# DoV SG: Actors’ relationship with DSR

## **Transmission Network Operator (TO)**

* 1. The TO deals with issues at a national level or large regional areas (such as the South West of England or north of Scotland) and so needs DSR to provide bulk energy volume to be effective. As for DNOs, the location of the load is important but the areas involved are generally bigger. For the largest single providers of energy DSR services, ie those with the greatest flexible loads, the TO will contract directly, but where aggregation is needed to provide the required volume of energy it will contract with suppliers and demand aggregators.

## **System Operator (SO)**

* 1. The SO deals with issues at a national level and so needs DSR to provide bulk energy volume to be effective. For the largest single energy DSR loads it will contract directly but where aggregation is needed to provide volume of energy it will contract with suppliers and demand aggregators.
  2. On winter peaks they consider that any overlapping value is better handled by suppliers as they are better placed to provide general DSR. The reason for the being better placed to provide general DSR is they have an existing customer relationship, direct benefits for changing demand and suppliers own the tariff placed on the smart meter. They will contract the level of DSR or other tools they need to meet their core specific needs.

## **Distribution Network Operator (DNO)**

* 1. DNOs currently see DSR playing a role to address constraints initially at the EHV/HV level with DSR being provided by customers connected mainly at HV rather than the LV network. The reasons for this are contained within the issues (barriers and enablers section). At primary substation level the main DSR benefit is to maintain security under n+1 fault situations.
  2. The TO, SO and Suppliers’ business cases for DSR are relatively simple being based on national, or at least regional, basis. The DNO business case for DSR is more complicated and it is harder to get to a £/MVA figure as this depends on the counterfactual reinforcement costs which can vary due to local factors so each situation has to evaluated separately.

## **Aggregators**

* 1. The work group have looked at the role of Aggregators throughout this work. Aggregators have an important role to play realising the value all actors have with DSR, however they themselves do not create value.
  2. There may be opportunities for managing customer demand directly on behalf of individual customers, for example ensuring the customer maximises their value from on-site generation, but the driver for this is not the wider infrastructure or the wider customer base. Any benefit for the local or national infrastructure is co-incidental. As such this is out of scope of the work.

## **Supplier**

* 1. In terms of large infrastructure, the Supplier value drivers come from reducing the costs of energy generation purchases. The electricity generation costs vary every half hour of the year which provides year round value potential. Like the SO and TO the supplier looks at the national level and so locational factors are less important than for the DNO.
  2. Suppliers can use DSR to manage imbalance or hedging activities to create value.
  3. There may be opportunities for managing customer demand directly on behalf of individual customers, for example ensuring the customer maximises their value from on-site generation, but the driver for this is not the wider infrastructure or the wider customer base. Any benefit for the local or national infrastructure is co-incidental. As such this is out of scope of the work.