



Sharing data at a local scale for Energy Transition

Marion Glatron Rennes Métropole 9th June 2021

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1 – A national framework for datasharing

Since 2015, the law enforces the energy distributors (Enedis for electricity, GRDF for Gaz) to share their data : Final consumptions of energy by

- At a scale of nationally defined tiles of 2000 inhabitants (Iris, by Insee)
- o By activity sectors
- Respecting personal data protection and sensitive business information => anonymization by aggregation of data

Final consumptions of energy by tiles Iris for Rennes





1 – A national framework for datasharing

Open data since 2015:

- Consumption
- Production

- Electricity grids
- Renewable energies
- \Rightarrow A real improvement





1 – A national framework for datasharing

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But not enough for local decisionmaking on:



- Planning for energy Ο production
- Smart grids Ο







Rennes (Ille-et-Vilaine)

CODE INSEE DE LA COMMUNE

35238

STRUCTURE DU PARC DE LOGEMENT*

POPULATION

211 372 habitants

TAUX DE RÉSIDENCES PRINCIPALES

98 %

TAUX DE LOGEMENTS COLLECTIFS

86 %

TAUX DE CHAUFFAGE ÉLECTRIQUE

24 %

Source : dernière enquête Logement INSEE 2013 (Publication 2016)

75

100

2 – A local framework for cooperation and experimentation

At a local scale, an experimentation lead with

- the national energy distributors (Enedis et GRDF),
- the urban planning agency (Audiar)
- Rennes Métropole





- In a **collaborative framework**
- Including national actors
- Backed by several projects around energy, smart cities, data...
 - On the long term (since 2016)



Experimenting a local mapping, based on a fine knowledge of the territory for energy consumption data

2 – A local framework for cooperation and experimentation

- A fine mapping
- In order to better understand the urban fabric
- Operated by the Rennes Urban Planning Agency and Rennes Métropole





2 – A local framework for cooperation and experimentation



- 20 different types of "morphological" blocks, with their own consistency
- Built on the national mapping (national office of statistics), the buildings characteristics, the roads, the local urban zoning based on the main uses of the space (activity, residence, public services...)
- For a better understanding of the city
- Useful for projecting data at a fine scale

Projection of physical data

- Building heights
- Jointness

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- Building volumes
- Age of buildings

MET



2 – A local framework for cooperation and experimentation

- Projection of environmental data
- Vegetation factor useful for:
- Preventing urban heat islands
- Limiting soil sealing





2 – A local framework for cooperation and experimentation

DIAGNOSTIC ÉNERGÉTIQUE DU SOUS-QUARTIER MAUREPAS (RENNES) Estimation des consommations d'éléctricité à l'adresse en 2017



Projecting energy consumption data on the morphological blocks :

- Enables a better understanding of the consumption profiles in a district, at a fine scale
- Needs to mix data sources:
 - Real data for collective housing
 - Theoretical data for individual housing (respect of GDPR)

3 – Lessons learned

- A national obligation of datasharing is necesary to enforce national companies to publish data
- A local cooperation is useful to work on these data and make them usable for local policies implementation
- A strong interest in building a multilateral datasharing governance, at a local level





3 – Lessons learned

RISKS	RECOMMENDATIONS
Risk of dissymmetry between local (small) authorities and national or international companies	 Support of national and European levels for B-to-G datasharing Obligation for datasharing
Risk of multiplying ad hoc negotiations about datasharing	 Taking into account local data governances, "local data-stewards" Negotiating on a national and European scale with companies, including local interests
Risk of getting stuck on experimental frameworks without being able to scale up	 Exchange of best practices between territories Standardisation







Thank you

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