

# Solar PV – the Portsmouth Experience!

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# Overview

- \* Around 350 systems across the city total around 5.5MW
- \* First installations began in 2011; although most installed in last 3 years
- \* PCC has recognised PV as an important investment opportunity
- \* A lot of work has been done to ensure capital cost is low
- \* Work will continue in a post-FIT world

# PCC PV: 2014-2016

- \* FIT rates meant that almost all projects were viable
- \* Projects were fit and forget
- \* Procurement of first framework undertaken resulting in much lower capital costs
- \* Began to think of PV as an investment pipeline
- \* Mad scramble in 2016!

# PCC PV: 2016-2019

- \* Lower rates of return were accepted, though significant rates of investment maintained
- \* Further efficiencies driven from supply chain and management
- \* Lower FIT meant that PPAs were developed – opened up new opportunities
- \* The Team's work increasingly focussed on delivering PV for others
- \* Still going to be a mad scramble before March 2019

# PCC PV: Beyond March 2019

- \* The end of FIT won't kill all PV investment, though it will damage the rates of return
- \* The focus will initially shift to large energy users under PPA
- \* Existing system optimisation will be key – particularly retrofitting coupled storage
- \* Other areas, such as domestic, may have to be iced until market conditions change

# Key Enablers: Low Cost

- \* PCC operates two frameworks with a combined value of £40m
- \* Frameworks comprise a good mix of small and large specialist PV companies
- \* Capital cost of kW of PV have fallen by as much as half since 2014 – regularly around £700/kW now
- \* External influences are key to PV prices

# Key Enablers: Finance

- \* The attitude of the people with the purse strings
- \* Ability to convince Finance that this is a good option for investment
- \* The ability to borrow money using PWLB
- \* Local authorities have the ability to accept low return on investment as profit is not a key driver

# Key Enablers: Delivery

- \* A well trained project management team – PV is more complicated than it appears!
- \* Technical support
- \* Ability to be agile in appointing the works and adaptable when preparing specifications
- \* Developing adaptable business models
- \* Think big

# Key Barriers

- \* Government policy – ability to kill business models in a pen-stroke with little warning
- \* External influences; MIP, business rates, boom and bust of the market
- \* Distribution Network Operators: variability across DNOs, grid resilience

# Case Study: Schools

- \* PPAs in place
- \* Educational tool
- \* Money Savings



# Case Study: PV in New Build

- \* Exceeds Part L/CfSH/BREEAM
- \* Makes lifetime savings
- \* Can be wrapped up in Primary contract



# Case Study: Commercial PPAs

- \* Often interested mainly in CSR
- \* PCC owns around 800 commercial buildings
- \* Cost saving does count with SMEs



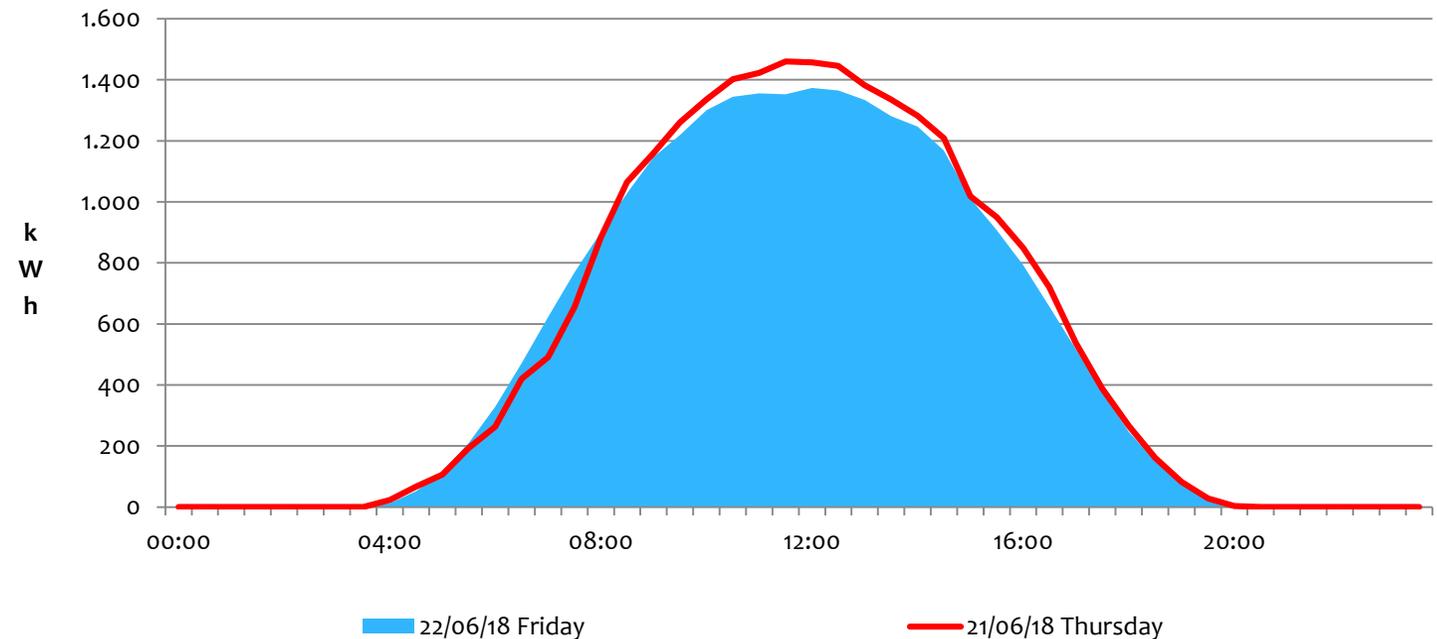
# Case Study: Civic Offices

- \* PV installed as part of larger attempt to reduce energy usage
- \* Used as one measure in conjunction with many others
- \* Cost saving key driver



# Summary

- \* Main aim is to generate income
- \* Lower energy overheads for PCC and other organisations
- \* To make PV-generated power significant in the fuel mix of the authorities energy portfolio



# Discussion and Questions

- \* Of the organisations in the room; what are they key barriers and successes to your implementation of PV?
  - \* What are your ambitions?
  - \* Do you see a different set of drivers outside of local authorities?
  - \* Do you have the backing of the money men?
  - \* Do you have the technical expertise in-house to deliver the installations?
  - \* Is it just not part of your 'core business'?