2nd OpenADR++ Users Conference: recap of day 1 and thoughts moving forward

Dr. Laura Schade

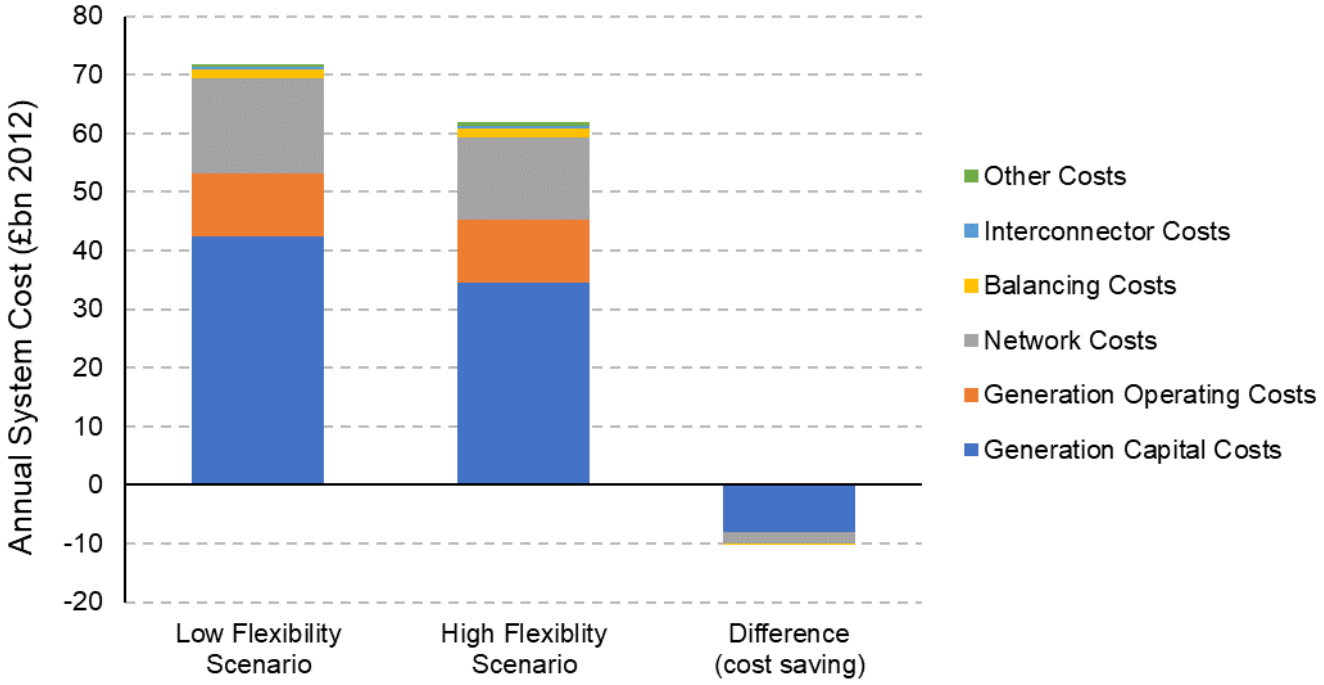
laura.schade@energysecurity.gov.uk

Senior Energy Engineer

Science and Innovation for Climate and Energy (SICE)

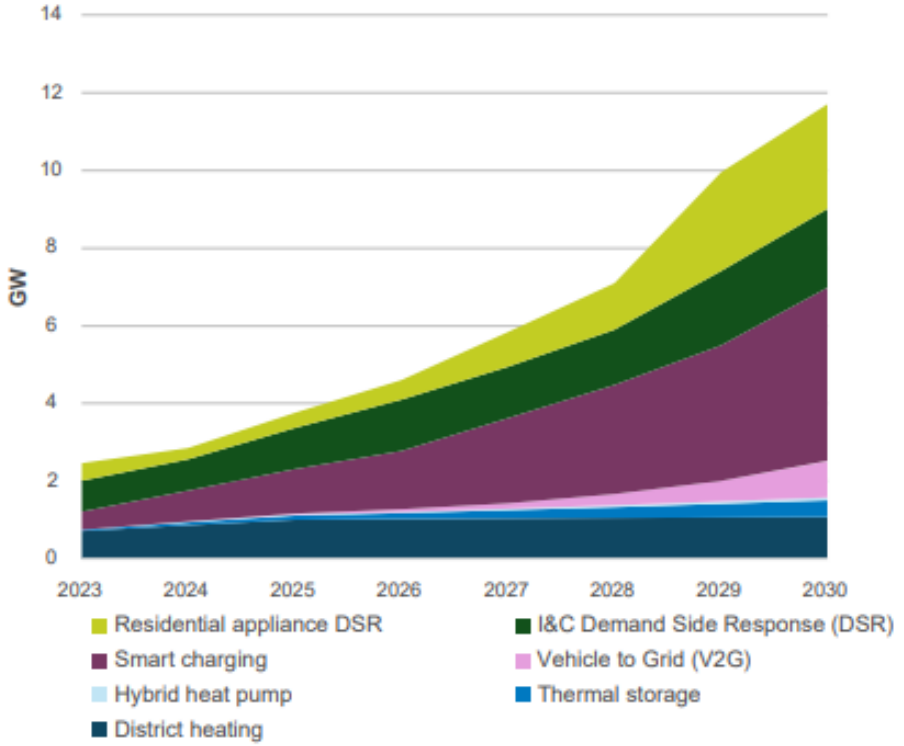
Department for Energy Security and Net Zero

Flexibility will help us lower costs



BEIS: Smart Systems and Flexibility Plan 2021

Flexible energy use can save between **£30-70 billion** on system costs in the period 2020 to 2050



Source: Advice on achieving clean power by 2030, NESO, 2024

The pathways that NESO has modelled require at least **10 GW** of demand response by 2030

UK Government Policy

Objectives of the Secure Smart Electricity Systems (SSES) Programme

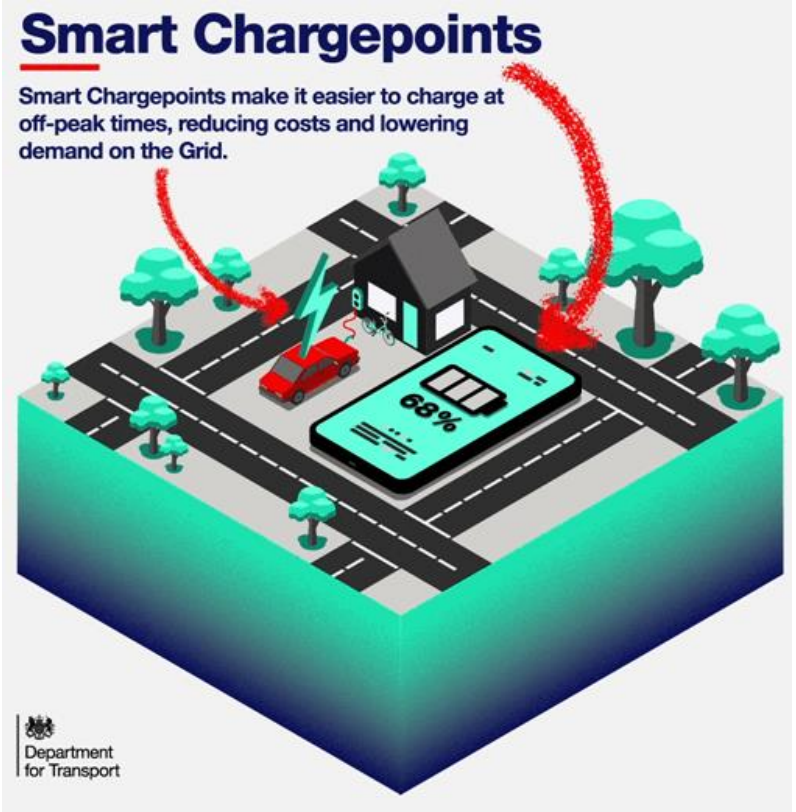
Create the right **technical frameworks** to support growth of competitive DSR appliance & services markets for domestic-scale consumers

Protect the **security** of the energy system, ensuring suitable risk mitigations for the remote control of electrical load

Consumer protection to ensure consumers are confident in increasingly engaging with DSR appliance and service providers

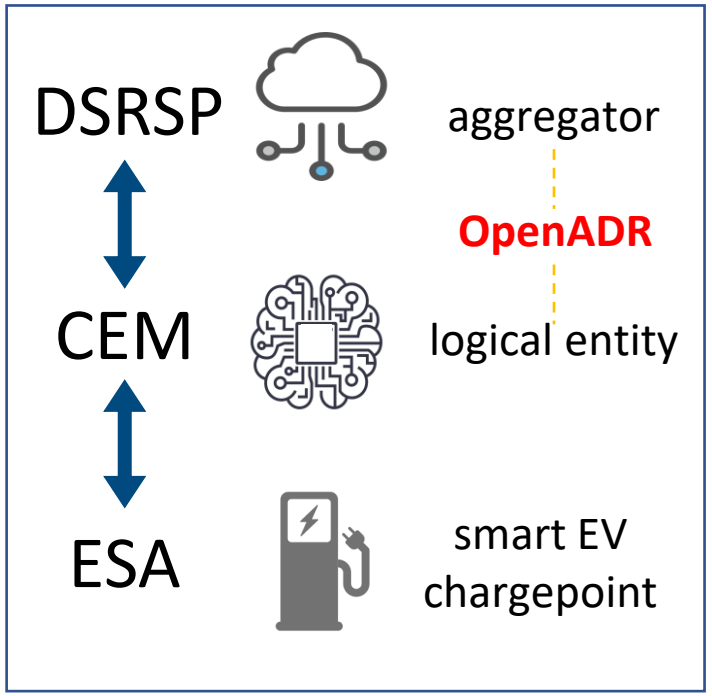
From: Duncan Stone keynote speech Day 1

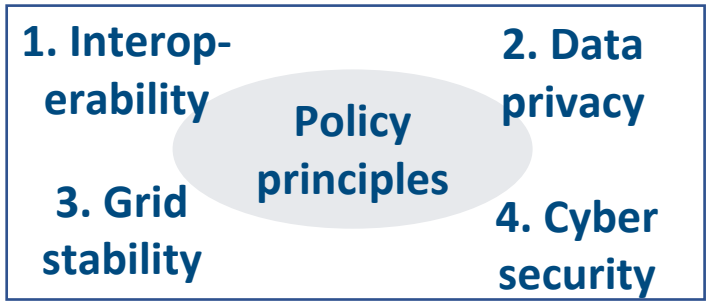
Energy Act 2023 Powers



Electric Vehicle Smart Chargepoints Regulations 2021: Private (domestic and workplace) chargepoints sold in Great Britain **must be smart** and meet minimum device-level requirements.

PAS 1878: scope and technical approach



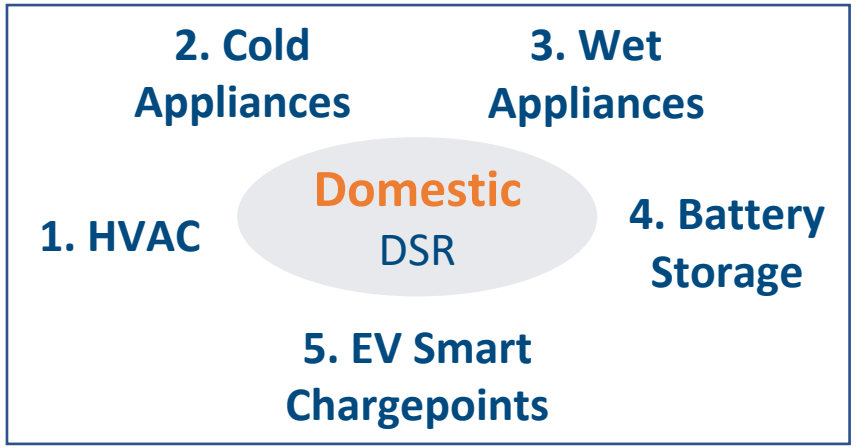


Operational

- Specify only the minimum requirements to deliver DSR inline with 4 Policy Principles, which allows **innovation** on top
- Specify a DSR framework, with details for **called response services**, with handles for other **routine** services to be built on top

International

- Standards to align with existing **international standards** where possible

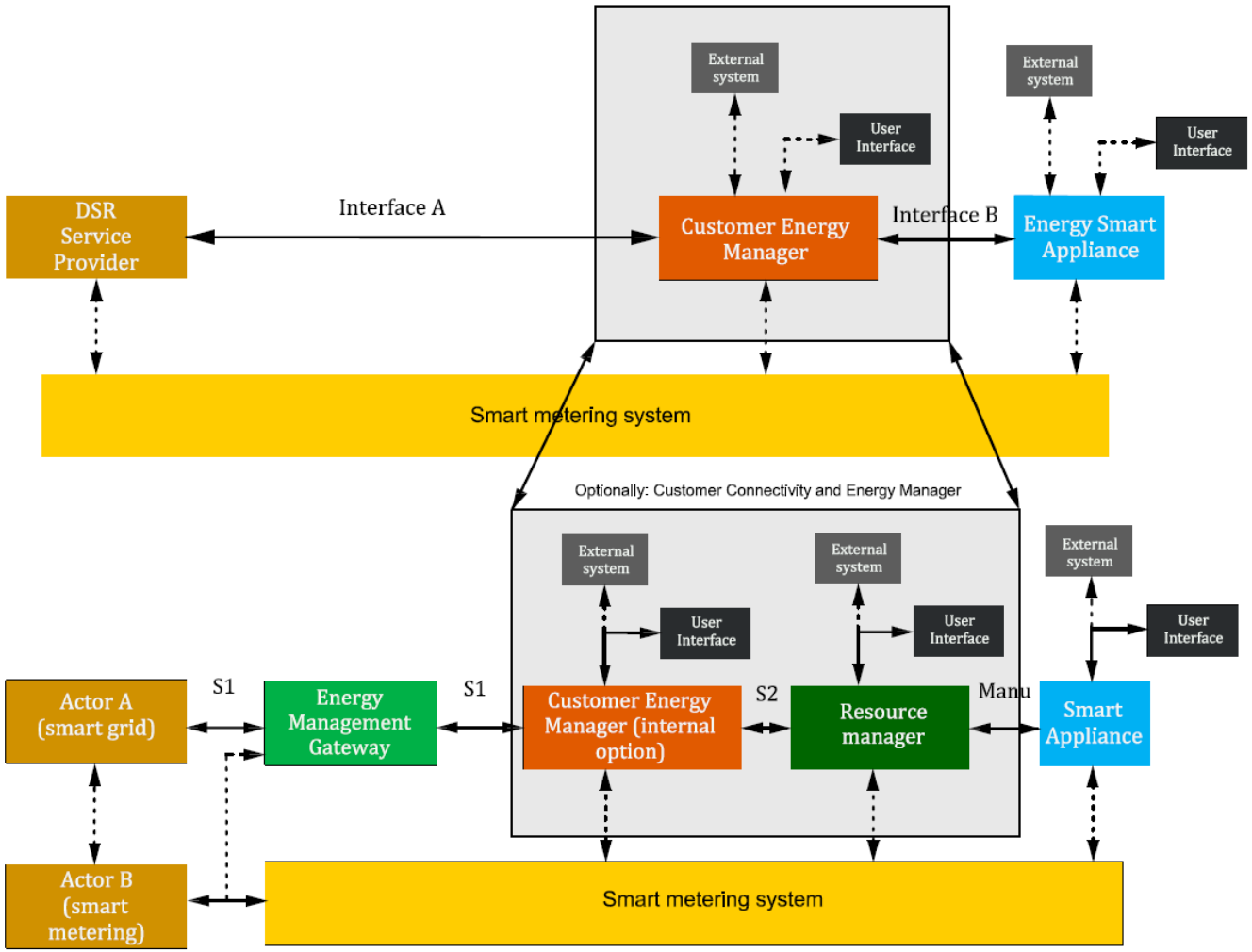


Commercial

- Construct a framework to enable **revenue streams** (e.g. fast response times to enable high value DSR services like FFR) and not restrict business models

Response mode: direct DSR
Routine mode: indirect DSR

PAS 1878 and CENELEC/IEC functional architecture

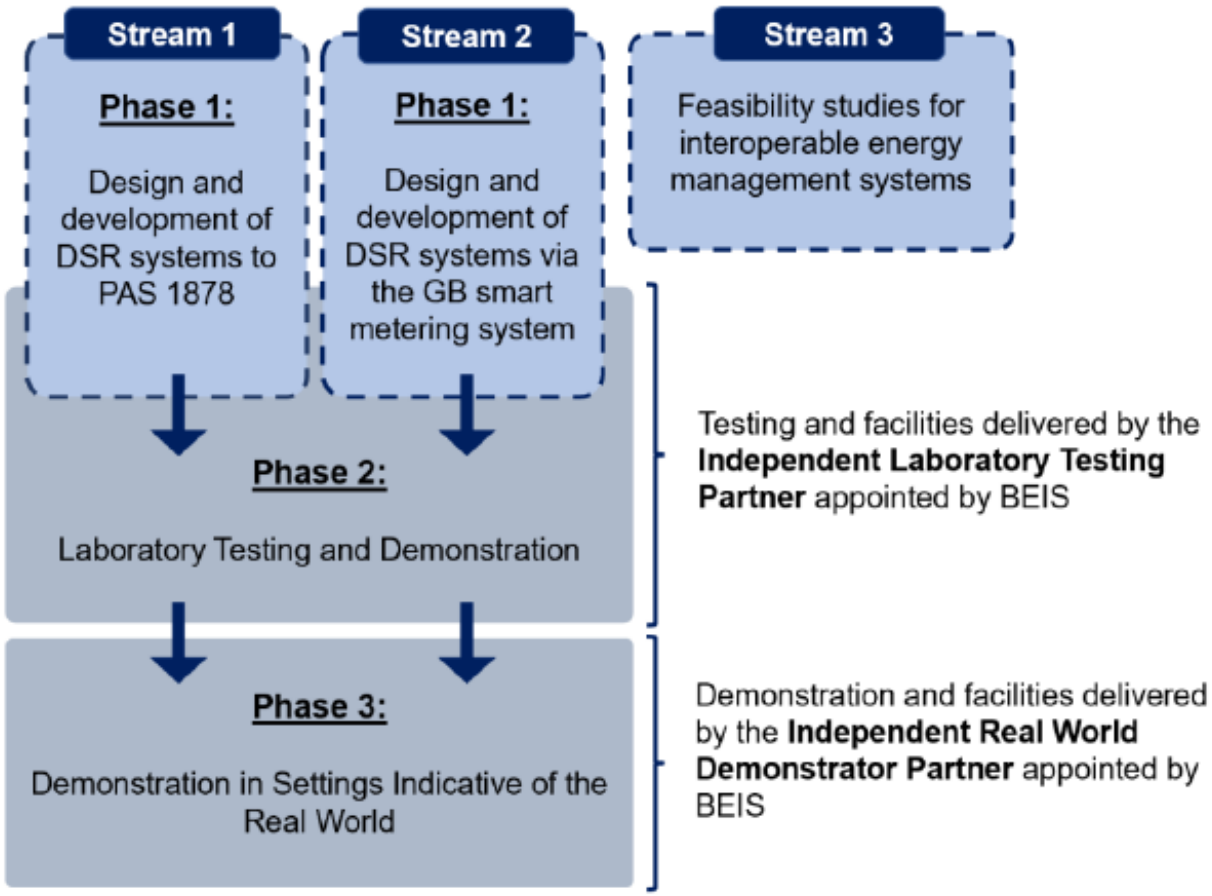


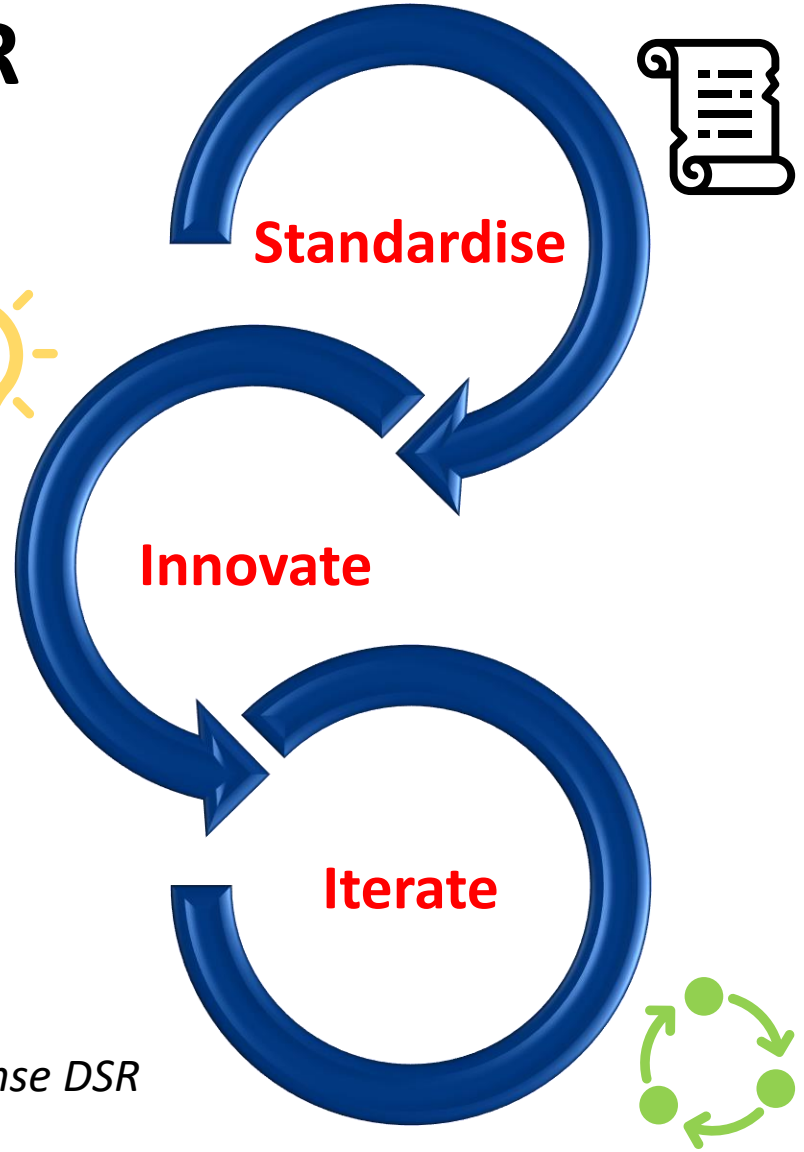
There is no other published standard (that we know of) that delivers the same objectives as PAS 1878 in the space of domestic flexibility.

International compatibility is important – and learning from **other countries** implementations.

SyC Smart Energy ahG 11
Proposed by L/13
Energy flexibility and residential DSR: common ground

Innovation provides key learnings: IDSR





Net Zero Innovation Portfolio

The market for Domestic Response DSR is a very nascent market

Role of open standards

- Standardisation helps to **lower costs** and **promote innovation** in technologies, while **accelerating the uptake** of **secure and interoperable** smart products and services

- Demonstrate UK **leadership** on the international stage, by promoting published standards for **international adoption**

- Standards contribute to **developing the supply chain**: countries can use standards to lead in producing the technology that **enables the smart grid**

- Standards harmonize requirements when adopted internationally

- Non-standardized, fragmented systems increase costs, complexity, and reduce **scalability**, which is why interoperability standards are so critical.

Download:

Download:

PAS 1878 Revision (PAS 1878:2025)

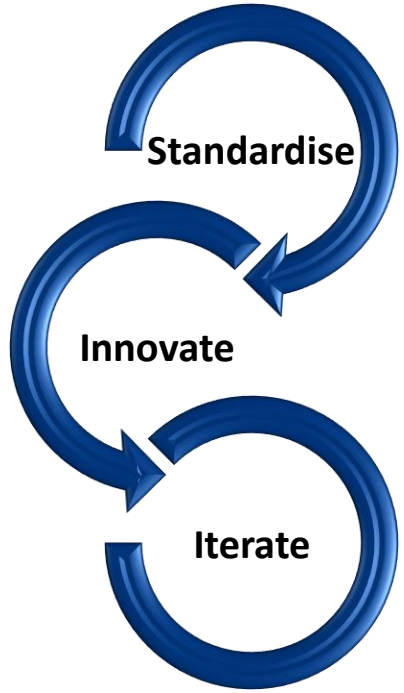
- As a result of the Interoperable Demand Side Response (IDSR) innovation programme, there is now industry experience in using the standard to build ESA (Energy Smart Appliance) and Demand Side Response (DSR) systems.

- This industry feedback from the IDSR programme and elsewhere has identified areas within the standard that would merit **clarification and amendment to reflect technological developments**, as well as to bring the standard into alignment with other standards in the field.

- **The PAS 1878 revision is underway**, targeting publication of a revised standard in November 2025.

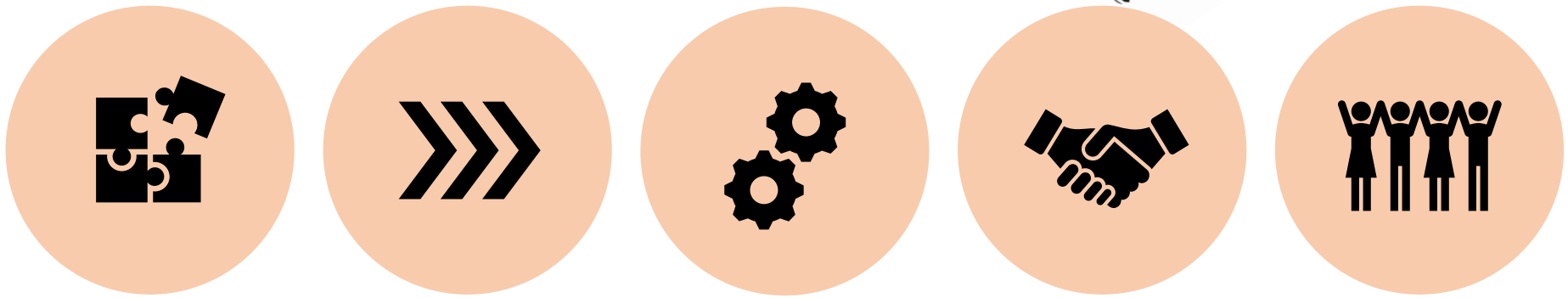
>>> How to engage? You can contact the British Standards Institution or Rebecca (rebecca.shutt@energysecurity.gov.uk) to request to be added to the Review Panel to feed in comments on the PAS 1878 draft at public consultation stage

Targeting publication November 2025



(My) thoughts moving forward

Automation
Transparency
Data privacy
Ease of use!!



International compatibility

Scalability

Regulatory Incentives

Consumer trust

Collaboration

Standards can help with this!!

When are we getting coffee???

8:50am - 9:00am	**Morning Coffee Refresh and OpenADR Alliance Next Steps by Rolf Bienert**
9:00am - 9:30am	**Keynote: A US Perspective - Flexibility and Dynamic Prices - Albert Chiu, Pacifc Gas & Electric, California, USA**
9:45am - 11:30pm	**Presentation Session one: Energy Networks Association UK** Speakers: Avi Aithal, ENA; Tim Manandhar, UK Power Networks; Joe Davey, National Grid 1. Intro of Energy Networks Association and Open Networks - 20 min 2. Outline of Flexibility Plans - 20 min 3. Implementation Roadmap and Hurdles - 20 min 4. Flex Service Provider Onboarding - Reducing Cost and Increasing Resource Availability - 20 min
11:30am - 12:00pm	A Developer Perspective - Coping with a variety of standards - OpenADR, OCPP, etc. - Łukasz Kulczyński, Codibly

1:00pm - 1:30pm	 **Afternoon Kick-off Presentation:** ***Growth Areas for OpenADR - EVs, Virtual Power Plants, and More*** *Don Dulchinos, OpenADR Alliance*
1:30pm - 3:45pm	**Presentation Session two: EV and Beyond** 1. A French View on Flexibility Aggregation - Oliver Sartor, Voltalis - 20 min 2. International Policy Approaches to Energy Management - Mente Konsman, TNO Netherlands - 30 min 3. Managed Charging and V2X - Arjan Wargers, ELAAD - 30 min 4. S2 - A new building data model for energy systems - Adriaan van Eck, Flexiblepower Alliance Network - 30 min 5. EEBUS and Germany update - Annike Abromeit, EEBUS Initiative - 20 min
4:00pm - 4:30pm	**Final Q&A and Closing - Rolf Bienert**

Feel free to connect on LinkedIn

Dr. Laura Schade

laura.schade@energysecurity.gov.uk

Senior Energy Engineer

Science and Innovation for Climate and Energy (SICE)