



20TH ERRA
ANNUAL CONFERENCE

*EN ROUTE TO SUSTAINABLE REGULATION
UNDER NEW MARKET PARADIGMS*

09-10 October, 2023 |
BUDAPEST, HUNGARY



Regulatory Mandates for the Energy Transition

Andy Flagg

Regulatory Energy Transition Accelerator (RETA)

#ERRAConference2023

Sponsored by:



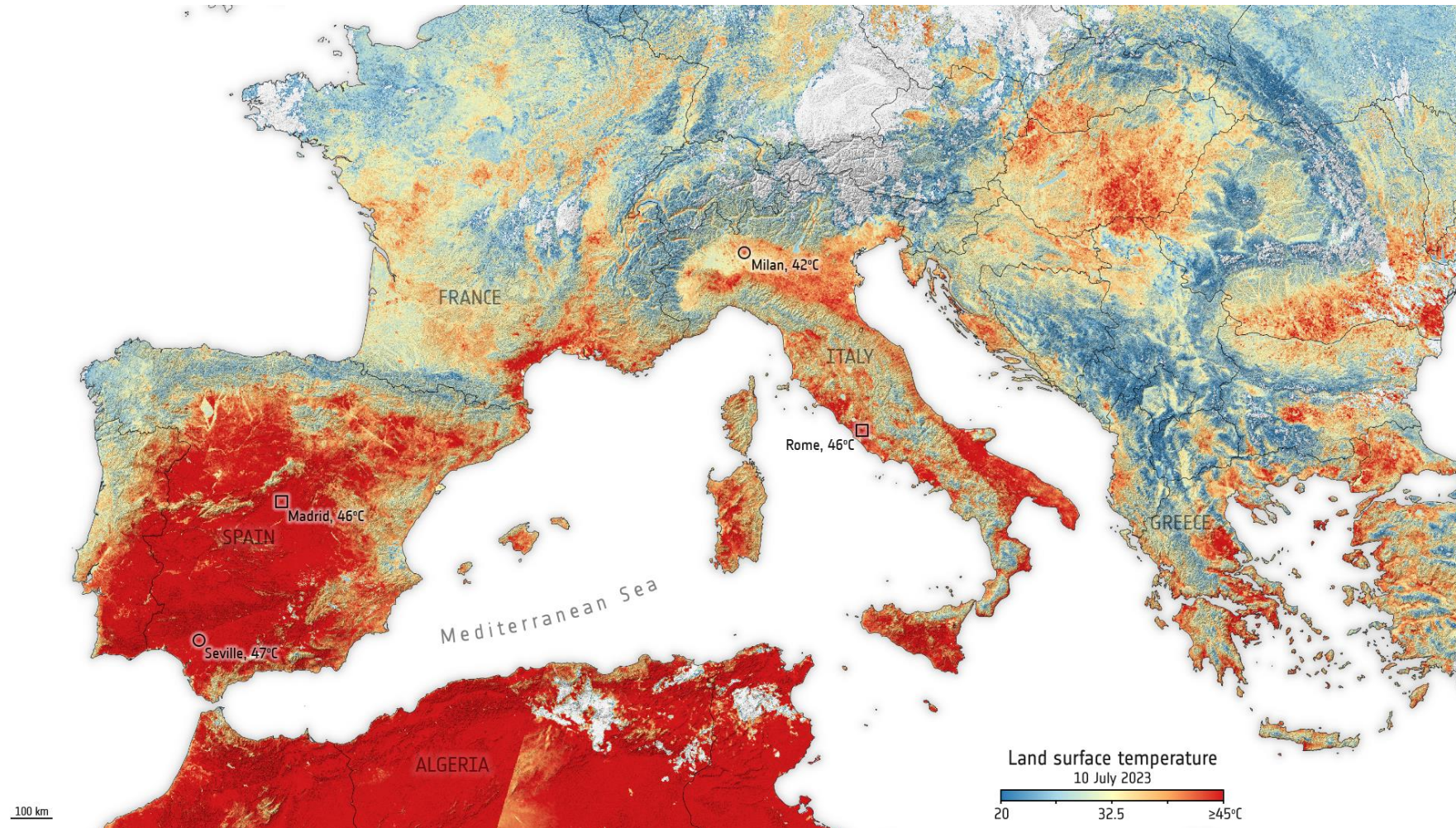
alTEO



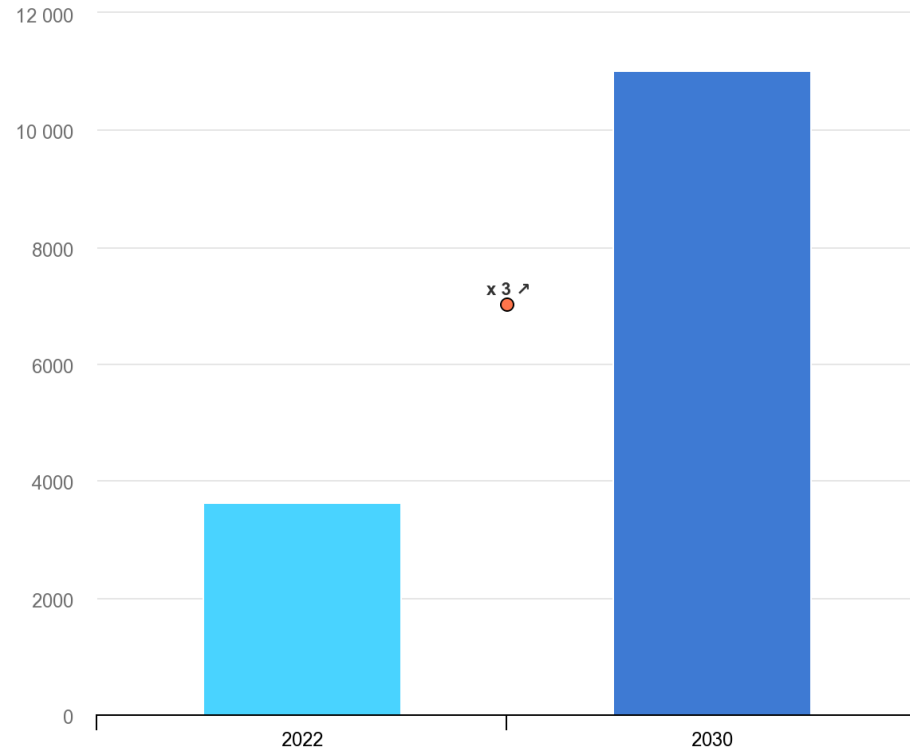
NARUC
National Association of
Regulatory Utility Commissioners



The urgency of the transition

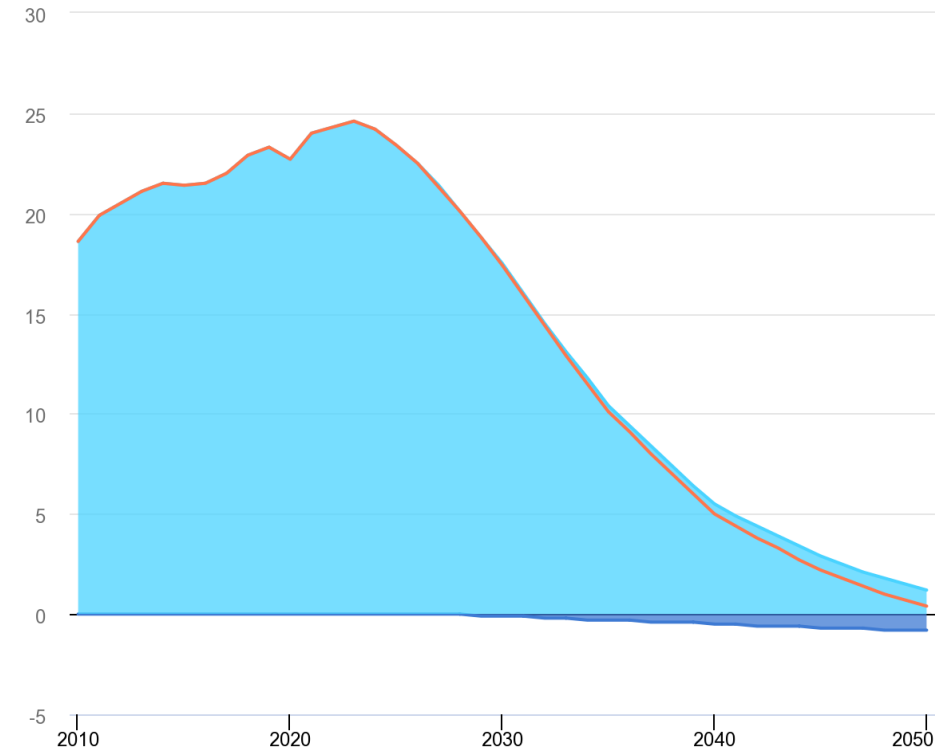


The scale of the transition



IEA, Global renewables power capacity in the Net Zero Scenario, 2022 and 2030

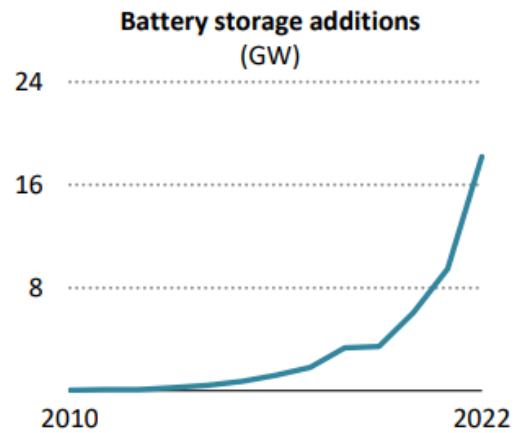
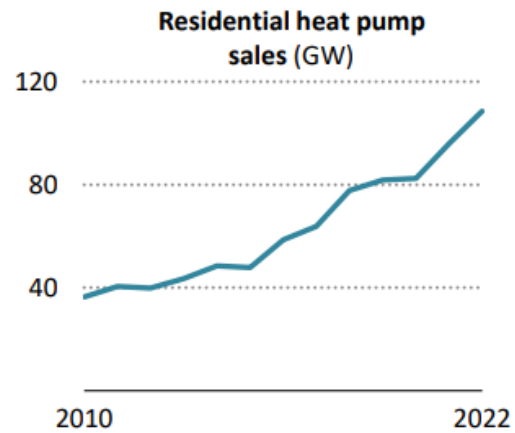
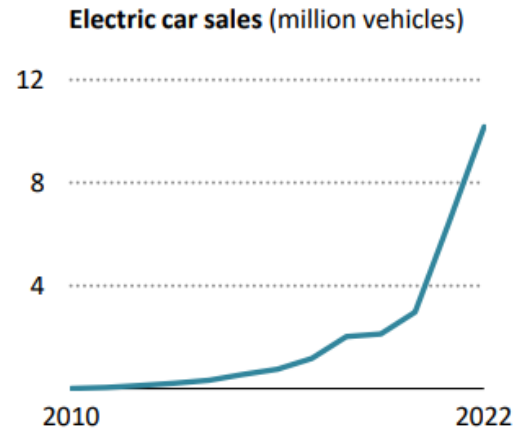
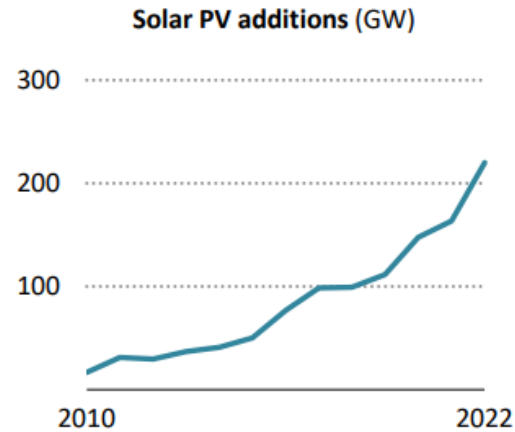
IEA, Paris <https://www.iea.org/data-and-statistics/charts/global-renewables-power-capacity-in-the-net-zero-scenario-2022-and-2030>, IEA. Licence: CC BY 4.0



IEA, Gross emissions and removals, and net emissions in the emerging and developing economies in the Net Zero Scenario, 2010-2050

IEA, Paris <https://www.iea.org/data-and-statistics/charts/gross-emissions-and-removals-and-net-emissions-in-the-emerging-and-developing-economies-in-the-net-zero-scenario-2010-2050>, IEA. Licence: CC BY 4.0

The pace of the transition

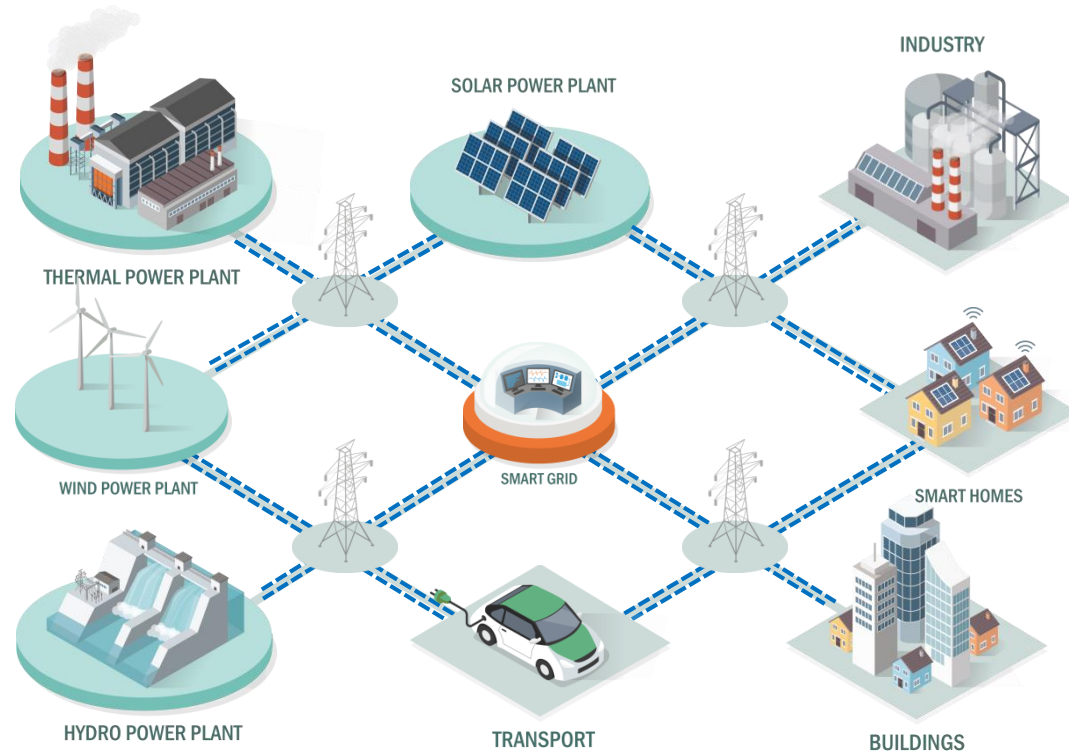


IEA, Global installations of selected clean energy technologies, 2010-2022

IEA (2023), Net Zero Roadmap: A Global Pathway to Keep the 1.5 °C Goal in Reach, IEA, Paris <https://www.iea.org/reports/net-zero-roadmap-a-global-pathway-to-keep-the-15-0c-goal-in-reach>, License: CC BY 4.0

IEA. CC BY 4.0.

The nature of the transition



Traditional system

Centralised / dispatchable

High inertia and stability

Central planning

One way flows of energy and communication

Closed networks, few devices



New system

Decentralised / variable generation

Low system inertia from rotating machines

Multiple actors / competitive markets

Two way flows of energy and communication

Open networks and many devices

Changing climate patterns

Regulators as key stakeholders

- While governments set climate goals and commitments, energy regulators help deliver action
- Organisations working globally on the energy transition historically work with governments
- Regulators face similar challenges, but have limited resources

Four areas of focus for regulators



**Decarbonization in
decision making**



Interconnection



Digitalization



Knowledge Sharing

Are regulators equipped?

- Climate risks are economic risks too
- Regulators are facing new areas of work; electric vehicles, hydrogen and low carbon gases, heat networks, clean cooking, etc
- Possible actions: changes to legal mandates, interpreting existing mandates, setting up new bodies, setting up new departments, increasing resources

RETA's partners





THANK YOU FOR YOUR ATTENTION!

Andy Flagg

andrew.flagg@retatheaccelerator.org