

From a Bridge to a Destination.
Gas Fired Power Plants and
Carbon Capture Storage and Utilization
(CCUS)

Natural Gas and CCUS: Framing the Issues

American Clean Skies Foundation
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Why Care About CCUS?

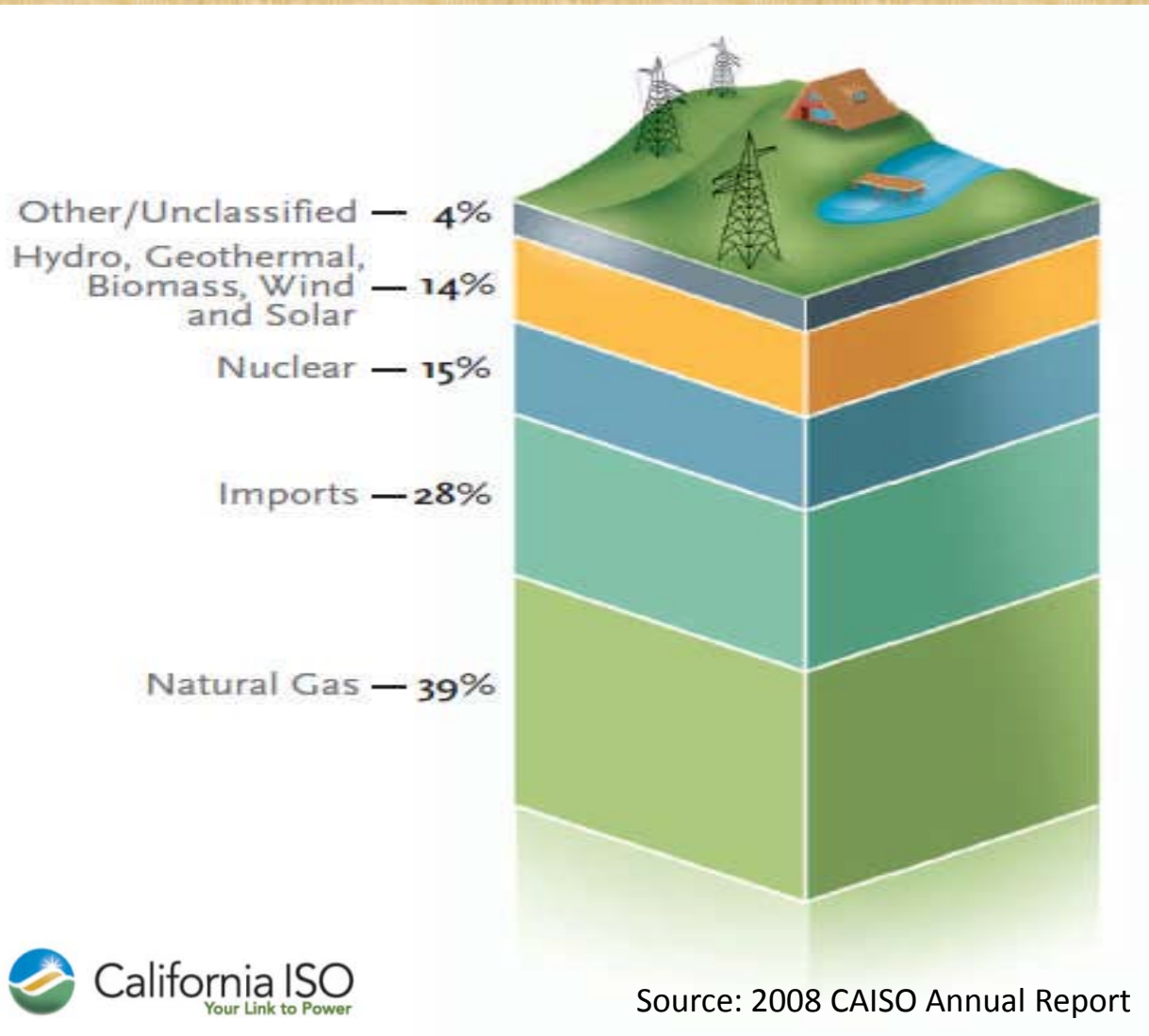
CA Assembly Bill 32 with CAP&TRADE

“...sends the right policy signal to the market..”

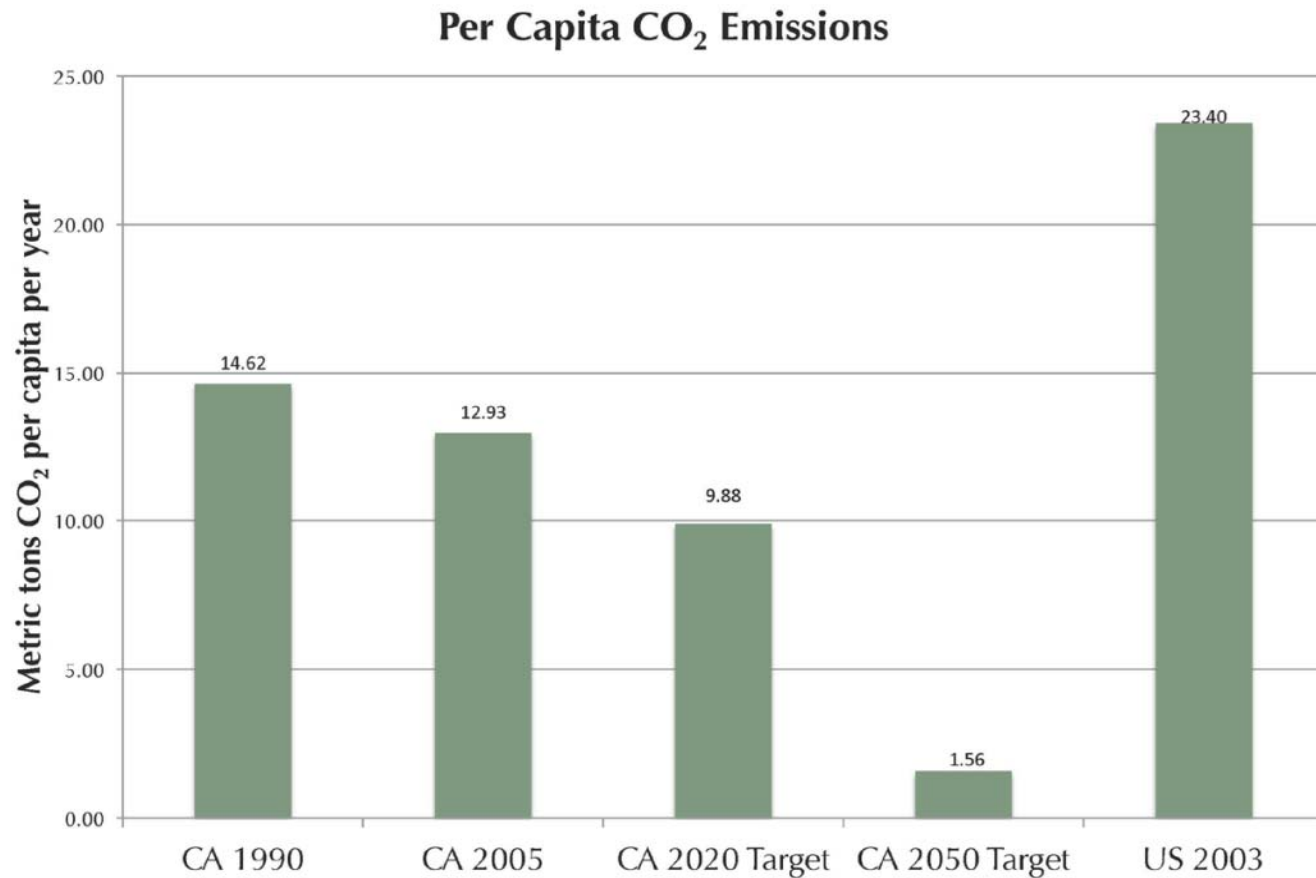
“...When the nation addresses the growing danger of climate change... CA’s climate plan will serve as the model...”

--CARB Chairwoman, Mary Nichols

California Electricity Resource Mix



CA Per Capita CO₂ Emissions



Issues To Be Resolved for CCSU

- **Is Energy CARBON Constrained?**
- **TRUE Realization of NEED for CCSU!**
- **Federal and State Policy and Funding**
- **Firm Consistent and Understandable Business Incentives and Commitments**
- **Regulatory and Permitting Confidence**
 - **What is required, Who is responsible**
 - **Acceptable Actions Determinations**
 - **Uniform MVA Regulations**

Issues To Be Resolved for CCUS

- **Technical Issues**
 - **Capture Technology Economics both cost and efficiency of plant impacts**
 - **Transport of CO₂**
 - **Storage Reservoir Operation**
 - **Confirmation of storage**
- **CO₂ Utilization Offset Credit Policy**
 - **How CO₂ confirmed and valued**
- **Long-term Liability**
- **Chronological Time Before Commercial Viability**
- **Impact on Water Resources**

THANK YOU

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Seven Keys to Low-Carbon Innovation

- 1. Managing Policy Uncertainty in Innovation Strategies**
- 2. Clear Direction and Commitment from Leaders**
- 3. User-focused Value Propositions**
- 4. Business Model Innovations**
- 5. Nexus Work**
- 6. Robust Innovation Strategies**
- 7. Partnerships, Investments, Acquisitions**

“The Business of Innovating: Bringing Low-Carbon Solutions to Market”
Pew Center on Global Climate Change; by *Andrew Hargadon, UC Davis*