

# Paris Session 2022



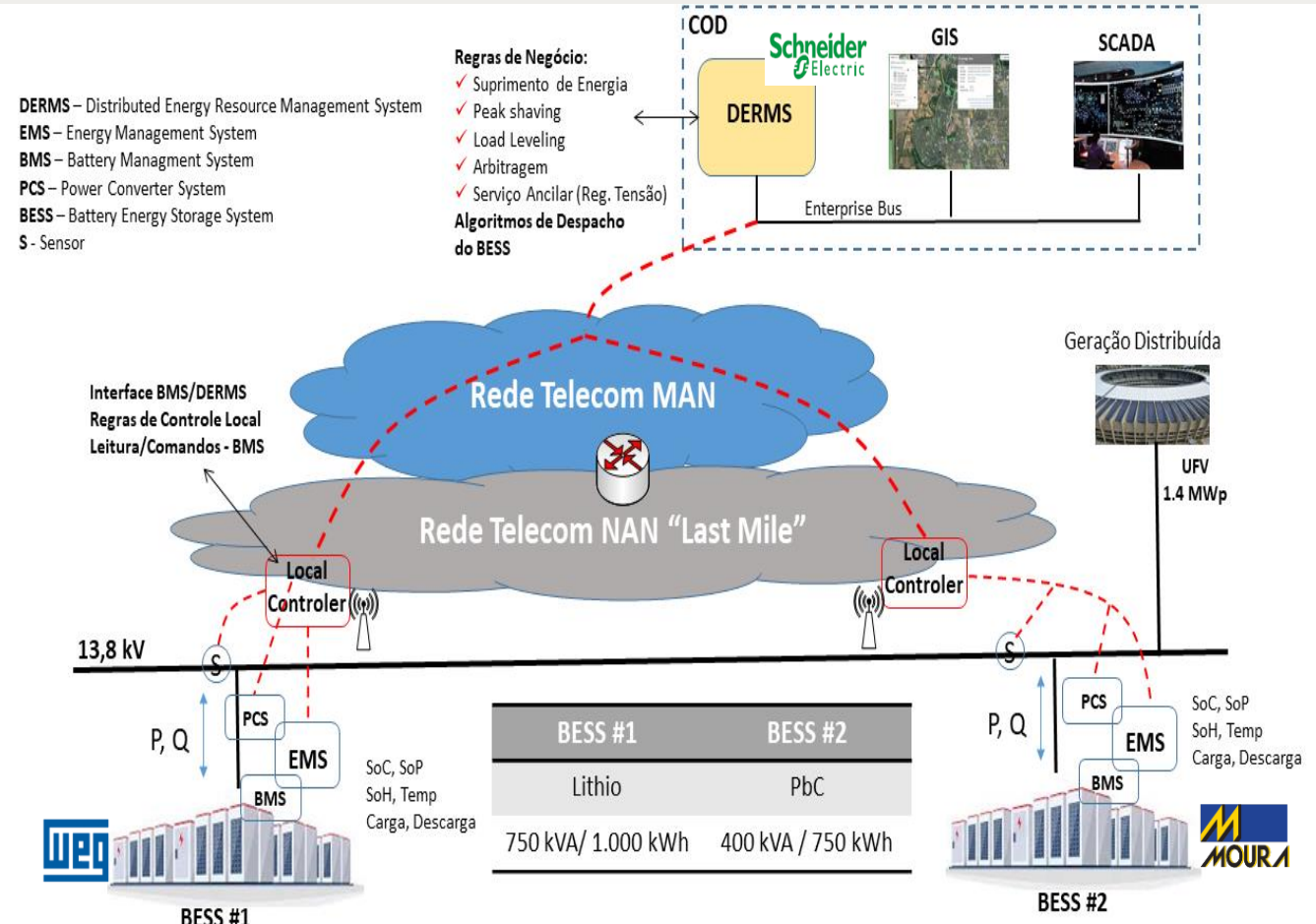
## Distributed Energy Resource Management System – Challenges and Opportunities

C6 – PS2 – Question 2.1

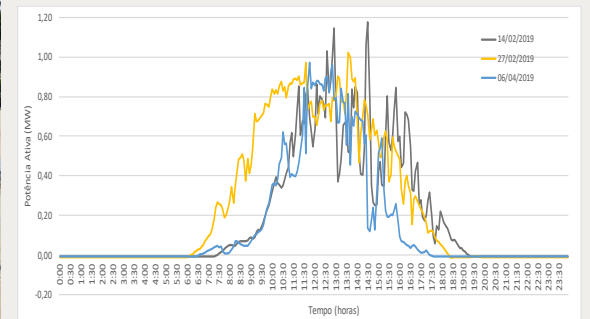
Leonardo Leite - Brazil



# DERMS Integration (PV + 2 BESS connected to 13,8kV)

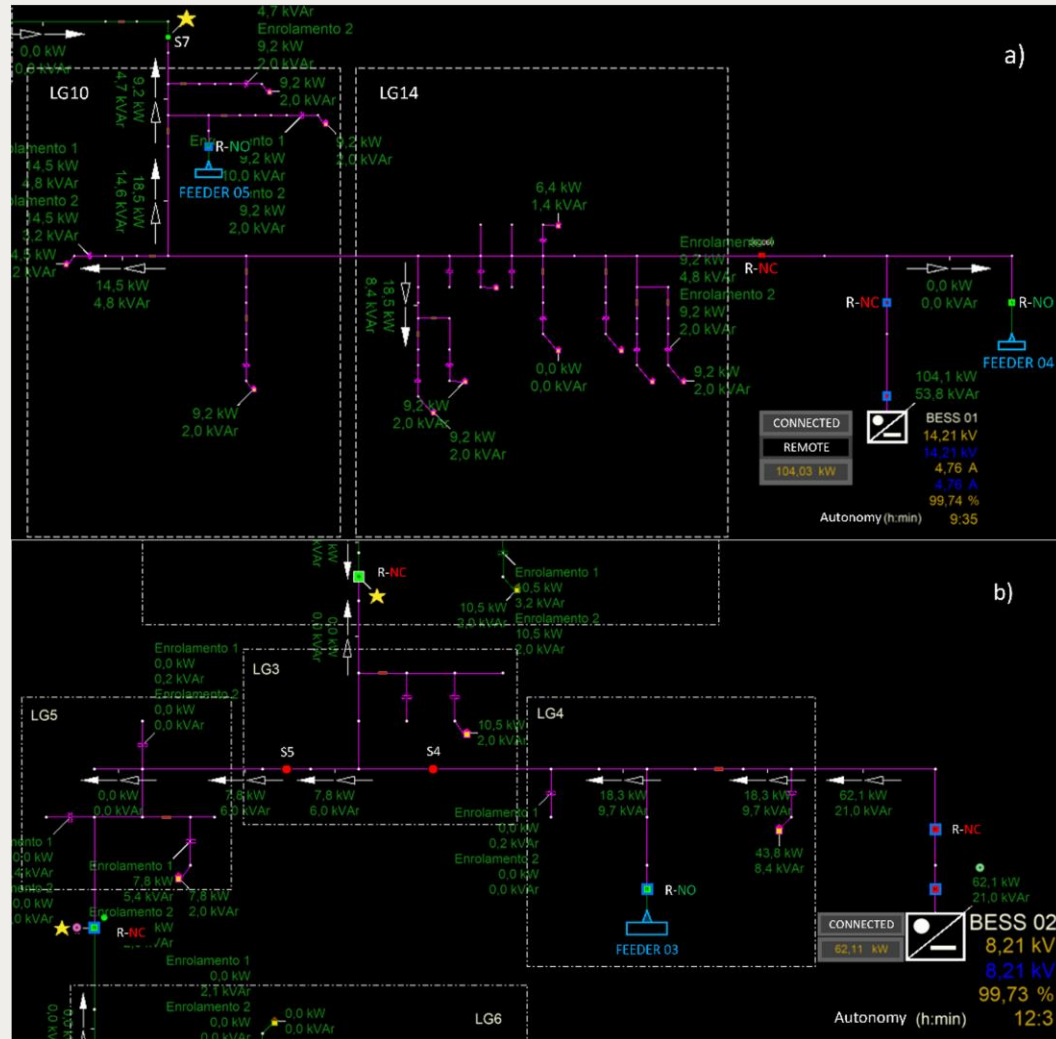


Characteristics	Mineirão PPP	BESS 01 - Li	BESS 02 - PbC
<b>Power</b>	1.400 kVA	750 kVA	400 kVA
<b>Energy</b>	-	1.000 kWh	750 kWh
<b>Technology</b>	Crystalline Silicon Photovoltaic Panel	Lithium (NMC or LFP)	Lead-Carbon (PbC)
<b>Voltage Connection</b>	276 V, 13,8 kV	13,8 kV	13,8 kV
<b>Nominal frequency</b>	60 Hz	60 Hz	60 Hz
<b>Communication Protocol</b>	DNP3	DNP3	DNP3



Group Discussion Meeting

# DER integration poses several non-technical challenges...



## Regulatory challenges

- ✓ unclear interconnection procedures and processes
- ✓ compensation to the utilities for interconnecting DERs
- ✓ In many places interconnection costs are not clearly defined and also it is not clear who will pay for interconnection.

## Business Model

- ✓ Compensating right value of DERs is a key issue in the DER integration.
- ✓ Net metering which provides full value compensation often viewed as overcompensation for intermittent sources
- ✓ Value of ancillary services to integrate and operate with DERs.
- ✓ Proper compensation for different DERs do not provide market signal for the adoption of DERs.