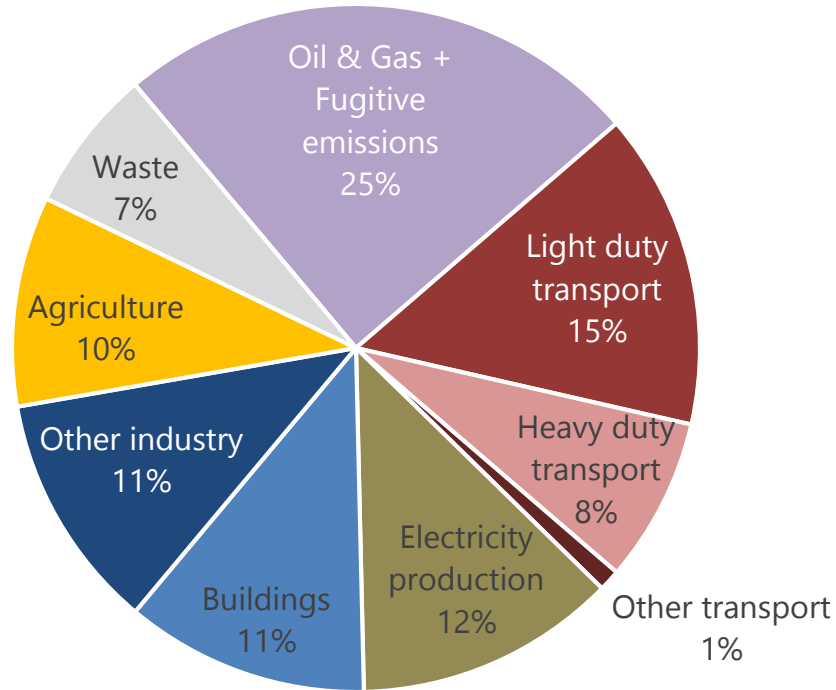


# Green energy and jobs - updates from 30,000 feet

Warren Mabee

ACW Team Meeting, Vancouver, Canada 27 November 2016

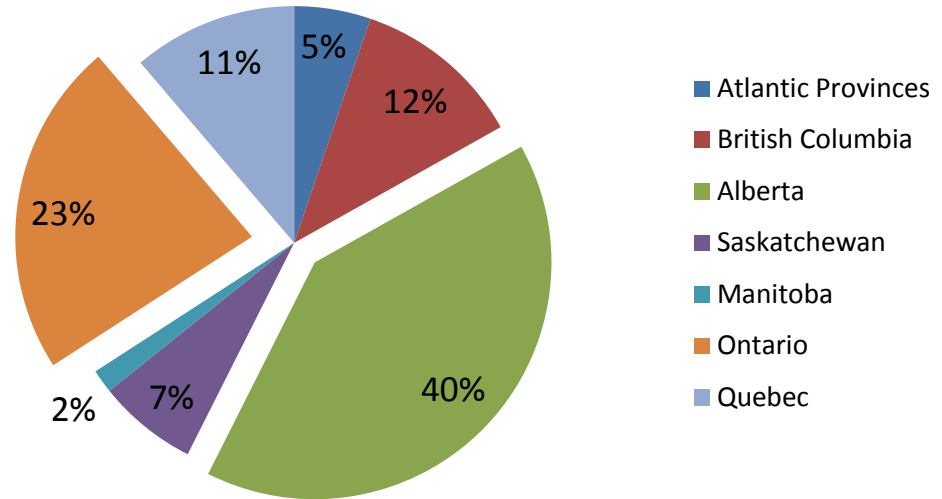
# Total emissions (2013): 726 Mt CO<sub>2</sub>-e



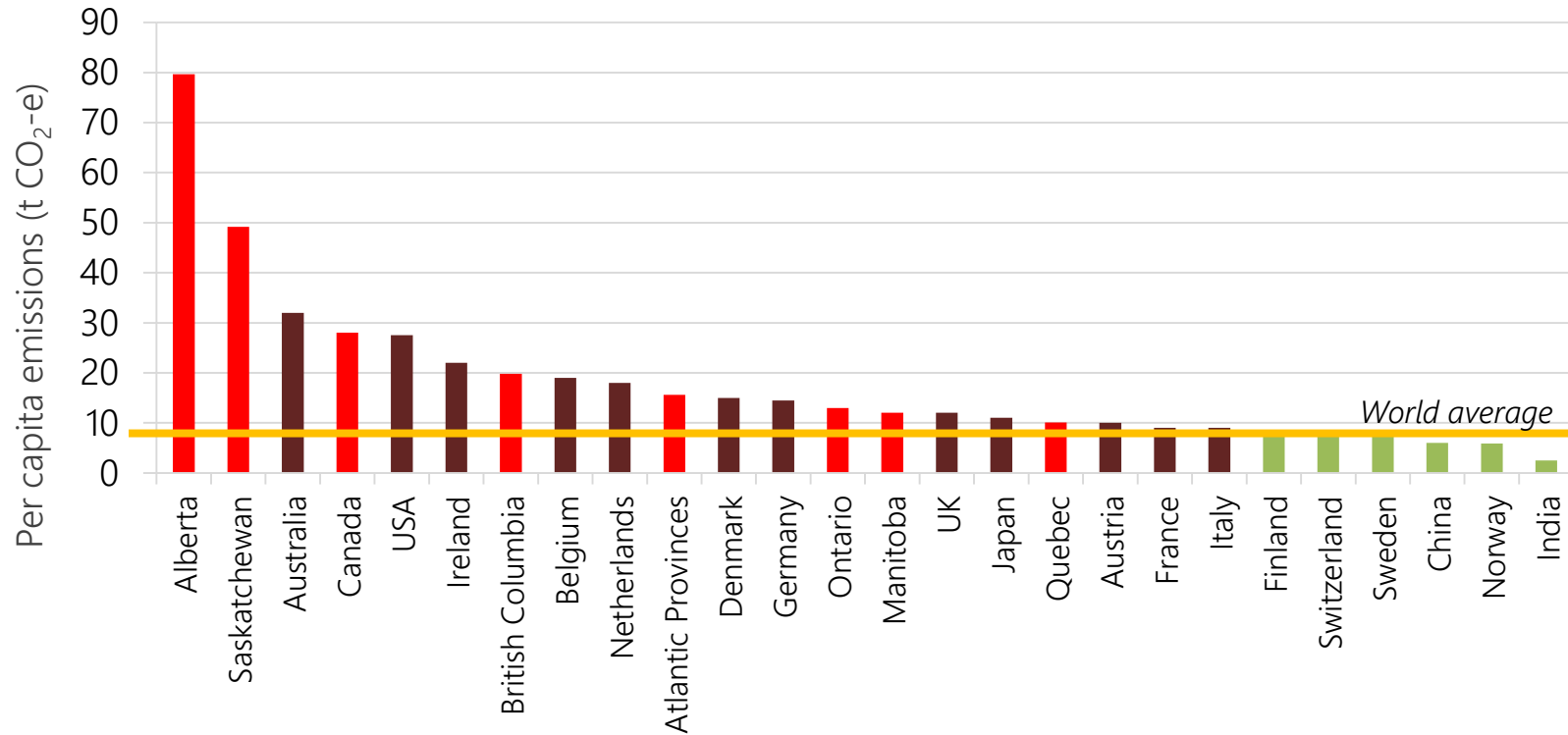
# Provincial GHG emissions

Key regions to focus on:

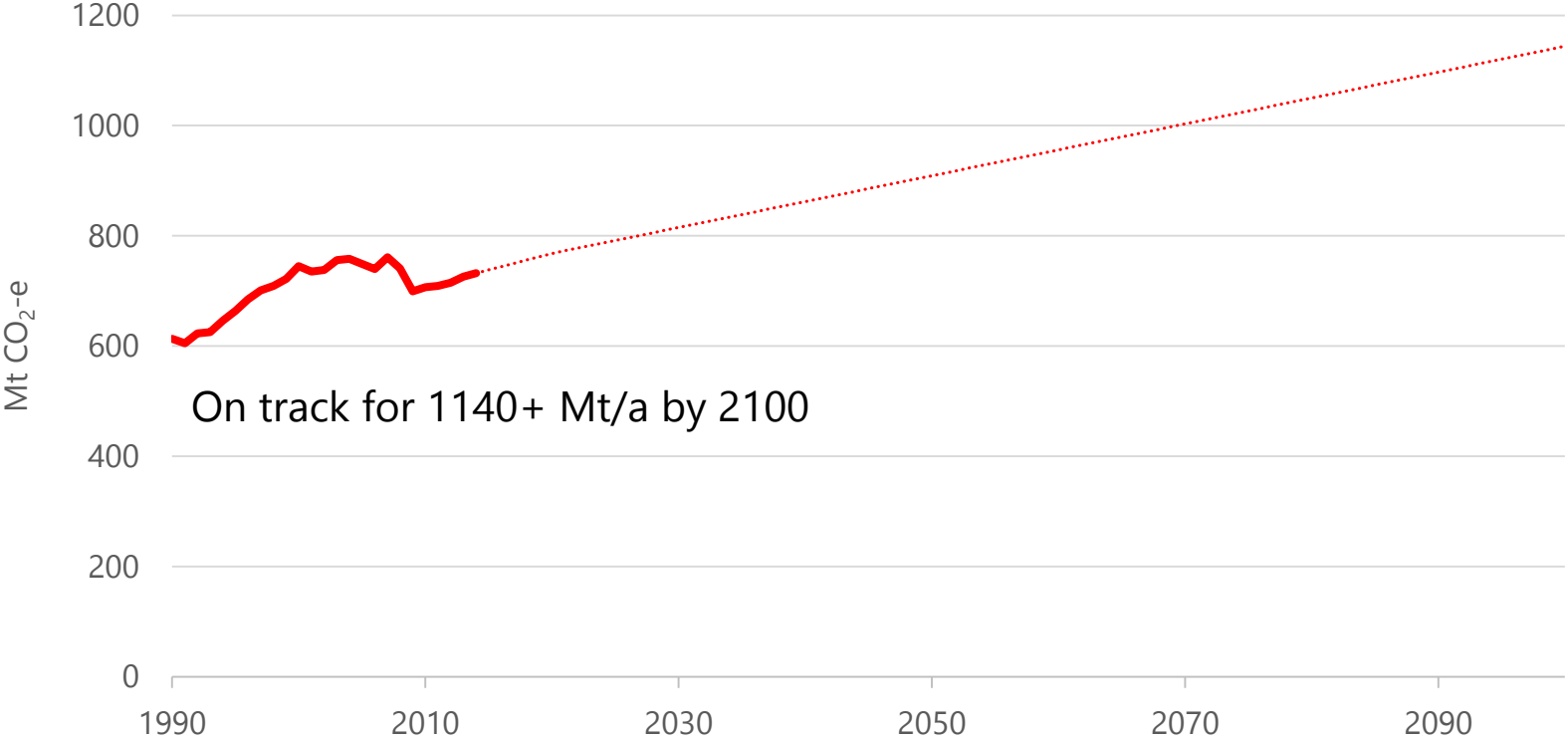
- Ontario (largest population, most sprawl issues, legacy manufacturing)
- Alberta (fossil fuel industry, growing population, sprawl issues)



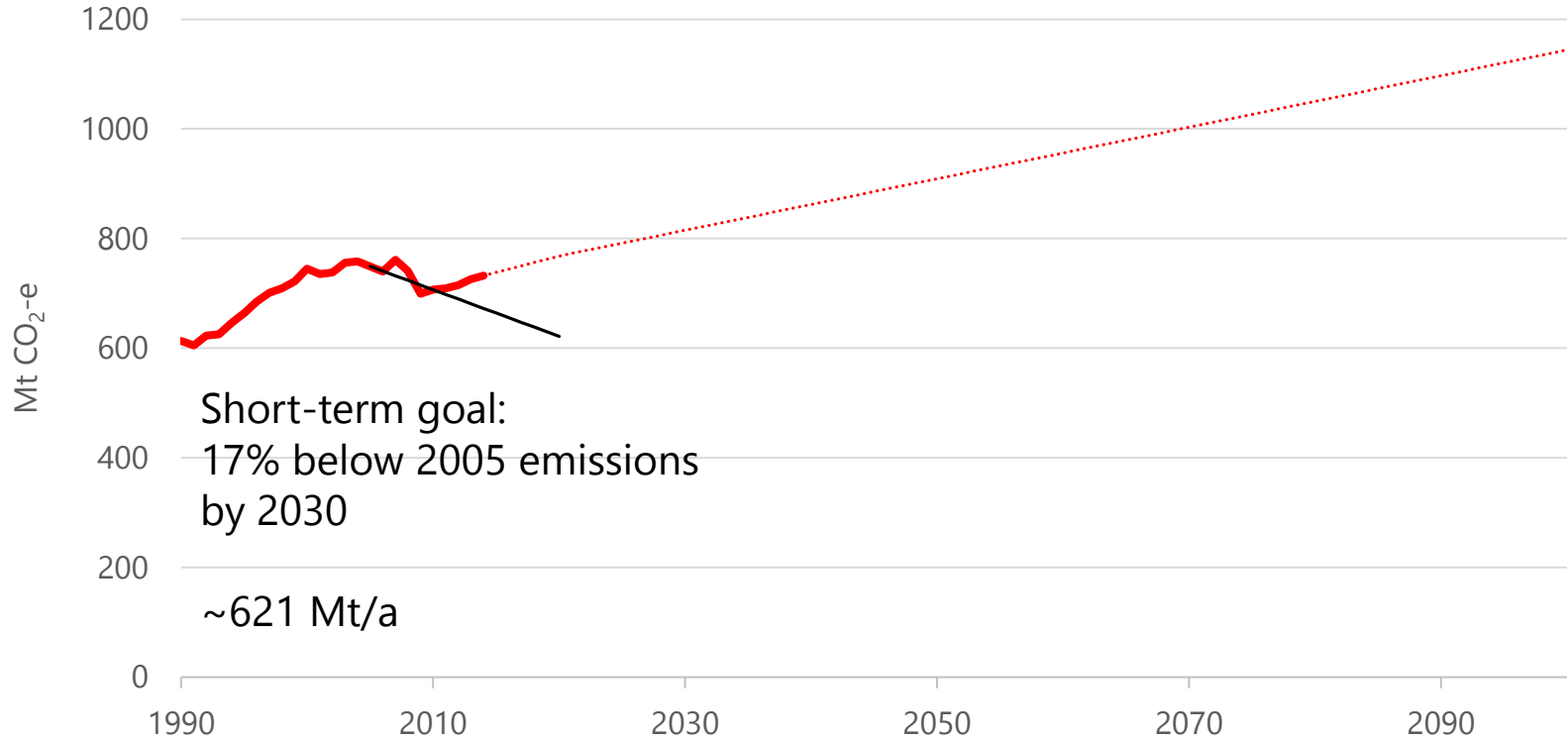
# Per capita GHG emissions



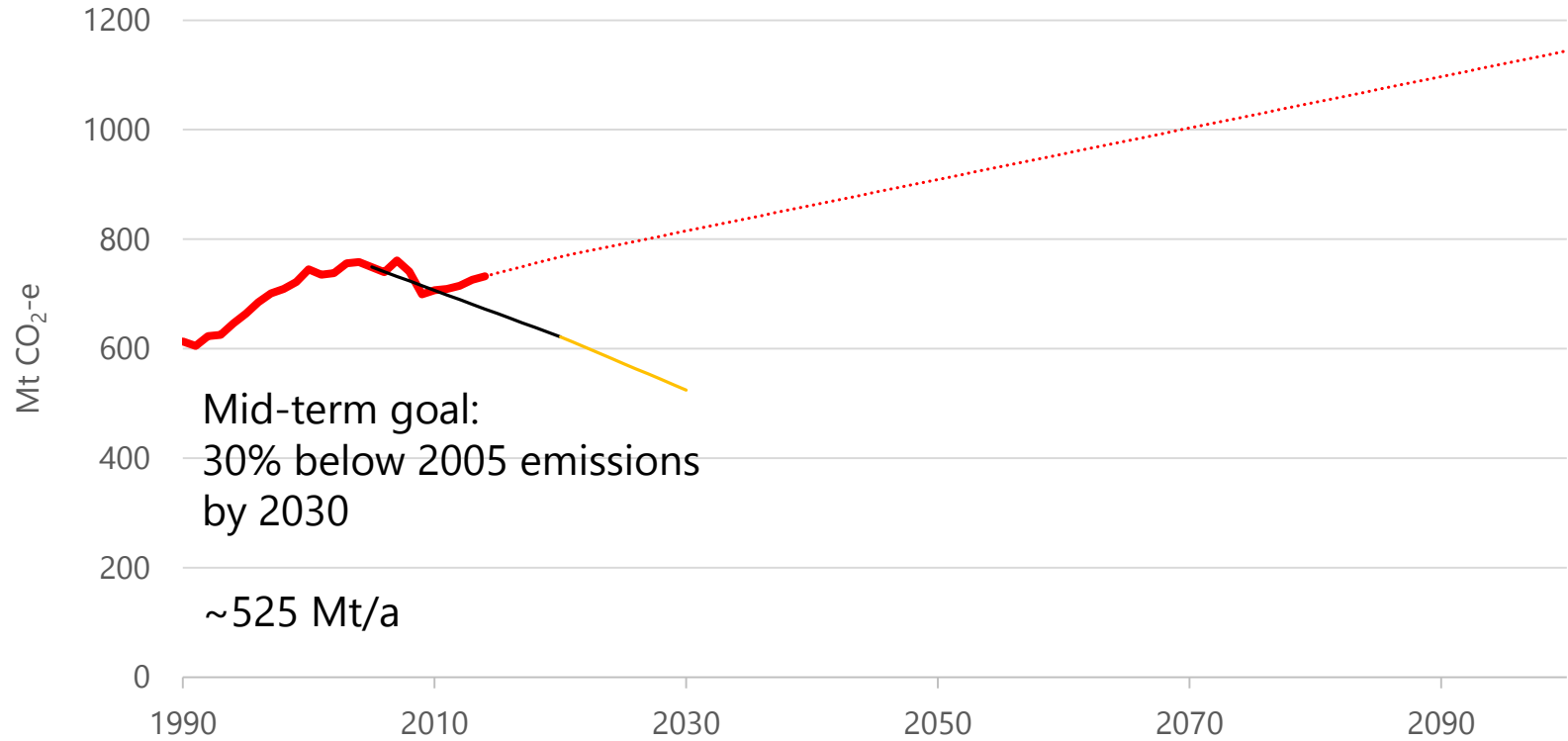
# Addressing GHG emissions



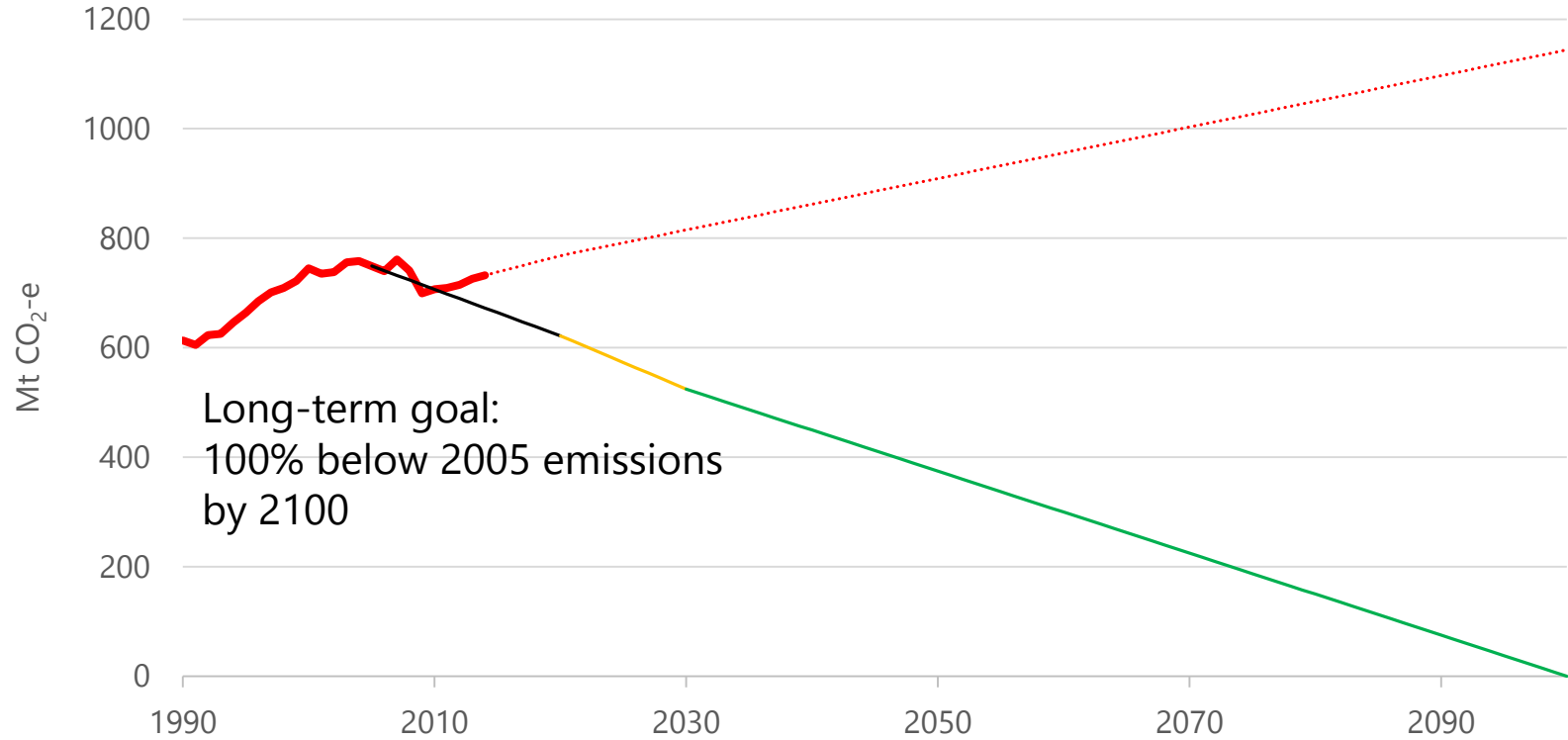
# Addressing GHG emissions



# Addressing GHG emissions

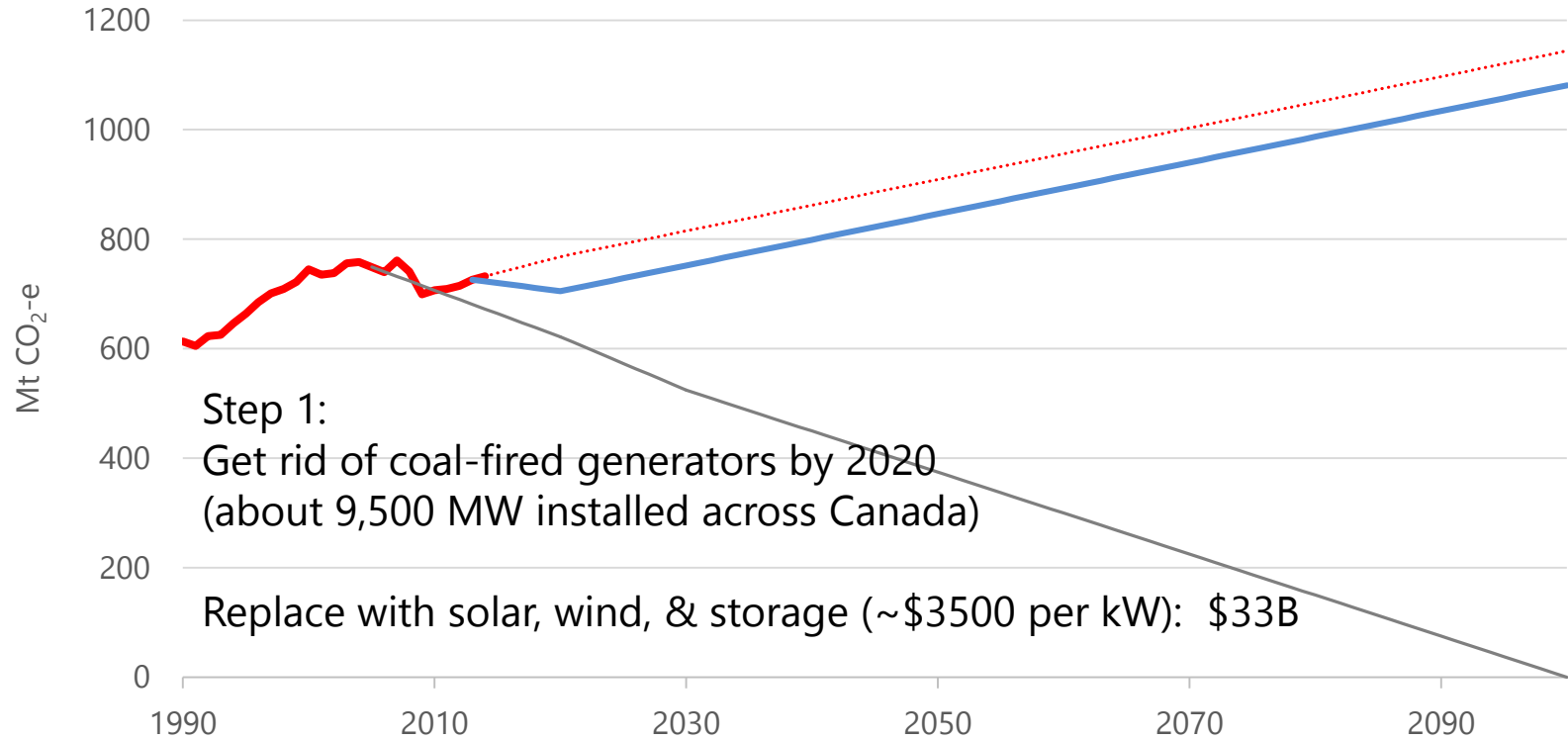


# Addressing GHG emissions

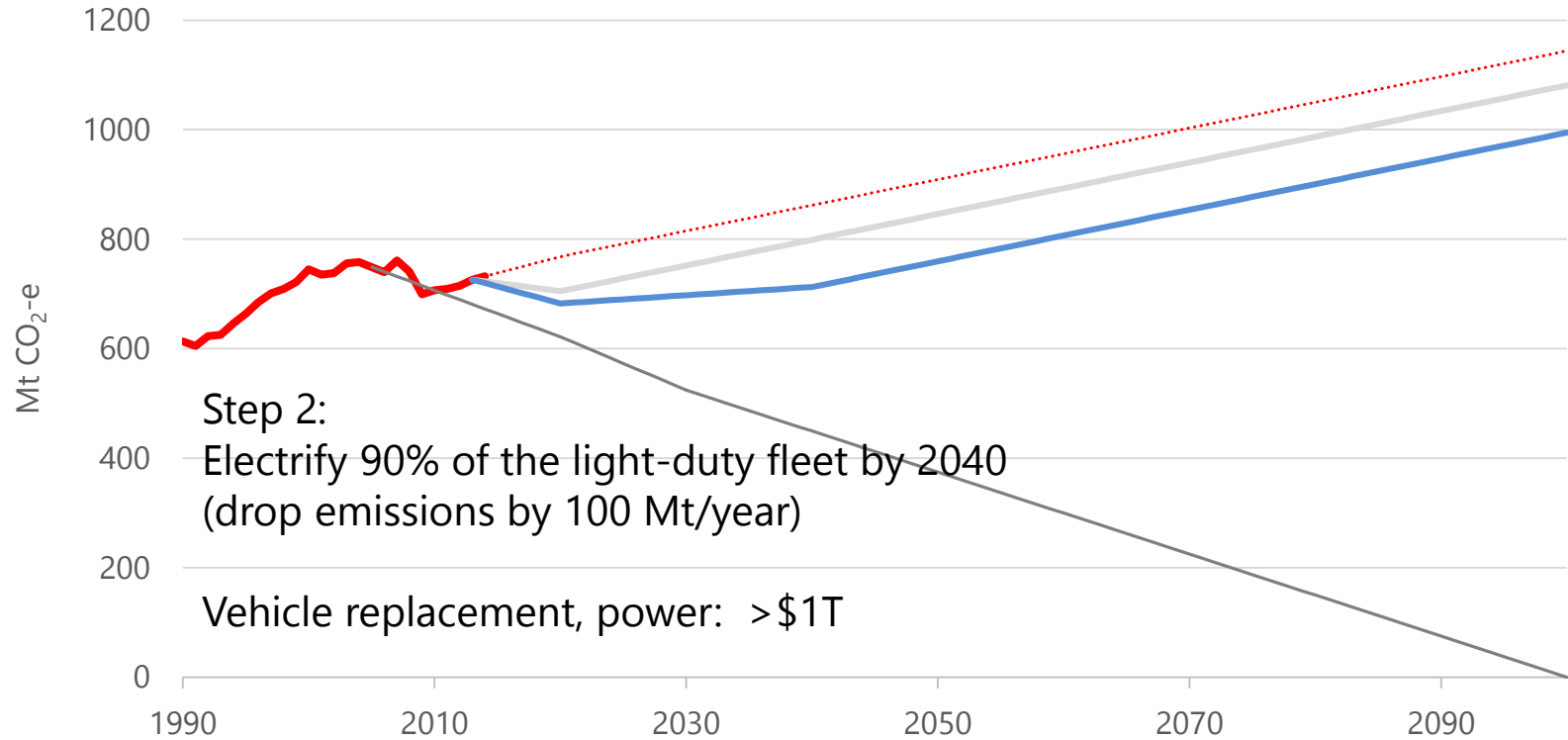




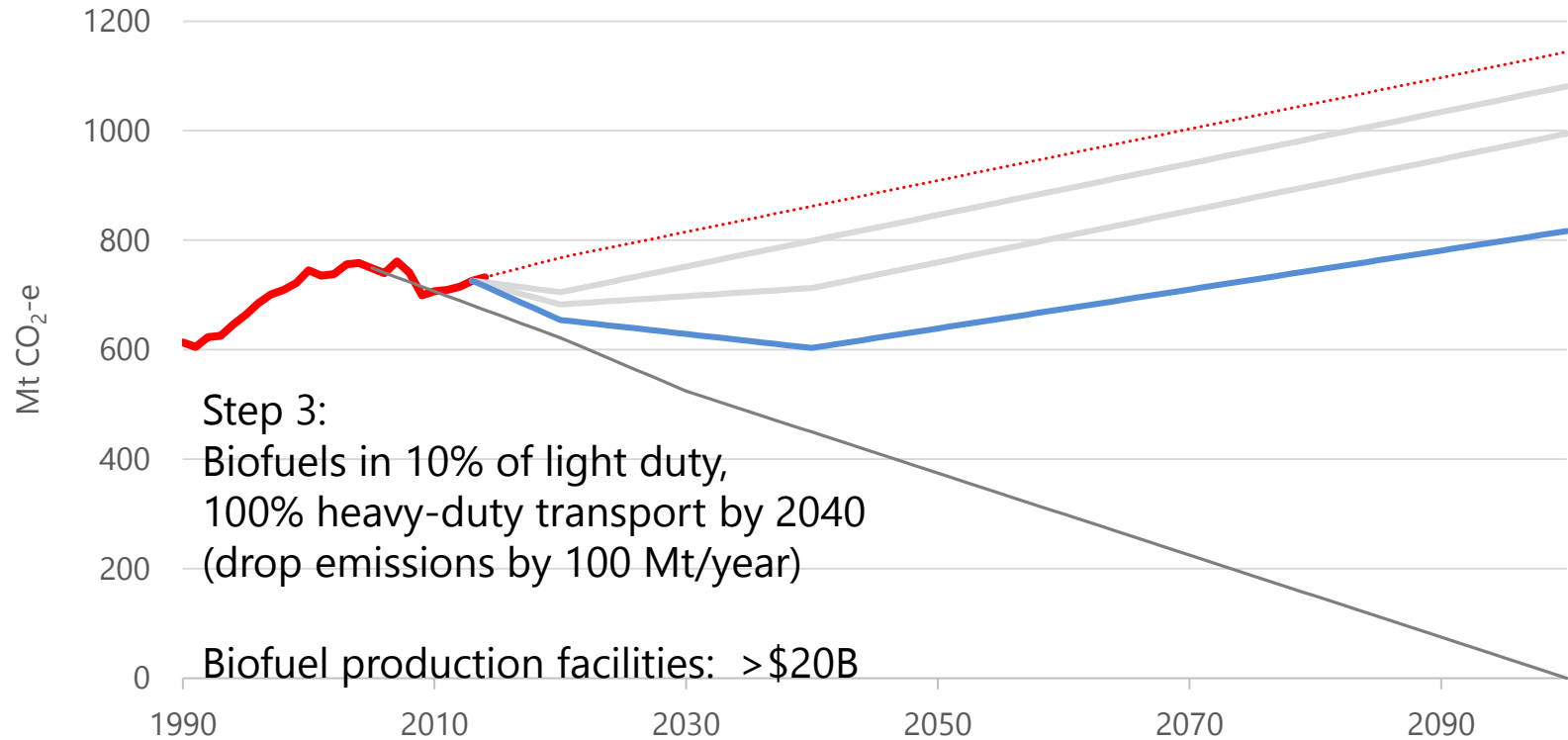
# Move to a zero-carbon economy



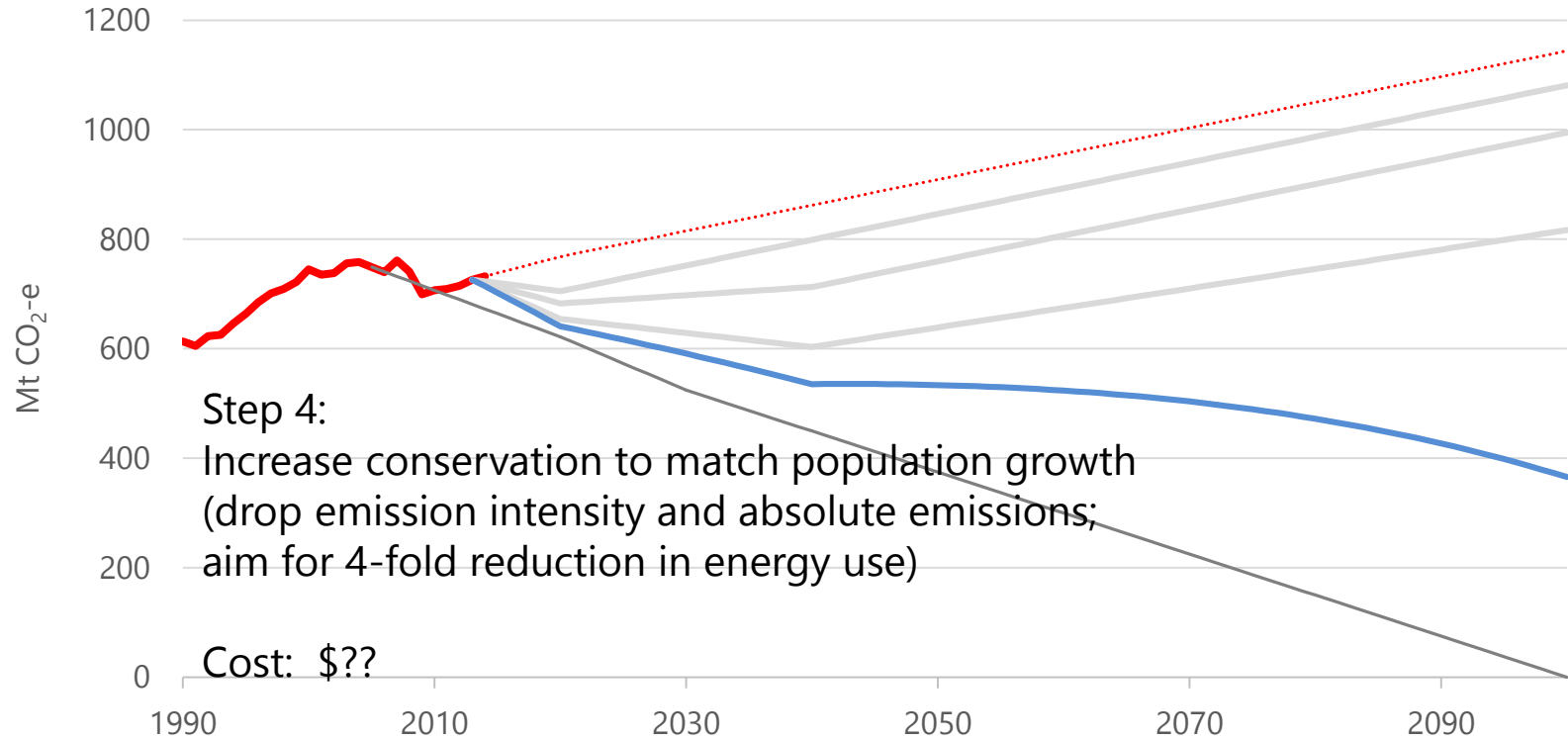
# Move to a zero-carbon economy



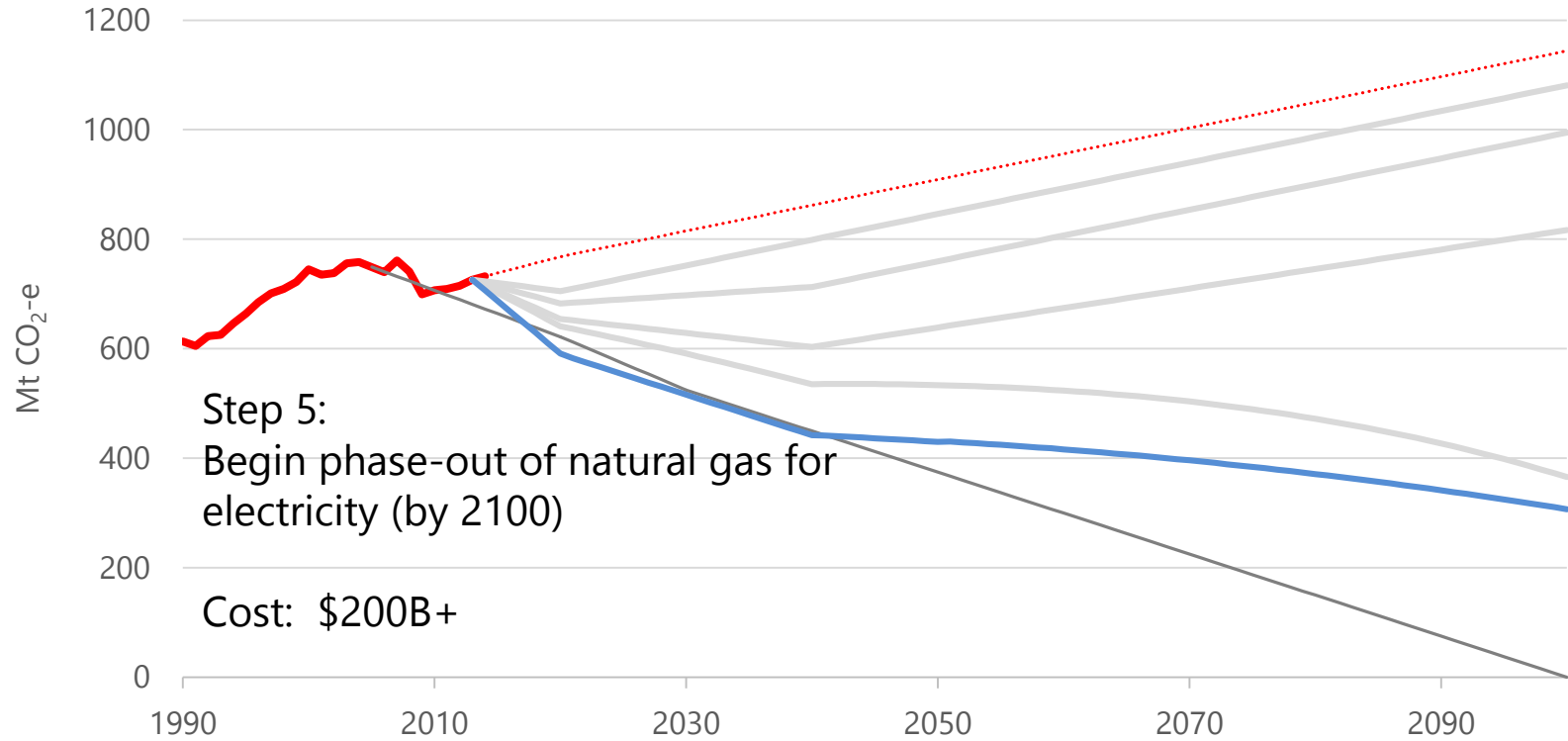
# Move to a zero-carbon economy



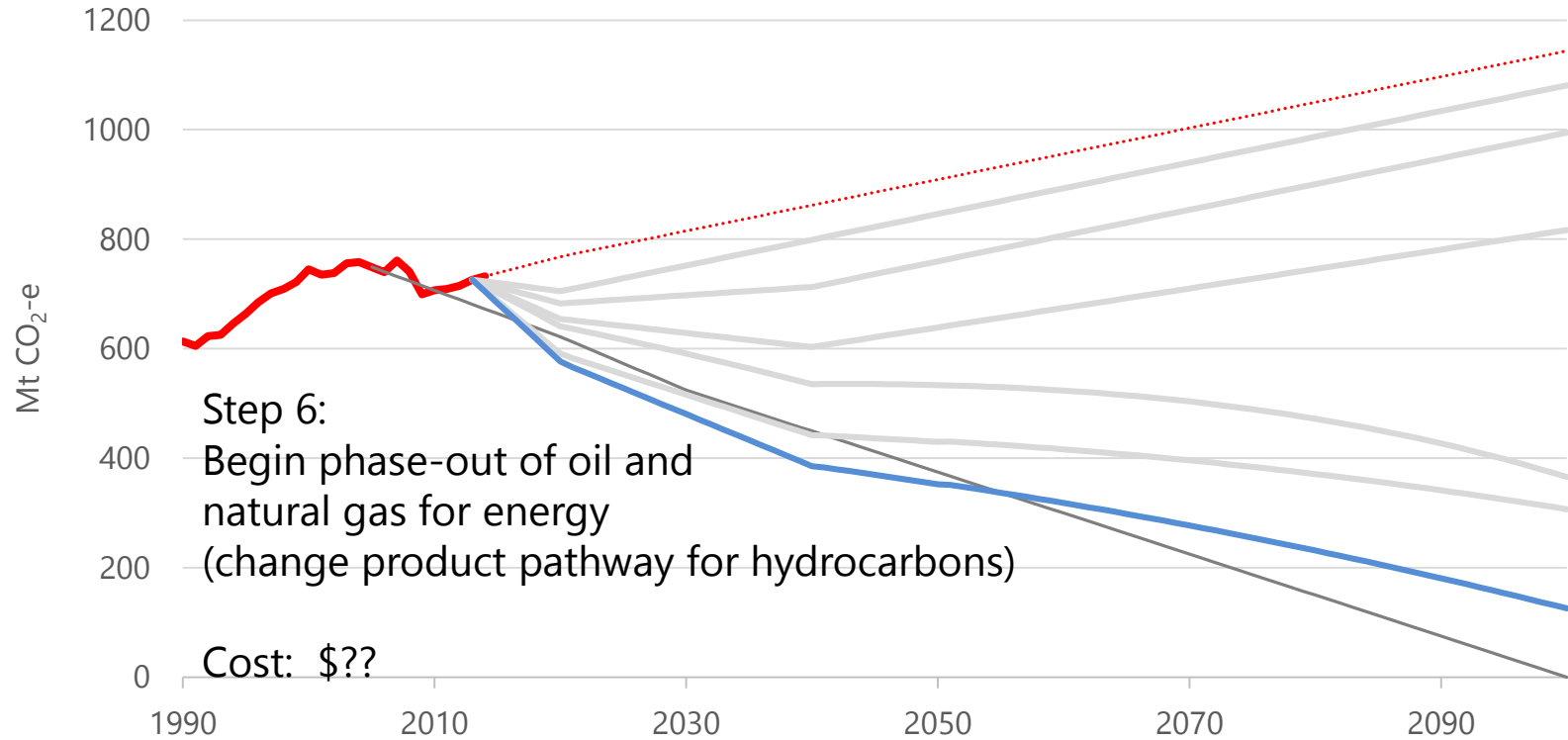
# Move to a zero-carbon economy



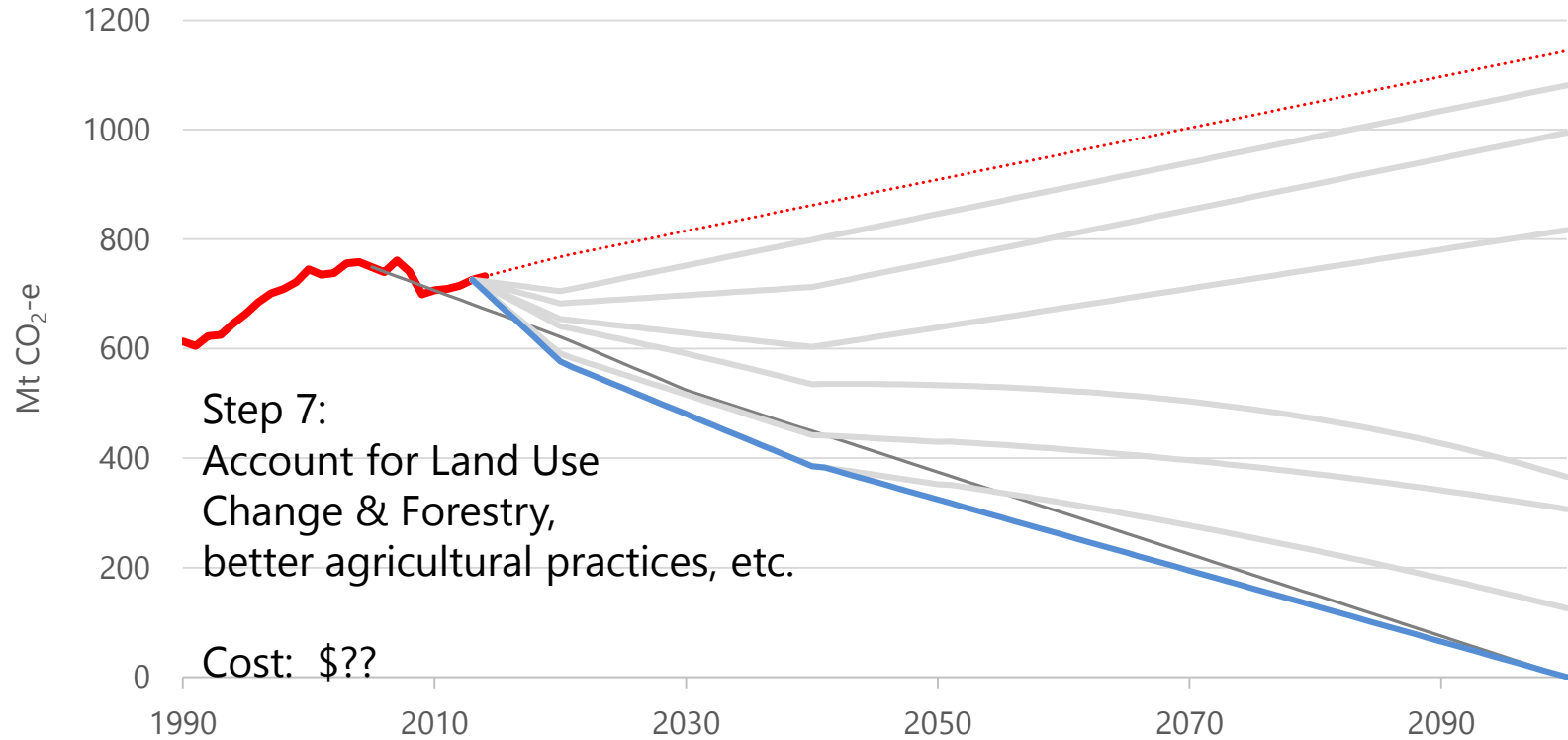
# Move to a zero-carbon economy



# Move to a zero-carbon economy



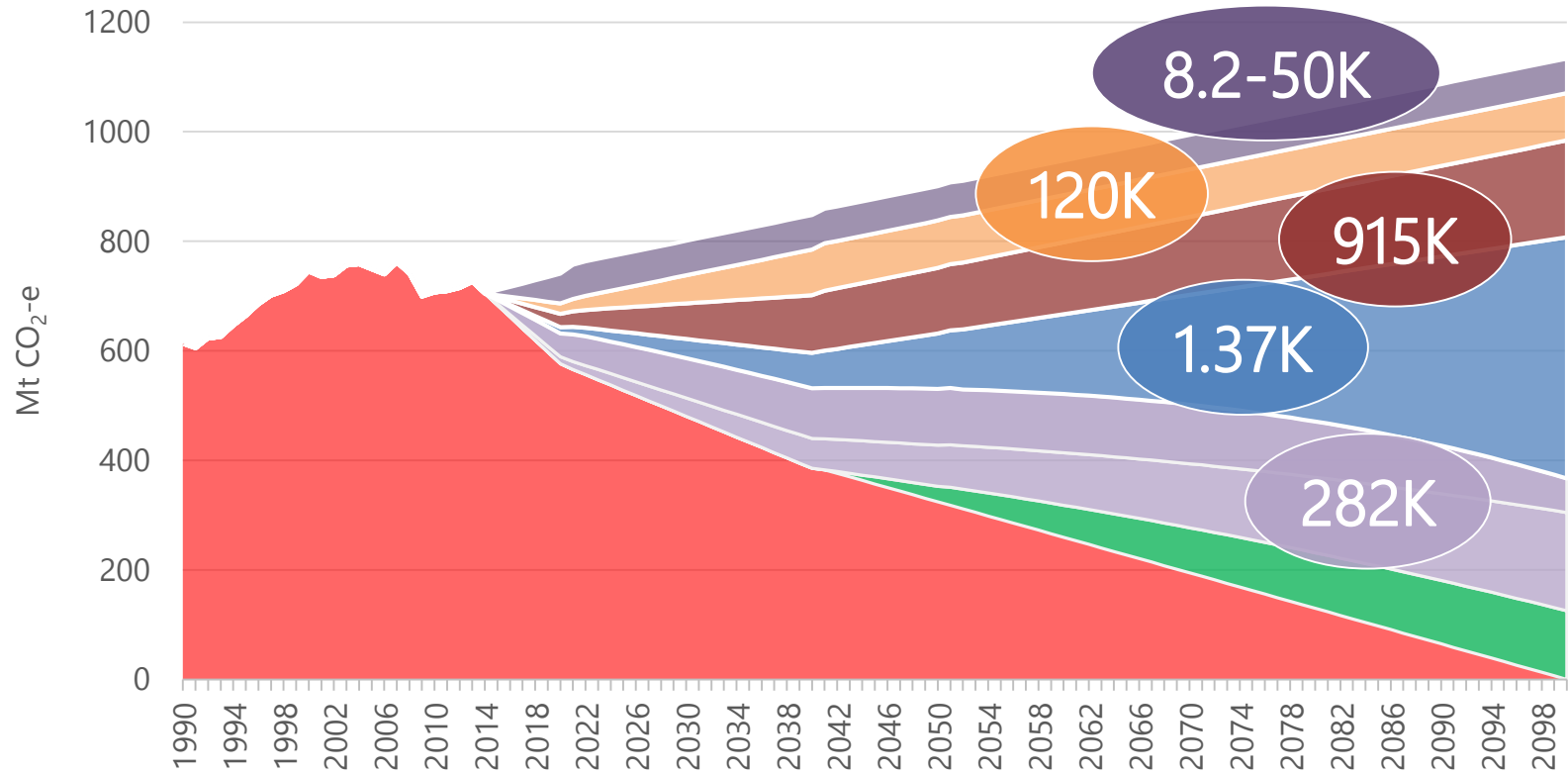
# Move to a zero-carbon economy



Step 7:  
Account for Land Use  
Change & Forestry,  
better agricultural practices, etc.

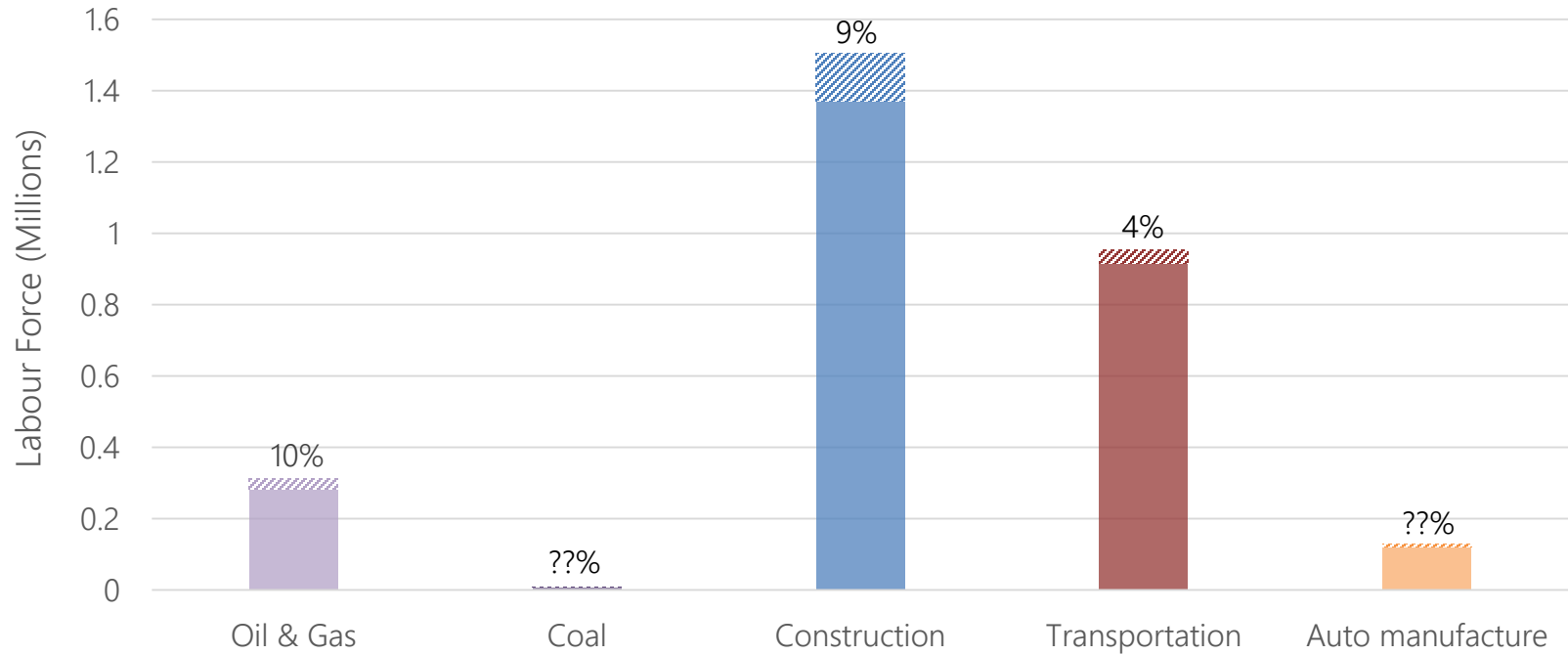
Cost: \$??

# Green energy transition and jobs

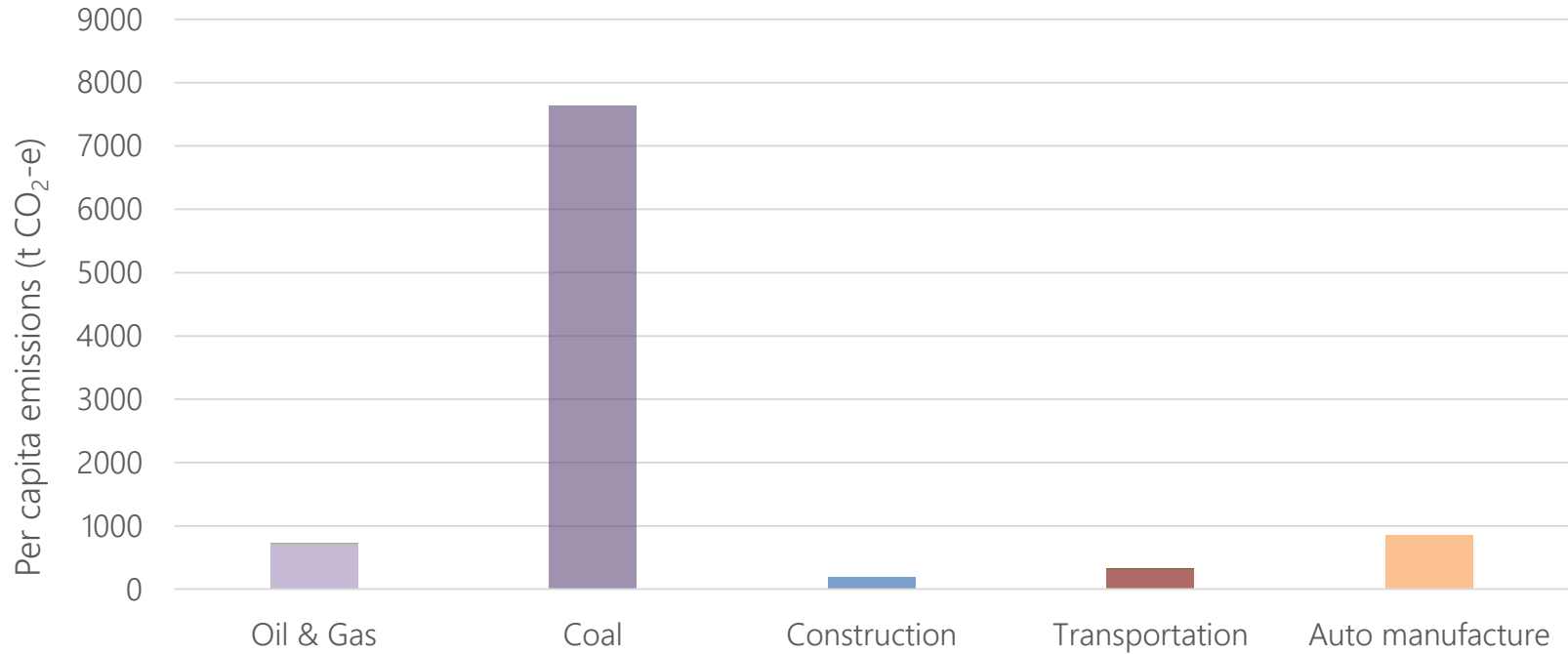




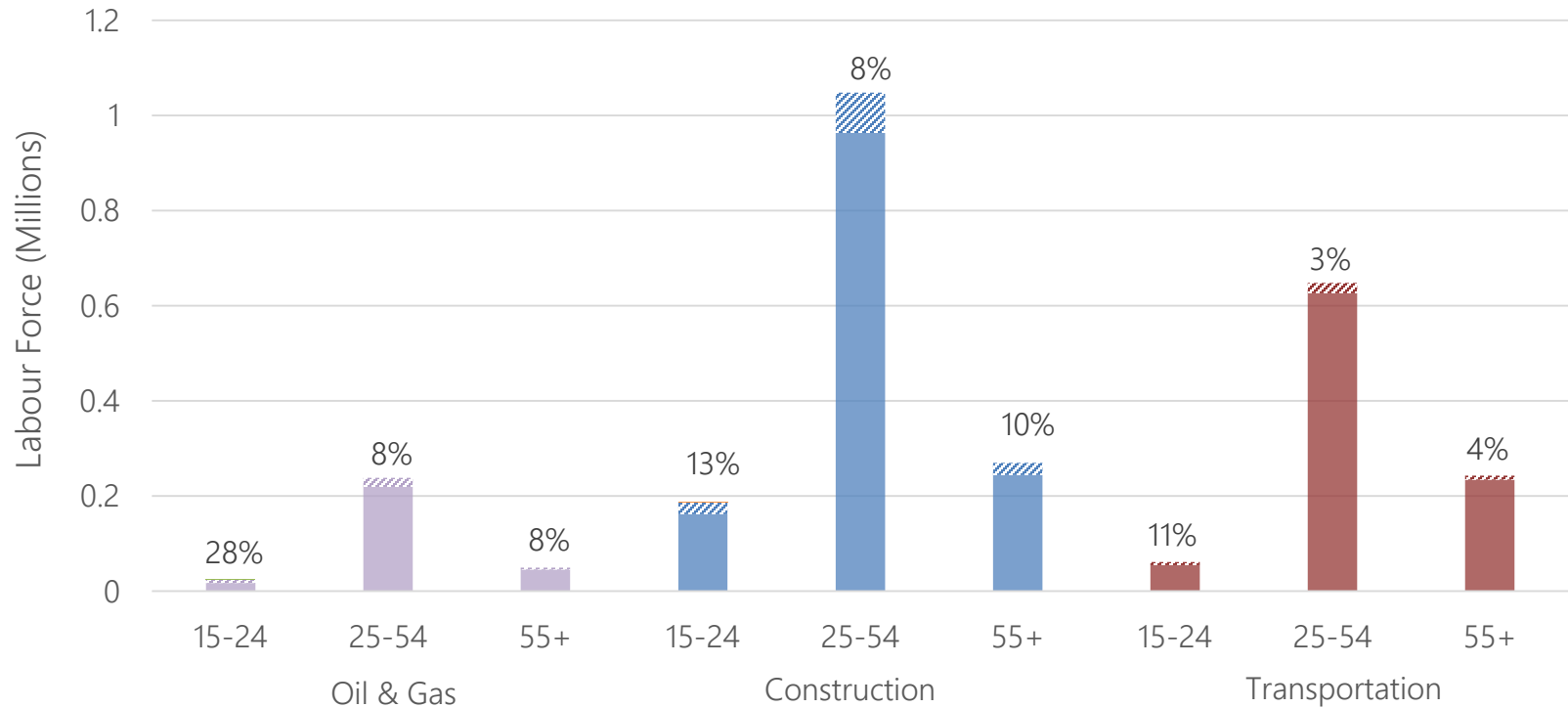
# Employment by sector



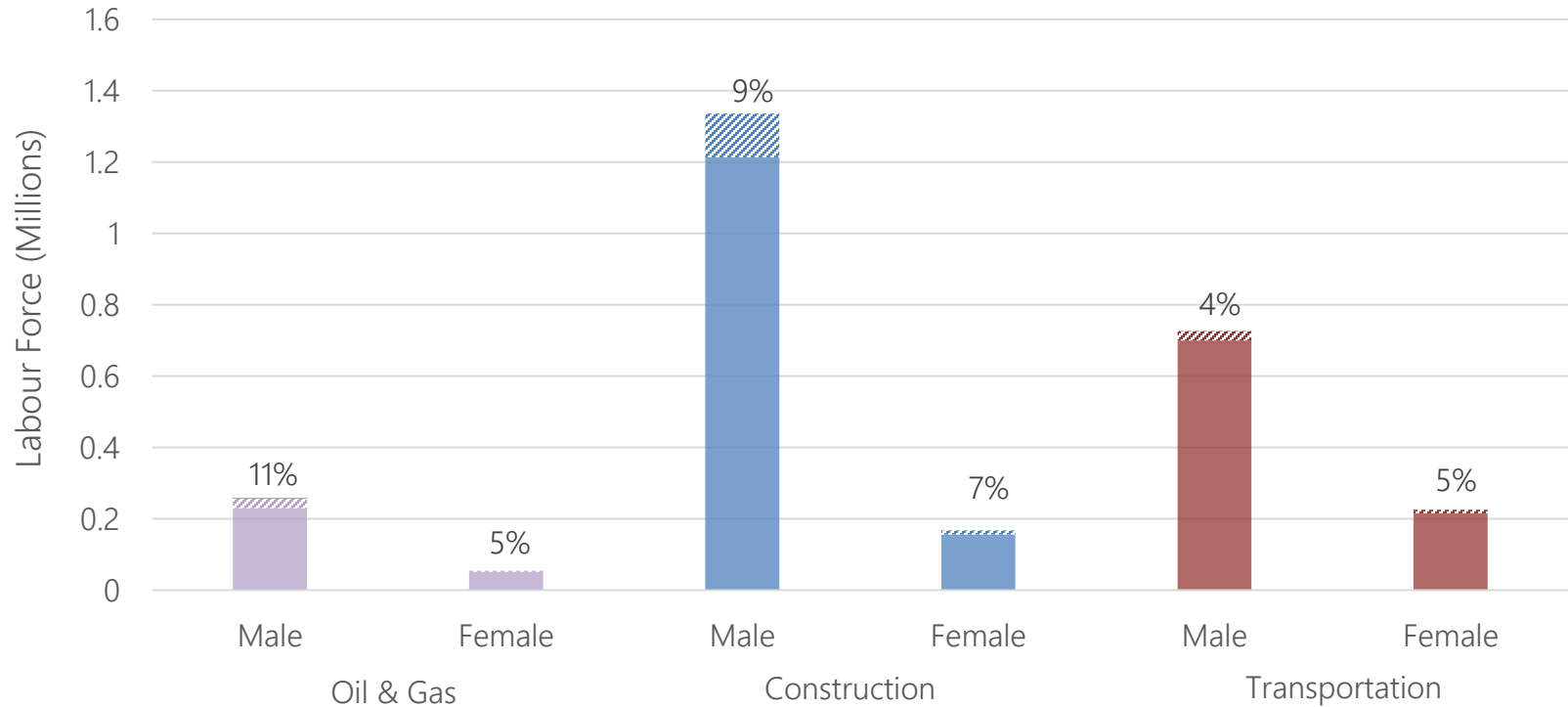
# Emissions\* per capita



# Employment by sector



# Employment by sector



# Likely impacts of the shift

Employment opportunities with renewable power generation are limited: for every MW installed, a total of 0.21 direct jobs (new and ongoing), about 0.26 indirect jobs (new and ongoing)

- By comparison, OPG has 10,840 employees – about 1.25 employees per MW
- Significant loss of jobs possible in coal sector – just transition issues

Much greater opportunities for retooling manufacturing, construction, transport

Workers in these sectors are skewed: tend to be older and male

# Team and partners

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Jordan Carlson PHD

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**FFABnet**

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