

Philip Wolfe

Ex Chair, Westmill Solar Cooperative

- ❑ The Westmill community solar project
- ❑ The economics of solar power in the UK
- ❑ Making community energy work

Westmill Solar Cooperative

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Adam Twine



Hemau

Westmill Windfarm Cooperative



Westmill Solar Park

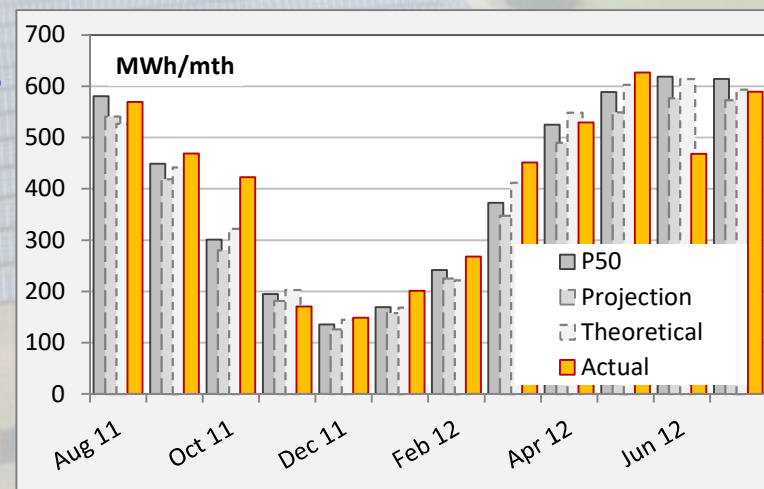
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Westmill Solar Park

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Capacity	5 MW
No. of panels	21,620
Site area	12 ha (c. 30 acres)
Income	Power sales + Feed-in Tariff (32.2p/kWh)
Annual output	4,500 MWh >
Enough for ~	1,400 homes
CO ₂ saving/yr	2,000 tonnes
Developer	Blue Energy



Westmill Solar timeline

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- Jul-11** Park built by commercial developer
- Late 11** WSC Co-operative established
- Apr-12** Purchase option assigned to WSC (£16m needed)
- May-12** Investec & advisers appointed
- 23-Jun-12** Public Offer launched to raise £4m
- 31-Jul-12** Offer closes – 50% over-subscribed
- Sep-12** Private placing raises £2m
- Oct-12** Investec agrees £10.8m facility
- 31-Oct-12** **Purchase option expires** chased
- Feb-13** LCC Pension Fund lends £12m, Investec repaid

Westmill Solar – a trailblazer

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Community benefit fund from:

- % of the total revenue
- Share of 'surplus'
- Members waiving all or part of 'dividend' payments



£6m raised in 6 weeks from 1,650 community investors



UK's first large-scale community solar project



First community loan by local authority pension fund



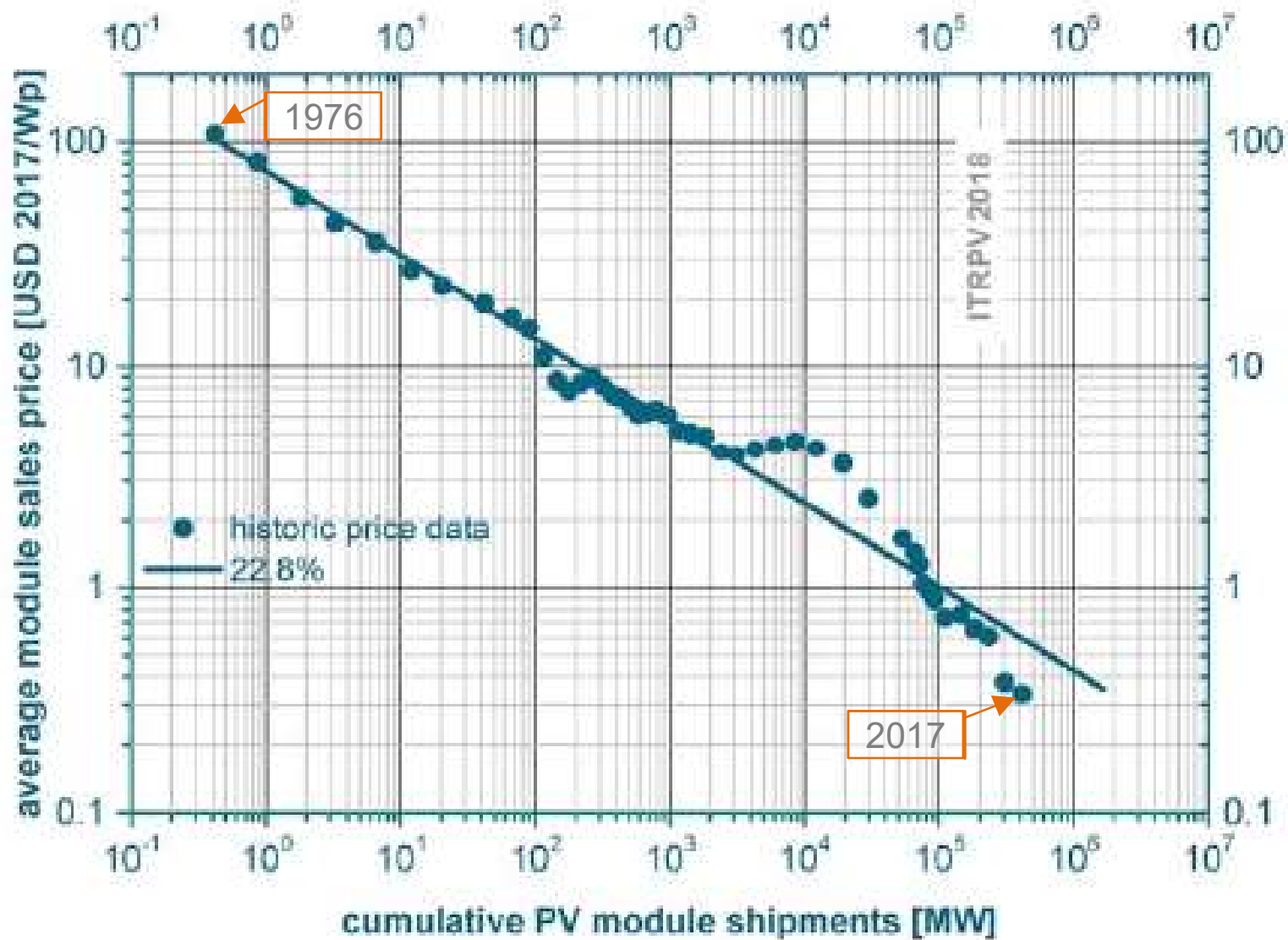
Various national and European awards



World's largest community solar project (until June 2015)

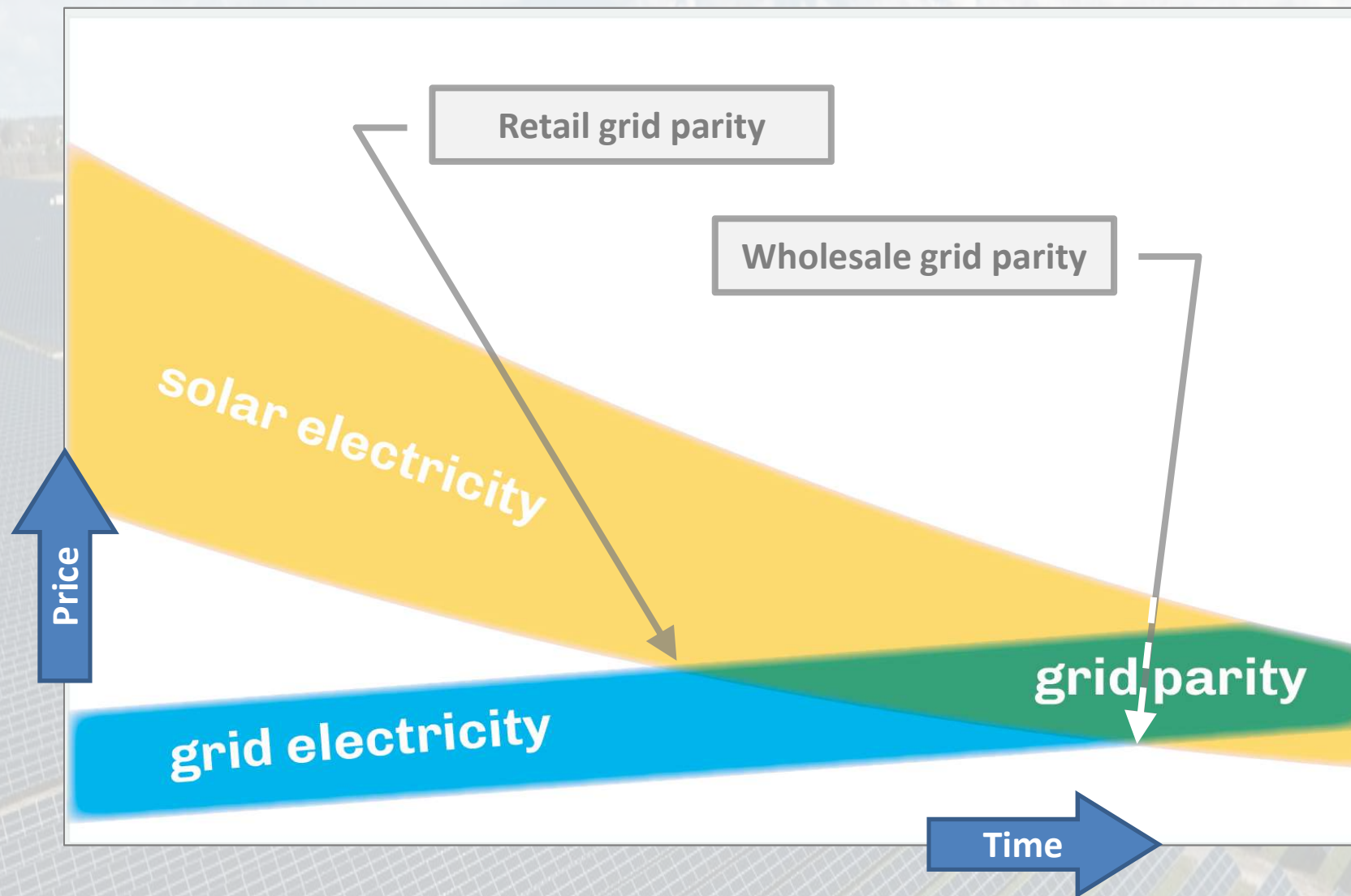
Solar modules – capital cost trend

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Grid parity

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Comparative electricity prices

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What do you pay for electricity?

At **home**

Small consumer £195

Large consumer £169

For **business**

Small business £124

New nuclear £101

Medium business £77

Where is **solar**?

Wholesale c. £57

Utility-scale solar £38

£/MWh

p/kWh

200

20

100

10

0

0



Making projects viable

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Solar power projects are now viable, if



The electricity can be sold at user prices:



From rooftop systems to building occupiers

- Schools projects
- Oxford Bus Company



To multiple consumers

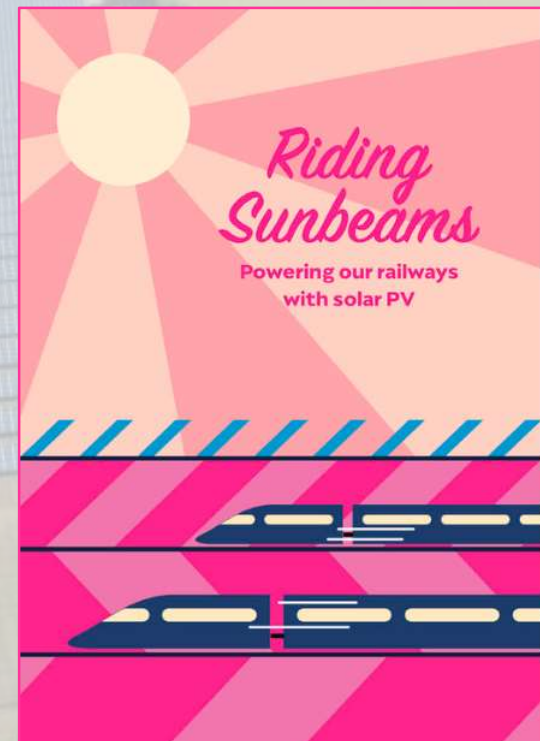
- Energy Local
- Other pilot schemes



To industrial users

- 'Riding Sunbeams'

This Thursday, London Transport Museum



Challenges

*Competes for grid capacity
with commercial developers*

- **No seed capital**
- **Limited buying power**
- **Dependent on volunteers**
- **Slow decision-making**

Advantages

*Engages communities & people
(and their money)*

- **Co-operative & democratic**
- **Local / decentralised**
- **Less planning objections**
- **Delivers community benefit**
- **Access to energy users**
(if only regulation would allow)

Some conclusions

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Find ways to leverage community involvement

- Benefits vs. returns
- Wide participation – lots of energy users



Solar is viable now if power is sold direct to the user

- ... and soon even for electricity to the grid
- Nuclear is not the answer

Your comments and questions

Philip Wolfe

philip@wolfeware.com

