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Energy Agency

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# Energy Technology Perspectives

*Re-defining climate ambition to “Well-below 2C”  
Background and proposed ETP analysis*

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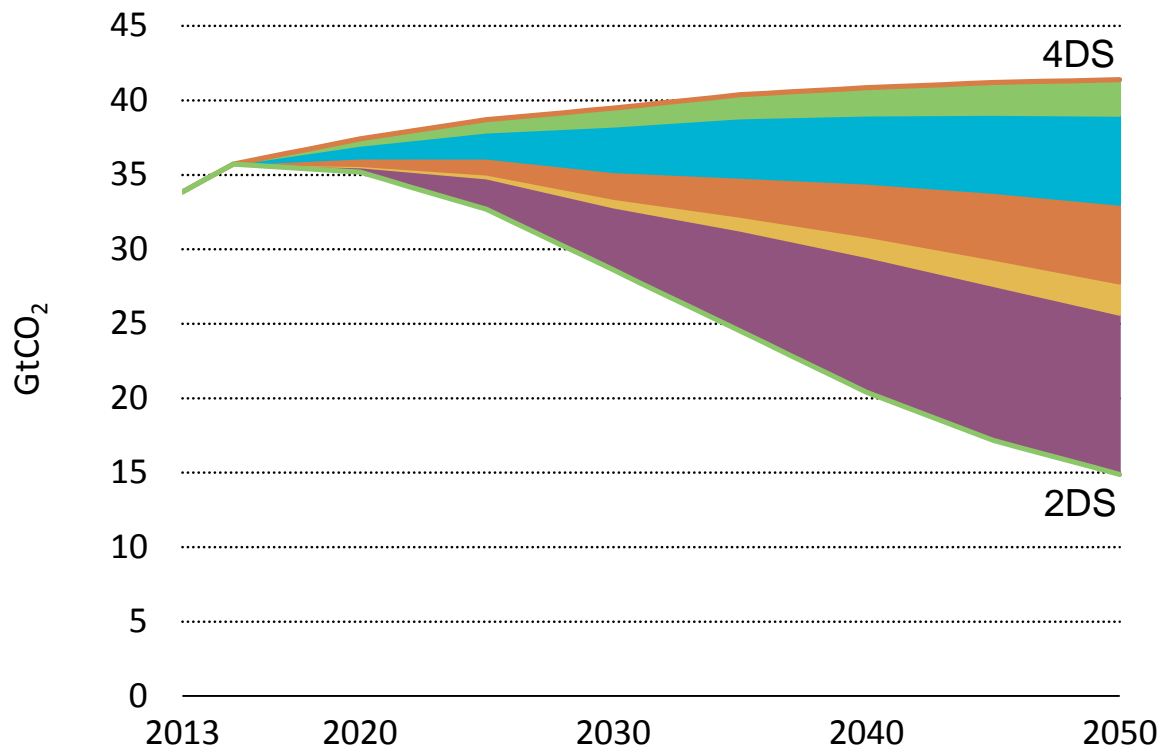
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# The scale of the challenge

ETP  
2016

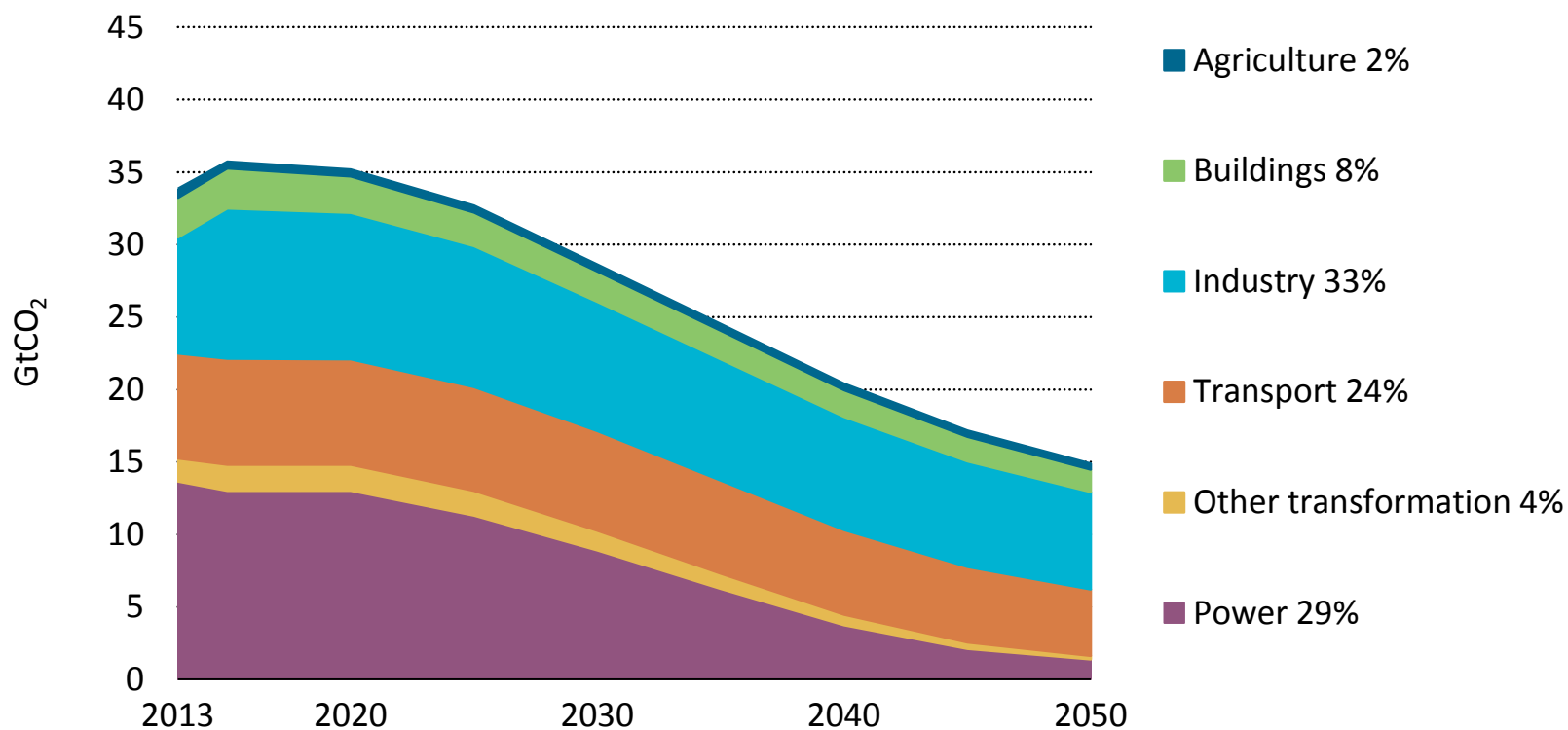
Contribution of technology area to global cumulative CO<sub>2</sub> reductions



*The carbon intensity of the global economy can be cut by two-thirds through a diversified energy technology mix*

# From 2 degrees to “well below” 2 degrees

## Energy- and process-related CO<sub>2</sub> emissions by sector in the 2DS

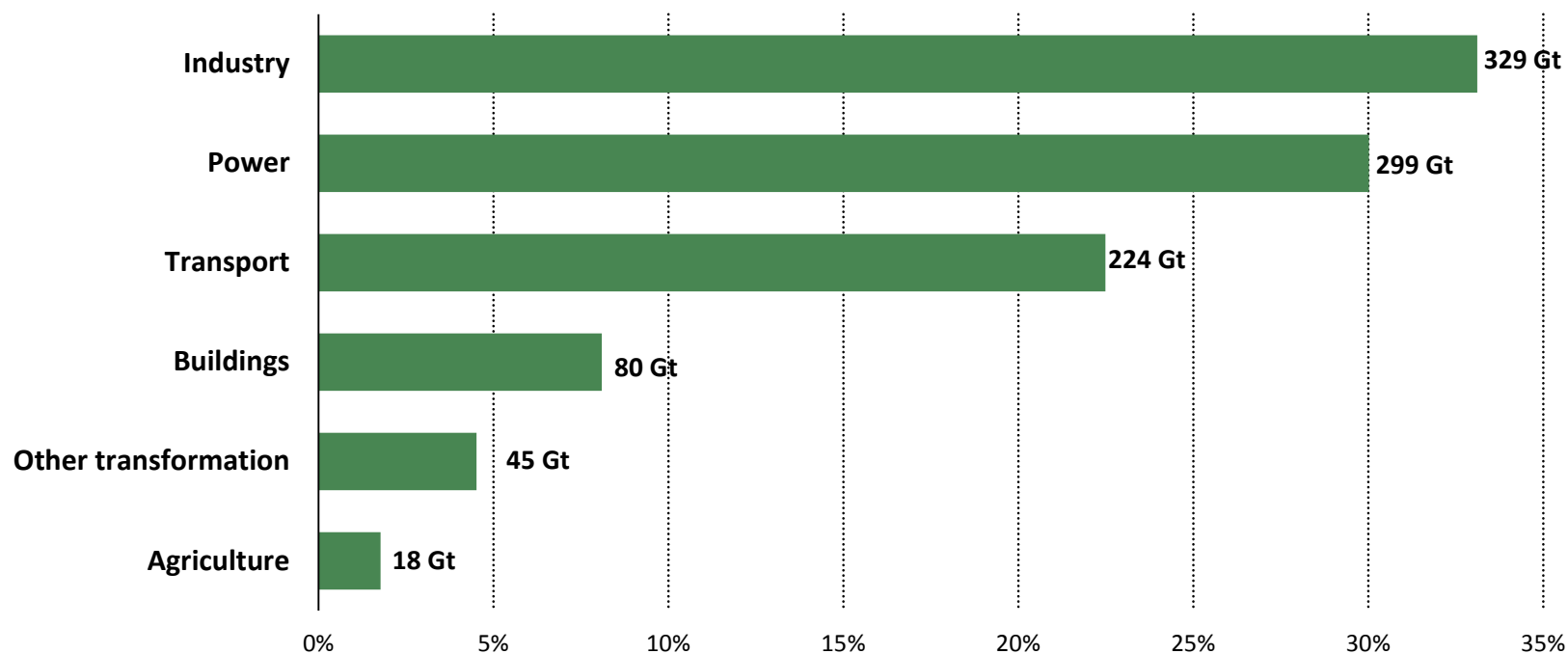


*Industry and transport account for 45% of direct CO<sub>2</sub> emissions in 2013, but they are responsible for 75% of the remaining emissions in the 2DS in 2050.*

# Industry, Power and Transport will be the greatest emitters in the 2DS

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Cumulative energy- and process-related CO<sub>2</sub> emissions by sector in the 2DS, 2013-2050

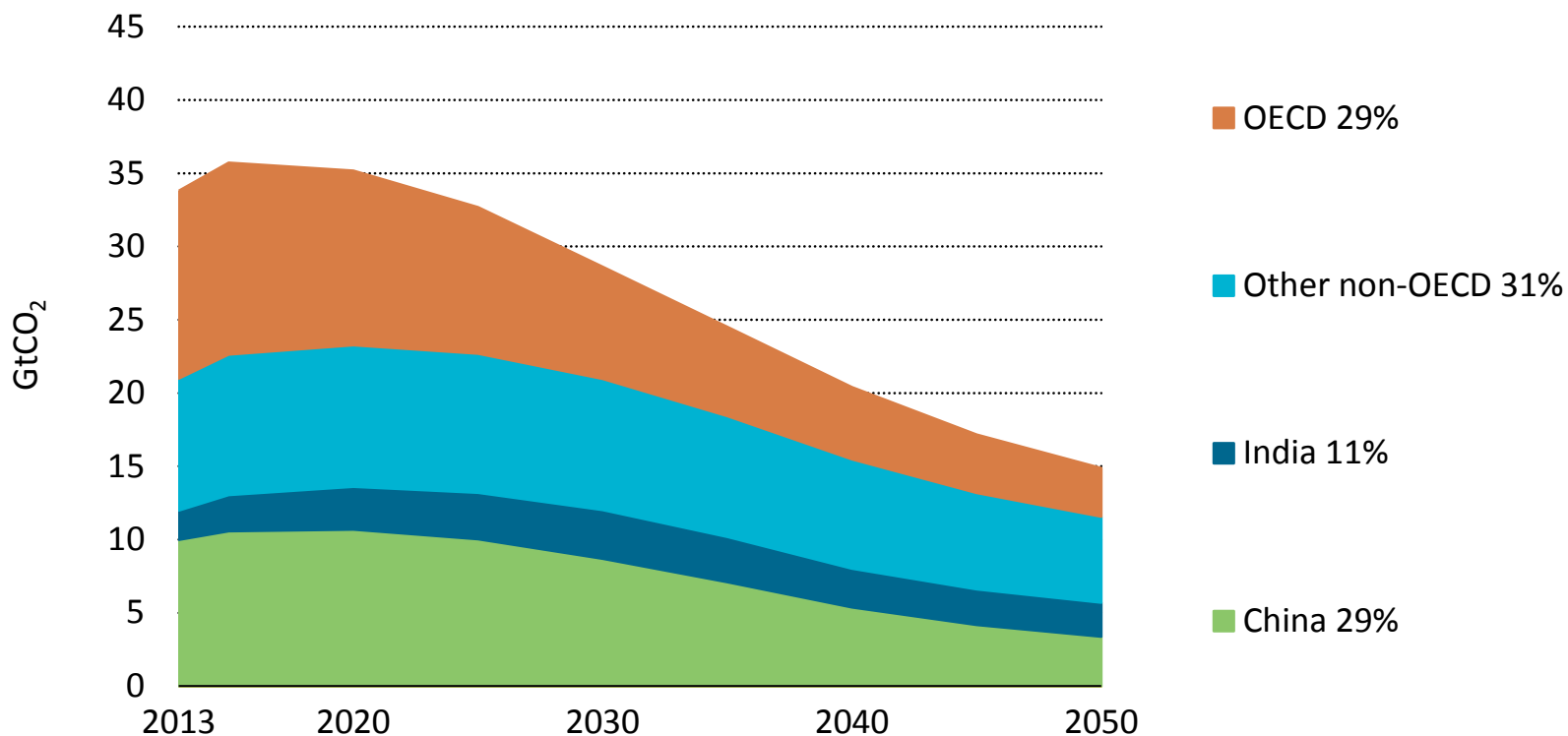


*Industry, power, and transport account for 85% of cumulative direct CO<sub>2</sub> emissions between 2013 and 2050 in the 2DS*

# Developed and emerging economies need to work together

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Energy- and process-related CO<sub>2</sub> emissions by region in the 2DS



*In 2013, OECD made up 38% of total emissions.*

*In 2050 OECD makes up 22% of emissions*

## ■ Many questions to answer:

- Which solutions can deliver the additional emissions cuts in each sector?
- What will be the need to rely on technologies that are at an earlier stage of development?
- What are the systemic solutions across the energy system?
- Is switching to net-zero emission in each sector leading to unsustainable costs and what could be the scope for offsetting residual emissions?
- What economic and institutional challenges?
- What policy and finance levers will be required?



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- ***Engagement Worldwide***