

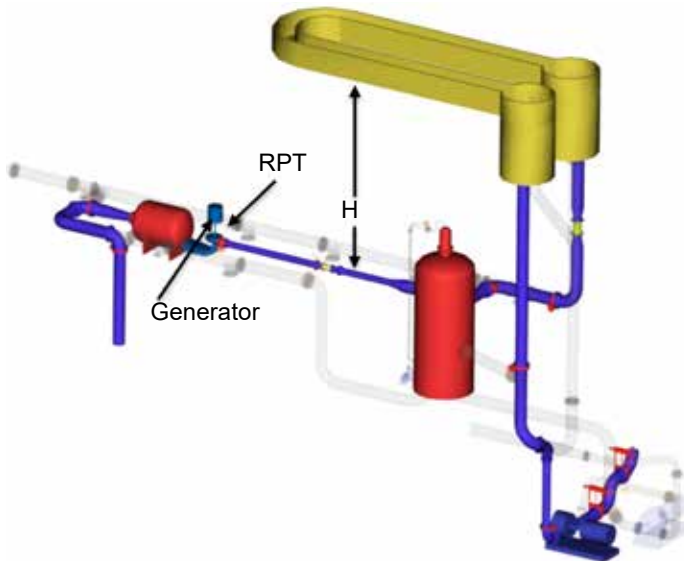
Background

In the Norwegian power market, reversible pump turbines (RPT) for the most part change from pump to turbine mode of operation on a seasonal basis. In the future power market, the RPT are often given the role of balancing the power production.

This will require more frequent and faster changes between the operational modes. The

machines experience higher loads in off-design and start and stop operations.

Through laboratory experiments, the objective of this work is to investigate the rapid change from pump to turbine mode of operation. And especially look at the characteristics, loads and stability concerns in this fast change from pump to turbine.



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Dynamics and stability
in reversible pump
turbines

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