

- Purpose of this work is:
  - To assess the experience of different types of customers through their customer journeys and identify issues for different types of customer
  - To understand potential contract options for the categories of customers that wish to engage in providing flexibility services
  - As input to other workstreams to test the outcomes of processes (TD), models (DSO Transition) and mechanisms (charging) to see that improvements/changes work for different types of customer
- Connected customers will evolve and may move between categories through the lifetime of connection and this is being considered in customer journey mapping
- The categorisation would be based on the what the customer wishes to do not limited to what it is doing now
- Categorisation is not used to identify journeys; it is used to consider how the journeys work for different categories of customer
- Vulnerable customers have not been identified specifically as they can fall into any category, but they are important to consider

# Definition of Customer Categories



Category	Characteristics	Customer Type Examples	Contract Examples
A	<b>System Service Providers</b> Their core function (or a key element of their overall business portfolio) is to manage load, generation or storage <b>to sell ancillary services to TSOs and DSOs.</b>	<ul style="list-style-type: none"> <li>• TSO <b>contracted</b> service provider, e.g.                             <ul style="list-style-type: none"> <li>• Balancing Mechanism Units (BMUs)</li> <li>• Enhanced Frequency Response services</li> <li>• Ancillary Services</li> </ul> </li> <li>• DSO service <b>contracted</b> flexibility service provider</li> </ul>	<ul style="list-style-type: none"> <li>• Bilateral agreements between the customer and the DSO / TSO</li> <li>• Could be DSO / DSO agreements for DNO-DNO interconnection</li> </ul>
B	<b>Active Participant</b> Have invested in generation, storage, demand side management and / or low carbon products. They will <b>actively participate in the energy market</b> to make money from generation, reduce operating costs and/or for low carbon social responsibility reasons. They <b>do not have contracts for services</b> to TSOs or DSOs. Could have automated controls to maximise savings / returns.	<ul style="list-style-type: none"> <li>• Distribution connected generation, e.g. solar farm exporting</li> <li>• Behind the meter generation/storage, e.g. for peak lopping, triad avoidance</li> <li>• Demand side response e.g. for peak lopping, triad avoidance</li> <li>• Residential customers actively engaged e.g. timing of EV charging, use of heat pumps/solar/storage</li> </ul>	<ul style="list-style-type: none"> <li>• Power Purchase Agreements</li> <li>• Suppliers via Time of Use tariffs or products</li> <li>• Contracts with Aggregators – residential and industrial and commercial</li> </ul>
C	<b>Passive Participant</b> Energy conscious low carbon investor generally off-setting demand for benefits ( <b>passive/fit and forget</b> ). Have invested in 'off the shelf' low carbon <b>products</b> such as solar panels, heat pumps, EV or smart appliances <b>to reduce energy bills</b> . May be exporting and importing and would be interested in reducing costs via Time of Use tariffs.	<ul style="list-style-type: none"> <li>• Businesses or residential with installed products, e.g. solar panels, heat pumps, EV or smart appliances</li> <li>• Residential customers with customised Time of Use tariffs</li> </ul>	<ul style="list-style-type: none"> <li>• Suppliers via Time of Use tariffs or products</li> </ul>
D	<b>Passive Consumer</b> Normally demand customers. Little or no knowledge or interest in Time of Use tariffs. Normally on standard single rate tariff but could include customers on standard 2 rate tariffs and storage heaters.	<ul style="list-style-type: none"> <li>• Business or Residential customers</li> </ul>	<ul style="list-style-type: none"> <li>• Basic Supplier tariff contract</li> </ul>

# Customer Category Descriptions



In light of feedback from the Advisory Group, the project believes it would be helpful to provide more details on the customer category descriptions:

## **System Service Providers**

Customers who opt to sell system support services to the TSO or DSO. These customers have generally invested in Distributed Energy Resources to participate in the energy market and provide support services or they are demand customers who are more aware of the energy market and can flex their demand as part of their business, i.e. demand side management. This group includes larger individual customers and also aggregators providing services through the management of a portfolio of smaller customers. The TSO or DSO would agree term contracts on a bilateral basis for the services it needs.

## **Active Participant**

These customers have invested in Distributed Energy Resources, demand side management or low carbon products. This category will include customers actively participating in the energy market to derive income from generation and/or storage, demand customers reducing operating costs and larger customers who have invested in low carbon equipment for social responsibility reasons. They are very likely to be responding to time of use signals, including managing demand or export at times of peak demand. While these customers will have bilateral contracts with suppliers for energy services they do not have contracts for services with TSOs or DSOs.

Typical customers in this category are storage, Distributed Generation and flexibility service operators, larger demand customers and community energy schemes, however this category also includes aggregators managing exports and demand side management on behalf of multiple smaller customers.

## **Passive Participant**

This category includes smaller energy conscious customers (domestic or non domestic) who have invested in off-the shelf low carbon equipment to derive income from renewable energy schemes, to reduce their overall costs or for social responsibility reasons. Generation or demand is unlikely to be actively managed and is installed on a passive fit and forget basis. 'Off the shelf' low carbon equipment in this case includes solar panels, heat pumps or electric vehicles. These customers are likely to be exporting and importing and would seek to benefit from supplier's time of use tariffs.

## **Passive Consumer**

Normally domestic or smaller non-domestic demand customers with little or no interest in the flexible energy market or low carbon products. These customers may have smart appliances and in due course could agree smart energy contracts with suppliers and aggregators (at which point the key relationship is between the DNO and the aggregator/supplier, therefore the customer will fall out of these categories). This category includes customers in social housing with or without access to a community energy supply contract via their landlord. These customers are likely to be on standard supplier tariff.