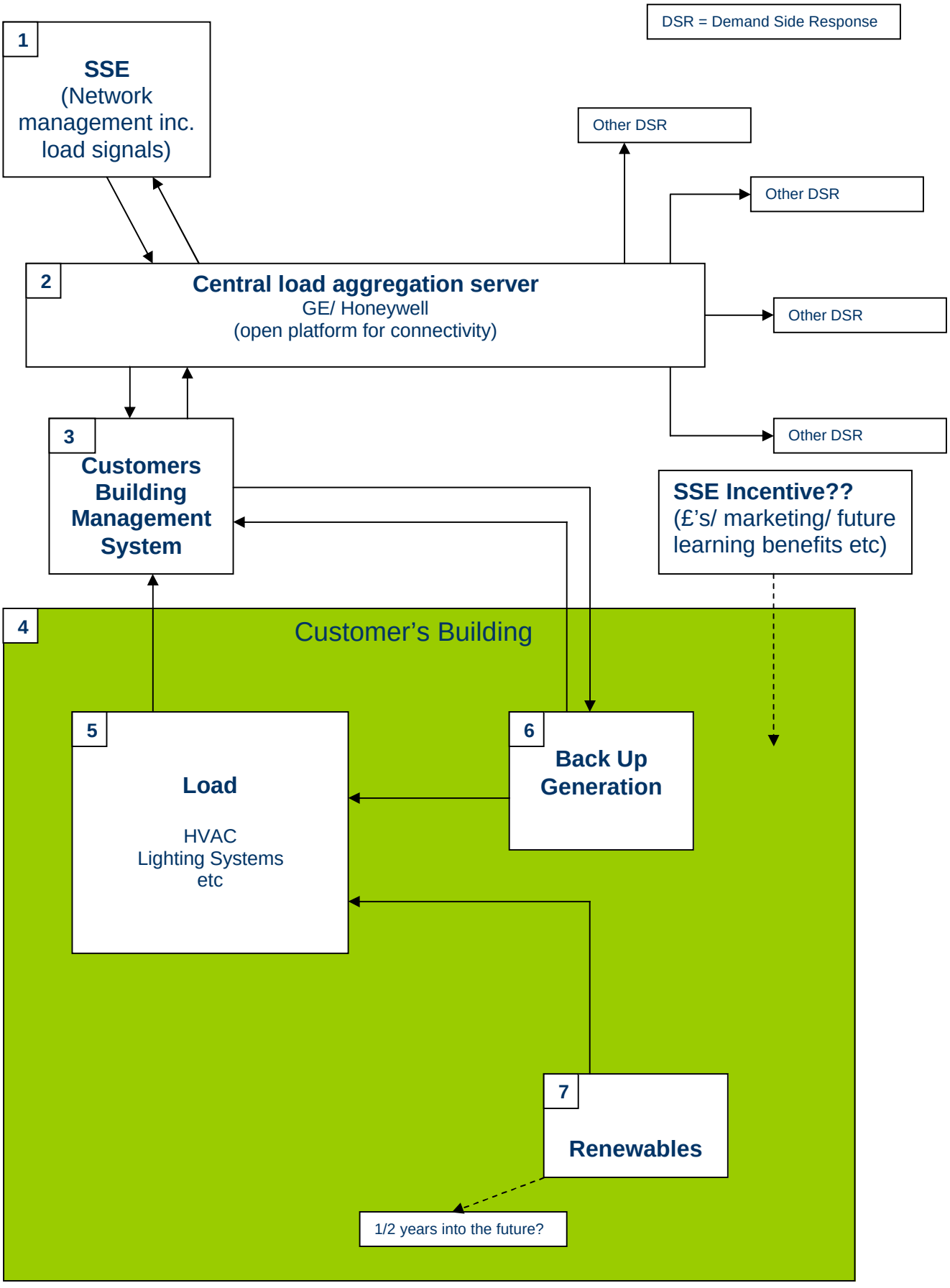
Customer LCNF DSR Proposal



Overview - Low Carbon Network Fund

Ofgem have put together a fund of £500m to develop Low Carbon Networks/ Smarter Grids. This exists to demonstrate that as opposed to costly and disruptive network reinforcement, it is possible to manage the distribution network in a smarter way to either defer or do away with the need for this large scale capital expenditure. This is a competitive bid process and we will know the results of our bid in late November. This however, does not affect our desire to engage and work with **XX** with regards to premises.

What Do We Want To Do?

As part of SSE's bid we are trialling a Demand Side Response (DSR) system across 3-4 buildings across Bracknell with a view of a larger scale scheme if the project, and our LCNF bid, is successful.

The basic model can be seen in the diagram above. In an ideal world SSE want to implement the system to identify and manage generation/ controllable load across the region to prove that by doing this, you can manage the peaks on the network. The technology we will be trialling will be from a GE control system. This can communicate with existing Building Management Systems (BMS) to;

1. Monitor premise load (amps & volts)
2. Receive network loading signals from SSE (LV distribution monitoring systems used by Distribution Network Operators (DNO's))
3. Identify the need to switch on generation/ turn off load
4. Send action signal to the building's BMS
5. Automatically Switch generation on/ turn load off to meet network needs
6. Speak back to the central server informing it of actions taken

We would like to prove this with the back up generation at the premises and if successful create a commercial model that could be repeated UK wide. The outcomes of this will be monitored as part of our project and it's success/ failure will disseminated as a learning experience.

There may also be an opportunity to use excess space in the building to install a large battery to either take load when there is excess load on the network (ie when renewables in Bracknell are feeding onto grid), or when we need to feed that power into the grid to meet demand elsewhere in the area.

Summary

SSE would love to have **XX** on board in this project. We aim to leave a legacy in Bracknell regardless of success in our bid and we see that partnerships similar to the above could set the benchmark for future negotiation for the DNO/ Customer relationship.