

WEBINAR

Developing district heating in France

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Presentation of FEDENE-SNCU

SNCU

👉 The French syndicate for public and private district heating and cooling operators :

👉 Gathers 80+ members.

👉 Represents >90% of French DHC deliveries.

👉 Is a member of FEDENE.

FEDENE

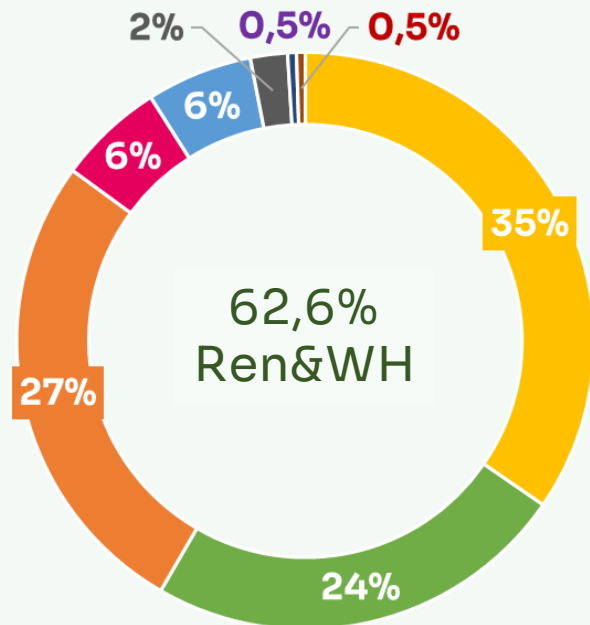
👉 The French professional association representing 500 energy and environmental service companies.

DHC in France: A strong decarbonisation pathway



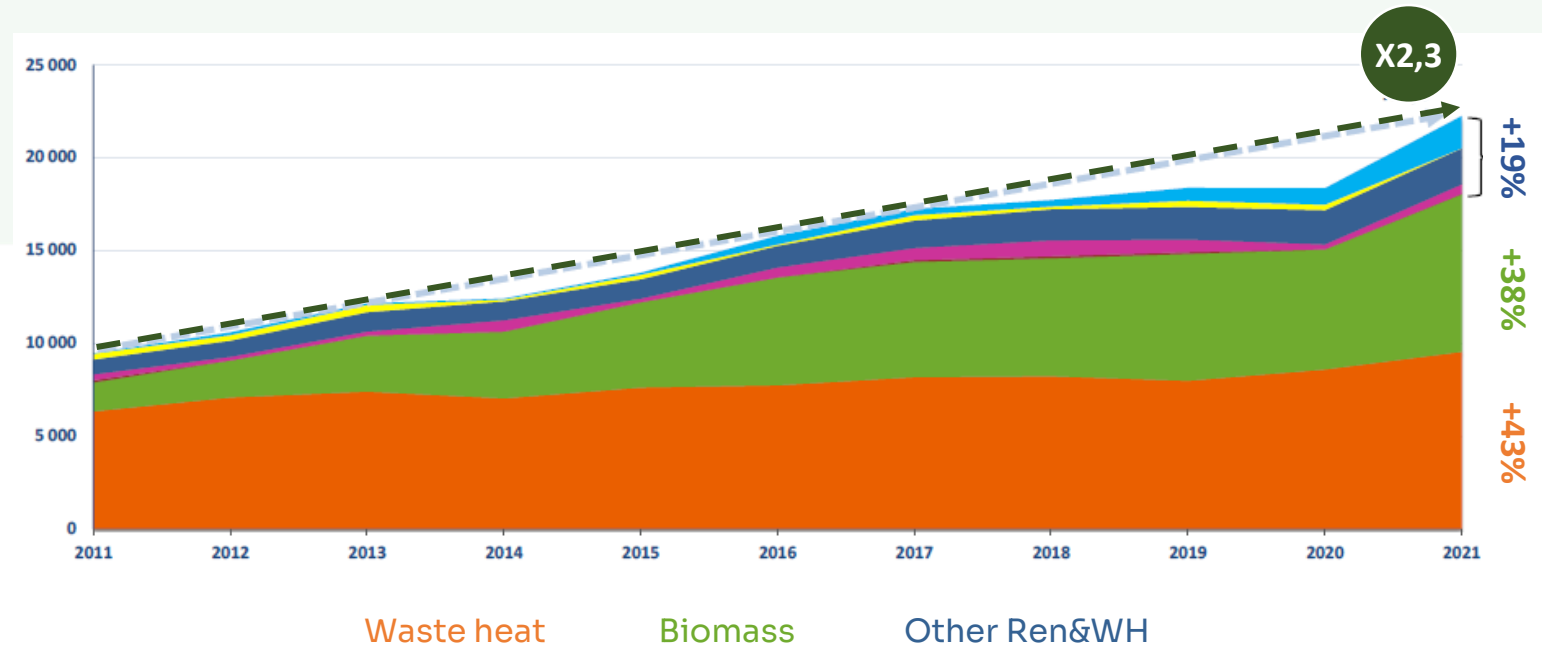
👍 With more than 60% of renewable energy & waste heat (Ren&WH), French DHC have reduced by half their CO₂ content over the past decade.

2021 Energy Mix



- Waste heat
- Biomass
- Geothermal energy
- Others REN
- Naturel gas
- Oil
- Coal
- Other fossil fuels

Evolution of French DHC's Ren&WH production

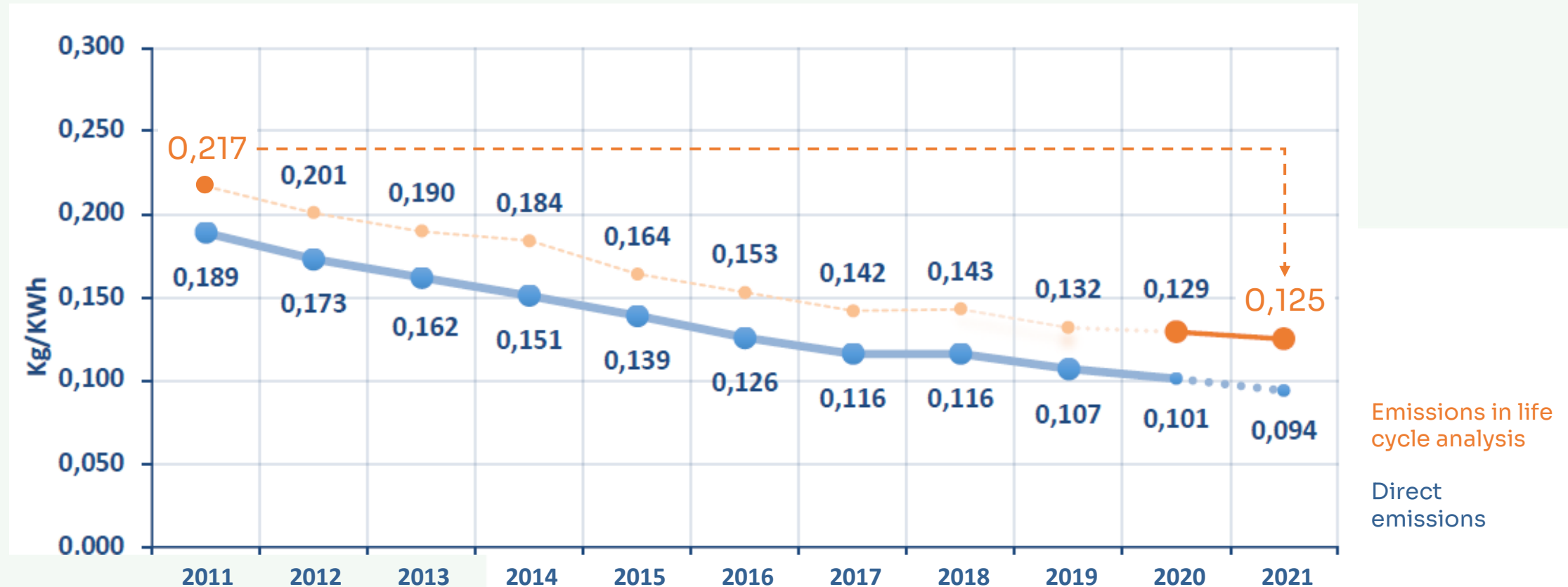


DHC in France: A strong decarbonisation pathway



👍 With more than 60% of renewable energy & waste heat (Ren&WH), French DHC have **reduced by half their CO₂ content over the past decade.**

Evolution of the French DHC average CO₂ content (kg/kWh)

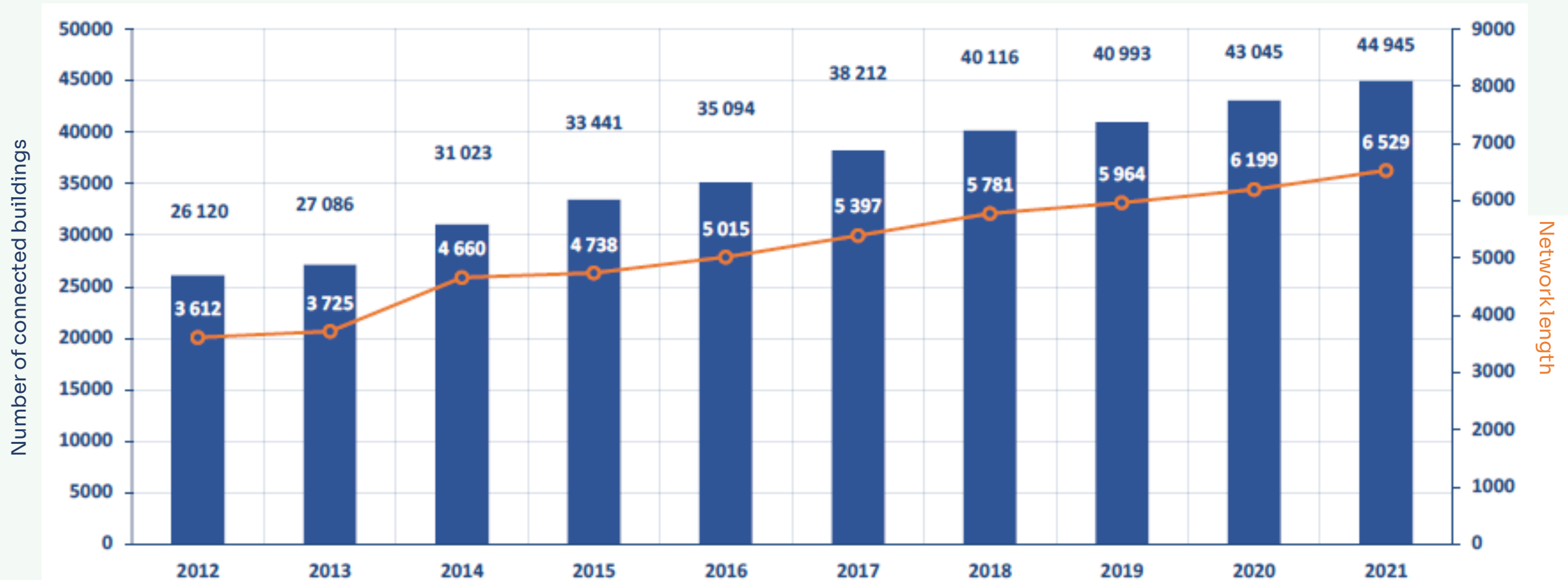


A steady growth but still far from their objectives and potential



Whilst the number of connected buildings has increased by more than 70% between 2012 and 2021...

Evolution of the number of connected buildings

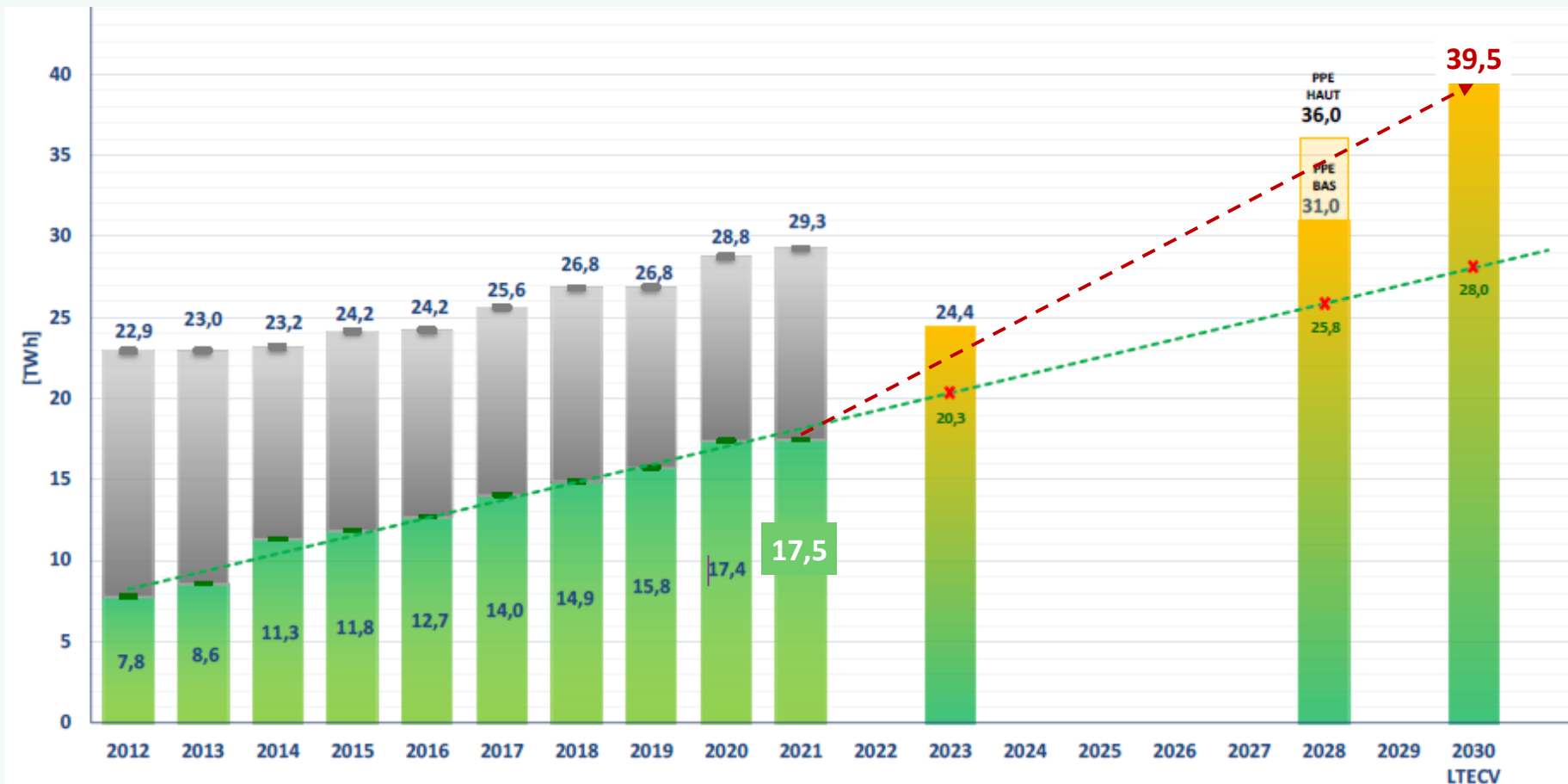


A steady growth but still far from their objectives and potential



...achieving the objectives of the NECP and of the French Energy and 2015 Energy Transition and Green Growth Law will require a step change.

Evolution of the heat deliveries from DH systems (corrected from the climatic rigor)

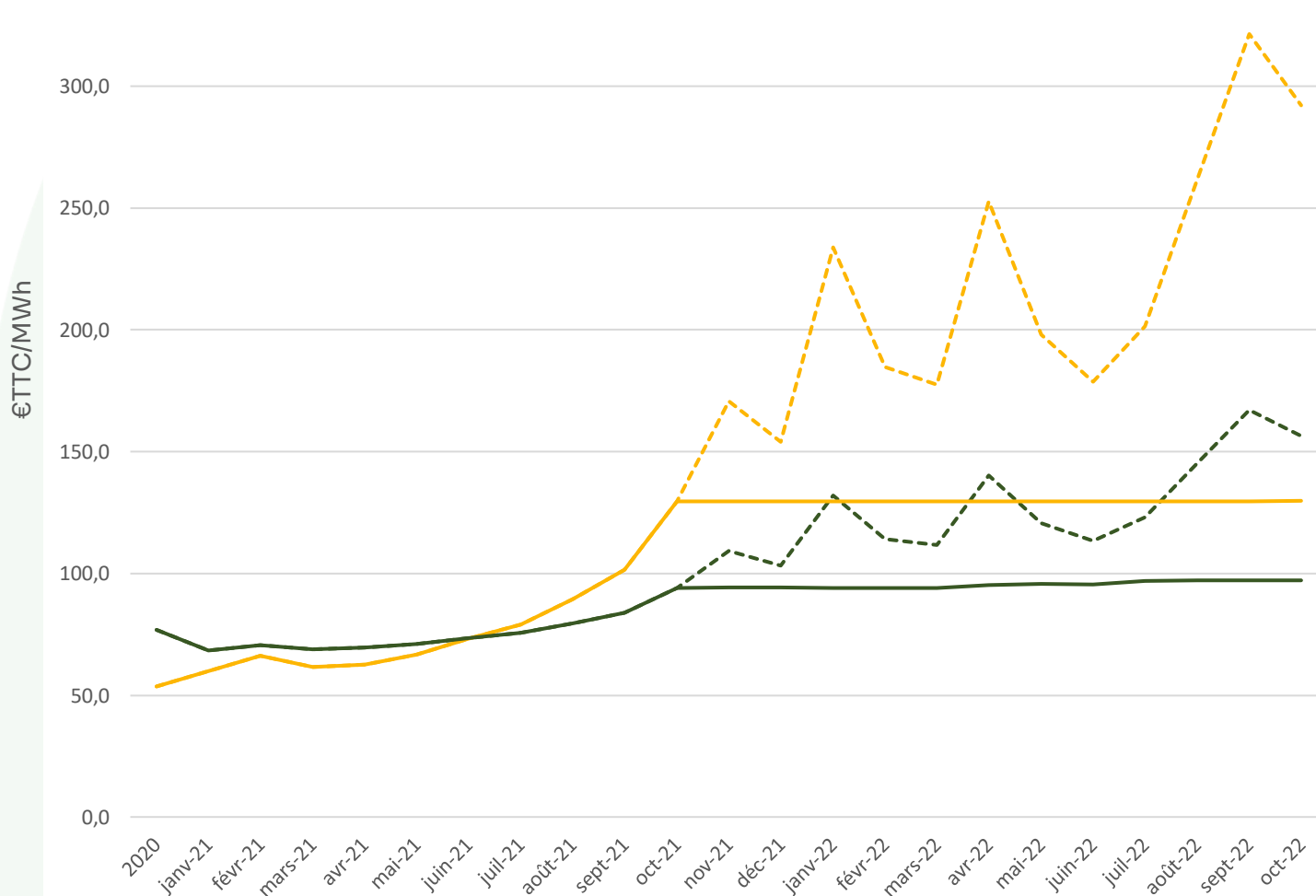


Ren&Wh deliveries
Non-Ren&Wh deliveries

Change is happening: the energy crisis demonstrates the benefits of renewable and waste heat based DHC.

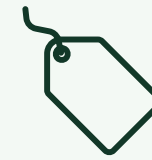


The evolution of heating prices for a standard flat *



Collective natural gas boiler
District heating (60% biomass, 40% natural gas)

— State aid applied *
- - - State aid non-applied



Prices and supply of local Ren&WH sources are proving to be more stable than those of fossil fuels and electricity.



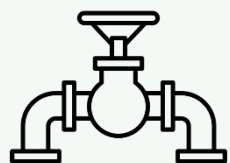
According to DH operators, connection requests massively increased in 2022.



Promising debuts for ADEME's "One City, One DH network" call for projects: 190 cities applied!

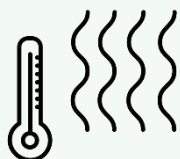
* Source: estimations based on AMORCE's 2021 survey - 70m2 RT2012

The potential for achieving the current objectives has been identified and will require an estimated € 25 billion of investment by 2030

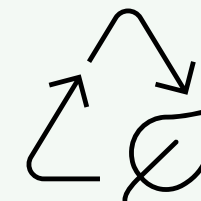
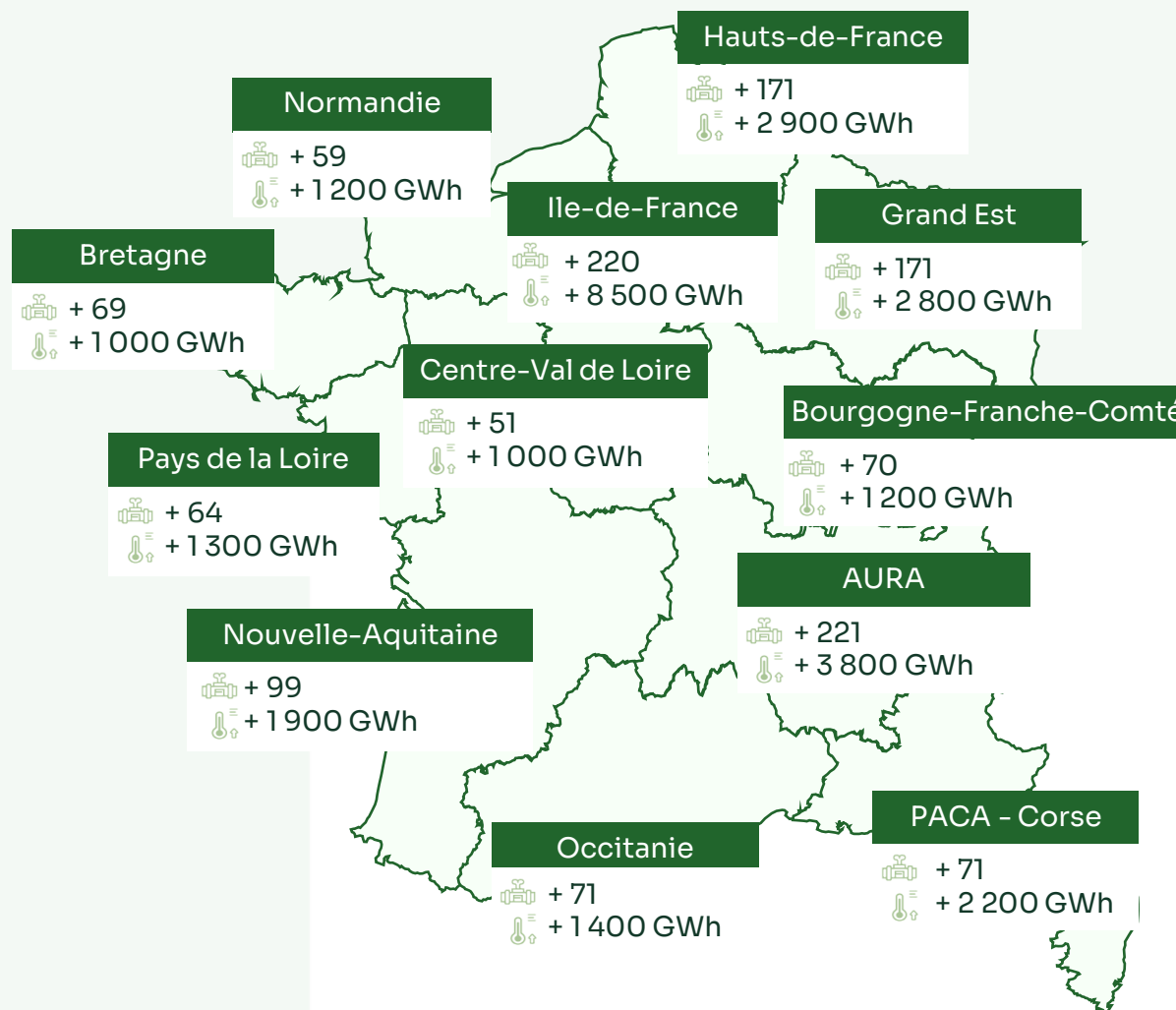


1 600 DH projects

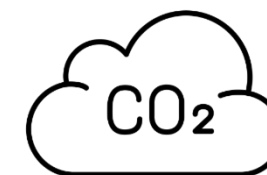
261 developments + 1 337 creations



54,2 TWh delivered



73% Ren&WH



79 g CO₂/ kWh
In life cycle analysis



Number of DH networks to be created



Quantity of additional heating deliveries






via sèva






Which supporting instruments?

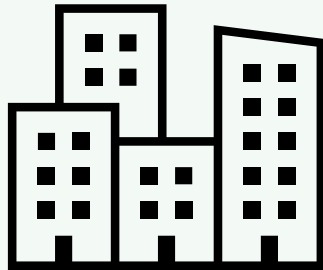


Financial support

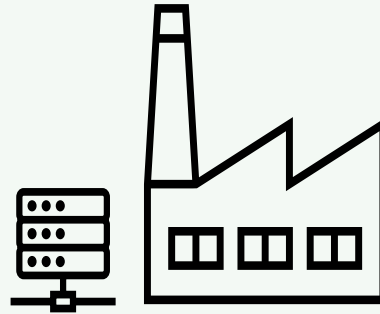
Feasibility studies	Construction works	Connections	Heat price
<p><i>“One city, one DH network ”</i></p> <ul style="list-style-type: none"> ✓ Call for proposals that finances up to 90% of the feasibility studies' cost ✓ 10k-50k inhab. cities are eligible <p> 190 cities applied in 2022</p> <p> 2nd edition in 2023</p>	<p><i>Heat Fund</i> (Fonds Chaleur)</p> <p> € 520 million</p> <ul style="list-style-type: none"> ✓ Supports DHC creation, extension and greening. ✓ In conjunction with energy efficiency certificates. 	<p><i>Energy efficiency certificate bonus</i></p> <ul style="list-style-type: none"> ✓ Reduces connection cost for smaller buildings. ✓ Benefits to residential and tertiary buildings <p> Duration should be extended if successful</p>	<p>Reduced VAT rate (5,5%)</p> <p> Applied to DHN > 50% Ren&WH</p>

 Regulatory support	
 National	 European
<ul style="list-style-type: none"> ➤ Mandatory connection regulation ➤ Local energy planning 	<ul style="list-style-type: none"> ➤ State aid framework ➤ Renewable energy Directive

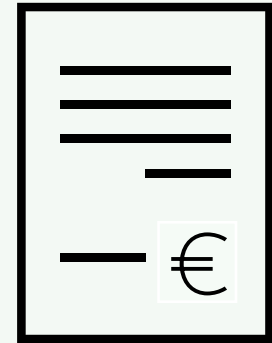
3 **urgent** measures to maintain today's virtuous dynamic



Incentives for installing secondary heating water loops in buildings with individual heating systems



Implement a derisking mechanism for waste heat recovery projects (industrial, waste to energy, data centres,...).



Double the Heat Fund
1 billion/year needed

 Thank you