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Re-defining Climate Ambition to “Well-below 2°C”

Buildings break-out session

Welcome!

Paris, 20 June 2016

Part I: WHAT?

I.A) Identify main opportunities to:

- Reduce building CO₂ emissions (direct)
- Reduce systemic CO₂ emissions from buildings (efficiency)

I.B) Discuss technology expectations & disruptions

Part II: HOW?

II.A) Identify barriers and opportunities to accelerate efficiency for zero-carbon buildings transition

II.B) Discuss effective policy mechanisms and stakeholder actions to enable ambitious building efficiency gains

CROSS-CUTTING CO₂ EMISSIONS REDUCTIONS AREAS:

ENERGY EFFICIENCY

- Push building energy performance to BAT levels (buildings on speed?)
- Understand opportunities to better manage energy in buildings (controls + behaviour) for efficiency

INCREASE THE USE OF ZERO-CARBON ENERGY SOURCES

- Almost there: rate & potential for full decarbonisation of buildings before 2050
- Explore opportunities to further utilise renewables (and energy storage)

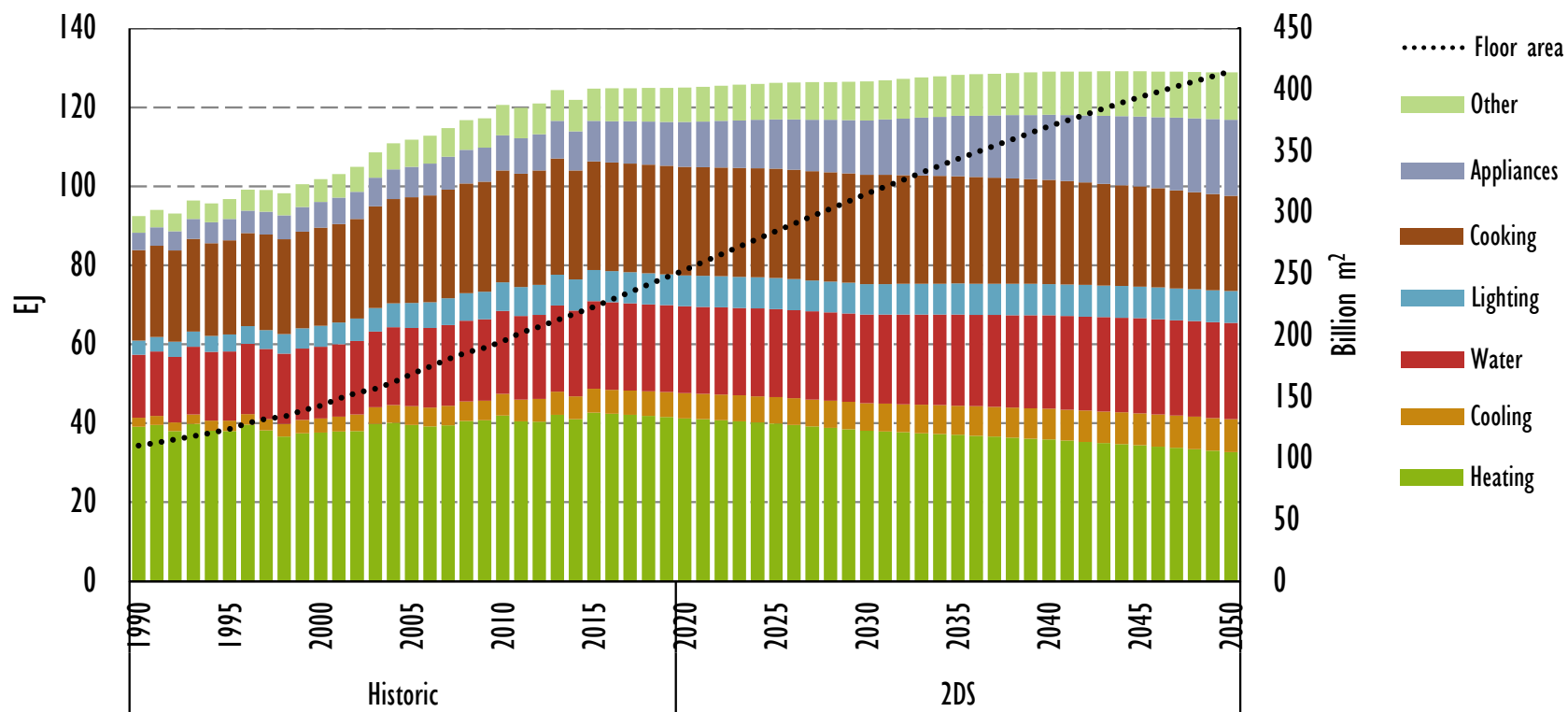
INNOVATION:

- Accelerate efficiency gains in buildings equipment
 - Lighting & appliances
 - Heat pumps and other heating/cooling equipment
- Building envelopes (new vs old construction): (over?)ambitions and “non-intrusive” technologies
- Role of accelerated R&D for breakthroughs in efficiency (and disruptive technologies?)

MATERIAL EFFICIENCY & CROSS-SECTORIAL INTEGRATION:

- Can buildings support decarbonisation in other sectors (e.g. construction material choice)

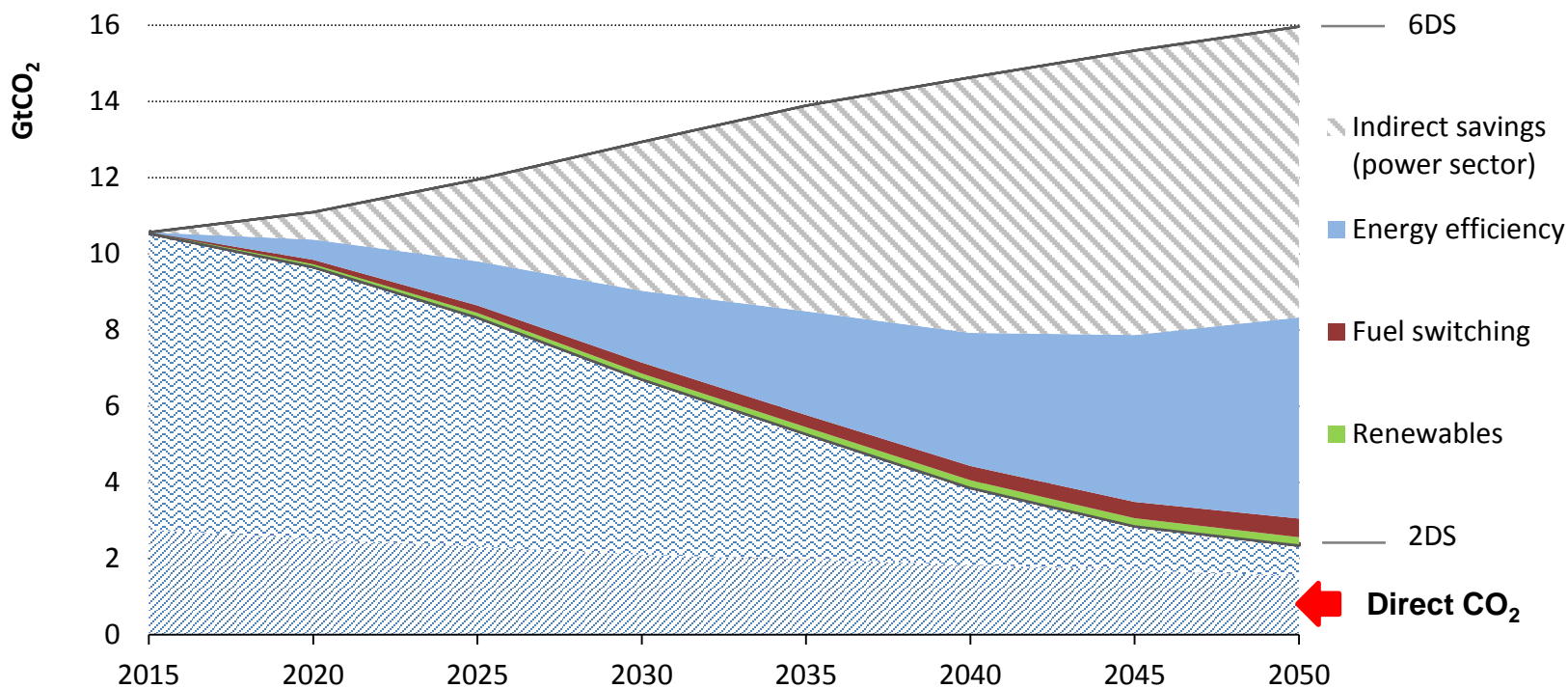
What would rapid deployment of energy-efficiency measures in buildings do speed up the 2DS?



SOURCE: Energy Technology Perspectives 2016

Is zero-carbon possible?

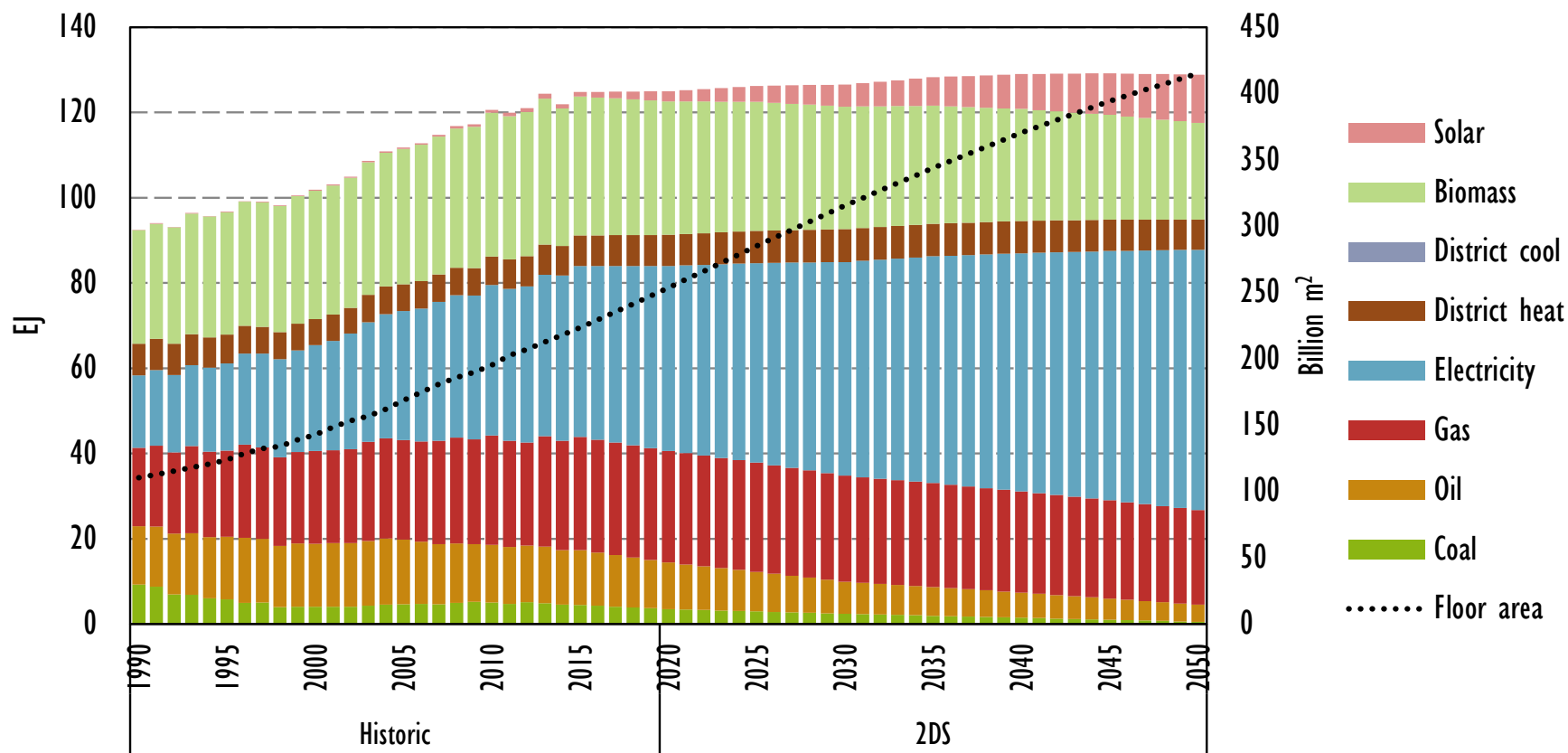
Across buildings stock (especially existing), how realistic is full decarbonisation before 2050?



SOURCE: Energy Technology Perspectives 2016

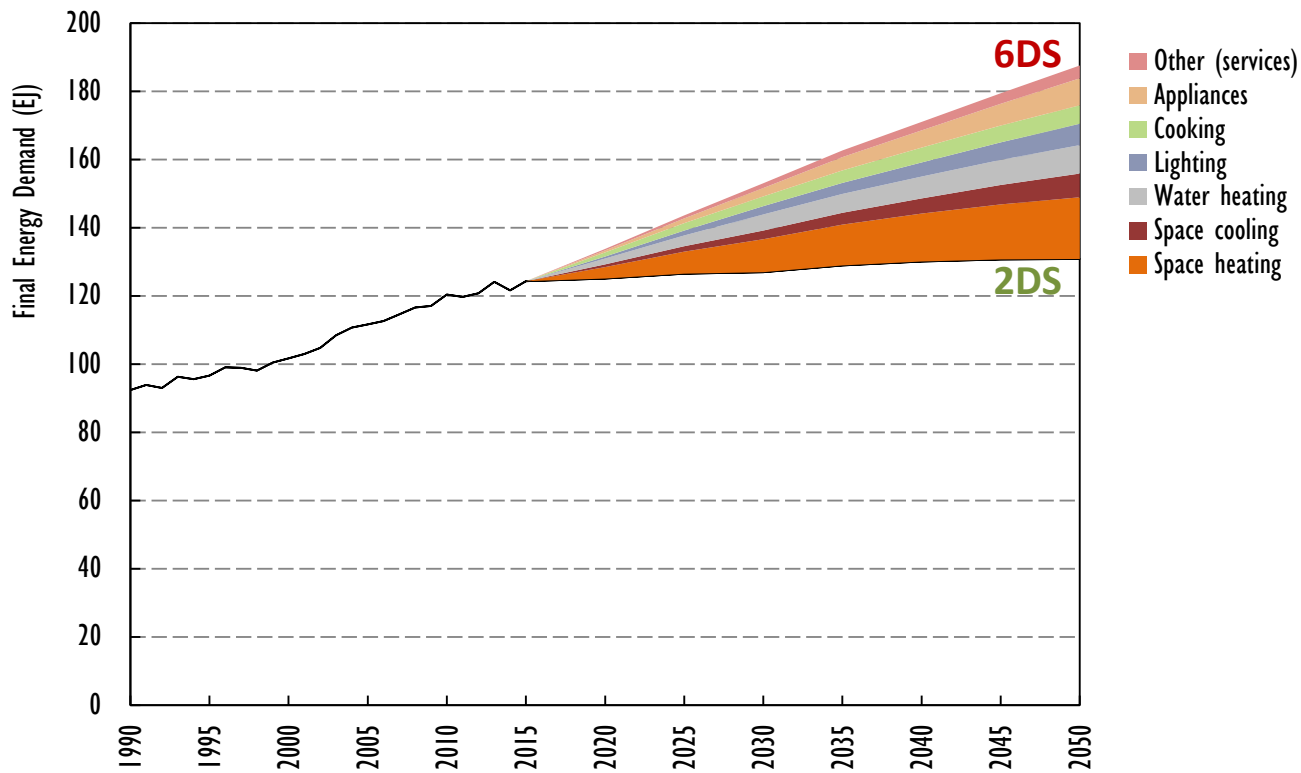
How can buildings support power sector decarbonisation?

What opportunities are there to increase efficiency in buildings in support of stable, low-carbon power generation? What is the role in renewables in this mix?



SOURCE: Energy Technology Perspectives 2016

What role does innovation play in going beyond 2DS? Are there disruptive technologies that will be “game changers” for building efficiency?



SOURCE: Energy Technology Perspectives 2016



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Thanks!