



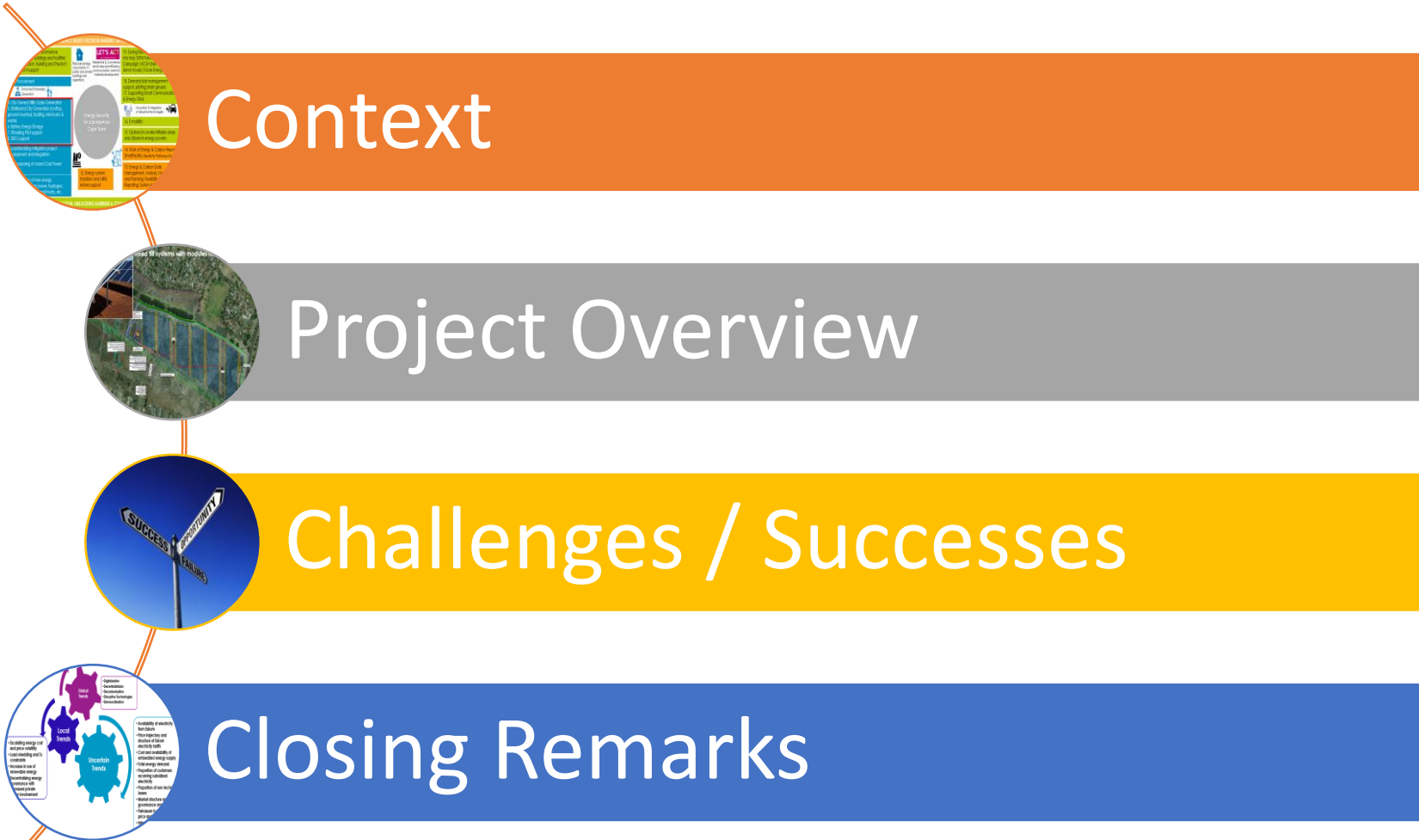
CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD

33rd IPMA World Congress - HOPE Challenges and Successes of Own Build Renewable Energy Plants: Atlantis Solar PV

Marlyn Hendricks
Energy Directorate | Sustainable Energy Markets | 29 November 2024

Making progress possible. **Together.**

Contents



Background

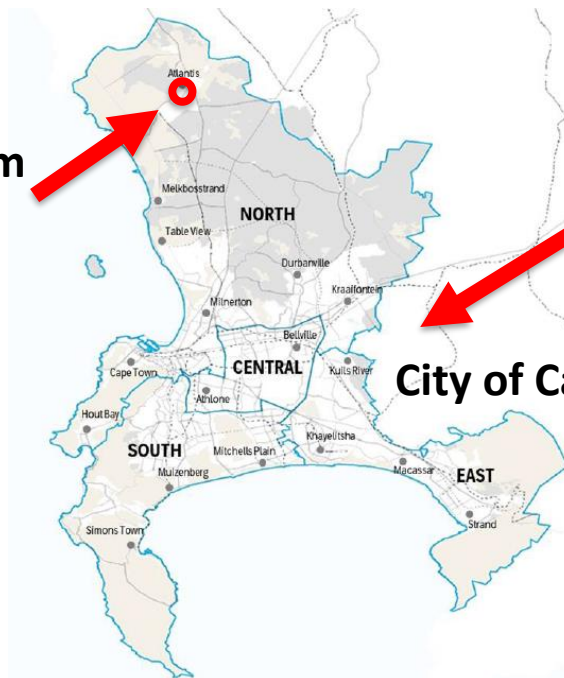
Background Information – About the City

City of Cape Town Metropolitan facts

- 2445km² in size
- 1.8% total size Western Cape Province (WC)
- 4.67m Est Population (2021) & 66% of WC
- 1.46m Households (2021)
- 1.7GW & 11 809 GWh Electricity Demand



Atlantis Solar PV farm



City of Cape Town



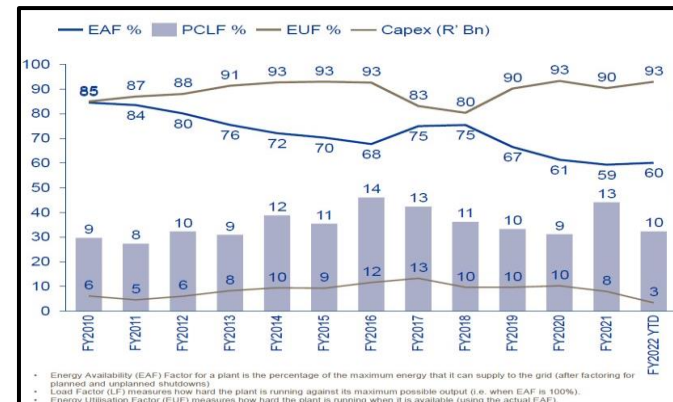
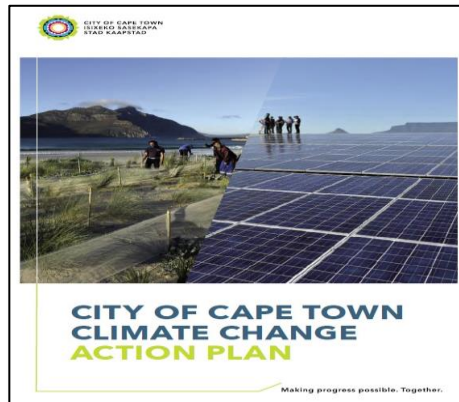
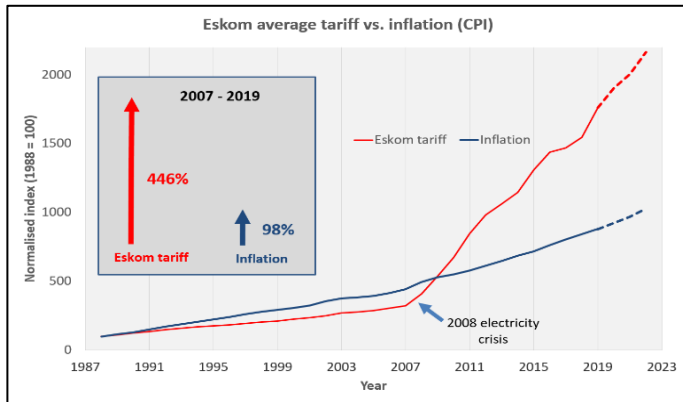
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Context

Mitigate impact of Eskom tariff increases

Contribute towards reduction in climate change impacts

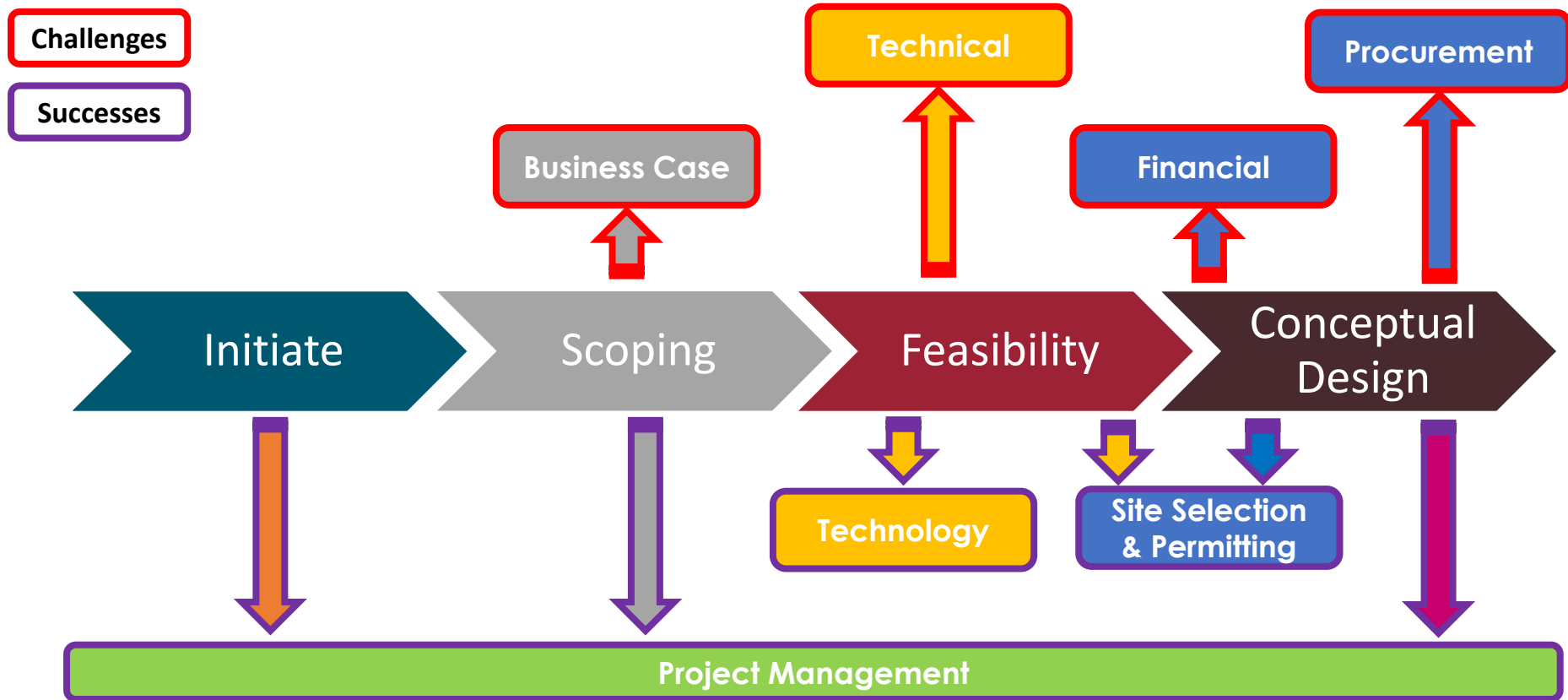
Diversifying energy mix to achieve security of supply



Business as Usual is not an Option

Challenges & Successes – “Own Build”

Challenges & Successes – “Own Build”



Project Overview

Atlantis 7MW GM Solar PV

Atlantis Solar PV project will be **7MW (up scalable to 10MW) farm** connected directly to the City's electrical network at nearly 33kV substation

Sited 54km outside City Centre in Atlantis on vacant land between existing industrial and residential zones

Grid Connection **second half of 2025**



EPC contractor appointed & Started Construction Oct 2024

Challenges



Business Case (Challenge)

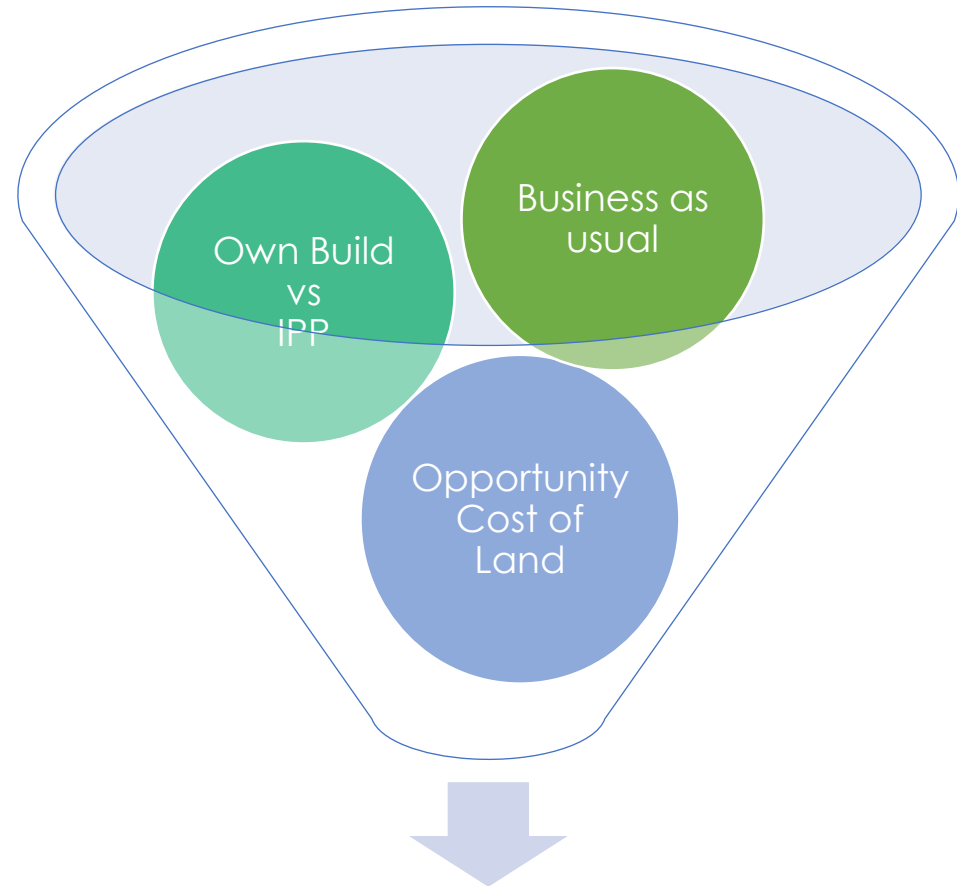
Socio Cost Benefit Analysis

City's Main priorities

- Basic services & Housing

Difficult to justify

- Redirecting budgets to pursue RE programme



City's investment in own build projects

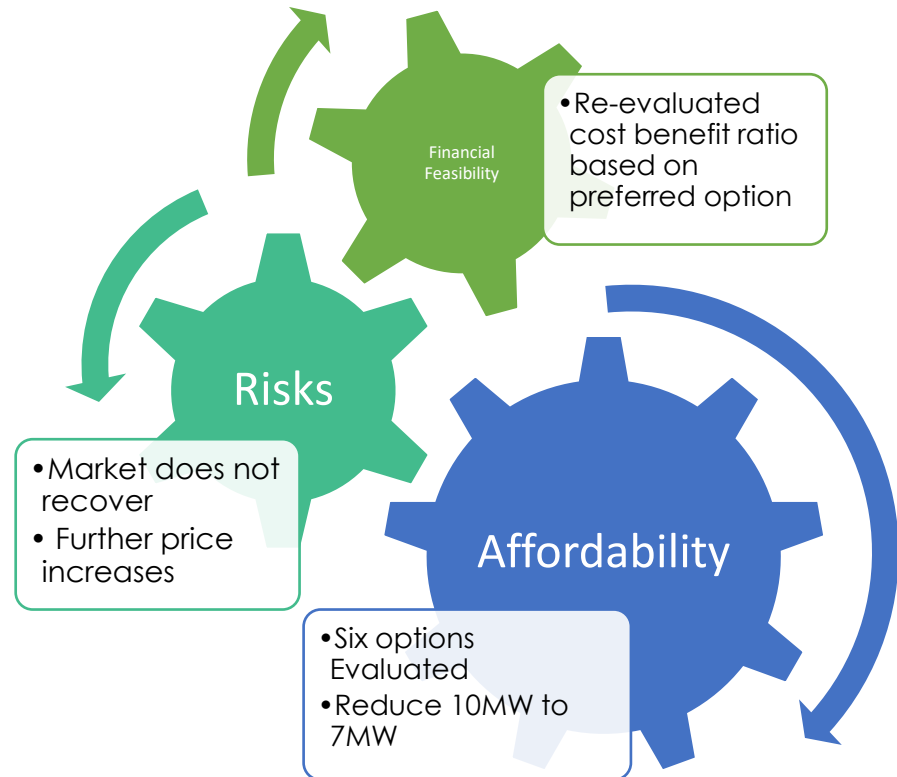
Financial (Challenge)

Market price shock in 2022

- 50% Cost increased

Affordability & Financial

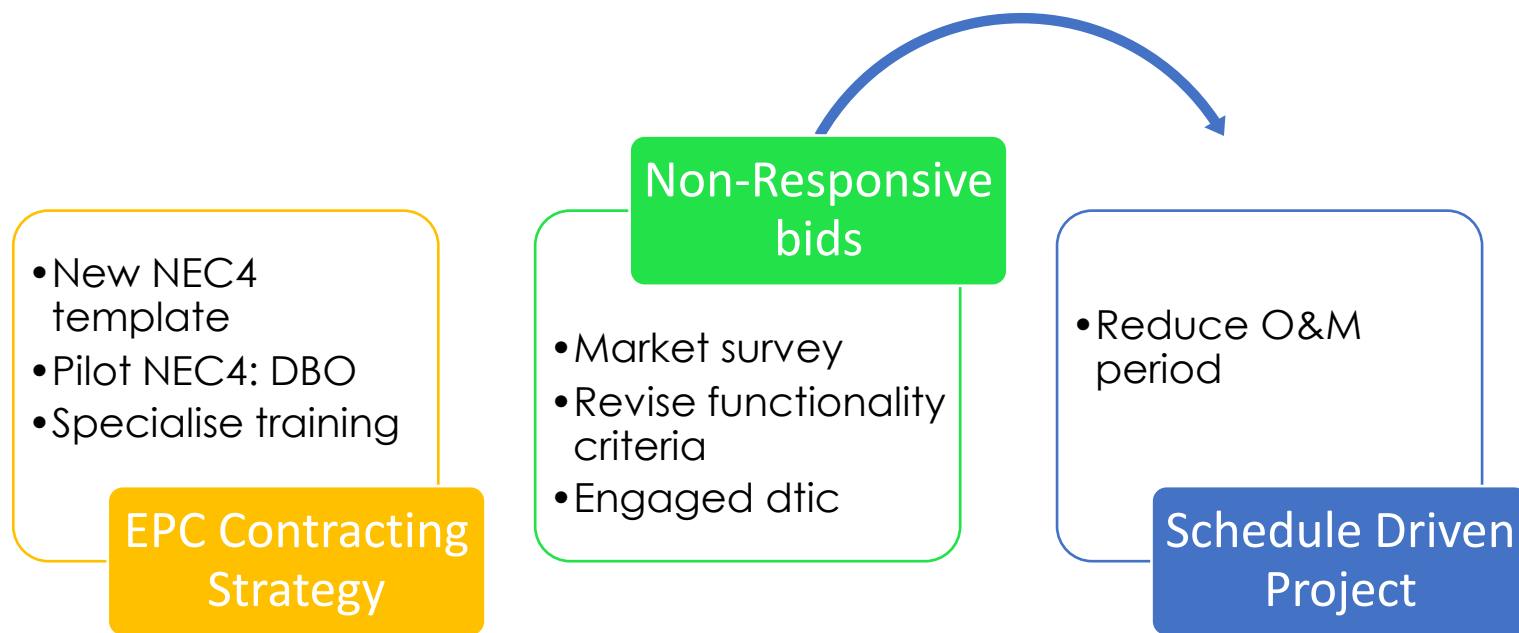
- Feasibility questioned



Procurement (Challenge)

Contracting strategy
Most contracts are multiple bid

EPC lump sum
Exposes CCT to least amount of risks



Successes

Site Selection & Permitting (Success)

Land is scarce

- Over 30 land parcels screened

Permits

- Environmental Authorisation, land use approvals, conveyancing & water use



- Well established GIS databases
- Inter-departmental engagements

- Well defined scope/basic design
- Early start of process
- Engage proactively with competent authorities
- Experienced PSP team

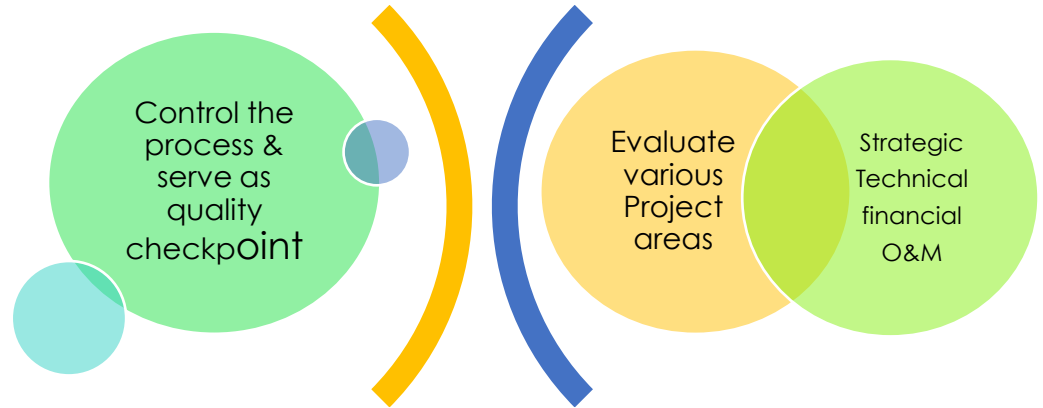
Project Management (Success)

CCT has adopted

- Standard project life cycle

Formal Phase Gate Reviews

- before advancing to next stage



Detailed Planning

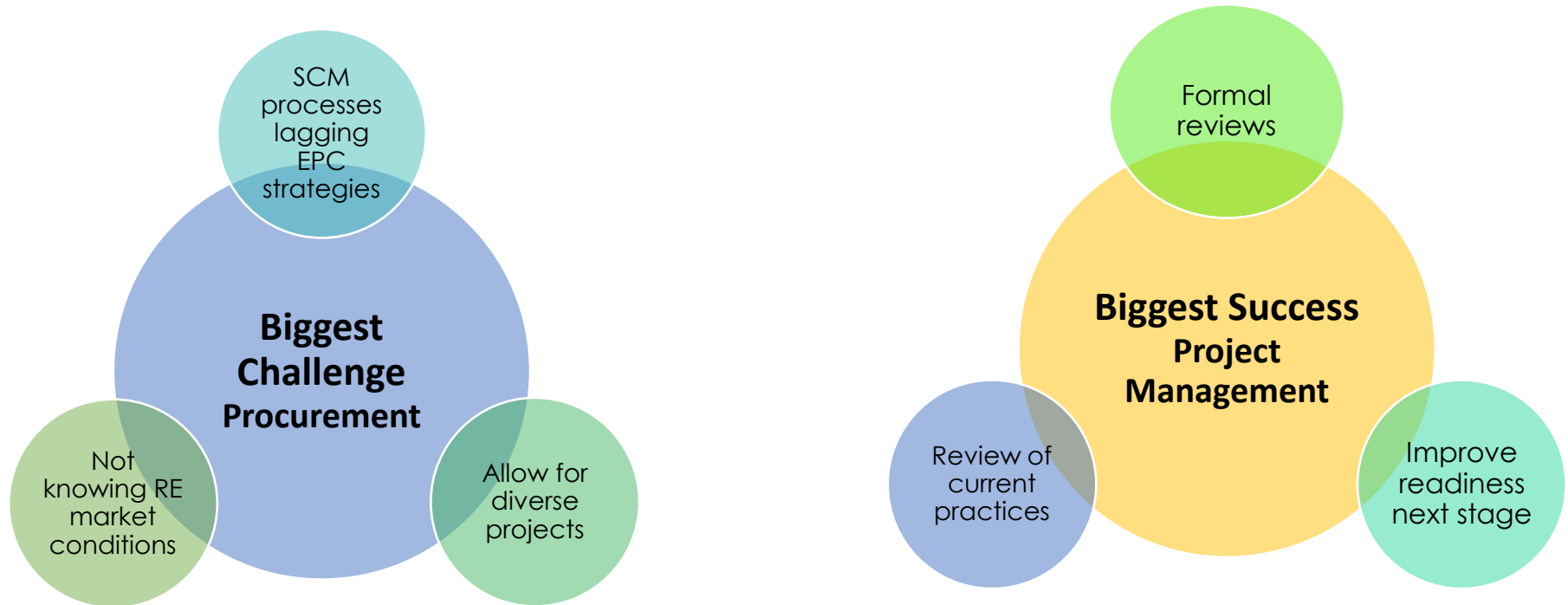
Robust Decisions



Closing Remarks



Closing Remarks



Developing own build RE plants by municipality requires a tailored approach



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Thank You

For queries contact (marlyn.hendricks@capetown.gov.za)

Making progress possible. Together.