

An aerial photograph of Paris, France, featuring the Eiffel Tower in the center. The city is bathed in the warm, golden light of a low sun, creating a lens flare effect in the upper left quadrant. The background shows a dense urban landscape with various buildings and green spaces.

EUR150
trillion

**Buildings are the
world's most valuable
asset class**

To succeed on climate we must succeed on buildings

44%

of the energy consumed in
France come from the
building sector

French Ministry, Ministère De
La Transition Écologique, 2017

~1/4

of national emissions comes
from buildings

French Ministry, Ministère De
La Transition Écologique, 2017



Renovation is essential to deliver the French 2050 climate neutrality goal

94%

reduction in GHG emissions compared to 2015

Source: BPIE Report: The Road to Climate-Neutrality, March 2021

41%

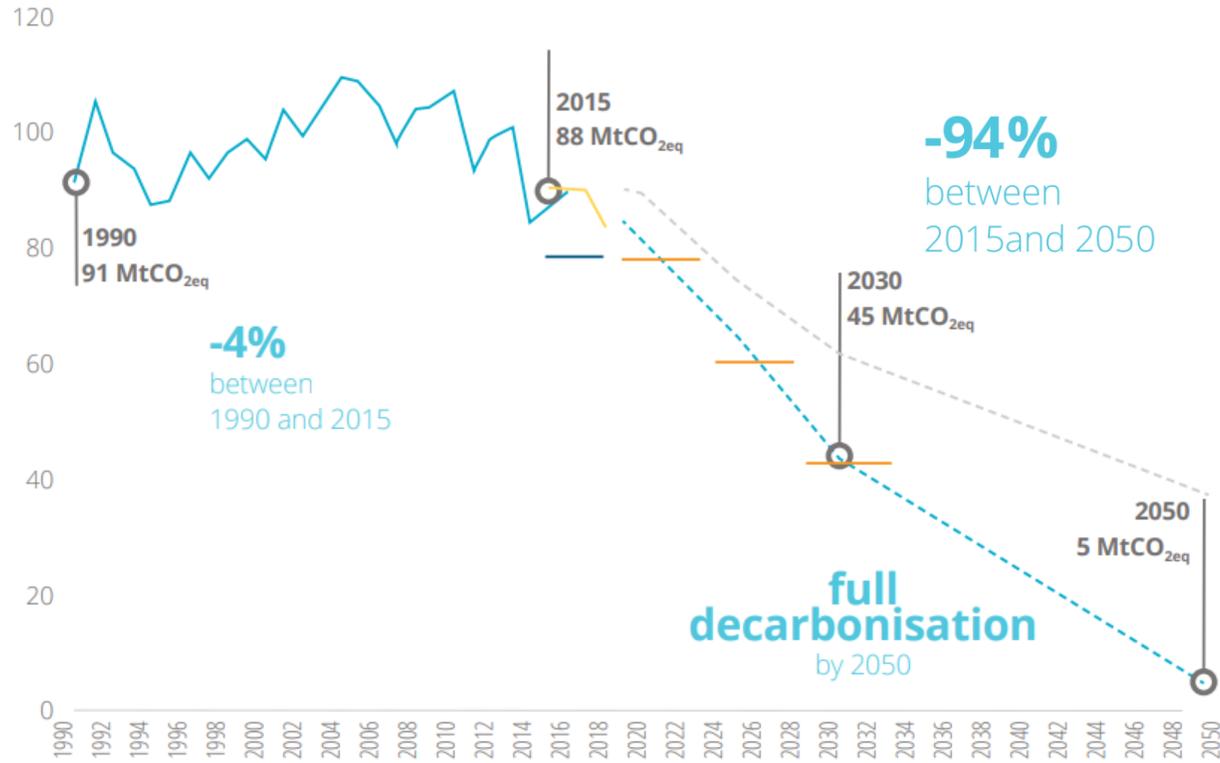
reduction in energy consumption compared to 2015

Source: BPIE Report: The Road to Climate-Neutrality, March 2021



Roadmap of France

Figure 7: History and projection of emissions from the French building stock between 1990 and 2050, in MtCO₂eq. (Source: French LTRS).²⁸



- Historical emissions (2018)
- Historical emissions (2019)
- - - Trend scenario with present measures
- - - Revised SNBC scenario (carbon-neutrality)
- 1st indicative sectoral carbon budget, adopted in 2015
- Next 3 sectional carbon budgets, revised SNBC

Action 1 Prioritise

Make the energy renovation of buildings a national priority

Action 2 Scale

Scale up housing renovation and fight energy poverty

Action 3 Accelerate

Accelerate the renovation and energy savings of tertiary buildings

Action 4 Strengthen

Strengthen skills and innovation

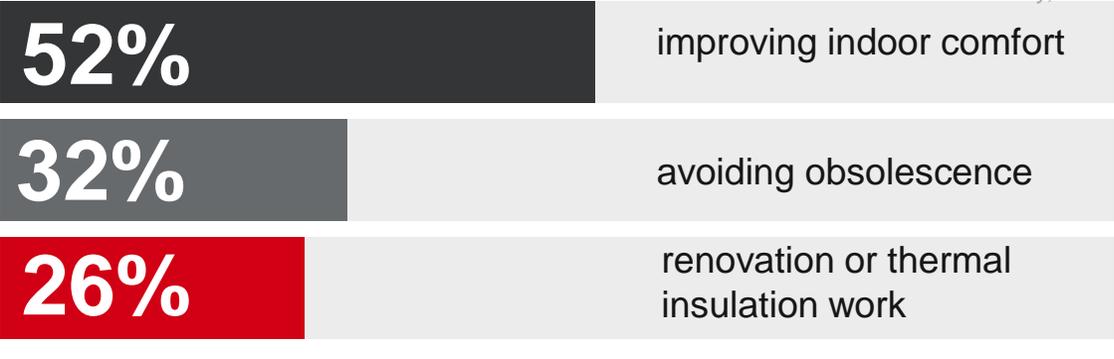


65%
Are unfamiliar with available support for energy renovation

Renovation gap

Challenge: What motivates the French the most when renovating their homes?

Source: Cofidis / Institut CSA survey, 2020



Work in progress: Government policy is to boost interest in deep renovation through effective incentive schemes. Focus is shifting from smaller superficial retrofits to in-depth renovations, and more controls are being put in place to check installation and product quality. There are plans for a nationwide network of one-stop-shops to match up projects, finance and qualified workers.



It's
time

Support

the general public on renovation programmes to achieve better indoor air quality, fire safety, energy savings, acoustics, durability and property value

Connect

homeowners with a high quality installer network – and provide installers with accredited trainings to ensure high quality renovations

Push

for effective regulatory structures at national and EU levels to prioritize the building sector - representing **36% of greenhouse gas emissions** in the EU

Source: BPIE Report: The Road to Climate-Neutrality, March 2021

**Thank
you**

Five ways ROCKWOOL takes climate action

1.

Insulation
to combat
climate change



Buildings currently account for
30%
of the world's energy demands

Source: IEA World Energy Outlook 2017

2.

Improves urban
safety and
comfort



More than
50%
of today's buildings will still be in use in 2050

IEA (2013) Transition to Sustainable Buildings - strategies and opportunities to 2050

3.

Creates a more
sustainable
future



The building sector produces
1/3
of all waste

Source: European Commission (DG ENV) (2011)

4.

Improves
health and
quality of life



One dollar spent on renovation can cut healthcare costs by
42
CENTS

Source: European Commission, 2016 & Vermont Weatherization Program, 2007

5.

Minimising
impact from
operations



CO₂ emissions saved during product lifetime of building insulation is
x100
times the emissions in production

Source: Sustainability Report 2019

LOGSTOR - the highest level of environmental care.

District Heating as the major playground for energy efficiency improvement.
Input to the Polish National Recovery Plan.

Andrzej Rokosz
Vice President, Sales Central Europe & Export



RECYCLE
LOGSTOR

LOGSTOR

Poland's District Heating (as of 2019)



Key data

- 396 District Heating companies
- 21.701 km of network
- 68 million ton of CO₂ emission per anno (*21% of Poland's total*)
- 12,5% of heat losses in the network (*33.548 TJ or 8,5 Mt of CO₂ per anno*)

Poland's target is to reduce CO₂ emission by 120 Mt per anno until 2030 (450 Mt in 1988 => 320 Mt in 2019 => 200 Mt in 2030).

How can District Heating contribute to achieving this ambitions target?

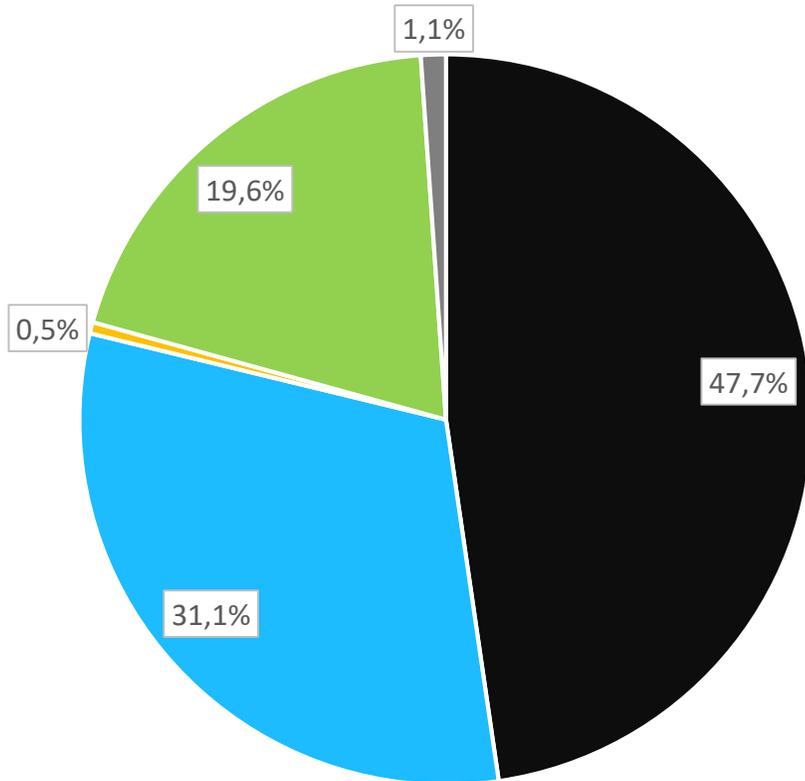
Financial impact of CO₂ European Emmission Allowances price increase (€/t)



- District Heating companies – huge extra cost undermining current budgets
- Consumers – eventually this huge extra cost is to arrive in their bills (once approved by regulatory body)
- Price forecast – EU Allowances are expected to average 39.24 €/t in 2021 and 46.24 €/t in 2022, according to a Reuters survey of eight analysts.

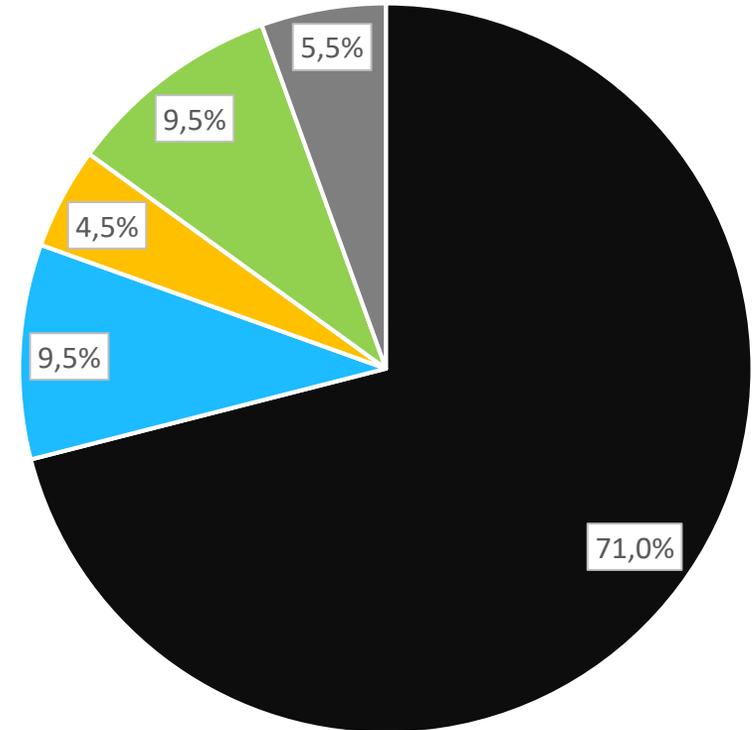
Coal is king, still

76% of Poland's Heat Consumption
Individual Heating by Fuel



■ Coal ■ Gas ■ Oil ■ Renewables ■ Other

24% of Poland's Heat Consumption
District Heating by Fuel

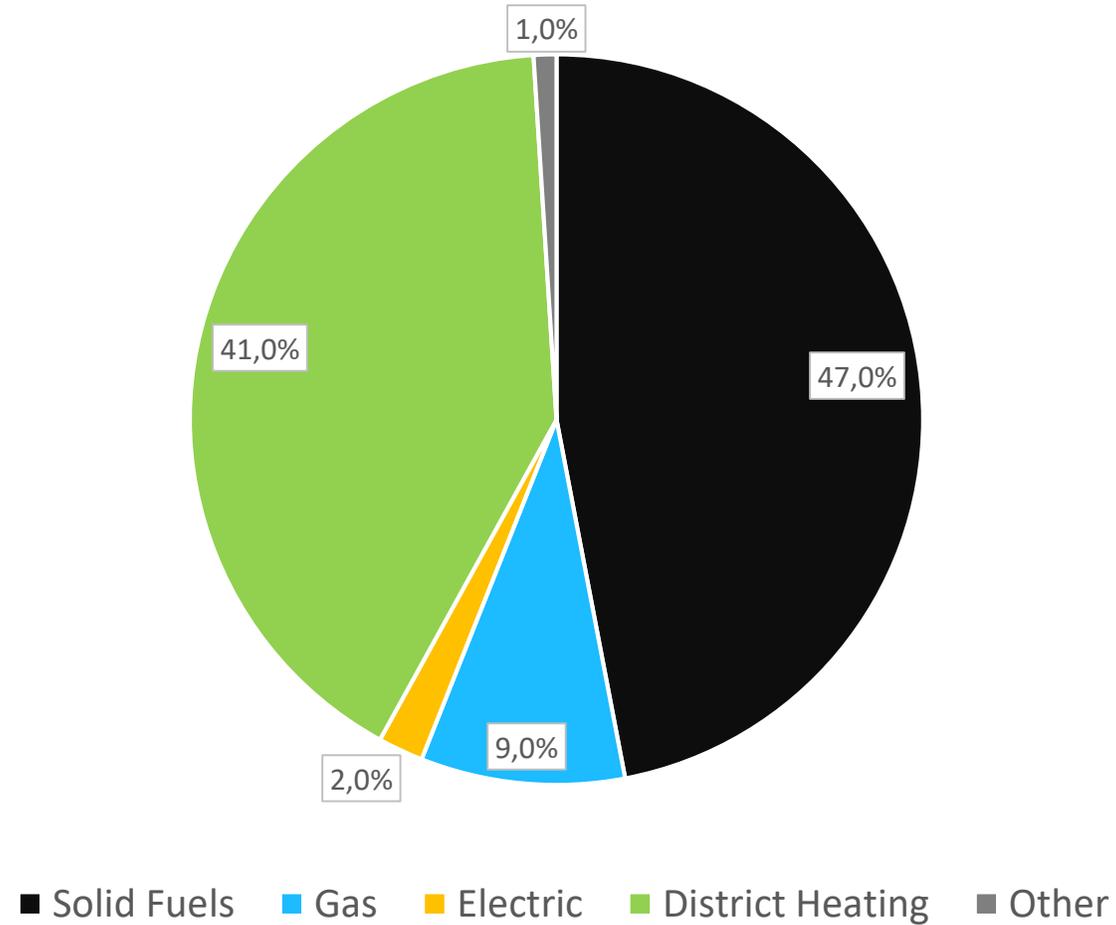


■ Coal ■ Gas ■ Oil ■ Renewables ■ Other

District Heating – replace coal by other fuels (CO₂ emission reduction)
Individual Heating – eliminate coal by connecting to District Heating (CO₂ and Low-stack emission reduction)

Households

Poland's Households Heating by Source



Eliminate solid fuels by connecting households to District Heating (CO₂ and Low-stack emission reduction)

CO₂ reduction

District Heating is the optimum solution, especially when multiple heat sources are used, including all kinds of renewable energy sources, such as:

- Geothermal and thermal sun
- Electricity from sun and wind to run large heat pumps, especially in periods with surplus electricity supply
- Surplus heat from industry and datacenters
- Waste heat – after sorting

District Heating brings large added value:

- Advanced transmission and distribution lines can cut the heat loss by half compared to existing network
- Increased digitalization can reduce the loss further
- Less heat loss means less air pollution (less production)
- Reduced consumer prices



Job creation

District Heating sector in Poland employs 29.000 people today (not including external designers, contractors, service, etc.) Increased renovation and expansion can double this number by creating jobs for highly qualified staff.

- New job in the whole value chain
- Education is essential
- Skilled labor force including re-certification and continuing education



Conclusion

Renovation of transmission and distribution lines with preinsulated pipes.

Reduce the heat loss by 50%
(4-5 Mt of CO₂ per anno).

Reduce air pollution since less production will be needed – change from fossil based fuels to renewable energy sources.

LOGSTOR is happy to assist
by helping to optimize
system design and
delivering top quality
products

Expansion of District Heating Network in order to connect additional users, both households and commercial buildings.

Reduce CO₂ and Low-stack emission
(12-15 Mt of CO₂ per anno).

In the implementation of the recovery plan, the eligibility of financial support should be guided by Total Cost of Ownership.

Thank you!

Contact details:
www.logstor.com

