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EXPRESS

Thematic Workshop

Energy policies assessments in Paris (France)

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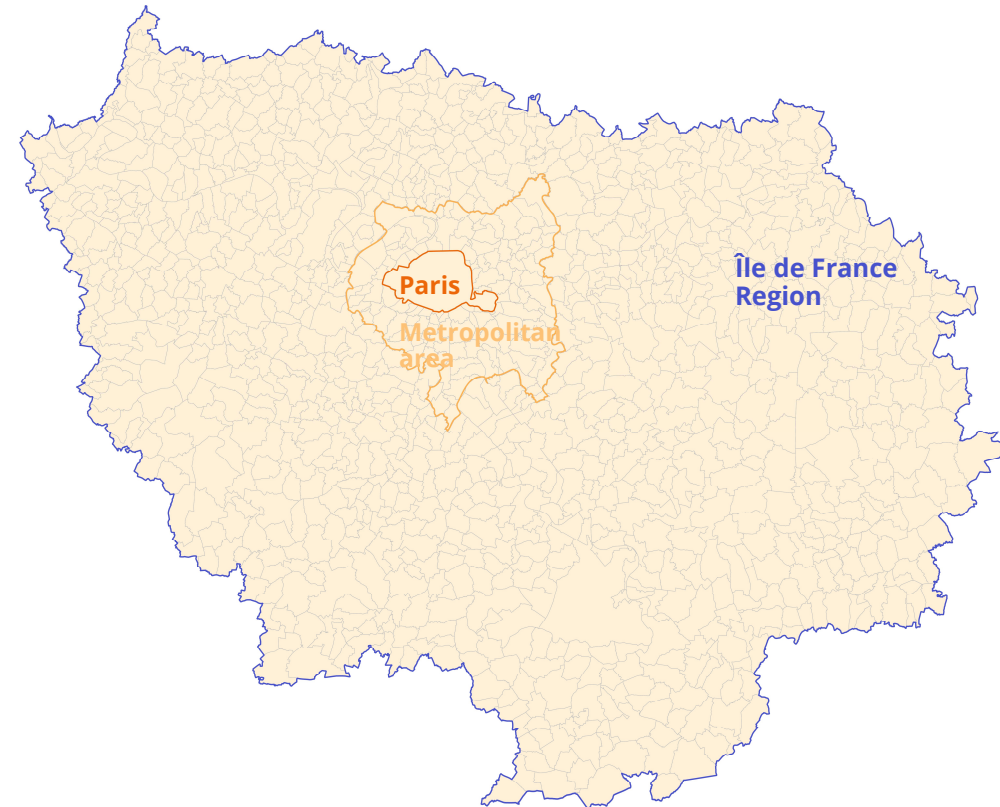
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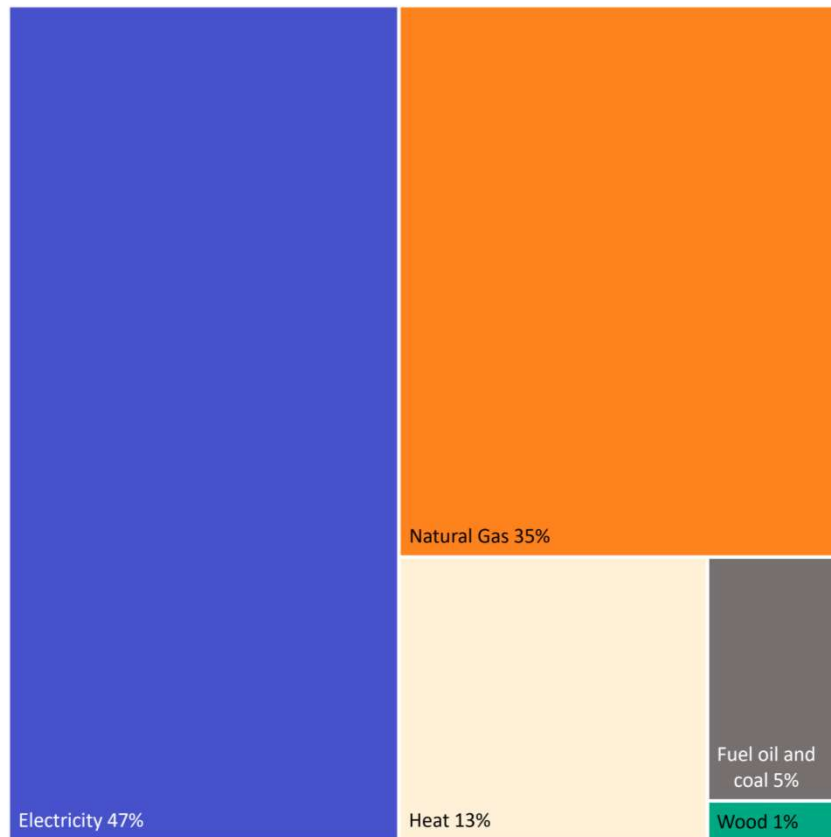
Regional background

- **Île de France**
 - 7M habitants
 - 124TWh buildings energy consumption
- **Métropole du Grand Paris**
 - 4M habitants
 - 43TWh buildings energy consumption
- **Paris**
 - 2M habitants
 - 12,6TWh residential energy consumption



Energy consumption in Paris

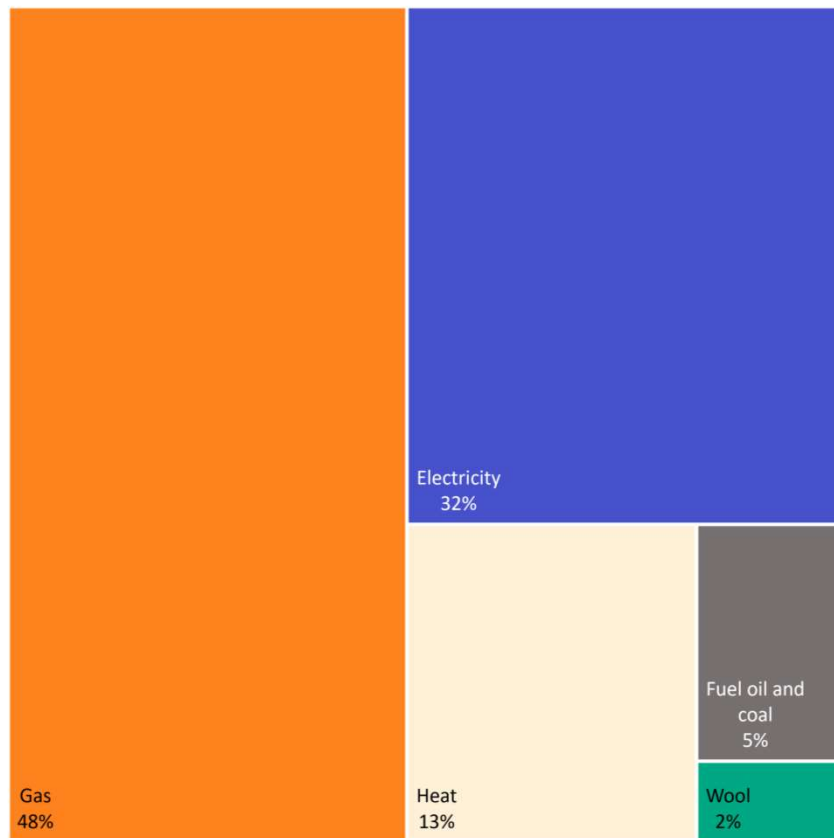
- Final energy consumption in Paris, all sectors, in 2019



- Final energy consumption in Paris : 30TWh (2019)

Energy consumption in Paris

- Final energy consumption in Paris, residential sector, in 2019



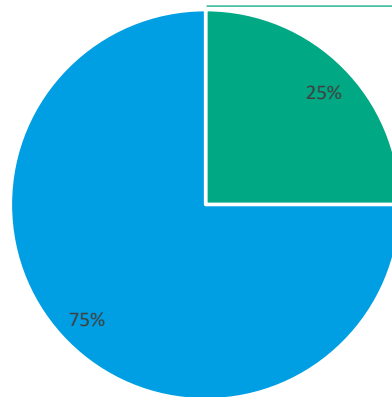
- Residential sector : 40% (12.6 TWh) of final energy consumption in Paris**

Energy consumption in Paris

- **Focus on condominiums**

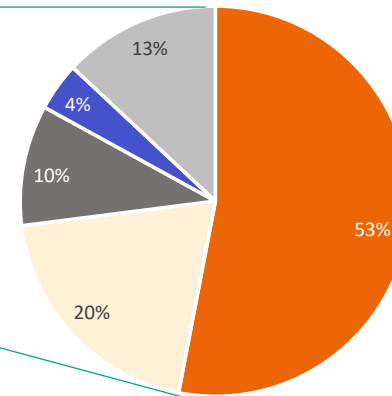
- ~45,000 condominiums in Paris (1.2M accommodations)

Condominium heating systems



■ individual heating ■ collective heating

Energy source for collective heating



■ Gas ■ Heat ■ Fuel Oil ■ Electricity ■ Unknown

(Counting condominiums)

Energy sector policies: Roadmap

	« Regional area » Île-de-France	Metropolitan area	Paris
Orientation	Support densification and creation of heat network in cities	Developing heat network	Densification of Parisian heat network
	Promoting the development of -Geothermal energy -Solar energy -Aerothermal energy -Biomass	Promoting the development of -Geothermal energy -Solar energy -Biogas	Accelerate the phase-out of fossil fuels and aim for 100% renewable energies consumption in 2050
	Achieving "zero net emissions" by 2050		

Energy sector policies: Roadmap

	« Regional area » Île-de-France	Metropolitan area	Paris
Objectives	Renewable energy annual production : between 32Twh to 38TWh in 2040 (6.5TWh in 2022)	Renewable energy annual production : 15TWh in 2030 (5TWh in 2020)	<p>All public facilities to be fossil fuel-free by 2040</p> <p>Develop 6,000 micro-installations for renewable energy production on public buildings</p> <p>Massive increase in solar production on Parisian residential buildings</p> <p>100,000 more accommodations connected to the heating network by 2030</p>

Energy sector policies: Roadmap

	« Regional area » Île-de-France	Metropolitan area	Paris
Policies actions	<p>Support cities and territories to achieve plans</p> <p>Subsidizing some sector as residential sector to develop solar energy and geothermal energy</p>	<p>Coordinate development initiatives :</p> <ul style="list-style-type: none"> -geothermal energy -thermal and photovoltaic solar energy -heating networks <p>Helping to develop energy sectors</p> <p>Support local stakeholders to inform and sensibilizing habitants about renewable energy production</p>	<p>Simplify access to the heating network</p> <p>Implement a public policy to massively increase the installation of solar panels (photovoltaic and thermal)</p> <p>Link these public policies to energy retrofitting policies</p>

Public policies for residential sector

- **Regional grant program «Fond Chaleur »**
 - Geothermal feasibility studies
 - Geothermal heat production infrastructures
 - Biomass central heat production
- The French Agency for Ecological Transition care out this program at regional level



<https://fondschaleur.ademe.fr/>

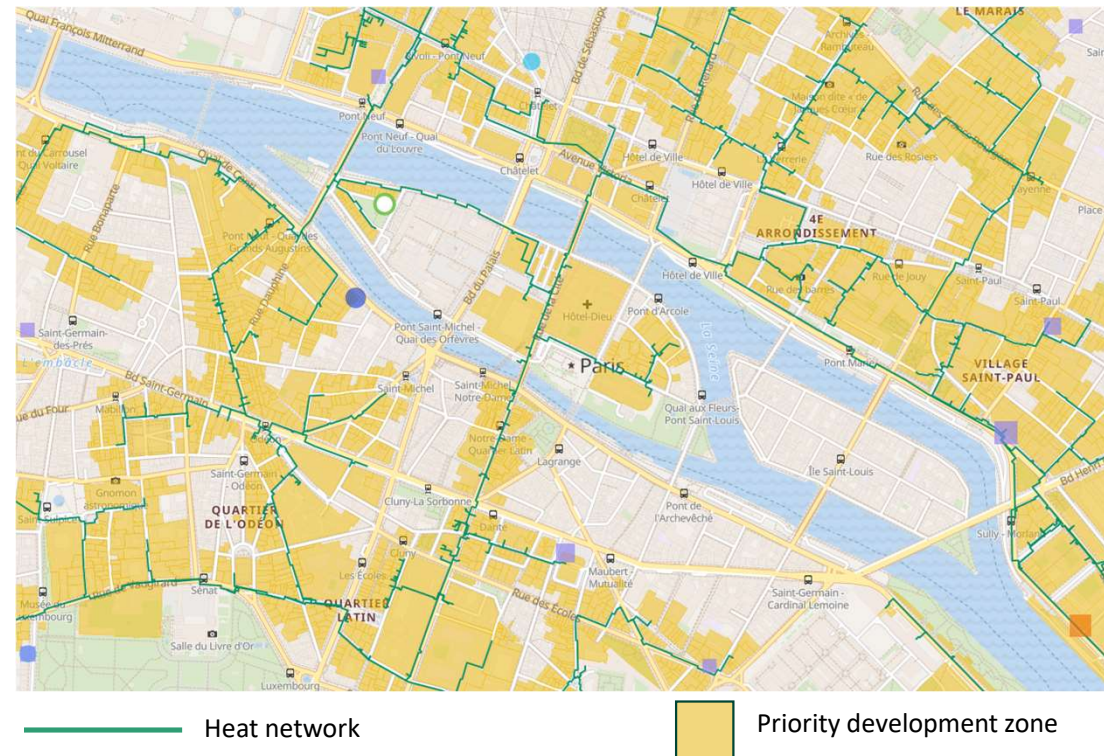
Public policies for residential sector

- **Individual or collective electricity self-consumption**
 - A condominium can engage in collective self-consumption in addition to the total resale of electricity
 - resale at €0.1208/kWh
 - average electricity cost €0.22/kWh
 - Several shapes are possible for condominiums
 - Paris Climate Agency is following an example of several condominiums engaged in a collective self-consumption project

Public policies for residential sector

- **Prioritization of heating network**

- Creation of a priority development zone in 2022
- A new connection tariff is created: more affordable and accessible



Public policies for residential sector

- **National grant program for heat production equipment**
 - « Ma Prime Rénov » national grant program for condominiums
 - Heat pump
 - New heat system production
 - Connection to a heat network (indirect subsidy after achieving 35% energy savings)



Public policies for residential sector

- **Subsidy programme for the installation of solar panels in condominiums in Paris**
 - Creating a new aid programme for condominiums in Paris
 - Subsidies for feasibility studies
 - Subsidies for solar panel installations
 - Programme currently being defined with the City of Paris



Public policies for residential sector

- **Local program :**

- subsidy to carry out a global technical diagnosis
- grant for a design and project management study (energy retrofitting project in condominiums)


- Studies which can develop the opportunity and design of
 - Renewable heat production
 - Renewable electricity production



SWOT

Strength	Weakness
<ul style="list-style-type: none"> • Ambitious public policies, and support from local authorities • A strong Parisian one-stop-shop for condominium retrofitting • Massive heat network already deployed in Paris • Access to data 	<ul style="list-style-type: none"> • Patrimonial aspects and high density of Paris • Technologies : available but not democratized • Knowledge of the public • Majority of condominium in Paris • Multiplicity of public actors and policy scales : Paris, metropolitan area, regional area • Biomass supply inside Paris
Opportunity	Threats
<ul style="list-style-type: none"> • Inhabitants aware of environmental issues • Energy prices increasing • High geothermal potential in the regional area • A increasing number of public grants and support • EXPRESS : to define an extension of the retrofitting one-stop-shop 	<ul style="list-style-type: none"> • Financial grants unstable • Stops from state architects considering patrimonial aspects (mainly on roofs) • Capacity of the market to follow the demand • Capacity of the demand to find a suitable company to implement the systems • To cut the will of condominium to retrofit

Orientations and developments

- **Develop new policies to accelerate solar panels installation**
 - **Adopt a new one stop shop dedicated to renewable energy production**
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**Time for
questions**



Thank you!

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