

Presenter



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Carbon Pricing: A Primer

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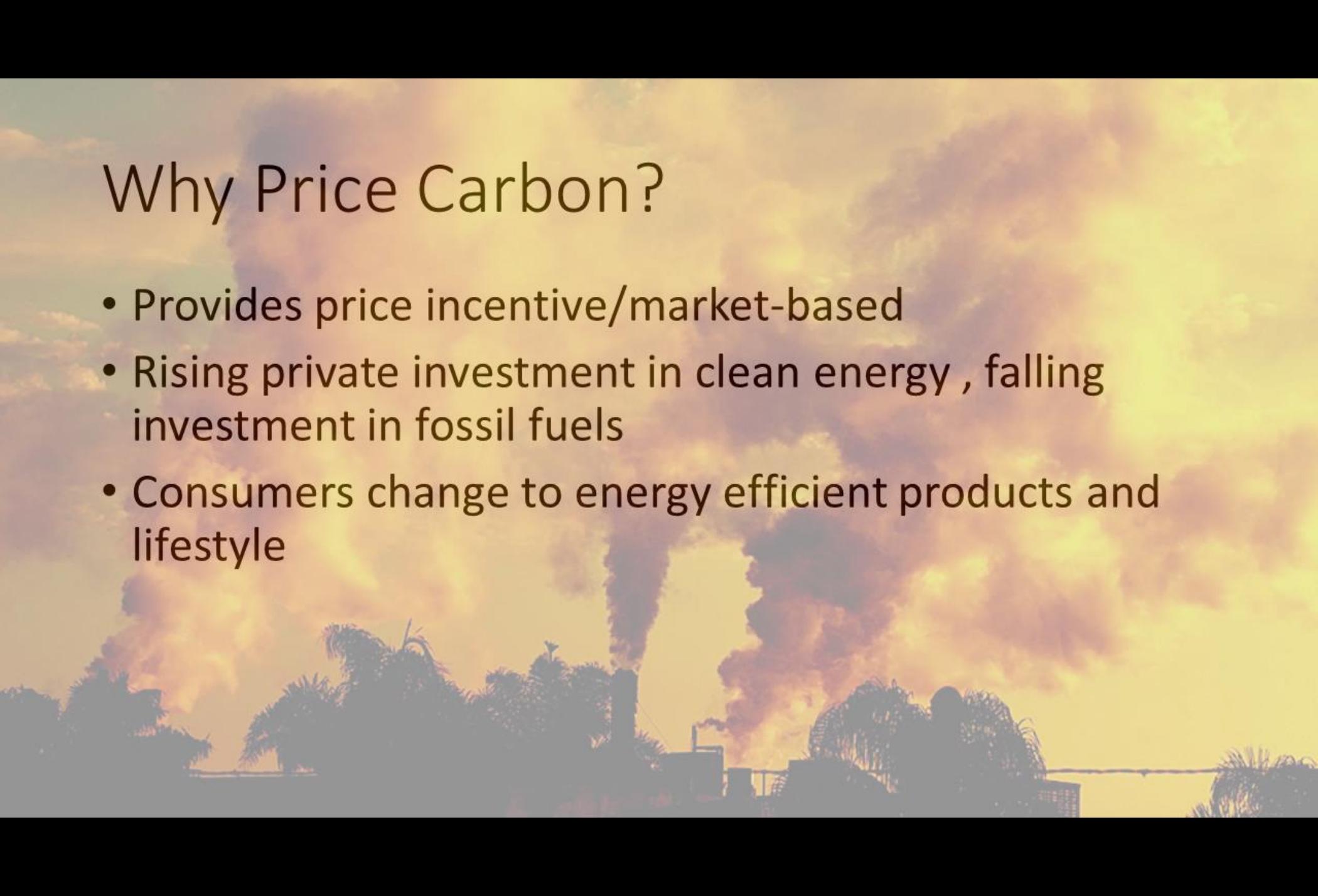
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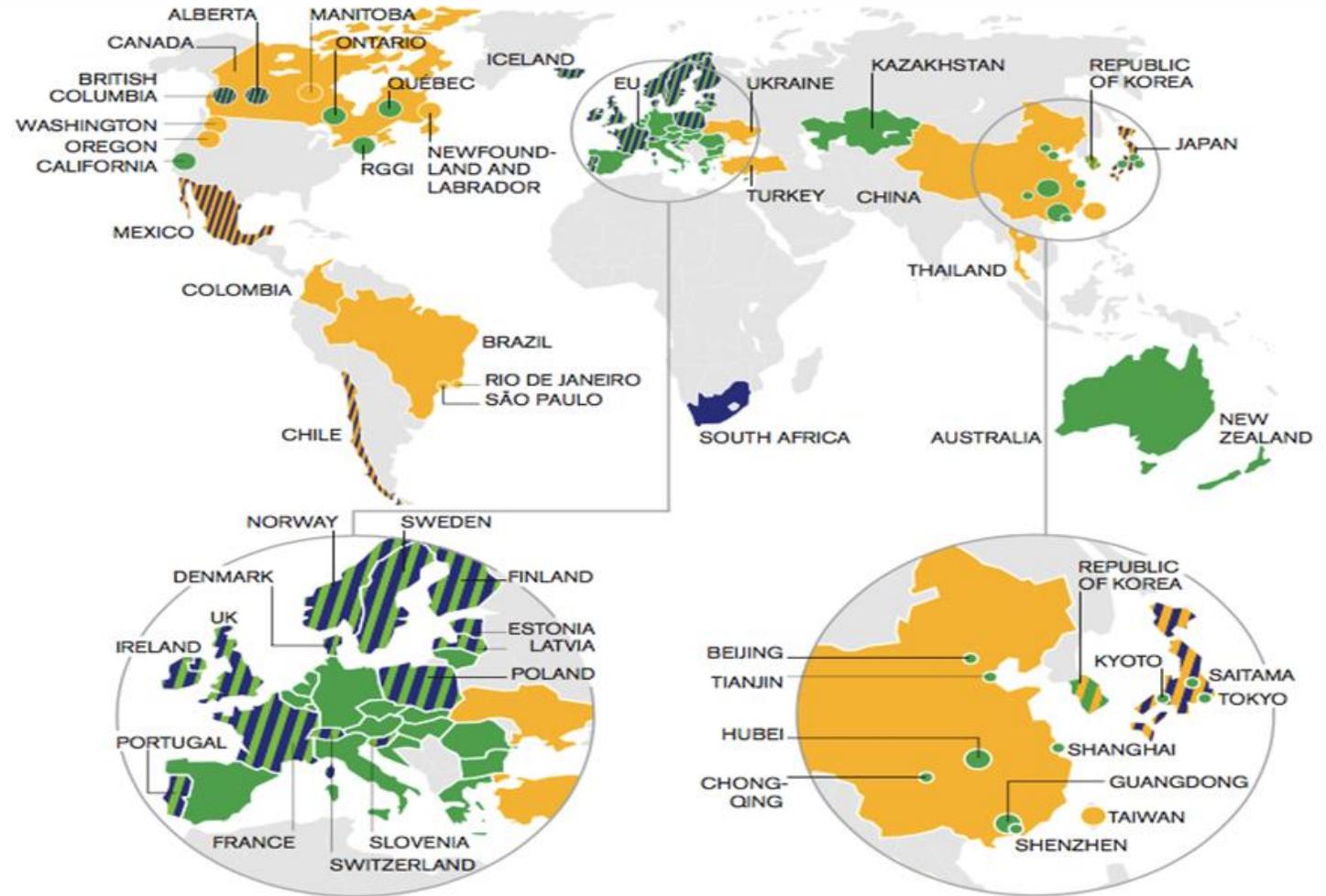
Citizens' Climate Lobby

Why Price Carbon?

- Provides price incentive/market-based
- Rising private investment in clean energy , falling investment in fossil fuels
- Consumers change to energy efficient products and lifestyle



Carbon Pricing Initiatives



Tally of carbon pricing initiatives

- ETS implemented or scheduled for implementation
- Carbon tax implemented or scheduled for implementation
- ETS or carbon tax under consideration
- ETS and carbon tax implemented or scheduled
- ETS implemented or scheduled, tax under consideration
- Carbon tax implemented or scheduled, ETS under consideration

"World Bank; Ecafys; Vivid Economics.
 2016. State and Trends of Carbon Pricing 2016.
 Washington, DC: World Bank. © World Bank.
<https://openknowledge.worldbank.org/handle/10986/25160> License: CC BY 3.0 IGO."
 wb_report_2016_figure1_161017_cs6_highres.pdf

Carbon Pricing Benefits

- Places burden on those responsible
- Predictable
- Encourages or “incentivizes”: 1) private investment in clean energy and energy efficiency, 2) decreased investments in fossil fuels, and 3) consumer change to more energy efficient products and lifestyles.
- Generate government revenue
- Market-based

What is Carbon Pricing?

- Market-based strategy for lowering emissions
- Puts an actual monetary value on carbon emissions that contribute to air pollution and, thus, climate damage

Methods of Carbon Pricing

1

Cap-and-Trade
(=ETS)

2

Carbon
Tax/Fee

3

Hybrid
systems

Cap-and-Trade

- Statutory or regulatory “cap” on emissions
- Emission credits allotted (free) or auctioned (sold)
- Emitters can buy or sell emissions credits up to the cap
- Emissions cap declines over time, thus fewer emissions
- Cap on emissions + trading emissions allowances indirectly prices carbon
- Government revenue generated from auctioning emission credits.

The World Bank: What is Carbon Pricing?; <http://www.worldbank.org/en/programs/pricing-carbon>

Carbon Fee/Tax

- Fee based on CO₂ equivalents or carbon content of fuel
- Carbon-based fuels/products pay fee at time of extraction or entry into country (border-tax adjustment)
- Costs of fee passed to consumers in higher costs of products
- Money collected returned to citizens as direct dividend, payroll tax reductions, or other mechanisms.

Similarities

- Explicit costs, either carbon fee or allowances
- Long term incentives for lowest cost carbon emissions
- Both can include just CO₂, or other GHG
- Both can stimulate economy
- Both can be progressive

Differences

- Cap-and-Trade ensures a fixed level of emissions, Carbon tax does not
- Carbon tax may result in greater than anticipated reductions
- Cap-and-Trade does not-encourage emissions reductions below the level of the cap

Precedence

- Acid Rain Program—1990: Sulfur dioxide allowances
- RGGI—2009: 9 NE and mid-Atlantic states
- California Cap-and-Trade—2012
- British Columbia—2008
- China: pilot emissions trading programs in several provinces.

British Columbia

- \$10/ton carbon tax increased \$5/ton/yr to \$30/ton in 2012
- Most electricity already from renewable sources
- -17% per capita fuel consumption
- 5-15% emissions reduction first five years
- No evidence of negative impacts on low-income households or BC economy

Equity

- Dividends/tax credits for low income households
- REMI: 60% of US households benefit
- Local effects of carbon pollution often greatest on disadvantaged communities
- Funds for transitioning dispossessed workers with training, retirement benefits and local diversification
- Example: California: thru 2015 \$912 million from cap-and-trade reinvested, 51% in disadvantaged communities

References: Carbon Pricing

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2. Pricing Carbon, The World Bank, <http://www.worldbank.org/en/programs/pricing-carbon#CarbonPricing>.
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6. Years of Living Dangerously, National Geographic, <http://yearsoflivingdangerously.com/learn/news/handy-guide-carbon-pricing-resources/>.
7. Health benefits, ecological threats of low-carbon electricity, Thomas Gibon et al 2017 Environ. Res. Lett. 12 034023; <http://iopscience.iop.org/article/10.1088/1748-9326/aa6047/pdf>
8. 2. Sophie Sez #3: “\$1000 for You – A Better World for Your Children”, James Hansen, <http://csas.ei.columbia.edu/2017/03/29/sophie-sez-3-1000-for-you-a-better-world-for-your-children/>.

Climate Advocacy Organizations

1. Citizens Climate Lobby: citizensclimatelobby.org
2. Health Care Without Harm: <https://noharm.org>
3. Medical Society Consortium on Climate and Health: <https://medsocietiesforclimatehealth.org>
4. US Climate and Health Alliance: <http://usclimateandhealthalliance.org>

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