enefirst.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 839509. The sole responsibility for the content of this presentation lies with the authors. It does not necessarily reflect the opinion of the European Union. Neither the EASME nor the European Commission are responsible for any use that may be made of the information contained therein.

Barriers and success factors to Energy Efficiency First implementation in buildings and related energy systems

April 15, 10:00-12:00

Expert Online Workshop
- Power group -

Breakout group – Interactive session on the power sector

- Presentation of policy approaches implementing E1st in buildings
  - Policy approach I: Power market rules
  - Policy approach II: Transmission and distribution utility provisions
  - Policy approach III: Transmission and distribution incentives
  - Policy approach IV: Dynamic tariff design
- Overview of procedure for this session
- Open questions regarding MIRO

Policy approach I: Power market rules

Demand-side resources can be mobilized next to generation to guarantee that supply and demand in the power system are balanced at all times. However, this requires market rules that provide **access** to them to the various power markets (wholesale, balancing) and the capacity mechanisms as well, where applicable.

Business as usual	E1st scenario
Only generation units compete in the various power markets	Demand-side resources have **access** to these markets not only de jure but **de facto** as well.
Power markets are designed for large scale units only.	**Aggregation** of smaller capacities (across generation and demand as well) are **allowed**, and these aggregated resources are treated as single units at these markets.

Policy approach II: Transmission and distribution utility provisions

Provisions for network companies - both at transmission and distribution levels - that require the consideration of demand-side resources in grid planning and operations.

Business as usual	E1st
TSOs and DSOs planning is based on forescasted peak load and a fit-and-forget approach.	TSOs and DSOs have to assess the potential and the cost of mobilising demand-side resources and **use them as alternatives** to network investment whenever providing more net benefit.
Development plans are not public and only discussed with the NRAs.	Network planning is **public** so that the need for demand resources and their availability can be matched.

Policy approach III: Transmission and distribution incentives

Financial incentives for regulated network companies (DSOs, TSOs) to consider and invest into demand resources as an alternative to building new grid capacities.

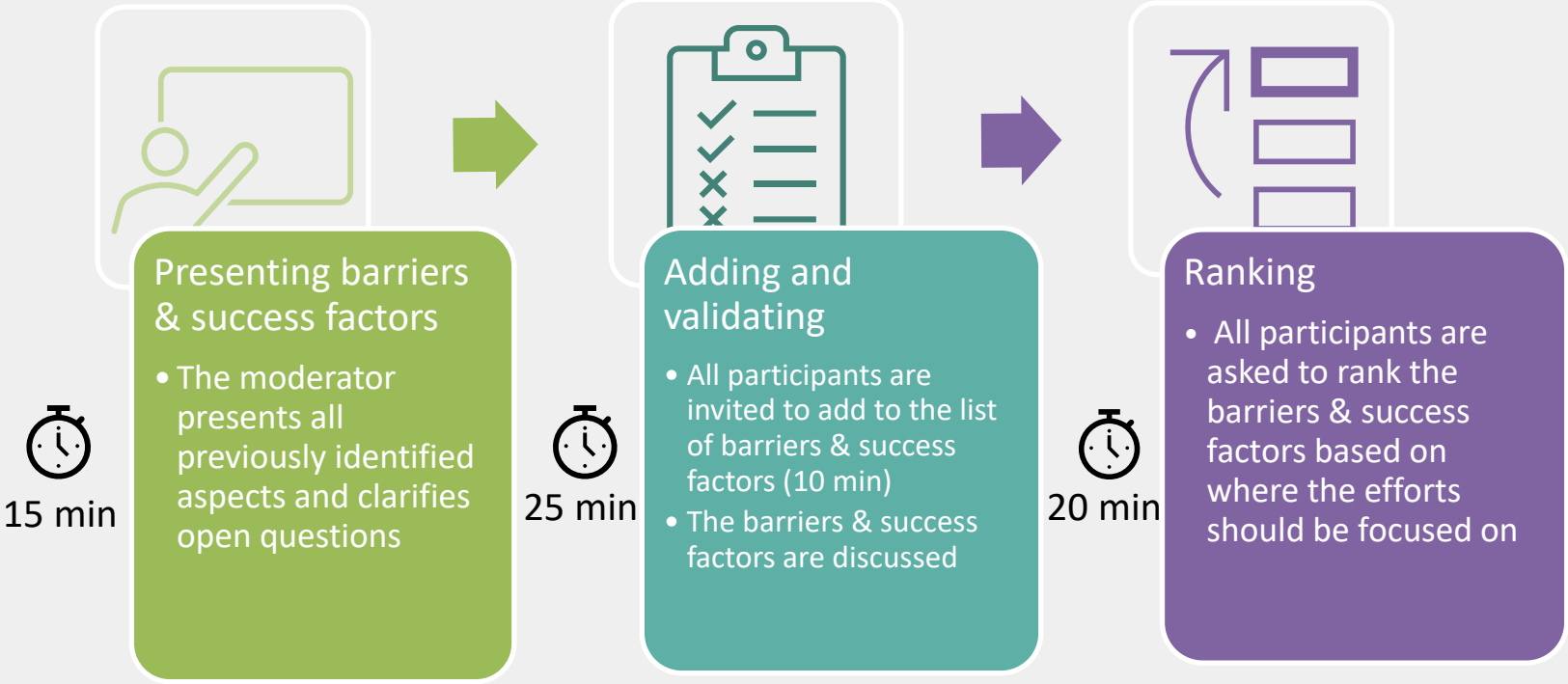
Business as usual	E1st
Network companies have an **incentive to invest** into their assets as they earn a rate of return on the investment,	The same revenue can be earned on **all types of costs** incurred (capex or opex)-
Network companies have **no incentive** to actively innovate and **align with the power system transition.**	**Performance-based incentives** could reduce the inertia of network companies and their appetite for more risky but potentially more efficient solutions.

Policy approach IV: Dynamic tariff design

Network and retail tariffs incentivising the smart use of existing networks by consumer and hence reducing the need for grid capacity extensions.

Business as usual	E1st
The energy and network tariff paid by the consumers is **indepedent from the market and system conditions.**	Consumers pay less in case of abundant generation and network supply and **more in scarcity periods**.
Load is considered to be **inelastic.**	Consumers **do respond to prices**.

Interactive consultation session: procedure



MIRO

Any open questions?

Please switch now to the MIRO board

29-Apr-21

Thank you

Zsuzsanna Pató

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 839509. The sole responsibility for the content of this presentation lies with the authors. It does not necessarily reflect the opinion of the European Union. Neither the EASME nor the European Commission are responsible for any use that may be made of the information contained therein.