



Department of Environmental Quality

Low Carbon Fuel Advisory Committee June 23, 2010

Low Carbon Fuel Standard Economic Analysis- An update

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Department of Environmental Quality

Low Carbon Fuel Standard: Economic Analysis

Purpose:

- Evaluate the costs and savings associated with a low carbon fuel standard
- Evaluate the impact of a low carbon fuel standard to:
 - Cost of transportation fuel
 - General public
 - Businesses
 - Governments



Economic Impact Analysis – What does it mean?

- **Assessment of policy change across entities, region or economies**
 - adoption of regulation
 - new investment
 - tax cut
- **Used by federal agencies and states**
- **For LCFS compliance:**
 - A comparison of the costs of “Business-As-Usual” versus the costs of complying with LCFS
 - Many different ways a LCFS could be met
 - Assess range of costs associated with each compliance scenario



Economic analysis – What does it contain?

- **Goal: Net Compliance Costs (Year 1 to X) = (Total costs - Cost Savings) ; where X = final year of compliance**
- **Typical method to estimate economics of a policy change (public and private sector)**
- **Affected parties-**
 - Transportation fuel providers and distributors
 - General public, businesses, governments
 - Small businesses



Method and Tool – Impact Analysis

- Impact analysis is best done using regional economic modeling – 2 tools available
- REMI (Regional Economic Modeling Inc.) – widely used for a variety of policy changes (e.g., tax cut / hike, climate change, education and health policies, welfare programs, etc.)
- REMI: Dynamic tool and capture geographics



Approach & Components – Economic Analysis

Components:

- Net (Costs / Benefits) of compliance = (Costs of producing petroleum fuels + costs of alternative fuel sources) – (cost savings from increased total fuel supplies and revenue impacts to region)
- Then we compare: Costs of (Baseline vs each Compliance Scenario)
- Evaluate a range of “net cost” scenarios



Advisory Committee Input

- Overall approach design
- Data Inputs
- Modeling assumptions
 - technology and resource availability
 - time lag
 - fuel consumption patterns
 - market conditions
- Sensitivity runs
 - prices (fuel, feedstock)
 - Investment Interest rate
 - technology-fuel mix



Advisory Committee Input: REMI sectors

- REMI has “three sets” of sectors
- Contractor is proposing to do a full 70 sector REMI analysis. Handout will be posted.
- The 70 sector “impact assessment” will cover Oregon’s economy fairly well.

- Detailed sector-analysis has its’ pitfalls too

- Key – get typical sectoral mix and complement with – sensitivity analyses (resources permitting)



Questions?