



The background of the slide is a large, vibrant photograph of a mountainous landscape. The scene shows rolling green hills and mountains under a bright blue sky with scattered white clouds. A winding road is visible in the valley between the hills. The overall atmosphere is scenic and natural.

George Municipality case study  
**Reinventing the “wheel”**

# Overview

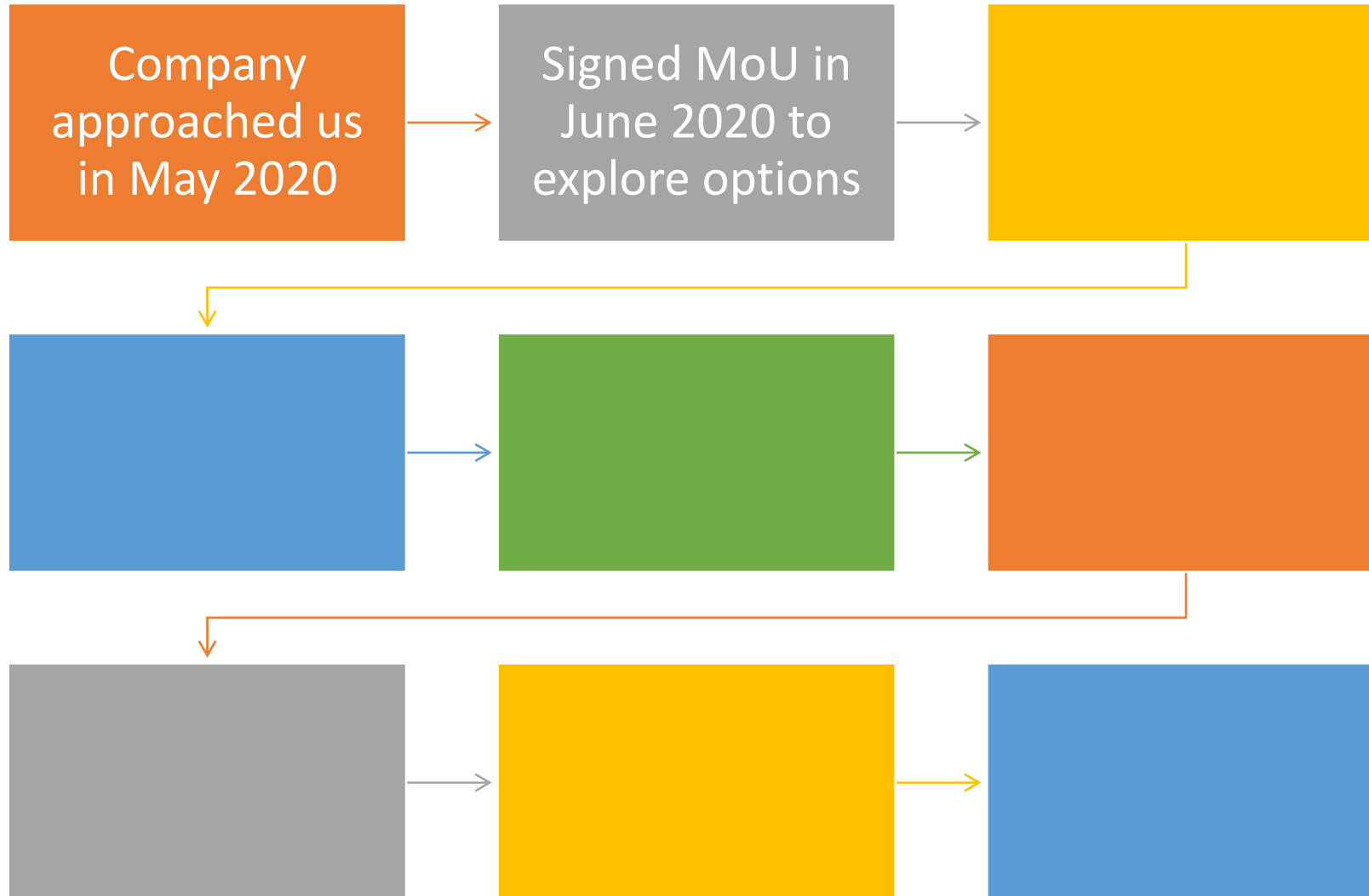
- Introduction
- George Municipality wheeling
  - Legal, police and regulation background
  - Tariff methodology
  - Wheeling scenarios – contractual arrangements
  - Guideline
  - Tariff and billing
- Benefits of wheeling
- Challenges

# Introduction

Important motivating objectives:

- **Better service** to the customer
- Keeping customers connected to the grid and sustain an **efficient economy**
- **Sustainable** and **adaptable** business model for the municipality
- ...

# George Wheeling story



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## **Electricity legislation**

- Electricity regulation act (ERA) -2006
- Electricity pricing policy (EPP) – 2008
- The regulatory rules on the Network Charges for third-party transportation of Energy -2012

## **Municipal legislation**

- Municipal Systems act
- Municipal Finance management act

# Background – Electricity pricing policy

## Policy position 5 – Access to and Use of Networks

- a) *Fair and non-discriminatory access to and use of networks to all users of the relevant networks.*
- b) *The full cost to operate the networks is reflected in the various connection and use of system charges and, therefore, **no additional charges for wheeling of electricity will be levied unless the wheeling action introduces incremental costs.***
- c) *Any incremental wheeling costs associated with a specific wheeling transaction and its fair share must be recovered as a connection charge.*
- d) *Wheeling of electricity can only be permitted if the action complies with all technical, safety and commercial requirements.*
- e) *A methodology for transmission and distribution wheeling, including the treatment of network congestion, must be developed by NERSA.*

# Background - Electricity regulation act

## Section 22

*“The provisions of the Act further states that **non-discriminatory access to the networks must be provided** on conditions relating to:*

*...*

*(e) compliance with **any rule, code or practice made by the Regulator;***

*...”*

## Section 16

*(1) A license condition determined under section 15 relating to setting or approval of prices, charges and tariffs and the regulation of revenues –*

*a) Must enable an **efficient licensee to recover the full cost of its licensed activities,** including a reasonable margin or return;*

*...*

*d) **Must avoid undue discrimination between customer categories;** and may permit the cross subsidy of tariffs to certain classes of customers.*

*...”*

## **NERSA rules and guidelines for wheeling to promote the following objectives**

### ***“Objectives of Use of system charges:***

- *Promotion of economic efficiency*
- *Promotion of non-discriminatory access*
- *Cost reflectivity:*
- *Non-discrimination*
- *Transparency*
- *Revenue recovery of service providers*
- *Affordability*
- *Uniformity, simplicity and predictability”*

# Background - summary

## Important takeaways

- EPP:** Non-discriminatory access (according to NERSA rules)  
Tariffs – policy specific to wheeling (NERSA must approve tariff)
- ERA:** Non-discriminatory access (according to NERSA rules)  
Guideline on tariffs (but NERSA must approved)

## The regulatory rules on the Network Charges for third-party transportation of Energy

Detailed guideline on wheeling, including tariffs.

**What did we do, and how did we get here? Back to the Story**

# Story thus far



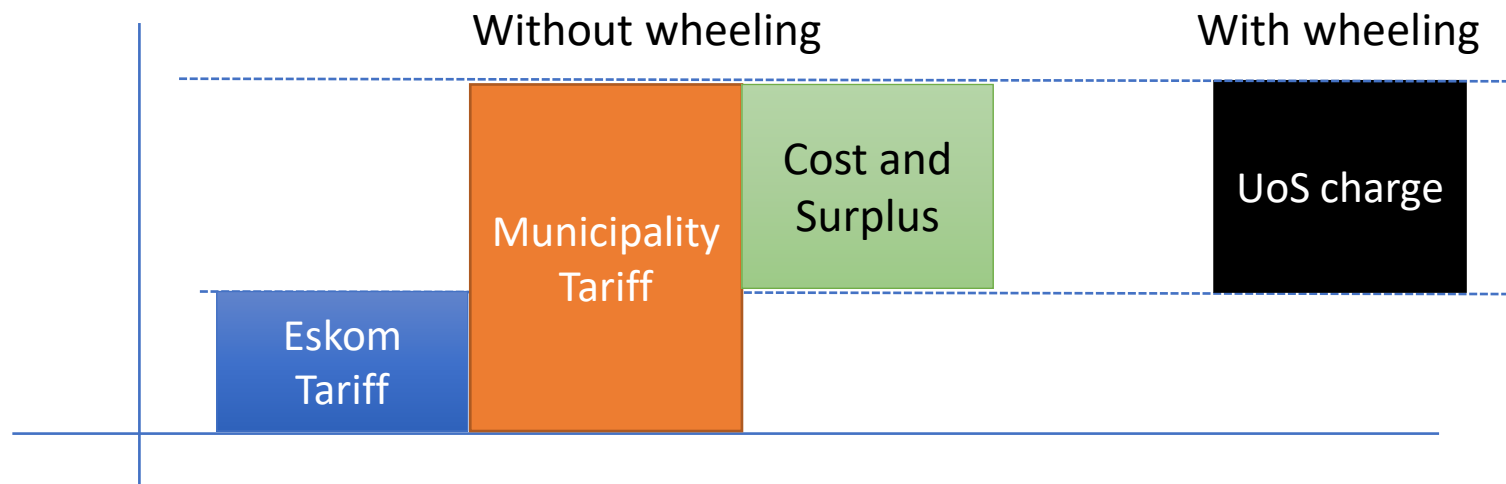
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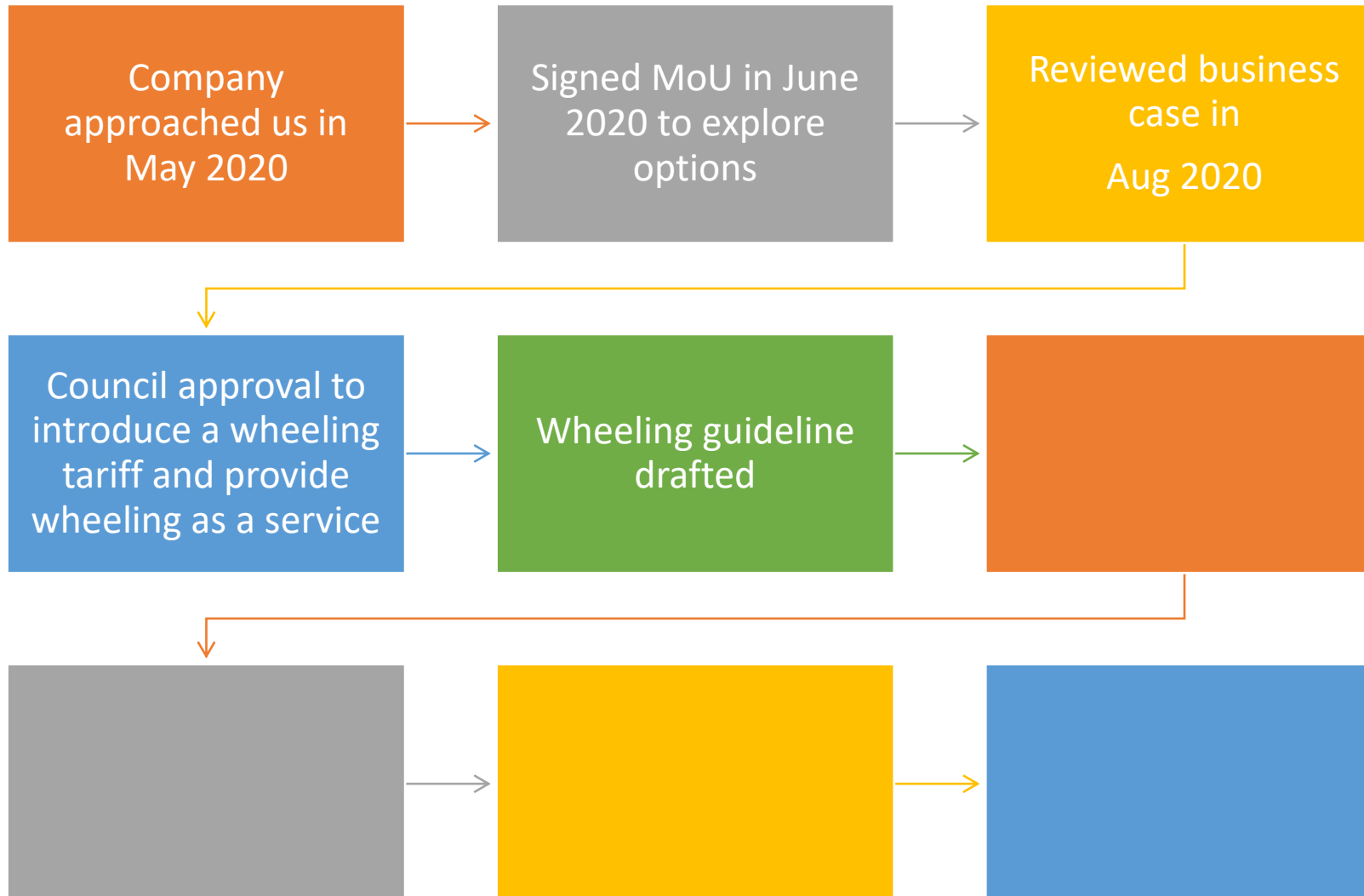
# Surplus neutral wheeling tariff

Wheeling tariff ensures George Municipality stays surplus/profit neutral

- Use-of system charge (c/kWh + R/month + R/kVA) - **Tariff**



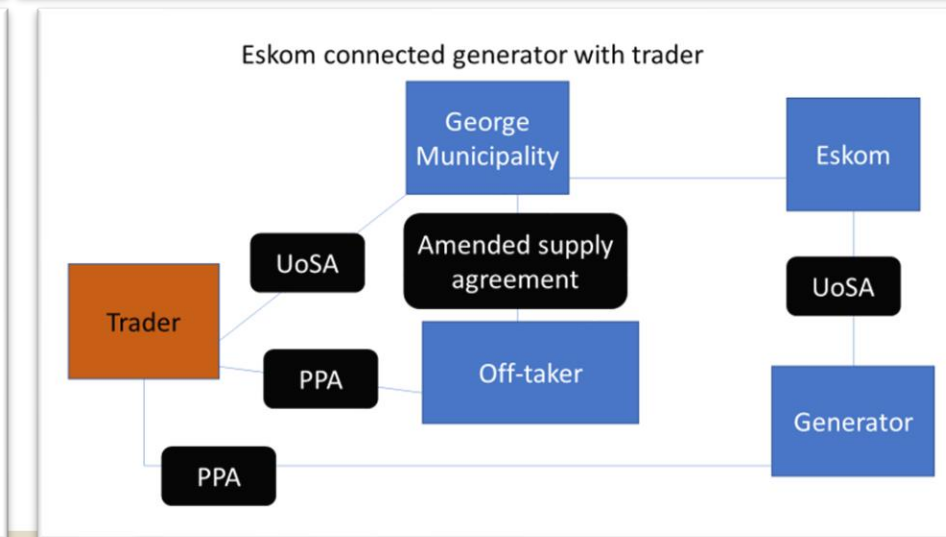
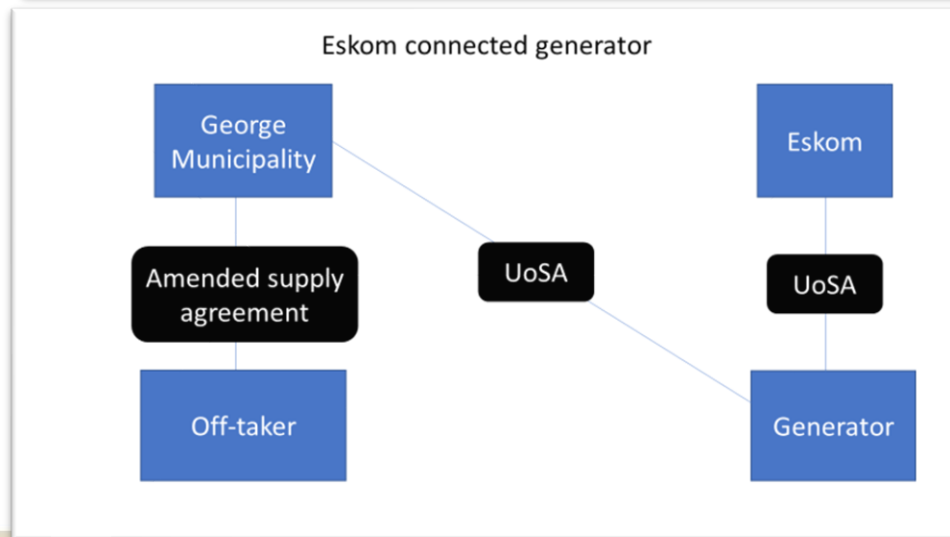
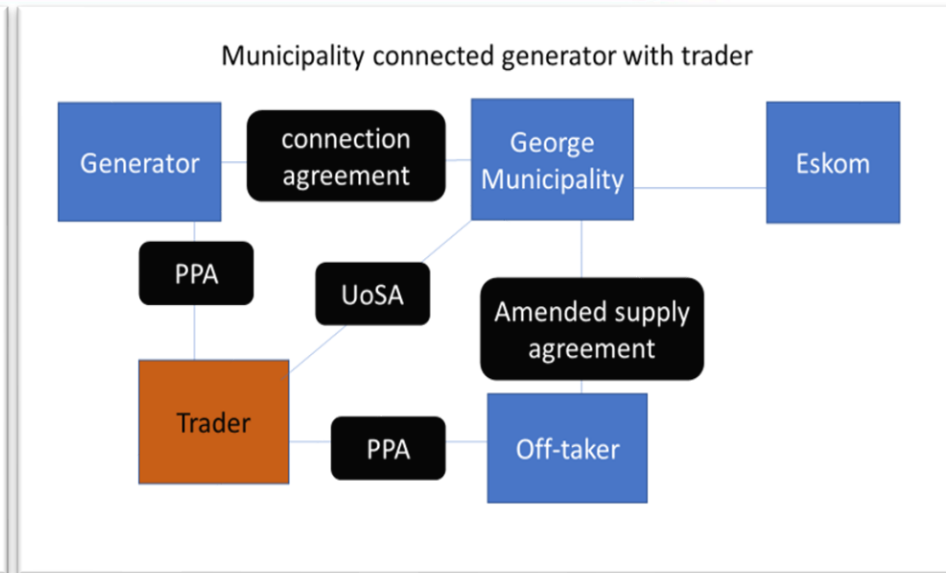
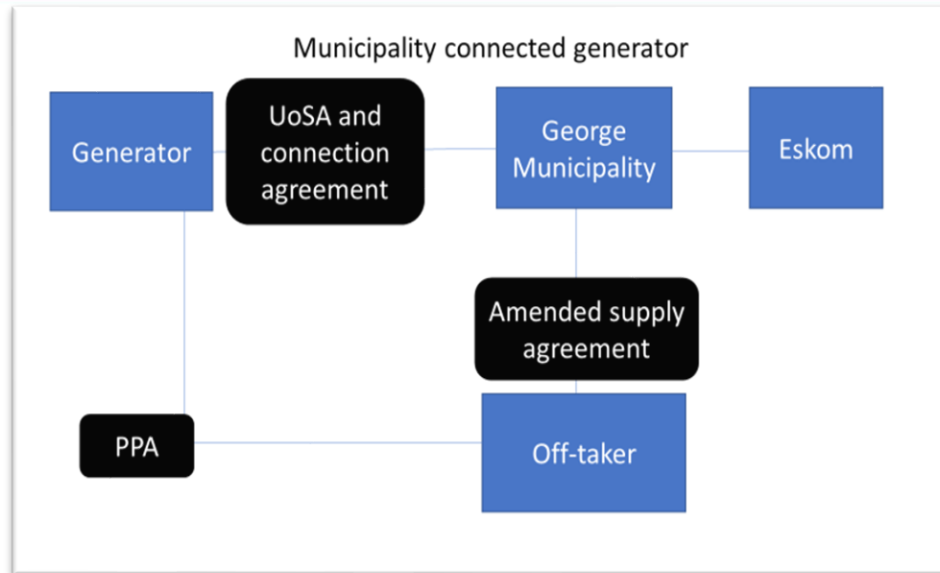
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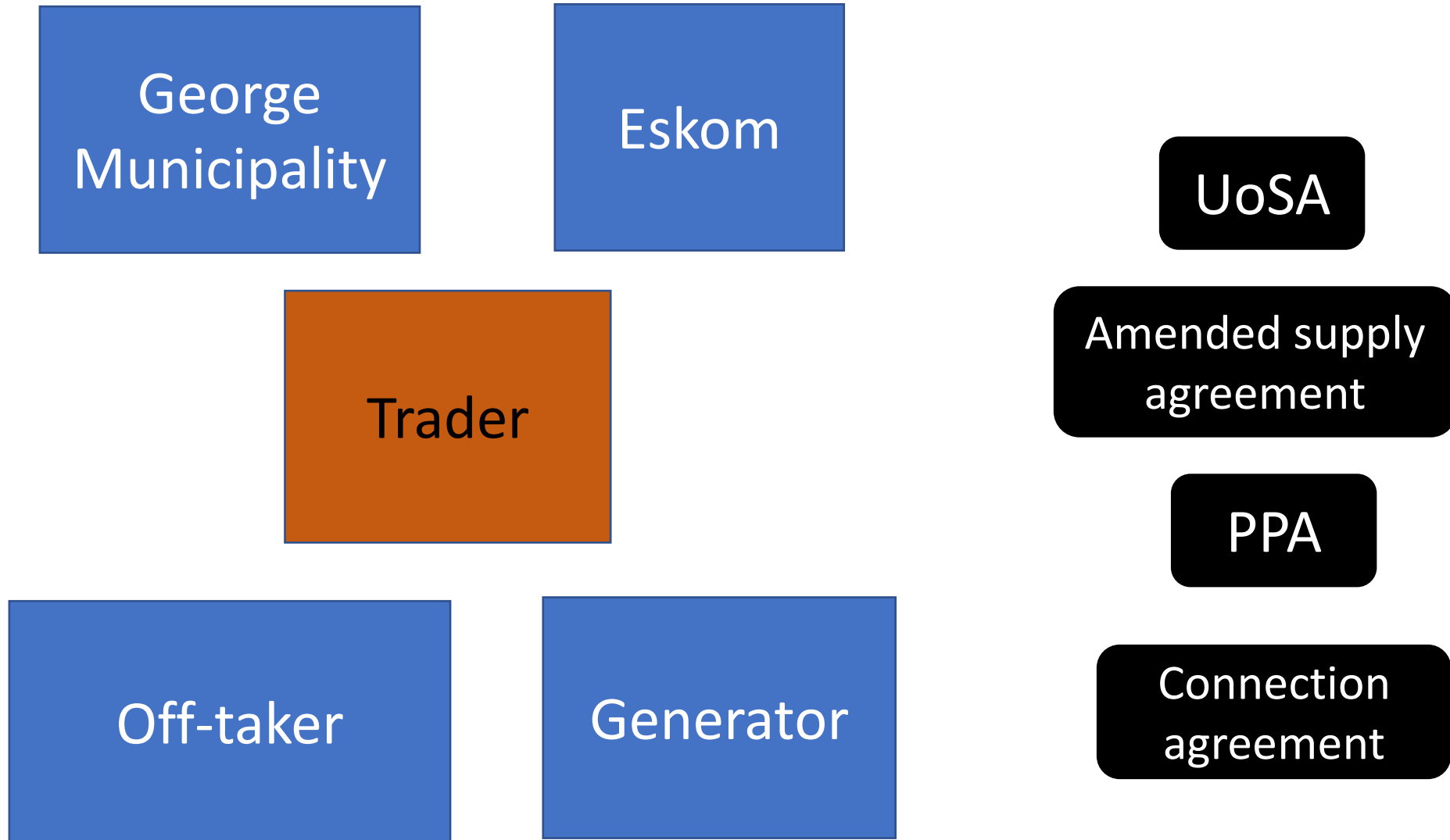


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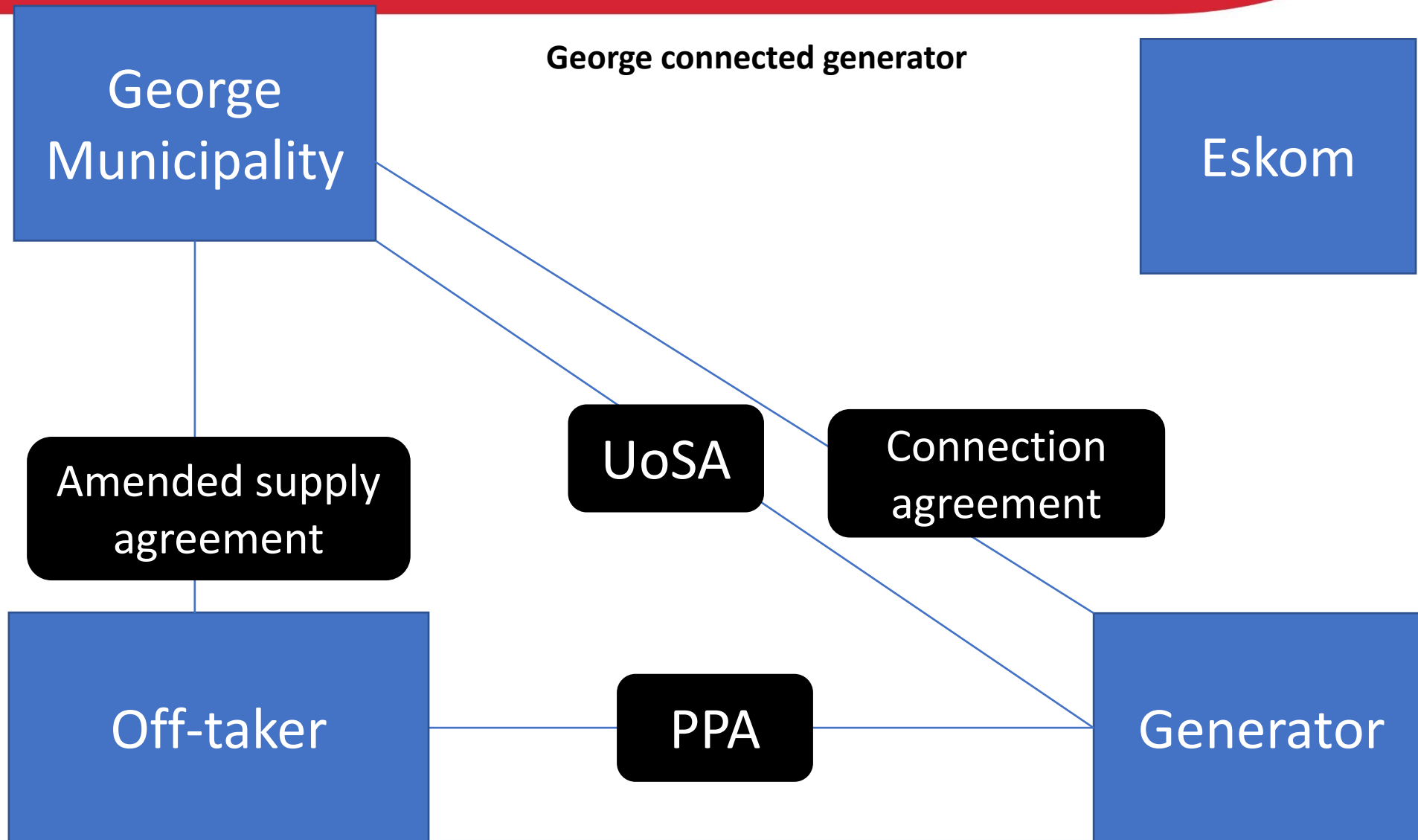
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# George wheeling scenarios credit SAIPPA @ AMEU

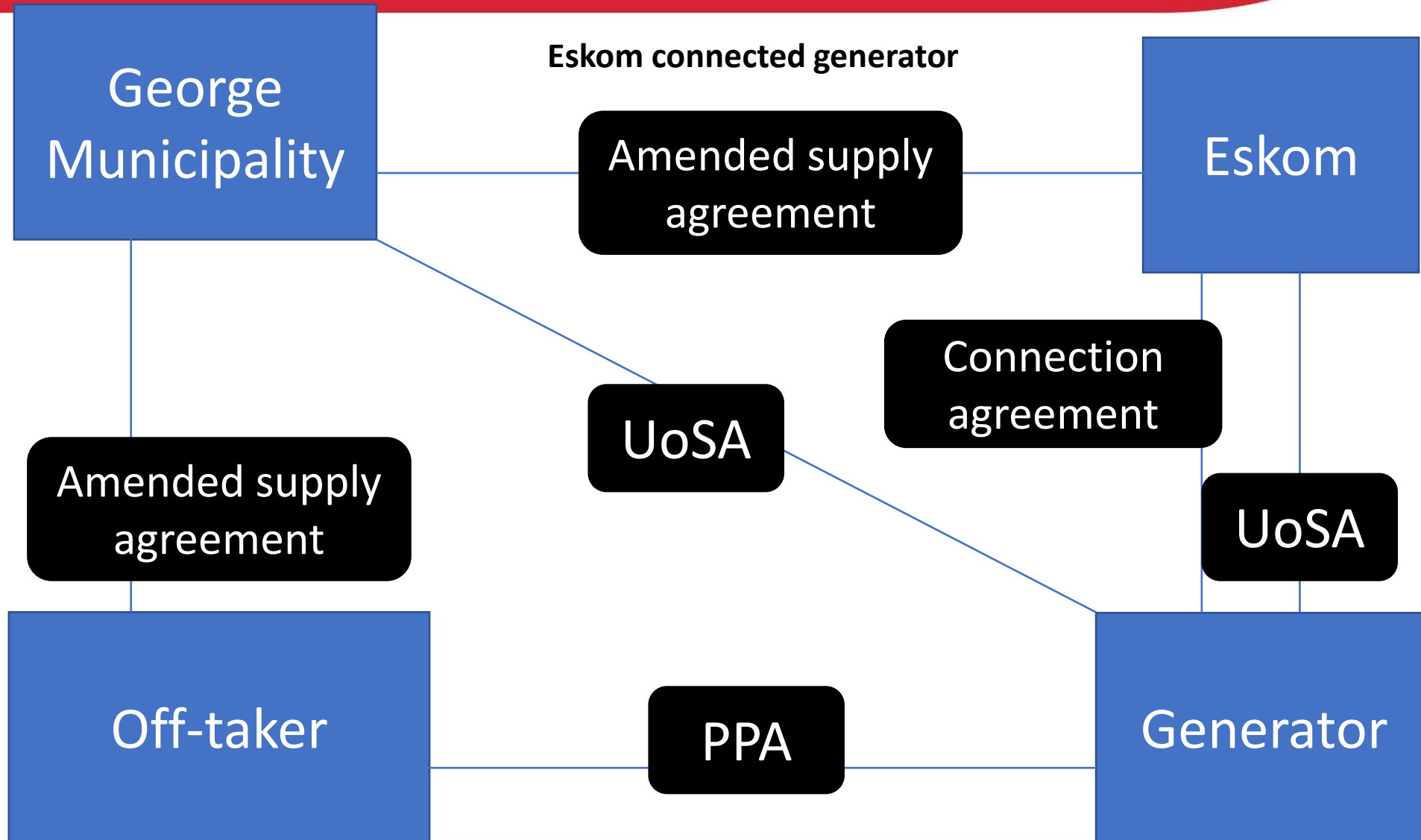




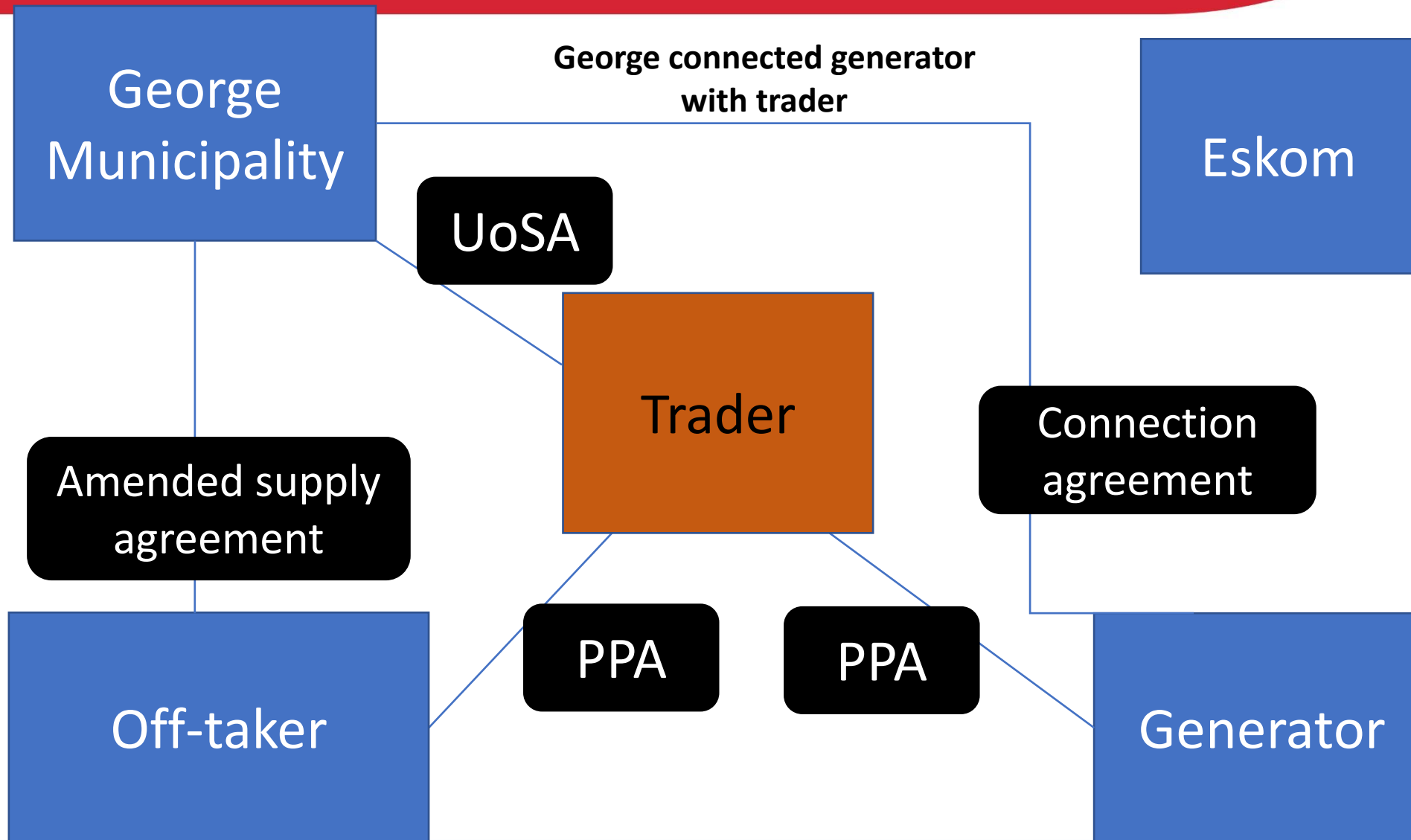
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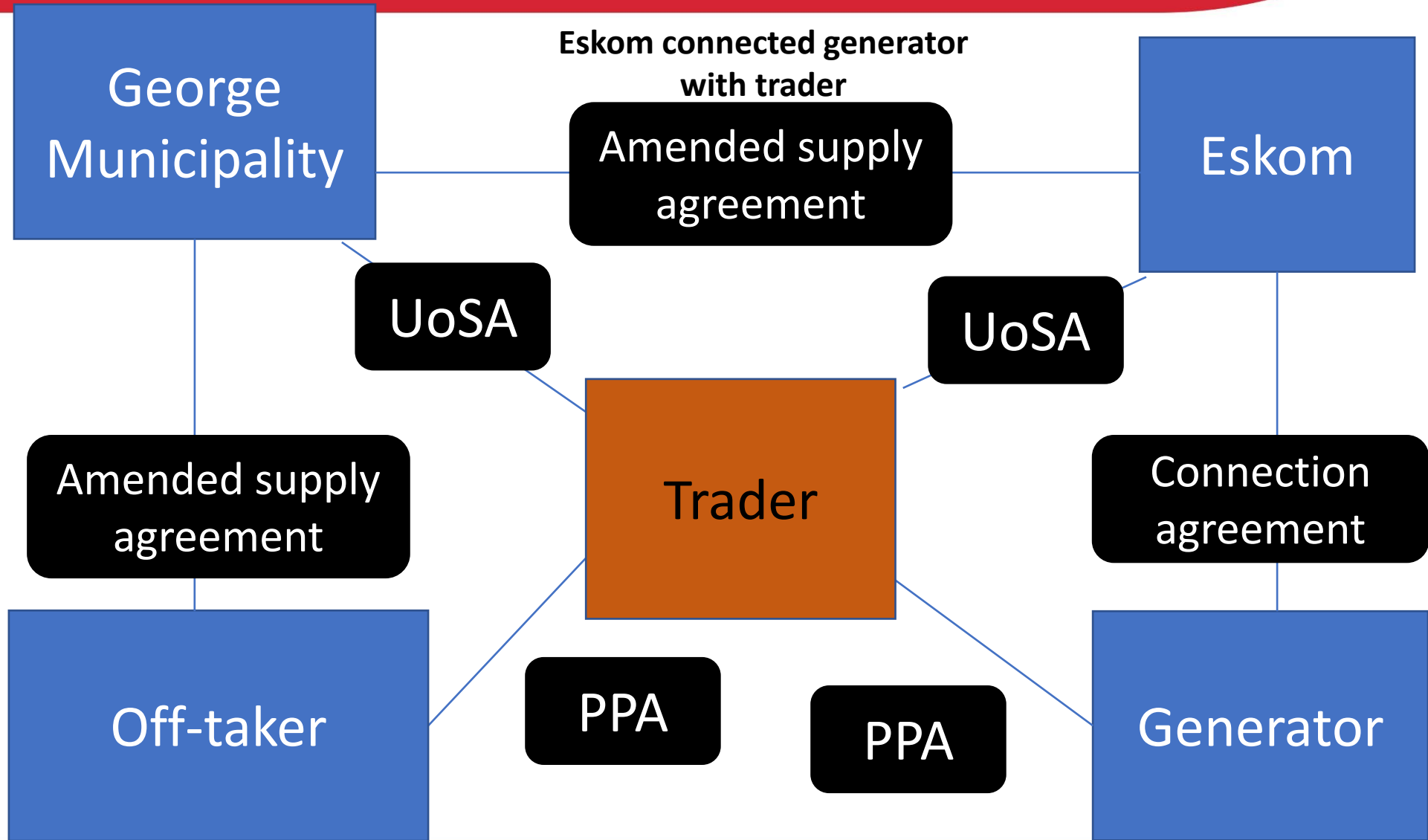
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# George Municipality wheeling guideline

## **Applicable only to George Municipality connected Generator:**

1. Specific Generator tariff
2. Generator connection agreements
3. Generator must connect at 11kV or higher to the George distribution grid.

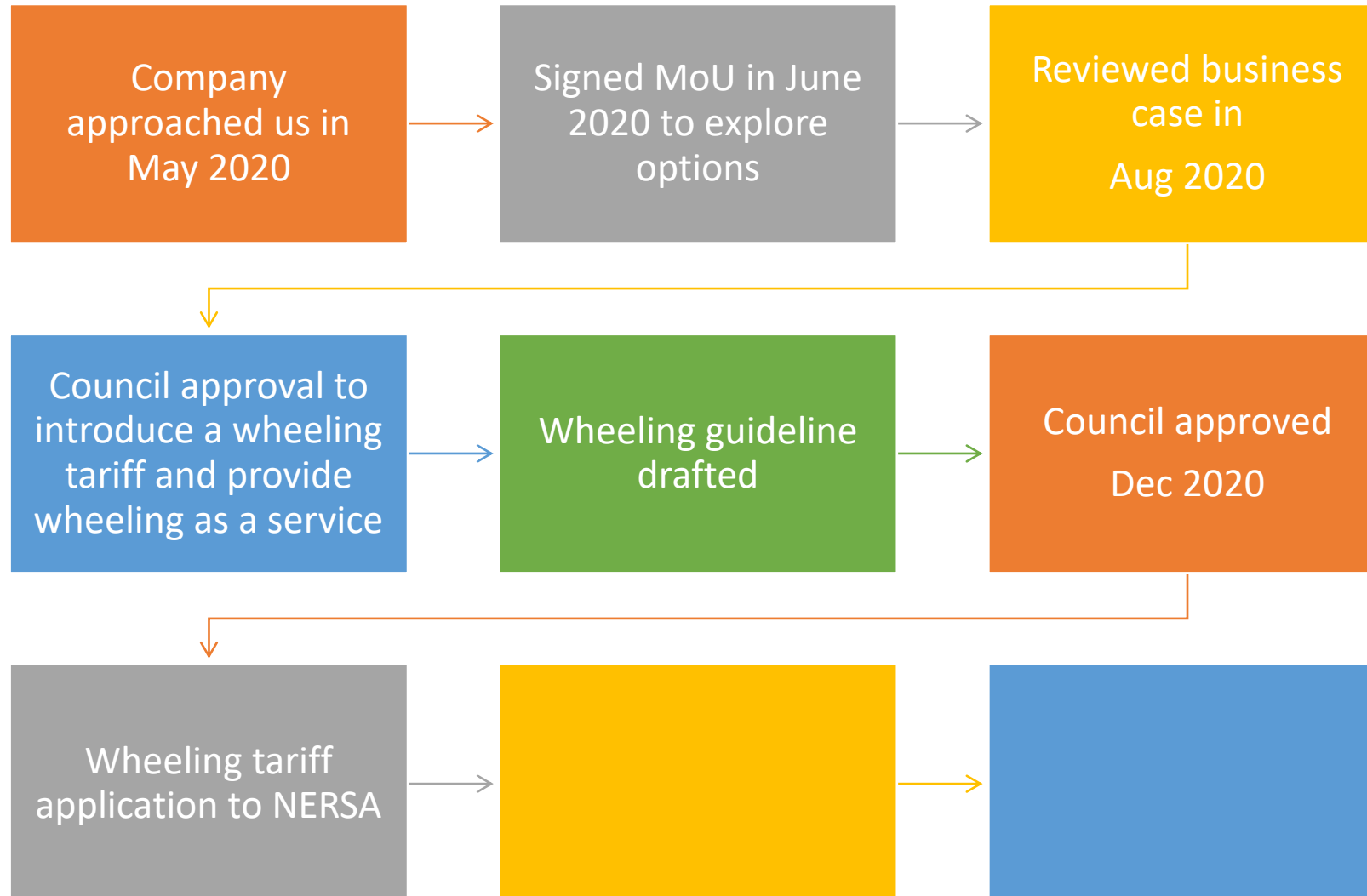
## **Applicable to Eskom and George connected generators:**

1. Only NERSA licenced / registered generators will be allowed.
2. Limit on total capacity.
3. Limit on capacity per applicant
5. The off-taker must be on commercial or bulk tariff
6. All contractual agreements must be in place
7. Surplus neutral tariff
8. Off taker must be approved by the municipality and supply agreement must be amended.
9. Any off taker may not receive any electrical energy from more than one third party energy provider.

## **Applicable to George connected generators:**

1. The billing will be reconciled on an average 30-minute average consumption. No banking will be allowed.

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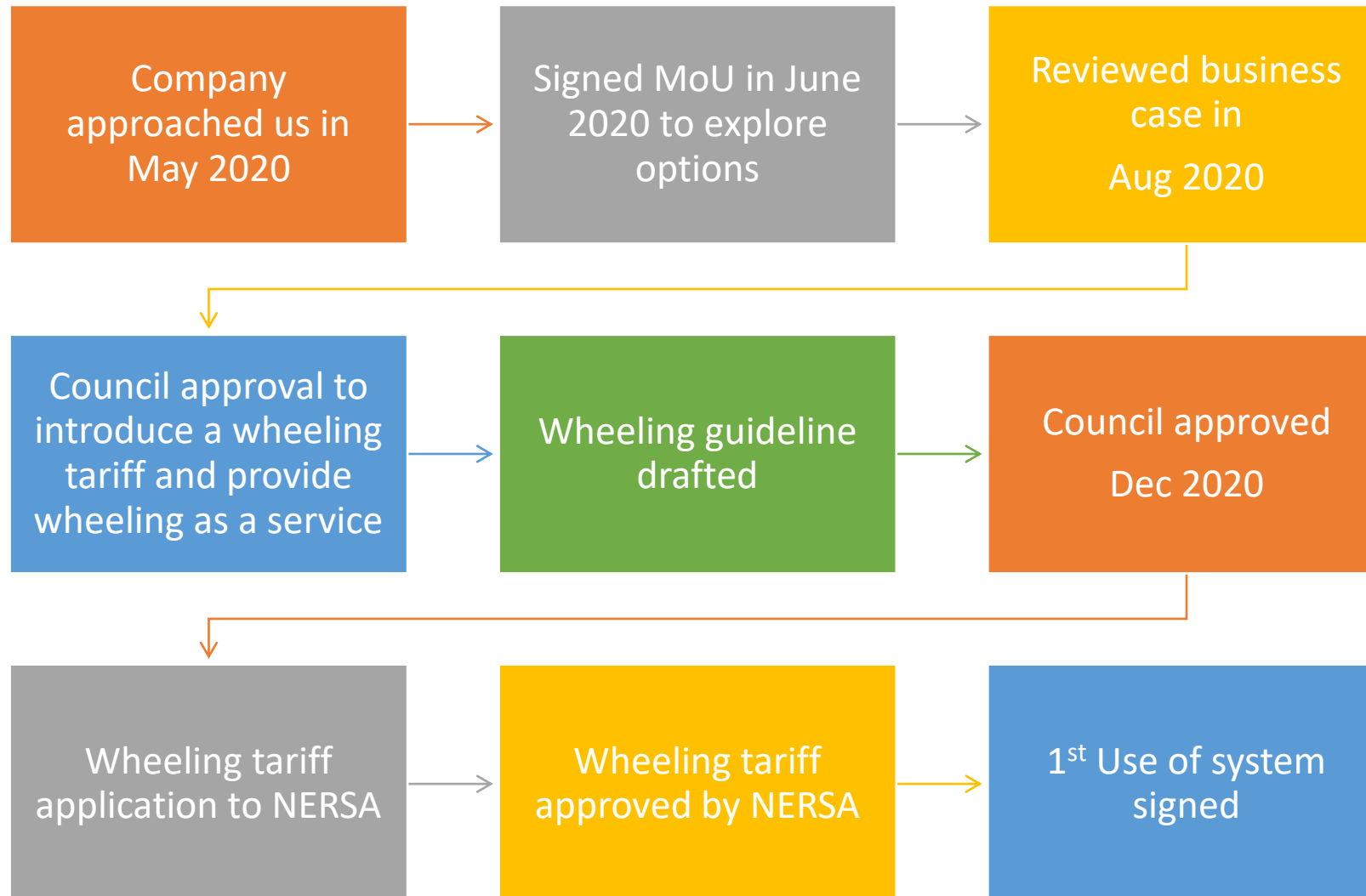
## Municipal bill to Generator

<b>Total (with wheeling)</b>		
Basic @ R 2187.32 per month	R	2 187.32
Demand 580 kVA @ R 70.26 per kVA	R	40 750.80
Access 600 KVA @ R 61.61 per kVA	R	36 966.00
Wheeling energy credit		
Peak Energy 25000 kWh @ R1.2846	-R	32 115.00
Standard Energy 70000 kWh @ R0.9139	-R	63 973.00
Off-peak Energy 100000 kWh @ R0.6149	-R	61 490.00

## Municipal bill to client

<b>Total (with wheeling)</b>		
Basic @ R 2187.32 per month	R	2 187.32
Wheeling admin @ R 250 per month	R	250.00
Demand 95 kVA @ R 70.26 per kVA	R	6 674.70
Access 100 KVA @ R 61.61 per kVA	R	6 161.00
Energy charge	R	-
Peak Energy 80000 kWh @ R1.2231	R	97 848.00
Standard Energy 170000 kWh @ R0.936	R	159 120.00
Off-peak Energy 100000 kWh @ R0.81	R	81 000.00

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# Benefits of wheeling

## Important motivating objectives:

- **Better service** to the customer

Competition in the energy market, driving down prices, giving customers more choice

- Keeping customers connected to the grid and sustain an **efficient economy**

Proper use of the grid, using the economies of scale advantage the grid provides.

- **Sustainable** and **adaptable** business model for the municipality

- Incentivised by the correct economic drivers.
- Low risk – because we are not “wheeling” Eskom energy at risk.
- Separation between monopoly and competition sectors.

# Business model

Sustainable and adaptable business model for the municipality

## **Policy Position: 1**

- a) *The revenue requirement for a regulated licensee must be set at a level which covers the full cost of production, including a reasonable risk adjusted margin or return on appropriate asset values. The regulator, after consultation with stakeholders, must adopt an asset valuation methodology that accurately reflects the replacement value of those assets such as to allow the electricity utility to obtain reasonably priced funding for investment; to meet Government defined economic growth.*
- b) *In addition, the regulatory methodology should anticipate investment cycles and other cost trends to prevent unreasonable price volatility and shocks while ensuring financial; viability, continuity, fundability and stability over the short, medium and long term assuming an efficient and prudent operator.*

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# Challenges

- Contractual arrangements and energy sector expertise
- Capacity constraints
  - Personnel and time – we are losing “grid” customers because our “energy” is too expensive. We are wheeling Eskom energy at risk and are transitioning slower than the industry.
- Transition phase in the energy sector:
  - Wheeling only provide benefits to single customers.
  - While the municipality is still a energy supplier, we must try to get energy prices lower for **ALL** our customers.

# Challenges

- Billing:
  - 30 min reconciliation
  - Many to many scenario

Questions?

Thank You

Questions?