Smart meter rollout in Ireland

Can it improve quality of life for people in fuel poverty?

Christine Liddell
Status of smart meter rollout in Ireland

Ten years in the planning

Rollout commences in 2018

80%+ of households will have a smart meter

They are expected to reduce consumption by:
- 3% electricity
- 4% gas
...largely through real time feedback

....and Time of Use tariffs
A highly-regarded programme of work.

ROI customer trial data now used by researchers in Finland, GB, Germany, Portugal, Spain, Switzerland, USA.

Can Ireland now also lead on protecting the fuel poor during rollout?
Fuel poverty and its impacts on people’s wellbeing – 4 routes

Worry about debt
- What will my next bill be?
- Should I go without basics now or wait?
- Will I be disconnected?
- Will I be able to get a loan?

No control
- No solution in sight
- At mercy of weather
- At mercy of energy market

Living with cold
- Discomfort
- Damp/mould
- Spatial shrink
- Social exclusion

Worry about health
- Cardiovascular
- Respiratory
- Arthritis
- Sleep

Sources: Green & Gilbertson, 2012; Liddell & Guiney, 2015
When people frequently make light of a stressor, you know it is real

- “It’s no bother once I’ve got the children to school..... I just wear a hat for the day.”

- “If the sun shines in winter, I spend time in the greenhouse. There’s nothing to plant or anything, but it’s warmer in there. Cosy, really.”

- “With the kids, we call a cold day a ‘going to bed at half-past-five day’.”

- “On Fridays, the kids and me do sleeping bag cinema with a DVD in the lounge.”
When people make light of a stressor you know it is real

• “Wouldn’t it be great if us and the kids could have Christmas morning in our pyjamas!”

Sources: Save The Children NI, 2013; Liddell, 2014; Middlemiss, 2015
How might smart meters help?

Worry about debt
- What will my next bill be?
- Should I go without basics now or wait?
- Will I be disconnected?
- Will I be able to get a loan?

No control
- No solution in sight
- At mercy of weather
- At mercy of energy market

Living with cold
- Discomfort
- Damp/mould
- Spatial shrink
- Social exclusion

Worry about health
- Cardiovascular
- Respiratory
- Arthritis
- Sleep

Sources: Green & Gilbertson, 2012; Liddell & Guiney, 2015
How might smart meters help?

**Worry about debt**
- What will my next bill be?
- Should I go without basics now or wait?
- Will I be disconnected?
- Will I be able to get a loan?

**No control**
- No solution in sight
- At mercy of weather
- At mercy of energy market

- Real time information on what you have spent – no shocks
- Real time information on what is using energy at any one time
- No estimated bills – with “gifts” followed by “shocks”
- Seamless supplier & tariff switches
The only snag for the fuel poor....

Electricity consumption by month of year

Source: Liddell, 2013
The only snag....

Source: Liddell, 2013
The only snag....

Source: Liddell, 2013
Can smart meters assist people in fuel poverty save on energy use? *Best not to expect it.*

If they cannot save, this has consequences:

**At national level**

The fuel poor cross-subsidise:
- energy-rich
- energy suppliers
- energy generators
- energy network operators

**At household level**

“That display is just a way of having to watch energy seep away”.

Source: Buchanan et al. 2015
There are real challenges to ensuring that these negative outcomes do not happen

EU Member States that will not roll out smart meters

- Bulgaria
- Cyprus
- Hungary
- Latvia
- Lithuania
- Portugal
- Slovakia
- Slovenia
Percentage of EU households spending twice the national average on fuel
Bulgaria Latvia & Cyprus

Everyone uses rather little

Populations are small

3% saving
on a little
from a few
cannot cover the cost of rollout
Percentage of EU households spending twice the national average on fuel
Germany

Wide disparity in consumption

Smart meters confined to high consumers using +6000 kWh p.a.

- Likely to be higher income
- 3% energy reduction is a lot of kWh’s saved
- The wealthy will carry the cost and choose whether they wish to save or not
Other danger zones for inequities
Time of Use tariffs

Peaks in electricity consumption by employment status

Source: Newing et al., 2015
Other danger zones for inequities
Time of Use tariffs

Peaks in consumption by household composition
Other ways for SM’s to serve people in fuel poverty

Rollout that protects people in fuel poverty

2015: UK-wide NICE Guidelines identify rollout opportunities as a means for lowering excess winter deaths

Installers must be trained to notice signs of fuel poverty, and signpost customers on for retrofit measures and energy efficiency advice
Using data generated from smart meters to protect the fuel poor

Finding flatline users

Finding people who self-disconnect frequently

Finding people with irregular patterns of use

Using people’s baseline energy data to find the best Time of Use tariff for them

Finding people with sudden increases in consumption – like Mr. McKay…
For people in fuel poverty in Ireland
Can you ensure that smart meters

✧ Help you find them

✧ Give you more scope to provide them with services, feedback, advice, energy efficiency installations

✧ Enhance their sense of control

✧ Reduce their levels of worry about debt?

You’d be the first to do so!
Can rollout in Ireland mean that …..

smart meters deliver *better* wellbeing for people in fuel poverty

Or will it be…..

just another unwelcome way to *watch energy seep away*?