



The need for atmospheric monitoring and the greenhouse gas inventory at DECC

Wednesday 4th November 2015



Questions addressed

- **Why does DECC need to verify its GHG inventory?**
- **How does DECC use the verification?**
- **How might atmospheric monitoring data be used further to verify inventories?**



Why does DECC need to verify its GHG Inventory?



Why does DECC need a GHG Inventory?

- Statutory Obligation:
 - UN Framework Convention on Climate Change, also conveners of...
 - ...the Kyoto Protocol
 - EU's Monitoring Mechanism Regulation
 - UK Climate Change Act
- To show ambition internationally.
- To inform the scope and design of policies to mitigate GHG emissions.



Why does DECC need to verify its GHG Inventory?

- To assure ourselves as far as we can that the GHG Inventory is accurate.
 - This is used to reassure colleagues of our confidence in the estimates.
- To show continuous improvement.
- To focus resources on areas requiring most improvement.
- To show ambition internationally.



How does DECC use the verification?



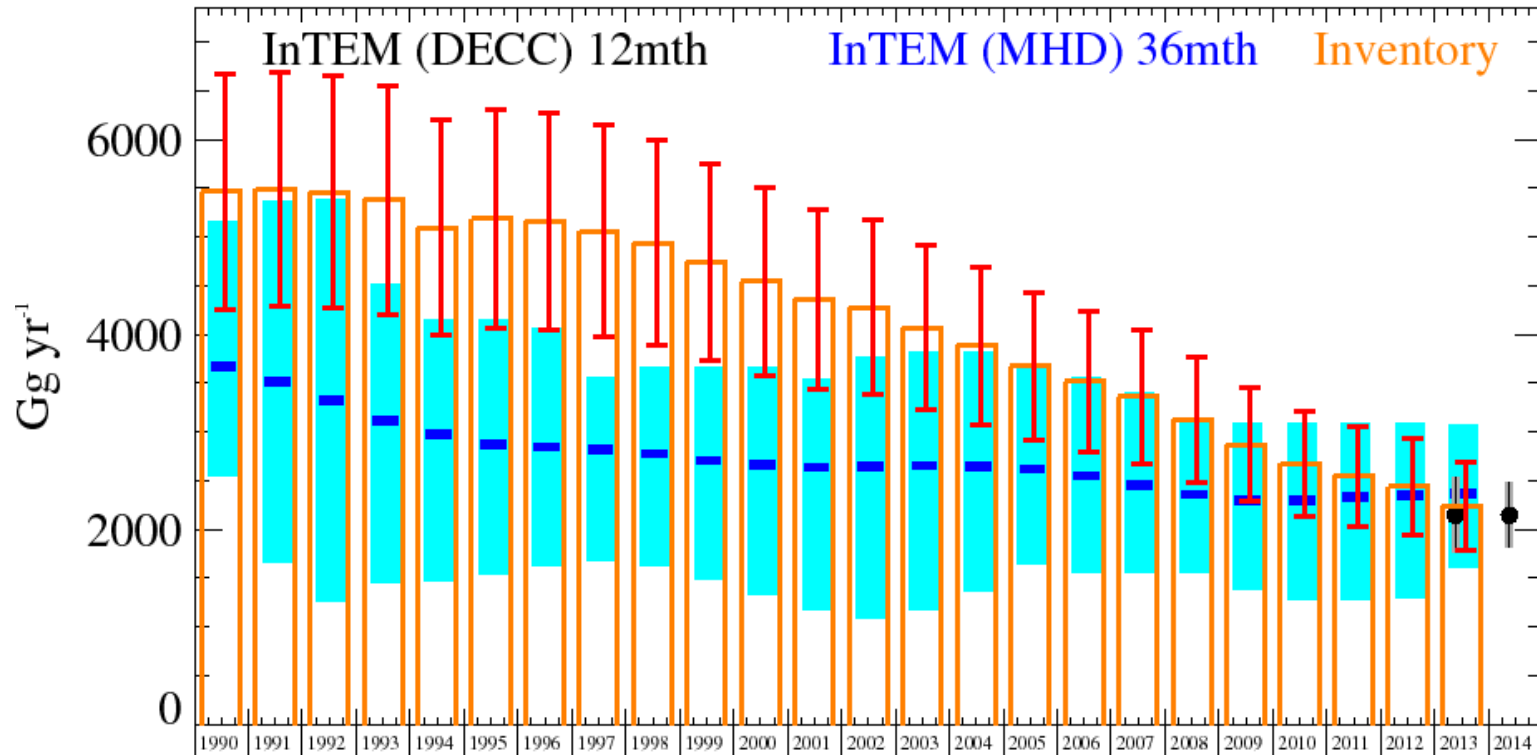
How does DECC use the verification?

- Using high-frequency measurement data from Mace Head, Tacolneston, Ridge Hill & Bilsdale (in conjunction with the Feedbacks Programme).
- Using the NAME model, and InTEM technique.
- Discussing the verification results with sectoral experts at Ricardo Energy & Environment and elsewhere.
- Highlight sources for inventory review
 - Get clearance and prioritisation from the National Inventory Steering Committee
- Commission a review of data and assumptions, independent of the verification results.



Results for methane

UK Methane kt/yr





How might atmospheric monitoring data be used further to verify inventories?



Further areas for development

- Investigate ways in which the source of emissions in the verification can be identified.
- The difficulties of CO₂.
- Engagement between verifiers and industry experts.
- Engagement between verifiers and inventory experts.
- Engagement with the IPCC.



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Questions?