

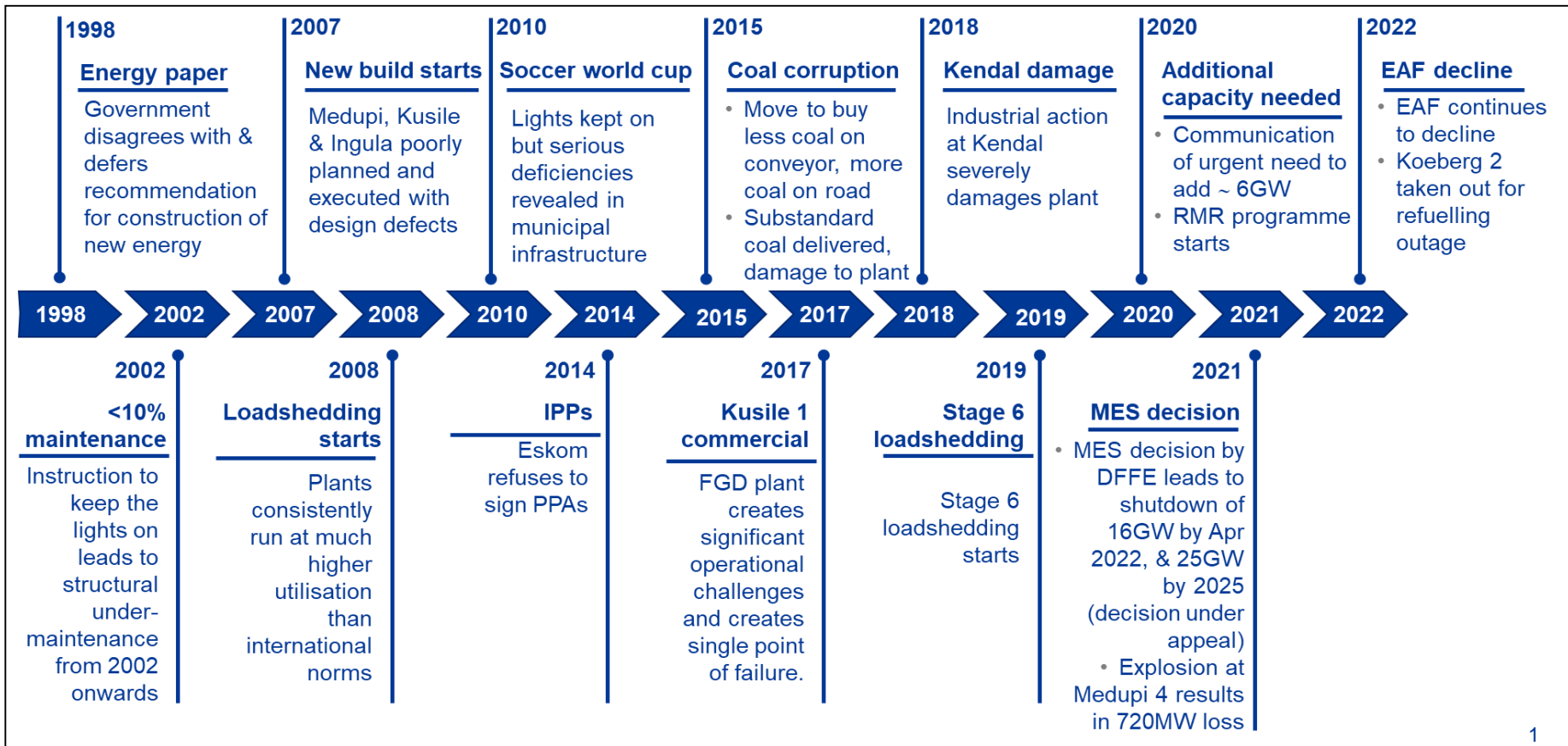
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Eskom – Western Cape Government Engagement
Session

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Several decisions and events have contributed to the energy capacity challenges we see today



Generation Capacity



- Aging infrastructure
- Deteriorating generation performance
- Loss of critical skills

Financial



- Weak balance sheet due to high debt burden
- Lower than cost reflective tariffs
- Low revenue – non-payment & reduced sales

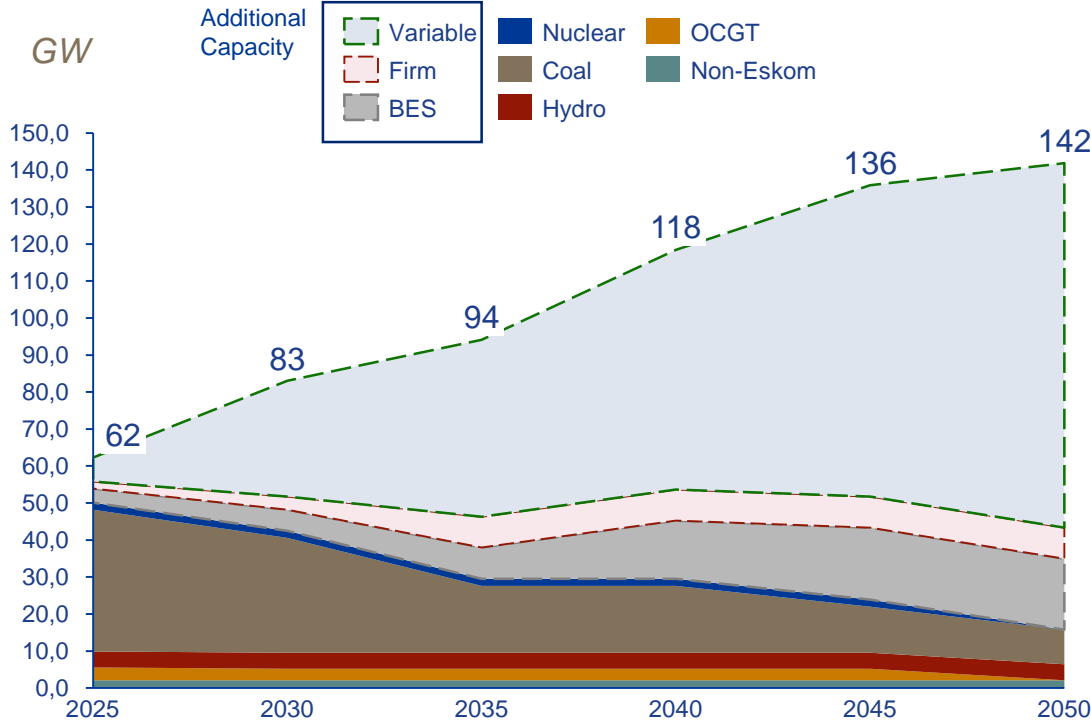
Grid access



- Grid constraints to connect additional capacity in high yielding areas
- Inability to acquire servitudes timeously

Eskom's existing generation capacity will be ramping down significantly in the next 10 – 15 years, requiring additional capacity

Existing plant and new capacity required to 2050



- Existing fleet generation will ramp down from **~50GW to ~15GW by 2050**
- Current projections show that **by 2030, new capacity of at least 50-60 GW renewable capacity will need to be added**, even if there is no incremental demand from economic growth.
- The quantum of new capacity required doubles (**~120GW**) **by 2030 when a 5% increase in demand growth is assumed.**

Eskom is looking at both demand and supply side interventions to address manage the crisis



Increasing capacity

Ave.: 28 000 GW

- Improving plant performance
- Completing and fixing new build
- Unlocking grid capacity
- Developing business models to enable private investment
- Repurposing and repowering

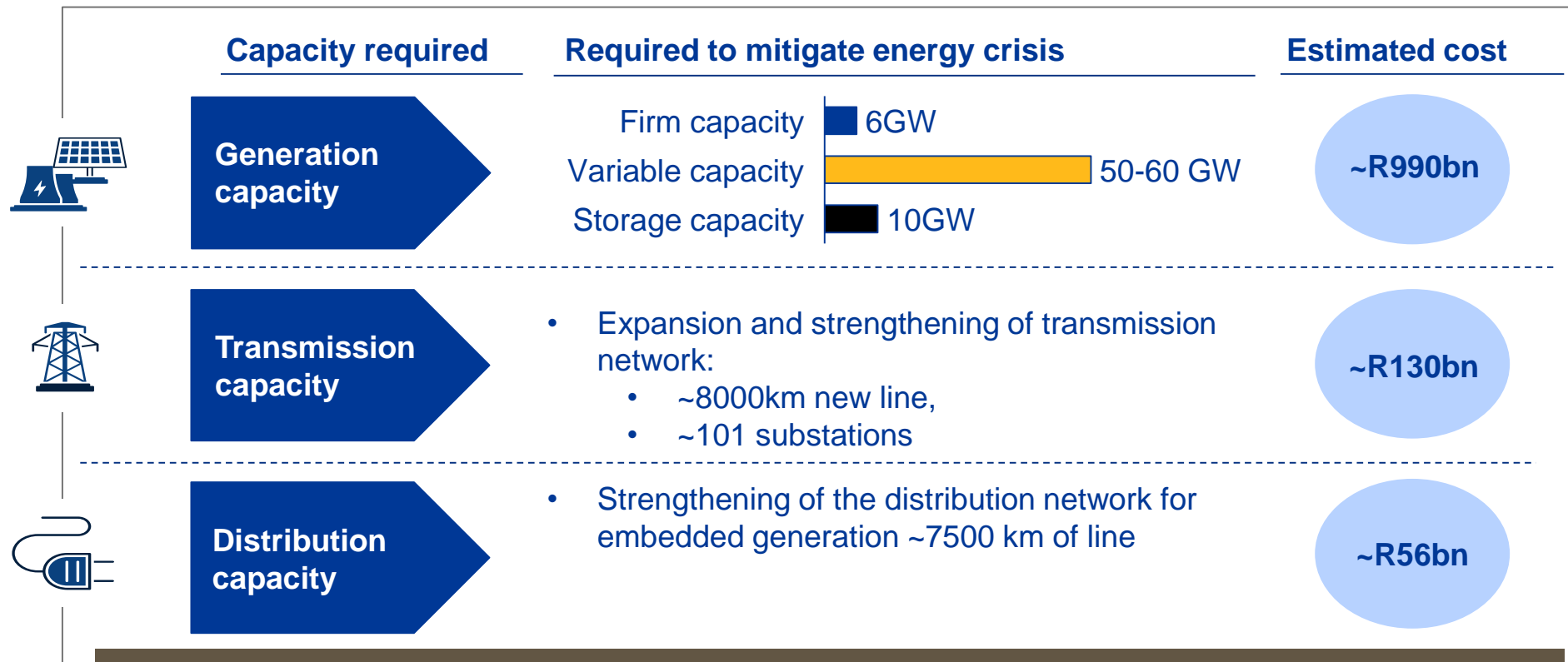
Reducing demand

Peak: 33 000 GW

- Energy efficiency advocacy – national campaigns, revival of incentives
- Power alert - daily notifications between 5pm to 9pm.
- Deployment of Demand Side Management (DSM) and Demand Response (DR) ~1 500 MW over the next 3 years

Can be achieved through enabling policy and a collaborative approach between government, labour and business

Eskom estimates that at least R1,2 trillion rand will be required in electricity investment before 2035



Approximate capital required for the expansion is R1.2 trillion by 2035.
Private investments and PPP will be crucial

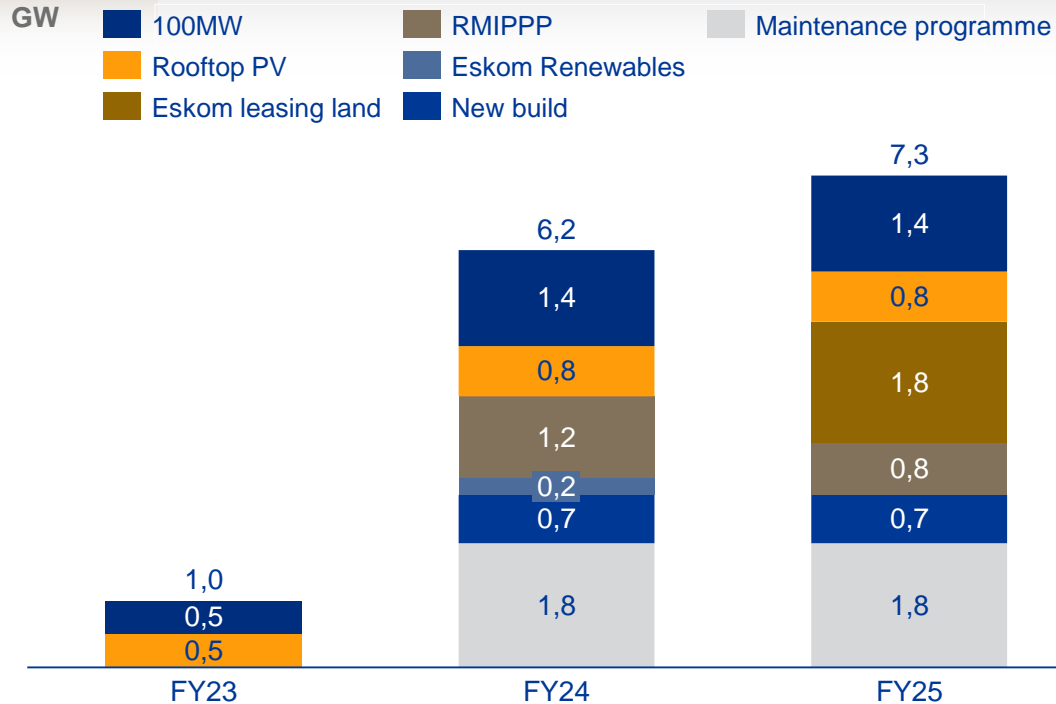
Based on available information, ~11GW can be brought online over the next 3 years, with an additional 3.6GW from maintenance program



Overview of annual capacity that can be connected



Insights



- Excluding 3,6GW recovered from maintenance, an additional **~11GW full nameplate capacity (excluding load factors) can be connected** over three years, **if performance and load factors are incorporated, this reduces to ~3GW**
- Accelerating processes to secure **environmental impact assessment licenses** needs to be expedited to fast track own generation projects
- Implementation of **feed-in tariffs** to incentivize investment is critical
- Maintenance programme capacity is based on improving **EAF to 65% by end of FY25**

Addressing performance



- Increased maintenance within limitations
- **Fixing newbuild defects**
- **Koeberg life extension**
- Repowering of stations shutting down
- Appointing Plant Managers & engaging experienced experts
- **Policies (MES, PPPFA) and procedures**

Repurposing and Repowering

Komati Power Station has served South Africa since 1961



- **Repurposing stations reaching end of life**
- **Komati repowering design of PV, Wind and Battery** implementation during 2022
- Installation of **Agrivoltaics and Microgrid assembly plant**
- **Establishment of training centre in collaboration with SAWEA**

Accelerate grid connections



- Reviewing queuing processes and capacitating Eskom grid access unit to respond to **own generation MW connections**
- Coordinating with **DMRE and IPPs to improve planning and connection** of new capacity projects

The evolving energy market requires reforms to facilitate municipal wheeling and municipalities buying from IPPs

Municipalities buying from IPPs

- New Generation Capacity regulations enable **municipalities to purchase from IPPs**
- Municipalities need to address their **financial standing**

Wheeling

- Eskom currently has established **wheeling policy and framework**
 - Allows customers, incl. **municipalities, to wheel energy**
 - **Not all municipalities allow wheeling** or have wheeling frameworks in place
- Eskom is exploring the option of **virtual low voltage wheeling**

Feed in tariffs and net-billing

- Application of feed in tariffs and net-billing will require smart **bi-directional metering**
 - Eskom already has **NERSA approved net-billing rates** and is awaiting approval from NERSA also for **residential tariffs** to have the same
- Eskom exploring further options compensate customers for energy produced
 - Development of a **feed-in-tariff design**
 - **Standard offer** which can be used for excess energy not credited through a wheeling transaction or net-billing arrangement

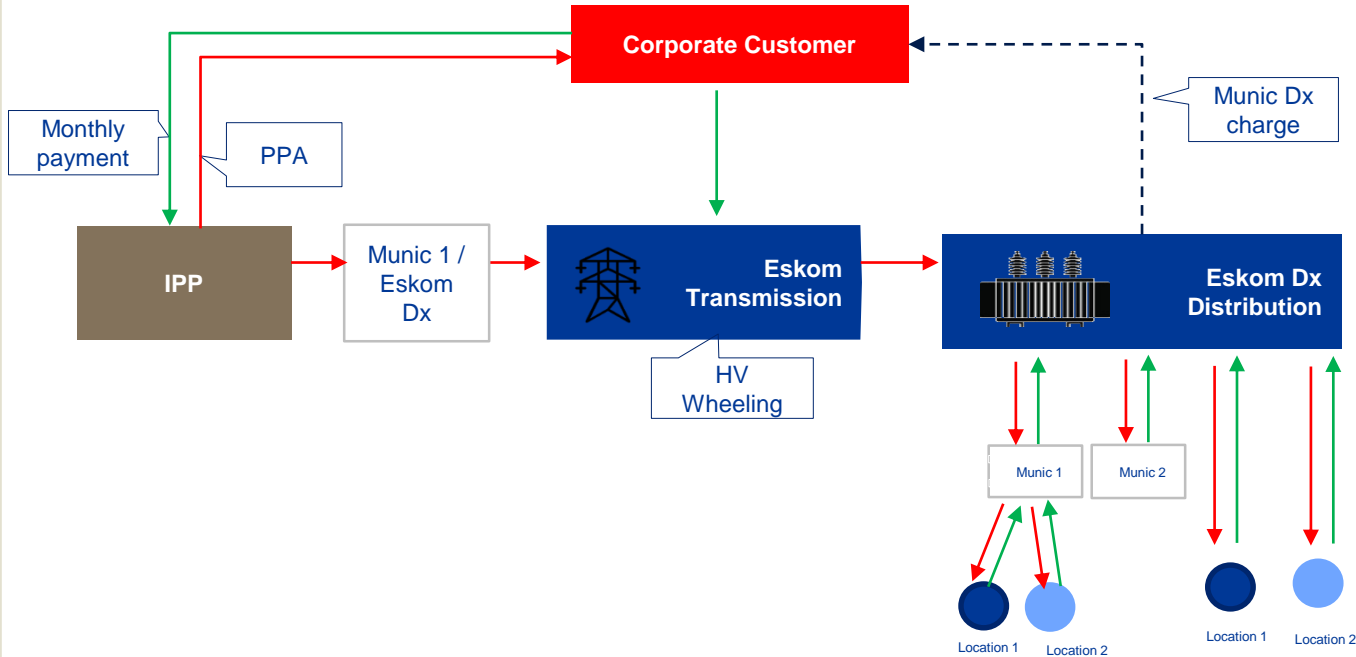
Collaboration is required between Eskom and municipalities to enable all initiatives:

Addressing **municipal debt**
Improving **municipal infrastructure**

Exploring additional initiatives to stimulate low voltage and enable greater investment in clean energy while enabling wheeling

Generator

Load



Products and services

1. Energy
2. Wheeling
3. Aggregation services
4. Flexible services (future)

Benefits

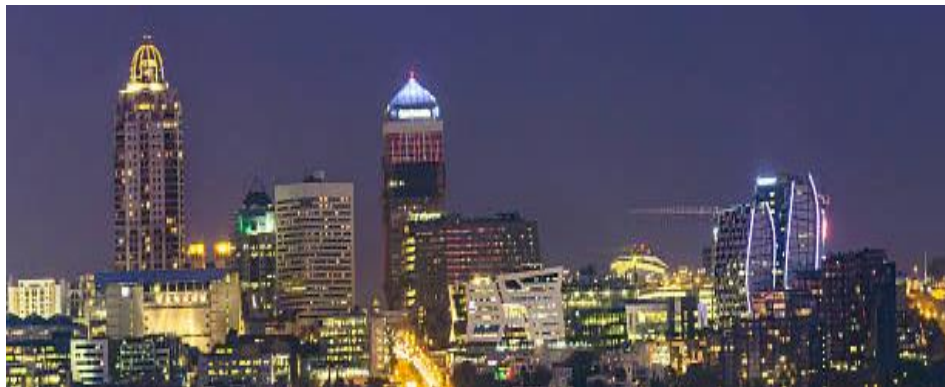
- Access to clean energy (decarbonisation ambitions)
- Stimulating utility scale renewable investment
- Socio economic stimulation



Additional measures to achieve long-term energy security and end load shedding for good:

- Fix Eskom and improving performance of existing fleet
- Accelerate procurement of new capacity from renewables, gas and battery storage
- Accelerate private investment in generation capacity
- Enable business and households to invest in rooftop
- Transforming the electricity sector and positioning it for future sustainability

Eskom is ready to work with the private sector to resolve the crisis



- Contribute 10 000MW to closing the generation capacity shortfall
- Demonstrate leadership in electricity use
- Energy security for business
- Claim carbon credits
- Decarbonise business value chains

#100MWfrom100



#switchoff



#saveelectricity





01

Investing in additional capacity - #100from100

- Opportunities to invest in IPPs through land leasing and wheeling arrangements
- Disused mine shafts, mothballed plants with grid access
- Grid access unit timelines halved, further optimisation ongoing



02

Enhancing demand side management

- Use energy sparingly to safeguard the national grid
- Drive in-house energy saving campaigns



03

Addressing security of infrastructure

- Support in security interventions to protect electricity infrastructure from vandalism and theft



04

Enabling policy for a sustainable ESI

- Contribute to the development and alignment of enabling fiscal-environmental-energy-industrial policies
- Advocacy essential



THANK YOU