



WEGDAY 2025



Driving efficiency and sustainability





GRID RELIABILITY AND MODERNIZATION

REIVAX SYSTEMS

CARLOS JOSÉ BASTOS GRILLO
Managing Director
Digital & Systems





November 2024
acquisition



Founded in 1987
Florianópolis/SC



Brazil, Canada and Portugal
operations




Control Systems
energy generation and substations



TOPOLOGY OF ELECTRIC GRID SYSTEMS

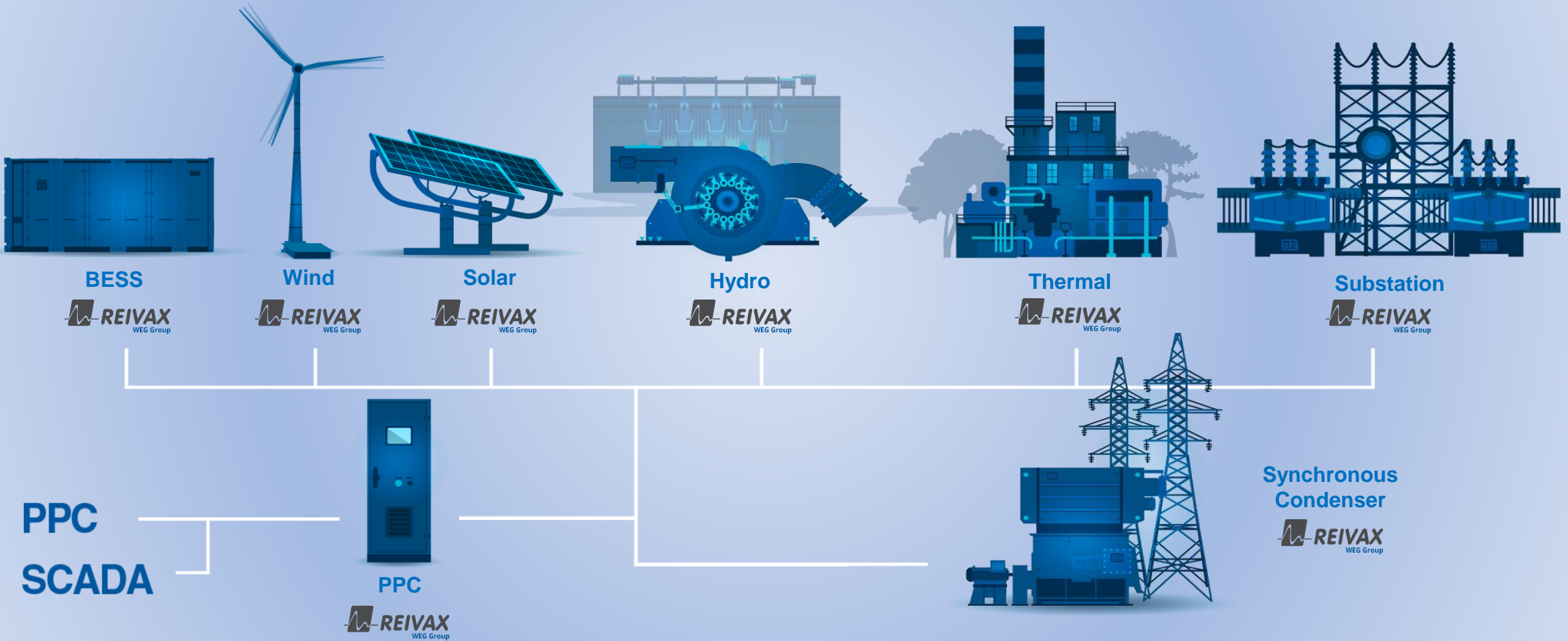


	Distributed Resources in the Grid (DERs)	House/Building Nanogrid/Homegrid	MicroGrid	Grid
Energy	Generation	Solar	Solar, Diesel, biomass, gas	Solar, Wind, Hydro, Biomass, Gas, Nuclear
	Storage	BESS	BESS	BESS
	Consumption	Home, Devices WEGHome, WEMOB, etc...	General, industrial, Agro, Vehicle Charging	National Integrated System (SIN)
Intelligence	Control	V2X Vehicle to Home	Smart PPCs systems, SCADA, EMS, etc...	 Smart systems, PPCs, SCADA, EMS, etc., respecting the GridCode models, with redundant operation/communication
	Performance and Communication	On the internal network equipment	Controllers in generation machines networked to the control	
	Orchestration	Personal	Professional and connectable to Utilities and their GridCodes	
				Integrated and regulated (SIN/ONS/GridCodes)



Argentina



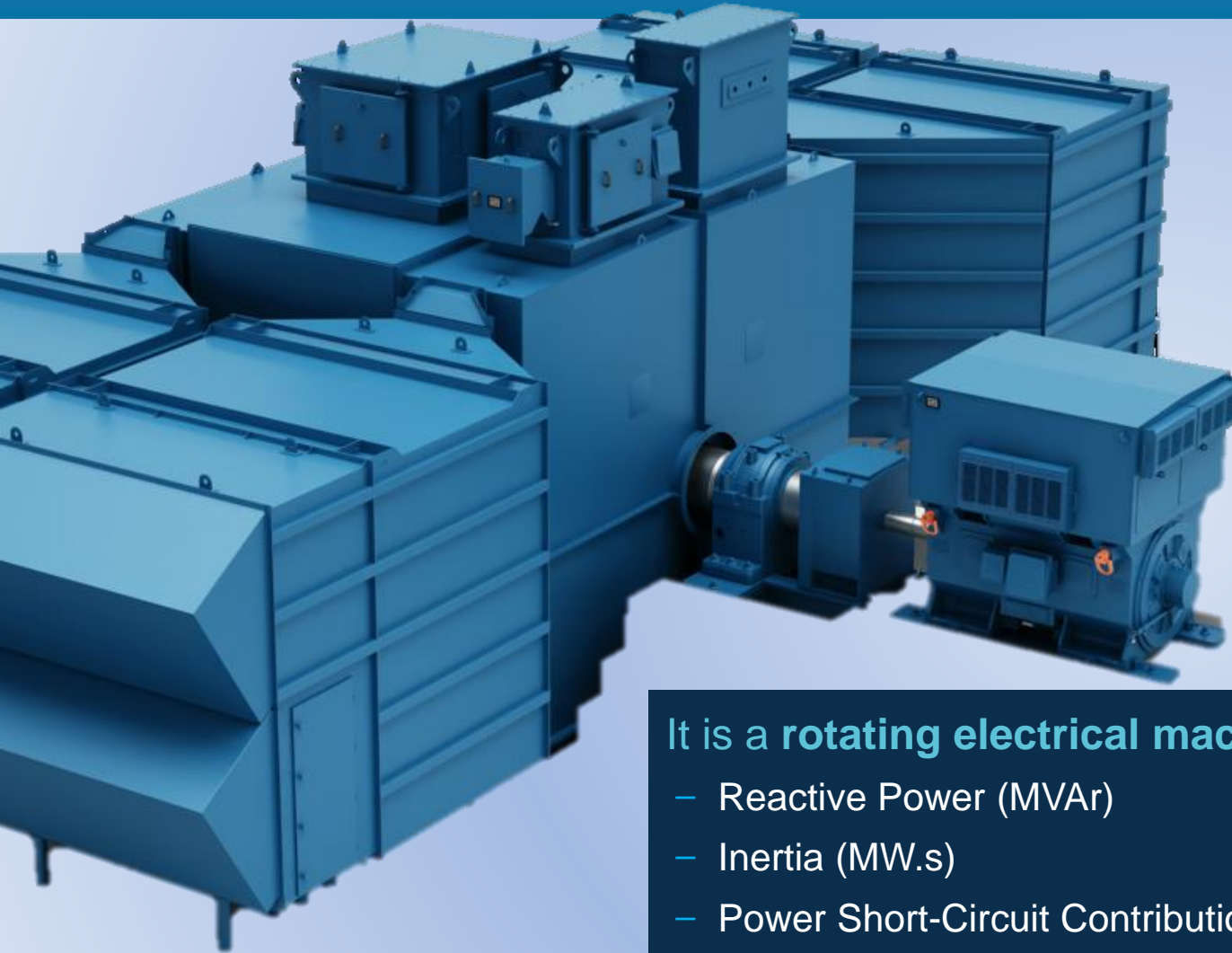




SYNCHRONOUS CONDENSER

JOÃO PAULO GUALBERTO DA SILVA
Managing Director
Energy

SYNCHRONOUS CONDENSER



It is a **rotating electrical machine** that provides:

- Reactive Power (MVar)
- Inertia (MW.s)
- Power Short-Circuit Contribution (GVA)

Stability

Resilience

Strengthening of Grids

Frequency Stability

Short-Circuit

Voltage Regulation

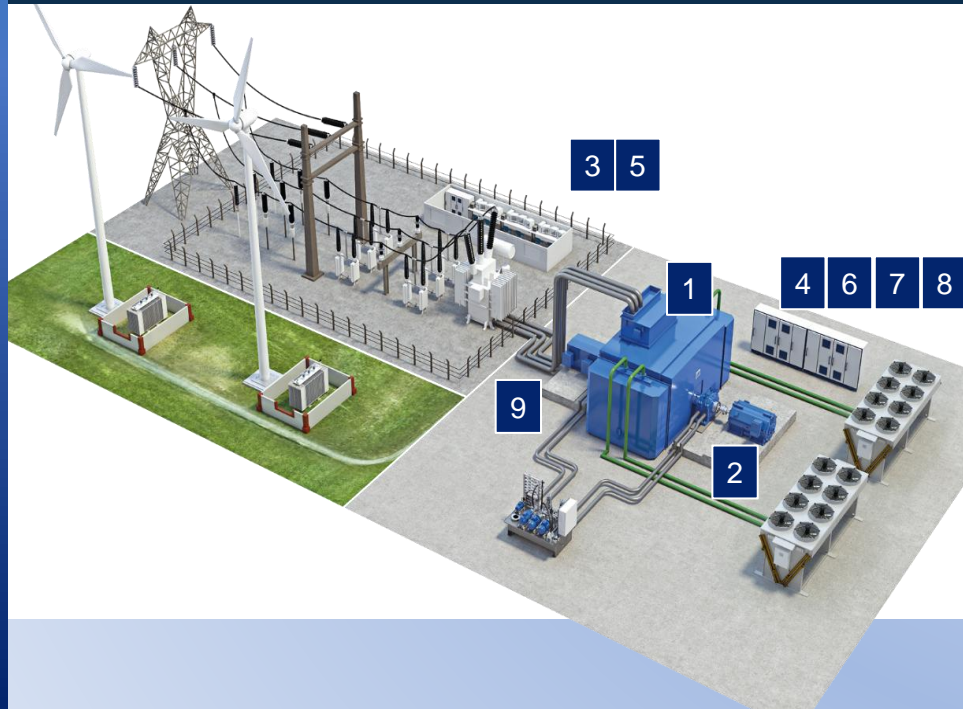
SYNCHRONOUS CONDENSER SOLUTION



Supply of a **complete system**

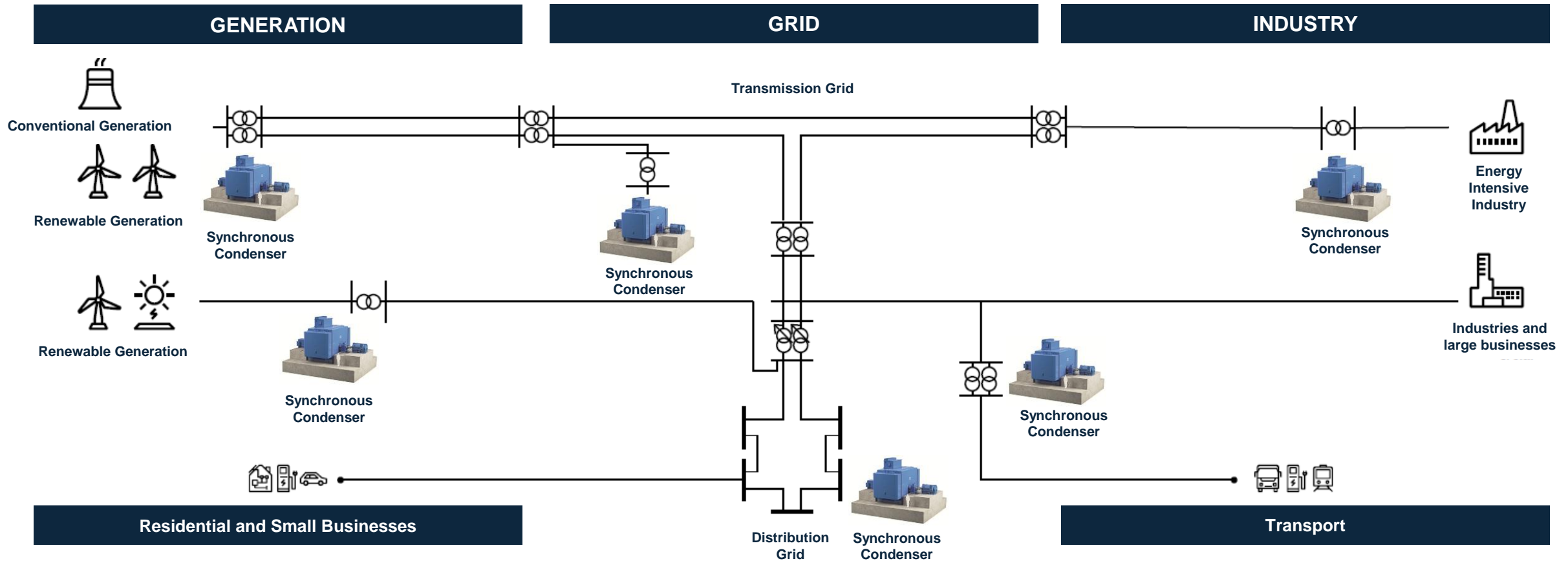
Solution development with the client

Guarantee of **best performance of the set**



1. Rotating Synchronous Condenser
2. Pony Motor and Pony Inverter Starting System
3. Transformers (step-up, excitation, starting)
4. Excitation System
5. Circuit Breaker
6. Low and Medium Voltage Cubicles
7. Rectifier and Battery Systems
8. Protection and Control System
9. Connecting Cables and Busbars
10. Electrical Studies, Simulations, and Reports
11. Civil Work, Electromechanical Project and Installation

SYNCHRONOUS CONDENSER AND OTHER TECHNOLOGIES



PROJECTS AND OPPORTUNITIES



**1,233 MVAR in projects backlog
and in the pipeline**



**1,950 MVAR planned for the
transmission auction in Brazil in 2025**

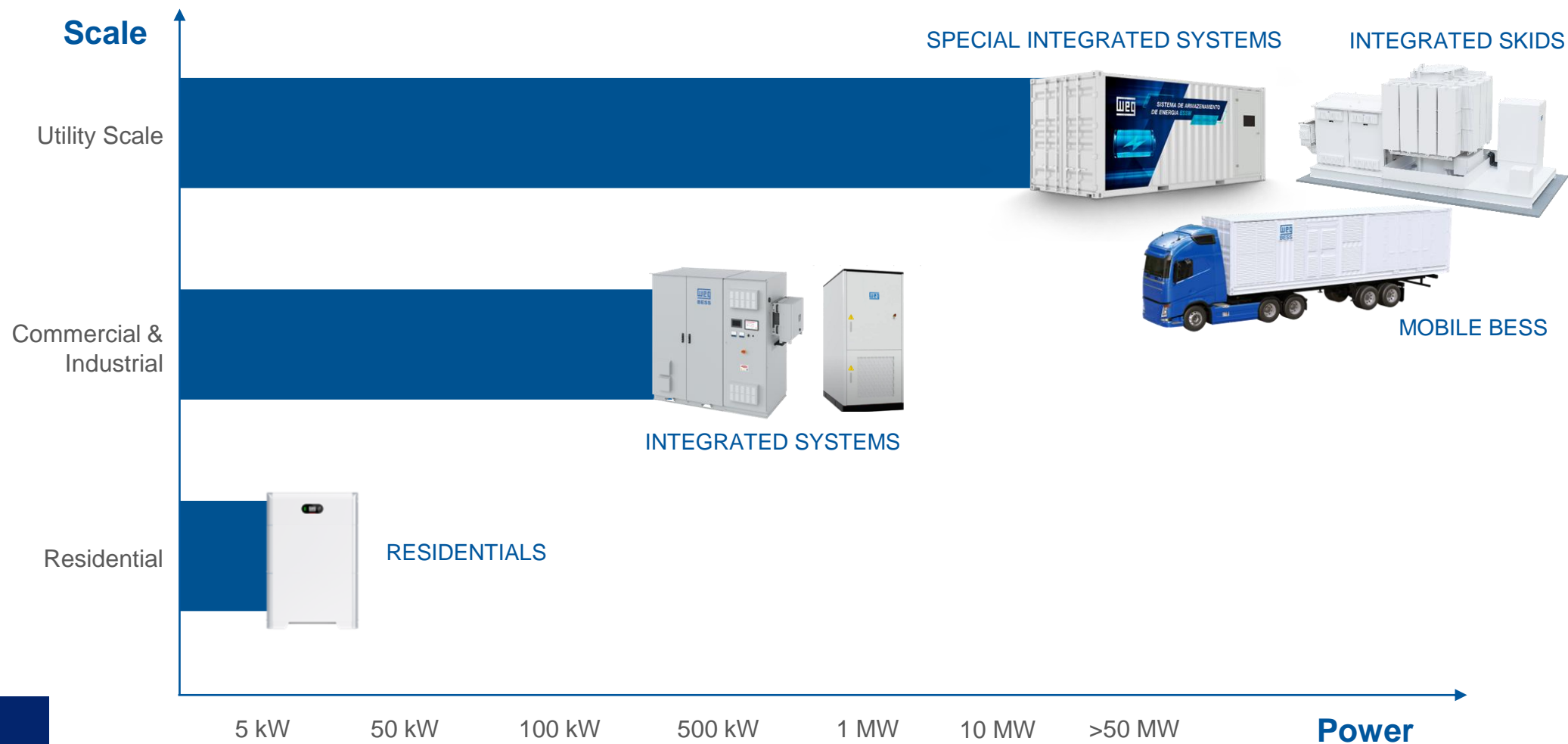
**4,650 MVAR planned for
transmission auctions abroad**

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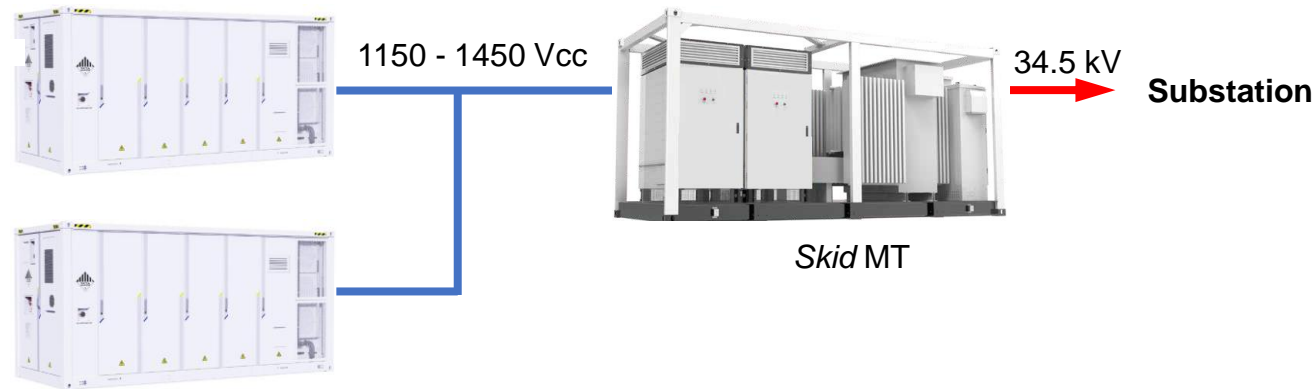
BESS

HARRY SCHMELZER NETO
Director Business
Solar, BESS & Building

BESS PORTFOLIO

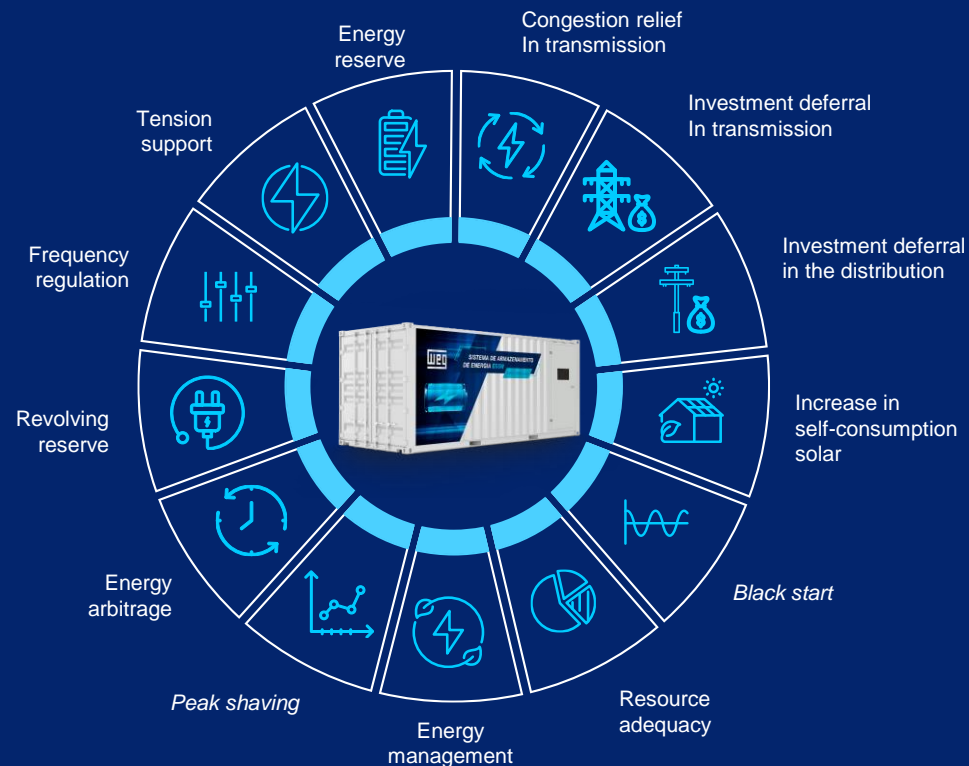


BESS – UTILITY SCALE



WEG Portfolio

- LiFePo4 Battery Container
- SKID WEG (PCS + Transformer + RMU)
- Commissioning Services
- Electromechanical Installation
- EMS (Energy Management System)



NEWS RELEASE Wood Mackenzie

Renewable power curtailment will grow up to 300% in Brazil by 2035, says Wood Mackenzie

The current transmission pipeline will not solve the issue from the Northeast generators
02 July 2025

canal solar

Governo prepara dois Leilões de Reserva de Capacidade para 2026

MME ainda anunciou que deverá abrir consulta pública para o leilão de baterias até o fim deste ano 25 de agosto de 2025

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GRID DIGITALIZATION

ALLAN DE OLIVEIRA VICENTE
Global Industrial Director
Transmission and Distribution

WTD DIGITALIZATION



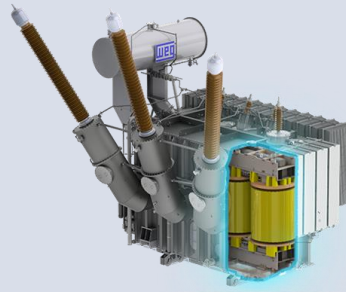
WTD Digital Product Ecosystem WEG Transformer Fleet Management

Asset Management

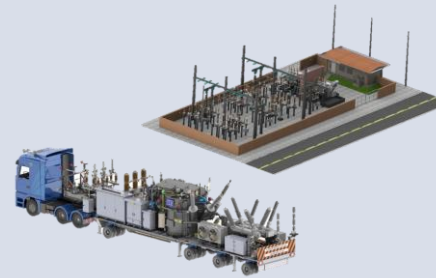
Industrial Transformer Specialist



Power Transformer Specialist



Substation Fleet Management



Diagnostics and Integration (AI)



Application and Management



Scan Hardware



Assets and its Sensors



Digital Substation



Digital Mobile Substation



Digital Transformer



SPCS Digital



Grid Monitor



APPLICATIONS OF DIGITALIZATION



Asset Management



Digitalization of
Substations

INNOVATION CENTER



**Focus on developing
digital solutions**

**Substation Protection, Control
and Supervision System**

Team of 400 employees

Blumenau, Brazil

GRID MODERNIZATION DIGITALIZATION OF SUBSTATIONS – Cargill

Case 1



CHALLENGE

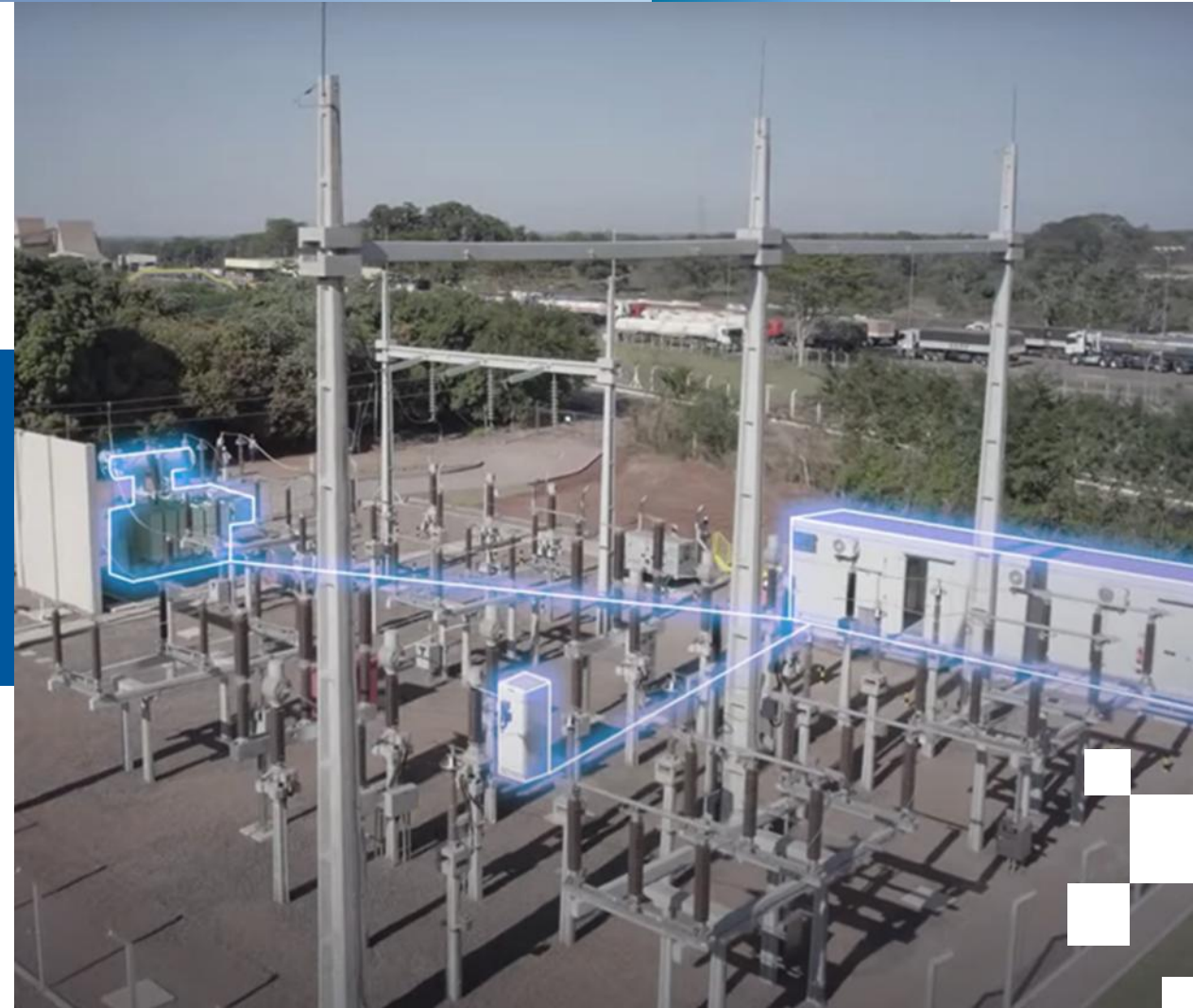
- Greater need for operational flexibility and operational reliability
- Traditional solutions have not proven effective

WEG SOLUTION:

- **Digital** Substation
- **Digital** Transformer

IMPACT

- Lower investment and operating expenses
- Reduction in physical footprint and installation time
- Reduction in carbon footprint
- Agility in future expansions
- Early fault detection



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CHALLENGE

- Grid instability impacting the asset
- Frequent unavailability
- Costs with periodic/corrective maintenance
- Difficulty in monitoring asset condition

WEG SOLUTION:

- WEG Industrial Transformer Specialist
- Digital Substation
- Digital Transformer
- WEG Substation Fleet Management

IMPACT

- Remote, real-time, and cloud monitoring
- Predictive and prescriptive maintenance
- Health Index
- Greater availability and reliability



GRID MODERNIZATION WEG HEADQUARTERS – Jaraguá do Sul

Case 3



Largest industrial electric motor
manufacturing site in the world

Full digital scope

+ Reliability
+ Efficiency
+ Simplicity



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WEG SERVICE

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PAULO SINOTI
Director Energy
Solutions & Services

AVAILABILITY GUARANTEE



PORTFOLIO



Transformers

Substations

Generators

Steam and Hydraulic turbines

Gearboxes (medium and large size)

Control Systems for Speed and Voltage (REIVAX)

Digitization and Monitoring Systems

Command and Protection systems

Electric Motors
(medium and large size)

Medium Voltage Drives

Retrofits, repairs and wear correction

Modernization and repowering of plants

WEG RM Guardian®:
Monitoring, diagnostics, evaluation of insulation systems and risk mapping



WEG RM Guardian®

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OPERATION & MAINTENANCE (O&M)

Wind
Farms

BESS

H2V

Synchronous
Condenser
Solution

- Full solution provider (one-stop shop)
- Field engineering
- Remote monitoring and assisted operation 24/7
- Predictive, preventive & corrective maintenance

