

Energy sector coupling session



Rodolphe de Beaufort – Digital Director
29th May, 2018

Saclay DHC ongoing projet – live in 2018

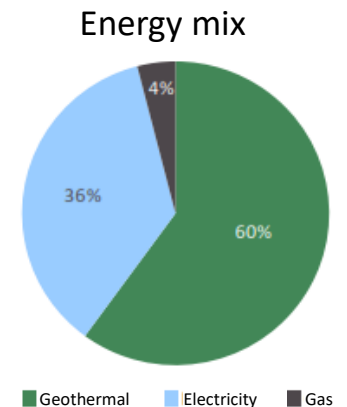
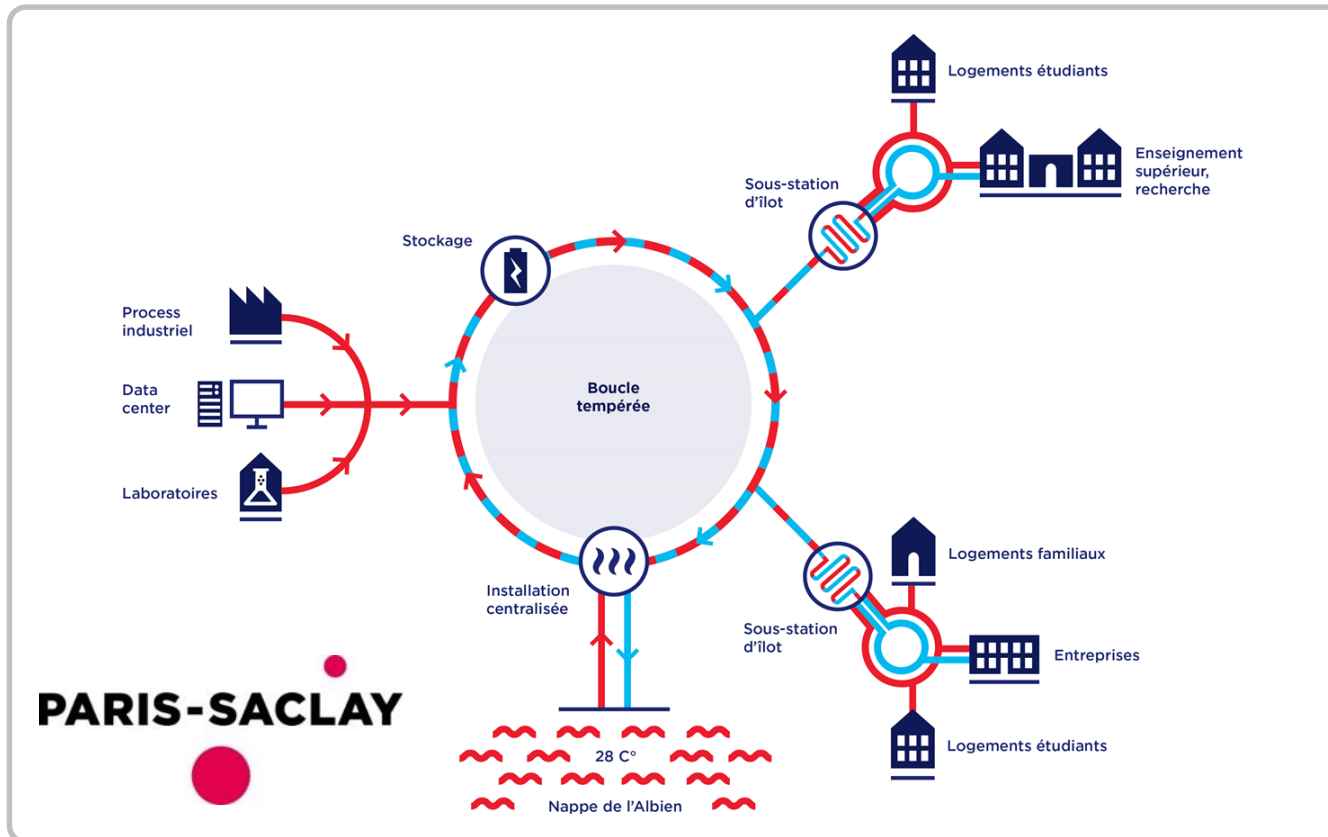
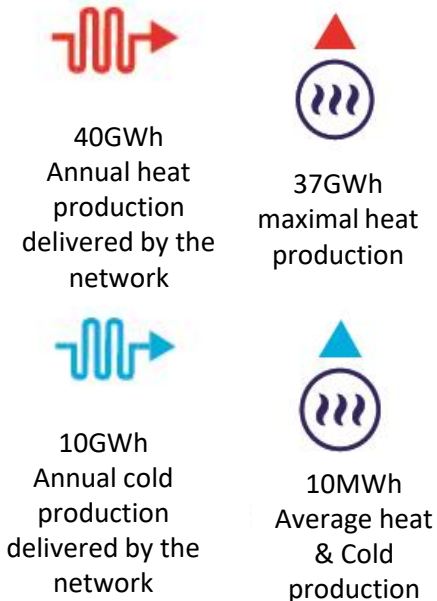
Evolving towards a backbone of the local energy transition



1.740.000m² being built between **2015 & 2028** with associated infrastructure

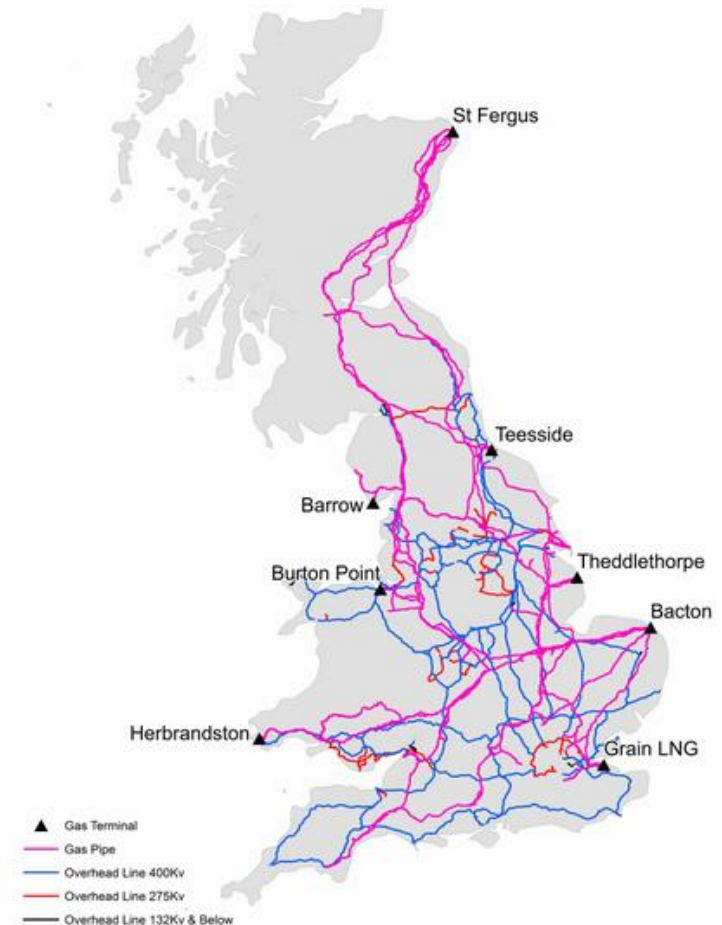
Integration between electricity and heat is already possible, with a real time optimization.

Cold integration allows a competitive business model even with “energy positives” or “carbon neutral” buildings.



Decentralised energy trend favors sector coupling

- At European level traditional energy planning is done through a long term processes involving electricity and gas TSOs mainly.
- Decentralization brings a massive part of the energy infrastructure planning at regional or even local level. In France, 90% of the new capacity production is connected on the DSO network.
- Regulation is evolving every year to favor this trend everywhere in Europe.
- DHC stands at the local crossroads of electricity and gas networks and can contribute to integrate decentralized production with some flexibility.
- DHC may have a huge untapped potential, on brownfield and greenfield projects.
- This requires to put DHC in the hot topics of the regulatory and policy makers.



Source : National Grid UK

Sector coupling relies on DHC optimisation

Digitization will support the evolution of the business model



Sector coupling

Some digitalization levers

Holistic vision at the planning stage
Open Business Model

GIS & Open Data
System Modeling

Intraday Supervision &
Production schedule Optimisation

Sensors , Scada, forecast, integration between
production network and retailers, D-1 forecast

Develop Services & Flexibility

Energy Efficiency management, flexibility forecast
and demand response

Intraday Arbitrage

System Modeling, Intraday forecast
Merit Order management, integration with
Aggregators IT systems and market mechanisms

Virtual Power Plant

Multi Energy Aggregator IT system
Integration with energy trading platforms

Digitization is required to connect Stakeholders

Integration of market participants

