Electricity: Short Term Balancing

As at 2015 there was no electricity import in Nigerian electricity system while 30 MW was exported to neighbouring countries (Benin, Niger). Electricity interconnection will take advantage of the West African Power Pool, African Continental Masterplan and the 80GW capacity from Grand Inga project in the Central Africa. Demand shifting will involve consumers shifting electricity consumption from peak times on the grid with additional incentive of cheaper electricity at non-peak times.

Level 1

Level 1 assumes no interconnection and storage up to 2050.

Level 2

Level 2 assumes that 1.3GW interconnection capacity up to 2050 with 2 GW of storage and demand shifting.

Level 3

Level 3 assumes that 4 GW interconnection capacity up to 2050. Additional 10 GW will be available from storage and demand shifting.

Level 4

Level 4 assumes that 8 GW interconnection capacity up to 2050 with 20 GW from storage and demand shifting.

Key Interaction

Short term storage will help balance supply and demand, reducing the generation capacity required to meet peaks. As back up capacity is often fuelled by gas, this can reduce emissions. This is particularly important when using significant amounts of intermittent wind and solar.

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Default Timing Start Year: 2025 End Year: 2050

Electricity: Short Term Balancing						
Sub-Lever	Units	2015	Level 1	Level 2	Level 3	Level 4
Interconnection	GW	0	0	1.3	4	8
Storage and Demand Shifting	GW	0	0	2	10	20