




**Policies for Reducing
Oil Consumption**

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**Toward a
New National
Energy Policy:
Assessing the
Options**

EXECUTIVE SUMMARY





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Goals of Study

**Consistently assess and score policies
according to**

- CO2 emissions reductions
- Reductions in oil use
- Welfare costs and cost-effectiveness

Point to promising policies for an overall energy
strategy for the U.S.

What's Distinctive

- **POLICIES** (not technologies)
- **COMPREHENSIVE** – 35 (incl. 4 cross-cutting)
- **COMMON METRICS** (Reductions in oil use and CO₂ emissions, cost, and cost-effectiveness)
- **CONSISTENCY (apples to apples)** (NEMS-RFF model across all policies)
- **WELFARE COSTS** (not GDP or expenditures)
- **TARGET REDUCTIONS FOR OIL AND CO₂** (2 million barrels per day in 2030, 12.4 billion cumulative tons CO₂)
- **BOUNDING ASSUMPTIONS FOR MARKET FAILURE** (no, partial, complete)



INDIVIDUAL POLICIES

OIL POLICIES

CO₂ POLICIES

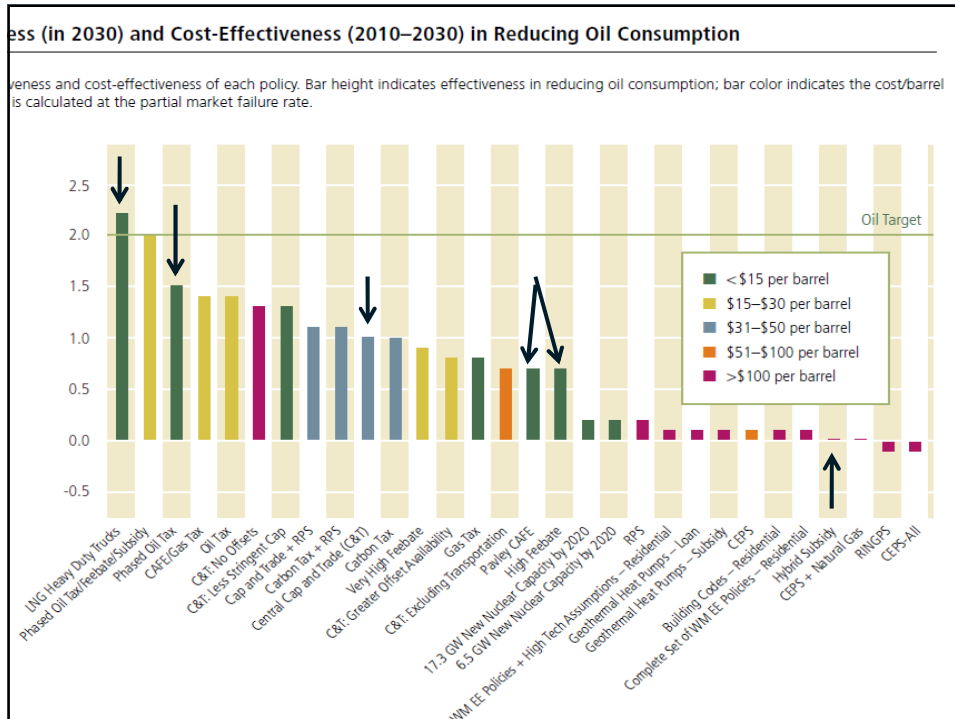


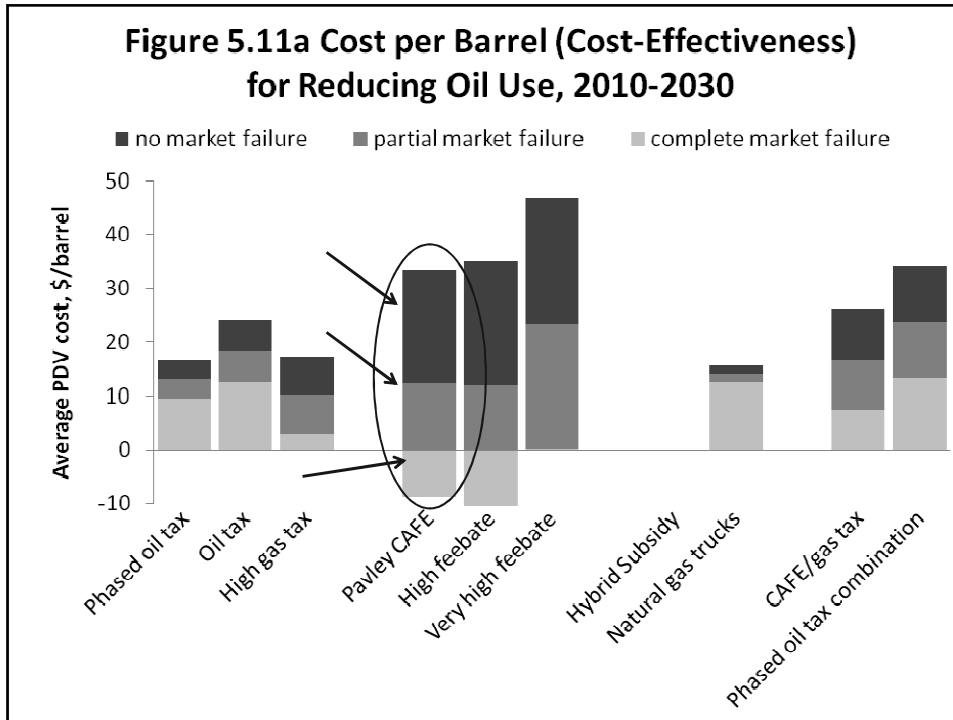
Cross-cutting combinations



Individual Policy Ideas

- Power of Pricing: Taxes for reducing oil
 - Affects all aspects of consumer and business decisions
 - Recycle revenues for political palatability. But take care
- Liquefied natural gas (LNG) heavy-duty trucks
 - 18-wheelers travel 100,000 miles/yr @ 5 miles/gallon diesel
 - LNG for range
 - Operation in Port of Los Angeles
 - ~\$70,000 more expensive investment
 - Cheaper to operate on natural gas
 - Still a net cost to society, even assuming complete market failure
 - Infrastructure issue: hub and spoke system becoming more common, but resale market could be problematic
 - Safety Issues





Conclusions

- Getting even 2 mmbpd reduction in oil consumption is tough
- Not a lot of good options beyond taxes
- Except heavy-duty truck policy
- Assumptions about market failure and external costs really affect overall costs
- Caveat: we didn't look at biofuels, but....