

Case study on fuel cell micro-CHP at CIBSE HQ



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**KNOWLEDGE TRANSFER PARTNERSHIP
ASSOCIATE**



Project update

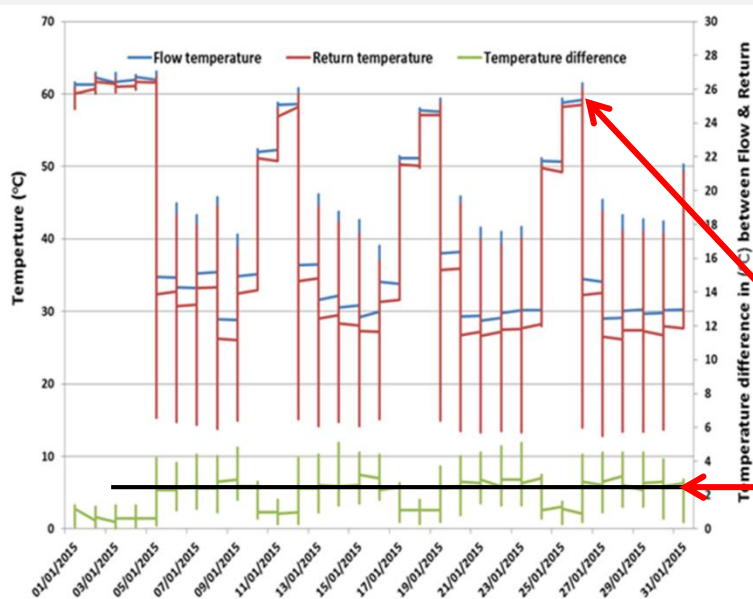
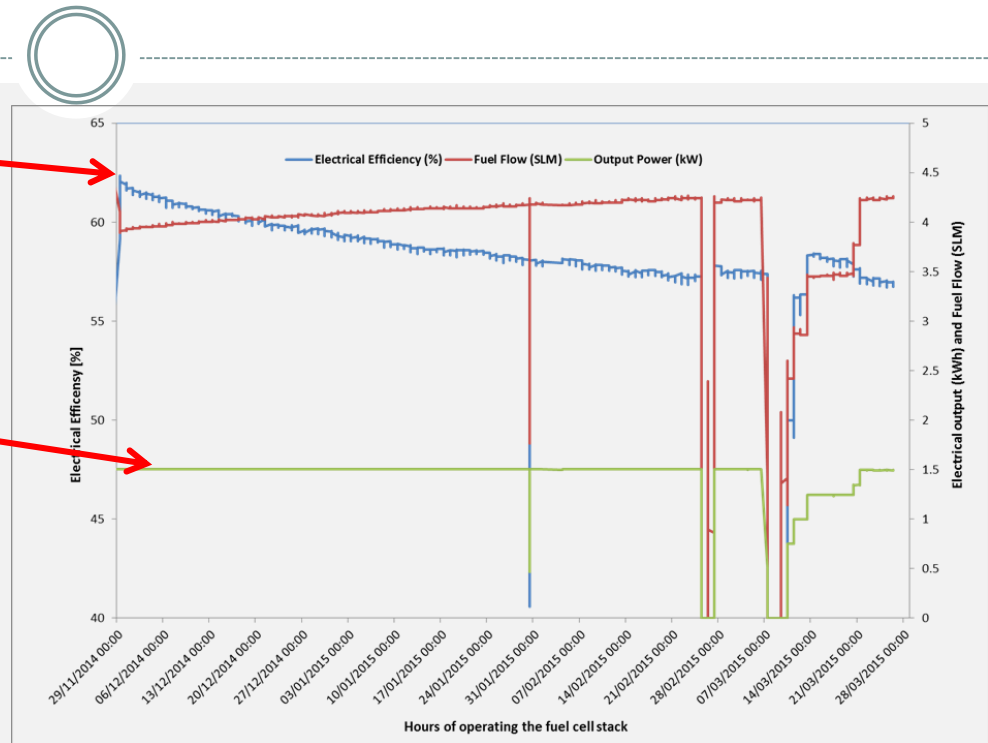


- ❖ We have successfully installed SOFC-micro CHP
- ❖ We have successfully commissioned the system
- ❖ So far the system has generated 4500kWh electricity
- ❖ since the installation we have been using 200L hot water a day from the fuel cell micro-CHP making the total efficiency about 85%
- ❖ System is remotely controlled and is running smoothly
- ❖ The hot water requirement for the Delta Building has been covered by the fuel cell micro-CHP

System performance test results

performance initially showing over 60% electrical efficiency stabilising at 58%

1.5kW Power



Week end tank temp Reaching almost 60 °C

A consistent 3K difference between Flow and Return temperature shows high heat recovery.

Does micro-CHP deliver real benefits to CIBSE



❖ Cost

- Payback time is less than 7 years
- So far the system has been generating electricity at 58% average efficiency

❖ Reliability

- the system was successfully installed, it is currently working and generating heat and electricity.

❖ Does it comply with gas and electrical appliance regulations and standards

- Yes



Thank-you