

# FROM PRIVATE TO PUBLIC SOLUTIONS

How collectively oriented arguments emerge as part of discussions about the new French electricity meters

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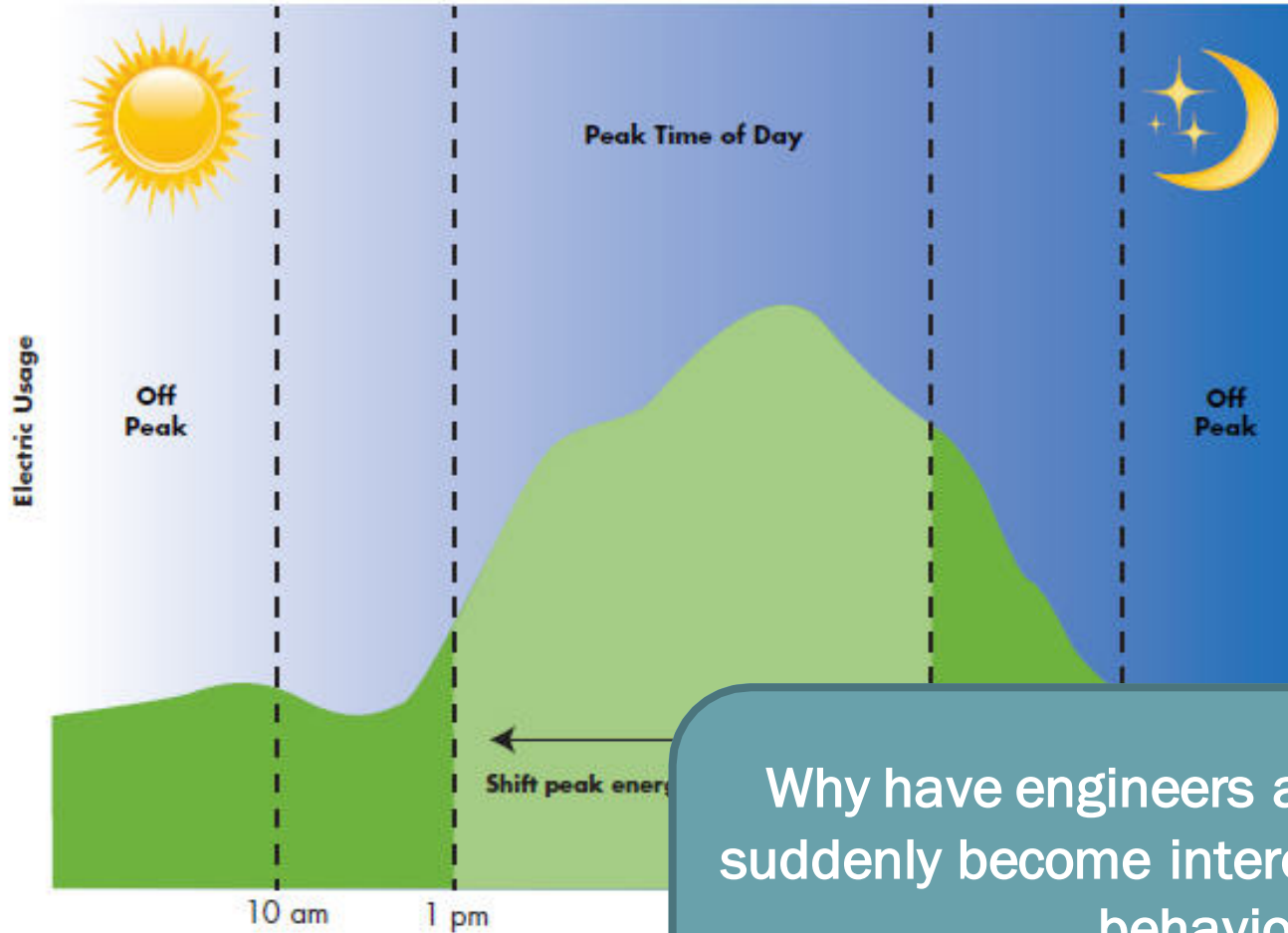
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# Energy efficiency & carbon emission

- The **balance** between energy production and consumption must be kept within a very narrow margin
  - *US: 15% of the generation and transmission capacity was used during 1% of the time*
- Until recently → this production-consumption balance was only kept by the producers
- Smart meters → through delivering on-time information about fluctuant energy prices, consumers are able to better manage their consumption

Typical Electric Usage (Summer)



Why have engineers and policymakers suddenly become interested in household behaviour?

Why SRT?

# The SRT in the context of this study

- Social changes promoted by international agreements on the reduction of carbon emissions in energy generation (Batel & Devine-Wright, 2014)
  - *Popularity of 'green' alternatives (wind and solar)*
- The time and infrastructural dimensions involved → different actors of this change:
  - *Policymakers, industry, citizens*
- PACHELBEL project calls into question
  - *Phase 1 → The image **policymakers** think the public holds about a given issue (meta-representation)*
  - *Phase 2 → The actual **behaviours** and **representations** of a public recently confronted with the new, 'smart' meters*

# Context of the study in France

- French engagement to reduce CO2 emissions by four by 2020
- **Policy partners**
  - *General Council for the Environment and for Sustainable Development → Ministry of Ecology, Sustainable Development, and Energy*
  - *Electricité Réseau Distribution France, ERDF*
- 2 pilot sites → test of ERDF's economic and procedural hypothesis
  - *Rural area (Château-Renault)*
  - *Urban area (Lyon)*

- Implementation of the new meters
- Same billing options → real-time consumption

# Goals

- How **households** equipped with new meters were integrating it into their daily lives?
- How did **these communities** make sense and relate to the new meters?

# Method

## **In-depth reasoning and elaboration**

- *3 Reconvened focus groups (3 \*)*
- *2 in Lyon and 1 in Château-Renault*

## **Facilitate the awareness of concrete situations in the household and indirect experiences of peers (bias reduction)**

- *'Diary weeks' between the 1<sup>st</sup> and the 2<sup>nd</sup> meetings and between the 2<sup>nd</sup> and the 3<sup>rd</sup> meeting*
- **Awareness of habits**
- *Open participants to arguments on this issue circulating among their family and friends*
- *After an initial learning curve, deeper reflections on the issue would be achieved at the final meeting*

# Method

- 1st session → establishment of a **common ground** about the new meters
  - *ERDF technicians were supposed to have informed participants about the new meter and its functionalities. However....*
- The main topics of these first groups were then fed back to policymakers
  - *Validate (or not) their expectations*
  - *New issues were then proposed for discussion*
- heating, insulation (participants were then equipped with a thermometer)
- Possible measures to discourage people to consume in peak-hours (fines, incentives?)

## Linky est arrivé

Le compteur communicant sera-t-il un bon pédagogue?

De notre correspondant Etienne Lefebvre

**M**oi aussi j'en ai un chez moi, on ne peut pas le confondre avec l'ancien, il est jaune !

– Tu le vois jaune ?! Je trouve plutôt qu'il est vert, un vert anisé ».

Cette discussion entre voisins ne concerne pas un apéritif mais Linky, le nouveau compteur électrique installé sur une fraction du territoire français. Et si sa couleur retient d'abord l'attention, il possède de nombreuses caractéristiques qui nourrissent les discussions.

Déjà, il ne s'agit pas d'une initiative française isolée : la Commission européenne a en effet proposé que 80% des foyers européens aient accès, avant 2020, à des systèmes communicants permettant de varier les tarifs en fonction de la consommation, de faciliter la concurrence et de maîtriser la consom-

l'installation d'abord : qui va payer ? Si les avantages du compteur communicant pour les consommateurs sont annoncés, ils existent aussi pour ERDF : les opérations à distance représentent des gains opérationnels, de même que la réduction des fraudes.

Une rumeur a pourtant circulé un temps, mettant Linky à la charge du client : 230 euros lors de l'installation de Linky, ou sinon le coût du nouveau compteur communicant serait progressivement intégré dans les factures d'électricité. Mais les pouvoirs publics ont coupé court à ces rumeurs et confirmé la gratuité de Linky.

**MIEUX GÉRER SA CONSOMMATION ?**

En revanche, l'incertitude demeure quant à l'équipement en aval du compteur, permettant justement à chacun de mieux gérer sa consommation pour faire des économies. Il est vraisemblable

18" permet de vraies économies), éteindre les appareils en veille, choisir les meilleures périodes tarifaires.

Ce sont autant de *nudges*, ou "coup de pouce", qui permettent à chacun de s'engager dans un comportement actif





# Method

- All sessions were audio recorded, transcribed and content analysed (Atlas-ti)
- Topics emerging in the group sessions mainly involved

Organised around 3 pairs of opposites, or *themata*

1. collective vs. individual (daily life)
2. private (my behaviour) vs. public spheres (others' behaviours)
3. consumption model (individualist vs. collectivist)

# Results



## First reactions

- Differences identified in their electricity bill before/after the meter → improved accuracy of the new meters
- Groups largely ignored the functionalities of the new meters. About half of the participants had never looked at the new meters before the first group meeting
  - *I said to myself: they were just refurbishing the stair cage, and also installing new nice green meters, but I completely ignored the interest of such a meter. Then here (during the group sessions) I learned we could use it for something!*
- No memory of being informed, but almost every participant remembered the visit of the technician

# Results



## Collective vs. individual (daily life) contexts

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E  
S

- Positive attitude towards sustainable consumption in general, and acceptance of their own responsibility with the issue
  - *When I say for the future, I mean that if we're making an effort to reduce our consumption, it better be sustainable so that it has a real impact on the future*

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- These ideas/good intentions are however limited by other concrete barriers limiting energy savings
  - *“(Barriers are) the lack of time to pay attention, the children that we can't watch all the time, the cold, the collective heating that we cannot control.*
  - *We are told all the time to pay attention to our energy consumption. But we are cold! We are told: lower down your temperature. I am already at 16°, and I am not reducing more than that!*
- Importance of the social dynamics present in the household for the ‘domestication’ of the new meters → the concrete dynamics that limit the reach of possible representational changes

# Results

## Privately vs. Publically controlled behaviour

- ‘Common binding frame’ so that a larger number of people would alter their behaviour in the desired way
  - *I think it should initially be imposed. If a real concern over our electricity consumption does indeed exist, it should be imposed to everybody, at the same time – what time to start and what time to stop – all over France”*
- However, this means that the individual consumption would be under surveillance; and that coercive measures would be deployed
  - *This upsets me. . . I think this is. . . especially the fact of receiving an alert telling you when it’s the time you can start consuming and all, this makes me think of movies like “Gattaca” or “1984”. It is heavy policing!*

# Results

## Individualist vs. collectivist consumption model

- Our modern consumption model is designed to make individuals consume more and more. Helplessness to react as individuals

Individualist model

*The culpability is not well-placed here, I don't agree when I hear 'you consumers you should do this, and that' and when we take a look at the packaging (...) I have not asked to have tomatoes for sale during the winter, and there they are though...*

*Technically there are lots of home appliances that keep us from saving money simply because of their design. They have not been initially thought of to save energy, it can be dangerous to make them do it and it can reduce the products' life span. They have not even been produced to be turned off: this is an aberration!"*

# Results

## Collectivist model

- Peak consumption is associated with **collectively established rhythms**, which could be reassessed for a better comfort and to meet energy goals
  - *“I would love to have variable working hours. But my boss says: it is 9 h–12 h and 14 h–18 h. It would be nice to re-start earlier at 13 h and finish earlier...”*
- Developing even further this idea → consumption itself could also be shared through alternative models that could contribute to a more rational and solidarity-based society
  - *Instead of going home directly after work, we could promote collective gatherings in the buildings, a happy hour!*
  - *We could also have a collective oven, a fridge?*
  - *The oven could be complicated, the fridge too... it would make one's own yogurts disappear!*

# Conclusion

- As an action-research tool, the reconvened group method provided policymakers with important information about
  - *Citizens' new and concrete experiences with the meters*
  - *Deeper understanding of how these communities give meaning to these new practices and societal requests, on the basis of concrete everyday experiences*
- Group exchanges evolved in the course of the meetings, benefiting from deeper analysis of concrete and practical points not initially evoked

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