

Sunshine Tariff

Dedicated website – No

Organisation webpage – Yes

Centralised portal – ENA Smarter Networks

Objectives/Success Criteria – Yes

Closedown/final report – Yes

Open-source data – No

Peer-reviewed academic output (Primary Subject / Referenced) - 0 / 2

Brochures/Case Studies/Videos – Yes

On-line major conference/event presentations - 1

Dissemination Event / Output available – 1 / 0

Follow-on project – No

Consumer Engagement

Consumer Participation – Yes

Consumer Feedback – Yes

Output Summary

Progress reports – Yes

Detailed and objective final report – Yes

Project method detailed – Yes

Performance to objectives detailed – Yes

Lessons learned identified – Yes

Policy/Regulation implications reviewed – No

Outcomes vs. Objectives/Targets

Performance to objectives – mostly achieved

Key Findings

- This project sought to develop and trial the feasibility of an 'offset connection agreement', which would enable generation customers to connect to the network on the basis that they could change the pattern of local demand on the network to offset the power generated. The findings suggested that an offset connection agreement alongside a time of use tariff does not provide a straightforward solution to the network capacity problem in current markets.
- Persuading customers to switch suppliers and change their consumption patterns was challenging.
- The shift in consumption to the middle of the day for customers without automation control technology was small. The findings suggest that 650 customers would be required to offset the generation from a 250 kW solar farm.

- The findings demonstrated that customers with automated control technology were able to shift 13 percent compared to 5 percent for those without.
- The larger energy users tended to have more flexible load, such as a hot water immersion system or electric vehicle, and as a result were able to shift 18 percent of their daily demand into the Sunshine Tariff period. Therefore, as smart appliances and energy storage become more widespread, fewer customers would be required to sign up to the Sunshine Tariff to support an offset connection agreement.
- The findings suggest that those that are more engaged in energy issues are more likely to sign up to demand side response schemes. This suggests that a price incentive alone is not enough and that education will need to accompany the introduction of time of use tariffs and automated control technology.
- Lessons learnt suggest that testing the tariff and marketing techniques before launching could have provided feedback on what was both attractive and unattractive about the tariff. It is also important to monitor the market to check for competitiveness and either adjust the fixed tariff before launching or track against a variable rate to ensure the tariff reflects changes in the market. Having multiple suppliers could also help mitigate this issue, as there would be more than one Sunshine Tariff available in the market.
- Looking more generally at the viability of domestic demand side response, learning from recruiting for the Sunshine Tariff suggests that some external factors might need to change:
 - All customers will need smart meters and in will need to be half hourly settled.
 - Customers reluctance to switch suppliers must be addressed.
 - Households will need to have more flexible loads, these may arrive in the form of Electric Vehicles, Domestic Storage and new heating systems.
 - Households will require greater automation; this may require retrofits for existing equipment or the development of new standards for new Low Carbon Technologies.
 - Some Time of Use tariffs will not be compatible with onsite generation.
- There were telecommunication problems with the smart meters that prevented automated downloading of data.