



GUNKUL SPECTRUM ✨

ดร.ไพโรจน์ ภาณุกาญจน์

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SENIOR VICE PRESIDENT, INNOVATION

**WHAT IF ENERGY IS
FULLY YOURS TO MANAGE?**

Reconstruct the future landscape of
energy with tailored-made power.

Manage your own energy through
smart & fully automated system that
you can rely on.

TAILORED-MADE POWER
IN THE PALM OF YOUR HAND

NEXT LEVEL ENERGY

MICROGRID SERVICE SOLUTION

Maintaining the stability of the existing grid, Microgrid Service Solution can help guarantee sustainable continuous & clean energy for communities every size.

SOLUTION THAT MEETS EVERY SIZE

**REMOTE
AREA**

**URBAN
AREA**

ENERGY-AS-A-SERVICE



Energy
Persona
Analysis



Energy
Architecture
Software



Private
MICROGRID
Agreement

ENERGY PERSONA ANALYSIS



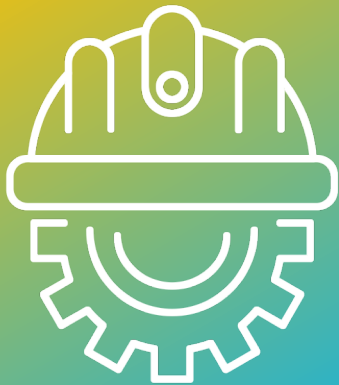
Turn priorities into realities. MICROGRID SERVICE SOLUTION helps you capture the characteristics of your energy demands and map out a plan that helps you navigate your critical load efficiently to ensure sustainable continuous power.

ENERGY ARCHITECTURE SOLUTION



Monitor, control, and optimize your existing grid with an all-in-one system that helps illustrate your energy blueprint in order to maximize your energy performance, both production and consumption without causing interruptions.

PRIVATE MICROGRID AGREEMENT

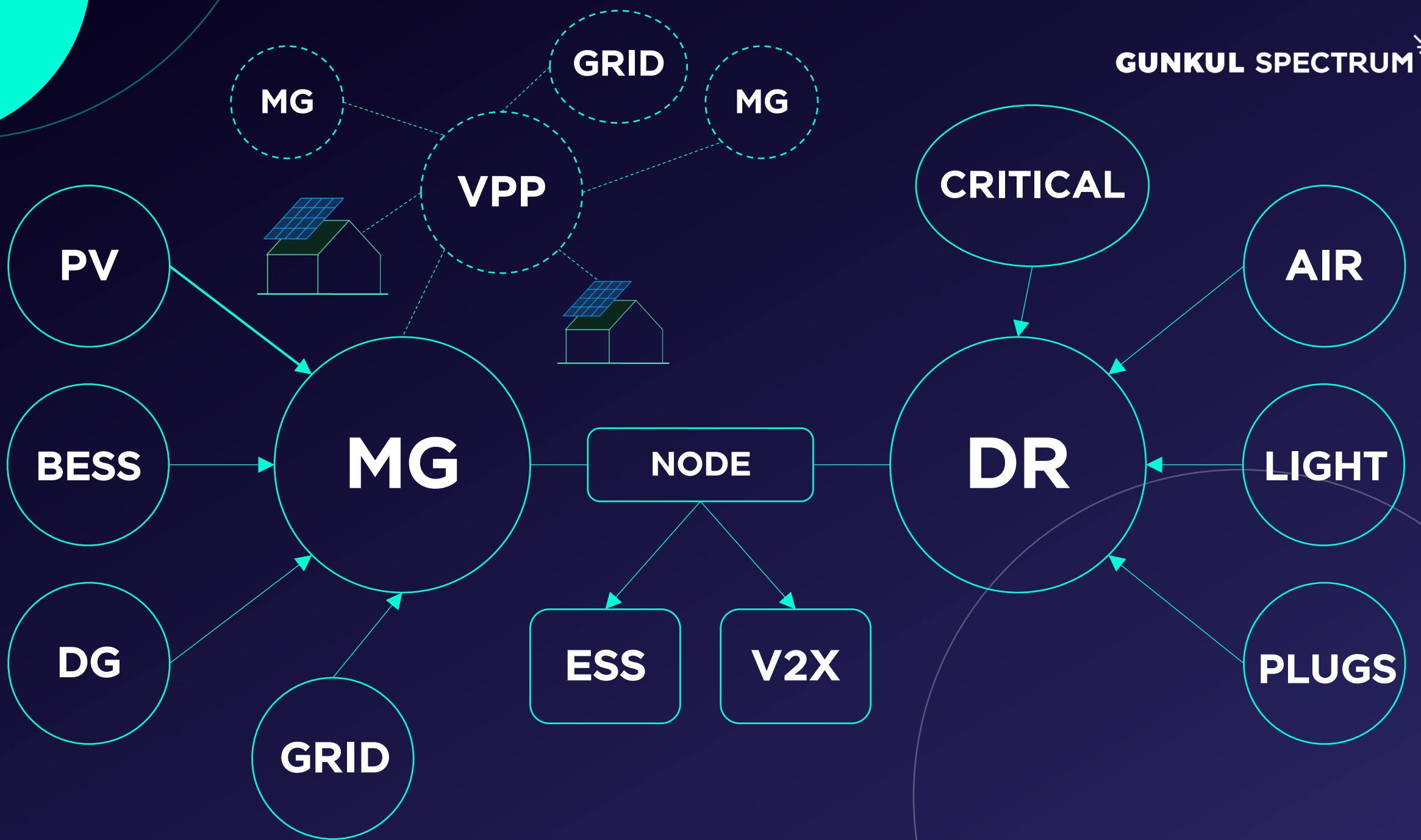


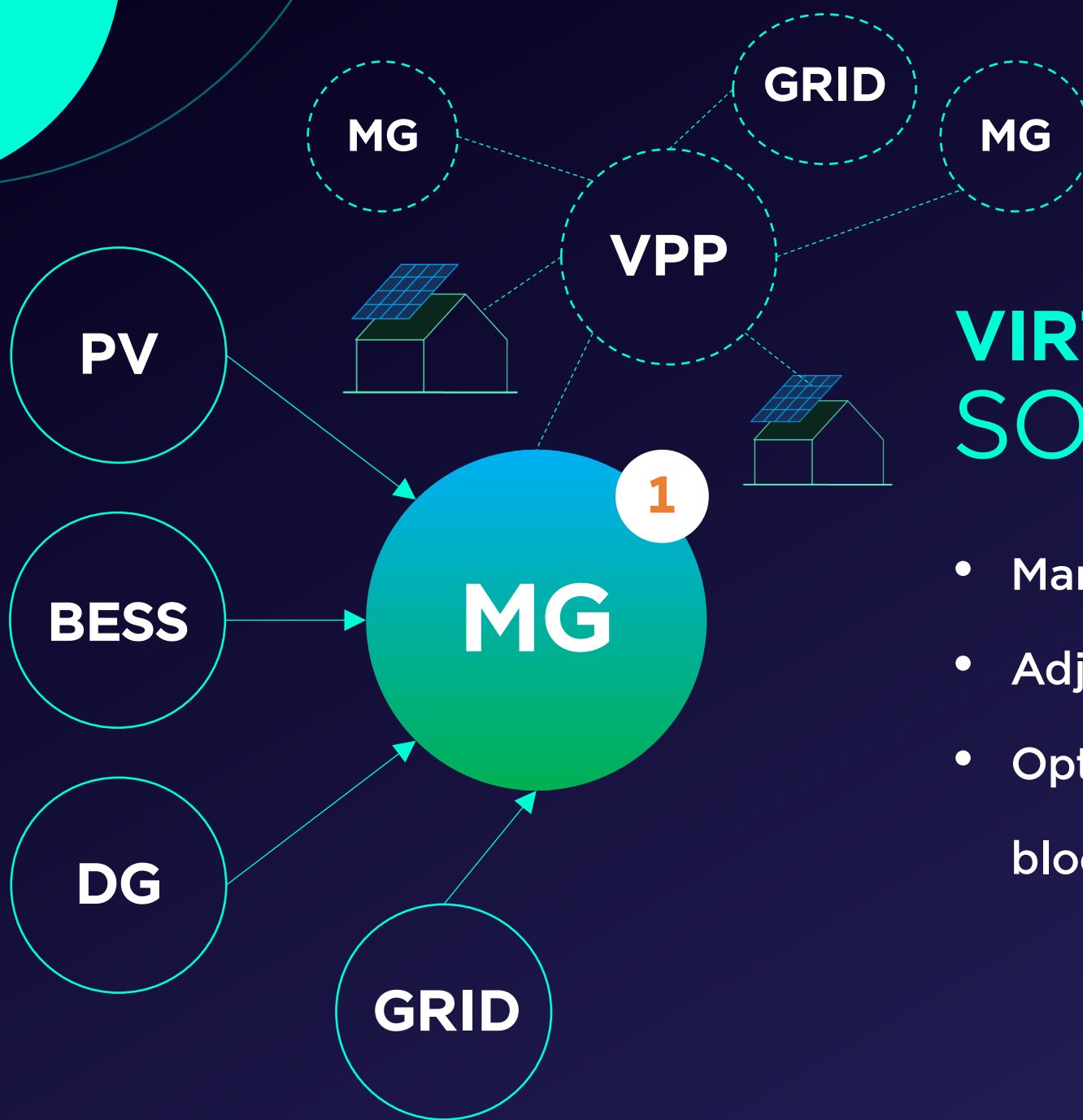
Our solution doesn't stop at providing you a smart and reliable system but we want to invest in your clean energy journey. MICROGRID SERVICE SOLUTION also includes feasibility study, upfront investment, procurement and construction.

KEY

TECHNOLOGY

MICROGRID SERVICE SOLUTION



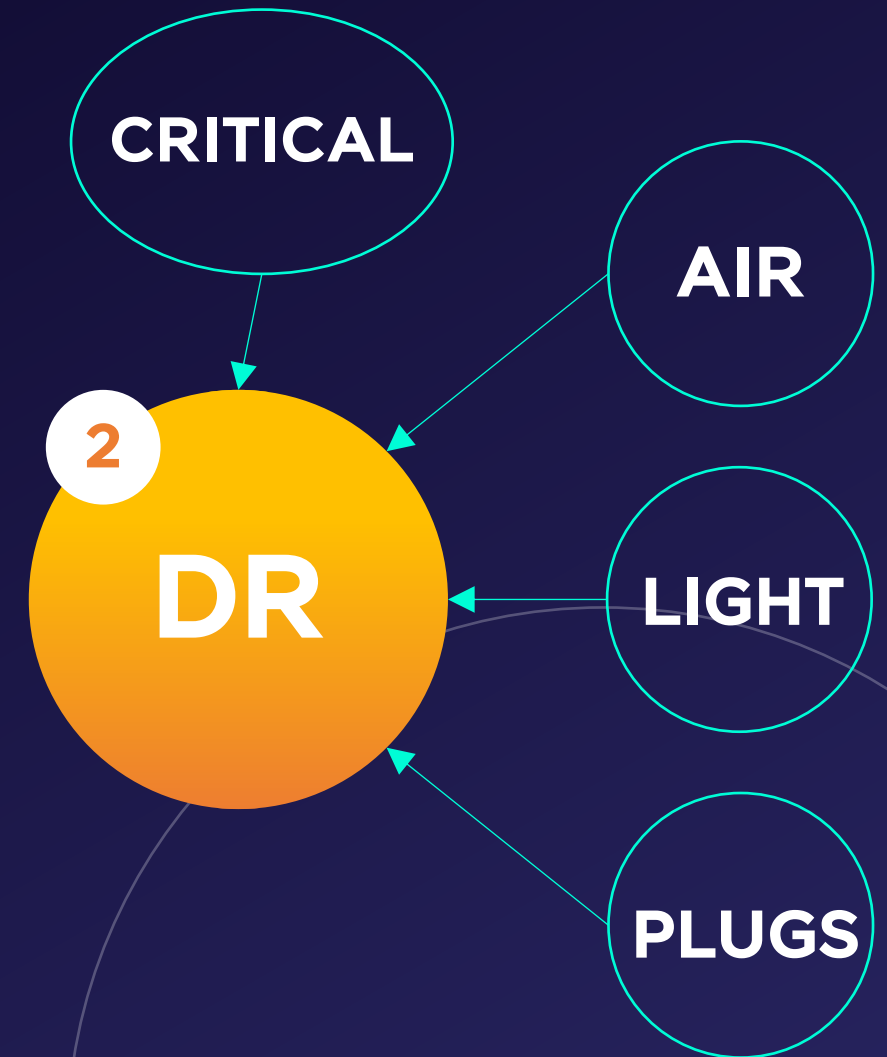


VIRTUAL POWER PLANT SOFTWARE

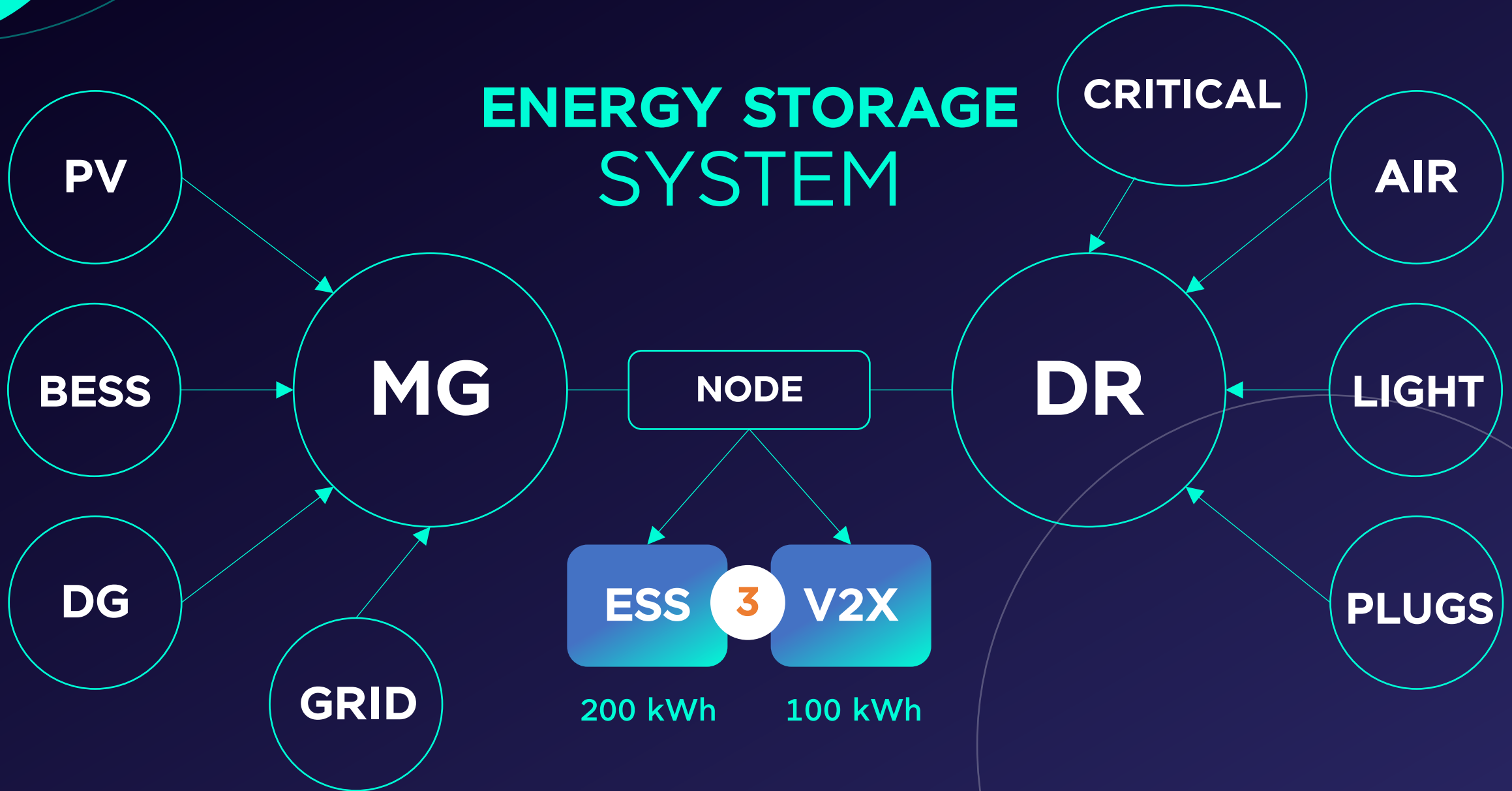
- Manage multiple power sources
- Adjust power production
- Optimize pricing signal through blockchain technology

DEMAND - RESPONSE SOFTWARE

- Automatic or manual Direct Load Control (DLC)
- Customized critical load



ENERGY STORAGE SYSTEM



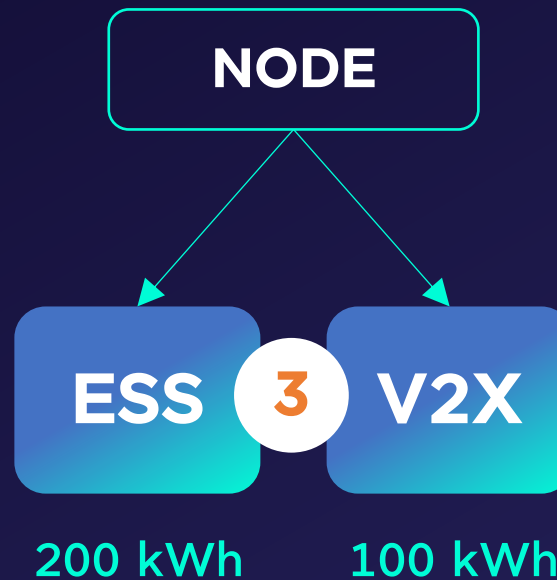
ENERGY STORAGE SYSTEM

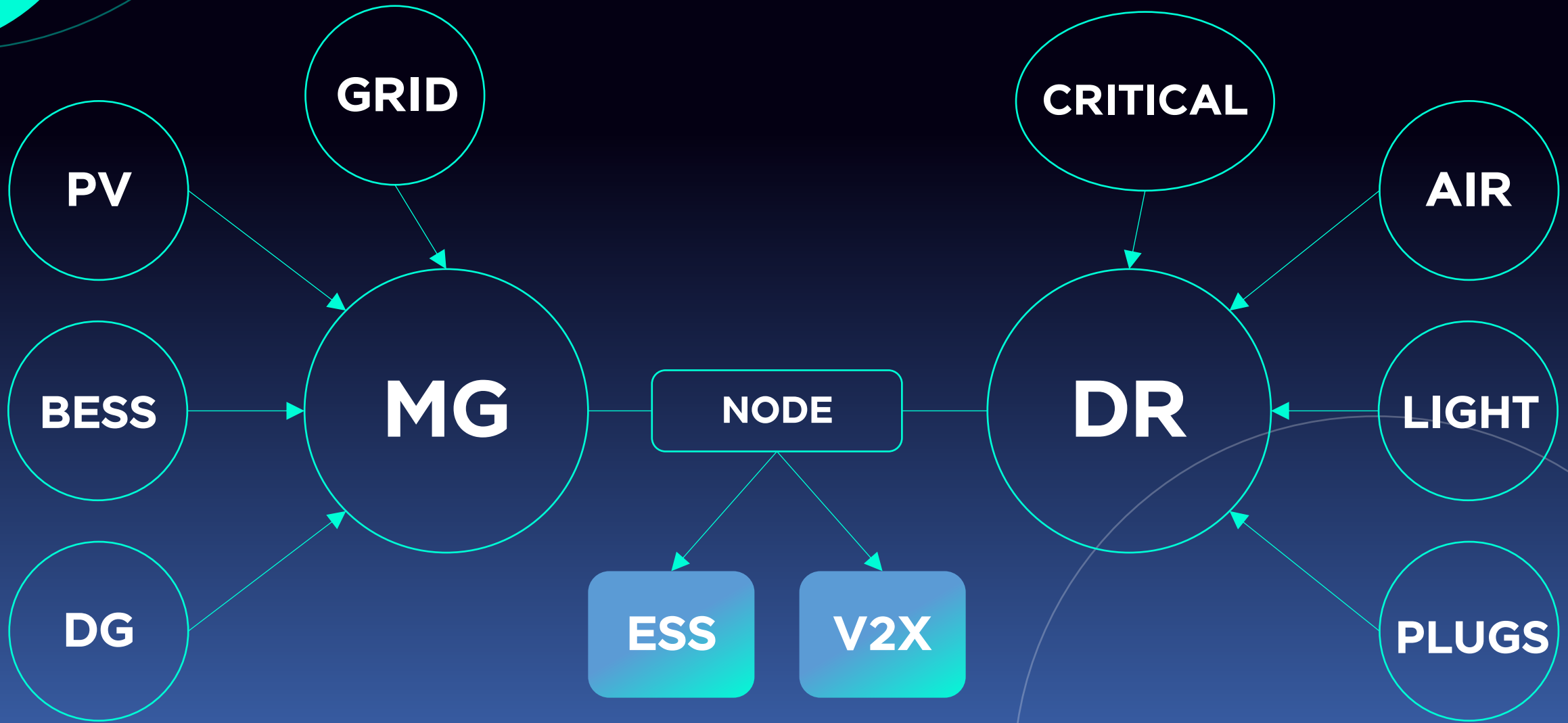
BATTERY SYSTEM

Relieve demand stress and enhance your grid stability with Li-on Battery Energy Storage System (BESS). This also buffers peak demand while sustaining voltage fluctuations and future energy requirements

V2X

Mobilize energy anywhere throughout your community. Complete your Microgrid with EV charging station that supports normal charge and quick charge OR feed energy back via V2G (Vehicle-to-Grid) function.





FORECAST 4

ENERGY SERIES ANALYSIS



RENEWABLE ENERGY FORECAST

Interactively calculate Global Tilted Irradiation and PV electricity output according to numerical weather prediction model at least once a day with periodic monitoring.

15
MINS

30
MINS

60
MINS



DEMAND FORECAST

24-hour advanced prediction utilizing Active Power Load & Reactive Power Load information using an API service.

FORECAST 4

EXPAND BEYOND THE GRID

MICROGRID SERVICE SOLUTION

ENERGY ON DEMAND

PEER-TO-PEER ENERGY TRADING

It's all about connecting the dots. Level up your energy game with P2P Energy Trading and turn energy into value. Select source or settle price securely through blockchain technology.

MICROGRID can become a consumer product.

FROM PEER TO CLUSTER

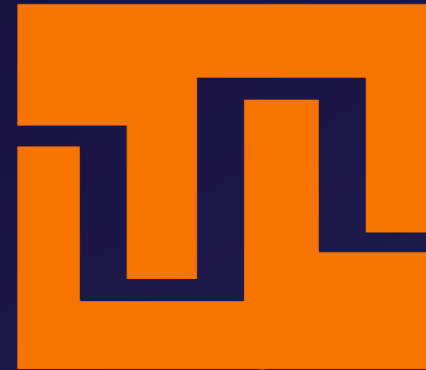
BORDERLESS ENERGY SUPPLY

Why limit to only 1 MICROGRID when we can ensure a fair-efficient energy trading among microgrid clusters. Enter into a vast energy market as prosumers and support equality in resource sharing.

**ARE YOU READY TO
CREATE YOUR OWN GRID?**

GUNKUL

SPECTRUM



SGtech

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