

# WORKSHOP #1: LOCAL COMMUNITIES AND ACTIVE CITIZENS PUSHING FORWARD ENERGY INNOVATION

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30 June 2022

# ENERGY TRANSITION DIALOGUE IN LUXEMBOURG 2022

## Afternoon sessions

14.00 - **Topic #1: “Integration of local actors and resources in distributed energy systems”**

Workshop #1	Workshop #2
<p><b>“Local communities and active citizens pushing forward energy innovation”</b></p> <ul style="list-style-type: none"><li>• <i>André Madureira, LIST</i></li><li>• Claude Hornick, ILR</li><li>• Ramses Villa, InnoEnergy</li><li>• Paul Kauten, Energiepark</li></ul>	<p><b>“Security and resilience in distributed energy systems”</b></p> <ul style="list-style-type: none"><li>• <i>Florin Capitanescu, LIST</i></li><li>• Sylvain Kubler, SnT</li><li>• Alex Michels, CREOS</li><li>• Martin Finkelmann, Amprion</li></ul>

15.15 - Coffee Break

15.45 - **Topic #2: “Artificial Intelligence and digitalisation solutions for accelerating the energy transition”**

Workshop #3	Workshop #4
<p><b>“Digital management of smart energy grids and cities”</b></p> <ul style="list-style-type: none"><li>• <i>Pedro Rodriguez, LIST</i></li><li>• George Boultaidakis, European Dynamics</li><li>• Christoph Emde, Nexxlab</li><li>• Antonello Monti, RWTH</li></ul>	<p><b>“Energy digital twins: Driving innovation in the energy sector”</b></p> <ul style="list-style-type: none"><li>• <i>Jun Cao, LIST</i></li><li>• Koen Triangle, IMEC</li><li>• Eric Dubois, LIST</li><li>• Gauthier Crommelinck, MeCo</li></ul>

16.45 - **Closing session:** Prof. Dr Lucien Hoffmann, Director of ERIN, LIST

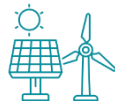
# THE VIEW FROM EUROPE

## Clean energy for all Europeans

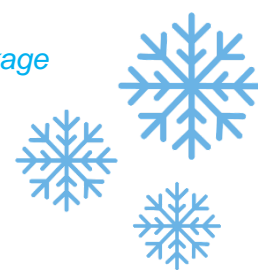
The Clean Energy Package (CEP) is a set of 8 legislative acts on the energy performance of buildings, renewable energy, energy efficiency, governance and electricity market design

The CEP defines EU targets for 2030:

- ✓ 40% cut in GHG emissions (compared to 1990)
- ✓ 32% for renewable energy in the EU's energy mix
- ✓ 32.5% energy efficiency target (relative to a baseline scenario established in 2007)



Winter Package



Clean energy for all Europeans



Source: European Commission

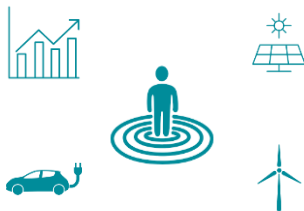
# THE VIEW FROM EUROPE

## Clean energy for all Europeans



### The CEP on electricity market design

The new electricity market design rules make the energy market fit for the future and place the consumer at the centre of the clean energy transition



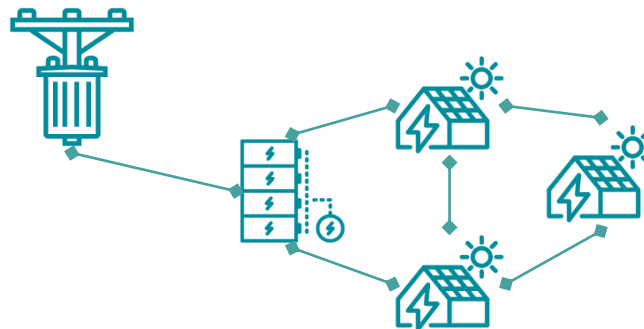
### EU's long-term strategy

- Achieve carbon neutrality (net-zero emissions) by 2050



### The CEP on energy communities

Energy communities organise collective and citizen-driven energy actions to pave the way for a clean energy transition, while moving citizens to the fore



# THE CASE OF LUXEMBOURG

## 2030 energy paradigm



**55%**

GHG emissions reduction (2005)

**100%**

public buildings with PV (2025)

**10 X**

PV installed capacity (167 MW by 2020)

**40-44%**

final energy demand reduction (2007)

**25%**

renewable gross final consumption

**1/3**

domestic electricity demand from PV and wind

**Grid strengthening**

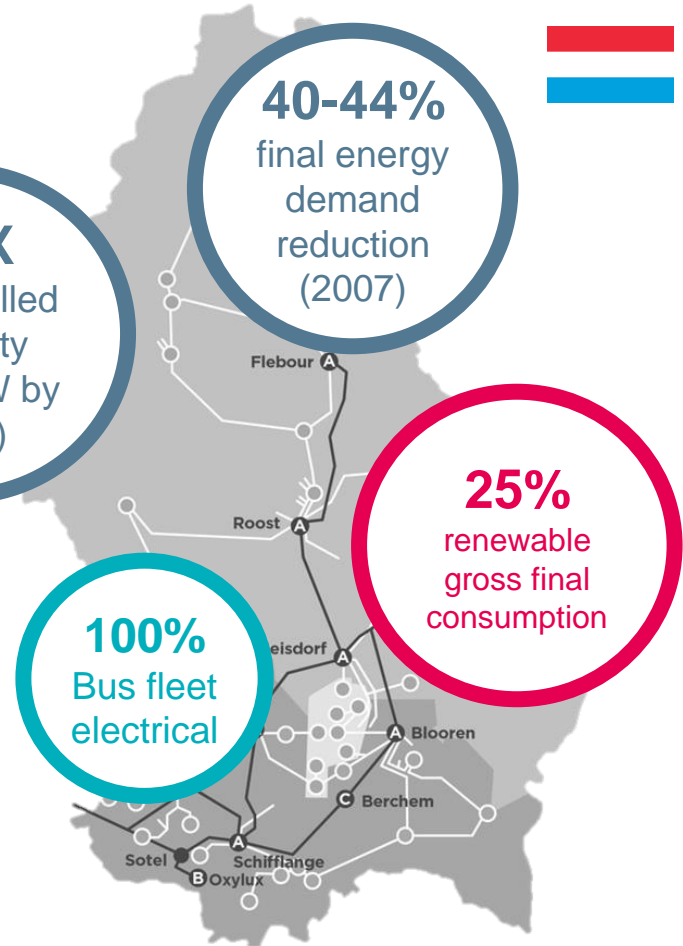
to support additional imports and domestic renewable generation

**100%**

Bus fleet electrical

**49%**

EV electrical



# THE CASE OF LUXEMBOURG

## Future energy paradigm

*“We are stronger together (...)  
Can we think of a more positive  
project than local energy  
citizens?”*

**Claude Turmes (MEP), 2017**

<https://eu.boell.org/en/2017/06/19/bringing-europe-closer-its-citizens-regional-approach-achieving-european-renewable-energy>





## “Local communities and active citizens pushing forward energy innovation”



Claude HORNICK



Ramses VILLA



Paul KAUTEN



***Electricity sharing***  
*Setting the ground for  
sustainable energy consumption  
in Luxembourg*

***Accelerating sustainable  
energy innovations***

***From a centralized energy  
market to a citizen-driven  
market***



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# WORKSHOP #1

## Q&A

Questions?



# thank you

## contact information

For more info, please  
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# WHERE TOMORROW BEGINS

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LUXEMBOURG  
INSTITUTE OF SCIENCE  
AND TECHNOLOGY



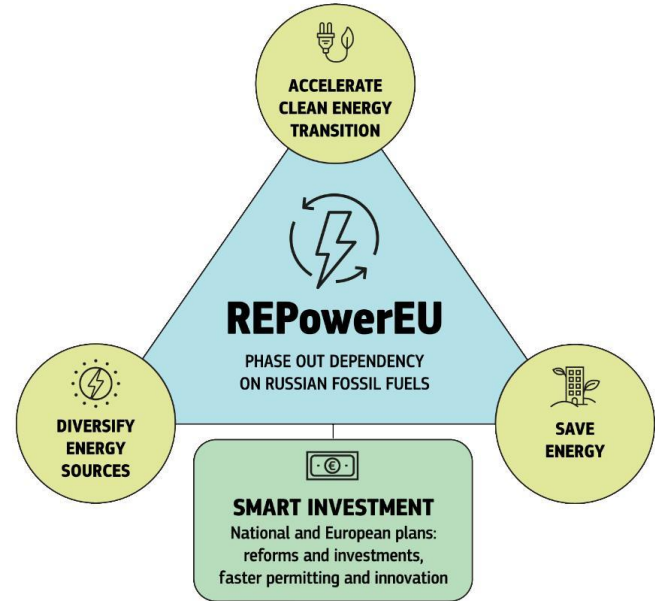
# LATEST NEWS

## REPowerEU plan

War in the Ukraine disrupted the world's energy system, caused hardship as a result of high energy prices and heightened energy security concerns

REPowerEU is about reducing dependence on Russian fossil fuels by fast forwarding the clean transition, joining forces to achieve a more resilient energy system

Building on the Fit for 55 package and completing the actions on energy security of supply and storage, REPowerEU puts forward an additional set of actions



Source: The Associated Press 2022

# LATEST NEWS

## REPowerEU plan

*“We must become independent from Russian oil, coal and gas. (...) We need to act now to mitigate the impact of rising energy prices, diversify our gas supply for next winter and accelerate the clean energy transition. The quicker we switch to renewables and hydrogen, combined with more energy efficiency, the quicker we will be truly independent and master our energy system.”*

## Ursula von der Leyen

