

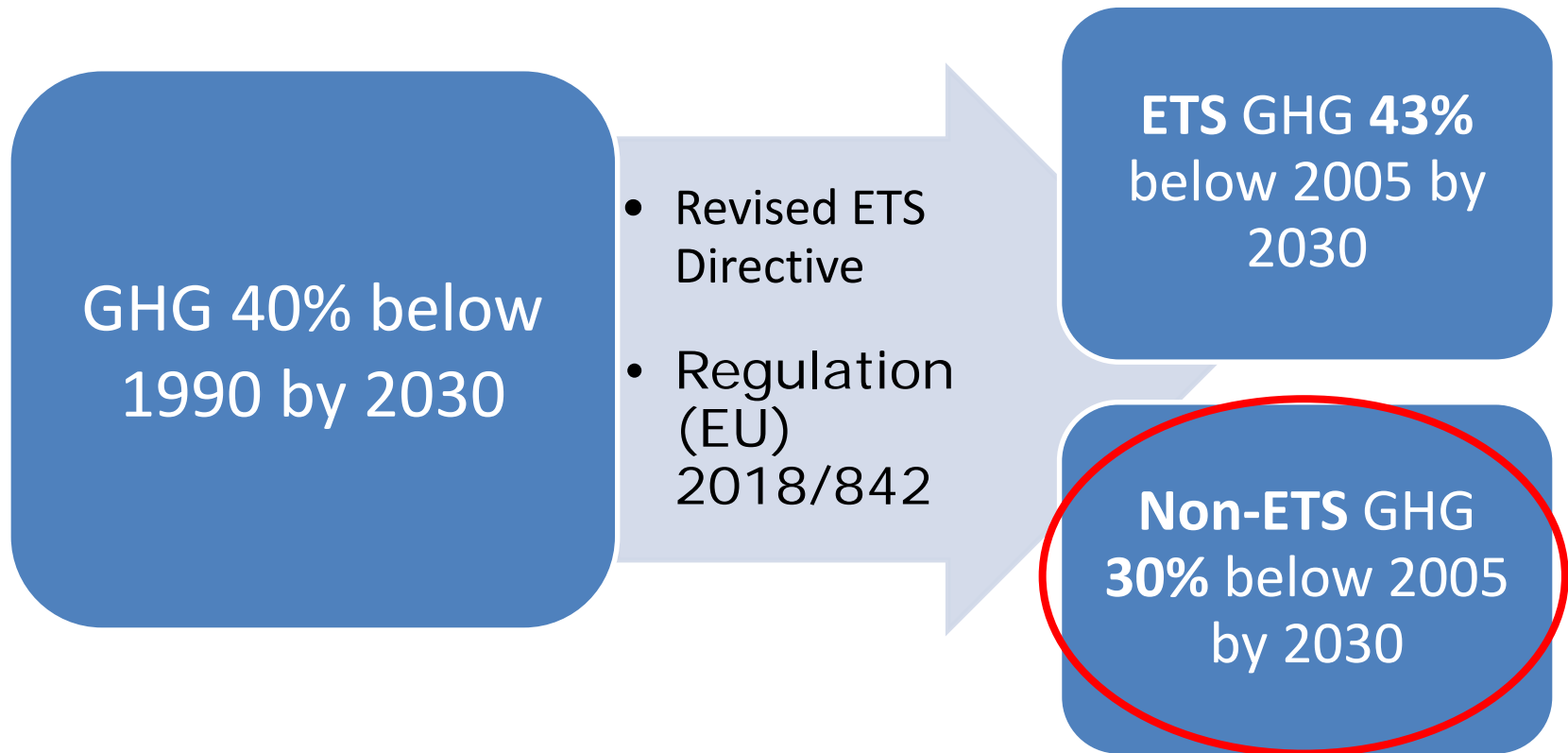


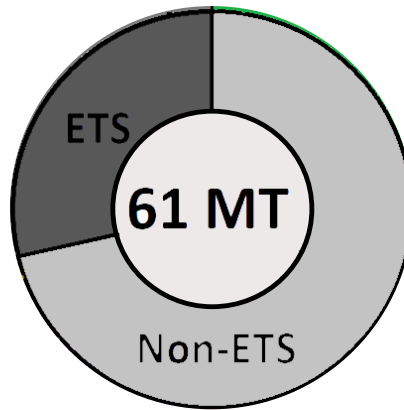
Can we meet our 2030 GHG emissions reduction target?

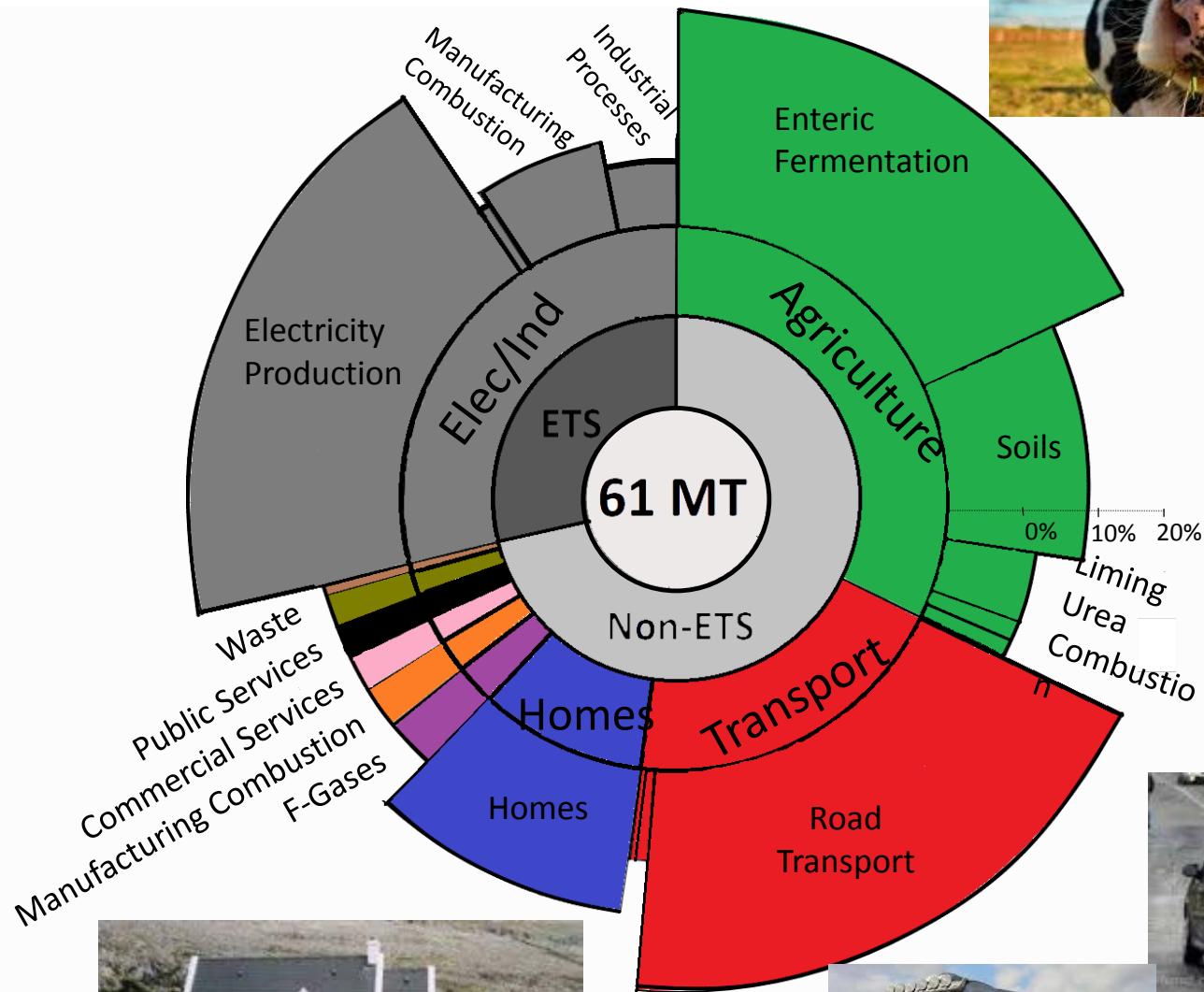
Brian Ó Gallachóir

MaREI Conference on Climate Action Research, ESRI May 17, 2019

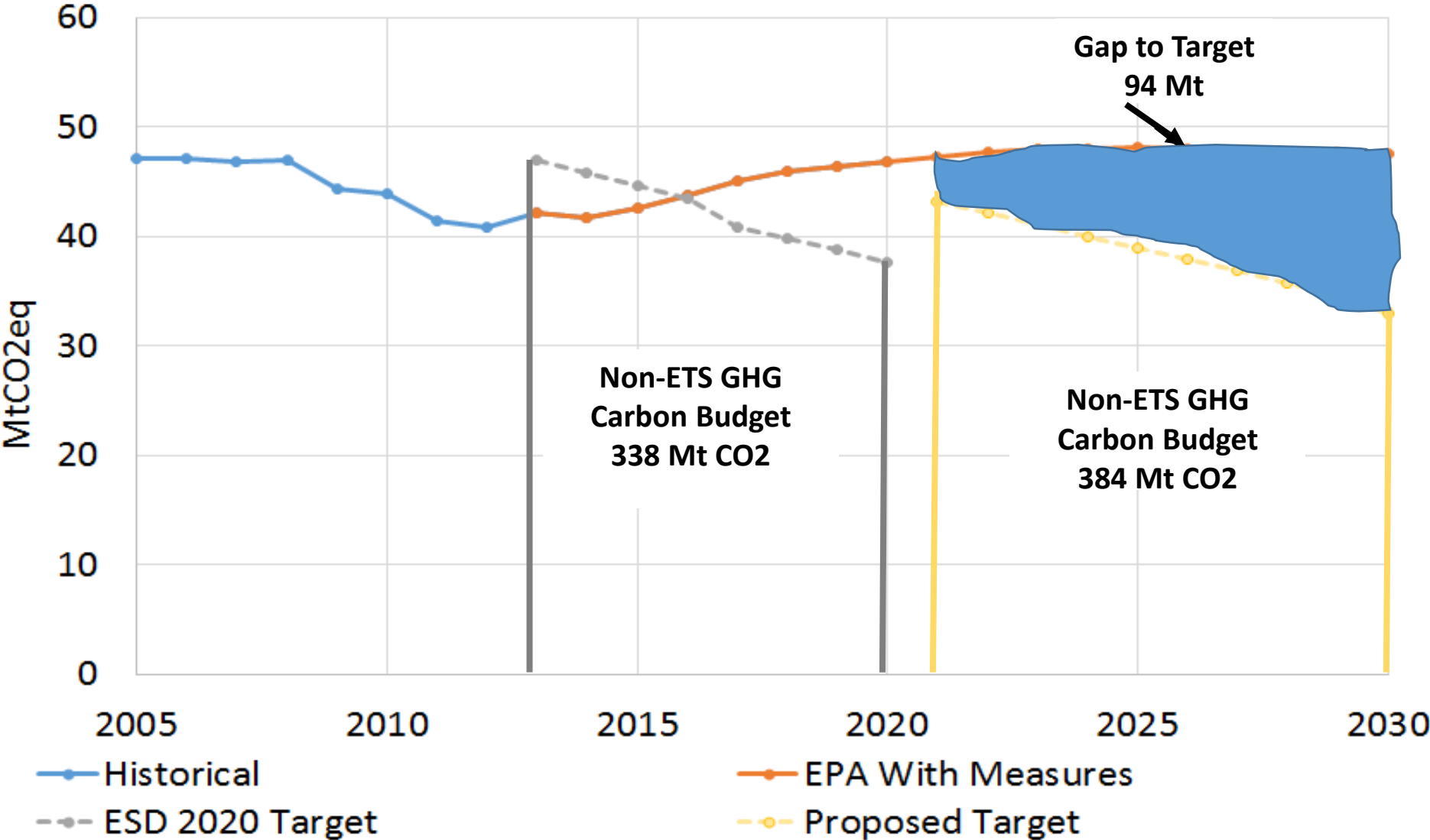
What is Ireland's GHG target?







Ireland's 2030 Non-ETS GHG Emissions Pathway



Why are we so far from target?

1. Growth and politics

16% growth in people, 30% in economy since '05
political leadership on climate action lacking

2. Decarbonising electricity

changes in electricity supply don't contribute to non-ETS target

3. Transport

24% increase in annual km driven since '05
no measures in freight (watch out for growth!)

3. Heat

great building regs but few new houses built
most retrofits to date are 'shallow'
no renewable heat support

How can we address the 94 Mt gap to target?

1. Use flexibility measures

Allowances available for sequestration actions (LULUCF)

Forego ETS auction revenues

2. Energy Efficiency

Retrofitting our buildings

Efficiency in transport

3. Electrification of Heat and Transport

Electric vehicles and heat pumps

4. Bioenergy

Biofuels for transport

Biogas for heat and transport

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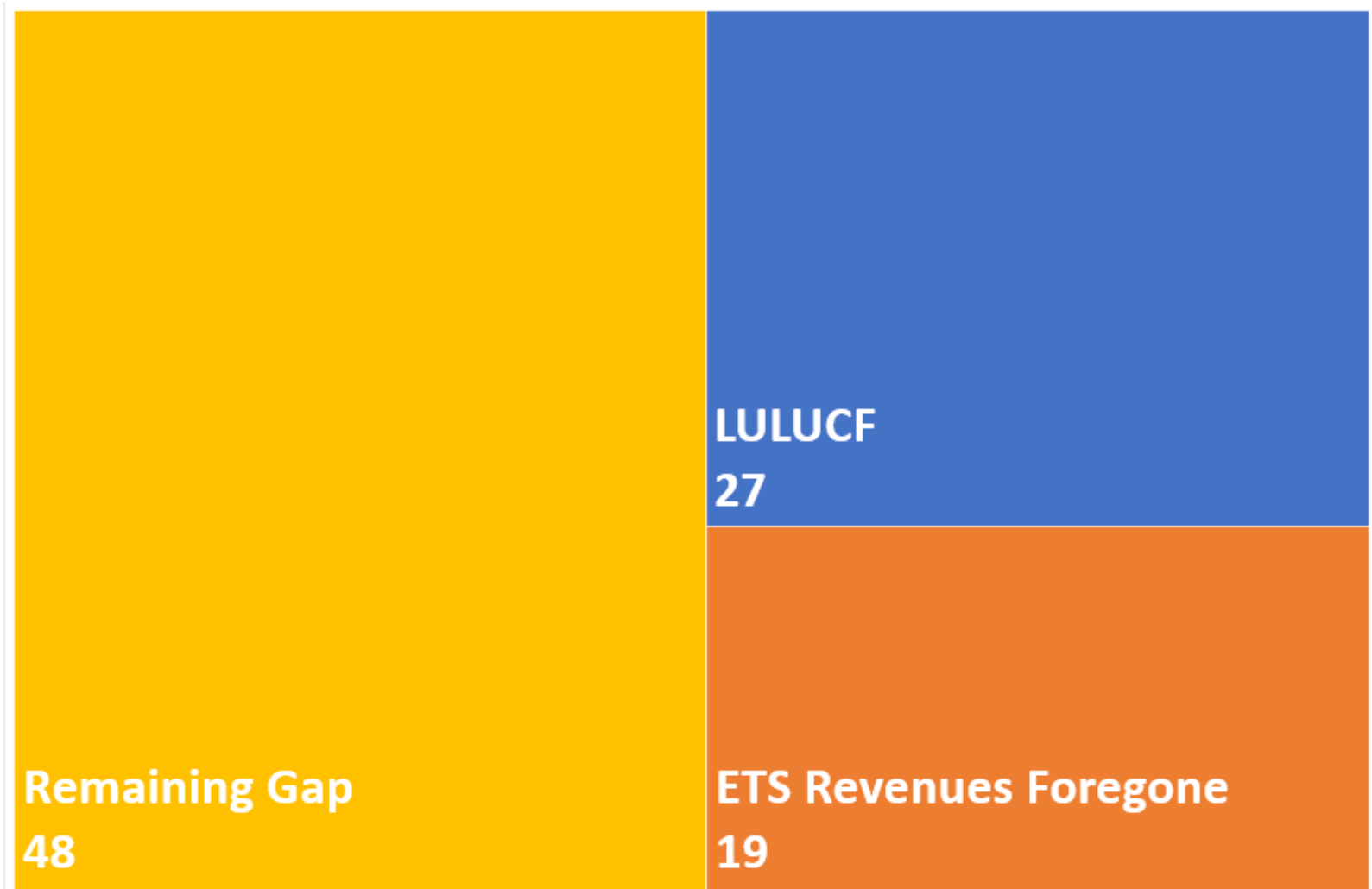
Electric vehicles and heat pumps

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Addressing Ireland's 94 Mt gap to target FLEXIBILITIES



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Addressing Ireland's 94 Mt gap to target - EFFICIENCY



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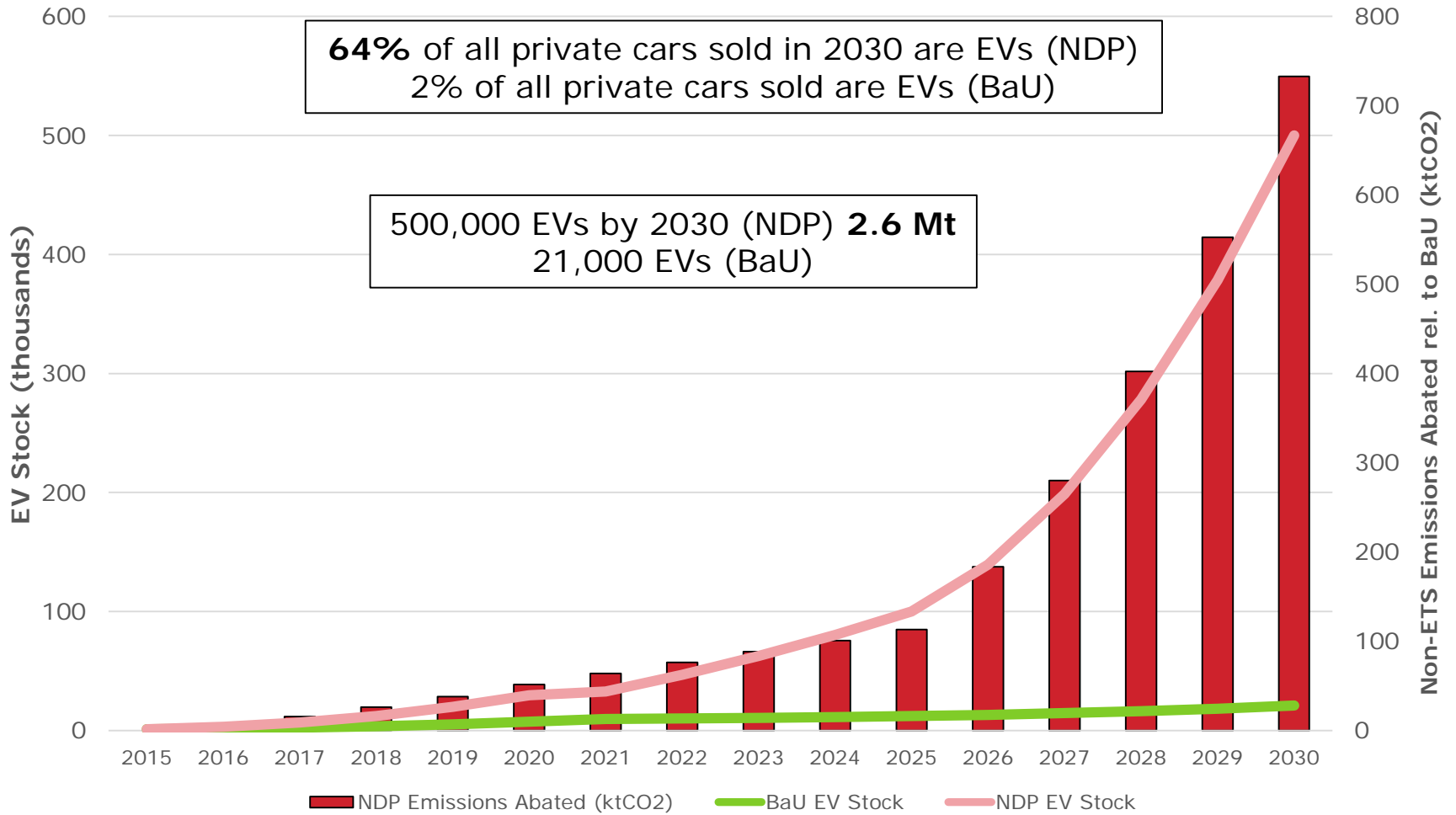
Electric vehicles and heat pumps

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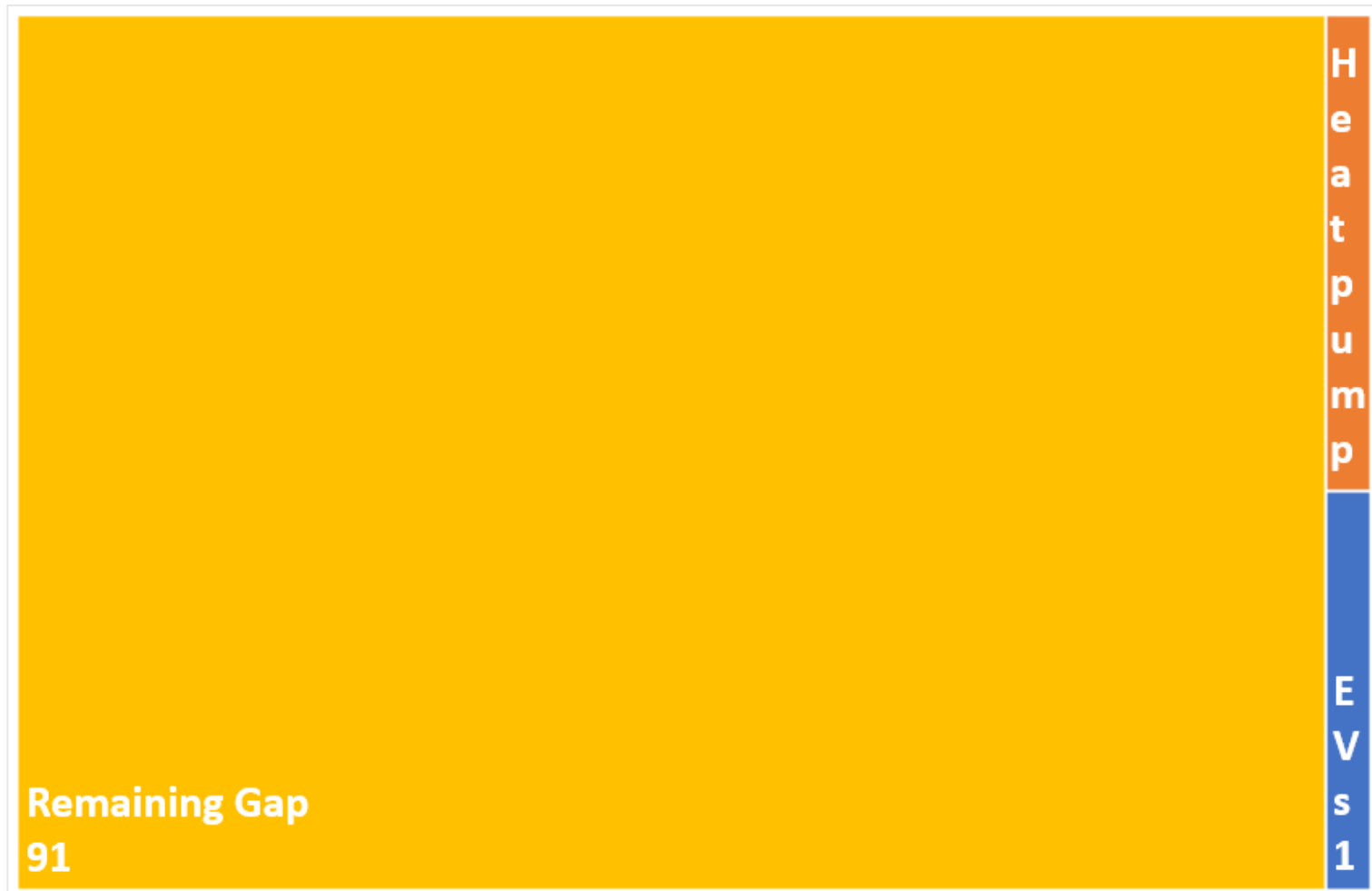
Biofuels for transport

Biogas for heat and transport

Electric Vehicles and non-ETS Emissions



Addressing Ireland's 94 Mt gap to target - ELECTRIFICATION



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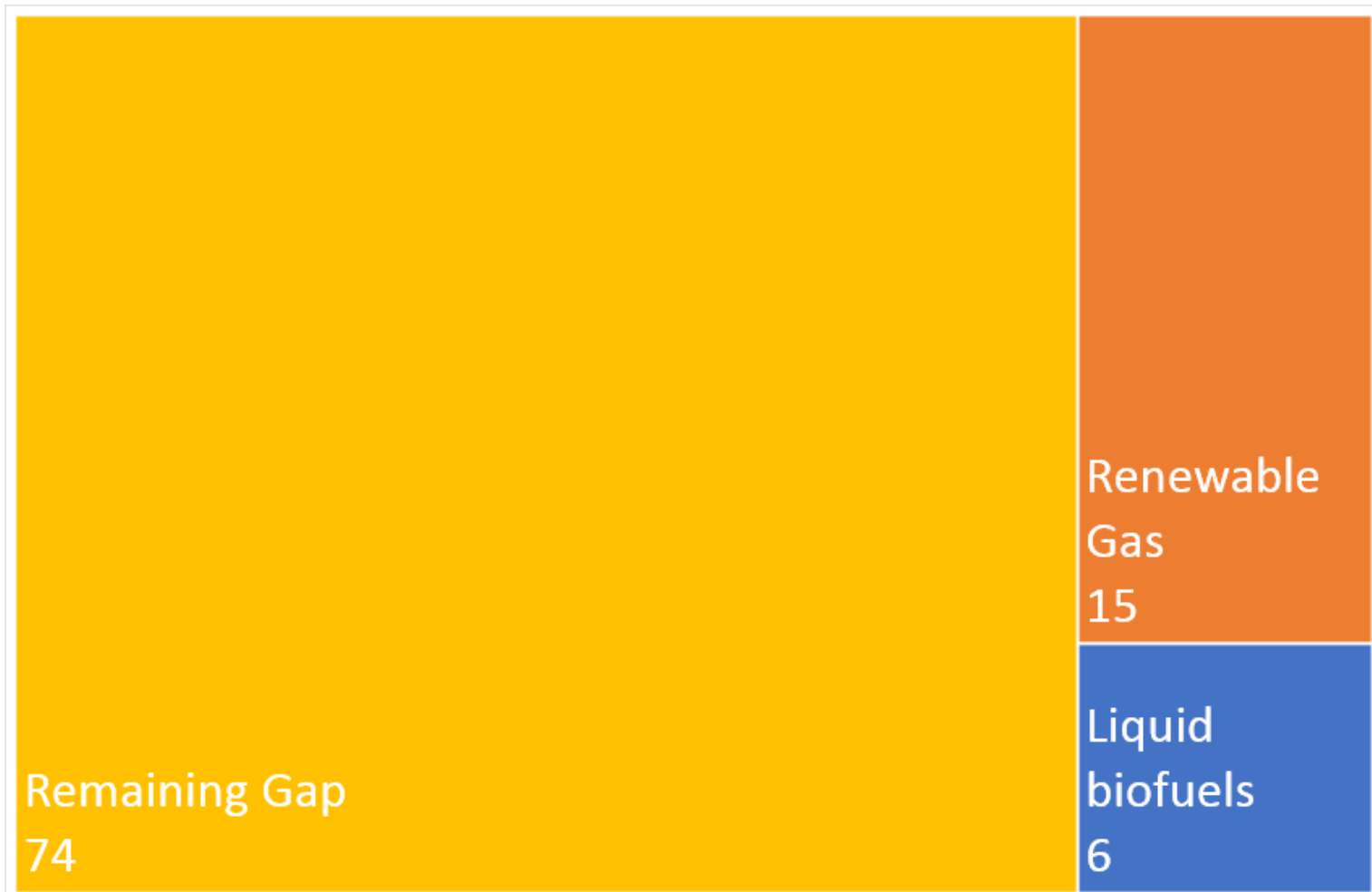
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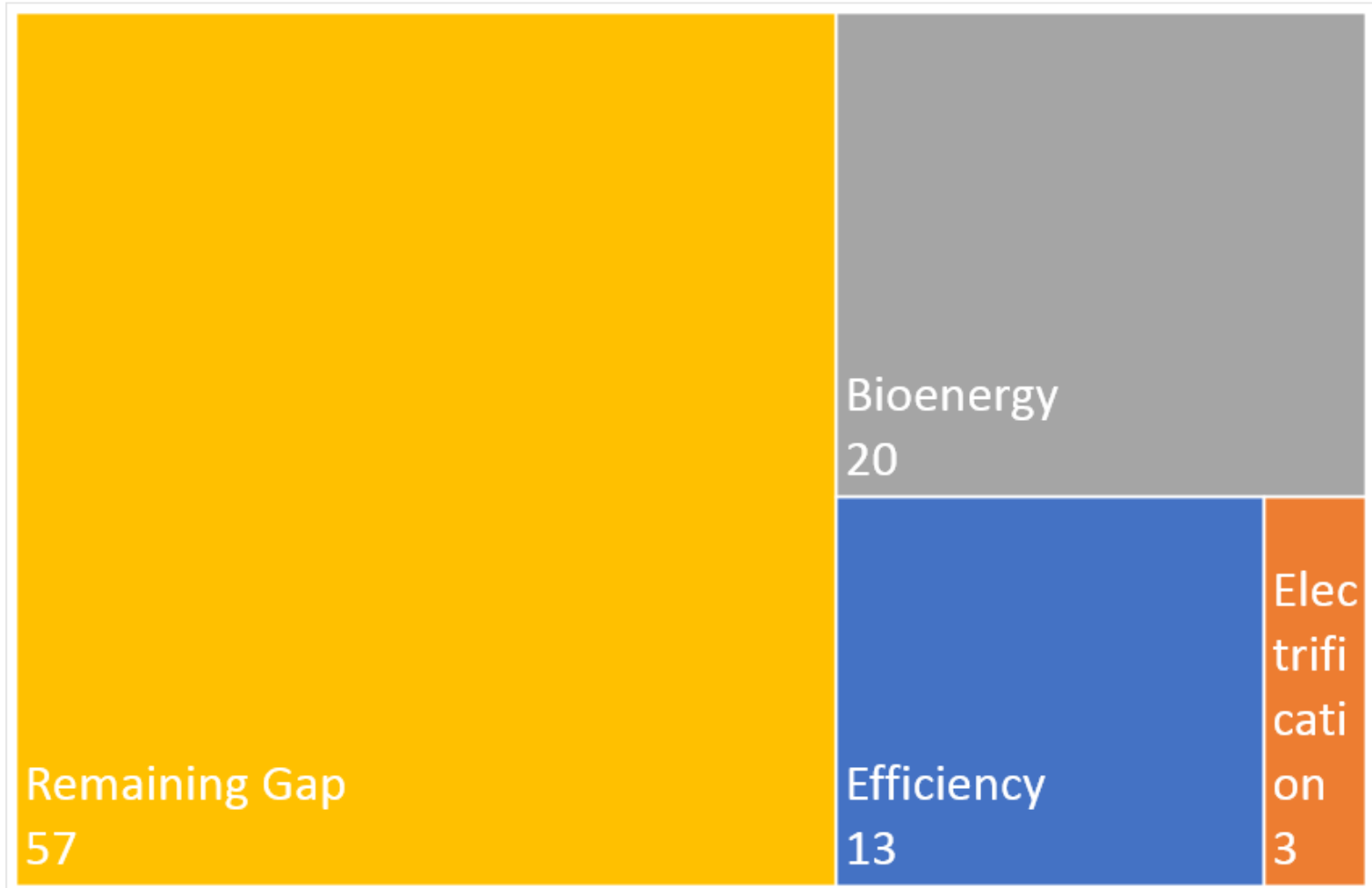
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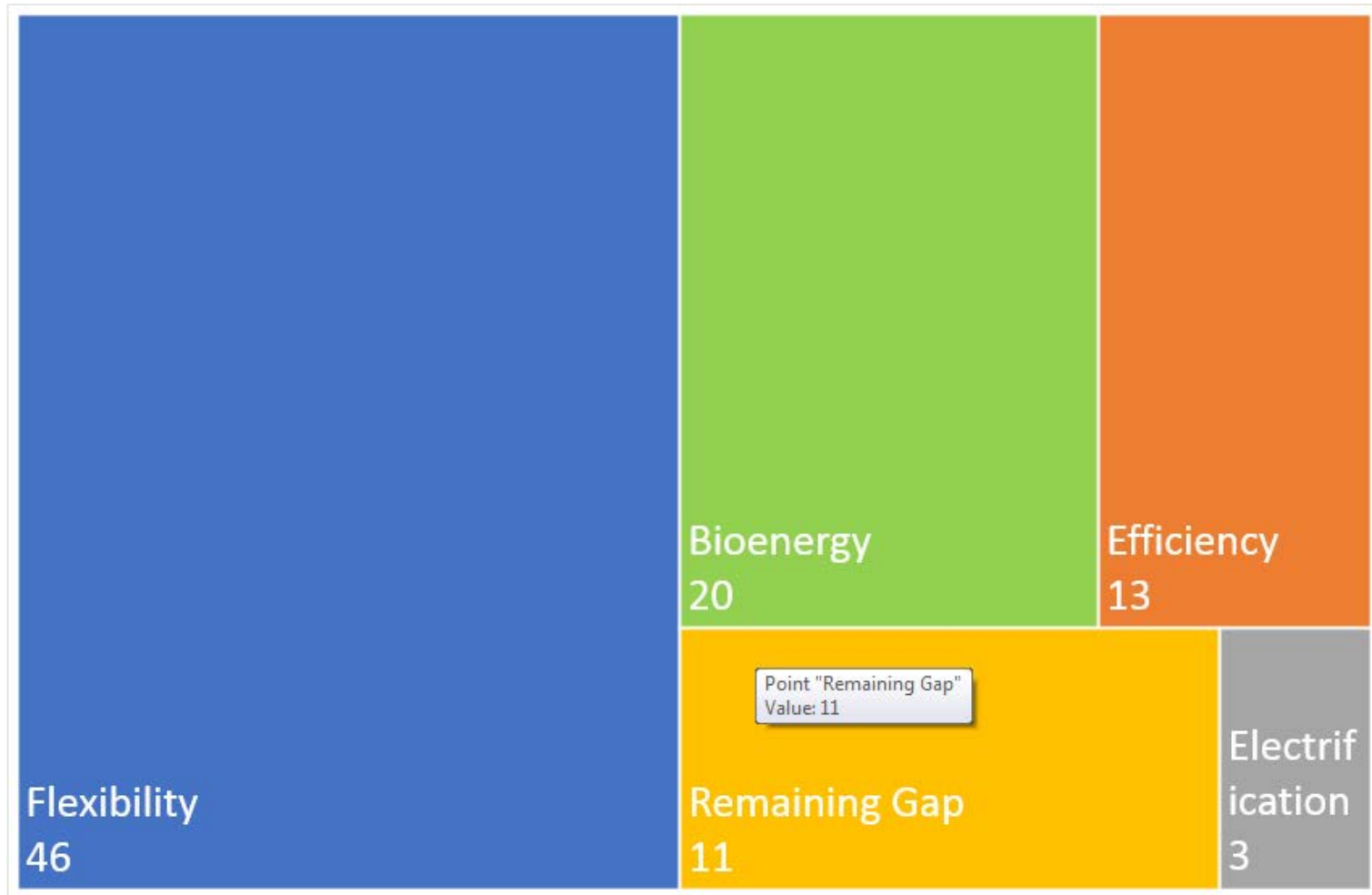
Addressing Ireland's 94 Mt gap to target - BIOENERGY



Can we meet our target?



... and with the flexibility mechanisms?



Key Take Away Messages

1. Energy efficiency and electrification are necessary but not sufficient
2. We need a serious discussion about bioenergy, *the overlooked giant of renewable energy*
3. Flexibility mechanisms may prove essential