BUILDINGS IN A LOW-CARBON WORLD

COP 21

Research & Capacity Building in Energy Efficiency and Green Buildings Side Event

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WE MUST CAN WILL

Lima-Paris Action Agenda

IEA messages to COP21

To shift the energy sector onto a low-carbon path that *supports economic growth and energy access:*

1. Take five key actions, led by energy efficiency and renewables, to peak then reduce global energy emissions.
2. Use the Paris Agreement to drive short-term actions consistent with long-term emission goals.
3. Accelerate energy technology innovation to make decarbonisation easier and even more affordable.
4. Enhance energy security by making the energy sector more resilient to climate change impacts.

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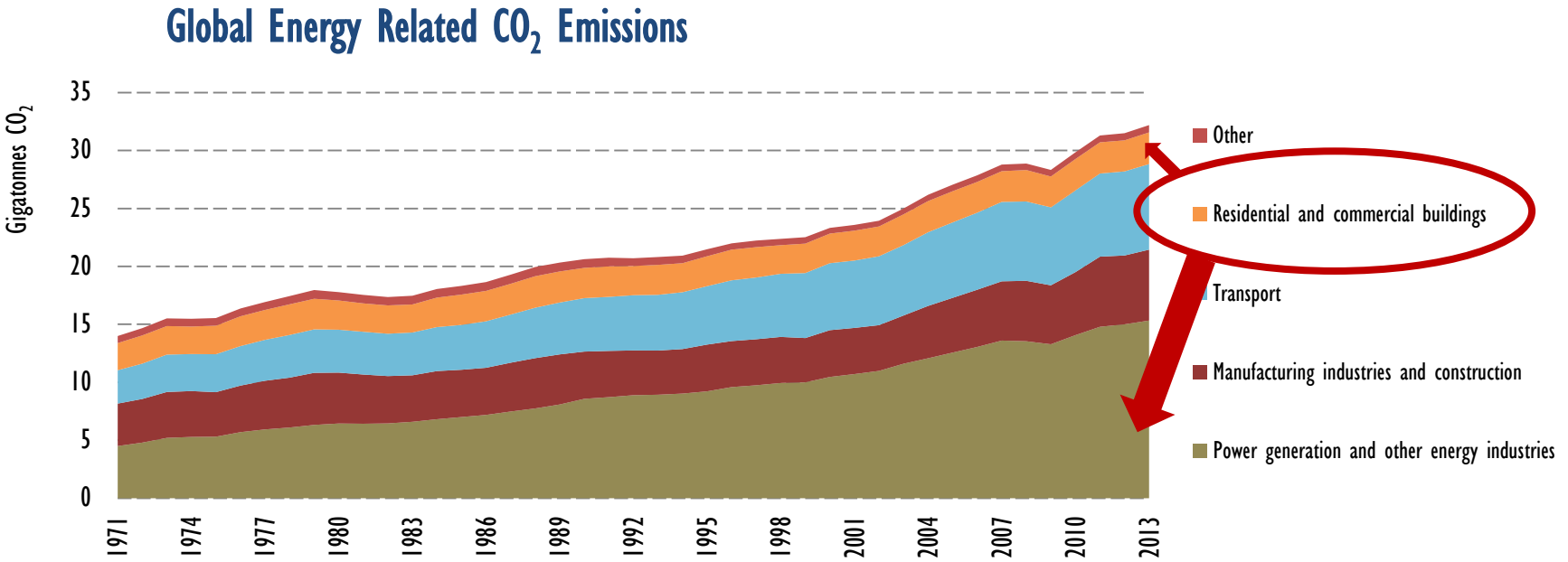
Buildings and Global CO_2 Emissions



Buildings are responsible for ~30% of global energy related CO_2 emissions.

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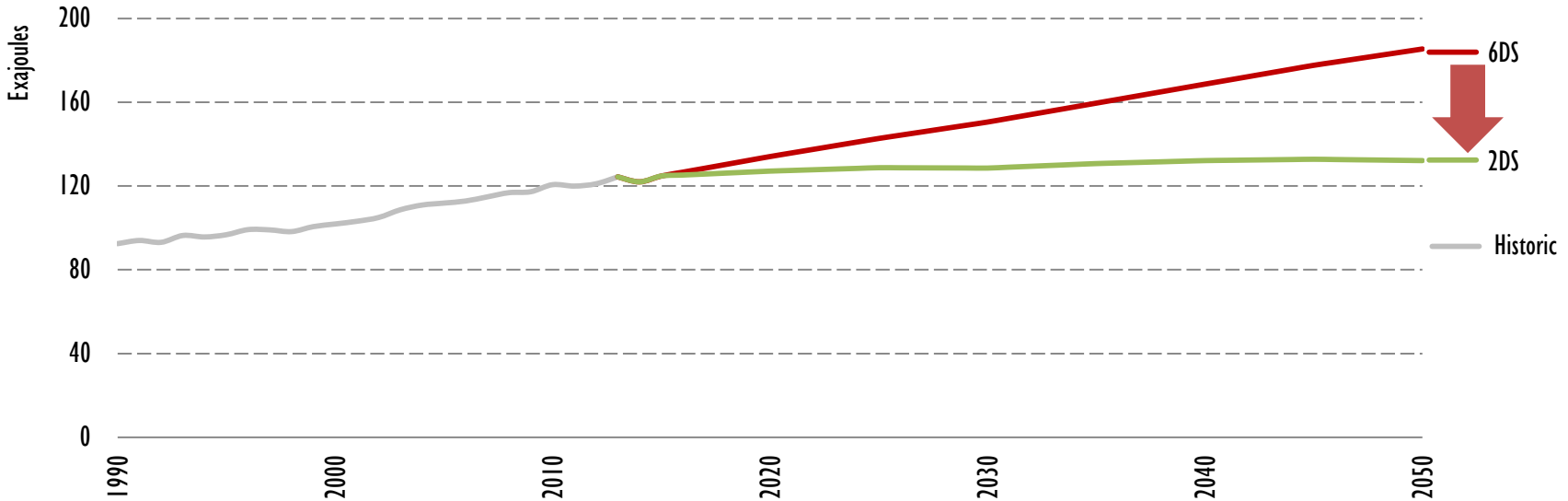
Source: IEA *Energy Technology Perspectives 2015*

Energy Demand in Buildings

Buildings Final Energy Demand to 2050



Buildings energy consumption increased by 33% since 1990.
It could increase by another 50% to 2050 without action.

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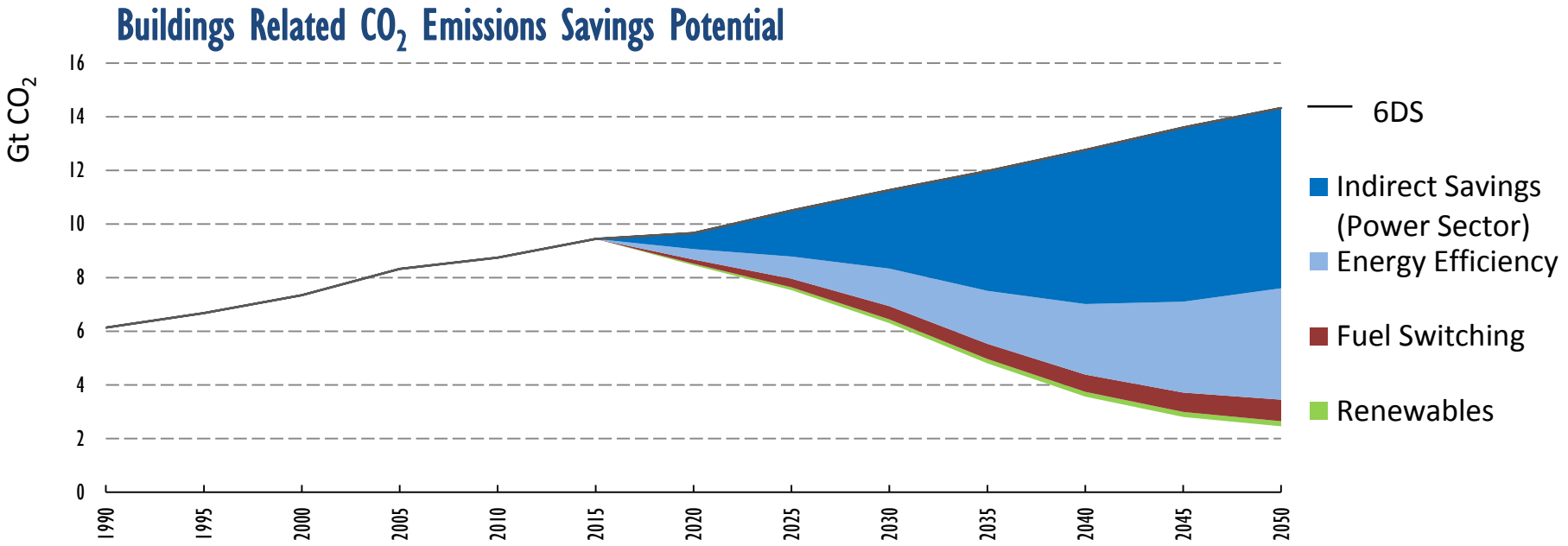
Source: IEA *Energy Technology Perspectives 2015*

Buildings CO_2 Emissions Savings Potential



Buildings (and clean power generation) are capable of supporting emissions reductions of 210 Gt CO_2 to 2050.

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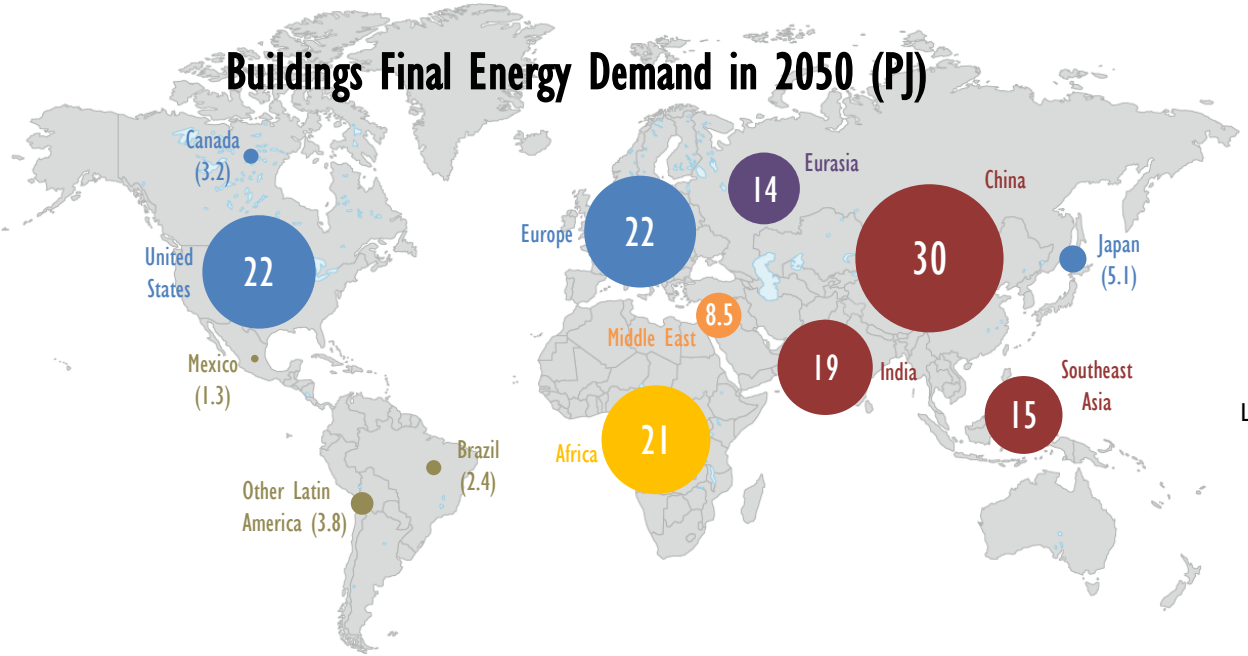
Source: IEA *Energy Technology Perspectives 2015*

Global Growth in Buildings Energy Demand

Buildings Final Energy Demand in 2050 (PJ)



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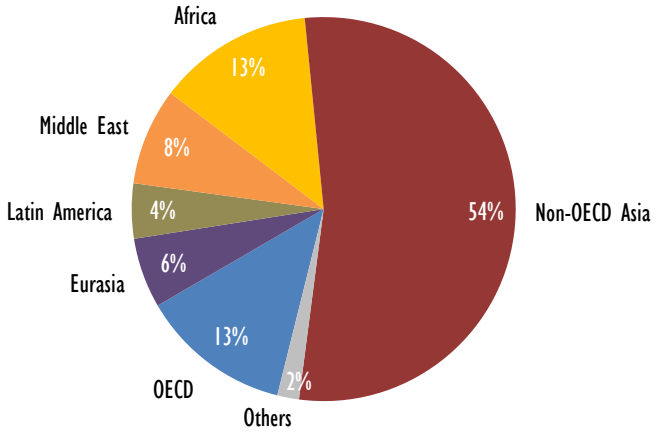
Share of Buildings Energy Growth 2013-2050



Over 85% of projected growth in buildings energy demand to 2050 (4DS) is expected to occur outside the OECD.

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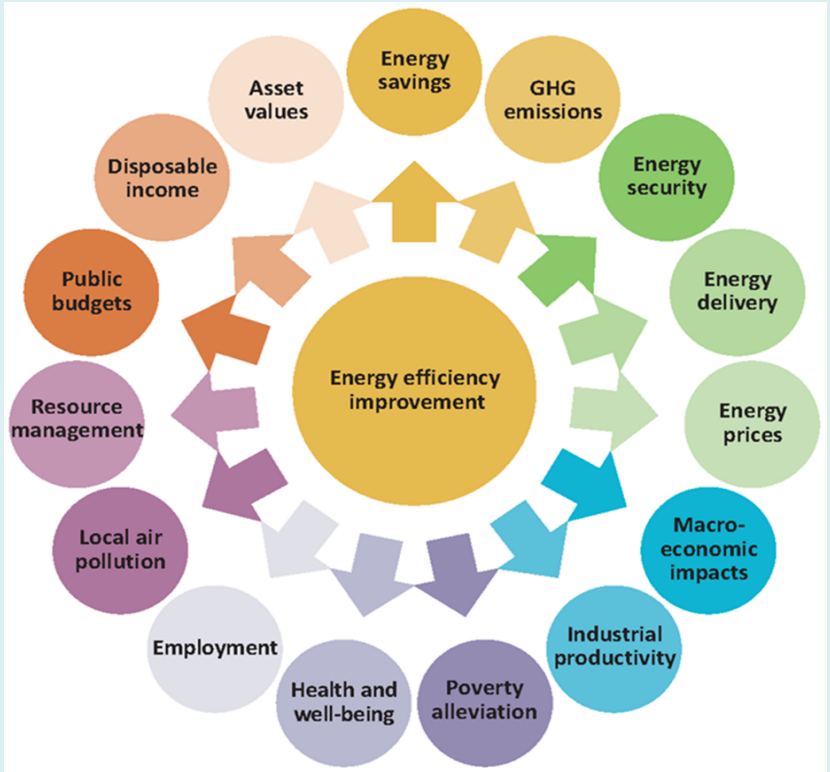
Source: IEA *Energy Technology Perspectives 2015*

The Multiple Benefits of Energy Efficiency



www.iea.org/topics/energyefficiency/

Energy Efficiency Prosperity

Energy efficiency as a means to support economic and social development.

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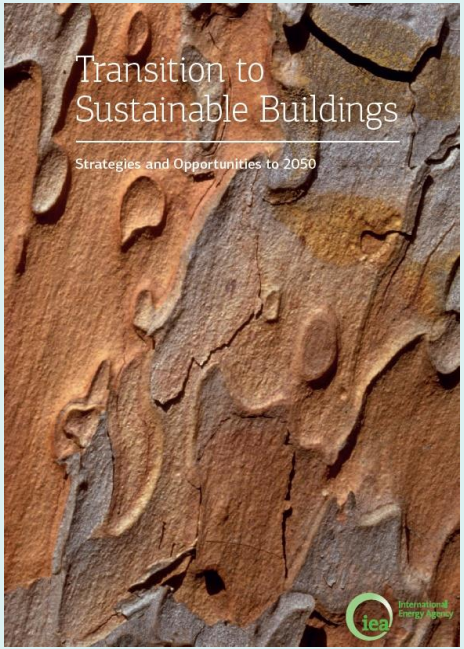
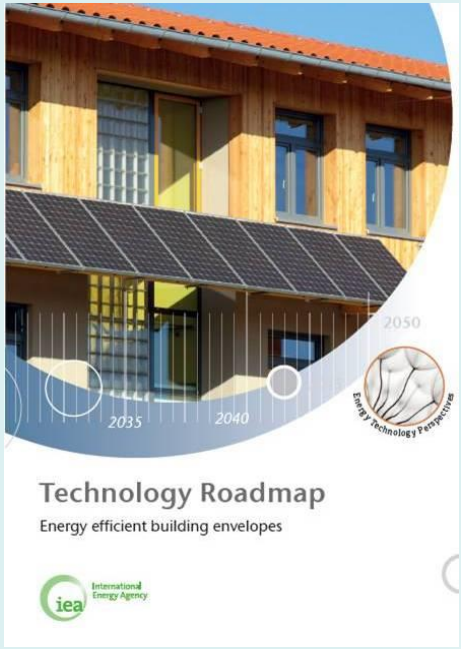
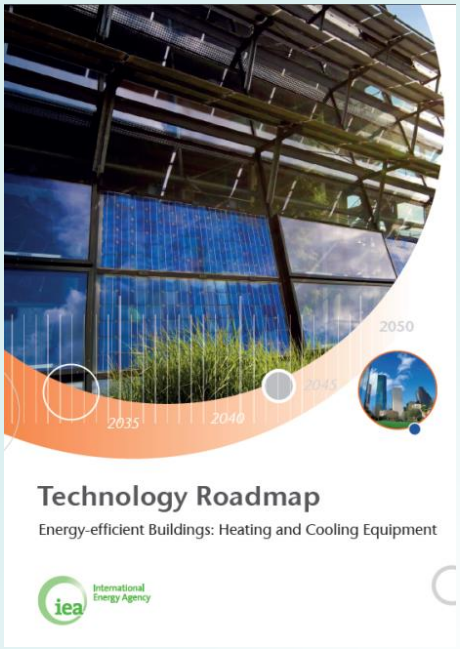
Pathways Forward for Energy Efficient Buildings







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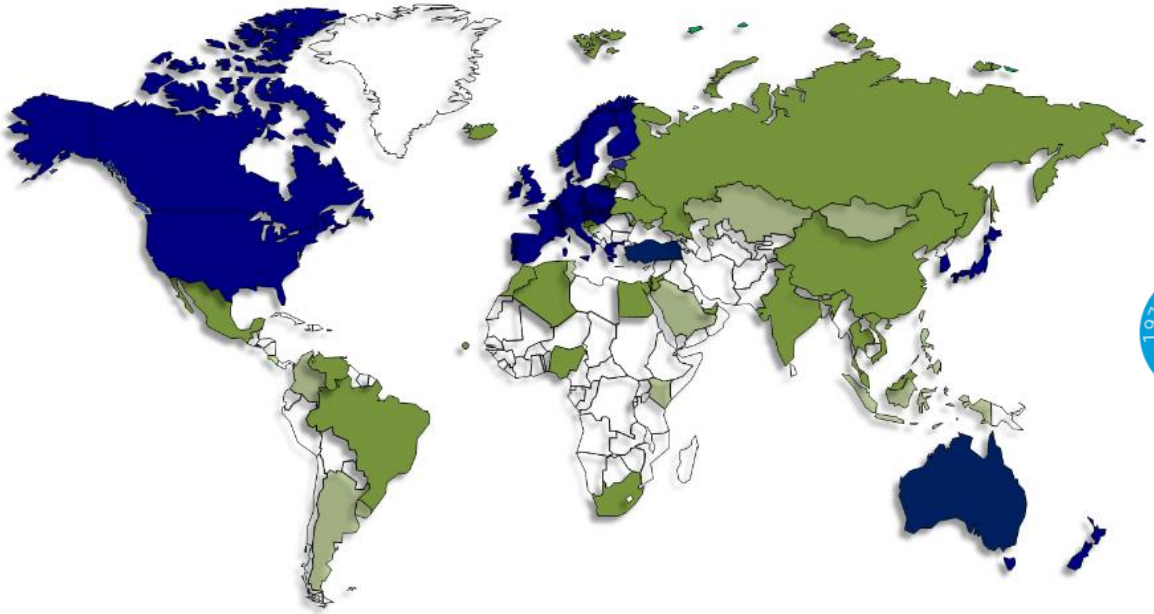
IEA Energy Technology Collaboration



IEA member countries | Partner countries | Countries considering participation

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1975 - 2015 iea Energy Technology Network
Accelerating results for 40 years

- 6,000 experts
- 1,900 topics
- 310 public and private organisations
- 51 countries
- 39 initiatives currently active
- 4 international organisations

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THANK YOU

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