

## TASK FORCE SCENARIOS

# Call for evidence

This document gives more information on what is expected for the call for evidence in regards to the Task Force Scenarios. **Workshop #2: Flexibility options in electricity consumption**



## Introduction

This second workshop aims at assessing the potential level of flexibility in electricity consumption at the 2040 and 2050 target horizons. The following paragraph will detail a non-exhaustive list of the expected input.

### Relevant technologies

- Electric vehicles, heat pumps, batteries, other
- How do you see the impact of aggregators, the increasing consumer participation, and digitalization or do you have evidence that supports the arrival of new products that could affect such flexibility services?

What would be the impact of such technologies or products on the level of demand response shedding and demand response shifting?

### Potential and technical availability

- What are the technical potentials per industrial/customer sector?
- What are the energy constraints per industrial/customer sector?
- What are the temporal variation of flexibility constraints and availability (length of activations, number of activations per day, week, period between activations, ramping capabilities)?

### Economic indicators

- Flexibility 'merit orders' (EUR/MWh<sub>flex</sub>)
- Annual fixed costs and one-off CAPEX costs
- What is the estimate of the share of flexibility in electricity consumption per industrial /customer sector that could be shifted or shed?

## Call for evidence - Guidelines

To model flexibility in demand, we should define the flexibility of the different sectors (services, industry, residential ...). In order to do this, it is important to define the **potential of flexibility in demand**.

For a given annual electricity consumption, one will need to define:

- Assumption on what percentage of this total capacity per industry could participate in the market as DSR by the target years 2040, 2050 (assumption of XX% Exploitable potential per each demand sector)
- Assumption on minimum capacity potential threshold of DSR per each demand sector

Stakeholders are invited to provide information about any methodology or techniques they are aware of that could be used to define these potentials.

As an outcome of the methodology or technique followed, stakeholders are asked to provide their estimate for the flexibility potential for both time horizon 2040 and 2050. The table below gives an example of the type of inputs that could be expected. Stakeholders are not expected to fill in the whole table but should see it as a guidance example. Please complete the parts that are relevant for you. In any case stakeholders evidence should not be limited or restricted to the guidance table provided and thus stakeholders are allowed to provide evidence beyond the table if they consider it pertinent. Any additional insight on the economical side (see economic indicators above) is also welcome in order to model more qualitatively the market behavior.

Demand shifting	
Sector	Percentage
EV	%
Heat pumps	%
Industry appliances	%
Demand shedding	
Sectors	Percentage
Industry	%
Energy Content (duration)	h
Batteries	
V2G	Parameters
Percentage of available EV	%
Conversion rate	kW/EV
Energy Content	h
Stationary Batteries	Parameters
Percentage of installed solar capacity	%
Energy Content	h
Large-scale batteries	Parameters
Capacity to be define in "Batteries" sheet per country	
Energy Content	h