Why couldn’t we rethink how we plan our communities, industrial parks, roads and transit, energy and water systems, so carbon makes a difference?

Governor Tom McCall -- 1972
Embed carbon in the planning process

- State and local transportation/land use plans should target 2020* greenhouse gas goals
- OR utility planning should meet GHG goals
- “Consumption-based” GHG Inventory

* = about 30% below today’s levels
Why couldn’t we design and build cities that are energy and carbon efficient?
Roadmap to 2020 – Propositions

Leverage Efficiency of Cities

• Stay within present UGB’s (larger cities)
• Redesign neighborhoods for walking access to schools, services, shopping, transit
• More & more accessible public transit
• Shift longer freight hauls from truck to rail
• Smarter roadways; priority to emergency, freight, multi-passenger users
Why couldn’t we create tomorrow’s buildings, and rebuild today’s, for superior energy and carbon performance?

[Portland, OR Health Sciences solar south façade]
Leverage Efficiency of Buildings

- New buildings: “near-zero-emissions” designs
- Existing buildings: Retrofit building energy code applied to existing buildings at point-of-purchase
- Smart Building systems for energy, water efficiency
- Fuel-blind space/water heating (gas + electric)
Why couldn’t we shake the oil habit, and move full speed ahead to electric and other new vehicles and fuels?
Shift Transportation Fuels

- Fleet turnover to electric and gas at double the national rate
- Deploy public, private recharging infrastructure
- Integrate plug-in EV’s with Smart Grid to add vehicle flexibility, grid energy storage
Why couldn’t we shake the coal habit, and move rapidly to wind, solar, biofuels, gas, and scaled-up energy efficiency?
Ramp Down Coal; Ramp Up Efficiency, Renewables

- “Substantial reductions” in coal generation by 2020 and thereafter
- Replace with efficiency + renewables + gas
- New transmission
- Integrate generation with “smarter” homes, businesses and electric vehicles
Roadmap to 2020 – Propositions

**Capture Carbon Across the Board**

- Align forest practices for conservation, fire management, carbon capture/storage
- Align agricultural practices (1) to reduce soil disturbance and fertilizer overuse; (2) to capture and use methane
- Support industrial efficiencies with access to finance, technical support
- Reduce, reuse, recycle “stuff”
Can we imagine taxing carbon inefficiency instead of taxing income or property values?
Roadmap to 2020 – Propositions

**Embed carbon in energy prices**

- Eliminate gas tax; replace with fee for vehicle efficiency $X$ miles traveled
- Charge extra for using roadways at choke points to reduce highway congestion
- Charge for parking at workplaces
- Key property tax to building efficiency, not market value
Roadmap to 2020 – Seven Propositions

 Embed carbon in the planning process
 Leverage efficiency of cities
 Leverage efficiency of buildings
 Shift transportation fuels
 Ramp down coal emissions
 Capture carbon across the board
 Embed carbon in energy prices