

TNC25, June 2025

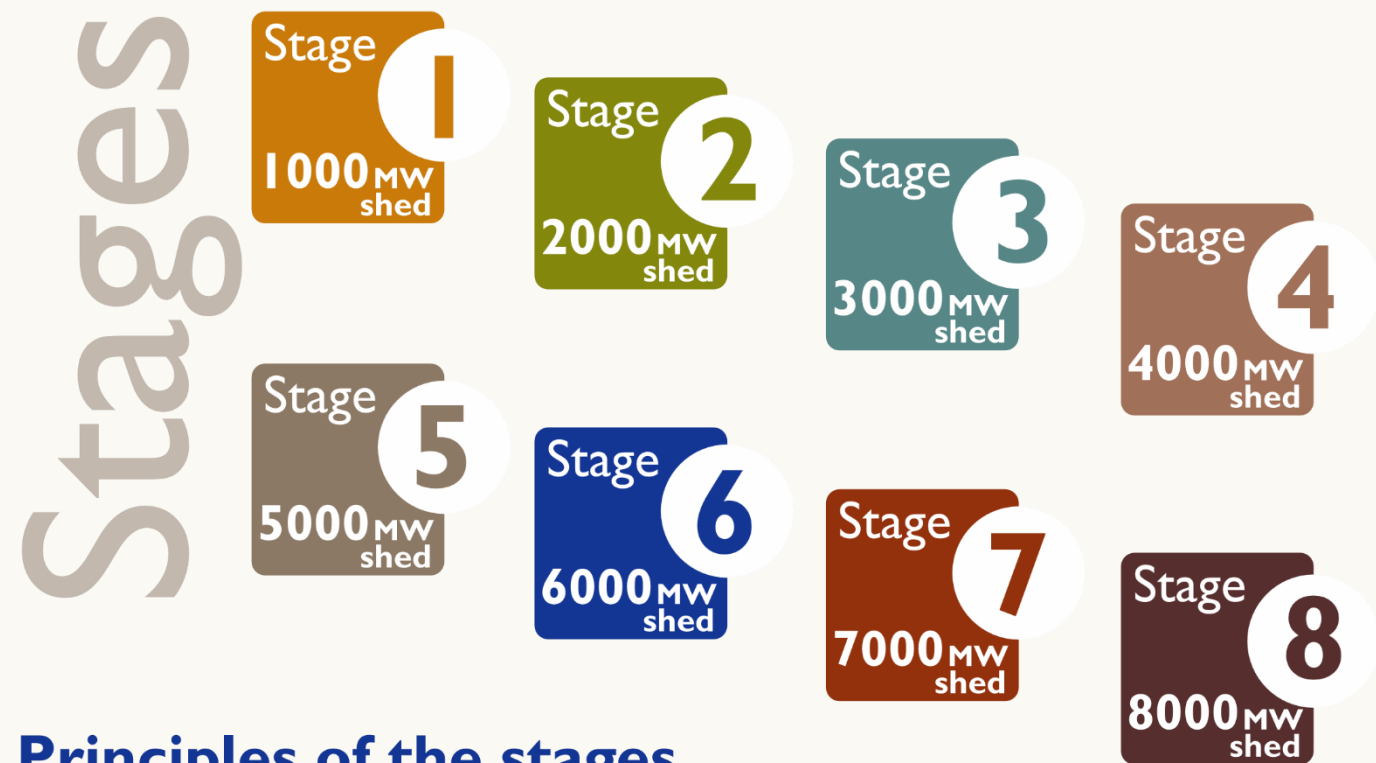
**TENET**

# FROM DARK TO GREEN

Energy efficiency and  
sustainability in an NREN

Presented by  
Maria-Sophia Mvungi

# Load-shedding



## Principles of the stages

Source: Eskom



The **higher** the **loadshedding stage**, the **more frequently** you will experience loadshedding.

The **higher** the **stage**, the **greater** the **number** of **customers** who will be affected across the country

Generally loadshedding in stage 8 will result in customers being on and off through the day for a total of about 12 hours.

## How does it work?

- 1 Eskom decides on the loadshedding stage depending on the number of megawatts needed to **balance** the power grid.
- 2 Eskom and the municipalities then implement loadshedding on a **rotational basis**, based on the schedules developed.
- 3 Loadshedding is done for **2 – 4 hours depending on the schedule for your area** (+30 minutes restoration time)

Source: Eskom

“Energy Availability Factor averaging 58.85%”

April 2025 – Chris Yelland

# *NREN Impact*

TENET

Institutional disparities



Site isolations



Device failure



Non-technical losses



# NREN Actions

TENET

Backup Power  
Solutions

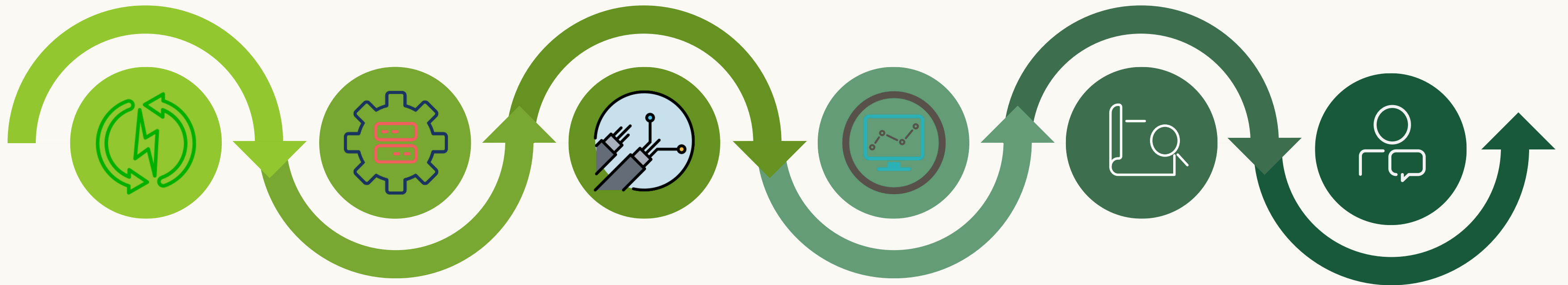
Bypass  
implementation

Scenario  
planning

Network design &  
configuration

Power monitoring  
& evaluation

Specialist discussion  
& wider engagement



# *Institutional Actions*

**TENET**

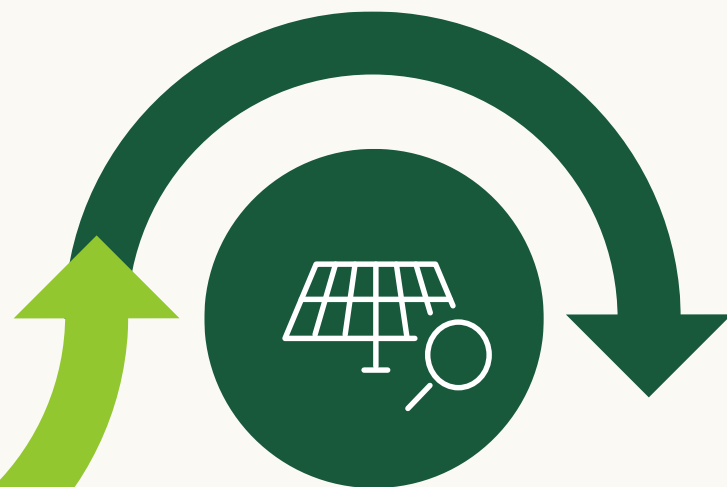
**Facilities/specialist  
assessment**



**Virtualization &  
consolidation**



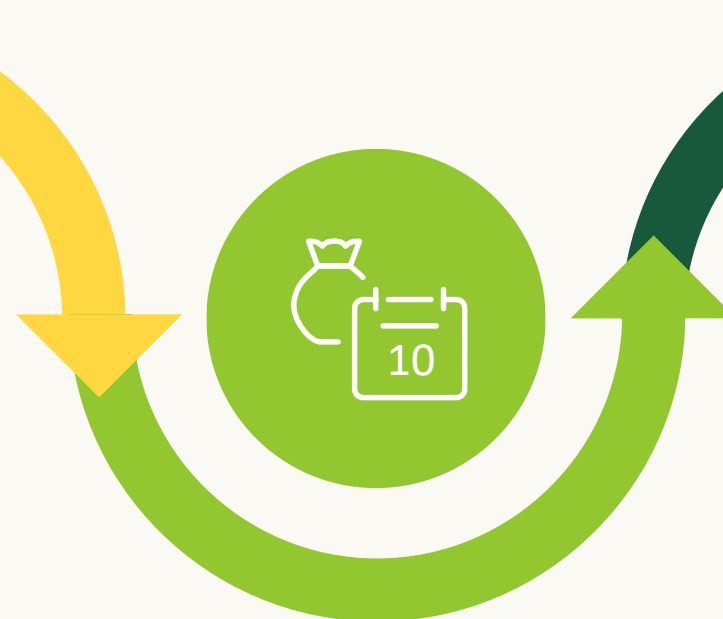
**Solar PV  
generation**



**Data centre  
optimization**



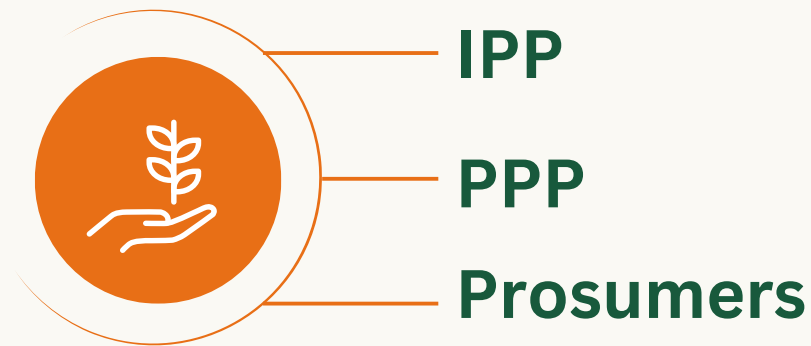
**Procurement  
adjustment**





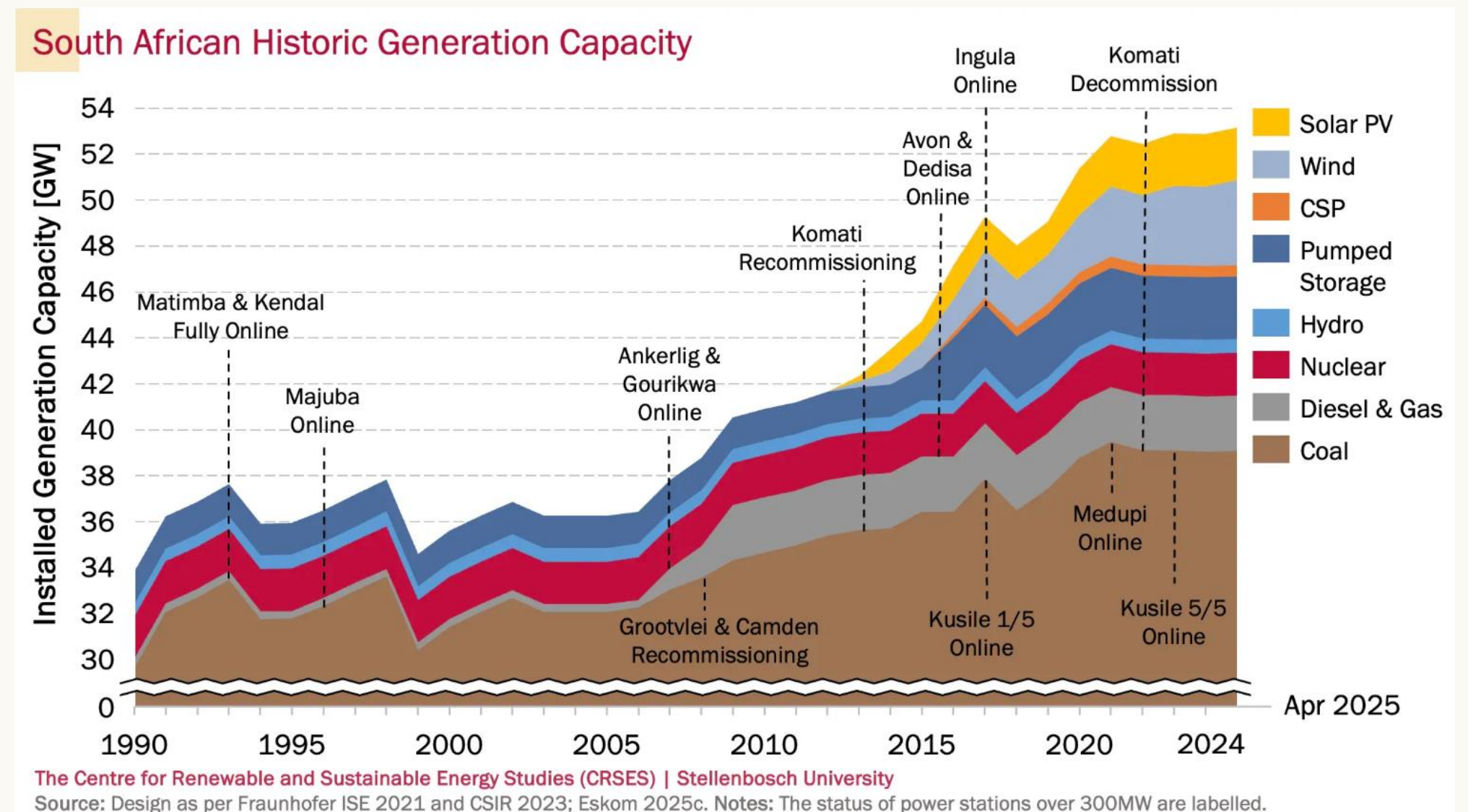
# Regional & National Focus

TENET



The pace of reform in the electricity supply industry of SA is now gathering momentum, driven by the need for decarbonization, security of supply, and the reality of the economic imperatives.

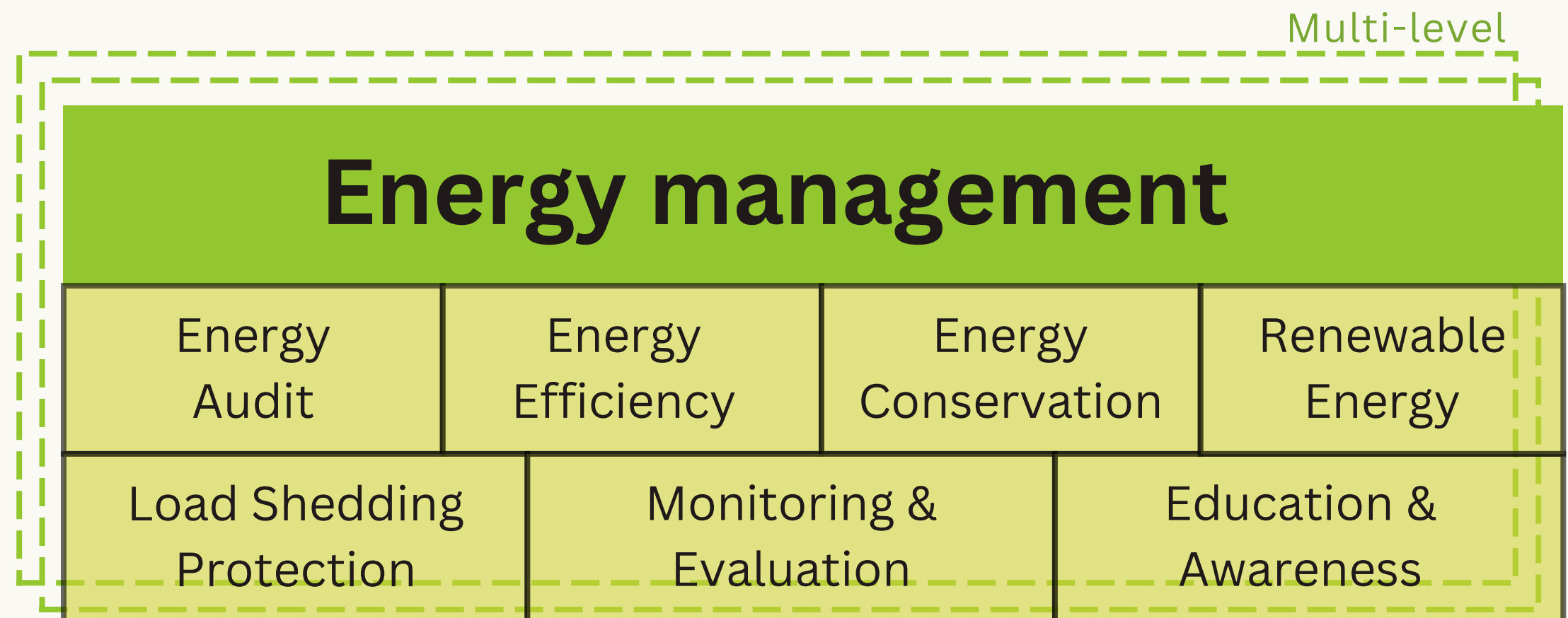
April 2025 - Chris Yelland



# Considerations

TENET

On a wider view of the present global energy crisis, what does that look like for your NREN?



With central strategies of demand management, renewable energy and power management driving overall energy efficiency.  
Ensuring we turn from dark to green.



# FROM DARK TO GREEN

Energy efficiency  
and sustainability  
in an NREN

TNC25, June 2025

Presented by  
Maria-Sophia Mvungi

