carbon New Build  
10. Citizen awareness and education



Reduced energy consumption in both public and private buildings and operations

14. Options for unelectrifiable areas and citizens in energy poverty



Diversify energy supply and reduce the City's carbon footprint and costs over the medium to long term

Enhanced Embedded Generation



The development of a grid management system that facilitates demand management and manages peak demand



2. Small Scale IPP procurement  
3. 1-10MW City-Owned Generation  
4. <1MW City Generation (rooftop & groundmounted)  
5. Wheeling Facility  
6. SSEG support  
7. Innovative Financing for SSEG

11. Demand management  
12. Smart Communication & Energy Grids  
13. Storage



## COMMUNICATION & COLLABORATION

# SUPPLY SIDE

Large IPP  
Procurement

## IPP Large Scale Programme

- Internal preparation for City REIPPP (SCM) underway
- National REIPPP scale project, primarily wind and solar wheeled over Eskom's grid

## IPP Small Scale Programme

- S33 tender to be developed (18 month process)
- Tender adjudication
- PPAs signed subject to S34 determination/Court Case

Small IPP  
Procurement

## Introduction of a Wheeling Facility

- The City is implementing a program to enable third party renewable energy generators to sell energy to City consumers using the City's electricity grid (through a mechanism known as "wheeling").
- Systems Testing phase

## City rooftop and Ground mounted PV programme (less than 10MW)

- The City has set aside funding for a programme to increase RE generation owned by the City (rooftop and groundmounted)
- Draft City Owned Generation Framework & Rules developed
- City wide O&M tender specs to be developed
- Supporting Waste to Energy generation(4 sites) and carbon work

Own  
Generation

## Residential, Commercial and Industrial SSEG program (less than 1MW)

- Investigating SSEG financing mechanisms such as PACE.
- Installers awareness / compliance campaign
- Assisting with development of an easier online registration process

Embedded  
Distribution

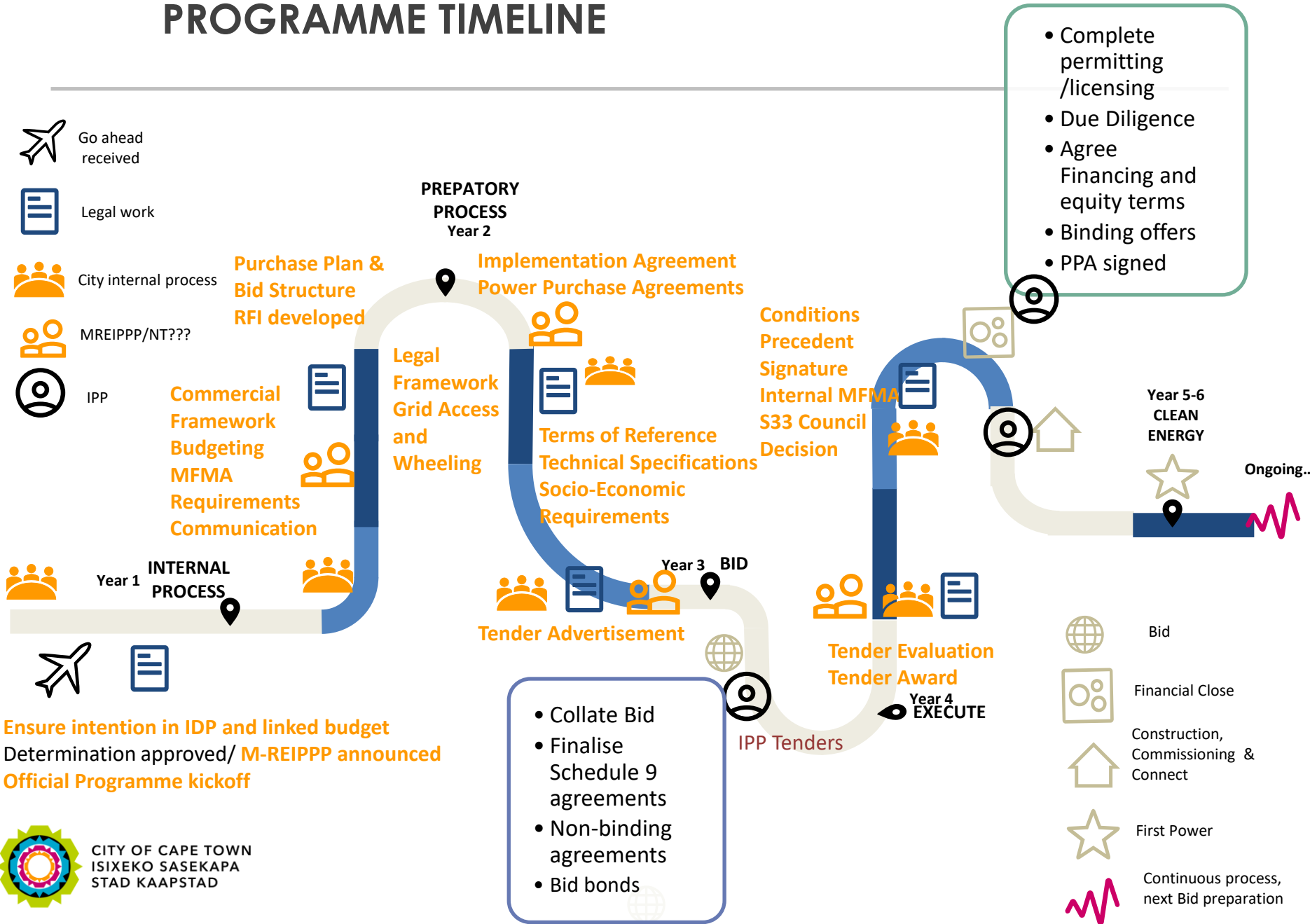
IPP  
Programme

Distributed  
Generation  
Programme



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# POTENTIAL LARGE SCALE IPP PROGRAMME TIMELINE





**CITY OF CAPE TOWN  
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**Thank You**

**Making progress possible. Together.**