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Energy Technology Perspectives for Buildings

Outlooks and strategic plans for cooling in buildings

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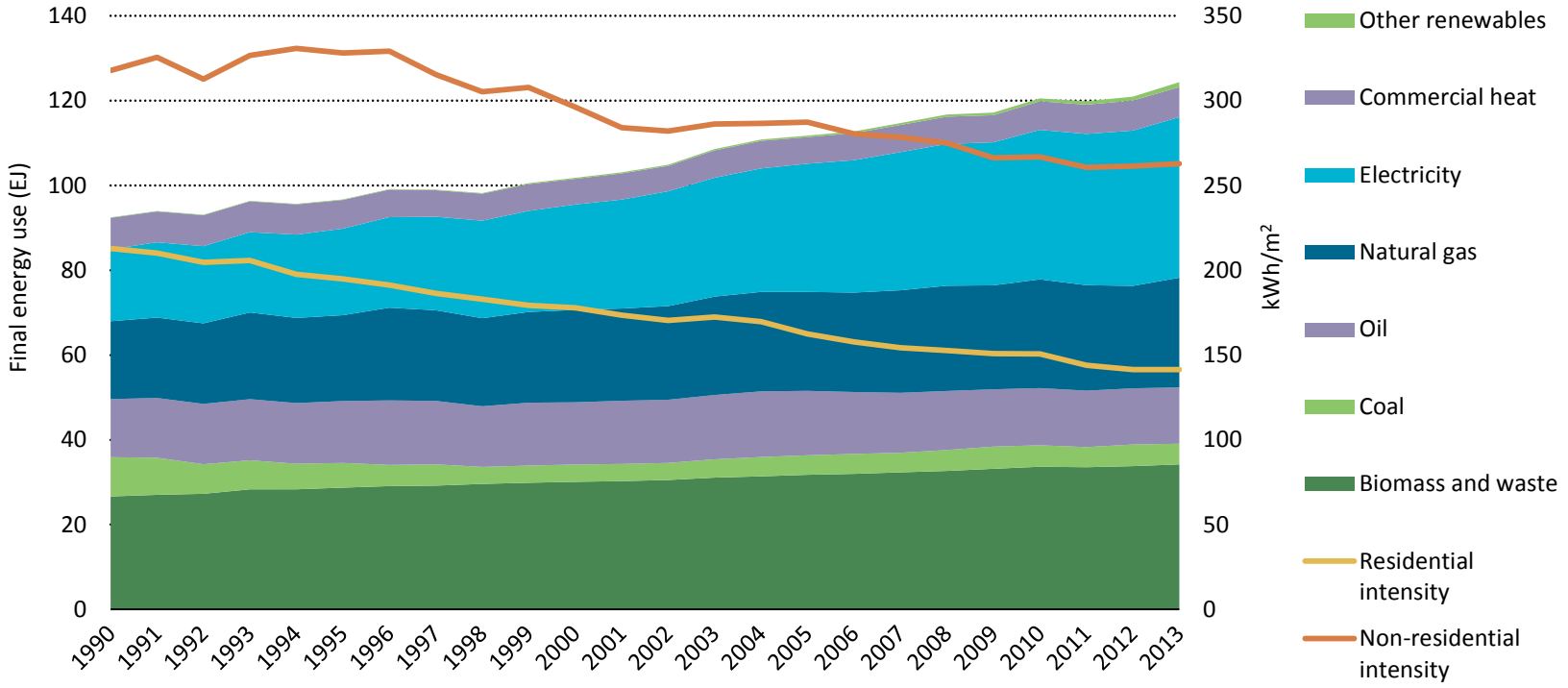
Buildings Sector Energy Demand

Global Building Final Energy Consumption, 1990-2013

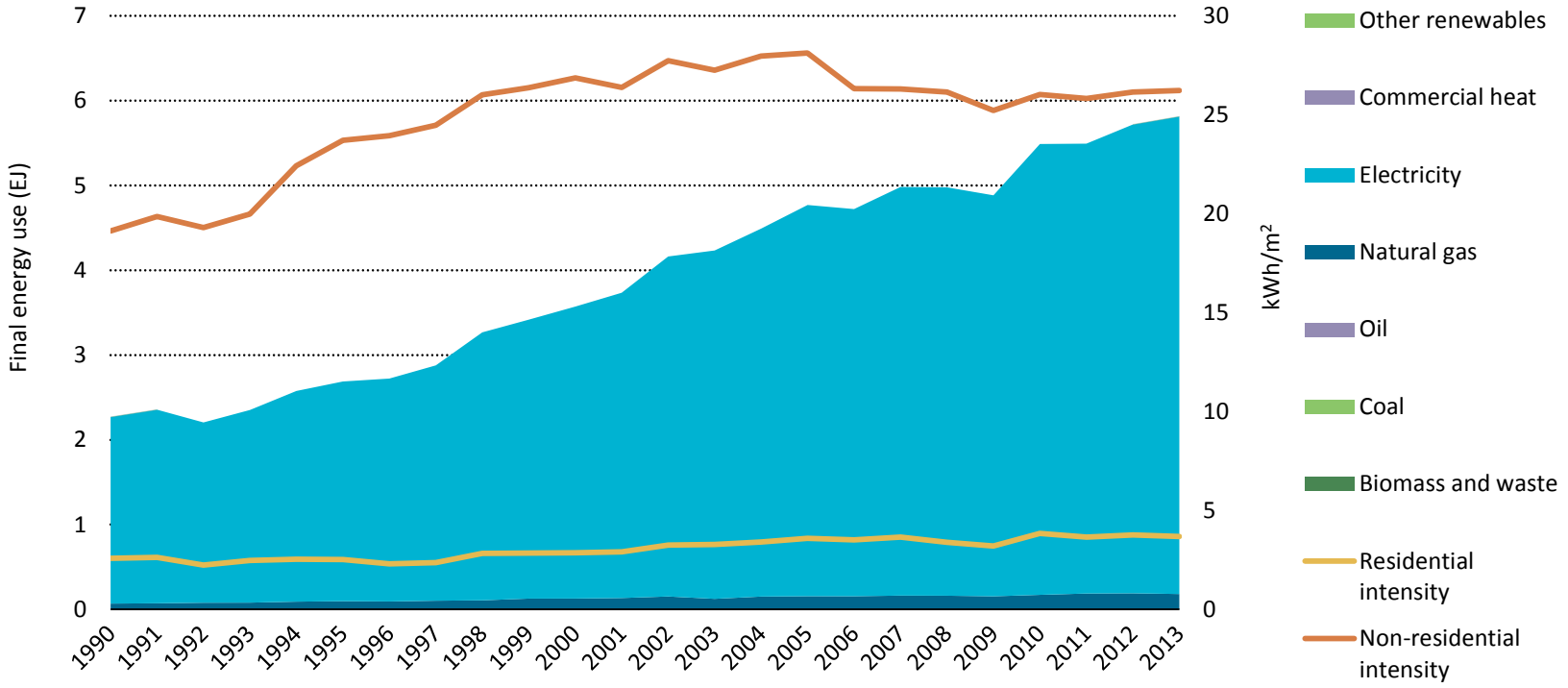


Global building energy intensities have improved since 1990, but not enough to offset buildings sector growth.

Source: *IEA World Energy Statistics and Balances, 2015*

Buildings Sector Energy Demand

Global Building Cooling Consumption, 1990-2013 (est)



Residential cooling demand continues to grow (absolute & intensity) and has significant potential for growth in developing countries.

Source: *Energy Technology Perspectives 2016 (forthcoming)*

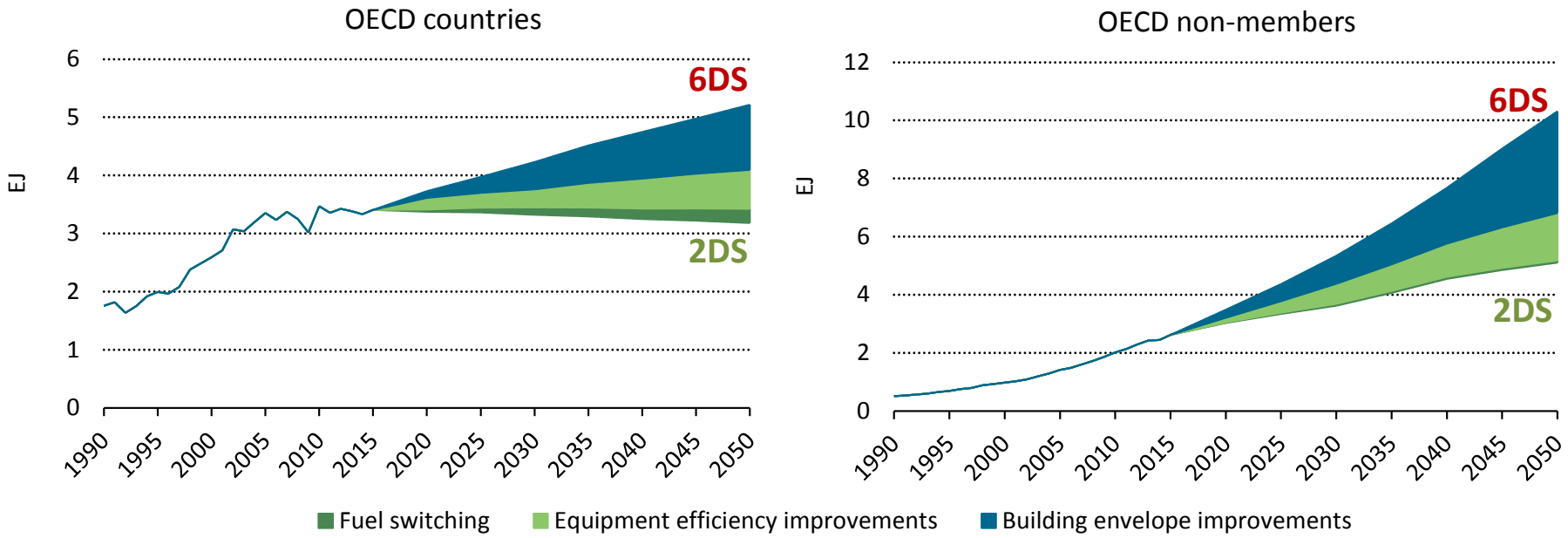
Buildings Sector Energy Demand

Global Building Cooling Consumption, 1990-2013 (est)

Growth in cooling demand has been especially rapid in emerging economies.

Source: *Energy Technology Perspectives 2016 (forthcoming)*

Cooling Energy Growth and Savings Potential to 2050

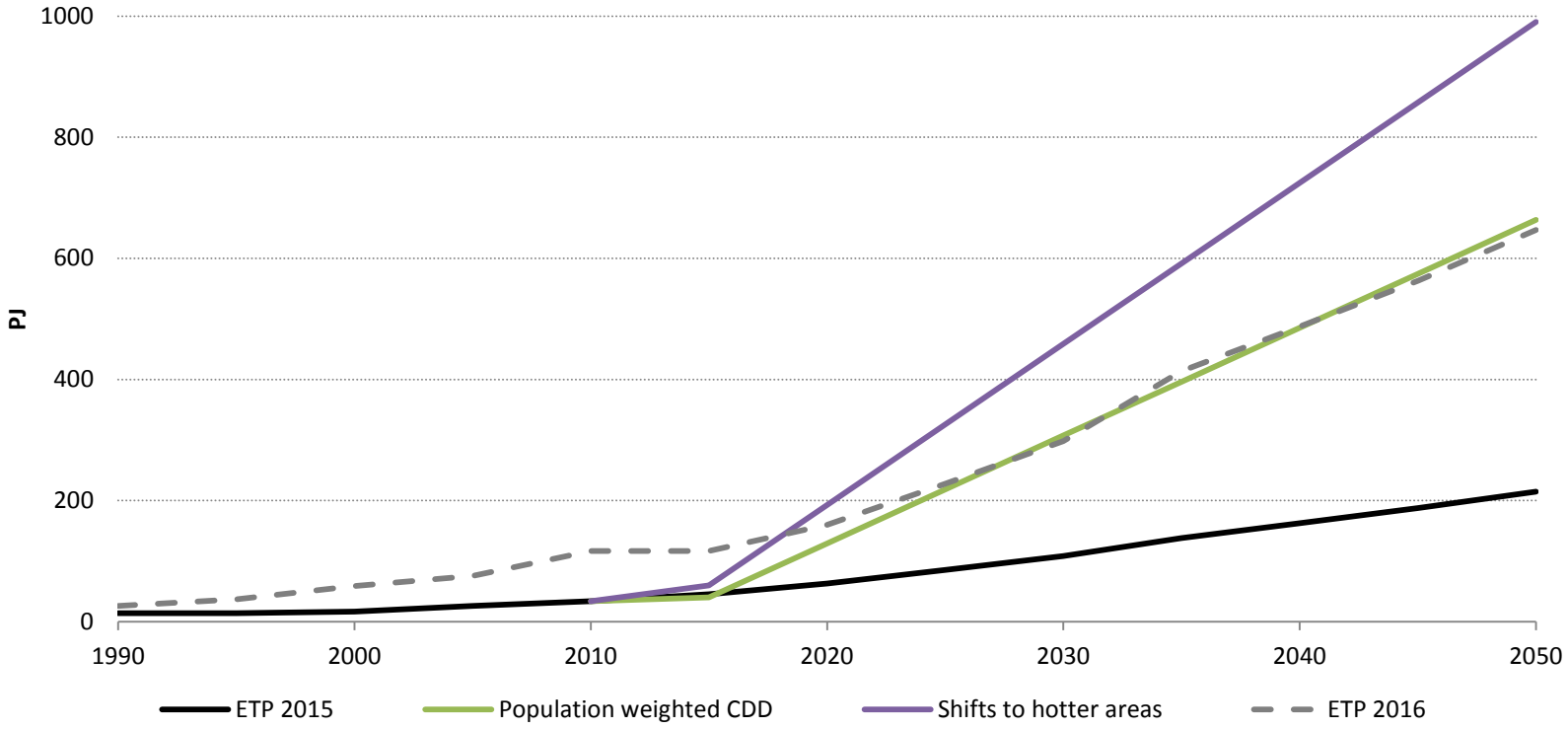


Cooling growth could be cut significantly through improved building envelopes and more efficient cooling technology.

Source: *Energy Technology Perspectives 2016 (forthcoming)*

Global Buildings Outlook

Understanding Demand and Getting It Right - Mexico



Need improved assessment – and inputs – on demand for comfort across climate and building types.

Understanding Demand and Getting It Right – What's Next?

Demand

- *Improved resolution on CDD relative to population growth, especially in developing countries*
- *Better understanding (across scenarios) of cultural norms / expectations / shifts in thermal comfort*
- *Need to distinguish between latent & sensible heat, especially in developing countries*

Technology

- *Technical potential for cooling equipment*
- *Efficiency / cost curves on building shell relative to climate zone*
- *Separation of latent & sensible heat – implications for equipment*

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Thank you

Don’t miss: *www.iea.org/ETP*

For more information about ETP buildings work, contact:

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