US CO₂ Emissions by Sector and Fuel in 2000

Millions of metric tons per year carbon equivalent

Source: U.S. EPA Inventory of Greenhouse Gas Emissions, April 2002

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Technology is Key … Significant Advances Needed to Achieve the Base Case

To stabilize at 550ppm, Carbon/$GDP must be <10% of today’s by 2100

WHERE TODAY’S TECHNOLOGY WILL TAKE US

- 75% of electricity non-fossil
- End-use efficiency increases 1%/yr

WHERE MORE ADVANCED VERSIONS OF CURRENT TECHNOLOGIES WILL TAKE US

- Electric generation 67% efficient
- Passenger vehicles average 50mpg

PATHWE WAY WE NEED TO BE ON TO STABILIZE ATMOSPHERIC CO₂
Why is Electricity Growth in the US (Globally) Relatively Unaffected by Climate Policy??

2. Electricity displaces non-electric enduses

**Electricity's Share of US Total Primary Energy**

- **Historic and A1G**
- **450ppm**
- **550ppm**
- **650ppm**

Sources: EPRI, Jae Edmonds