

ORES





# Energy transition: DSO challenges

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ORES case study, Belgium, Wallonia

# About ORES

ORES manages and operates the electricity and gas distribution networks, as well as the public lighting infrastructures for more than  $\frac{3}{4}$  of local authority areas in Wallonia.



## Electricity

**52.000** km of network  
**1.400.000** customers



## Gaz

**10.000** km of network  
**500.000** customers



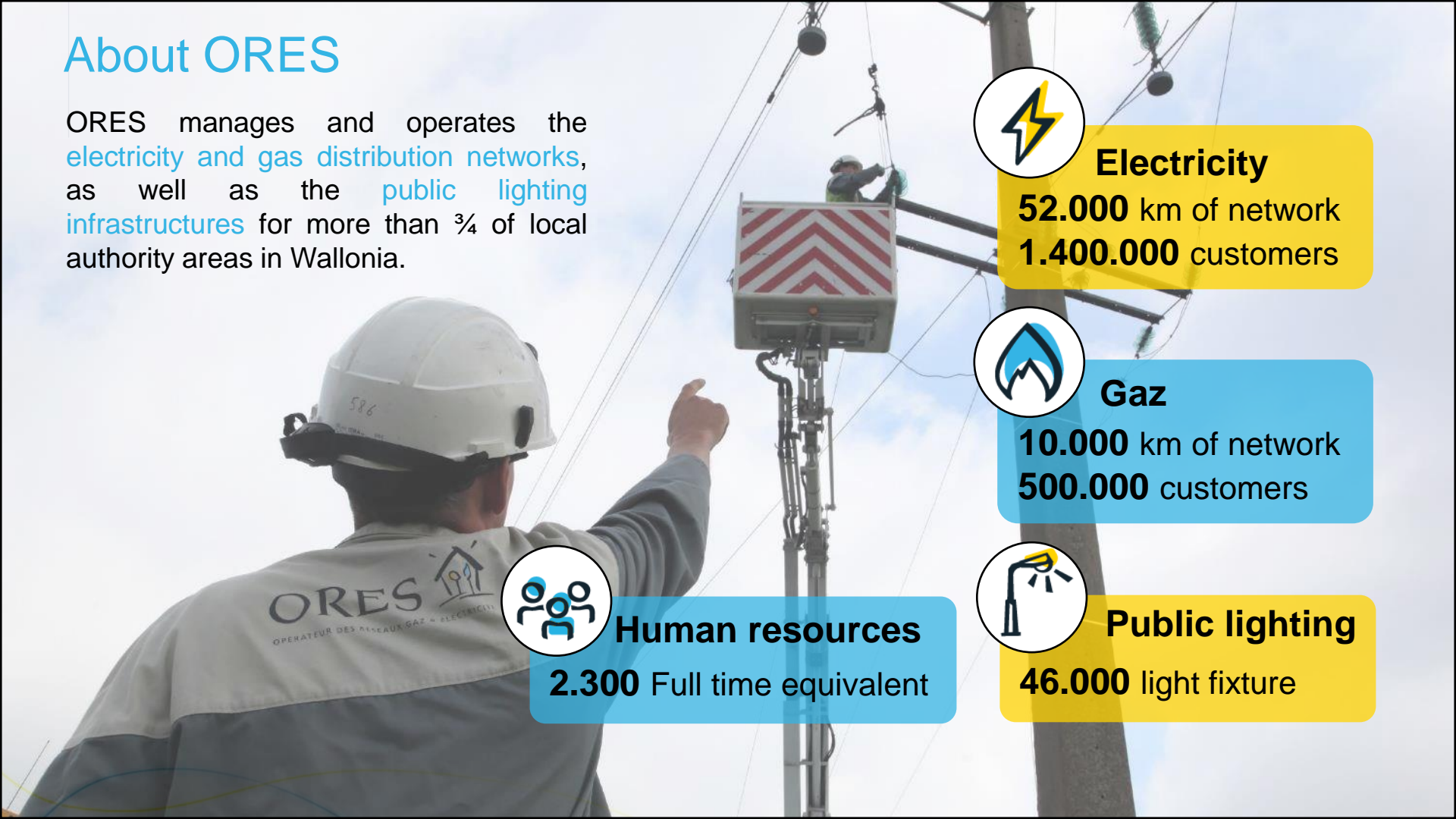
## Public lighting

**46.000** light fixture



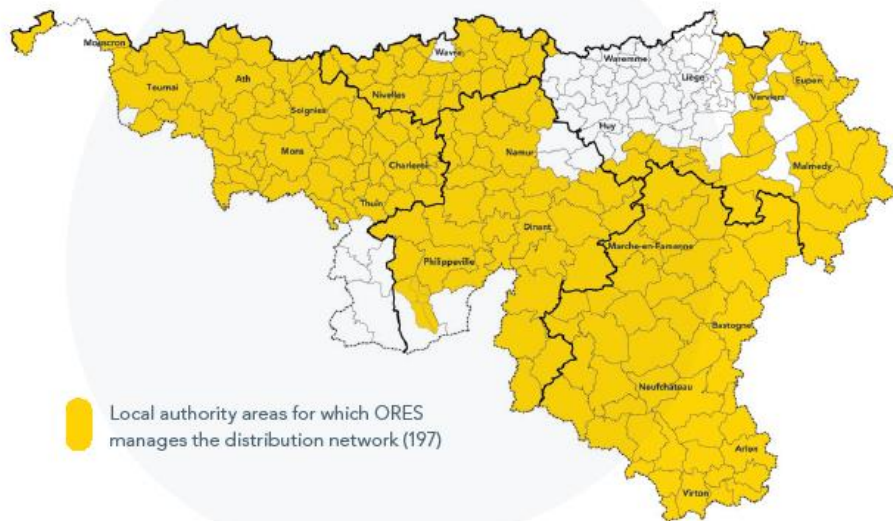
## Human resources

**2.300** Full time equivalent

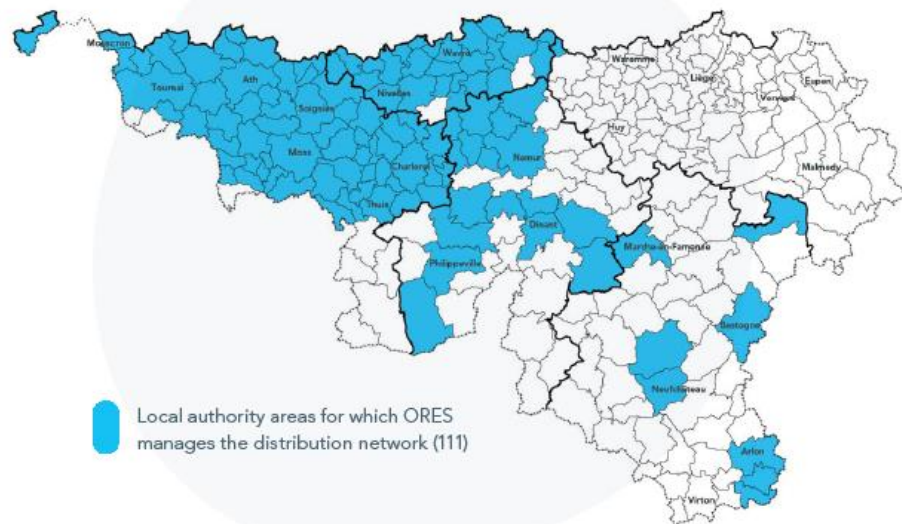


# Areas of activity

Areas of activity in 2021  
ELECTRICITY



Areas of activity in 2021  
GAS



# The energy transition: European, Belgian and Walloon objectives

*"The Region aims to be carbon neutral by 2050 at the latest (including 95% reduction in greenhouse gas (GHG) emissions compared to 1990), based on a gradual trajectory of GHG emission reductions with an intermediate step of reducing GHG emissions by 55% compared to 1990 by 2030."*

## Renewable targets for 2030



"Fit for 55" : 40%

"REPowerEU" : 45%



PNEC 2019 : 17.4%

Attente EU "Fit For 55" : 32%



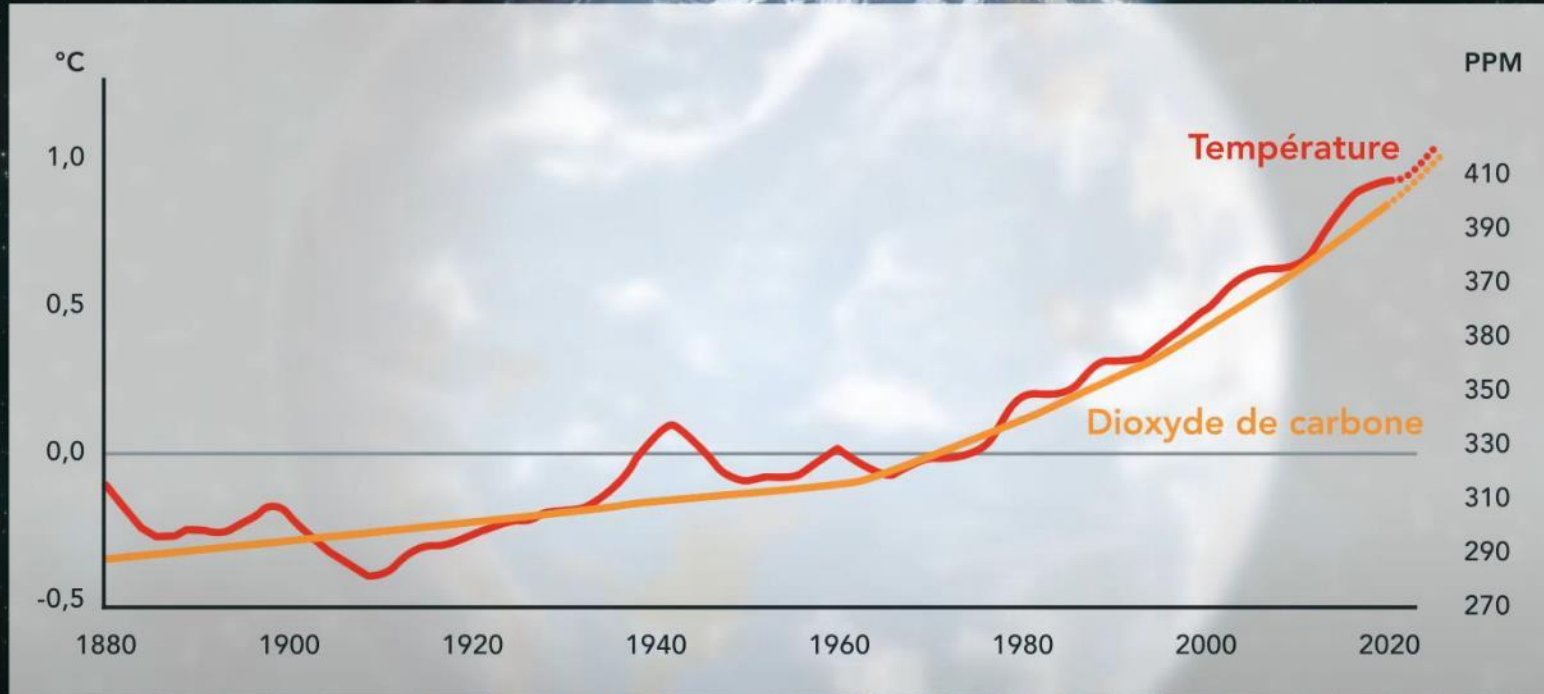
PWEC 2019 : 23.5%

PACE 2030 : 28-29%





# The earth's temperature increases



# Decarbonation



**Less CO2**

**=**

**Less energy consumption**

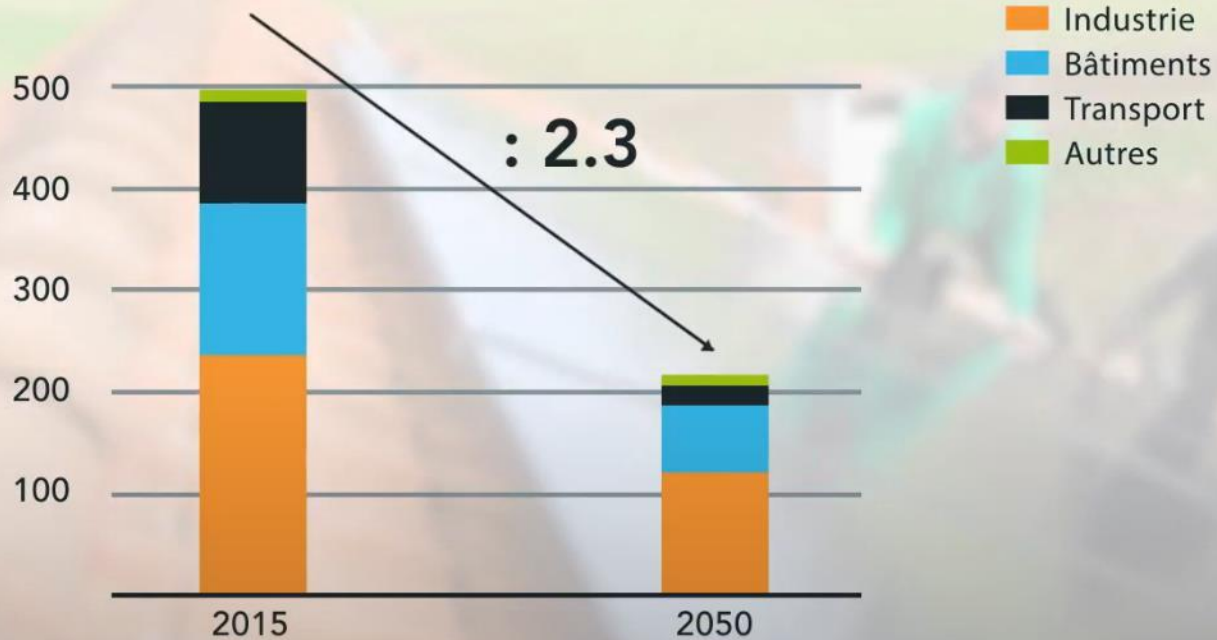
**=**

**More electricity needs**



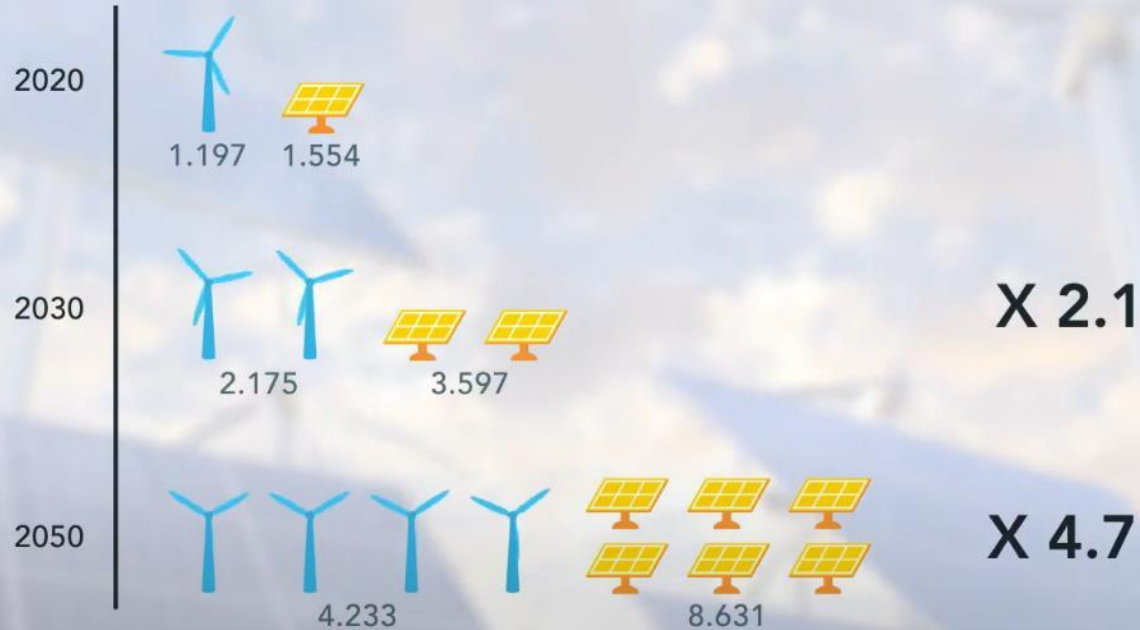
# Energy consumption must decrease

## Consommation d'énergie en TWh





# Produce differently

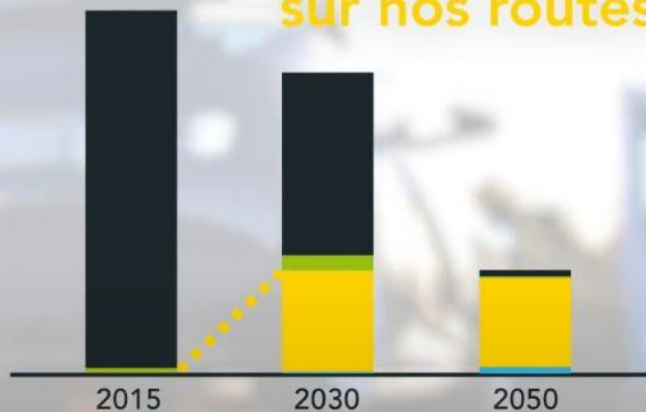


From centralized (TSO) to decentralized (DSO)

# Move differently

## Composition du parc de voitures en Wallonie

+ 500.000  
véhicules électriques  
sur nos routes en 2030



Combustion

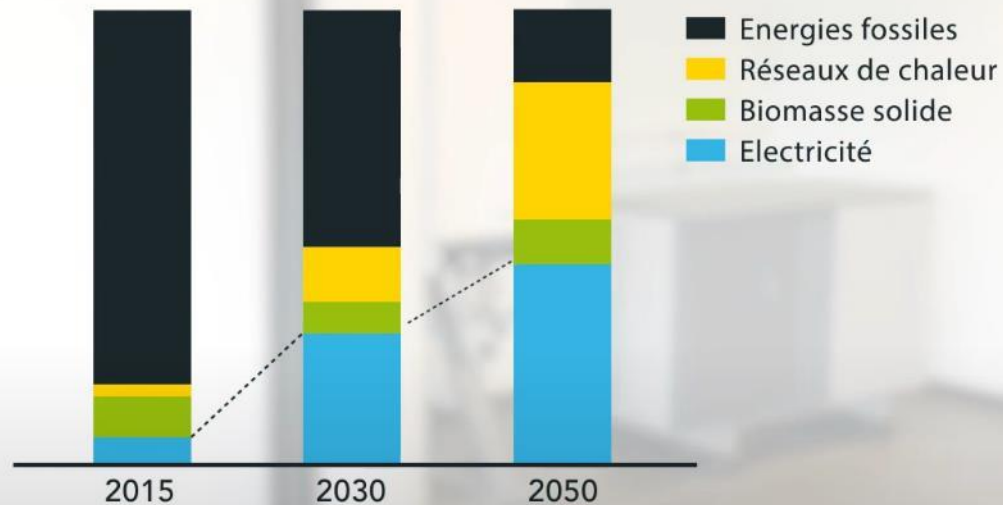
Plug-in Hybride

Electrique

Hydrogène

DSO becomes charging station solutions

# Heat differently

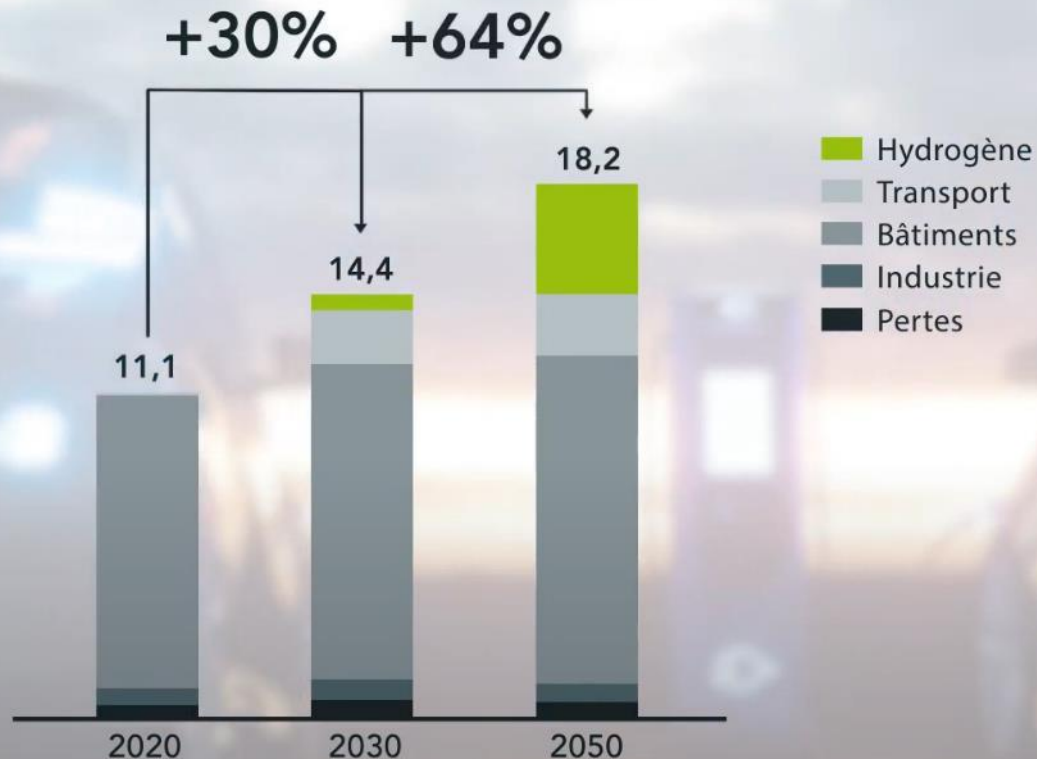


Isolation and electrification (DSO)



# Impact on the DSO

Consommation d'électricité sur le réseau d'ORES en TWh





## DSO challenges (1/2)



Investments in the grid to face : (from 3 to 4 Billiards in the next 15th years)

- Increase of decentralized production units
- Increase of electric usages (EV, heatings,...)
- Network obsolescence
- Resilience to climate change

Sense of urgency in a context of scarcity of resources, manpower and public money.

## DSO challenges (2/2)

A group of children are participating in a climate protest. In the foreground, a girl in a pink shirt holds a sign that says "COOL PEOPLE" with a green circle around the word "COOL". To her right, a boy holds a sign with a large green "B". In the background, other children hold signs with text like "THERE IS", "PEOP", "CHANGE", "im", and "NO". One child on the left is making a peace sign.

How to insure inclusion and accessibility for everyone of this energy transition?

How to induce changes in the individual and collectives' behaviors? What are the levers for more sobriety and a more intelligent consumption?



Faciliter l'énergie, faciliter la vie