

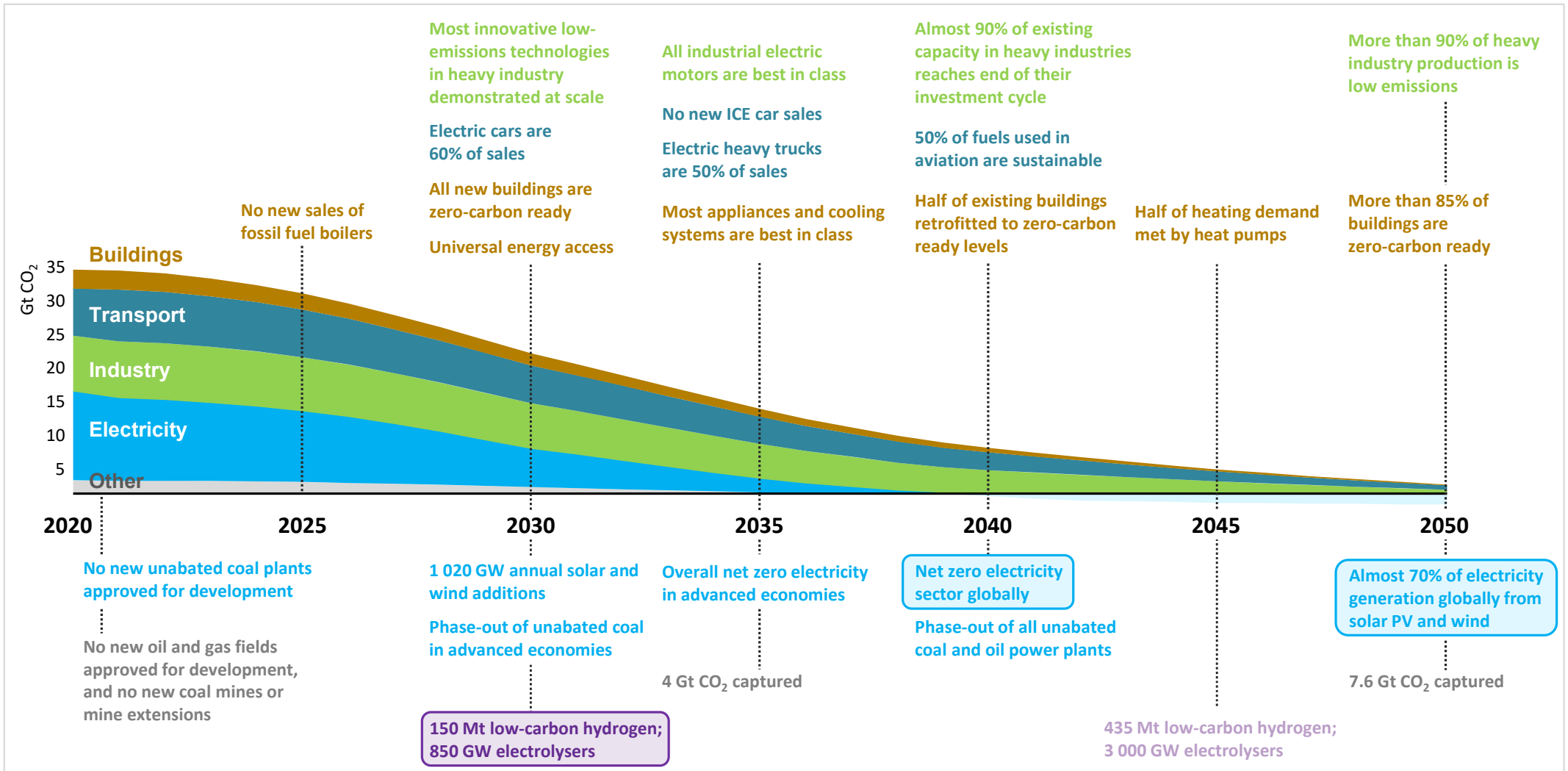


International Policy frameworks for energy efficiency

Emma Mooney

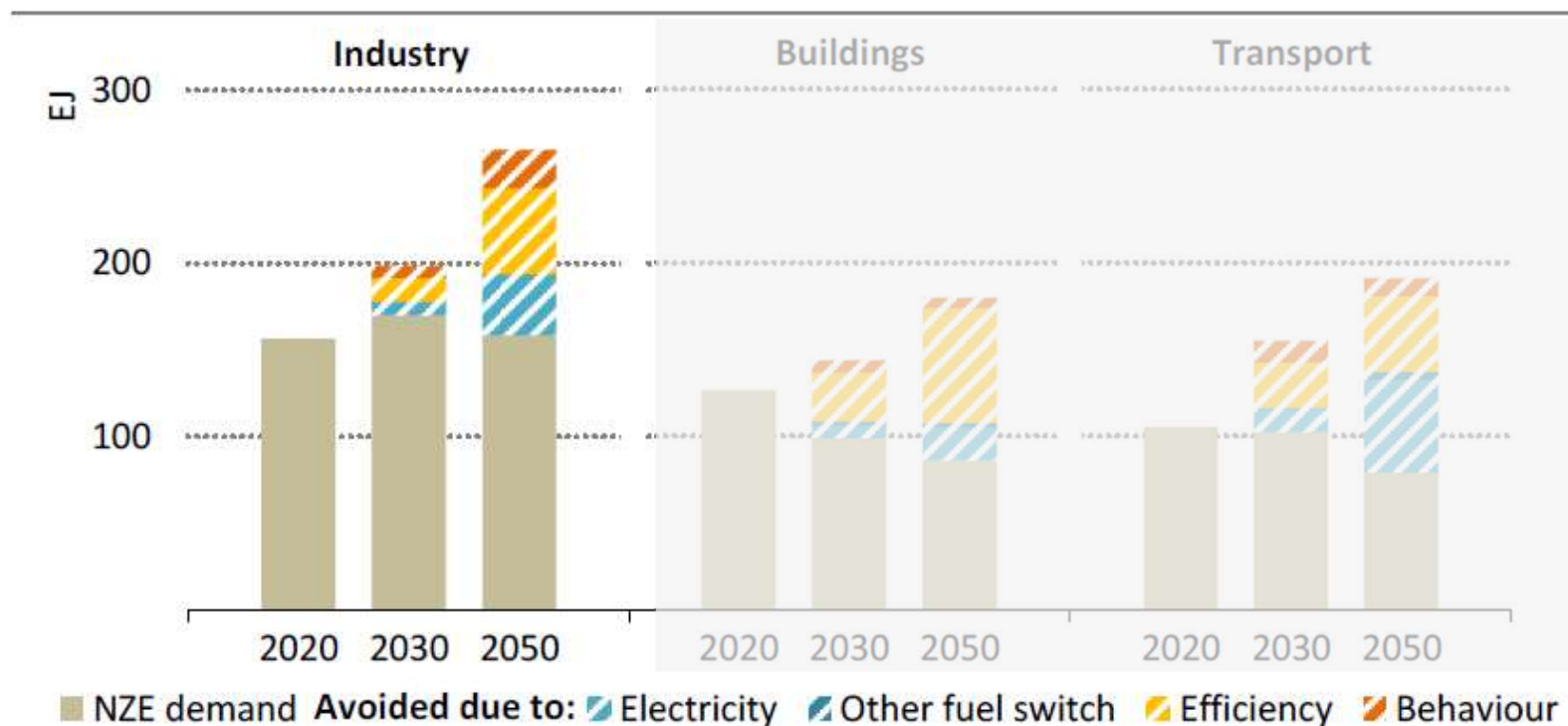
Vienna, 21 March 2023

Milestones on the path to Net Zero by 2050



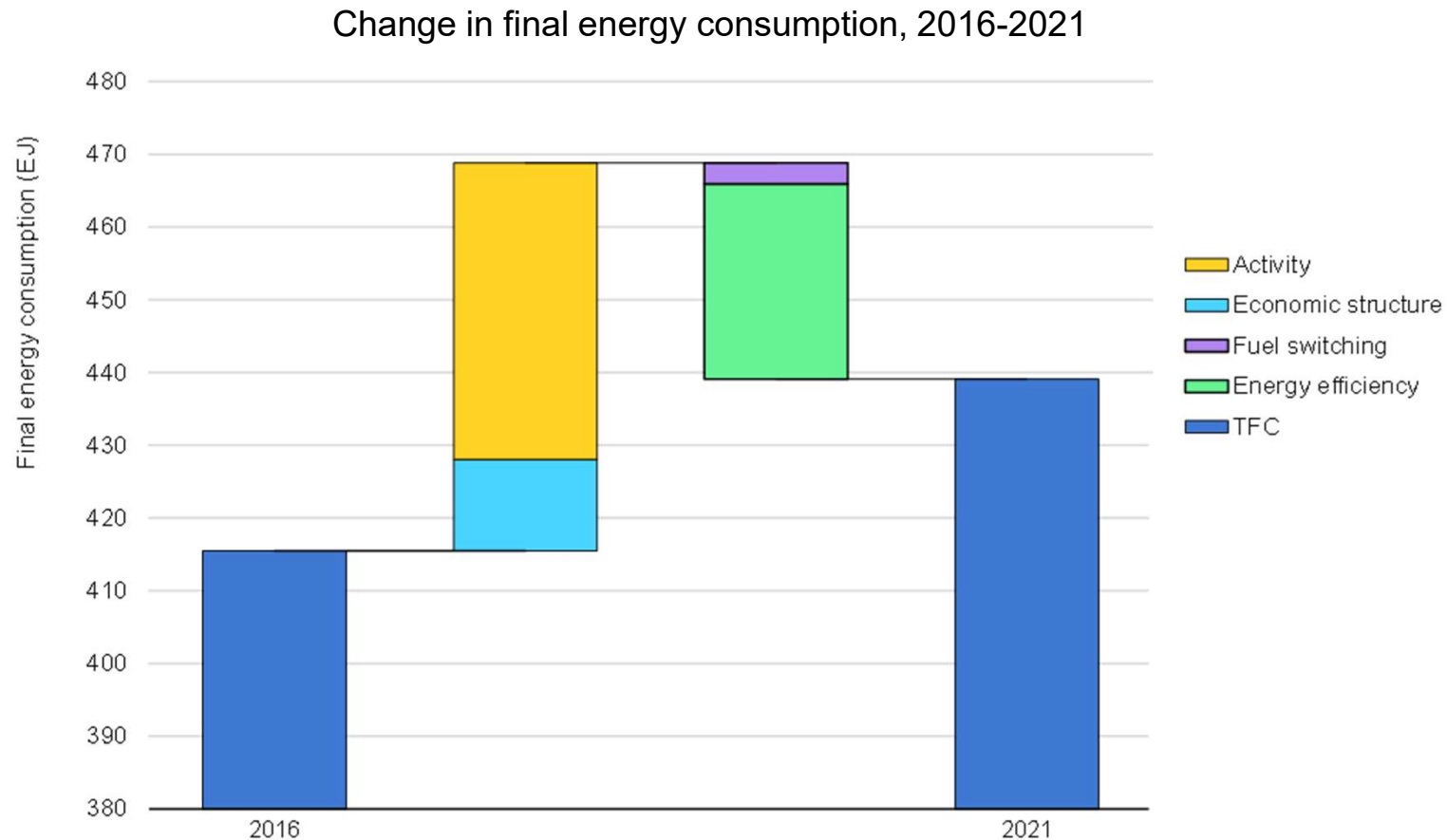
Energy efficiency plays a key role in reducing energy consumption across end-use sectors

Total final consumption and demand avoided by mitigation measure in the NZE



Energy efficiency plays a major role immediately across all sectors and in particular in industry. In industry energy savings are from very well-known measures : motors efficiency, energy management systems, low heat temperature from heat pumps.

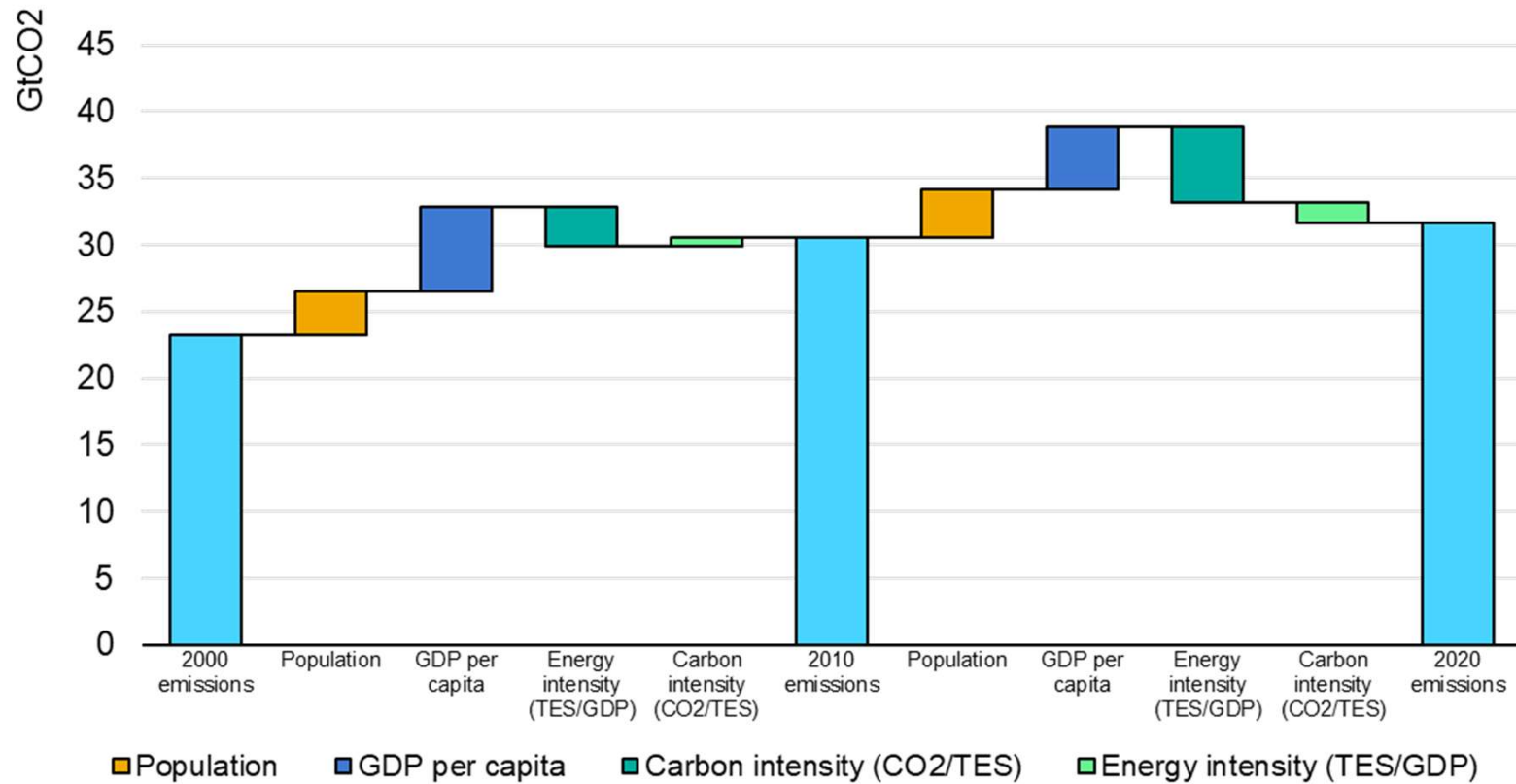
Efficiency playing a key role in delivering energy security



Efficiency gains have halved the potential growth in global energy demand over the last six years

Without efficiency gains CO₂ emissions would be 30% higher

Global CO₂ emissions from fuel combustion and drivers, 2000-2020



Improvements to energy intensity have offset half the emissions growth from higher incomes and population

The importance of the Policy Package Approach



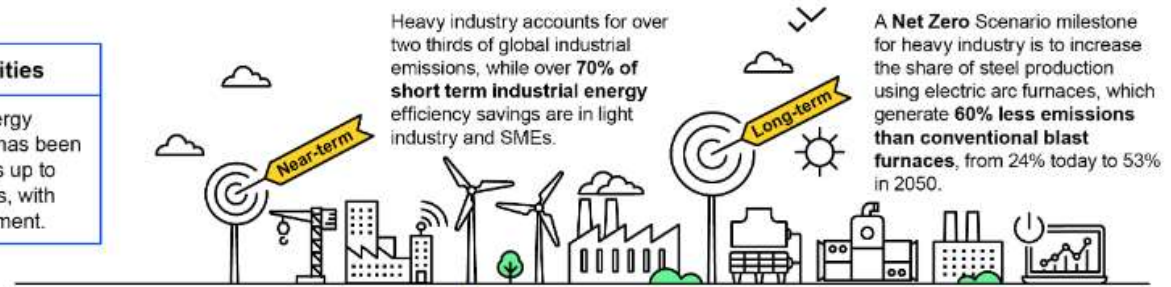
IEA Energy Efficiency Global Conference 2022

[The Value of Urgent Action Energy Efficiency Policy toolkit](#)

Industry Energy Efficiency Policy Package

Immediate opportunities

Implementing better energy management practices has been shown to deliver savings up to 15% in the first 1-2 years, with little or no capital investment.



REGULATION

- **Minimum Energy Performance Standards** for key equipment, such as motors and pumps, can drive up overall industrial efficiency levels.
- **Regulation to reduce energy use** extends beyond technology to target areas such as research and development, energy auditing, mandatory consumption reporting, energy management systems, and upskilling of the workforce.
- **Regulatory Instruments** yield best results when rooted in a good understanding of local context and include ambitious, regularly updated, standards.



INFORMATION

- **Benchmarking, indicators and other forms of detailed data**, allow governments to track the progress and success of policies and allow industries assess their energy performance, compare it to that of their peers and establish key areas for intervention.
- **Digital technologies** enable industries to track energy use in real time and unlock substantial energy and cost saving opportunities.
- **Sharing information on energy efficiency best practice** and industrial energy transition, through industry networks, helps industries raise ambition and improve energy performance.



INCENTIVES

- **Incentives** such as preferential finance, links to carbon trading, obligations and tax based measures can motivate crucial energy efficient decisions at the process design and equipment selection stage, supporting industry transition to near zero emission technologies.
- **Free or subsidised energy audits**, often targeted at SMEs and other sectors of strategic importance, can help rapidly increase energy efficiency.
- **Policies to foster Energy Service Companies** provide industry with access to significant external energy expertise and attractive structured financial packages.

Policy Packages for Industry



REGULATION

- **Minimum Energy Performance Standards** for key equipment, such as motors and pumps, can drive up overall industrial efficiency levels.
- **Regulation to reduce energy use** extends beyond technology to target areas such as research and development, energy auditing, mandatory consumption reporting, energy management systems, and upskilling of the workforce.
- **Regulatory Instruments** yield best results when rooted in a good understanding of local context and include ambitious, regularly updated, standards.



INFORMATION

- **Benchmarking, indicators and other forms of detailed data**, allow governments to track the progress and success of policies and allow industries assess their energy performance, compare it to that of their peers and establish key areas for intervention.
- **Digital technologies** enable industries to track energy use in real time and unlock substantial energy and cost saving opportunities.
- **Sharing information on energy efficiency best practice** and industrial energy transition, through industry networks, helps industries raise ambition and improve energy performance.



INCENTIVES

- **Incentives** such as preferential finance, links to carbon trading, obligations and tax based measures can motivate crucial energy efficient decisions at the process design and equipment selection stage, supporting industry transition to near zero emission technologies.
- **Free or subsidised energy audits**, often targeted at SMEs and other sectors of strategic importance, can help rapidly increase energy efficiency.
- **Policies to foster Energy Service Companies** provide industry with access to significant external energy expertise and attractive structured financial packages.

Policies work best when they are a combination of regulation, information and incentives

Thank You

iea