



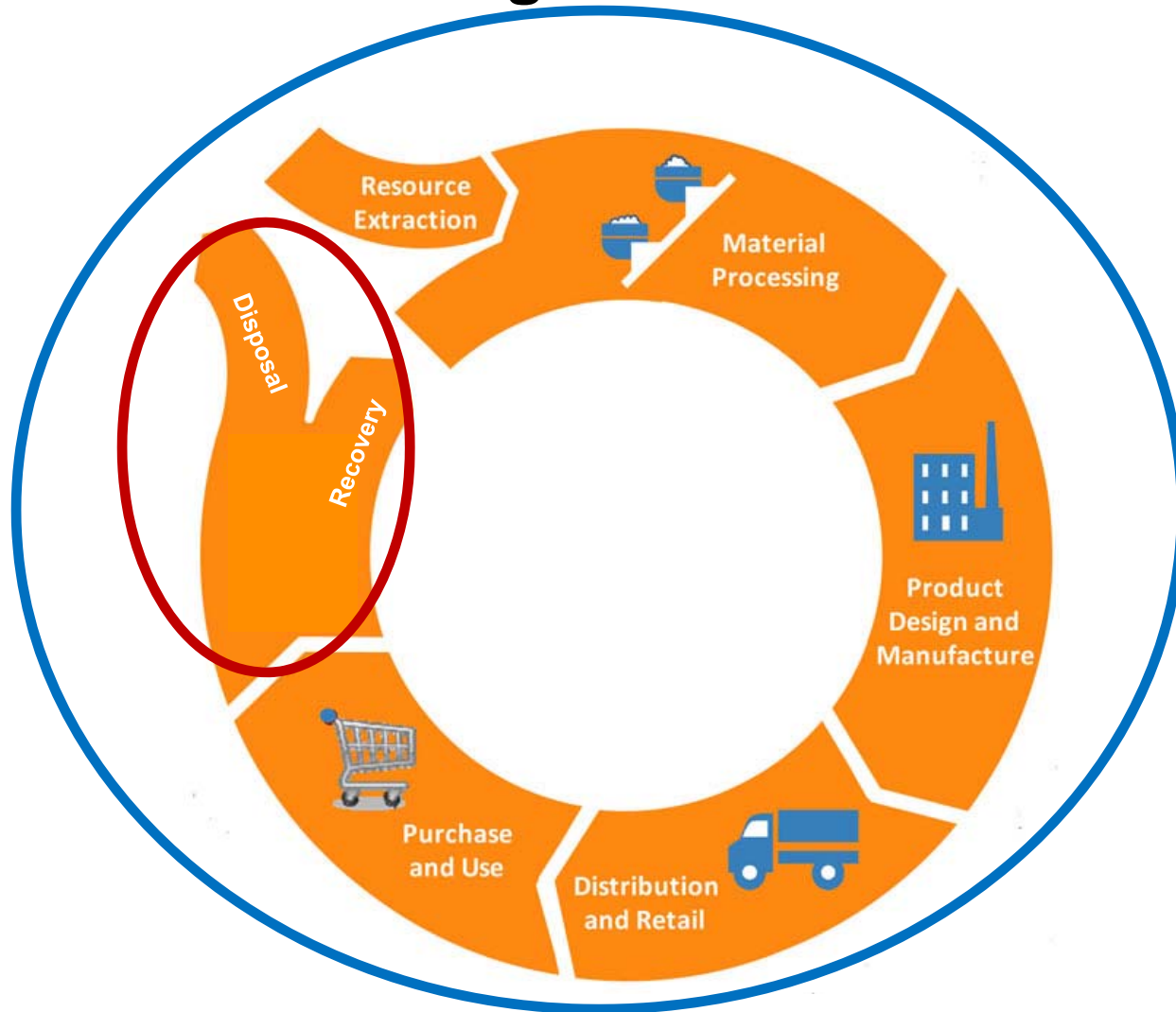
Materials Management, Discards Management, and Climate

West Coast Forum on Climate and Materials
Management
May 7, 2012

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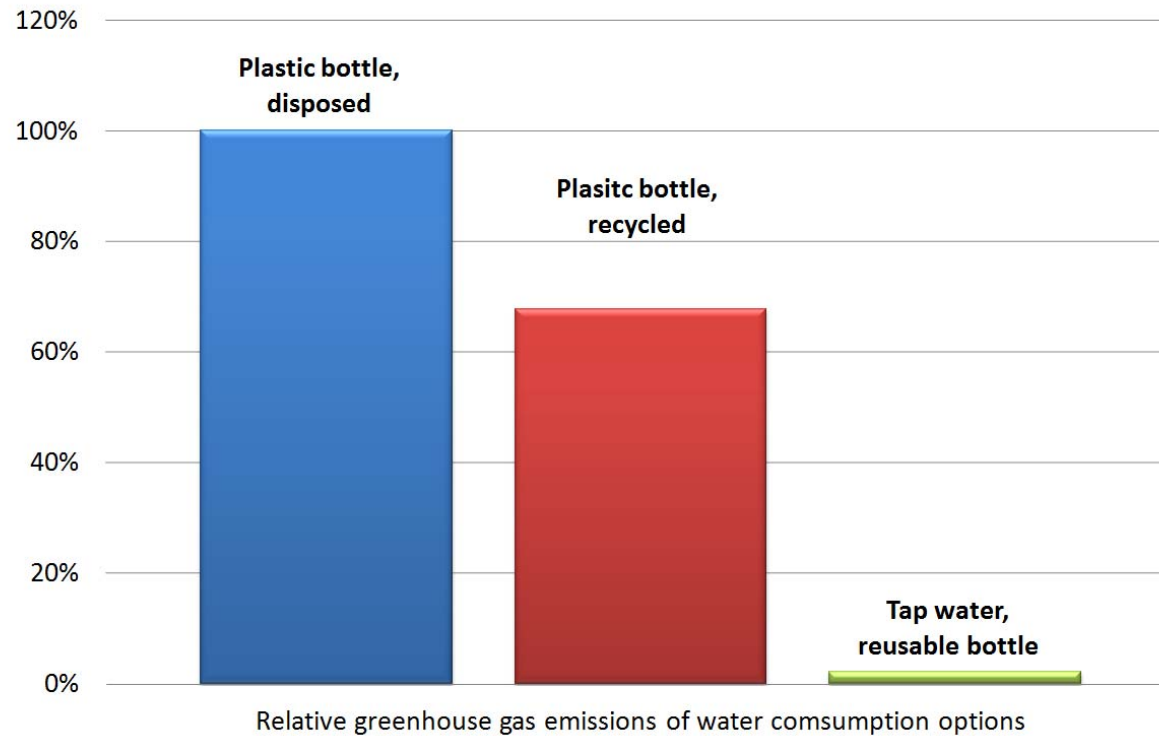


Discards (Waste) Management and Materials Management





Limits of Discards Management

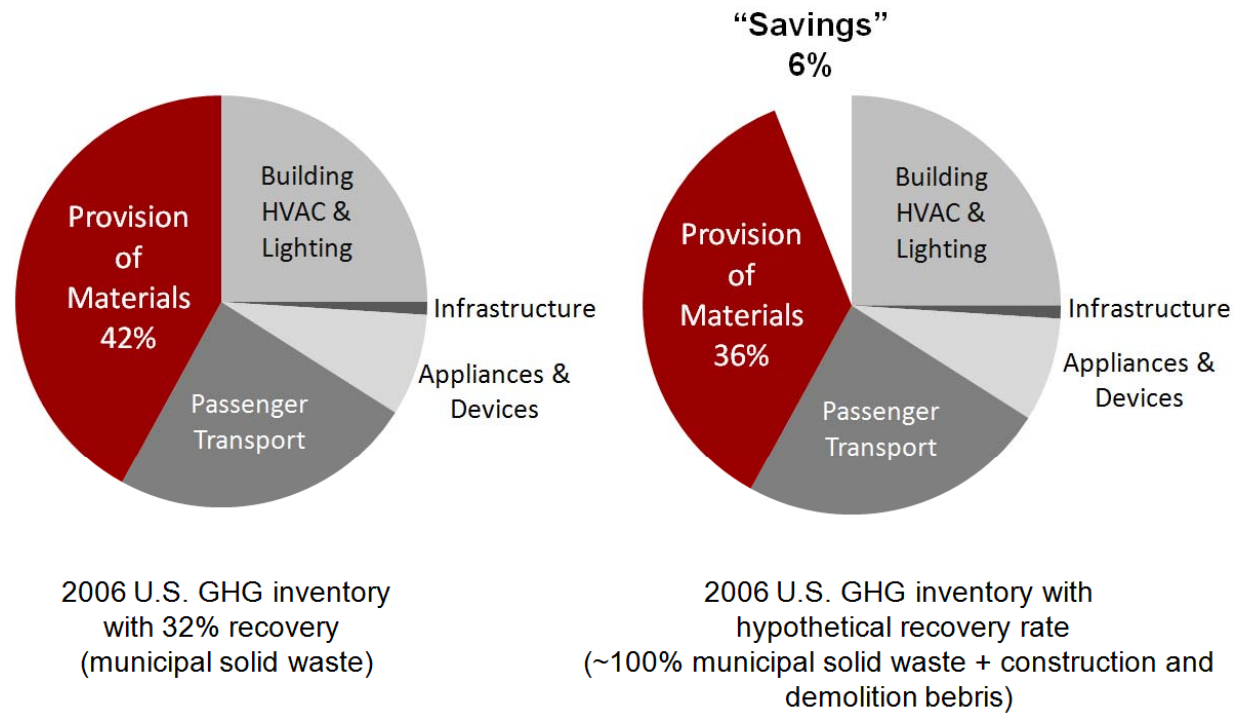


Water Consumption

Source: A study commissioned by Oregon Dept of Environmental Quality



More Limits of Discards Management



Limitations of Recycling and Composting



Materials Management: A Broader View

- Consider *impacts* across the full life cycle (not just end-of-life)
- Consider *actions* and *interventions* across the full life cycle (not just discards management)

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Recycling: On-Ramp or Cul-De-Sac?





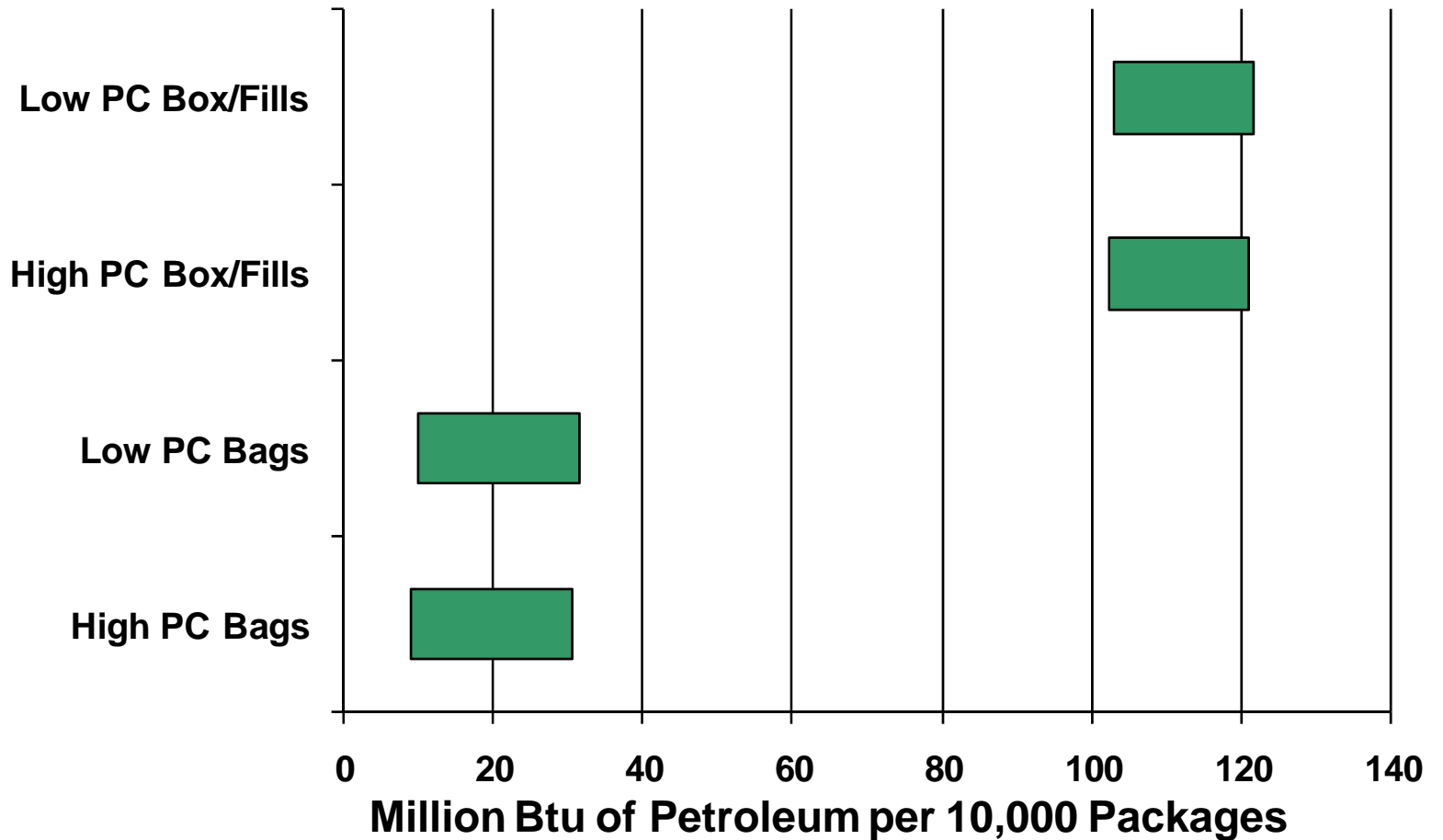
DEQ/Metro/EPA's Life Cycle Analysis of E-Commerce Packaging



- Full study at:
<http://www.deq.state.or.us/lq/pubs/docs/sw/packaging/lifecycleinventoryshort.pdf>

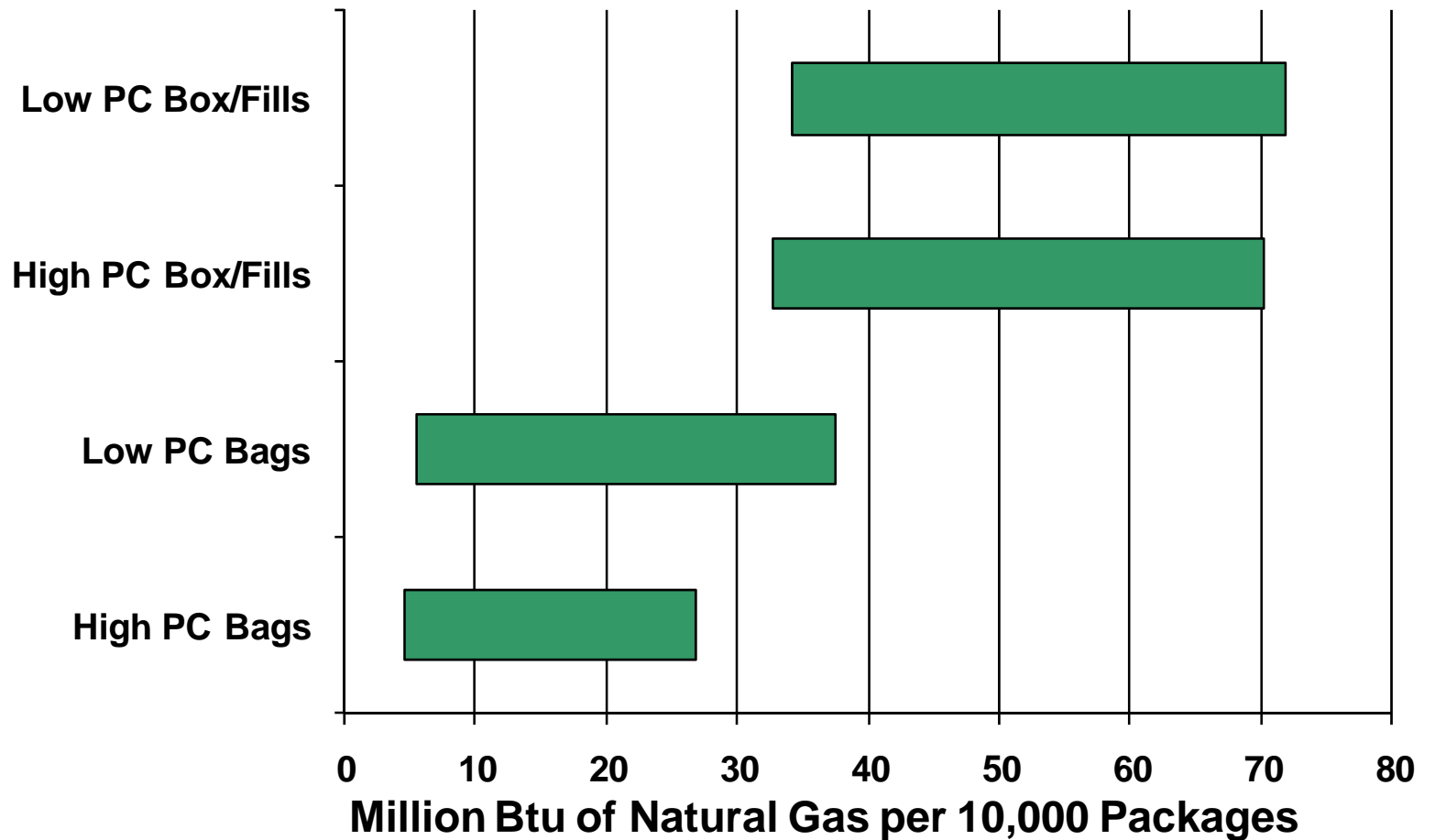


E-Commerce Results: Petroleum



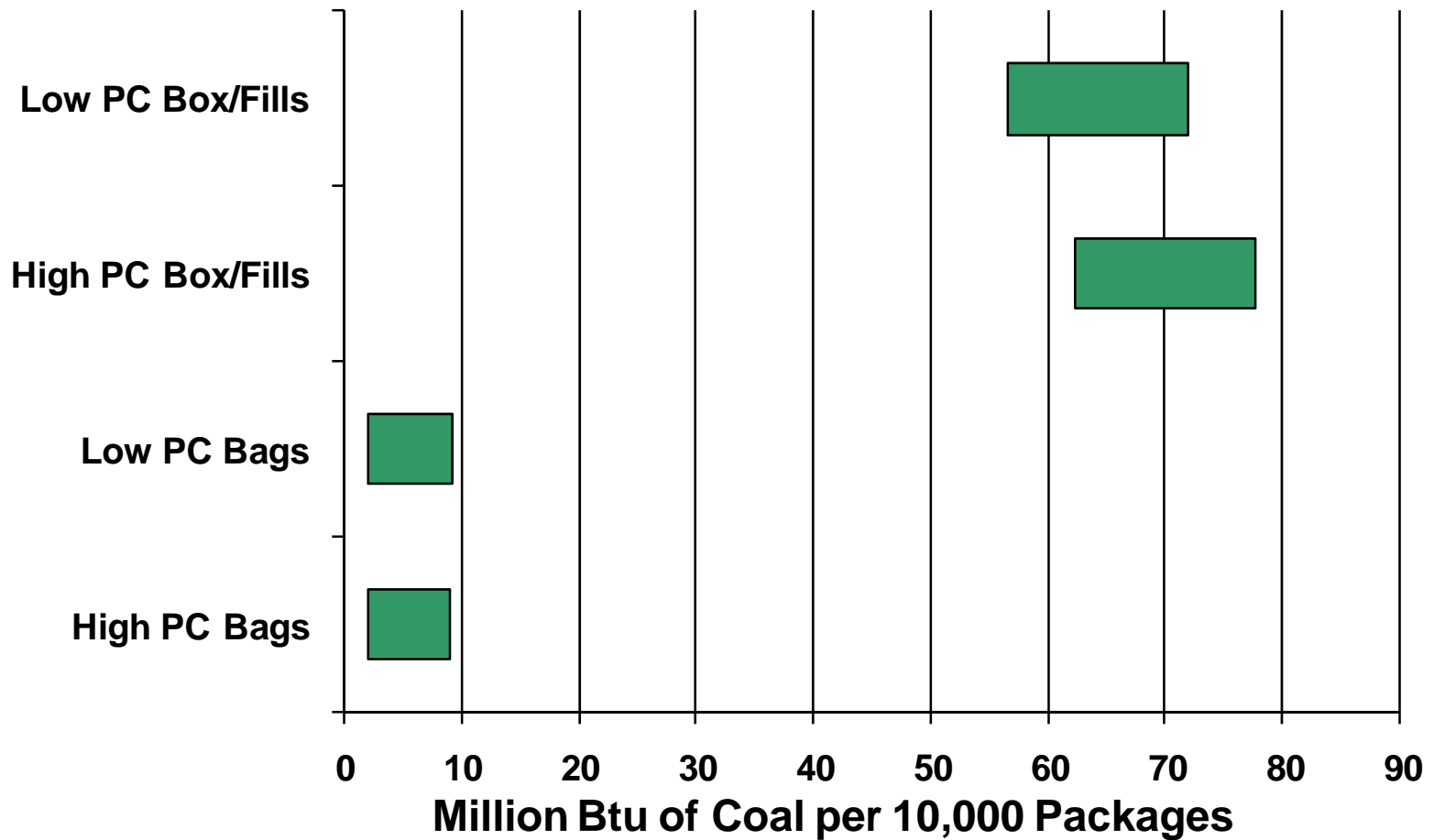


E-Commerce Results: Natural Gas



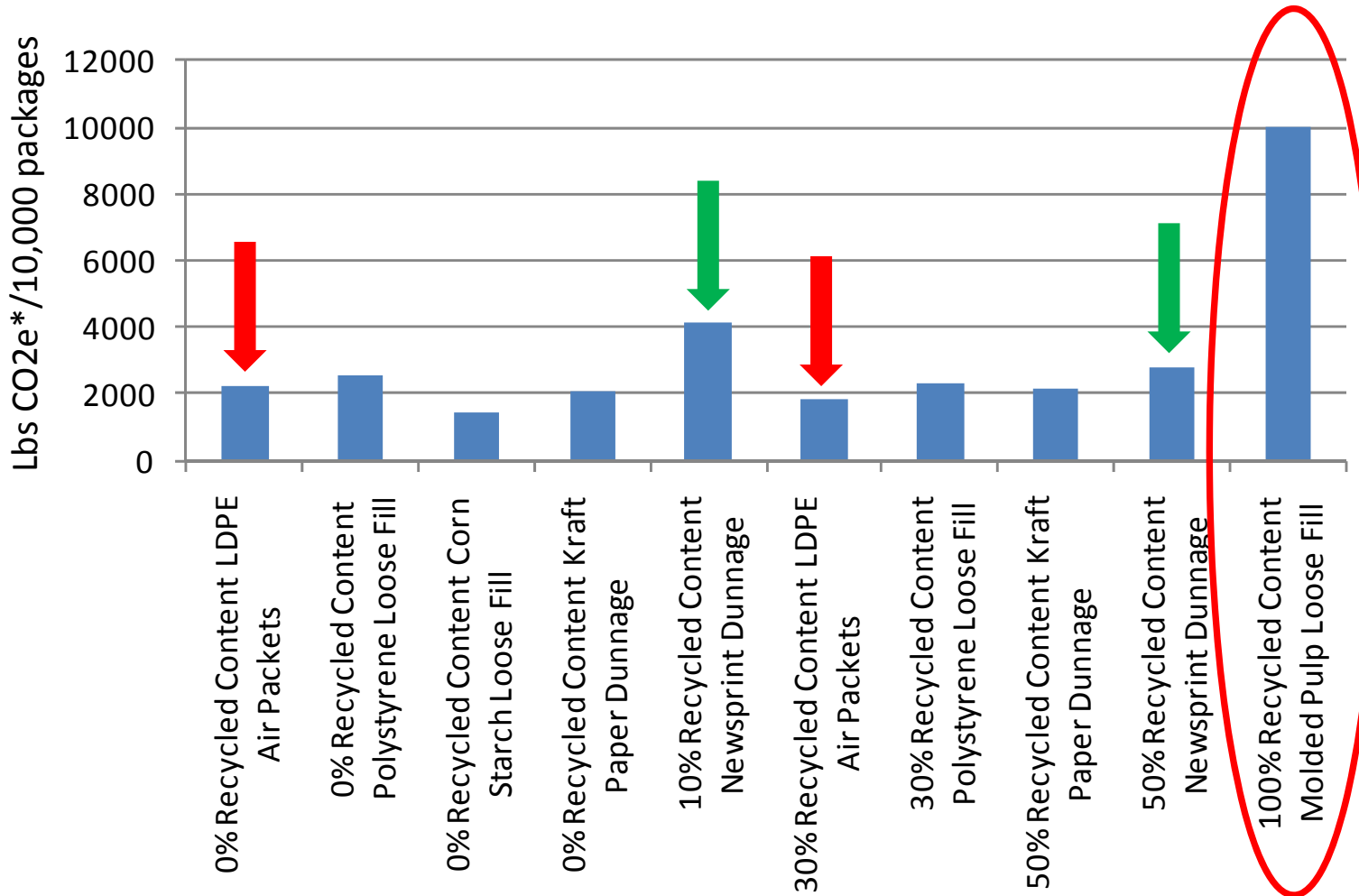


E-Commerce Results: Coal





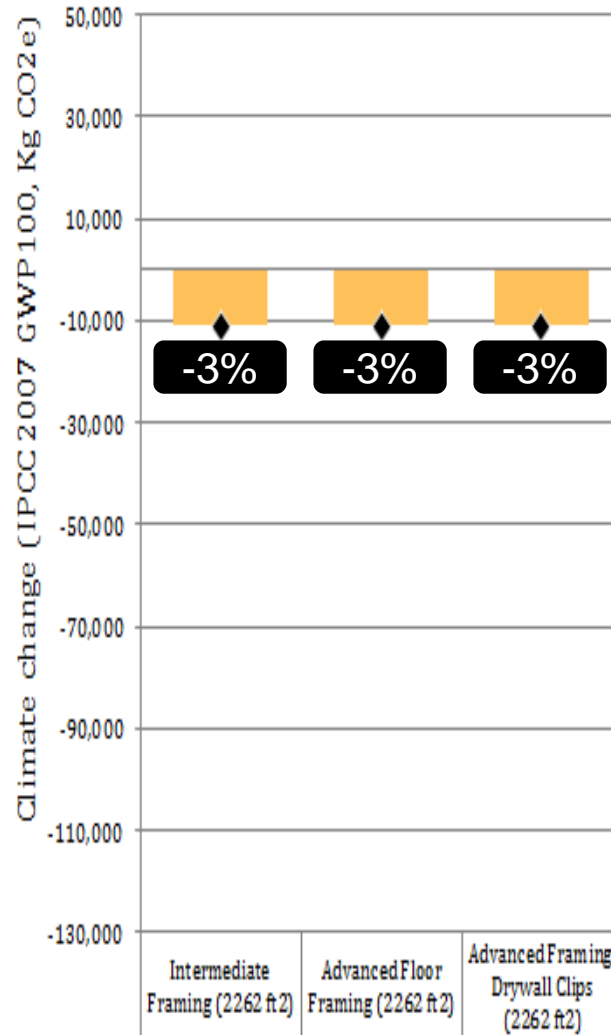
Void Fills in E-Commerce Packaging (Boxes)



*on a cradle-to-distribution center basis



Lifecycle GHG Benefits of Wall Framing Options





DEQ's 2050 Vision for Materials Management in Oregon

- Vision and Framework for Action will serve as an update to Oregon's (statutorily-required) integrated resource and solid waste management plan – and provide guidance to DEQ and others
- Vision: How are materials made, used, and managed at end-of-life in 2050?
- Vision and key actions around 3 elements
 - Upstream/design and production
 - Consumption
 - End-of-life management



DEQ's 2050 Vision for Materials Management in Oregon (continued)

- Draft Vision and Framework for Action available for review this summer
- Environmental Quality Commission consideration in October
- Project website:
<http://www.deq.state.or.us/lq/sw/materialsmgmtplan.htm>



DEQ White Papers, Literature Summaries

- Waste prevention and sustainable consumption
 - Challenges to sustainable consumption
 - Government policy and program alternatives for sustainable production and consumption
 - Product stewardship recommendations
 - Others
-
- All under “background documents” at www.deq.state.or.us/lq/sw/materialsmgmtplan.htm



Program and Policy Alternatives

- Public procurement
- Collecting and disseminating product impact information
- Eco-labels and information disclosure
- Marketing standards
- Choice editing and product standards
- Building standards and incentives
- Supporting access to sustainable products and services
- Supporting businesses and NGOs
- Paradigm-challenging/changing research
- Goals, comprehensive indicators and targets



More Program and Policy Alternatives

- Product stewardship
- Chemical policy reform
- Abolishing virgin material subsidies
- Taxing pollution and unsustainable resource use
- Voluntary agreements with industry
- Public outreach – broad (sustainable consumption, values)
- Public outreach – narrow (targeted behaviors)
- Direct financial incentives to consumers
- Media standards, literacy
- Shift consumption to natural capital
- Changing how we work, share and cooperate



Product Stewardship – Consensus Definition



Product Stewardship is *the act of minimizing health, safety, environmental and social impacts, and maximizing economic benefits of a product and its packaging throughout all lifecycle stages.* The producer of the product has the greatest ability to minimize adverse impacts, but other stakeholders, such as suppliers, retailers, and consumers, also play a role. Stewardship can be either voluntary or required by law.

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Product Stewardship

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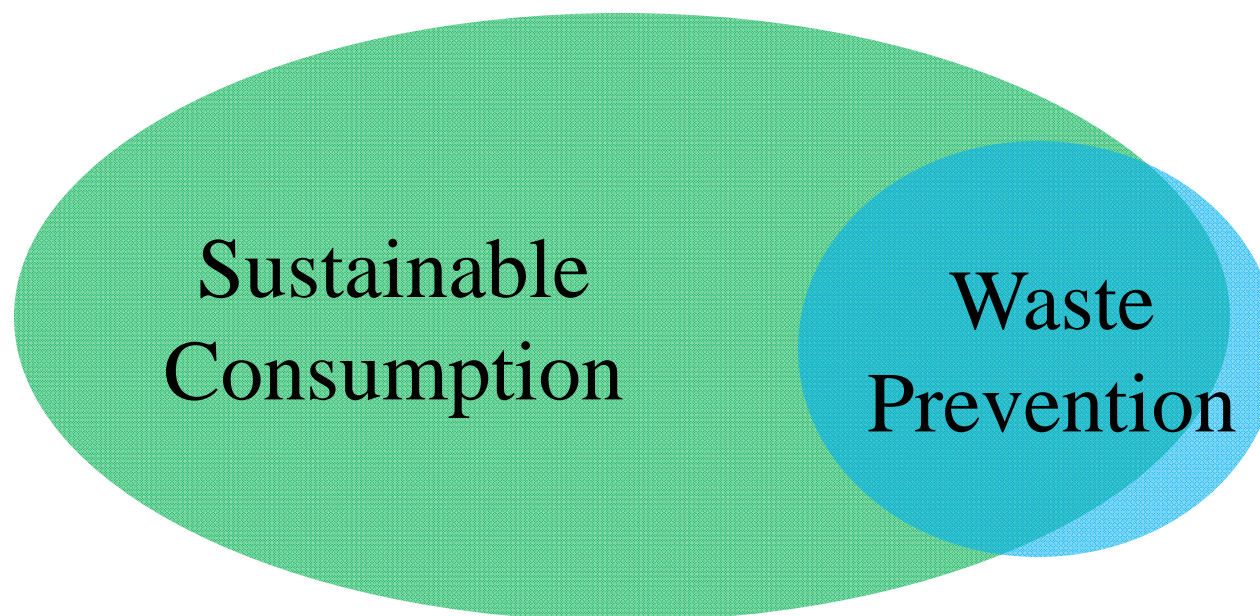


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Waste Prevention and Sustainable Consumption



- Considerable overlap, but some limits to “waste prevention”
 - “Waste” is confusing to many (= recycling?)
 - Narrow focus on waste can be penny-wide but pound-foolish

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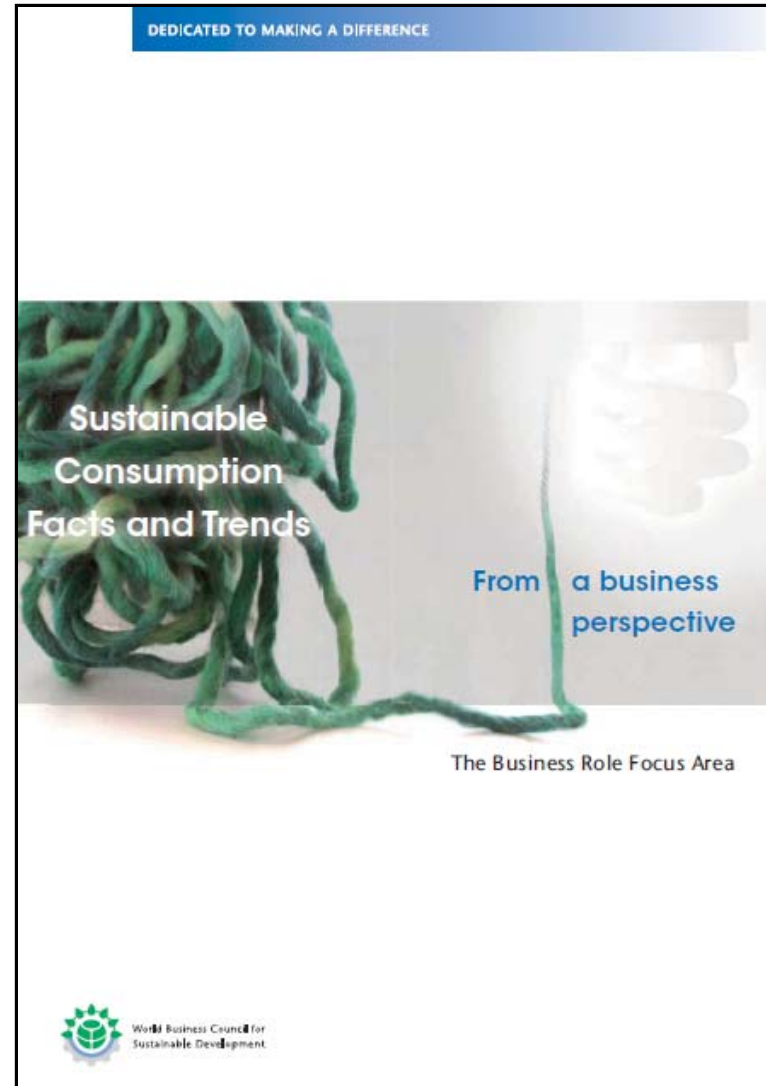


Sustainable Consumption



wbcasd

business solutions for a sustainable world





World Business Council for Sustainable Development

- Current global consumption patterns can't be sustained
 - Efficiency gains and technological advances alone won't be sufficient
 - Changes will be required to consumer lifestyles
- Well-being doesn't rely on high levels of consumption
- Consumers are concerned and willing to act, but external barriers get in their way
- A common understanding of “sustainable product or lifestyle” is needed



How Can Government (or others) Make Consumption More Sustainable?



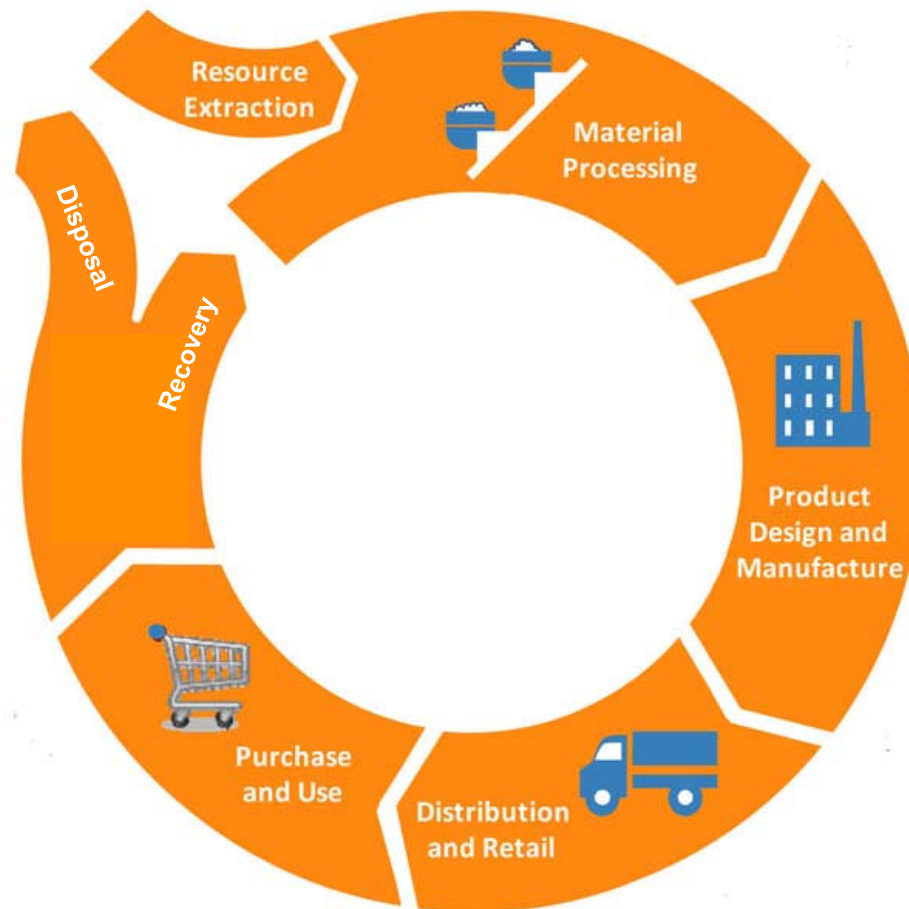


Challenges of Sustainable Consumption

- The “rational choice model” doesn’t explain consumer behavior
 - Providing information, financial incentives typically doesn’t change behavior (by much)
 - Behaviors are driven by other factors, limitations
- Small, incremental steps may undermine deeper change
- Rebound effects can undermine programs
- Financial approaches can backfire
- Long time horizons needed
- More collaboration needed
- Don’t rely just on individuals



Materials Management



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Thank You

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