

Press release / Newsletter Issue no.1

Launch of the User-Centred Energy Systems TCP

The User-Centred Energy Systems Technology Collaboration Program (<u>Users TCP</u>), was officially launched today at the All-Energy Australia conference held in Melbourne.



A Technology Collaboration Program by the IEA, the Users TCP is focussed on the energy user and aims to provide evidence from socio-technical research on the design, social acceptance and usability of clean energy technologies to inform policy making for clean, efficient and secure energy transitions.

In his keynote address at the conference, the Users TCP Chair, Professor David Shipworth, explained the critical role of the user in our future energy systems. Distributed energy resources are increasingly located within communities, intermittent renewable generation is putting a premium on user flexibility, digitalisation is changing expectations around energy services, and decarbonisation requires investment by users in energy efficient technologies. Against this backdrop, governments need to adapt their policies and regulations to ensure that users are able – and provided the right incentives – to fully participate and benefit from the energy transition.

The User-Centred Energy Systems TCP begins its international work programme (organised into annexes) with a focus on <u>business models</u>, <u>peer-to-peer energy trading</u>, <u>hard-to-reach energy users</u> and the <u>social license to automate</u>. Later this year, work will begin on the application of behavioural insights in energy policy making.

The Users TCP Programme is overseen by an Executive Committee drawn from its 16 member countries and 3 sponsors. Experts from member countries and sponsoring organisations collaborate through the User TCP's Annexes.

To explore how you could participate, either at the Executive Committee level or at an Annex level, please get in touch.

User-Centred Energy Systems Academy



Building on the success of the DSM University, the Academy showcases the work of the TCP and our partners and provides policy makers, practitioners and researchers with the information they need to tackle

issues at the nexus between technology and users.

Our first webinar - delivered by TCP sponsor, the Regulatory Assistance Project – looks at the critical issue of integrating electric vehicles with electricity systems and the role of the user within it. Smart pricing, smart technologies and smart charging infrastructure must be designed with usability in mind if the flexibility benefits of integration are to be achieved.

Additional webinars in 2019 will cover peer-to-peer energy trading and business models for energy service delivery.

Sign up now for our next webinar:

The Role of the User in The Grid Integration of Electric Vehicles 15.00 -16.00 CEST

Thursday 24 October 2019

'Social License to Automate' to launch this Friday

Who would you trust to control your air conditioner, battery or washing machine? This question is becoming increasingly important as grid operators and aggregation firms trial automation projects.

The 'Social License to Automate' Annex seeks to understand how User trust in energy automation is developed and earned.

Automation technologies facilitate load shifting and shaving in peak demand periods through direct load control and pre-programming of appliances in the home. This automation is important for market participation, stabilising electricity delivery during peak periods, and building flexibility in power grids that are increasingly characterised by distributed sites of generation, storage and consumption. But, this automation ultimately requires User trust in organisations.

The 'Social License to Automate' Annex is working with partner researchers in Europe, North America, Asia and Australia, to analyse pilot and demonstration scale automation projects and the policies that influence them.

This Friday, 25 October, 2019, the Annex will officially launch at an event in Sydney, Australia.

Please contact us to enquire about participation!

'Global Observatory on Peer-to-Peer Energy Trading' – a world leading international collaboration

The Users TCP Global Observatory on Peer-to-Peer, Community Self-Consumption and Transactive Energy Models ('The Observatory') is an international forum for understanding the policy, regulatory, social and technological conditions necessary to support the wider deployment of these market models. Bringing together leading research organisations in the field – University College London, Delft University of Technology, SLAC National Accelerator Laboratory, Carnegie Mellon University, University of New South Wales, Florence School of Regulation – the Observatory launched in September 2019 in London, bringing together 110 stakeholders representing 15 countries from Europe, Asia, North America, Latin America and Australasia. Findings will be designed for dissemination through IEA publications and global forums such as the Clean Energy Ministerial.

The Observatory supports stakeholders in the peer-to-peer, community self-consumption and transactive energy fields through technology-neutral pre-competitive research applying open innovation principles. Researching the design and implementation of such models across the world, the work will draw lessons from the international comparison of field trials operating under different regulatory regimes and in different social and technical contexts. For policymakers and regulators, the Observatory will deliver learnings on the extent to which existing policies and regulations support or frustrate application of such models in their country, and how to design such systems to deliver different policy objectives while minimising potential adverse impacts. For businesses, lessons will be drawn on how the environment in different countries shapes the design and viability of possible business models. For researchers, the Observatory provides a route to research impact, a collaborative platform with business and government, and a global community of researchers.

To get involved, please get in touch!

'Hard-to-Reach Energy Users'

A significant percentage of energy users are "hard-to-reach" or underserved. These are the people policy makers, utility programme managers and research experts are failing to engage in behaviour change programmes aimed at greater uptake of energy-efficient technology and reduced energy consumption. Spanning the residential and commercial sectors and multiple energy uses including mobility, this very large energy user segment is the focus of this new Users TCP 'Hard-to-Reach Energy Users' Annex.

New Zealand, Sweden and the US are formally funding this research. The UK is participating in-kind via our Chief Science Advisor, Dr Aimee Ambrose, who brought in two prestigious UK PhD scholarships to this Annex. Our Project Partner, the See Change Institute (US) provided us with its cutting-edge user-centred design research process which will form the underlying methodology framework for this Annex. We have also started a field research pilot with the Ontario systems operator, IESO, in Canada and are actively

looking for more partners (both, country participants and field research funders).

To find out more and learn how to participate, please get in touch!

'Energy Service supporting business models and systems'

In the 'Energy Service Business Models' Annex, Sweden, the Netherlands, Australia and Ireland are analysing case studies on innovative energy service business models. The services we focus on range from microgrids, community virtual power plants, community sustainable districts, light as a service, PV as a service, demand response and flexibility services, to heat as a service type of business models. The research questions we have in mind are:

- how do these innovative energy services fare in terms of successful uptake and scaling up
- how are their business models and entrepreneurial journeys shaped by the institutional context and other system factors, especially by the specific characteristics of the energy transition context they operate in
- how do these enterprising stakeholders deal with the system around them, and how are servitisation dynamic capabilities (sensing, conceptualising, orchestrating, scaling and stretching) impacting on their journey in the context of the energy transition
- what are the system conditions that either limit or facilitate the flourishing of energy services,
 especially those that are potentially important for the energy transition; and what instruments or
 other means are available to meet these needs, or need adjusting or need to be developed?

To find out more and get involved, please contact us.

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