

Paris Session 2022



A proposal for supplying secondary systems in remote substations

Study Committee B3 – PS1 – Question 3
Fraga, F.N - Brazil



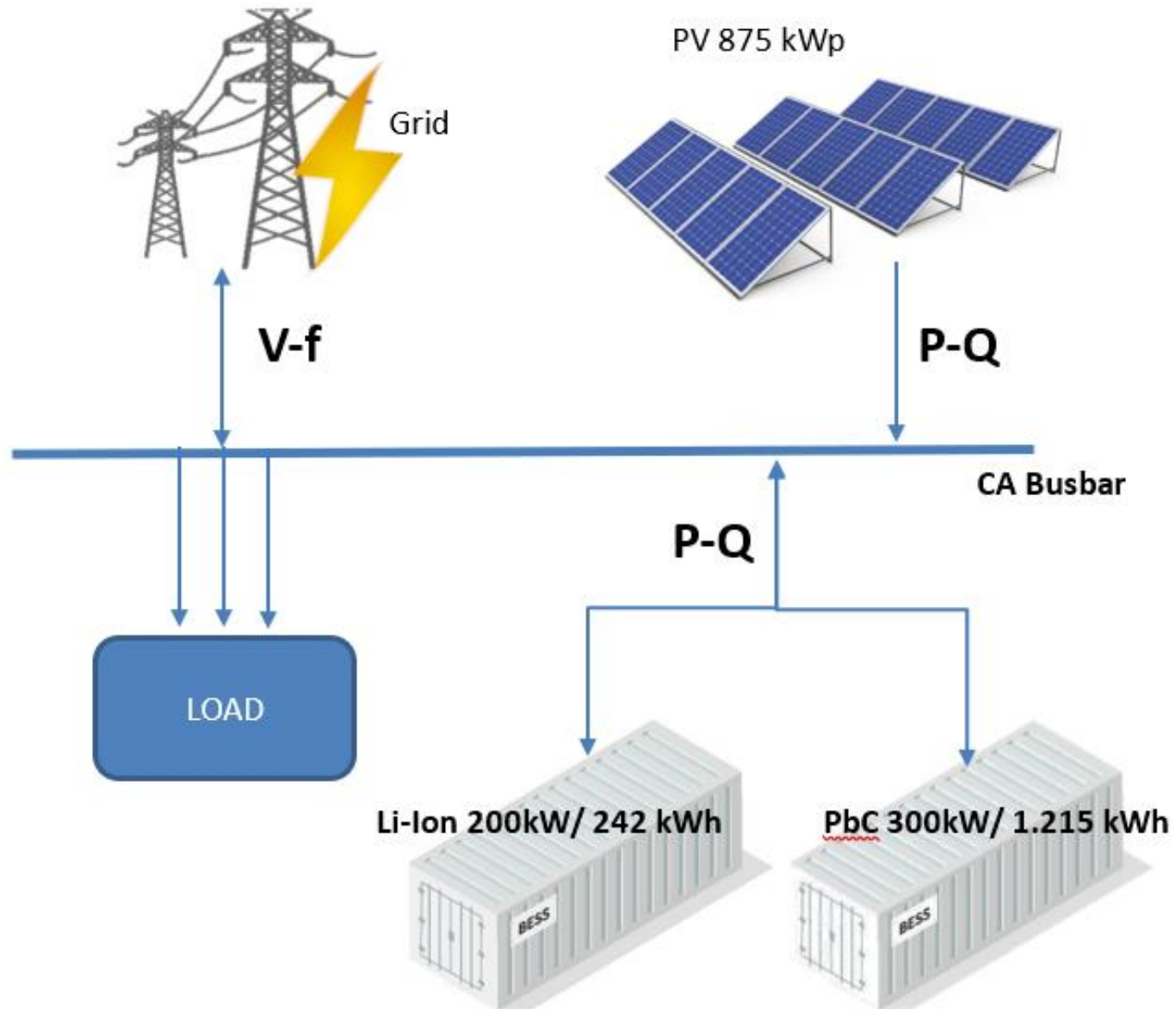
A proposal for supplying secondary systems in remote substations

- ✓ This contribution offers a proposal for supplying (backup power) secondary systems in remote substations;
- ✓ Reduces the environmental impact by replacing the diesel generators (backup power source);
- ✓ Presents an energy storage technology (BESS) and renewable energy source (photovoltaic solar panels, PV) combination;
- ✓ The proposed system is being installed at 500 kV substation through a Research and Development Program of the Brazilian Regulatory Agency;
- ✓ Currently, power for secondary services is provided through lengthy and unreliable rural feeders (13.8 kV) and backup power is supplied through diesel generators.

Group Discussion Meeting

A proposta

Substations



- ✓ The substation is in the state of Alagoas
- ✓ The PV system is expected to be operational by July/23.

Group Discussion

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... into operation

A proposal for supplying secondary systems in remote substations

Conclusions

- ✓ A pilot project was presented as an alternative for back-up power operation where diesel generation;
- ✓ This proposal sets will be utilized in remote substation secondary systems;
- ✓ With the system proposed, there is a chance to greatly lessen the environmental impact of a system with diesel generators;
- ✓ This concept encourages the use of renewable energy sources in production processes, as well as aids in meeting emission targets within a specified benchmark.