

Societal Implications of Demand Response: A Qualitative Study in Southern England

Niamh Murtagh
Birgitta Gatersleben
David Uzzell



- Business case
 - Energy system efficiency
 - Integration of renewables
 - Reducing dependence on reserve
 - Balancing the network, etc.
- Research
 - Engineering & economics
- Human decision-making
 - Influenced by biases, heuristics, habits, identity, emotion, groups and social norms, social practices
- Need to understand the individual and societal

“Just as consumers have learned to respond to the volatile prices of gasoline, fruits and vegetables, and other commodities, so they can learn to respond to electricity prices” (Spees and Lave 2007: 81)

Demand Response

- 21 households
 - Rural & suburban
 - Families, couples, sole occupants
 - Age range: 28 to >80
 - Income range: < £10K to > £60K
- Semi-structured interviews
- Scenarios describing
 - **Peak pricing – weekdays 5 to 7pm**
 - Demand control in critical peaks



Method

- Would respond
 - Shiftworkers
 - The retired
- Would want to change but
 - Family members may not
 - Not responding to price signals now
- Would be aware of cost but
 - *We wouldn't change if our pockets didn't notice it [R10M]*
 - *Because at the end of the day, well, how much are you going to save – you might save three or four pounds, but the inconvenience...is probably a lot more hassle!*
[S4M]

Responses I

- Generally negative responses:
 - *“the way to force people to change”* [R7F], *“a deterrent”* [S8M], a *“punishment”* [E3M], *“excessive “* [S4M]
 - *It’s very divisive. It comes down to whether you can afford it or not. It’s not the same for everybody. Some people would have to do it because they can’t afford not to, and others would have the luxury of being able to ... afford not to have to do that* [R4F]
- Impact on
 - Less affluent: *We couldn’t pay three times as much at that time, we just couldn’t* [R6F, on pension support].
 - Those with health problems, including the elderly
 - Families with young children

Responses II

- Temporal Patterns
- *I can't see that happening. I really can't. I mean, we couldn't have our meal in the middle of the day, for instance, because we're not here – we're both at work. So, we're always going to be eating at that time, aren't we?... The whole world would have to change'* [H10]
- Family Mealtimes
- *That's when son comes home from college, son comes home from work, wife comes home from work... But there's no way that we could change ...the time we eat, as a family.* [R2M]

Societal Implications

- Risks
 - Backlash
 - Turn to alternatives
- Opportunities
 - Cultural norms around civic responsibility for energy
- More evidence on the experience of the fuel-poor

Risks & Opportunities



THANK YOU

Murtagh, N., Gatersleben, B. & Uzzell, D. (under revision)
Demand response: a qualitative study of individual and
societal impacts.
