A Global MBM for Aviation and Climate Change: The Time is Now!

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What this talk will cover

1. The context: Aviation and global warming
2. Basic elements of well-designed market-based mechanisms
3. Three examples
    a. US sulfur dioxide programme
    b. European Union emissions trading system
    c. California Assembly Bill 32
4. Takeaways, options, and results needed from ICAO

But first, some introductions…

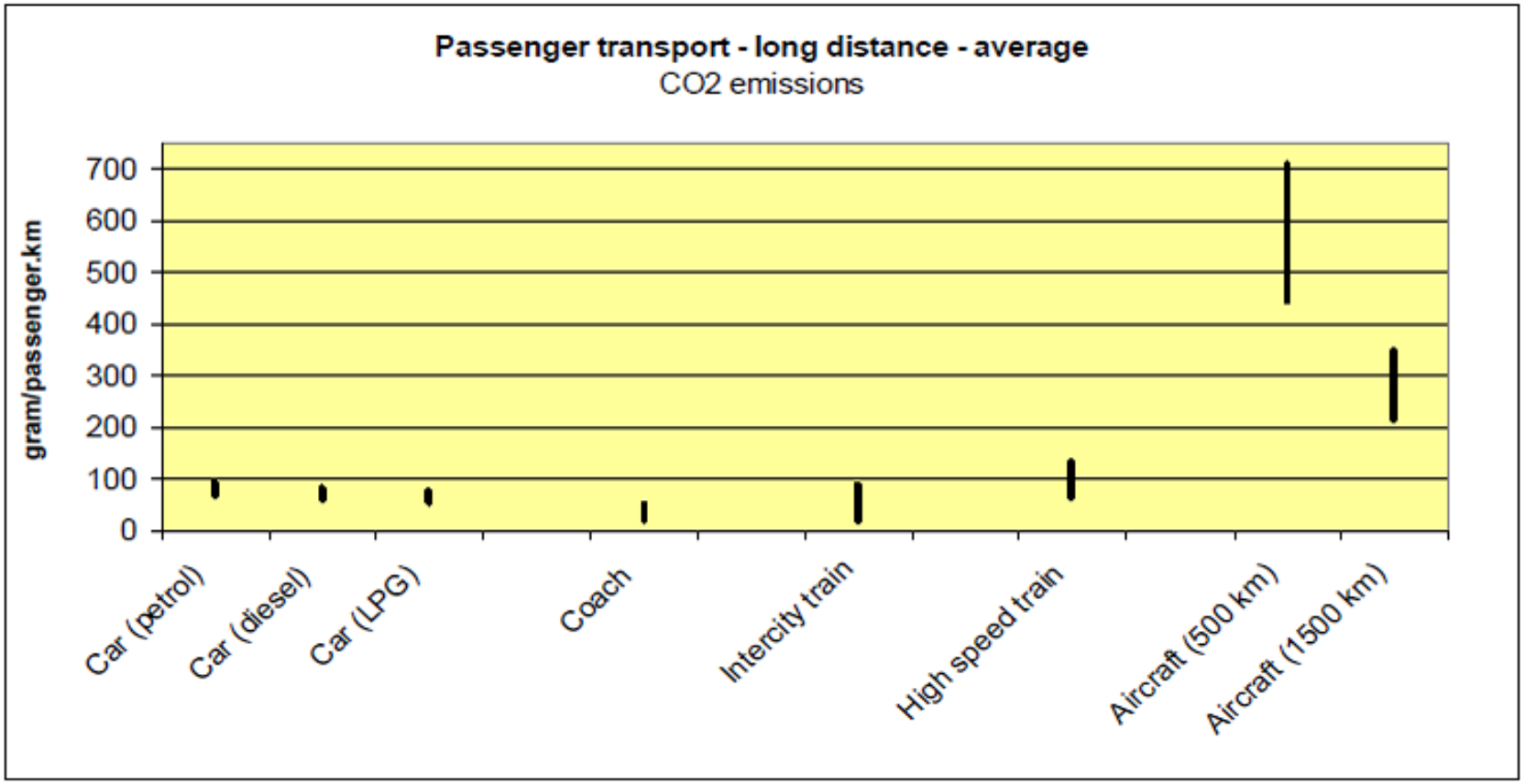
International Coalition for Sustainable Aviation (ICSA)

- Founded in 1998 to provide civil society voice in ICAO
- An umbrella organisation for NGOs
- Observer status in CAEP
- While ICSA members participate actively in CAEP and some other Council-initiated efforts to address aviation's environmental impact, ICSA's ability has been hampered by inadequate access to ICAO processes and documents
- Going forward, and to meet its obligations under Rio and other instruments, ICAO needs to provide more transparency and participation for civil society.

The context: Efficiency of various modes of transport

Destination Green

Average emissions per passenger-kilometre for **long distance** passenger transport in 2000



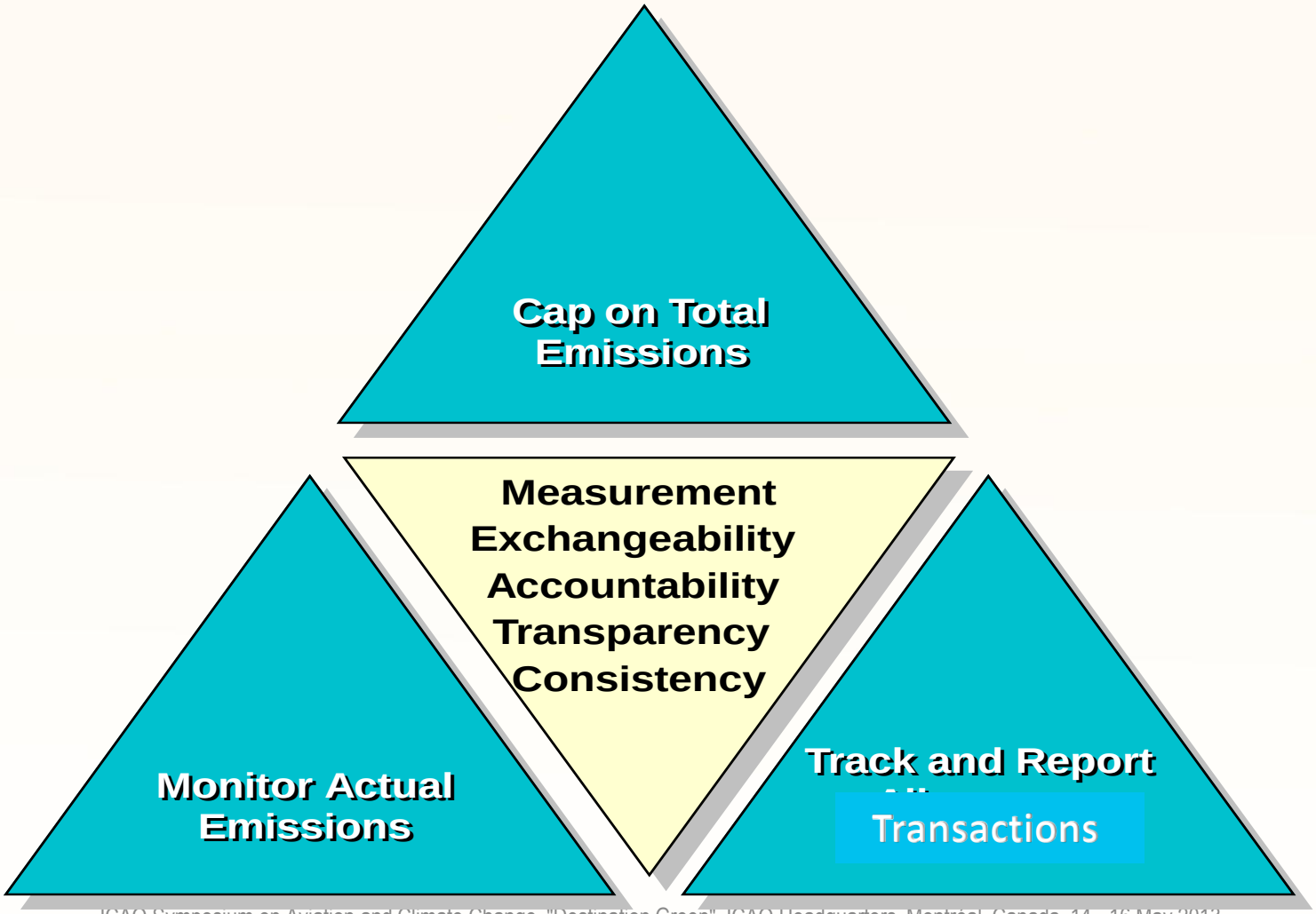
Source: CE Delft

2. Well-designed market-based mechanisms

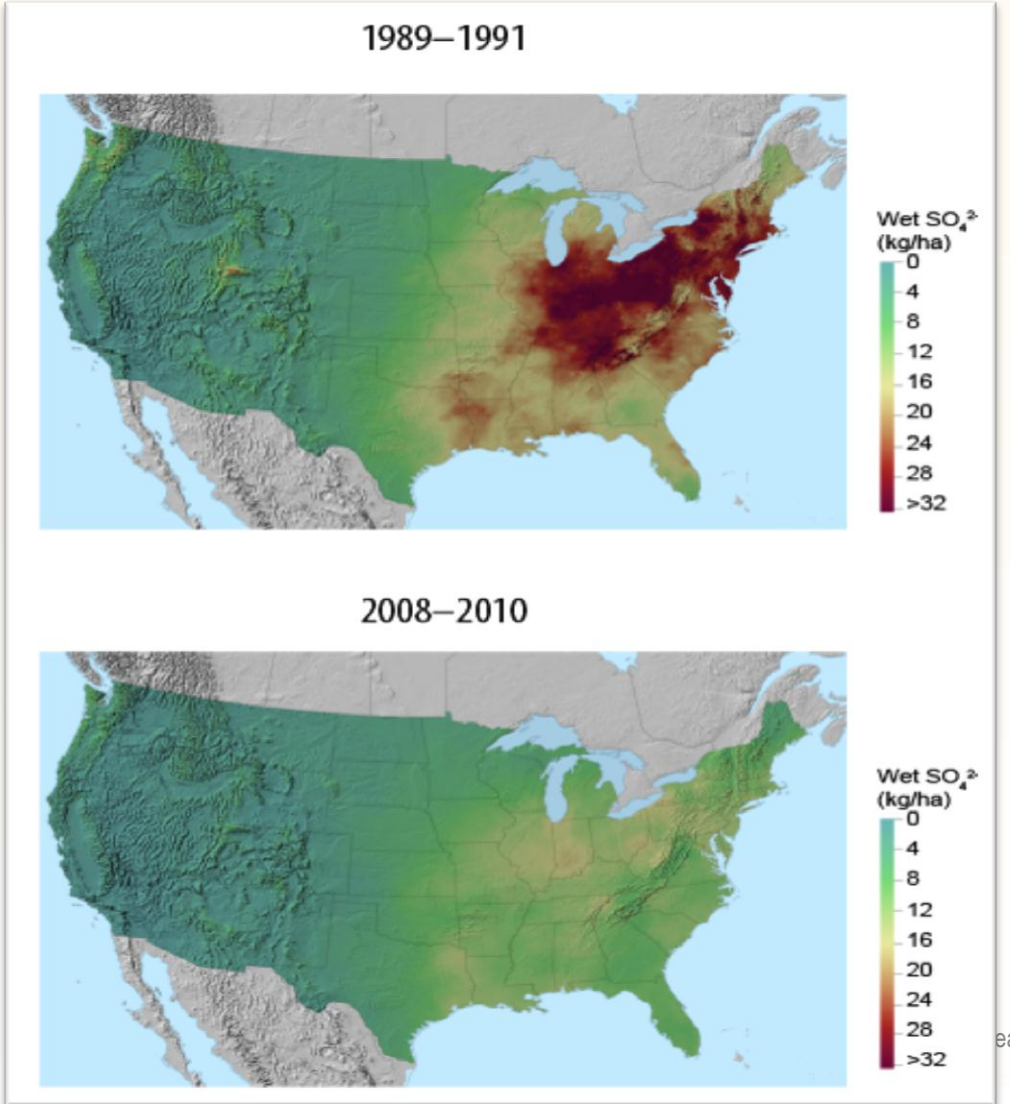
- Well-designed market-based mechanisms can
  - match rigorous, clear environmental targets with
  - broad flexibility on how to reach targets

- Well-designed market-based mechanisms can
  - use emissions banking, trading, offsetting to spur innovation
  - reward those who achieve real emission reductions
  - save money, by promoting competition to achieve reductions better, cheaper, faster

The Minimum Elements



3.a. US Sulfur Dioxide Programme

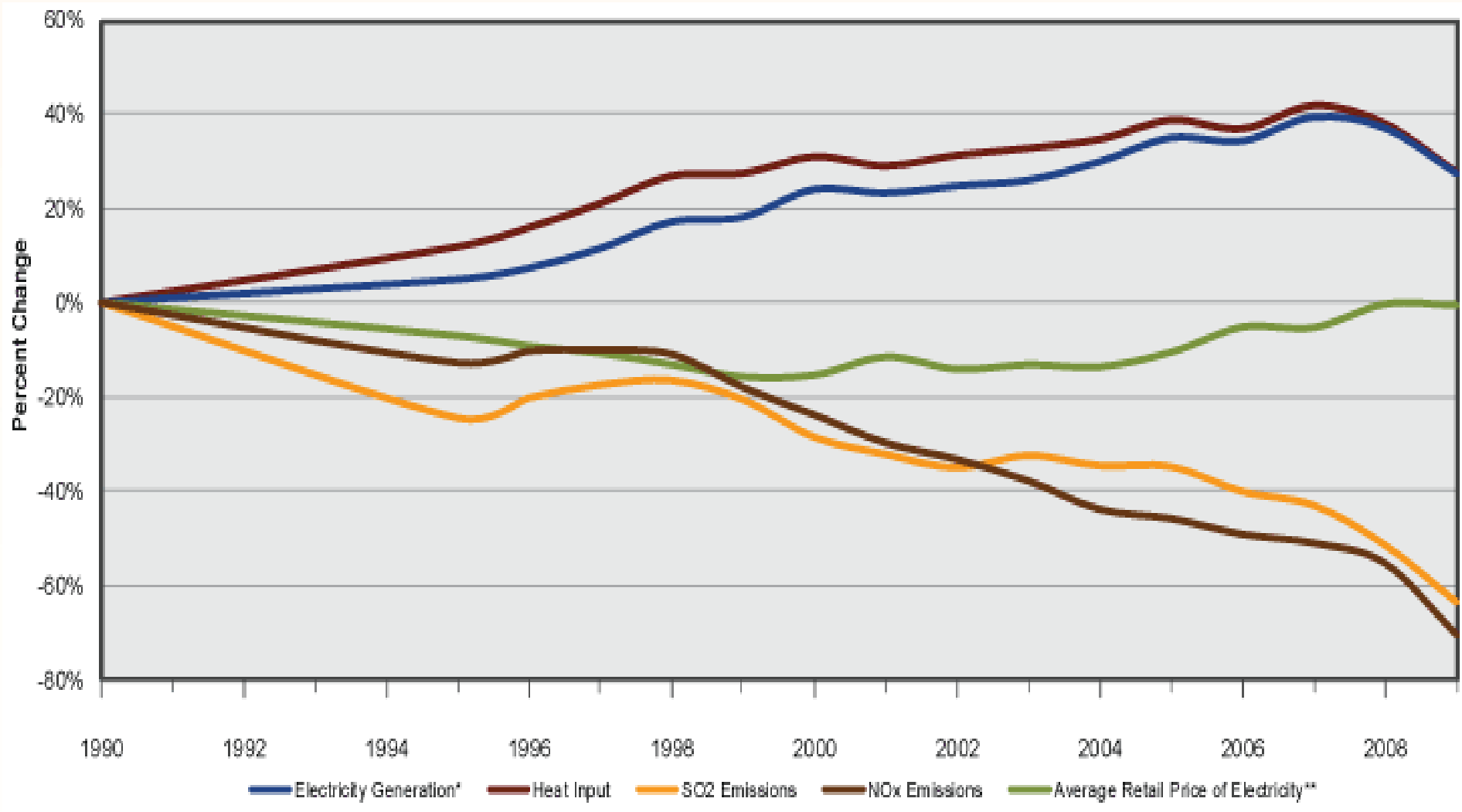


United States: Three-Year Mean Wet Sulfate Deposition

Source: USEPA

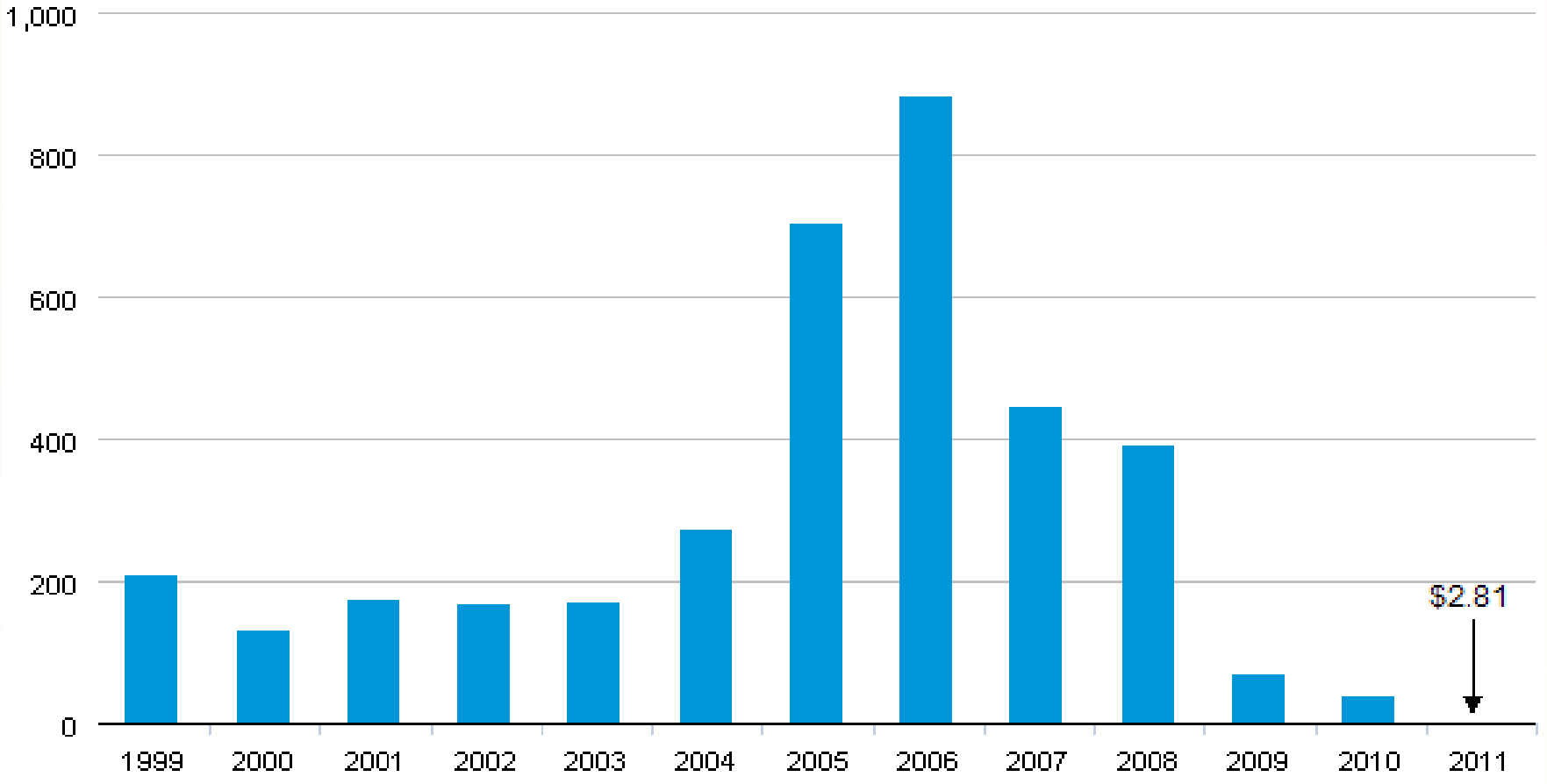
U.S. Electricity Generation, Fossil Energy Use, Prices, and Emissions from the U.S. Electric Power Industry, 1990 – 2009

Source: USEPA



Weighted average price of spot sulfur dioxide for winning bids

(dollars per ton)

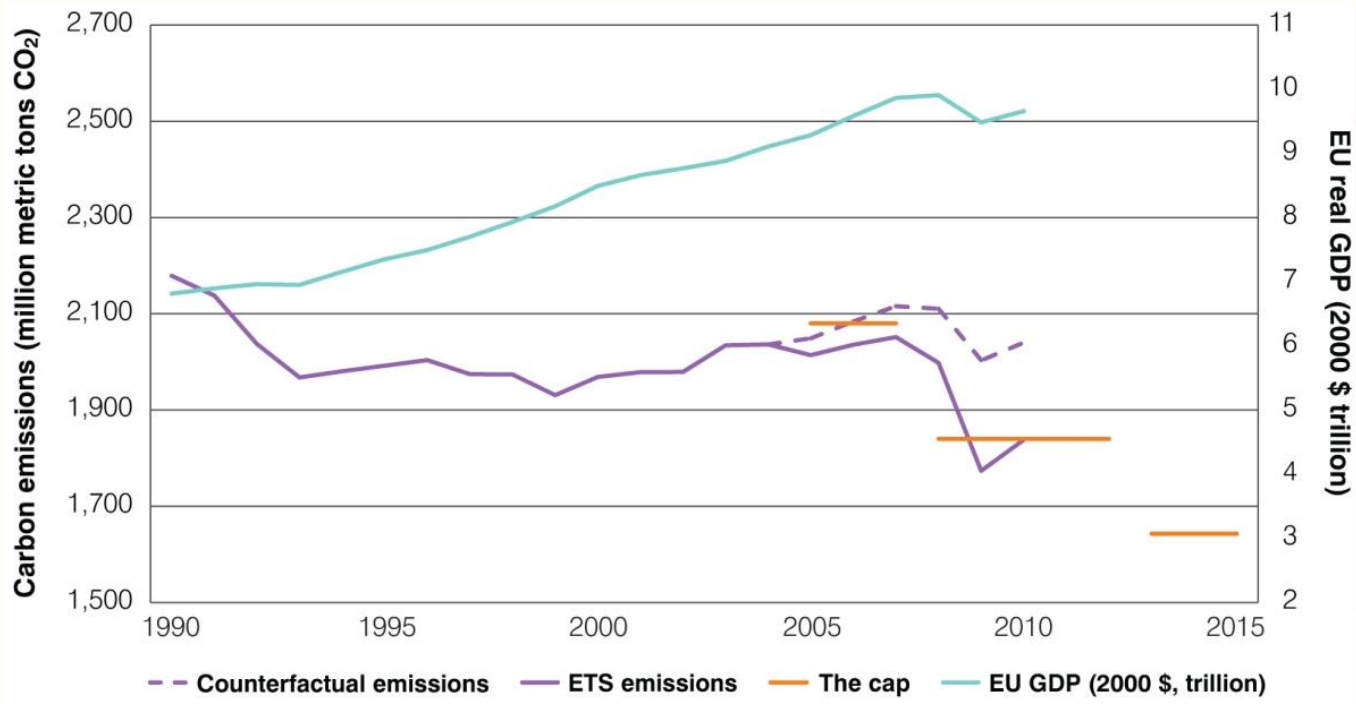


Source: U.S. Energy Information Administration based on Environmental Protection Agency data.

Note: Represents quantity weighted average price paid by winning bidders in the annual spot auction for emissions allowances.

3.b. Results of EU ETS

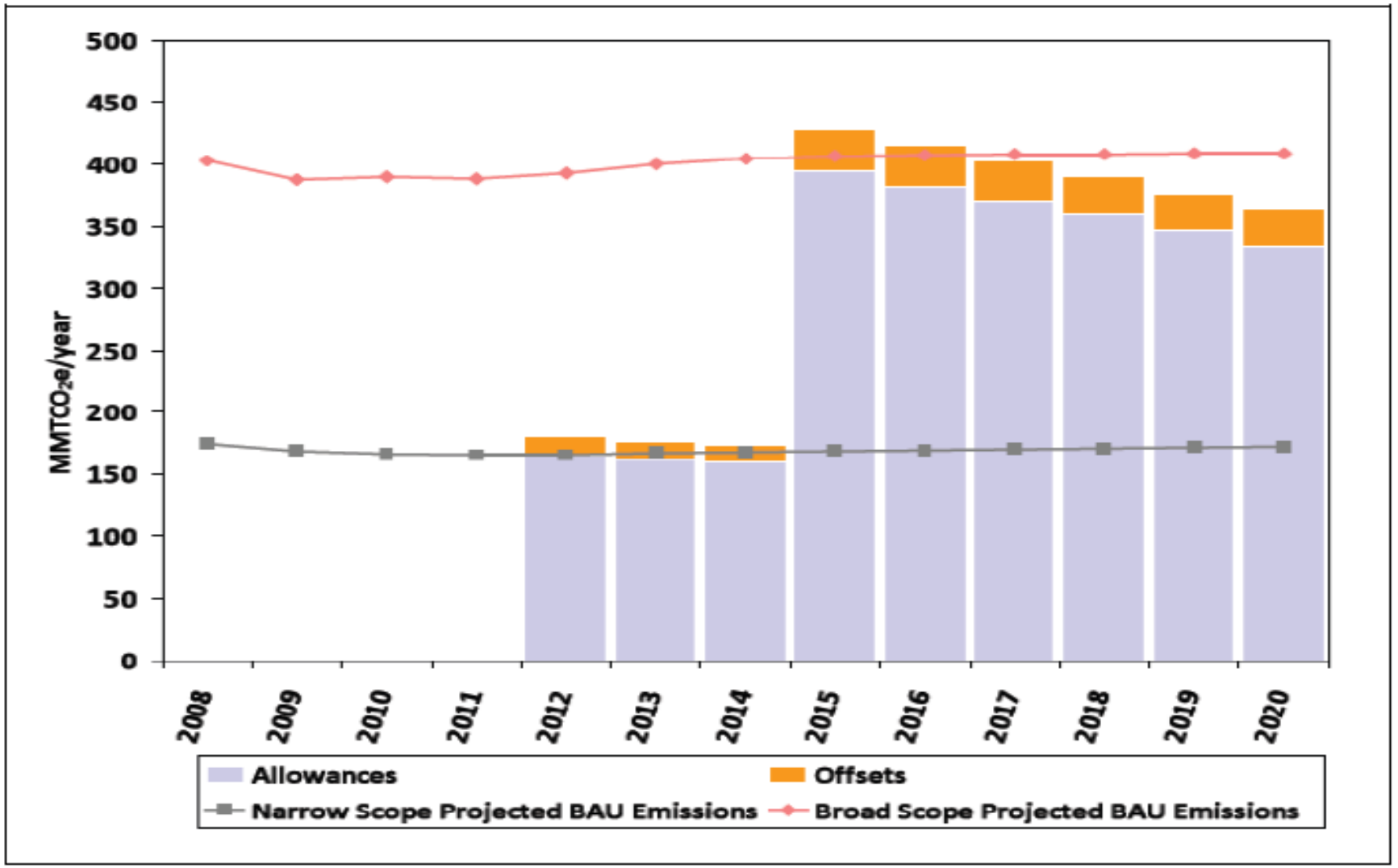
The EU ETS has achieved significant emission reductions at low cost, even during periods of economic growth in Europe.



Source: GDP data: World Bank. EU emissions: A. Denny Ellerman, "The EU ETS: Path to the Future or Dead-end?" presentation, Sept. 5, 2011, available at www.dors.dk/graphics/Synkron-library/Konference%202011/Abstracts/Ellerman.pdf.

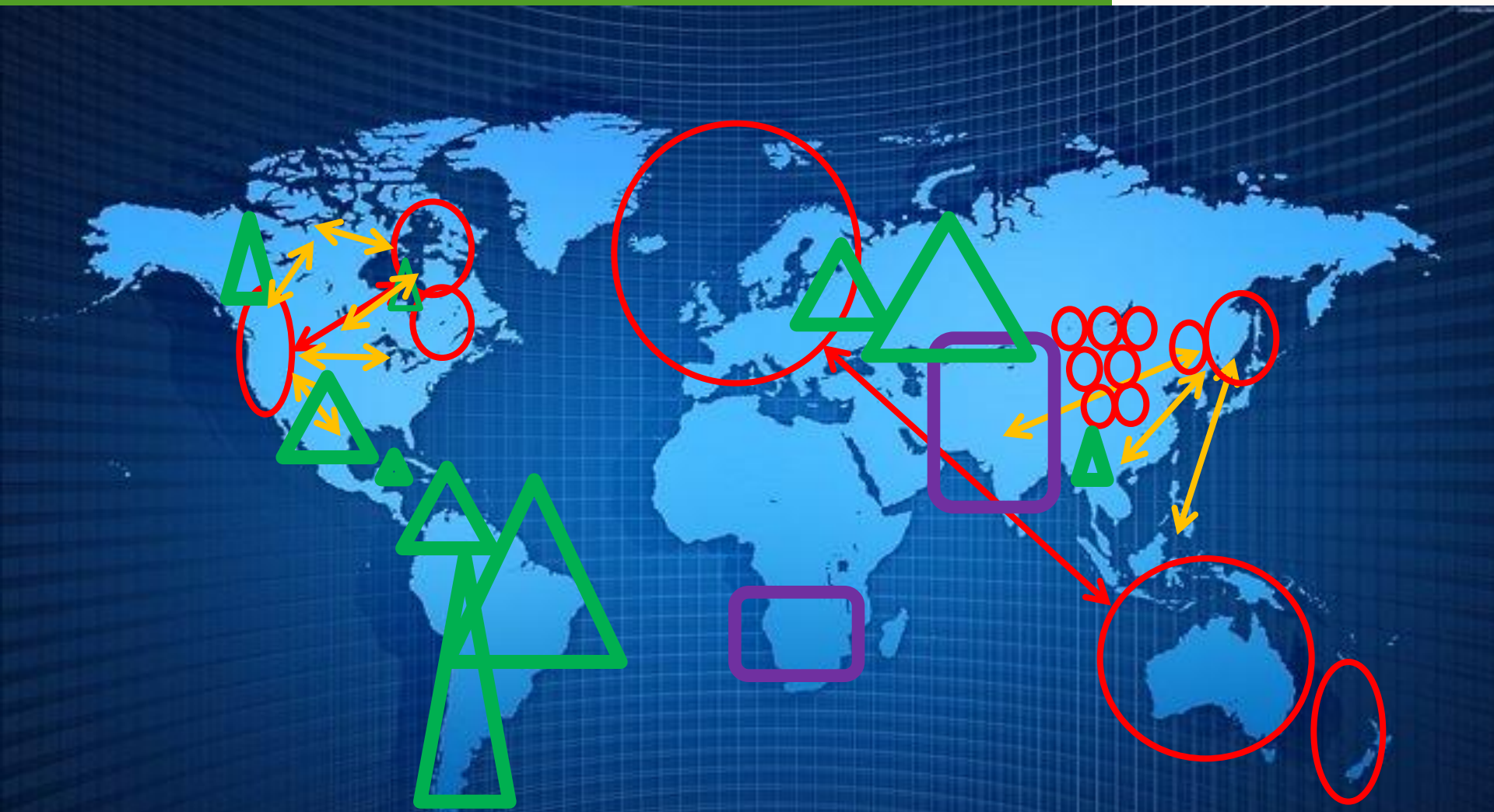
Recommendation: Stimulate long-term emission reduction investments by maintaining a predictably declining, enforceable, science-based cap on carbon.

3.c. California: Allowances, Offsets, and Projected Emissions



Source: http://www.arb.ca.gov/regact/2010/capandtrade10/capv3appe.pdf

3.d. Emerging Markets



Source: UNFCCC

http://cdn.howtogeek.com/wp-content/uploads/2011/07/worldmapswallpapercollection11.jpg

4. Takeaways: A global MBM is an essential component to meet ICAO goals

- Well-designed MBMs can provide certainty that environmental targets will be met;
- Strong economic rationale for MBMs given practical limits to technology improvements or accelerated fleet replacement (high abatement costs relative to other sectors)
- Carbon markets a cost-effective means of bridging the gap, and can allow more ambitious goals;
- Emission reduction units must be measurable, transparent, additional and permanent;
- ***Environmental integrity is the central priority.***

4. Policy design options for a single aviation global MBM

Design issue	"Classic"	"Modern"	"Innovative"
Who bears the obligation to reduce emissions?	States Parties	Companies (Operators)	Route-based approaches can avoid distortion
How are initial amounts of allowable emissions allocated/shared?	"Grandfathering" (those with higher historical emissions receive more allowable emissions)	"Output-Based" (those with higher ouput per unit of emissions receive more allowable emissions)	"Growth-Based"
Offsets	A single central body approves every offset methodology; centrally-accredited third parties verify	Each jurisdiction develops its own unique offset standards	

Careful attention to policy design needed to avoid perverse incentives

Need to ensure quality, transparency, accountability

Conclusions

- ✓ **The analysis of the policy options for a global MBM indicates that that a global MBM is cost-effective and technically feasible, while having only marginal impacts on future growth (even when revenues are generated).**

- ✓ **At its 38th Assembly, ICAO must, at a minimum, agree to adopt, at its 39th Assembly, a fully developed global MBM, which is crucial to achieve the goal of carbon-neutral growth from 2020.**

- ✓ **In the absence of a global MBM, ICSA supports actions by States at a local and regional level, even though this will result in a patchwork of measures.**

ICSA
International Coalition for Sustainable Aviation

The time is now!

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Photo credit: Moms' Clean Air Force © 2012