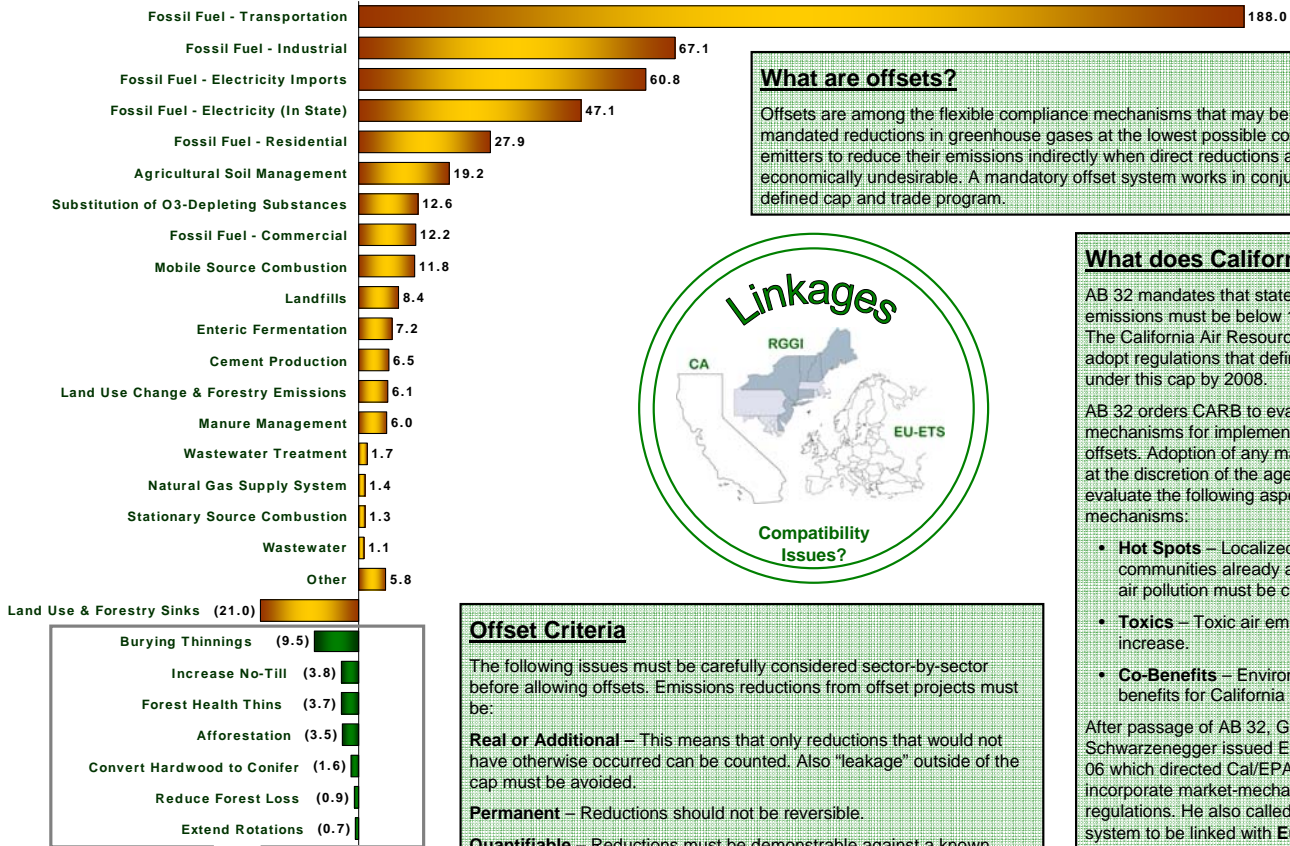


## 2004 Greenhouse Gas Emissions and Sinks in CA (Million Metric Tons CO<sub>2</sub>e)



### What are offsets?

Offsets are among the flexible compliance mechanisms that may be used to achieve mandated reductions in greenhouse gases at the lowest possible cost. Offsets allow emitters to reduce their emissions indirectly when direct reductions are technically or economically undesirable. A mandatory offset system works in conjunction with a well-defined cap and trade program.



### What does California law require?

AB 32 mandates that statewide greenhouse gas emissions must be below 1990 levels by 2020. The California Air Resources Board (CARB) will adopt regulations that define which sectors fall under this cap by 2008.

AB 32 orders CARB to evaluate market mechanisms for implementation, including offsets. Adoption of any market mechanisms is at the discretion of the agency. CARB must evaluate the following aspects of market mechanisms:

- **Hot Spots** – Localized impacts in communities already adversely impacted by air pollution must be considered.
- **Toxics** – Toxic air emissions must not increase.
- **Co-Benefits** – Environmental and economic benefits for California must be maximized.

After passage of AB 32, Governor Schwarzenegger issued Executive Order S-20-06 which directed Cal/EPA and CARB to incorporate market-mechanisms into their regulations. He also called for California's system to be linked with **European Union-Emissions Trading Scheme (EU-ETS)** and the **Regional Greenhouse Gas Initiative (RGGI)**.

### Offset Criteria

The following issues must be carefully considered sector-by-sector before allowing offsets. Emissions reductions from offset projects must be:

**Real or Additional** – This means that only reductions that would not have otherwise occurred can be counted. Also "leakage" outside of the cap must be avoided.

**Permanent** – Reductions should not be reversible.

**Quantifiable** – Reductions must be demonstrable against a known baseline and follow standard protocols developed for the sector.

**Verifiable** – A transparent verification process must be developed.

**Enforceable** – Projects must be accessible to inspectors and those that do not comply with the regulations must be held accountable.

**Potential for Enhancing Carbon Sinks:**  
Some land management techniques may be appropriate for generating offset credits.

### Limitations on Offsets

The following limitations should be considered to ensure a quality offset program:

- **Limit Offset Percentage** – Start slow in early years administrative and enforcement standards are developed.
- **Discount Credits from Offsets** – Discounting offset credits could ensure that emitters first target their direct emissions.
- **Favor Projects in California** – Many GHG reduction projects generate co-benefits; projects must be conducted in California to realize those benefits.
- **Types of Projects** – Only allow offsets credits for projects that meet minimum criteria in discrete sectors.
- **Other Approaches** – Other regulatory approaches may be more effective for enhancing sinks or reducing emissions from certain sectors.
- **Rewarding Bad Actors** – Previous bad behavior (i.e., poor land management) should not be rewarded.

