GTSP
Global Energy Technology Strategy Program

Carbon Dioxide Capture *and* Geologic Storage

A CORE ELEMENT OF A GLOBAL ENERGY TECHNOLOGY STRATEGY TO ADDRESS CLIMATE CHANGE

A TECHNOLOGY REPORT FROM THE SECOND PHASE OF THE GLOBAL ENERGY TECHNOLOGY STRATEGY PROGRAM

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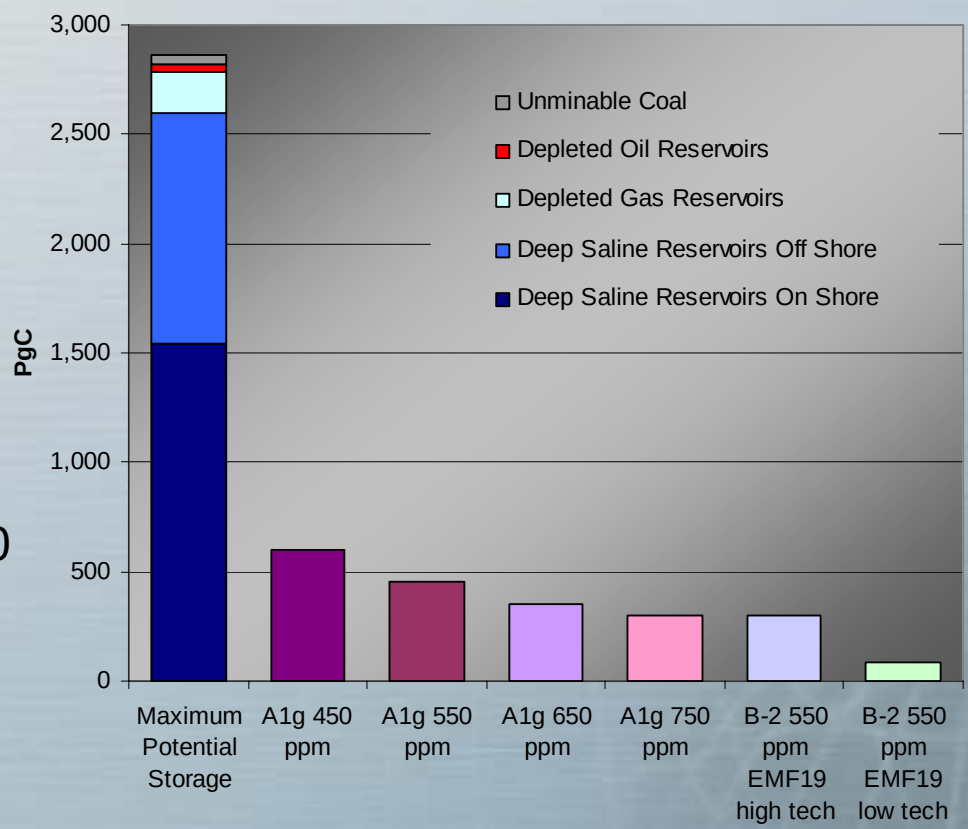
Is there enough CO_2 storage capacity in the world?

Is it “in the right places”?

Projection of CO_2 Storage Demand *Global 2000-2100*

- For stabilization scenarios from 450-750ppmv, most integrated assessment models show a demand for no more than 600 GtC (2,220 $GtCO_2$) storage over the course of this century.
- Published estimates of potential storage capacity place the potential global geologic CO_2 storage capacity at approximately 3,000 GtC (11,000 $GtCO_2$).
- A broad portfolio of carbon management technologies will be needed to fulfill the UNFCCC stabilization goal.



Global CO_2 Storage Capacity
A Very Heterogeneous Natural Resource

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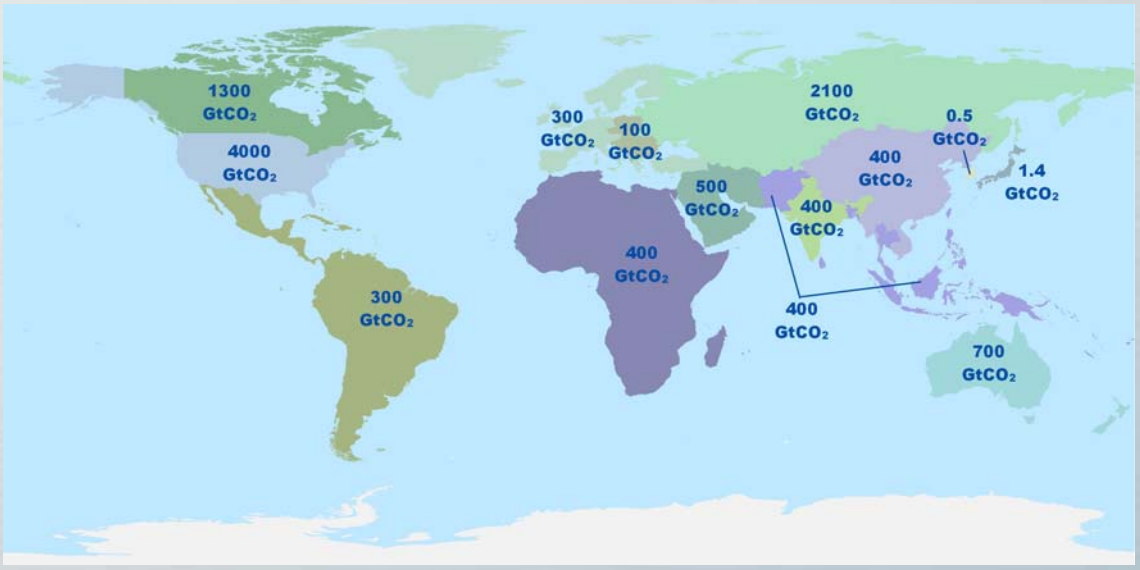
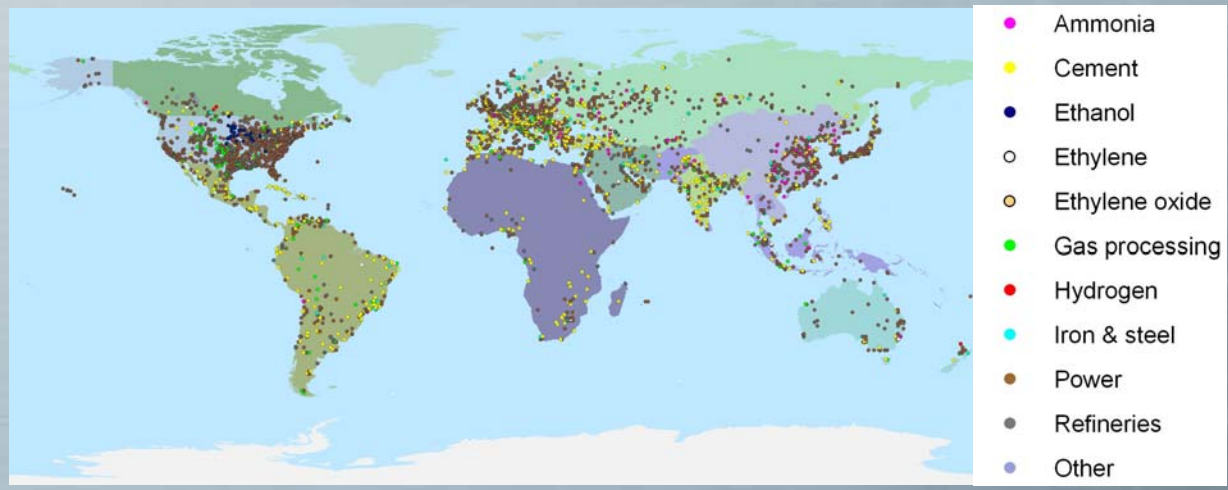


- **Potentially 11,000 GtCO2 of available storage capacity**
- **US, Canada and Australia likely have sufficient CO_2 storage capacity for this century**
- **Japan and Korea's ability to continue using fossil fuels likely constrained by relatively small domestic storage reservoir capacity**

- **~8100 Large CO_2 Point Sources**
- **14.9 $GtCO_2$/year**
- **>60% of all global anthropogenic CO_2 emissions**



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