

# Carbon pricing and investment

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Meeting with SPRU

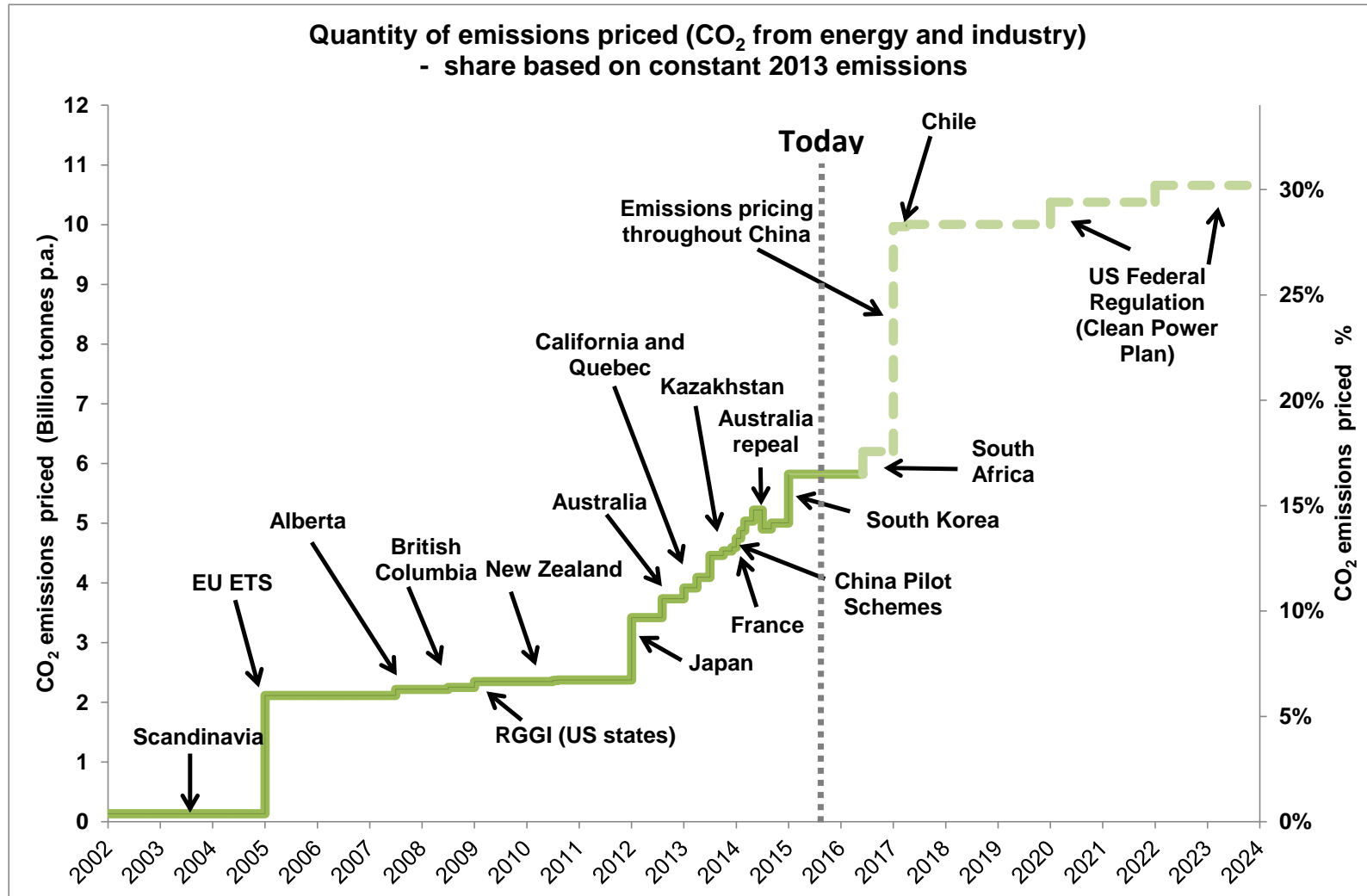
October 2015

# Agenda

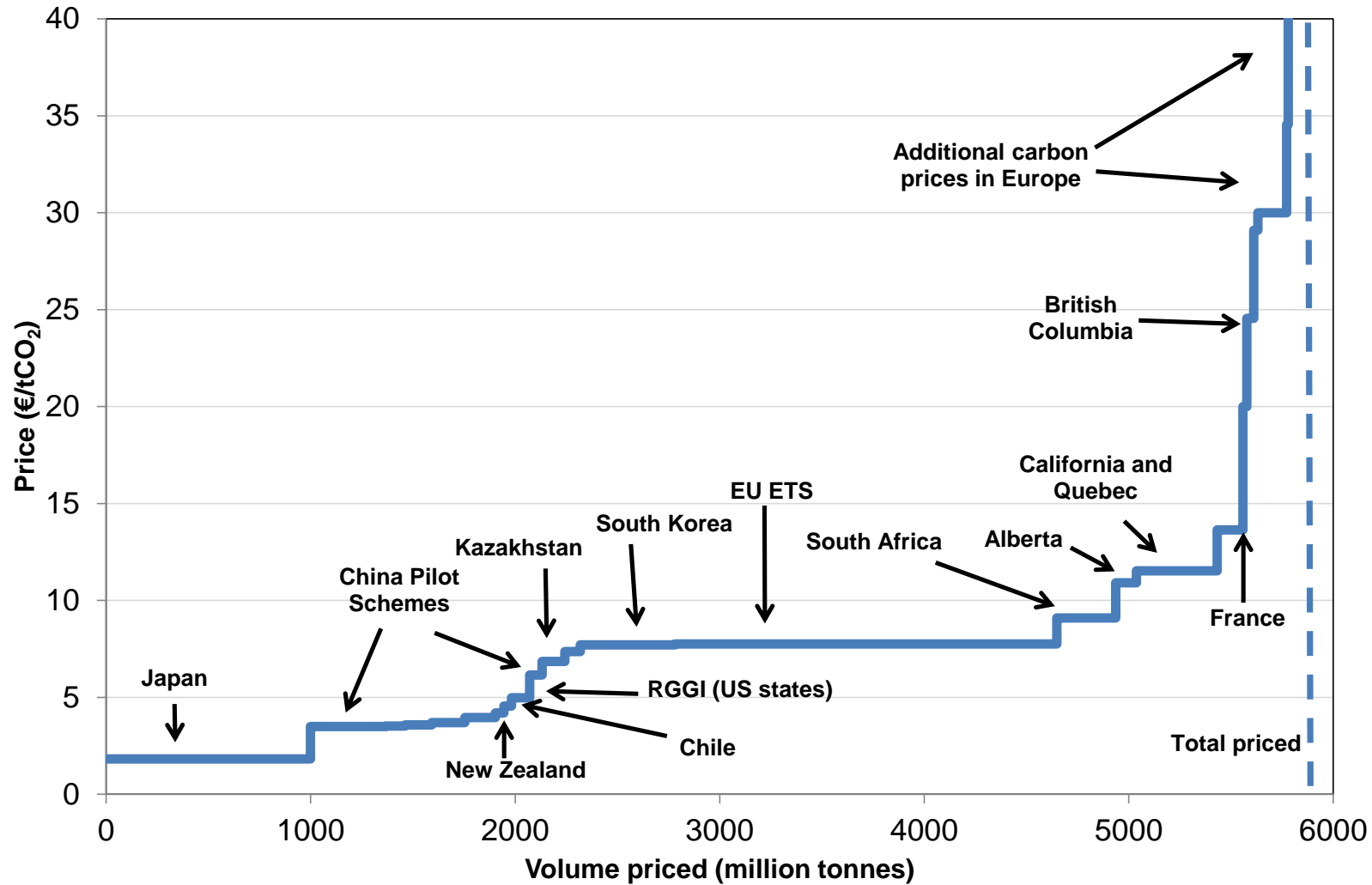
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- The spread of carbon pricing
- Prices and revenue
- Using revenue to support emissions reduction
- New technologies and the growth of renewables

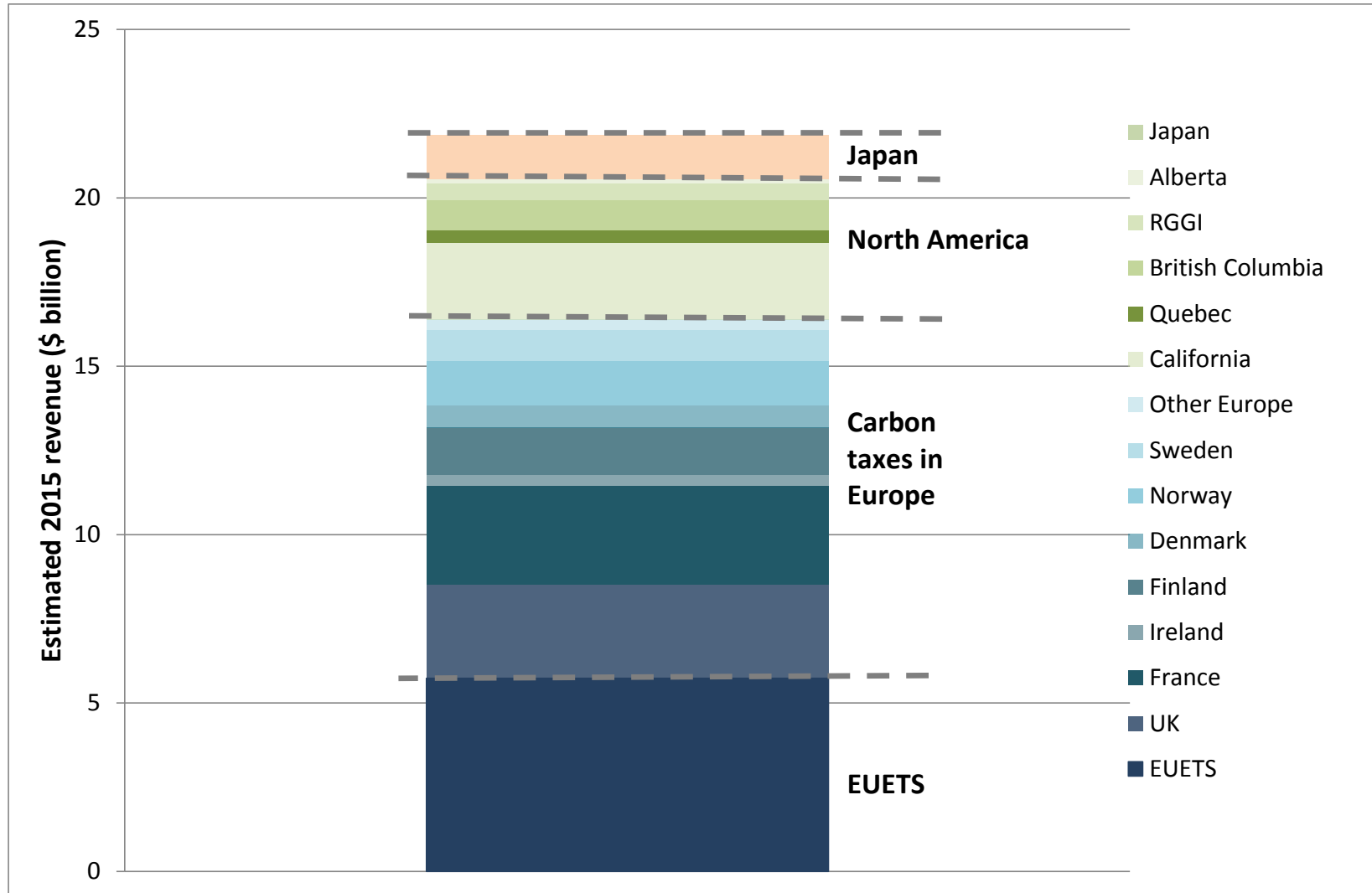
# Carbon pricing is continuing to spread



# However prices remain low for most volumes



# Revenue raised is becoming material



Many competing uses for funds,

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<b>General fiscal and social goals</b>	<b>Climate Change related purposes</b>
<b>Compensation to vulnerable groups</b>	<b>Adaptation</b>
Reduction of other taxes	<b>Compensation to those affected by climate change</b>
Government retention of revenues	<b>Support for further emissions reduction, including for innovation</b>
<b>Returned to citizens</b>	

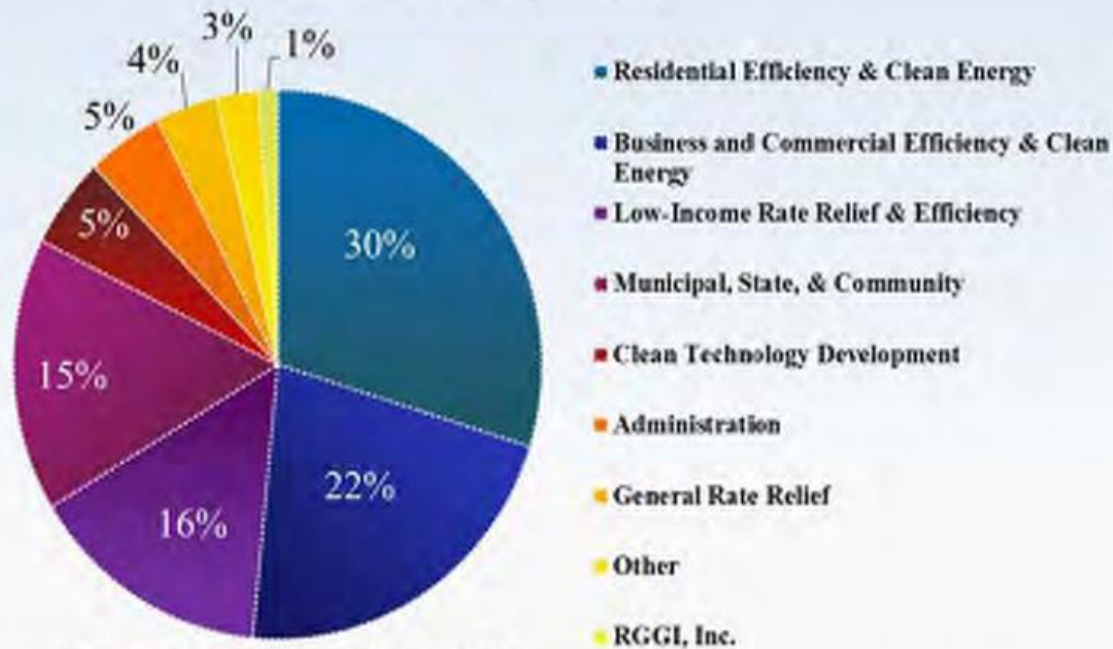
# Use of revenue to support investment is most prominent in North America

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- Higher more stable prices
  - price containment mechanisms especially a price floor
- Extend coverage of carbon pricing
  - e.g. France
- Effective integration with other policies
- Use revenue raised for supporting investment and innovation
  - RGGI
  - Alberta
  - RGGI
  - EU (NER300, NER400 to include industry)

# Under RGGI energy efficiency predominates but with significant other use

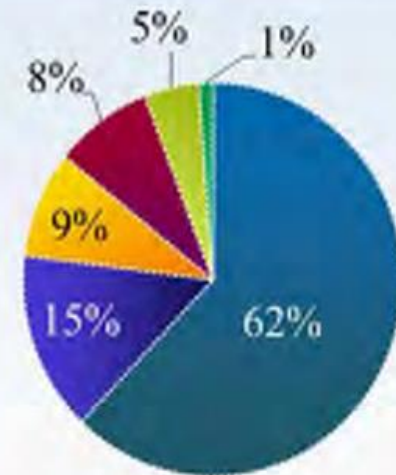
**Chart 4: RGGI Investments by Program Type**  
Cumulative-to-Date (2008-2013)



**TOTAL INVESTED: \$1,016,620,792**

A total of \$1.39 billion in auction proceeds was received by the RGGI States through the period covered by this report. \$1.01 billion was invested and \$93.1 million was transferred to state general funds by acts of state legislatures. The remaining \$288.3 million is committed to 2014 and future programs.

**Chart 5: RGGI Investments by Category**  
Cumulative-to-Date (2008-2013)



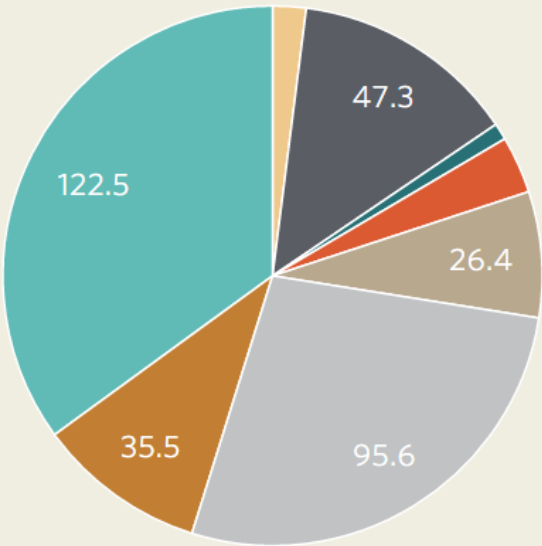
- Energy Efficiency
- Direct Bill Assistance
- GHG Abatement
- Clean & Renewable Energy
- Administration
- RGGI, Inc.



# Alberta has focussed more on energy supply

## CCEMC FUNDING BY STRATEGIC INVESTMENT AREA

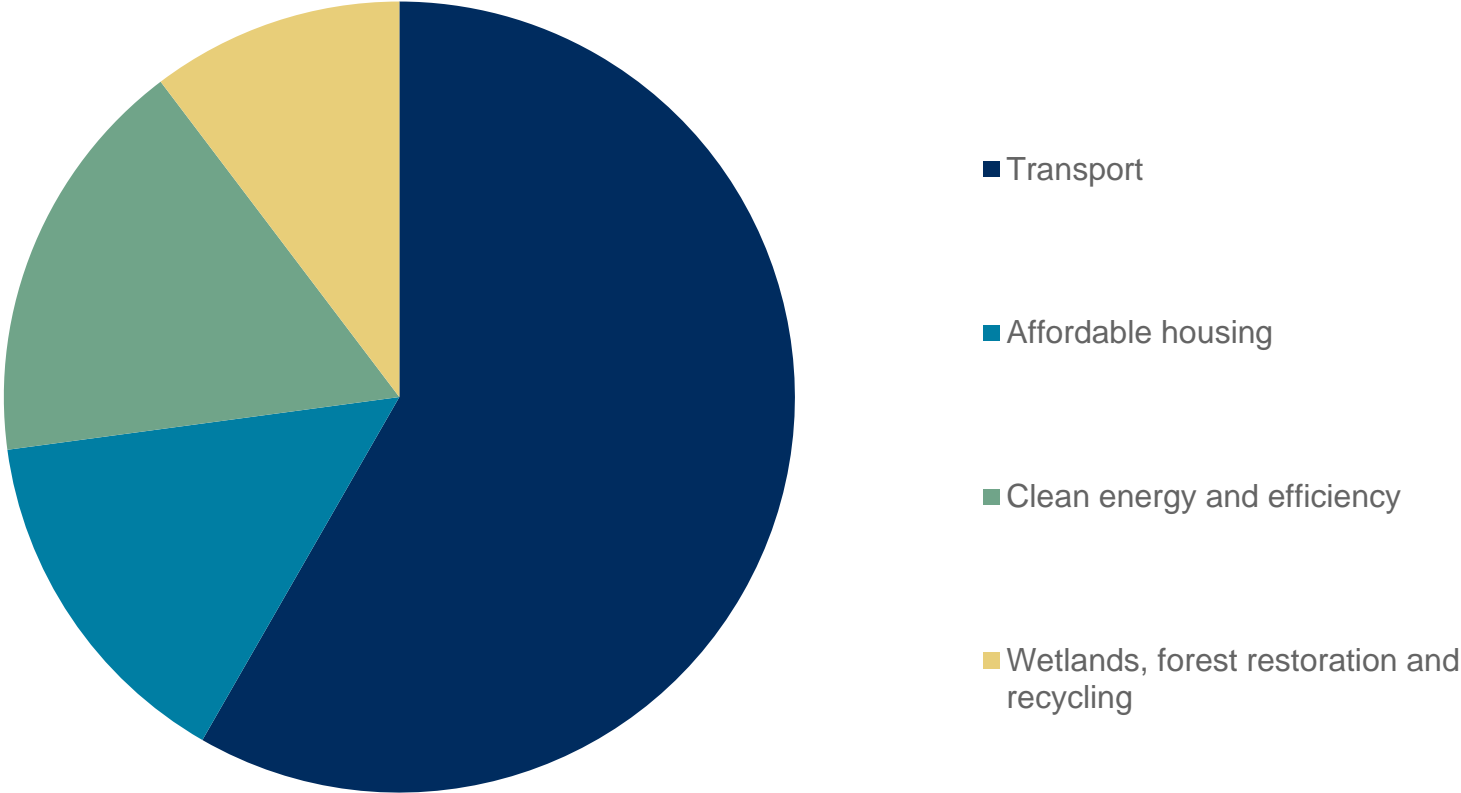
(\$ MILLIONS)



- Adaptation (3 projects)
- Biological GHG Management (13 Projects)
- Biologic Program (16 Projects)
- Carbon Utilization (24 Projects)
- CCS (9 Projects)
- Cleaner Energy Production & Processing (14 Projects)
- Energy Efficiency (13 Projects)
- Renewable Energy (17 Projects)

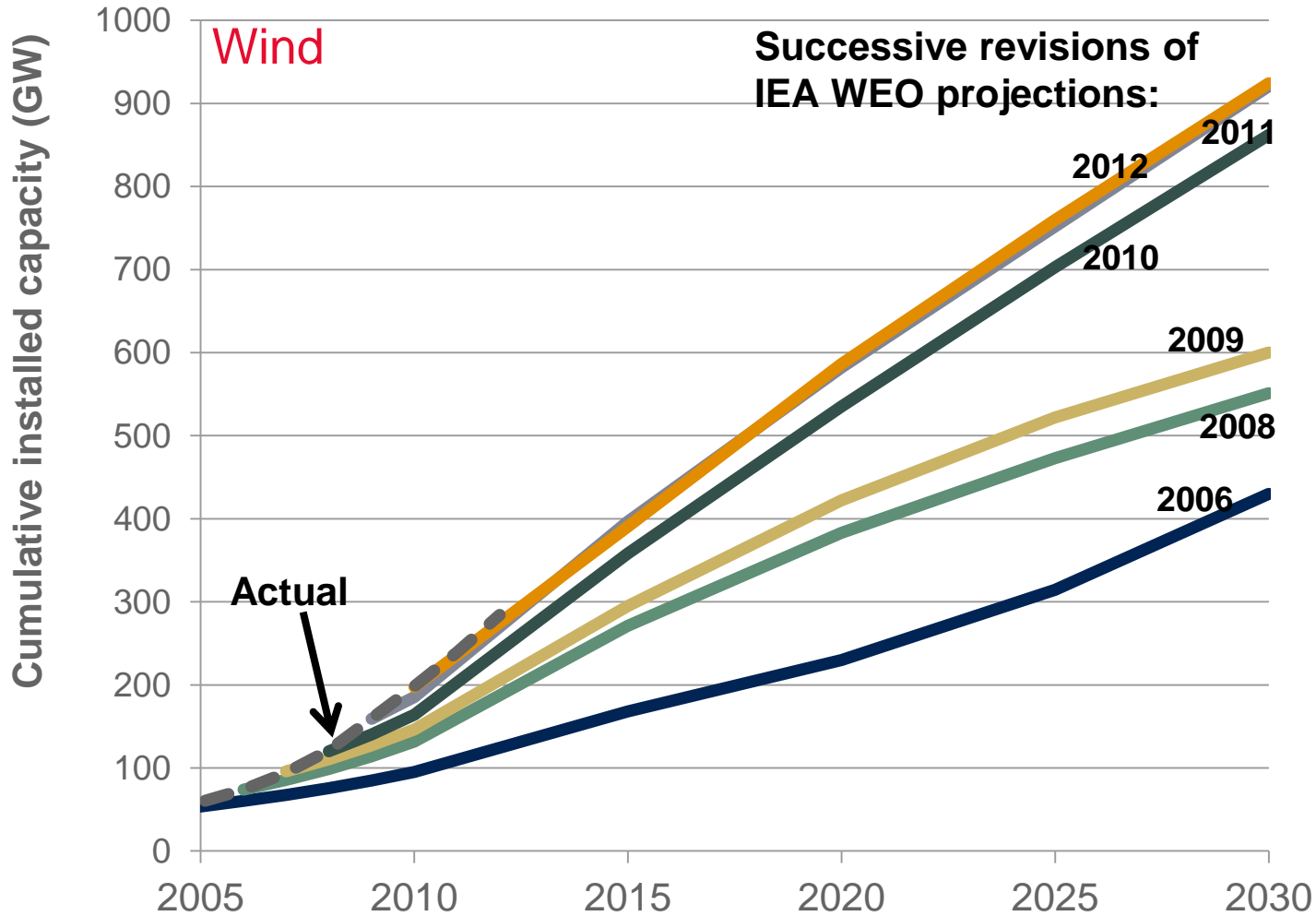
# California emphasises transport reflecting its unusual mix of emissions

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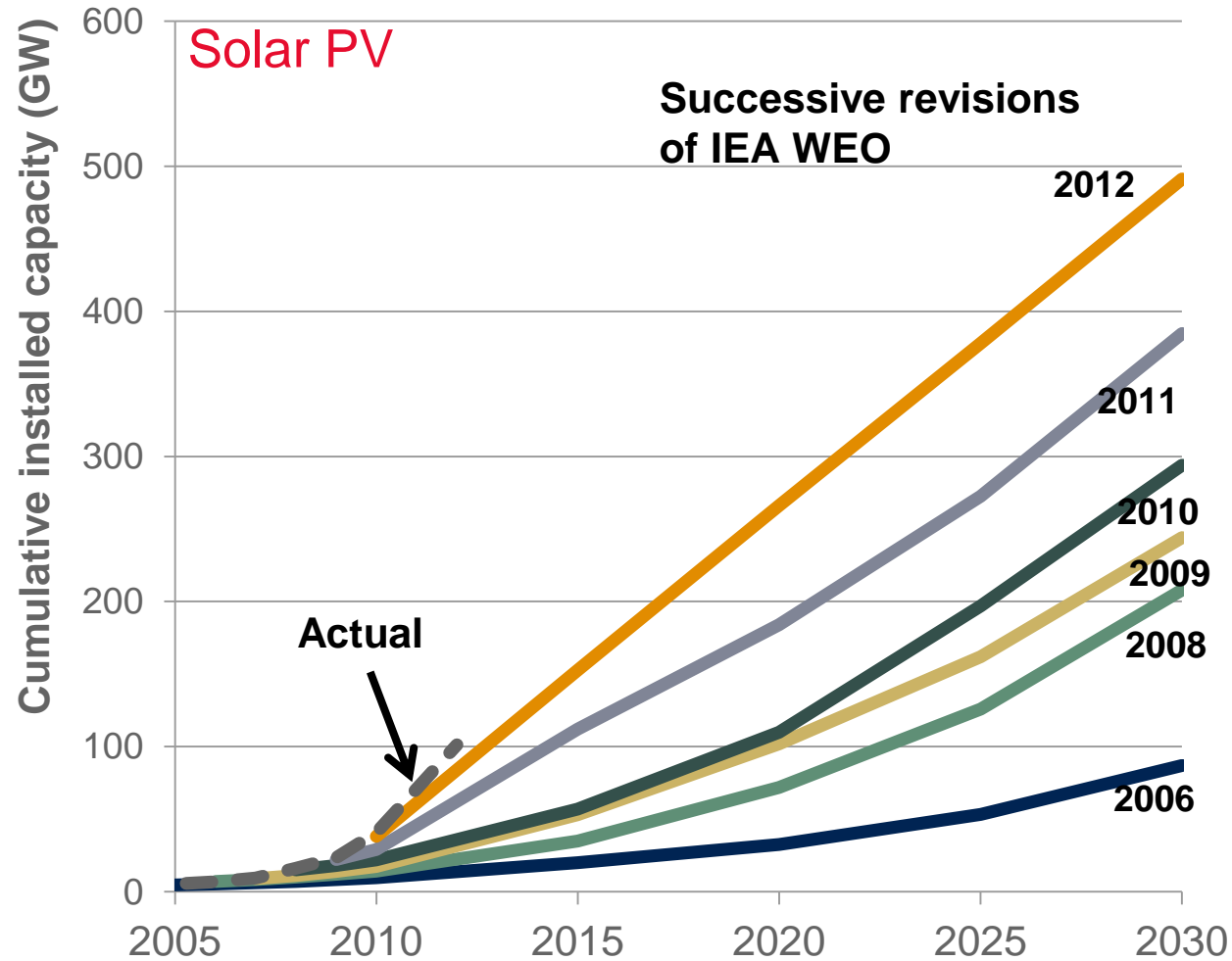


Total \$892 million - will more than double this year

# The IEA's record of forecasting renewables is very poor



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And remains so.

