

Theme 2: Decarbonisation/Group 6

The major challenge to decarbonisation is the need to reduce carbon emissions by 80% by 2050. It is an extreme, engineering challenge, hard to tackle on time. As such there is a need to not undermine the importance of that target but to understand the nature of decarbonisation and realising this commitment alongside with other targets that have to also be achieved.

Other challenges are:

- The definition of a powerhouse as well as its type and place?
- Opposition to it by the public due to wrong perception about it
- Dominance of other models and valuation
- Targets need to be achieved in line with regulation and policy reformations in the future
- Targets set locally
- Realisation of decarbonisation in the context of powerhouses can be achieved and retained with behavioural change.
- Human behaviour is a great challenge – people are not rational, select to do things that might not be viable and the factors of them doing so are many and varied depending on the spatial, cultural, organisational, etc. context.

An opportunity that decarbonisation offers is that it provides people the chance to power their houses in a sustainable way. Decoupling carbon and economic growth is in fact a major opportunity that can be offered by decarbonisation. Change of mind-set is both an opportunity and a challenge from enabling decarbonisation to become realised.

- **Impact (positive or negative) of decarbonisation on the economic driver behind the powerhouses**

Decarbonisation needs governmental support and subsidies to support it through the use of new technologies, and its value has to be clearly demonstrated and communicated in order to be economically favoured.

It also creates the potential to redistribute the way carbon it's taxed which might shift the responsibility and ownership of assets. Allocation of tax could be a motive of getting transformation initiated. Valuing carbon appropriately it is needed.

- **Impact (positive or negative) of decarbonisation on the other important drivers**

Devolution creates social value. However, personal motivations/priorities not aligned with disruptive models might be mid-solution; innovative solutions can offer small but substantial changes to achieving decarbonisation.

- **Gaps in our knowledge and understanding to be able to develop and deliver infrastructure to support decarbonisation**

An important gap that has been stressed out was about human behaviour, their individual choices and the need to understand how differentiated responsibility and capability affect a shift in thinking and behaviour change. Collaborative efforts are placed into getting an insight.

Another important gap is about value. Its definition, its multiple dimensions, the indicators used to measure value and its power to bring transformational change. Although some efforts are currently underway there is a great need to understand systemic changes and interactions.