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National Centre for Energy Systems Integration

Control Rooms of the Future

Curtail or use?

Rather than switch off a turbine when there's no load, what if it were used to power an electrolyser? What if the hydrogen produced could be fed into the gas network? How would the electrical and gas networks need to communicate with one another? Would control rooms have to change?



Control Room Integration

As well as regulatory and institutional issues, we look at 'control room cultures' - routines, expectations, and norms in respective control rooms, to see how these might affect future integration.

- Step 1:** Regulatory and institutional review
- Step 2:** Control room observations and interviews
- Step 3:** Simulation exercise with InTEGReL
- Step 4:** Systematic study design

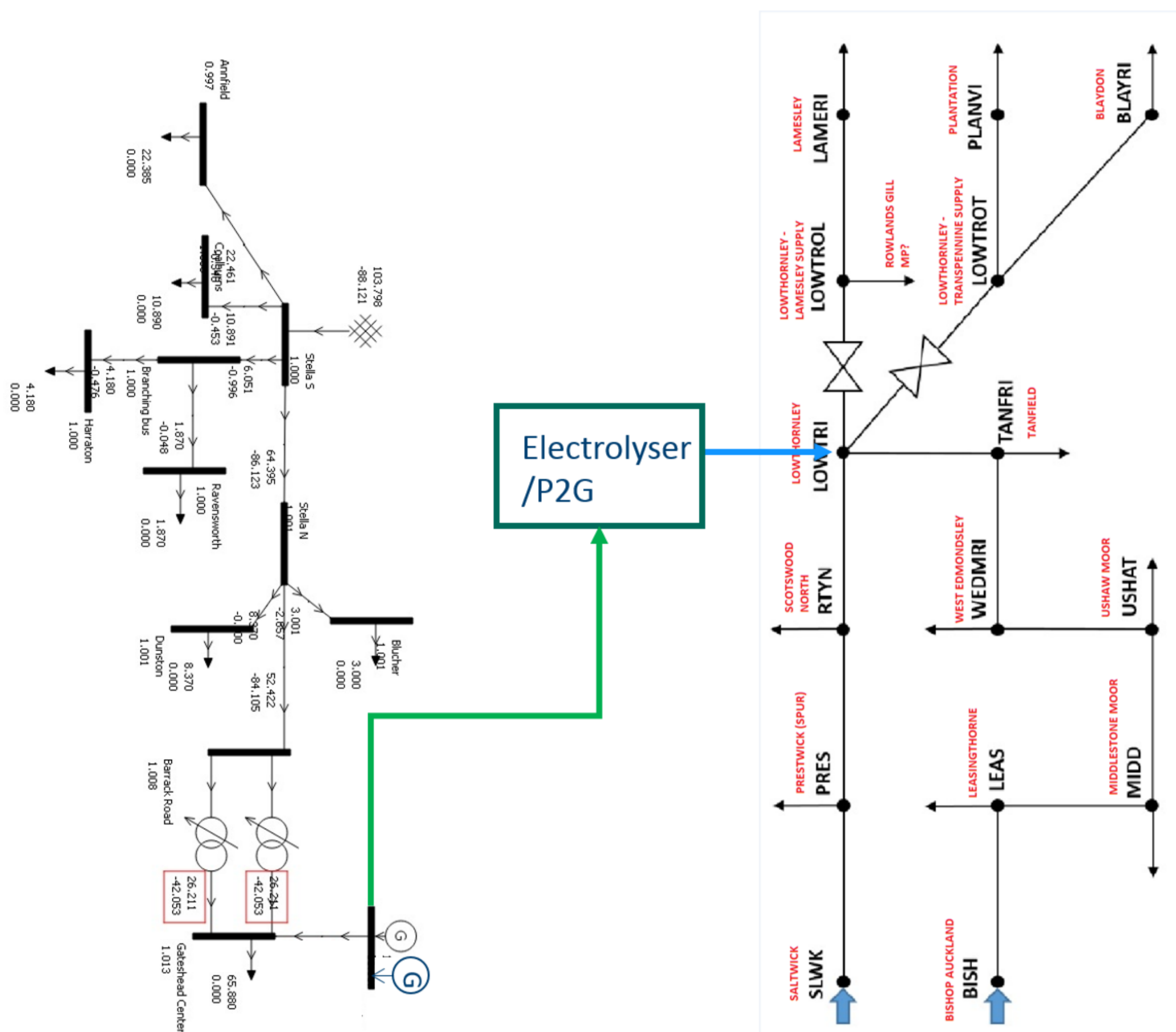
Flexibility of real-time energy distribution: the changing practices of energy control rooms

Simone Abram & Antti Silvast



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This paper examines the linked concepts of flexibility and control, focusing on how these are enacted in the operation of control rooms in Distribution Network Organisations. We discuss the limits to flexibility, and the kinds of flexibility that are at stake in distribution network control of gas and electricity. We do not present a general history of flexibility in UK energy system control rooms, but we show how the legacy of past ideas and practices of energy distribution control feed into current control operations, and how they shape flexibilities in control systems. The article examines the kinds of flexibility demanded of control room engineers in the face of imperfect systems and unpredictable faults.



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