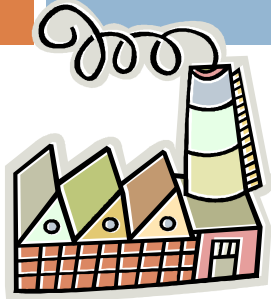


CLIMATE CHANGE  
MITIGATION POLICY IN THE  
SOUTH AFRICAN CONTEXT  
WHAT IS COMING AND WHAT DOES IT MEAN?

Institute of Waste Management of South Africa  
December 2, 2010

# Cap and Trade: How it works



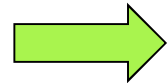
**Factory A**

Emits 5 tonnes CO<sub>2</sub>  
cost of reducing one tonne CO<sub>2</sub> = €20



**Factory B**

Emits 5 tonnes CO<sub>2</sub>  
cost of reducing one tonne CO<sub>2</sub> = €30



Allocated allowances for 4 tonnes CO<sub>2</sub>



With trading, market price settles at €24

Factory A reduces 2 tonnes ( $€20 < €24$ )

... and sells one to Factory B

Factory B doesn't reduce any ( $€30 > €24$ )

....and buys one from A

# Using Tradable Emissions Allowances

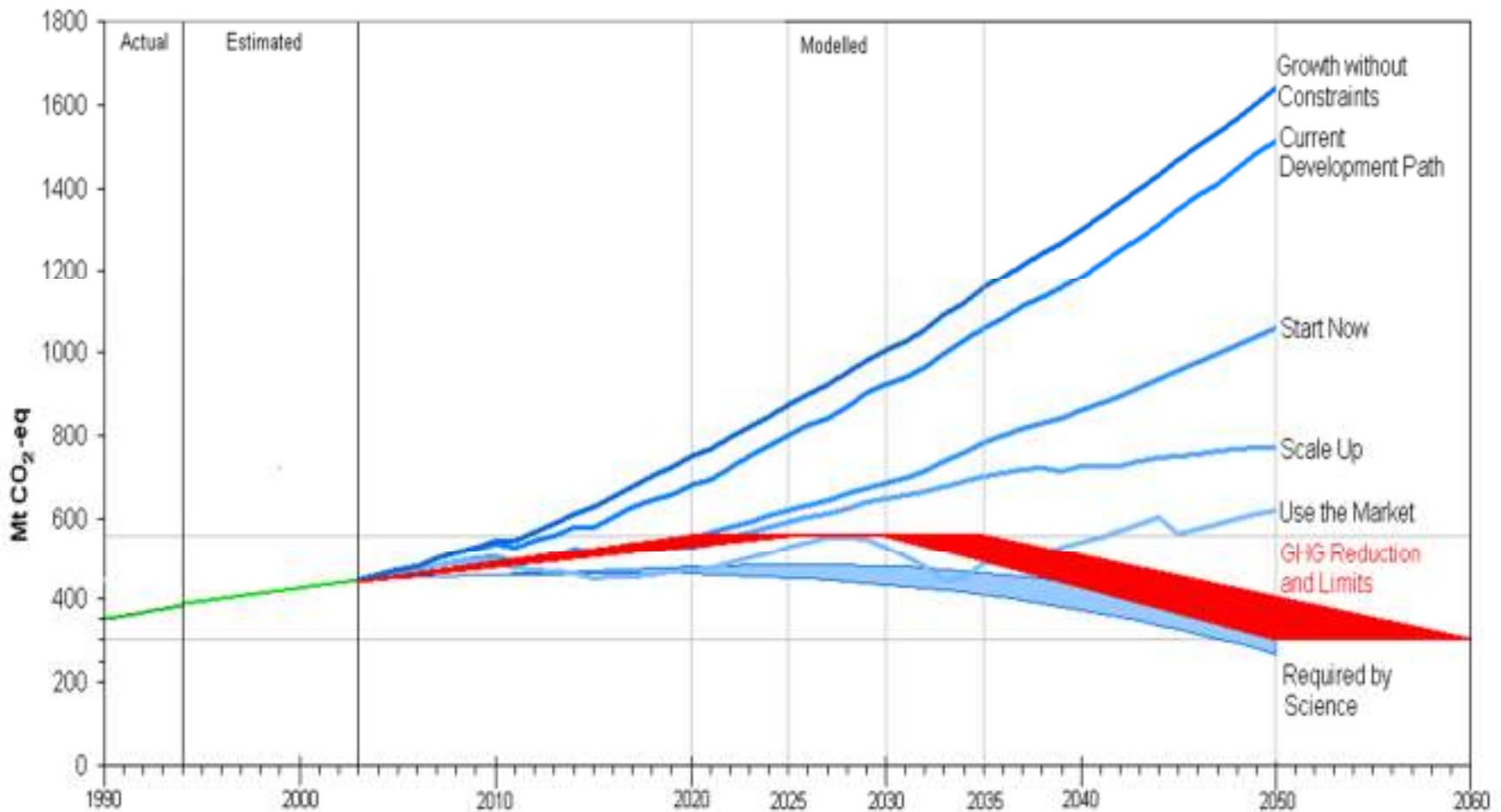
## Result?

- 2 tonnes CO<sub>2</sub> reduced
- A's cost of compliance = €16 (€40-€24)
- Cost to B = €24
- Compare this with A: €20 and B: €30 if they weren't able to trade

# Mitigation Policy Instruments

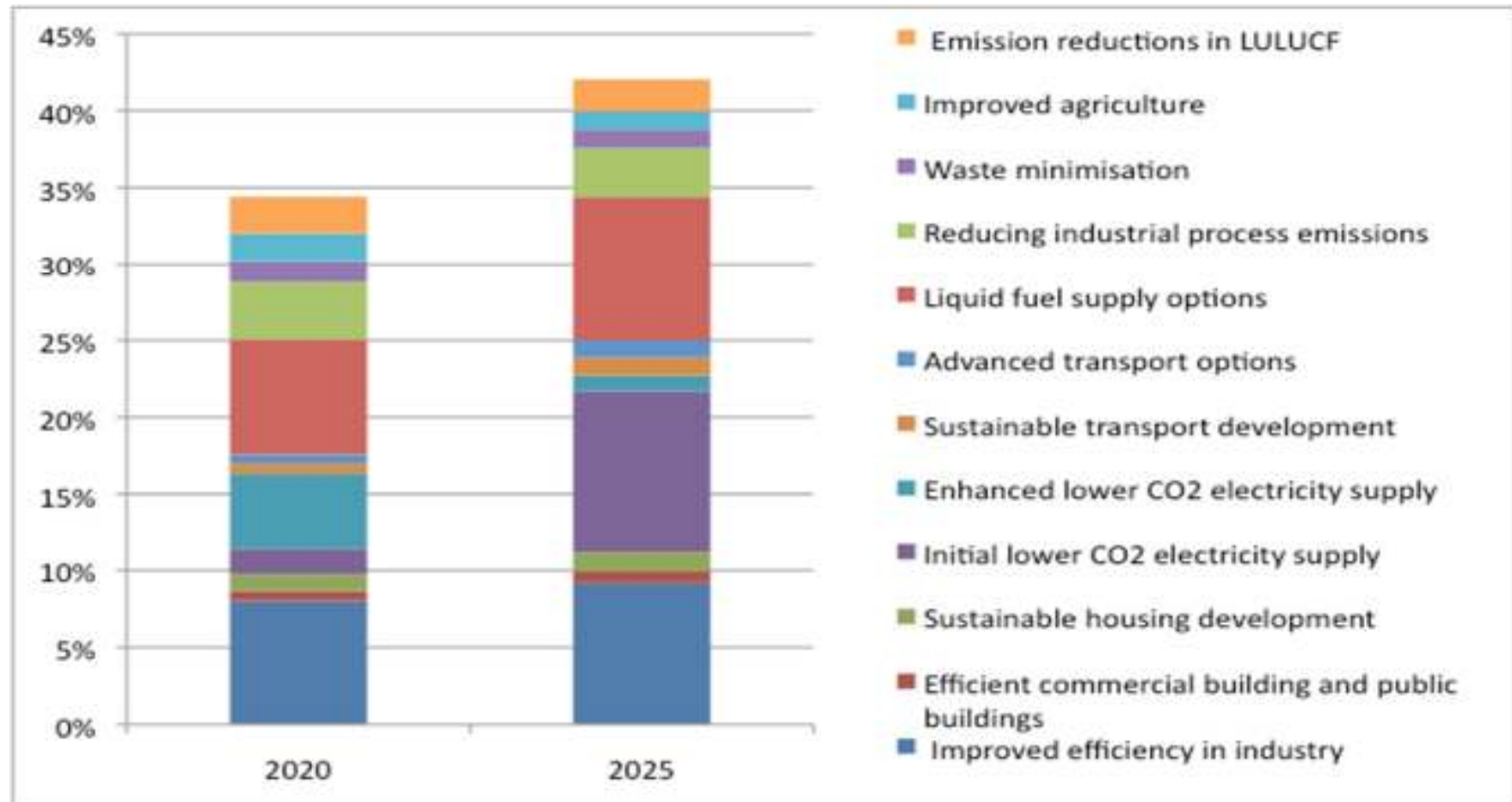
Instrument Type	Sub-categories
<b>Command and Control (CAC)</b>	Caps on polluters; Technology specifications; Process standards.
<b>Economic Instruments</b>	Fiscal instruments (taxes); Market creation instruments; Financial instruments (incentives)
<b>Voluntary Commitments</b>	Self regulation; Negotiated agreements; Public voluntary programmes; Early reduction credits

# The Long Term Mitigation Scenarios and the Peak, Plateau and Decline Trajectory



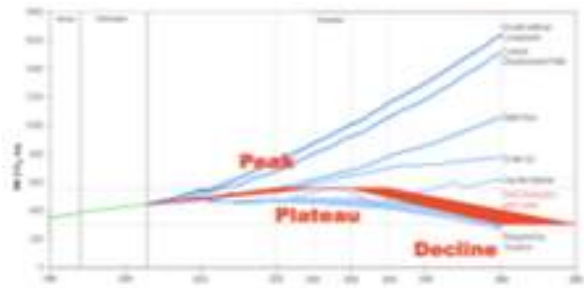
• Source: DEAT (2008)

# The Copenhagen Pledges

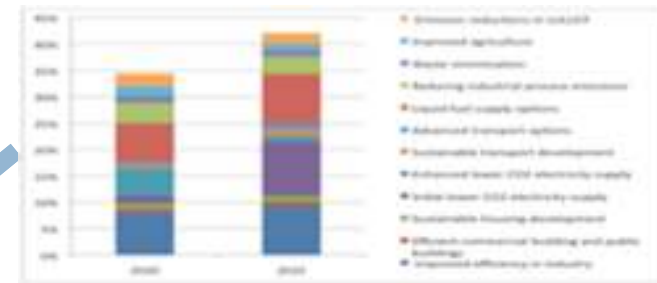


• Source: ERC Public Seminar: August 2010

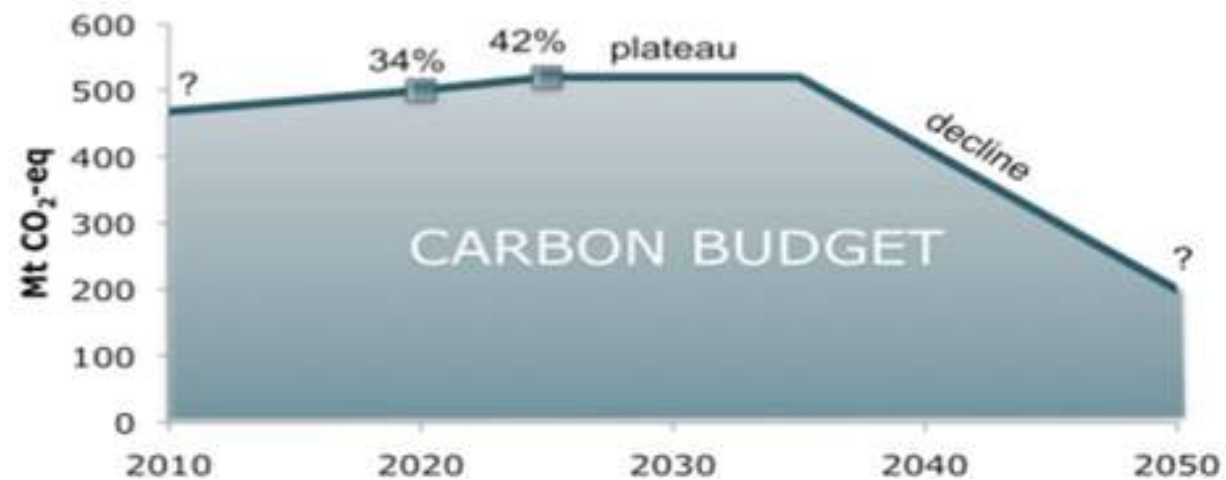
# The View to 2050



LTMS



Copenhagen targets



Source: WWF LCAP documentation

# Tax vs Trading

Tax	Trading Scheme
Set the price	Set the quantity
Do we have information on mitigation costs and quantities?	
Provides price certainty as an investment signal	Pricing is volatile
Less flexible for business	Allows sophisticated risk management mechanisms
Distortions in the electricity tariff market	Requires long and loud policy certainty
Source of government revenue, govt anti-earmarking	Efficiencies captured through liquidity – what is the point of regulation?
Less administratively complex	Administrative complexity
Tax more efficient under uncertainties	Power concentration in product and emissions markets an issue
	Able to adjust easier than a tax?



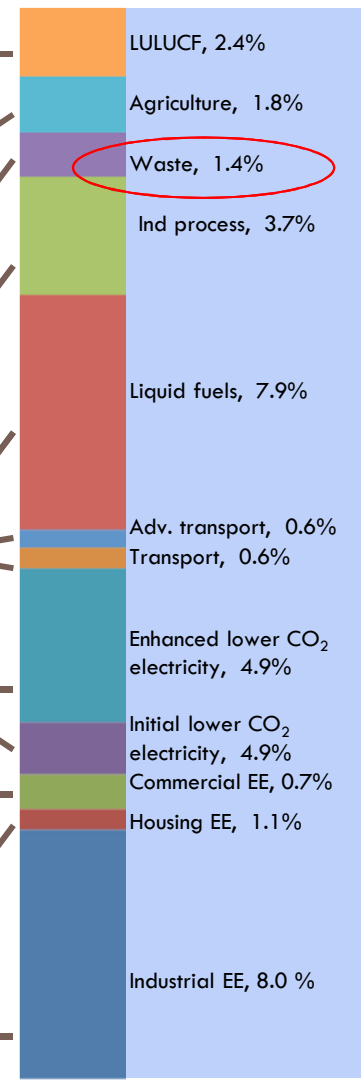
# ETS in South Africa?



- Timing is crucial – international experience suggests long lead times
- Over 50% of emissions are from Eskom / electricity, which is in a crisis. How to capture benefits, avoid distortions?
- Sasol = 19%
- Overall, 80% energy related (predominantly CO<sub>2</sub>)
- Need to influence infrastructure spending now
- Does SA have the capacity to administer complex schemes?
- No experience of market mechanisms in the electricity sector
- Aligning with distributional, poverty alleviation, employment creation policy objectives...

# Breaking down the short term targets

FOUNDATIONAL PROGRAMMES	2020 TARGET REQUIREMENTS	DEVIATION BELOW BAU, 2020
Emissions reduction /sinks in land use/ forestry – Land Affairs, Forestry – no current programmess	Enhanced fire control, savannah thickening, increased forest cover	LULUCF, 2.4%
Improved agriculture – DoA – no current programmess	Progs to reduce tillage, reduce enteric ferm-entation & increase manure management	Agriculture, 1.8%
Waste minimisation – national & local govt – limited current programmes	Progs to minimise waste, promote composting	Waste, 1.4%
Industrial process emissions – DTI, DEAT, others – no current programmes	CCS, methane capture for existing synfuel plants, GHG mitigation for aluminium plants, coalmine methane	Ind process, 3.7%
Transport options – DoT, local govt, DTI, Transnet – rollout of public transport (Gautrain, BRT)	Vehicle efficiency prog, expanded public transport, shift freight to rail, promote hybrids & electric vehicles, no further CTL plants without CCS for all GHG emissions, promote biofuels	Liquid fuels, 7.9%
Lower CO <sub>2</sub> electricity supply – DoE, NERSA, Eskom –REFIT RE target	Expanded low-carbon electricity supply prog – regulation / incentives in electricity sector	Adv. transport, 0.6%
Residential energy efficiency (EE): DoE, local authorities - current DSM prog, EE Strategy, EE Accord, NEEA	Full implementation of current EE strategy, plus other progs, eg sustainable housing facility	Transport, 0.6%
Commercial EE: DoE, Eskom, DPW, local authorities - current DSM prog, EE Strategy, EE Accord, NEEA	Full implementation of current EE strategy, plus additional accelerated progs	Enhanced lower CO <sub>2</sub> electricity, 4.9%
Industrial EE: DoE, Eskom - Current DSM prog, EE Strategy, EE Accord, NEEA	Full implementation of current EE strategy, plus additional accelerated progs	Initial lower CO <sub>2</sub> electricity, 4.9%
		Commercial EE, 0.7%
		Housing EE, 1.1%
		Industrial EE, 8.0 %

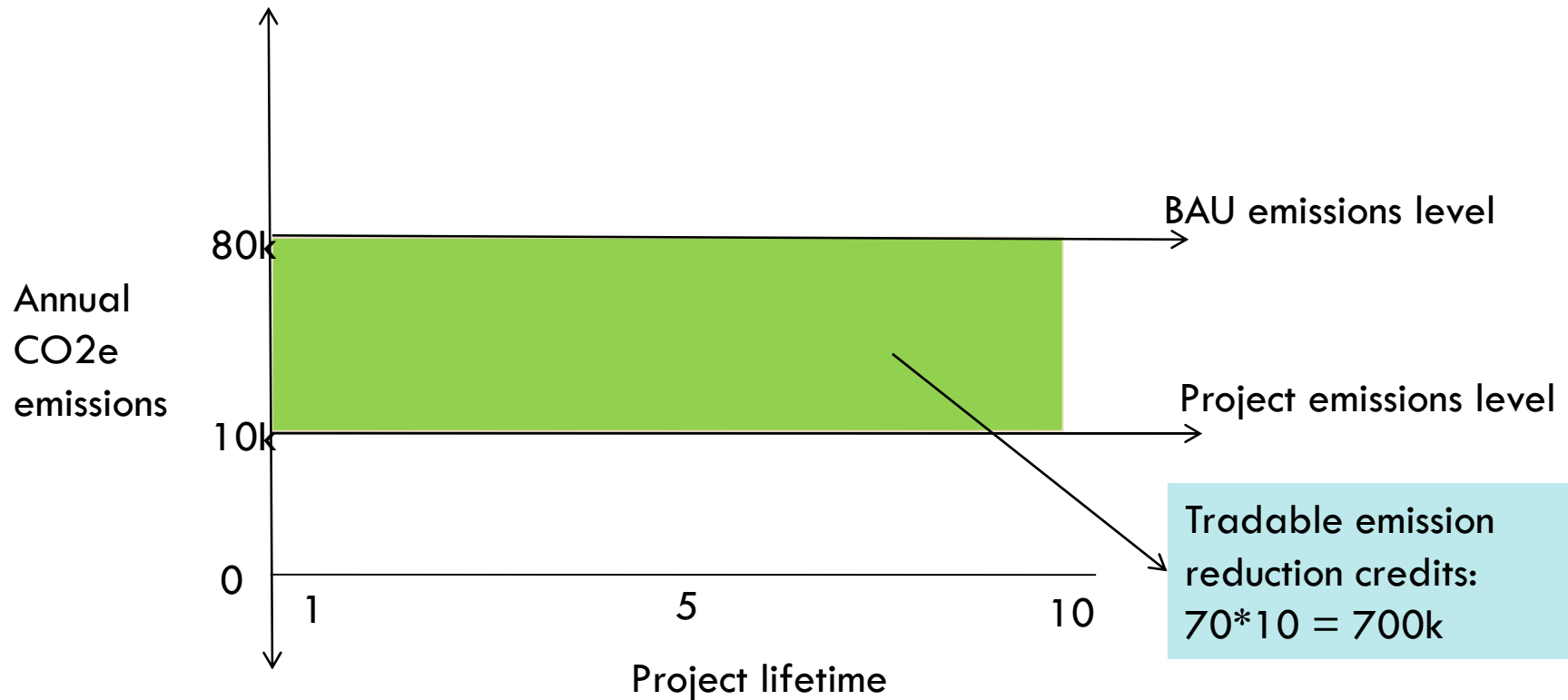


# DEAT Green Paper (Nov 2010)

- Govt will support the use of waste gypsum as an insulation material in low income housing by 2012
- By 2014 compile a composting strategy for 50% reduction of organic waste land-filled by 2020
- Waste to energy (incineration) encouraged through project devt support to municipalities, including carbon-offset funding
- Minimum requirements for landfills amended by 2012 to include:
  - ▣ All suitable landfills to extract and flare gas by 2020
  - ▣ Bio-cover for landfills not suitable for gas extraction
  - ▣ Energy recovery from landfill gas through active project devt support to municipalities, including carbon-offset funding negotiation
- Scale up and accelerate 'Working for Energy' which includes biogas to energy
- Waste water management

# Baseline and Credit (Projects)

- Supply side only
- Establish theoretical baseline
- Project achieves reductions below this



# Thank You

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