

Paradigm Shift In Data Center Design to Embed Sustainability



Pankaj B. Kasturay
National Payments Corporation of India
(NPCI)



AGENDA

Future Technology

Focus for Sustainability

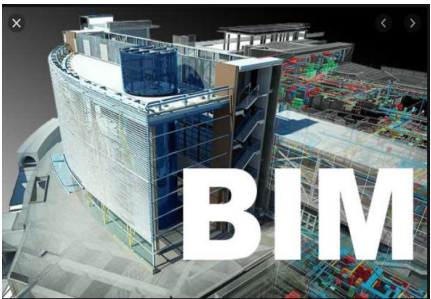
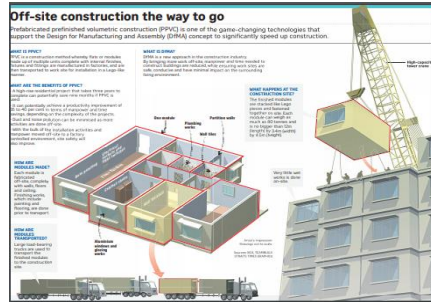
Resource Saved = ₹ Saved

Key Take Away



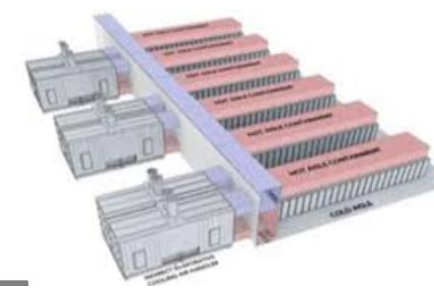
Future Technology

Civil & Architecture



Rapid Construction

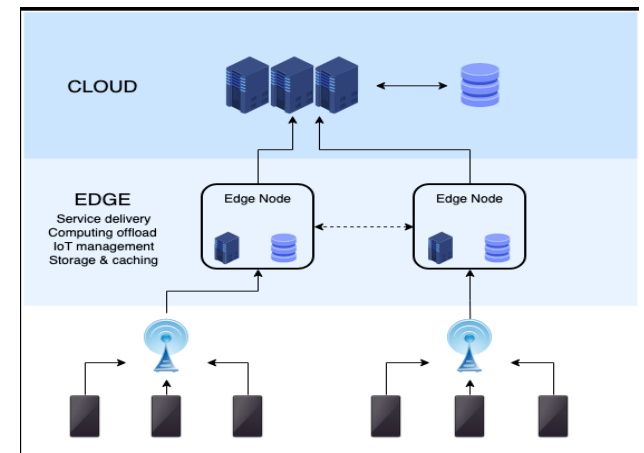
MEP Fit outs



Uninterruptible Power Option	Personalized Power Quality	Energy Storage	AC or DC Power	Fuel Flexible	Personalized Sustainability	Personalized Cost Savings	EV Charging Capable

Modular Innovation

IT



A circular graphic for 5G technology. The center features a large '5G' logo. Surrounding it are images of a construction site, a crowd of people, and a car. Text around the circle includes 'Massive Machine to Machine', 'Enhanced Mobile Broadband', and 'Ultra-Reliable and Low Latency'.

Distributed Connectivity



Where to Focus?

HVAC

- Copper tubing and Aluminum fins (65% to 75% heat)
- Soft starter motors and Quick start compressor

Civil & Architecture

- Check the soil condition and avoid piling soil
- Divide the plot in modular with multiple PoD's
- Avoid Basement just for parking its 1.38 costlier than G+ X floors
- Check structural overdesign it is always at least less than 12Kg/m²

4

Artificial Intelligence

- Intelligent Building for collection of Data to use in AI
- Smart devices
- DCIM to connect with Edge

3

2

Electrical

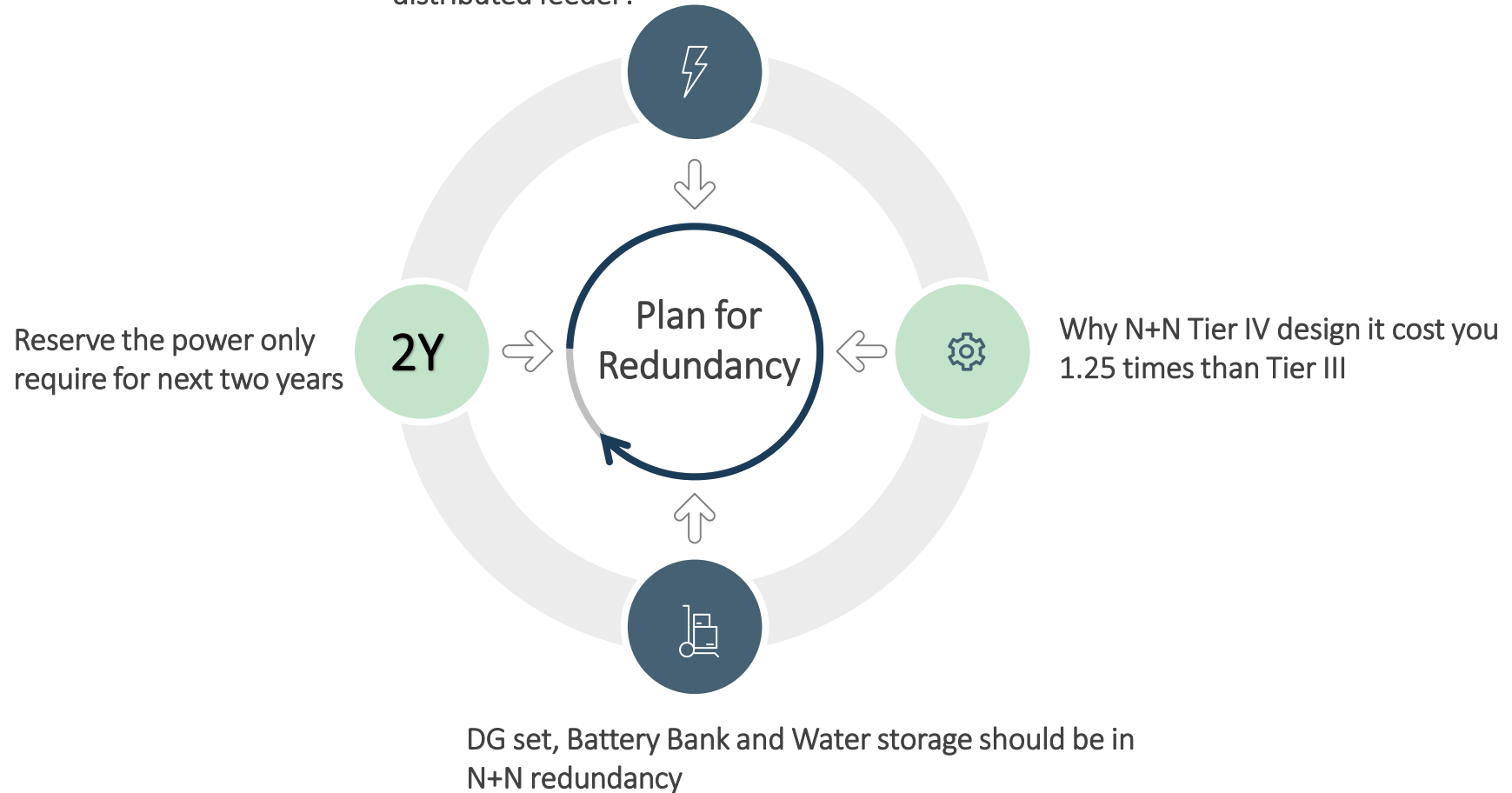
- Modular design from Transformer to PDU and racks
- Lithium-Ion batteries

1



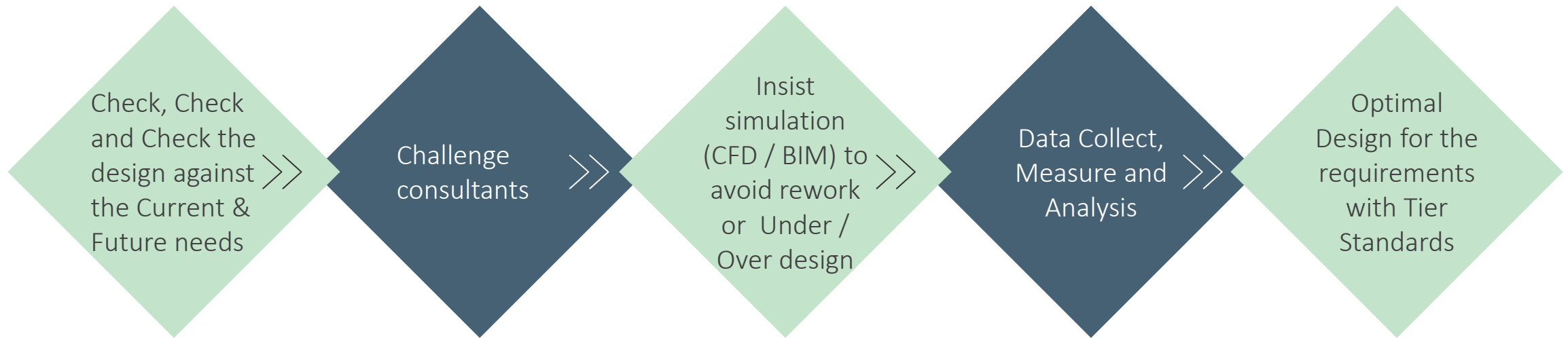
How Much Redundancy?

Why Dedicated HT feeder = 1.8 Times higher than distributed feeder?





Key Takeaway



Need to collaborate as Non Profit Group to get the first hand experience and improvements from lesson learnt.

THANK YOU

