

# PUTTING A PRICE ON CLIMATE POLLUTION

---

Kristin Eberhard, Senior Researcher

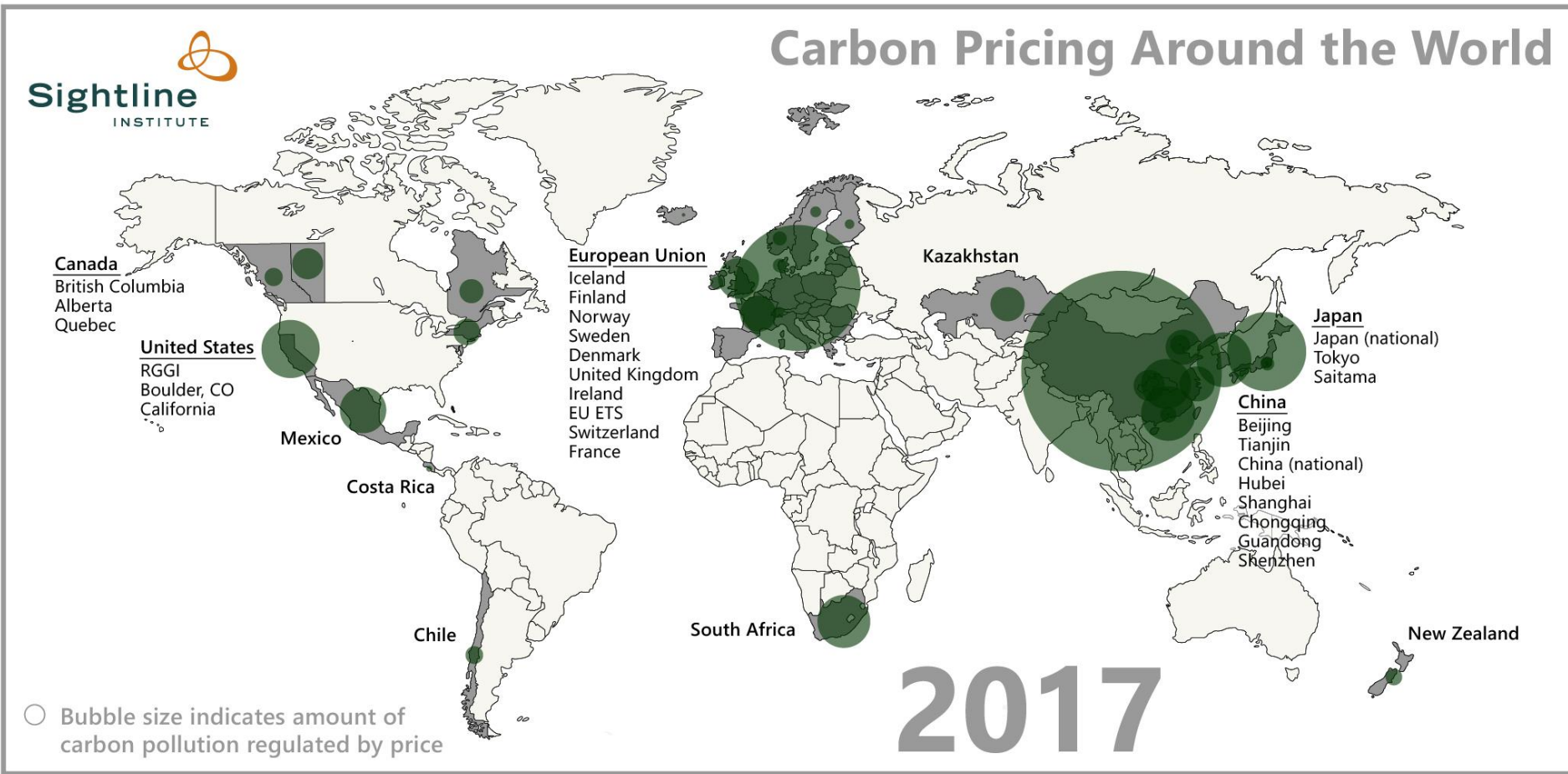
Sightline Institute

June 10, 2015

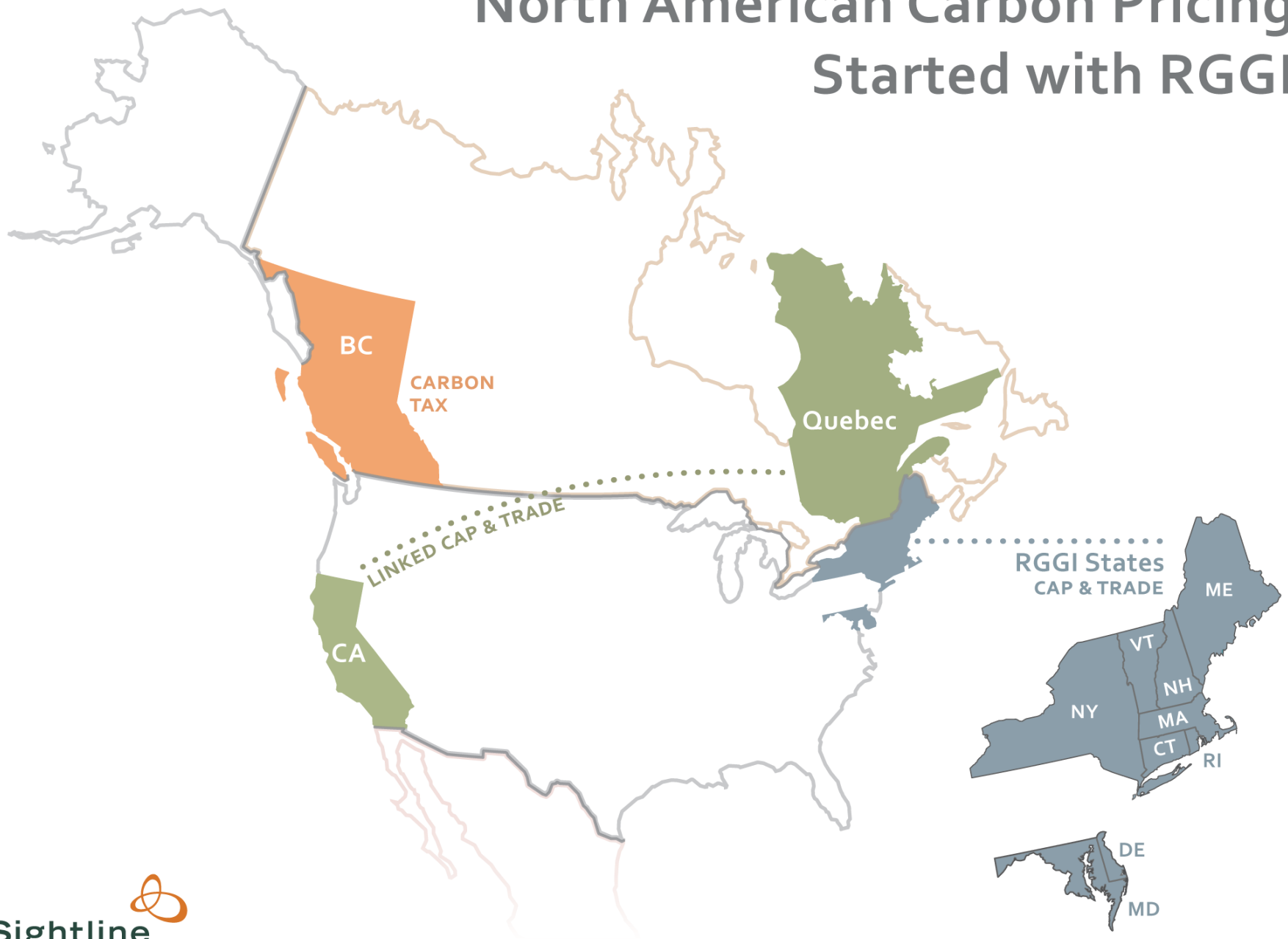
# WOULD OREGON BE GOING OUT ON A LIMB?

---

# By 2016, almost ¼ of all climate pollution in the world will have a price tag attached.



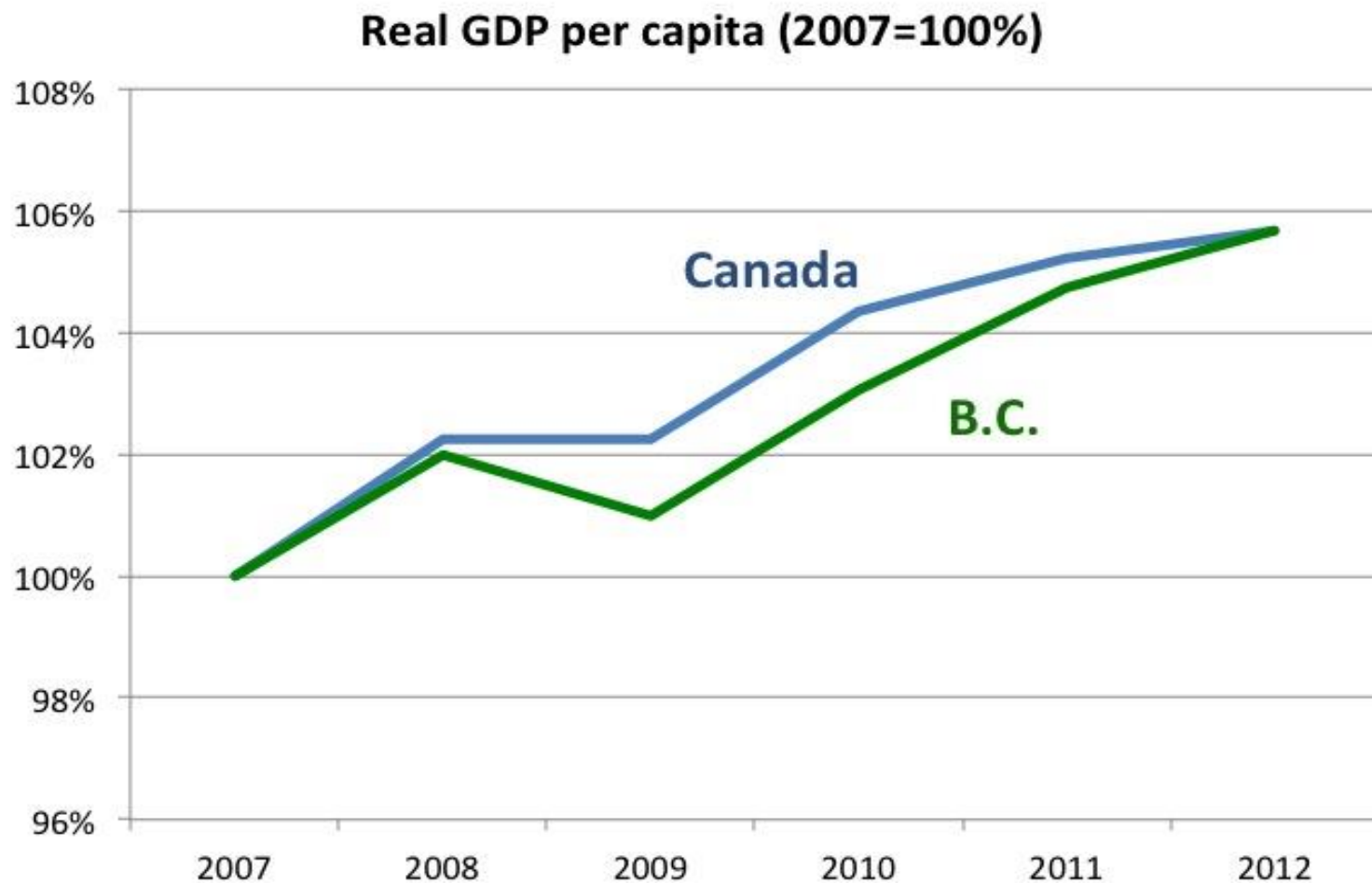
# North American Carbon Pricing Started with RGGI



# WILL A POLLUTION PRICE HURT OREGON'S ECONOMY?

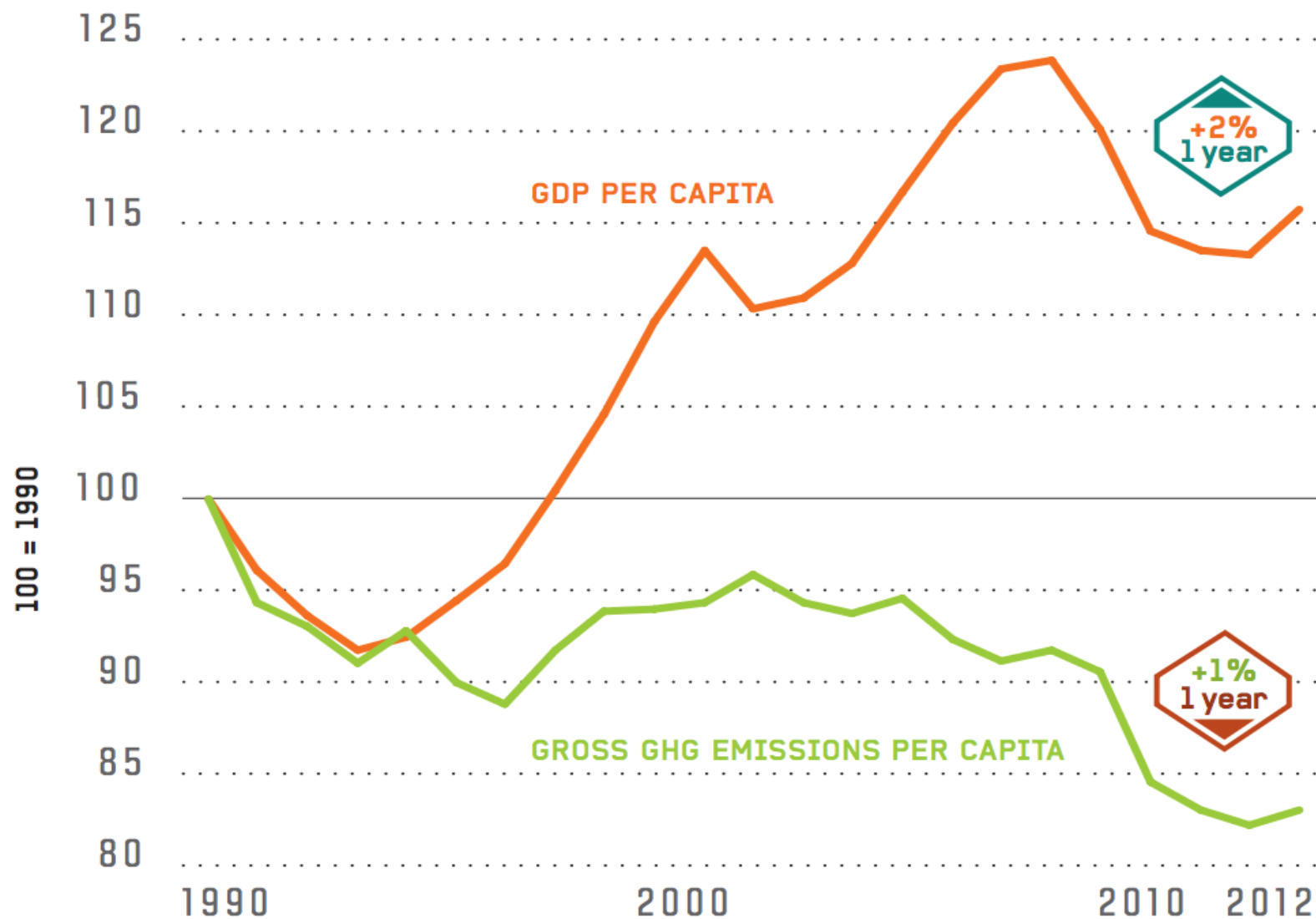
---

# BC's economy is fine.



Source: CANSIM 384-0038, 051-0001

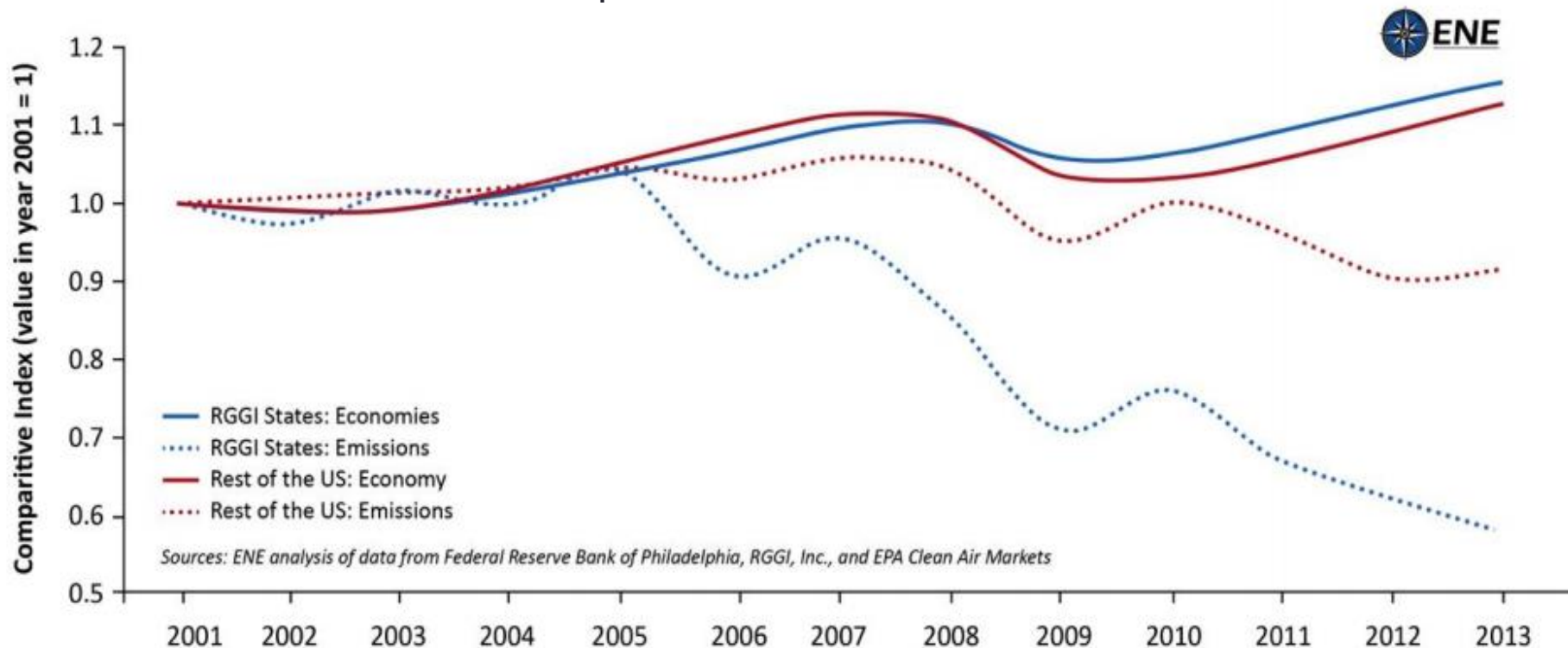
# California's economy is fine.



Source: Next10, California Green Innovation Index, 2014

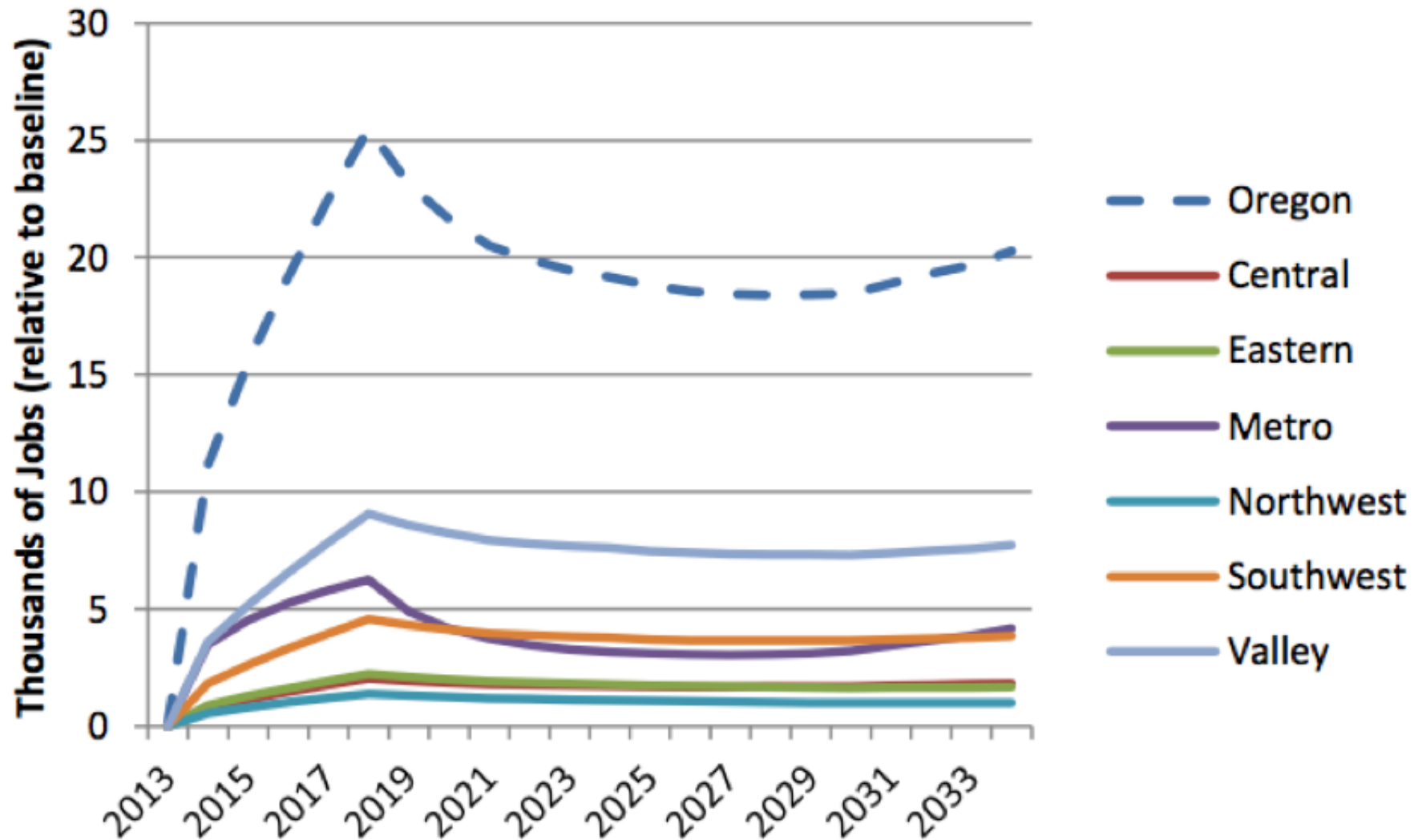
# RGGI's economy is fine.

Northeast States compared to the rest of the US





# PSU found that pricing pollution could create jobs across the state



# SHOULDN'T OREGON JUST WAIT?

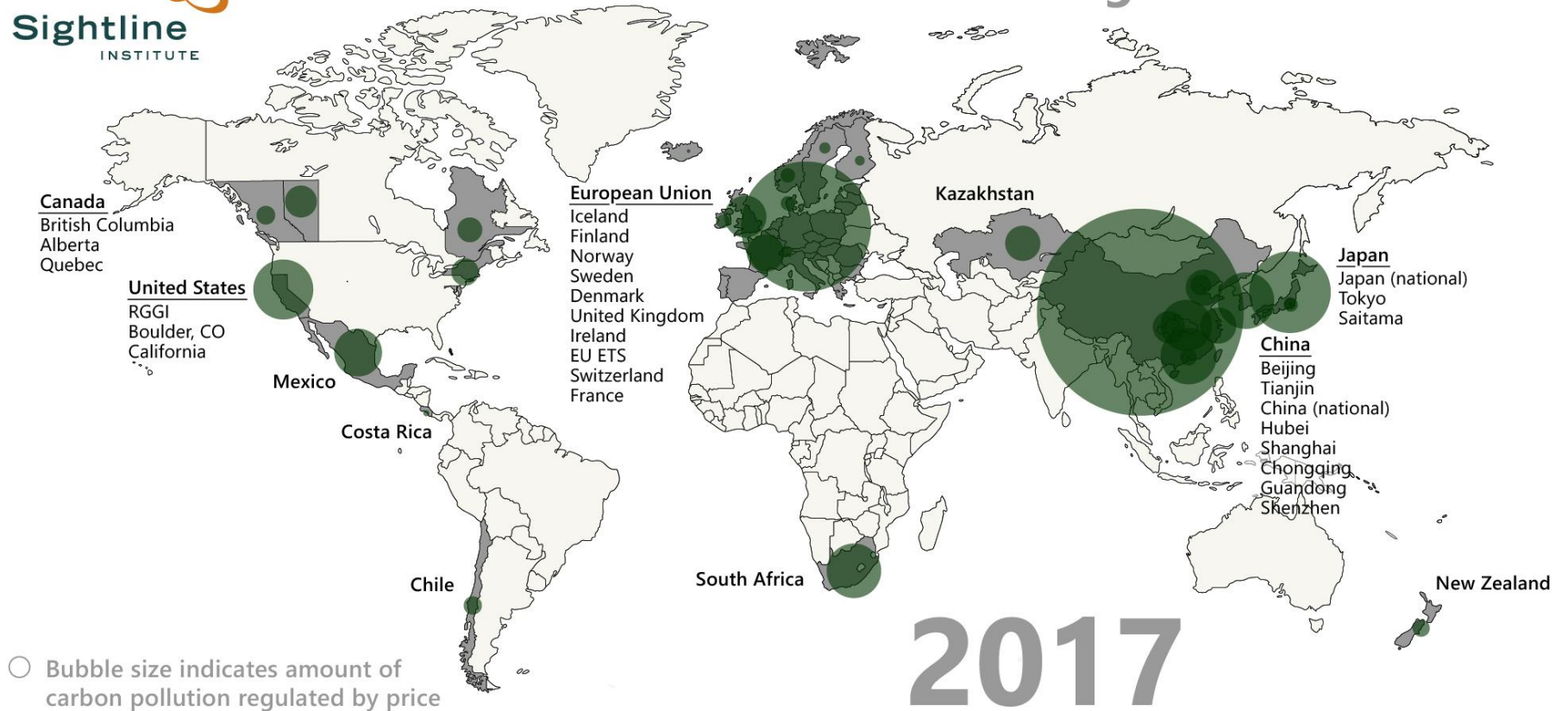
---

Oregonians don't want to wait.

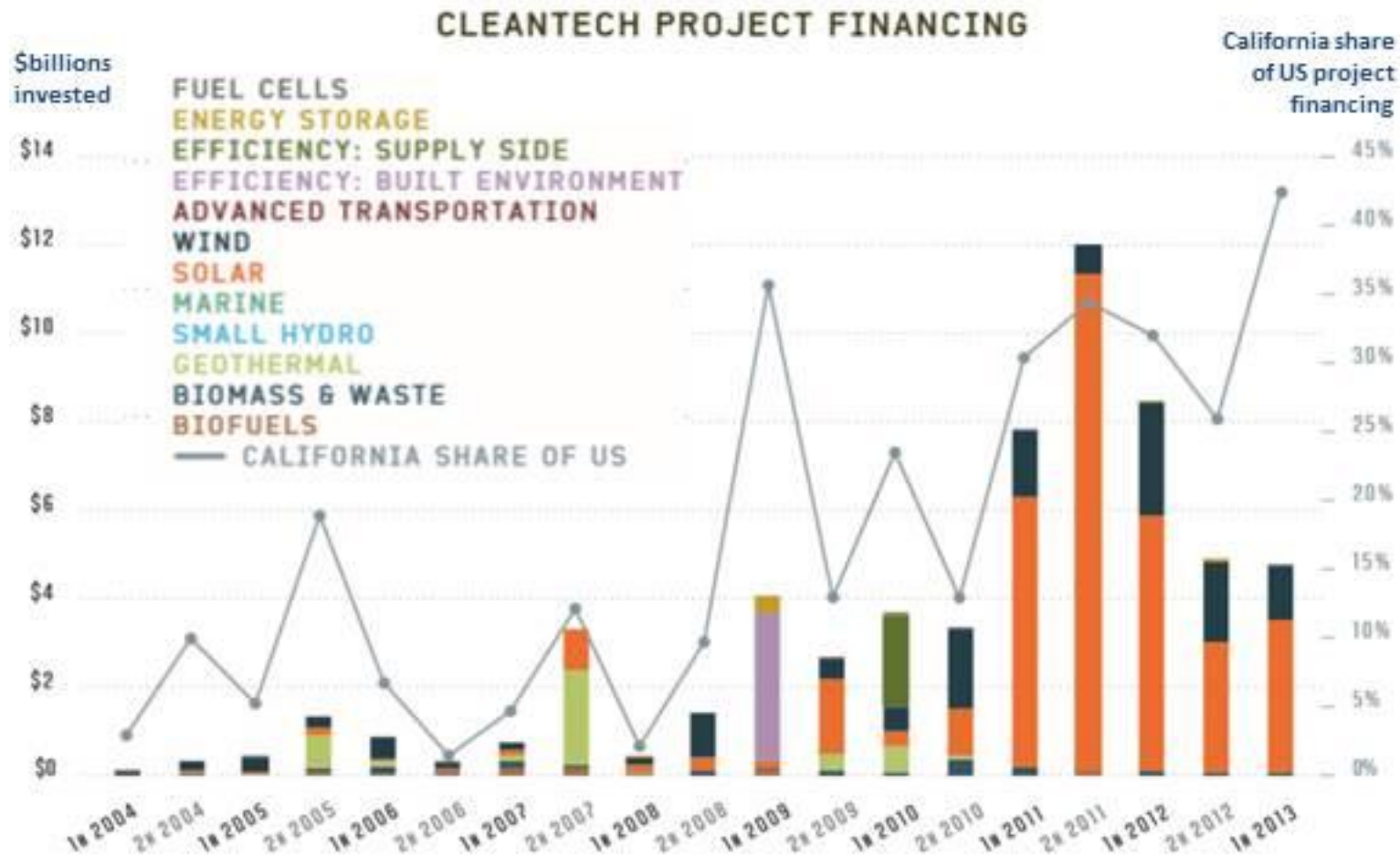
# Other jurisdictions aren't waiting.



## Carbon Pricing Around the World

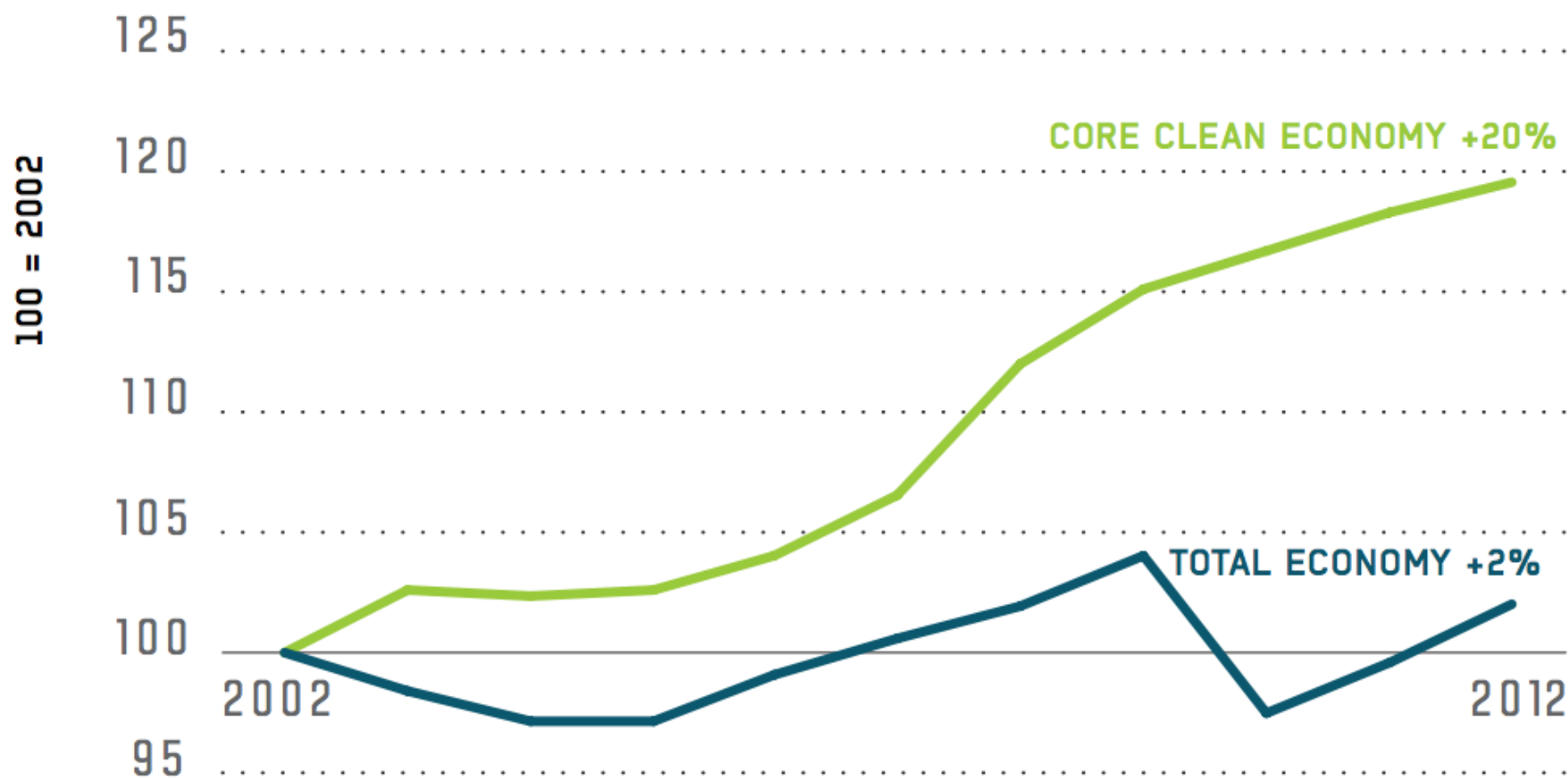


# California is capturing about 1/3 of private capital financing of cleantech projects



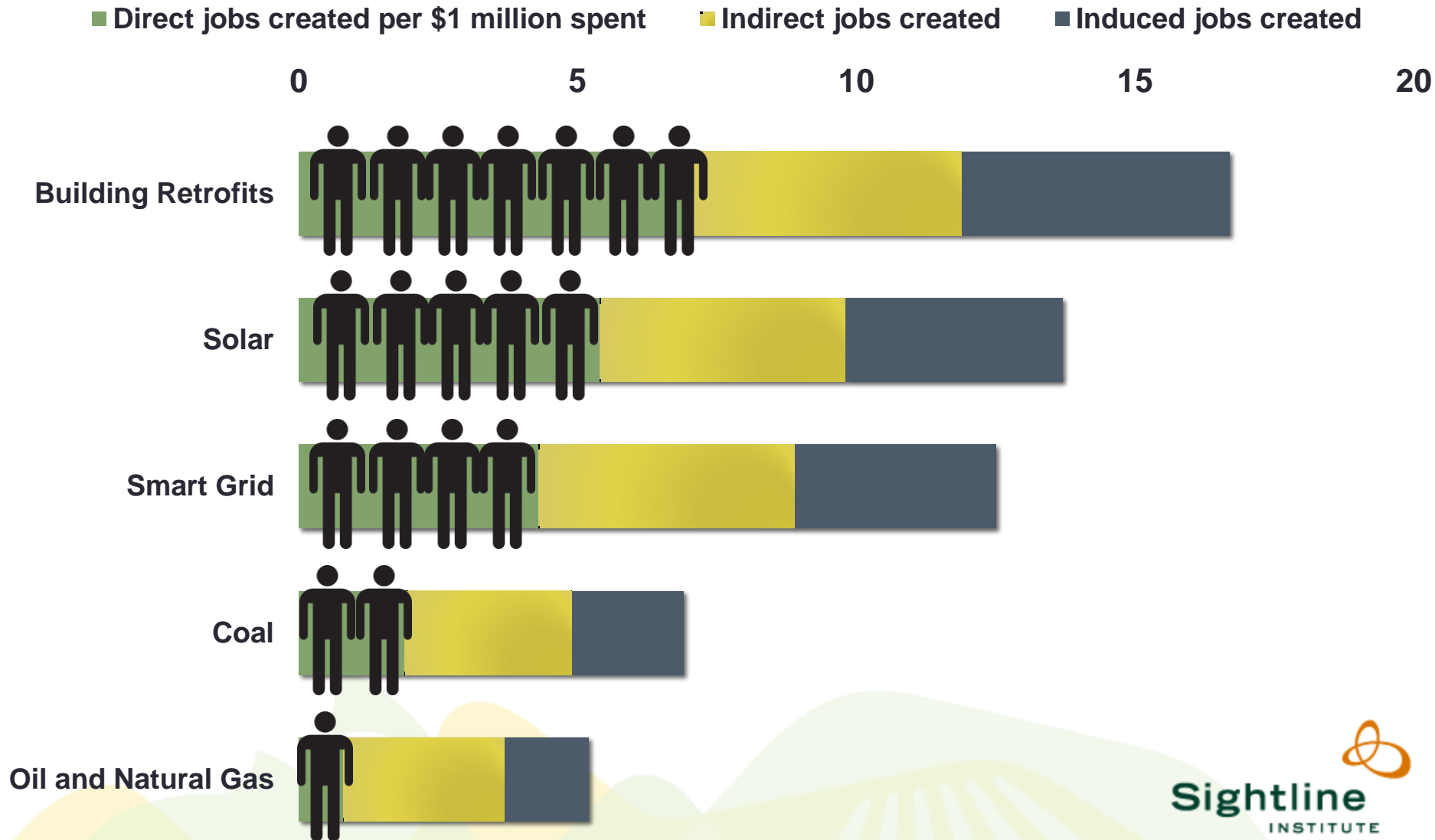
(from Next 10's Cleantech Investment: A Decade of California's Evolving Portfolio...)

# CA is growing its clean energy economy.



Source: Next10, California Green Innovation Index, 2014

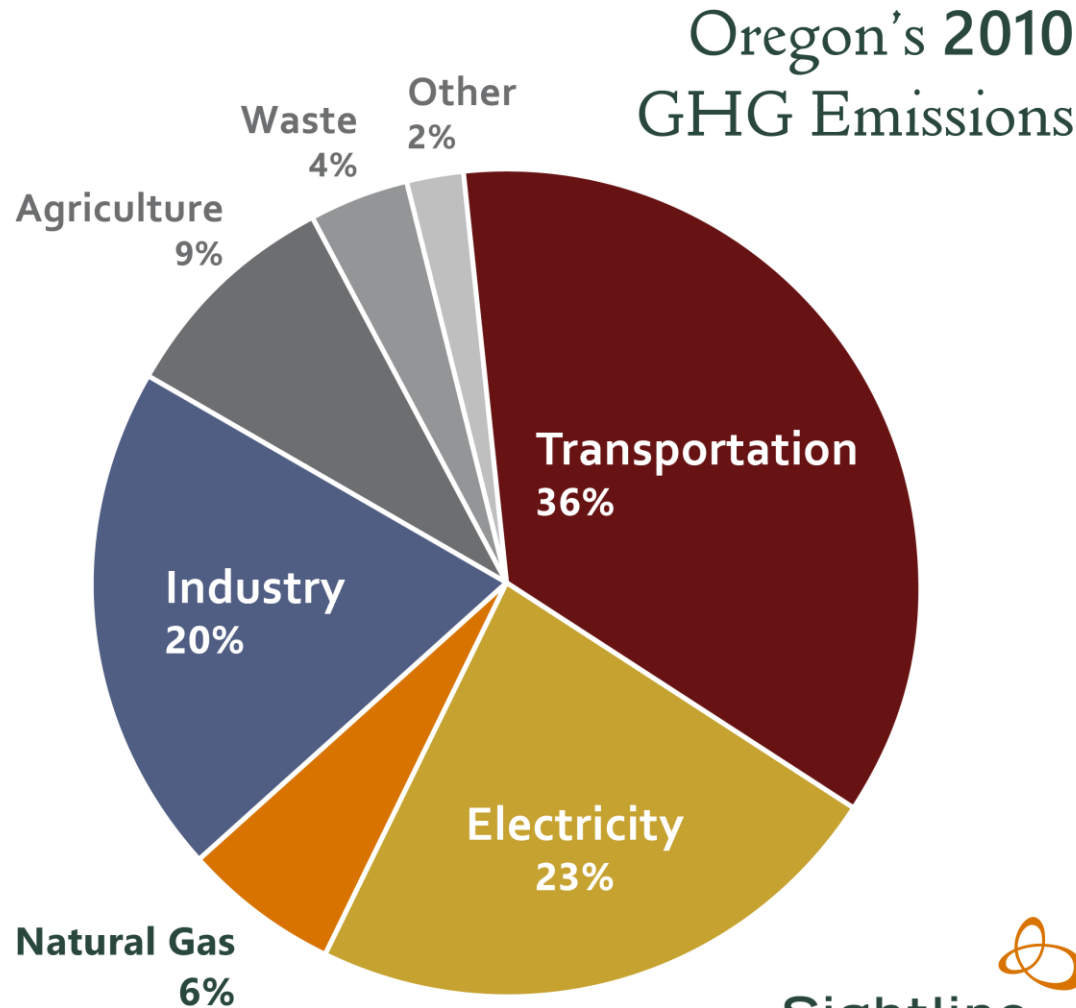
# Investing in clean energy creates many more jobs than investing in fossil fuels



In 2014,  
**1 out of 78 jobs**  
created in the United States was a  
**solar job.**



# Four sectors account for 85% percent of Oregon's green house gas emissions.



# HOW TO SPEND THE MONEY?

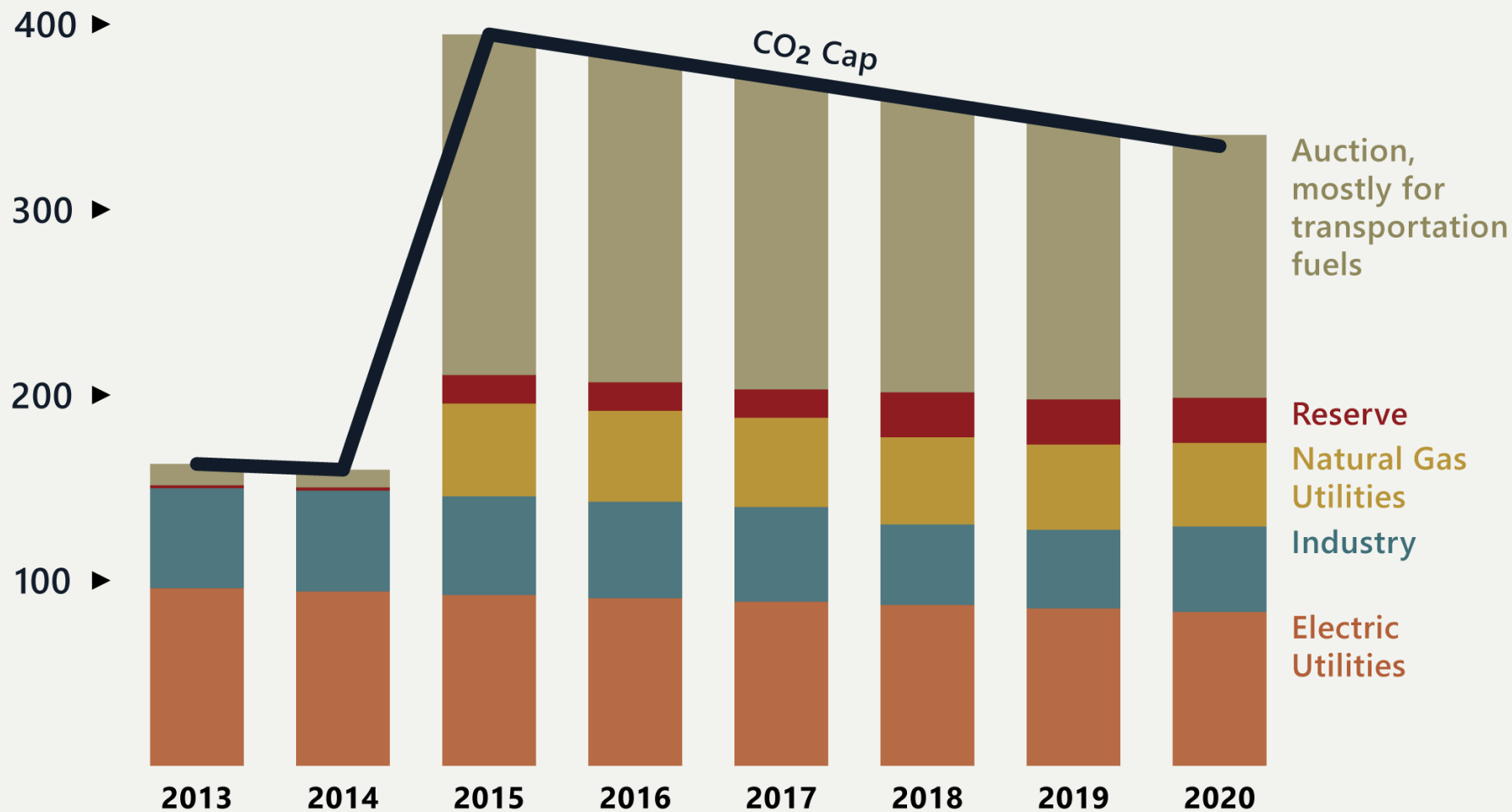
---

# Ways to spend the revenue from a price on climate pollution:

- **Help People and Businesses**
  - Flat rebate or dividend
  - Cut taxes
  - Help energy-intensive trade-exposed businesses
- **Invest in Clean Solutions**
  - Efficiency, renewables, transit, electric vehicles
- **Government General Fund**
  - Schools, Roads

# California's Cap: Who Gets Permits?

(million metric tons of CO<sub>2</sub>-equivalents)



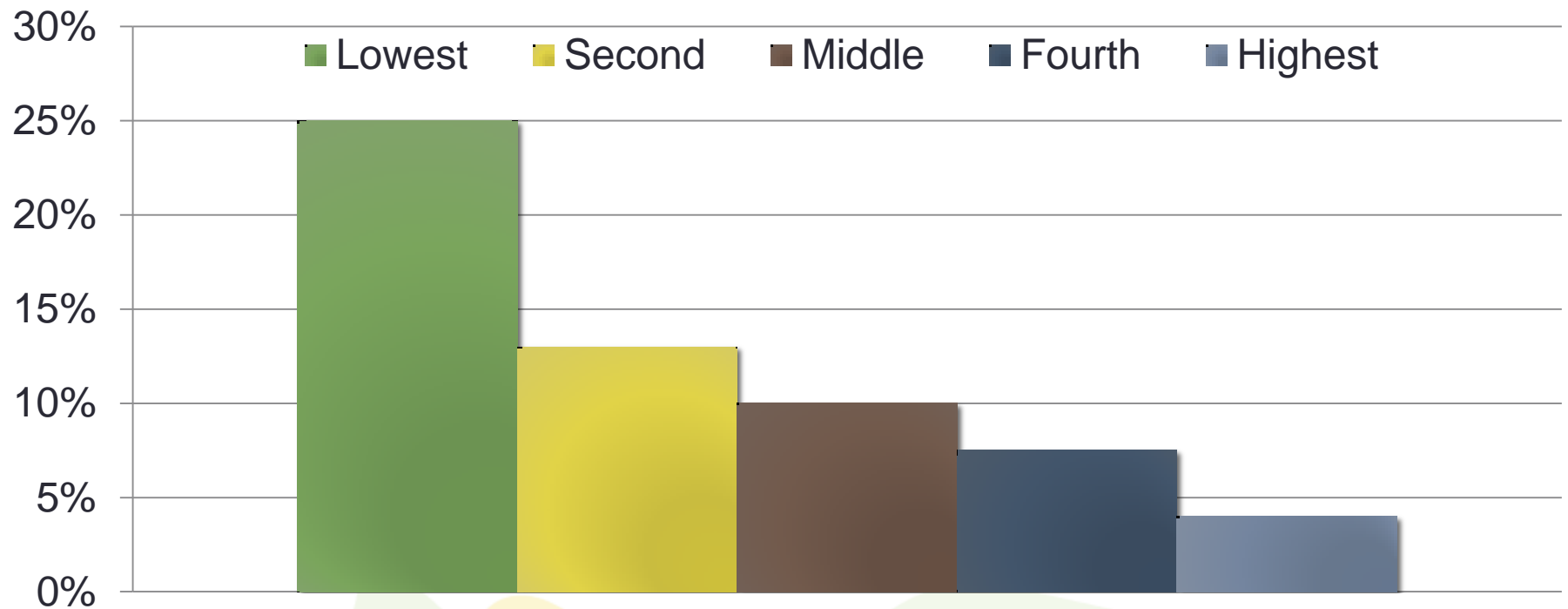
Full source list can be found at [daily.sightline.org/CACaptrade](https://daily.sightline.org/CACaptrade)

# Ways to spend the revenue from a price on climate pollution:

- **Help People and Businesses**
  - Flat rebate or dividend
  - Cut taxes
  - Help energy-intensive trade-exposed businesses
- **Help Industries with the Transition**
  - ONLY if energy-intensive AND trade-exposed
- **Invest in Clean Solutions**
  - Efficiency, renewables, transit, electric vehicles
- **Government General Fund**
  - Schools, Roads

# Lower income households spend more of their income on energy compared to higher-income households.

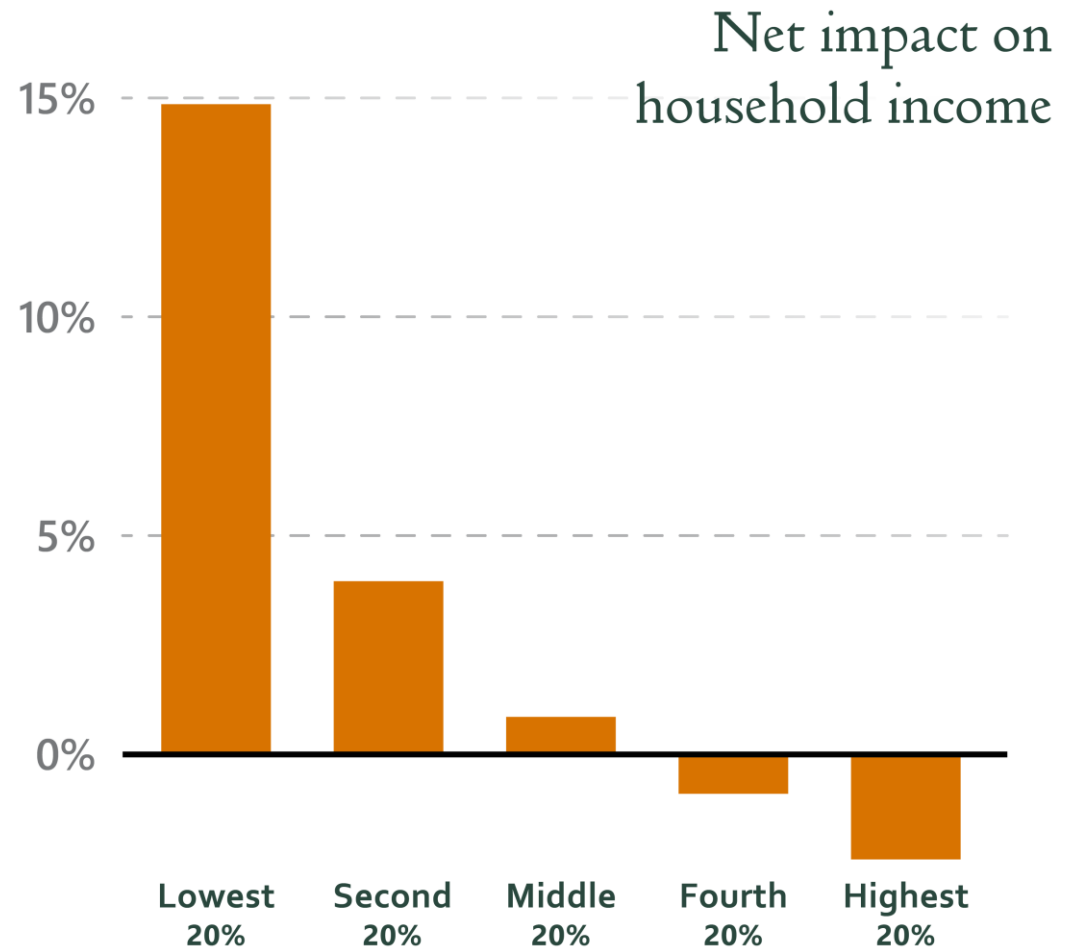
Percentage of Household Income Spent on Energy



Source: PSU NERC Study, 2014

A pollution price plus dividend would give most Oregonians more money than they have now

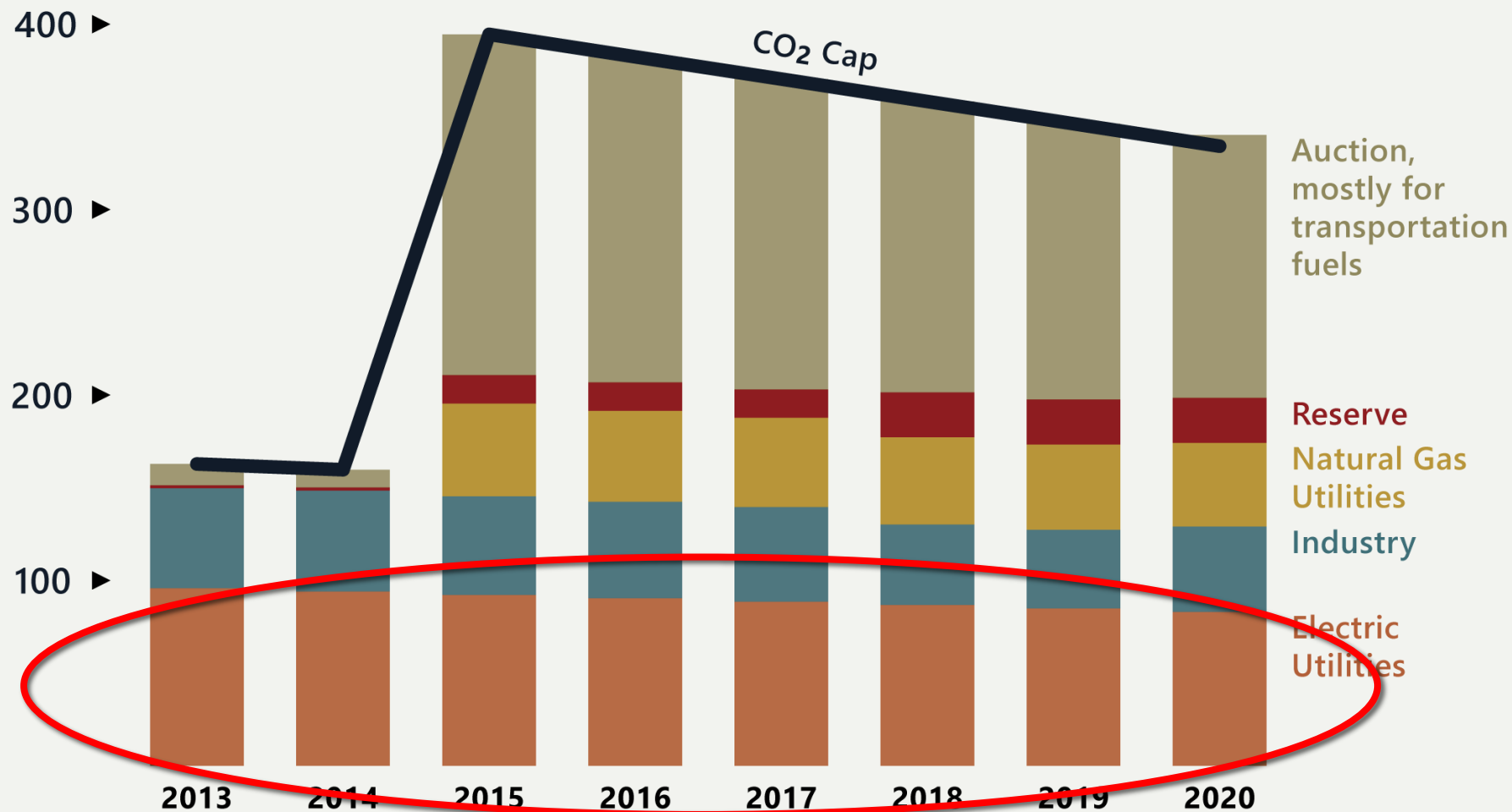
About  $\frac{2}{3}$  of households would get an income boost from a polluters-pay-plus-dividend law.



Source: Political Economy Research Institute, University of Massachusetts Amherst

# California's Cap: Who Gets Permits?

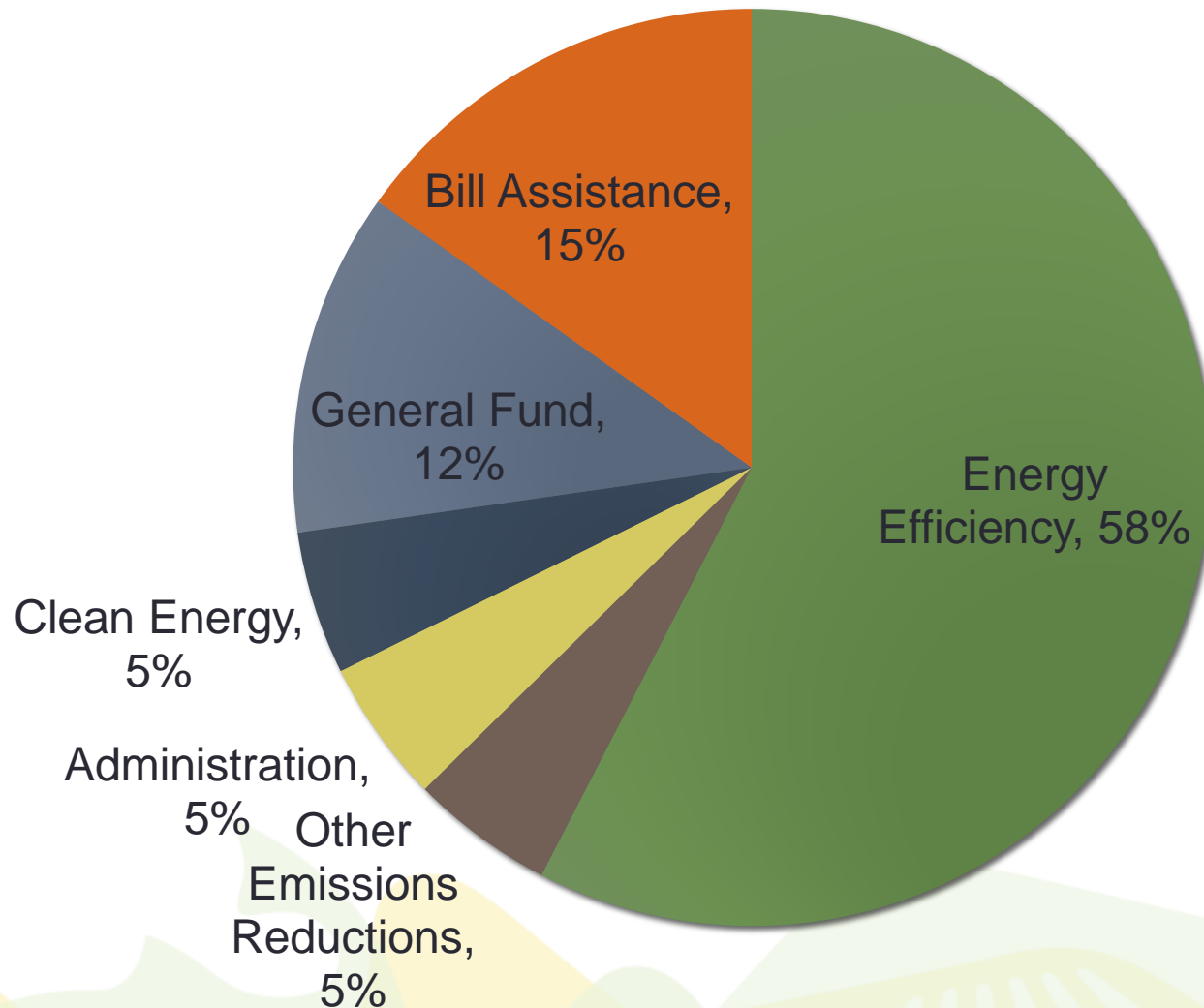
(million metric tons of CO<sub>2</sub>-equivalents)



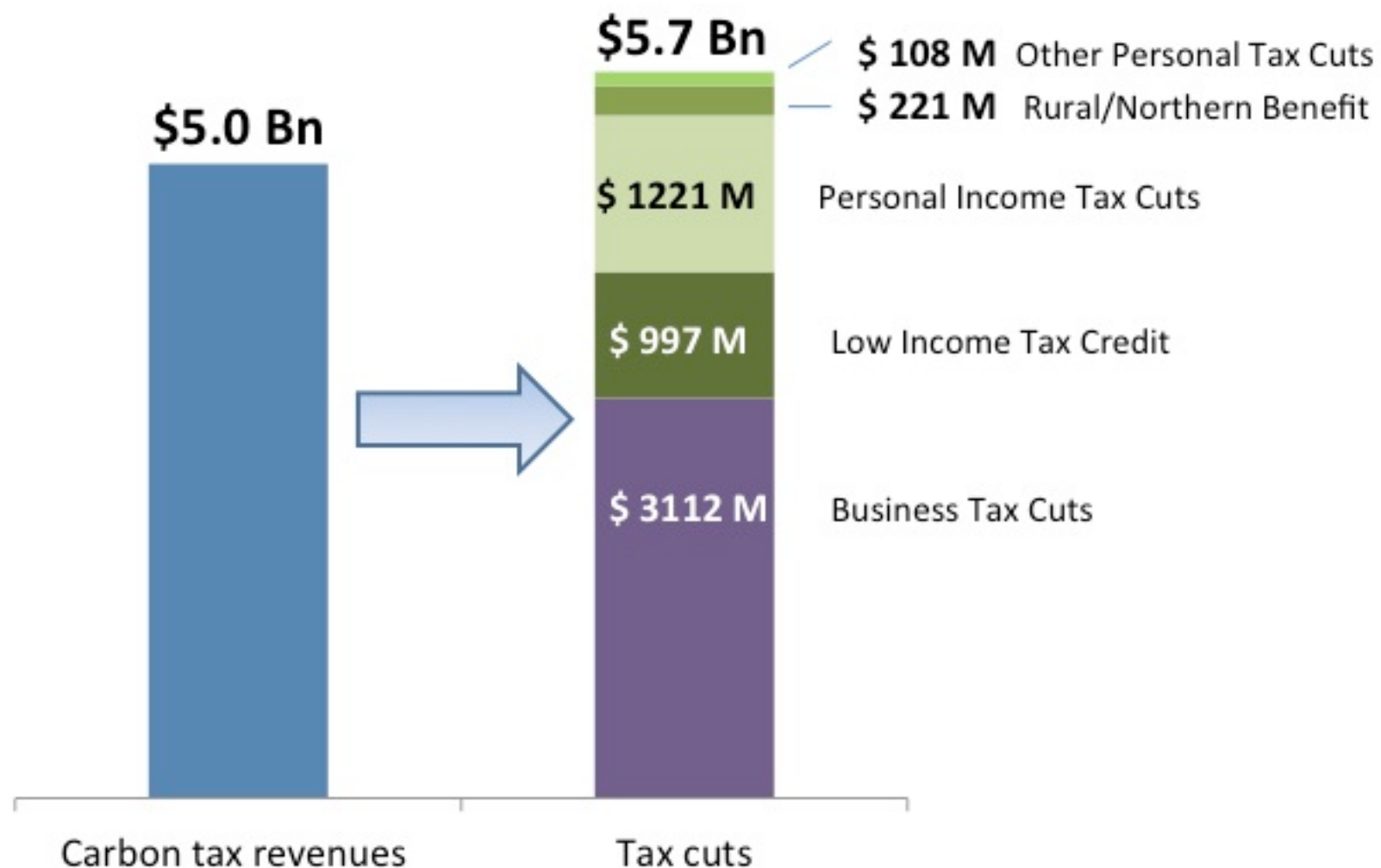
Full source list can be found at [daily.sightline.org/CACaptrade](https://daily.sightline.org/CACaptrade)



# RGGI sets aside 15% of the money to help households with electricity bills



## Cumulative BC Carbon Tax Revenues and Tax Cuts 2008 – 2014



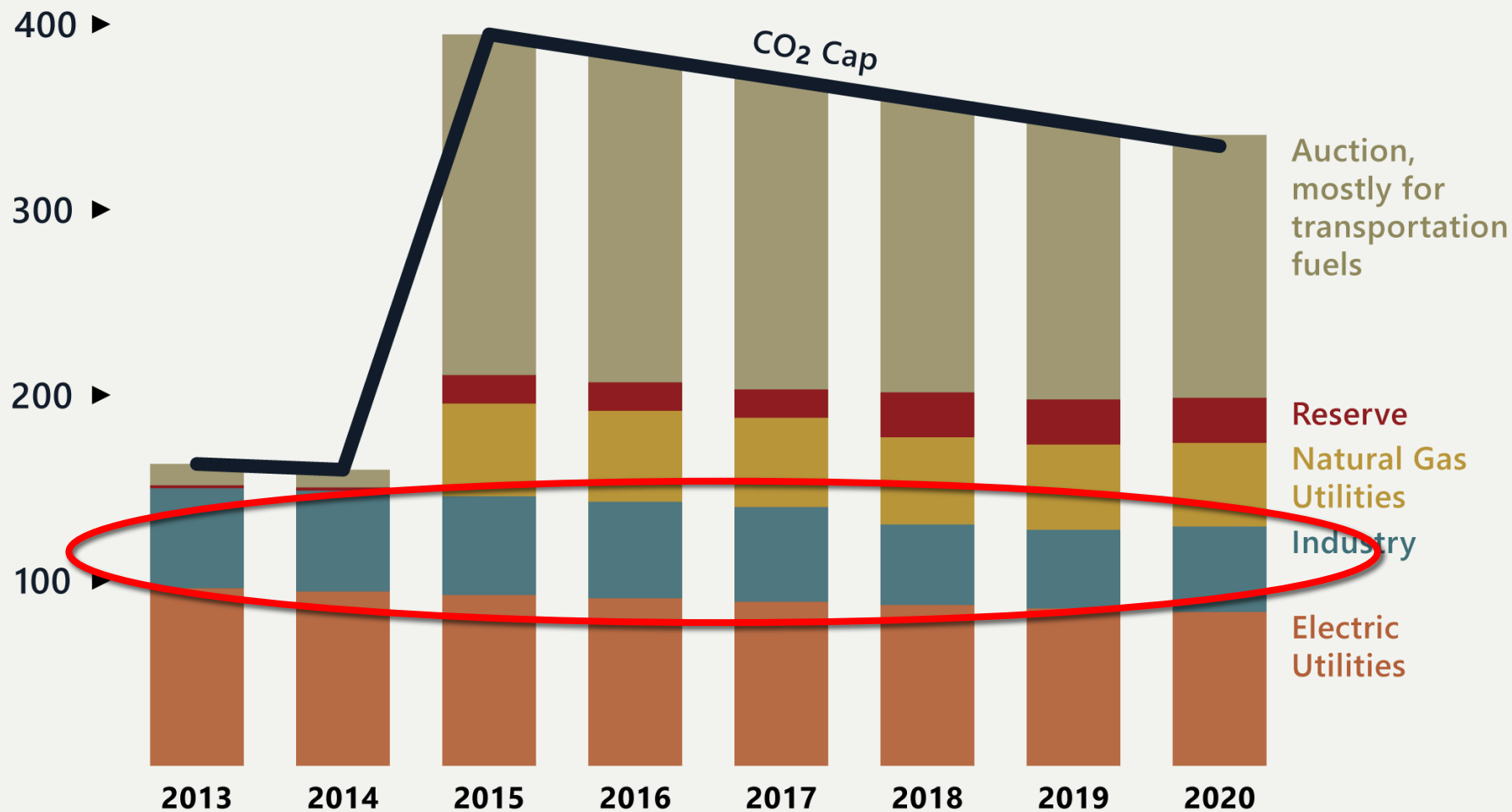
Source: BC Budgets 2008-2013

# Ways to spend the revenue from a price on climate pollution:

- **Help People and Businesses**
  - Flat rebate or dividend
  - Cut taxes
  - Help energy-intensive trade-exposed businesses
- **Help Industries with the Transition**
  - **ONLY if energy-intensive AND trade-exposed**
- **Invest in Clean Solutions**
  - Efficiency, renewables, transit, electric vehicles
- **Government General Fund**
  - Schools, Roads

# California's Cap: Who Gets Permits?

(million metric tons of CO<sub>2</sub>-equivalents)



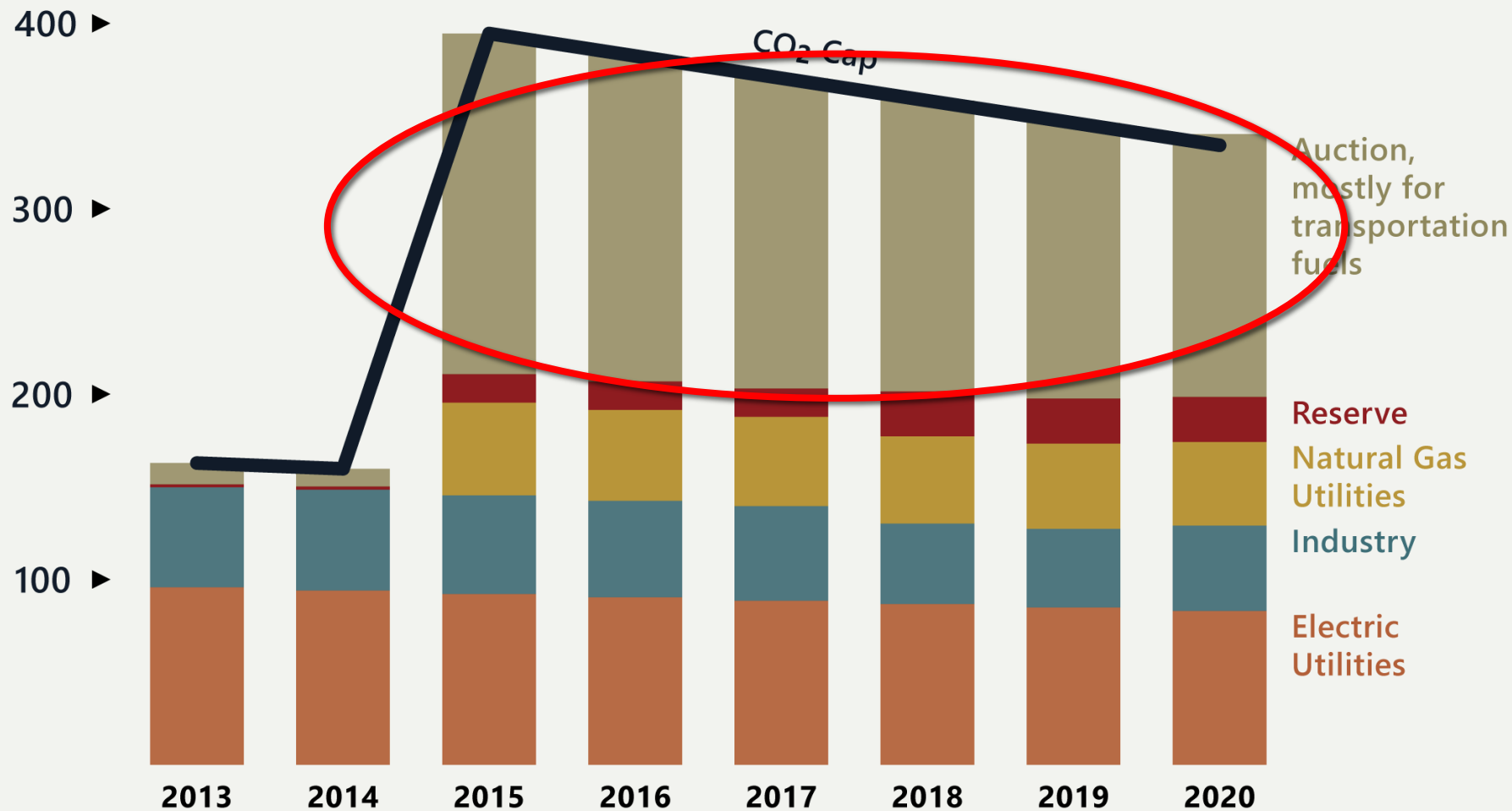
Full source list can be found at [daily.sightline.org/CACaptrade](https://daily.sightline.org/CACaptrade)

# Ways to spend the revenue from a price on climate pollution:

- **Help People and Businesses**
  - Flat rebate or dividend
  - Cut taxes
  - Help energy-intensive trade-exposed businesses
- **Help Industries with the Transition**
  - ONLY if energy-intensive AND trade-exposed
- **Invest in Clean Solutions**
  - **Efficiency, renewables, transit, electric vehicles**
- **Government General Fund**
  - Schools, Roads

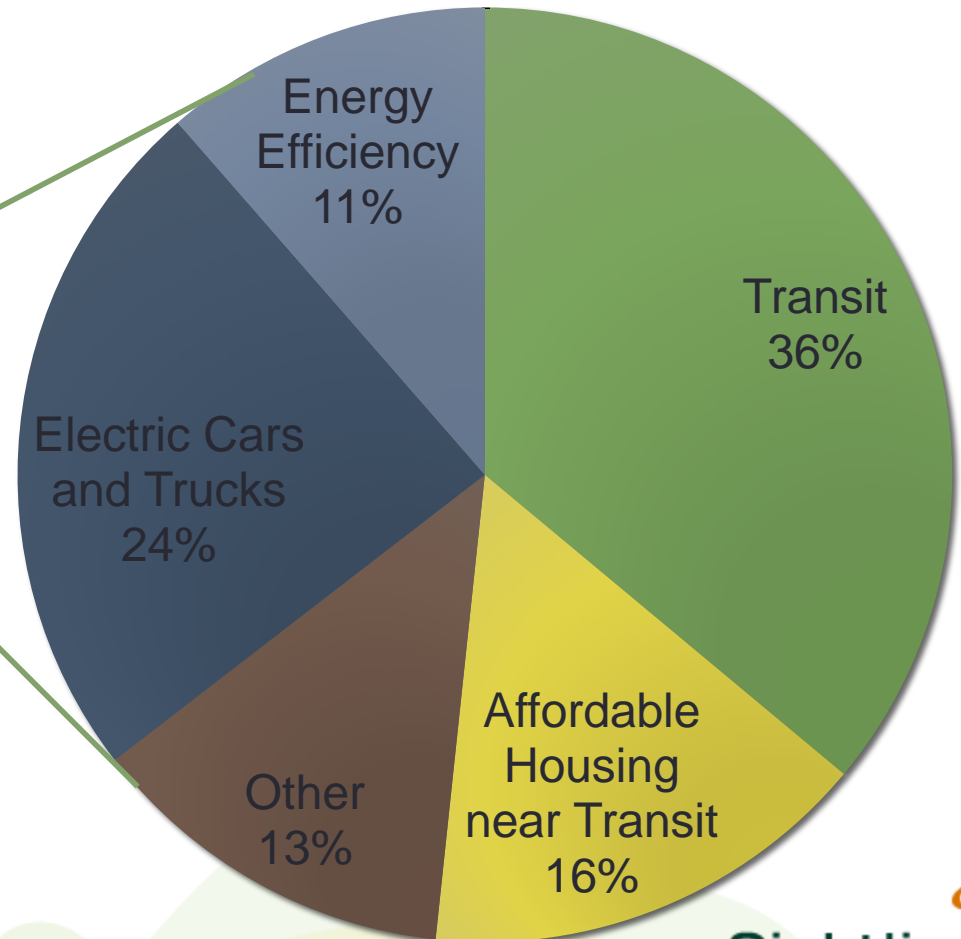
# California's Cap: Who Gets Permits?

(million metric tons of CO<sub>2</sub>-equivalents)

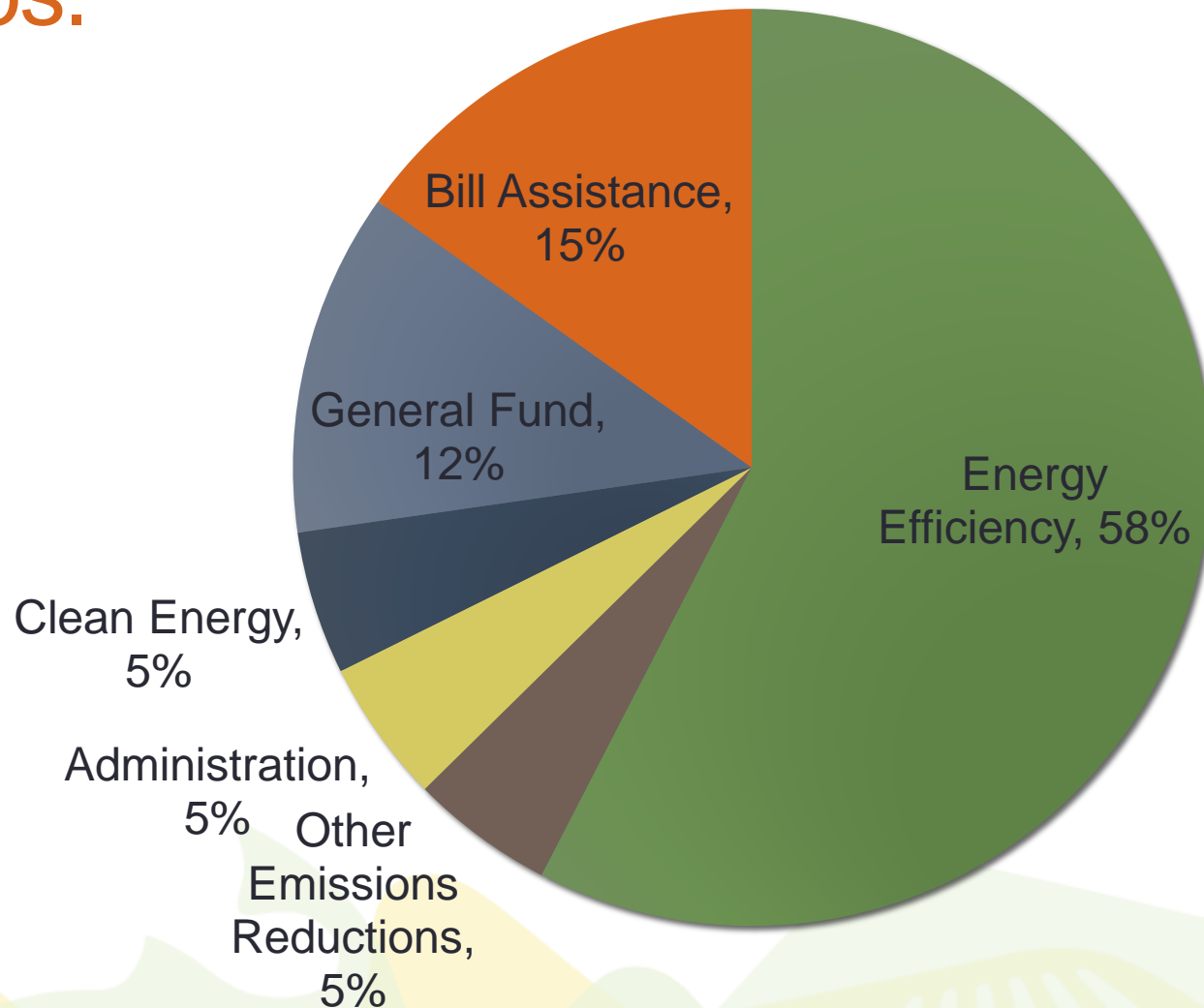


Full source list can be found at [daily.sightline.org/CACaptrade](https://daily.sightline.org/CACaptrade)

# California invests around 40% of its revenue in clean energy solutions, particularly transit and efficiency.

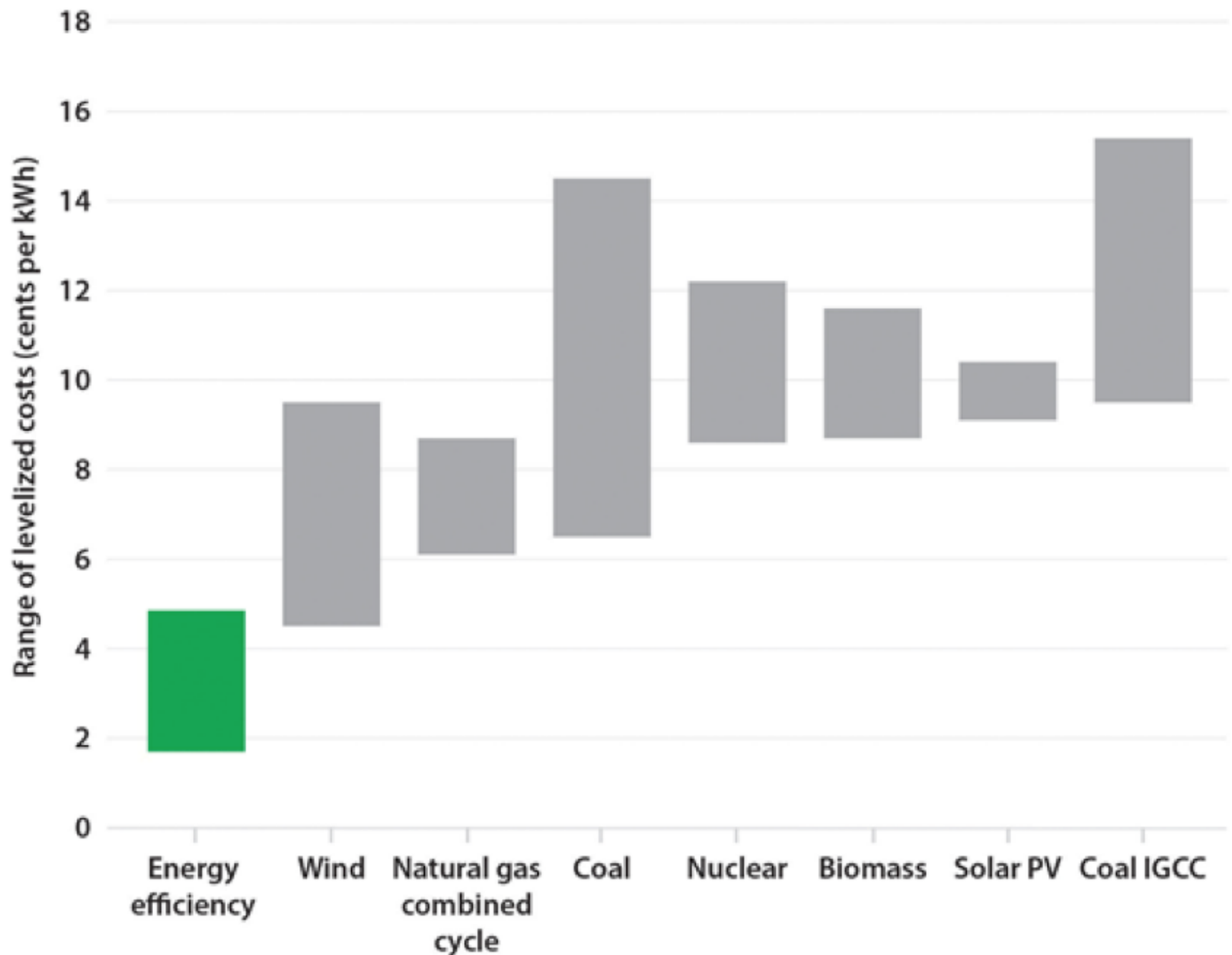


RGGI invests most of its \$1 Billion in energy efficiency. It has created 16,000 jobs.

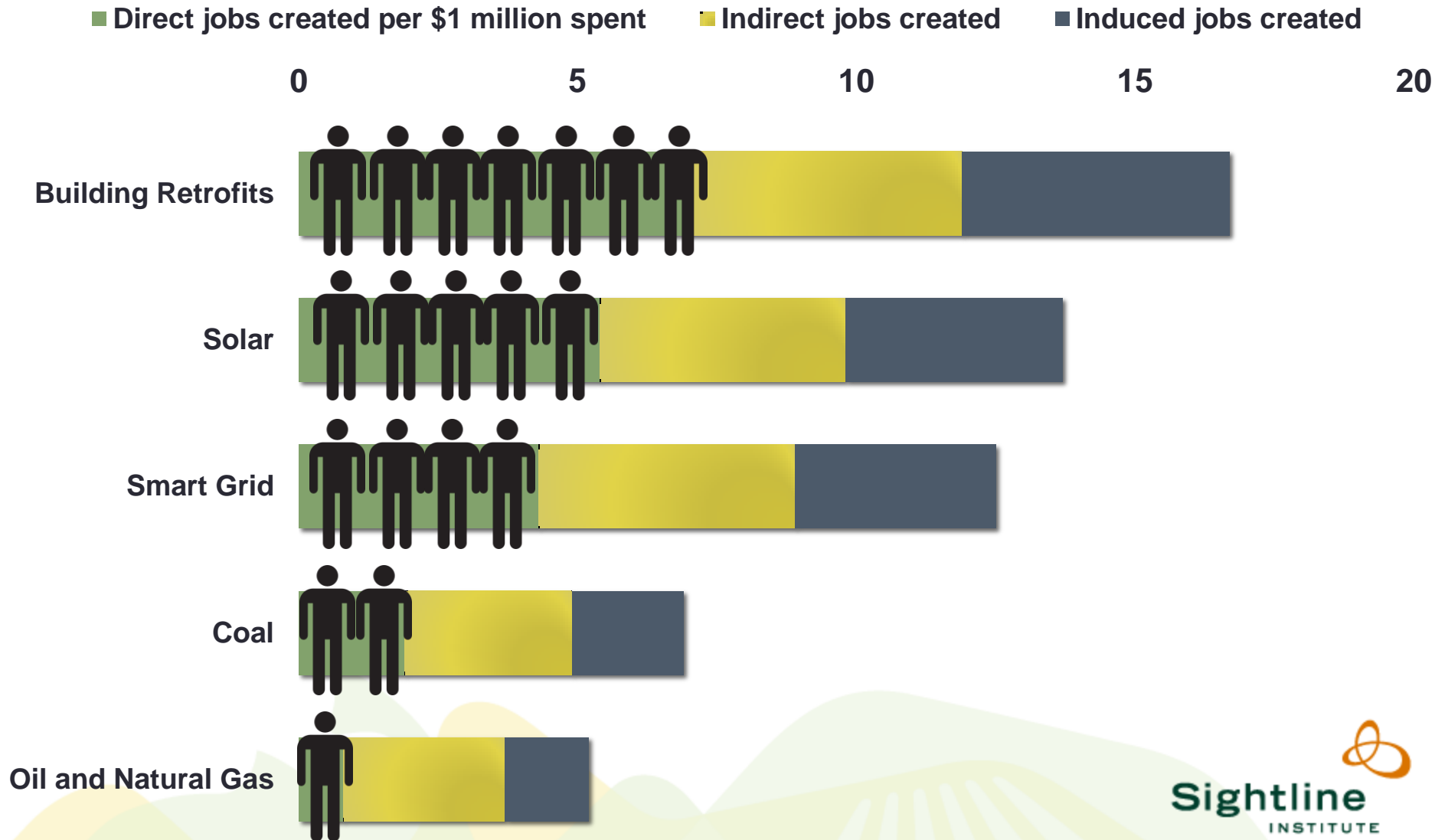




## Energy efficiency is the cheapest energy resource.



# Investing in clean energy creates many more jobs than investing in fossil fuels



# 3. Do we make good use of the money?

- **Help People and Businesses**

- Flat rebate or dividend
- Cut taxes
- Help energy-intensive trade-exposed businesses

- **Help Industries with the Transition**

- ONLY if energy-intensive AND trade-exposed

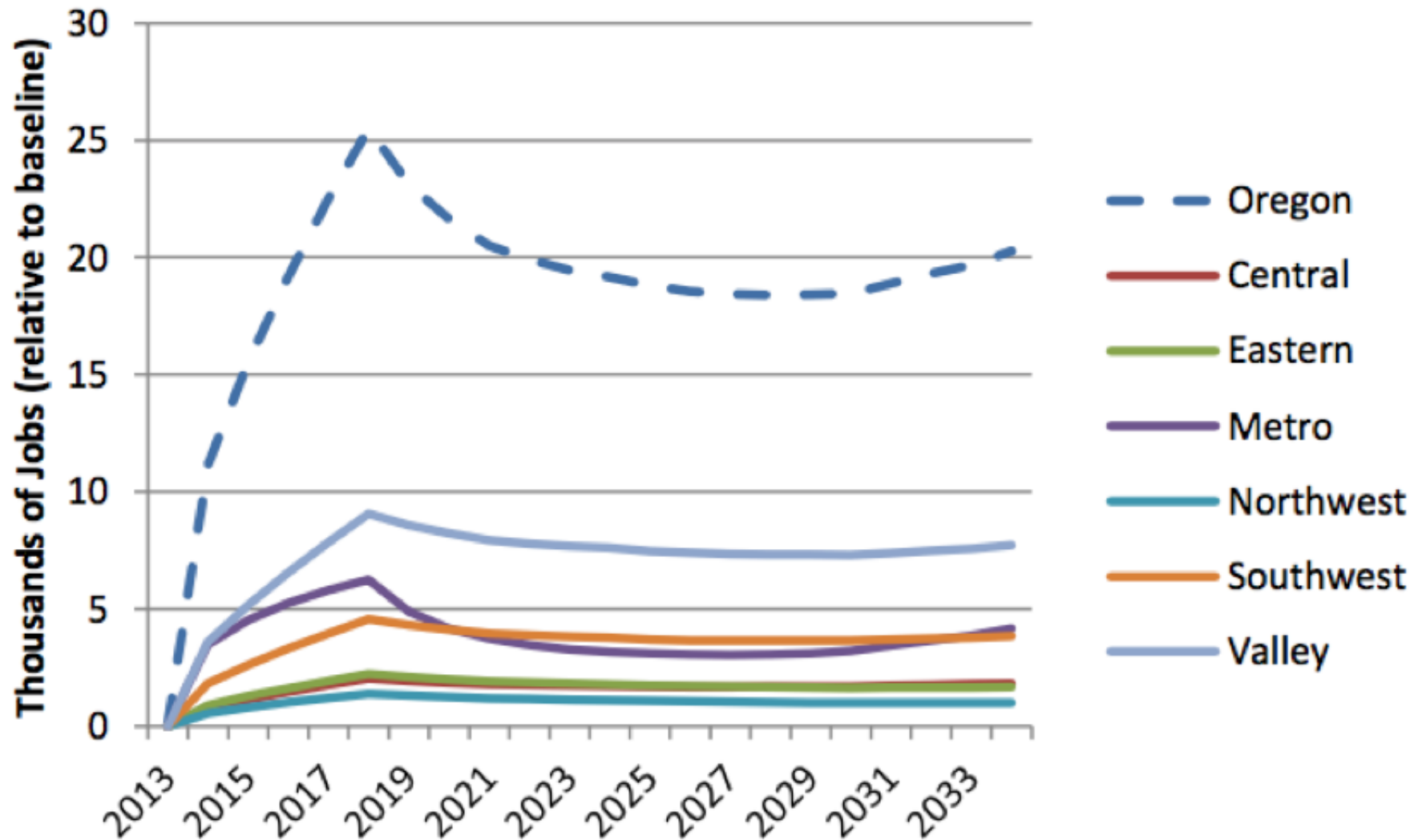
- **Invest in Clean Solutions**

- Efficiency, renewables, transit, electric vehicles

- **Government General Fund**

- **Schools, Roads**

# PSU found that investing in the General Fund would create jobs across the state



A pollution price puts wind in the sails of clean energy solutions.

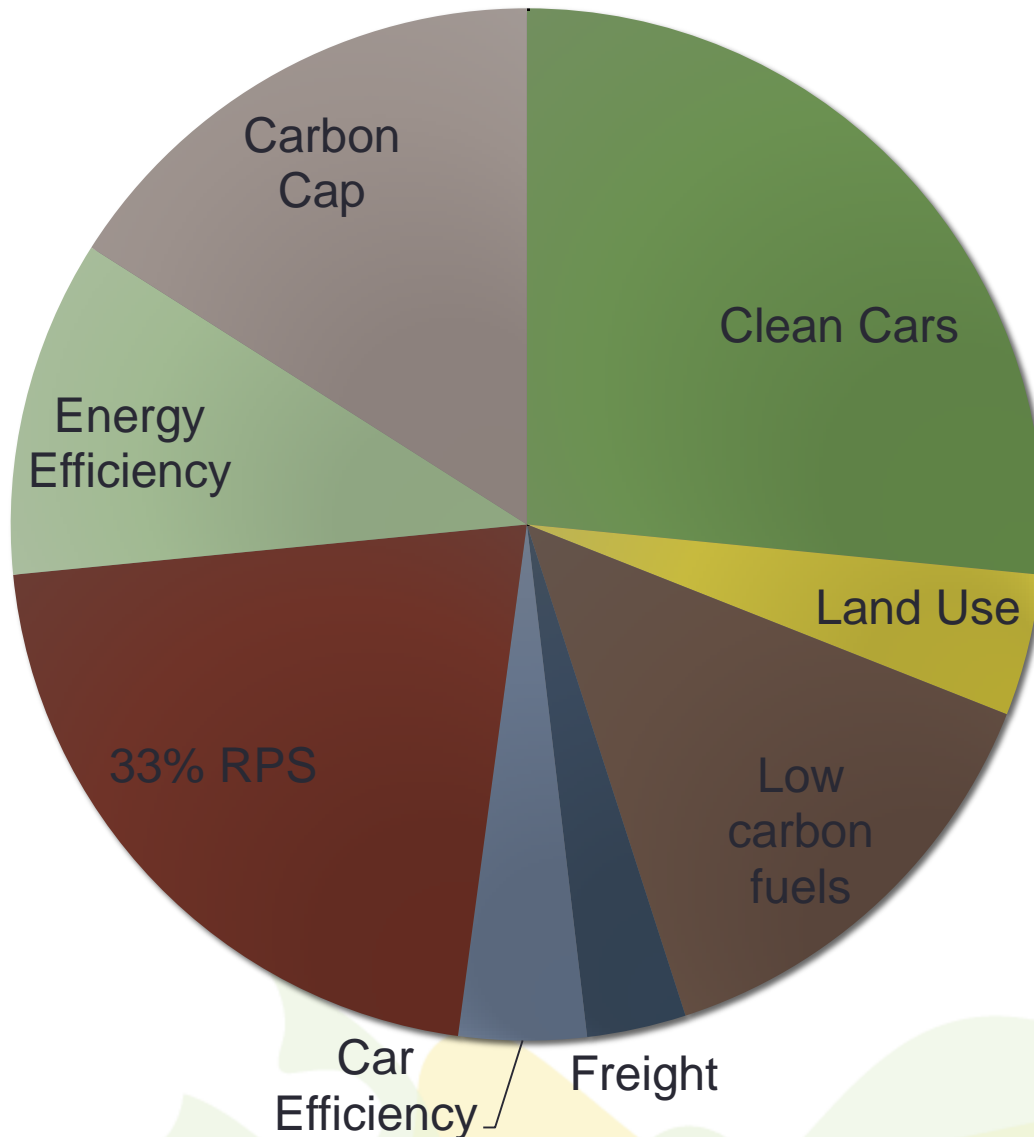


# THANK YOU.

---

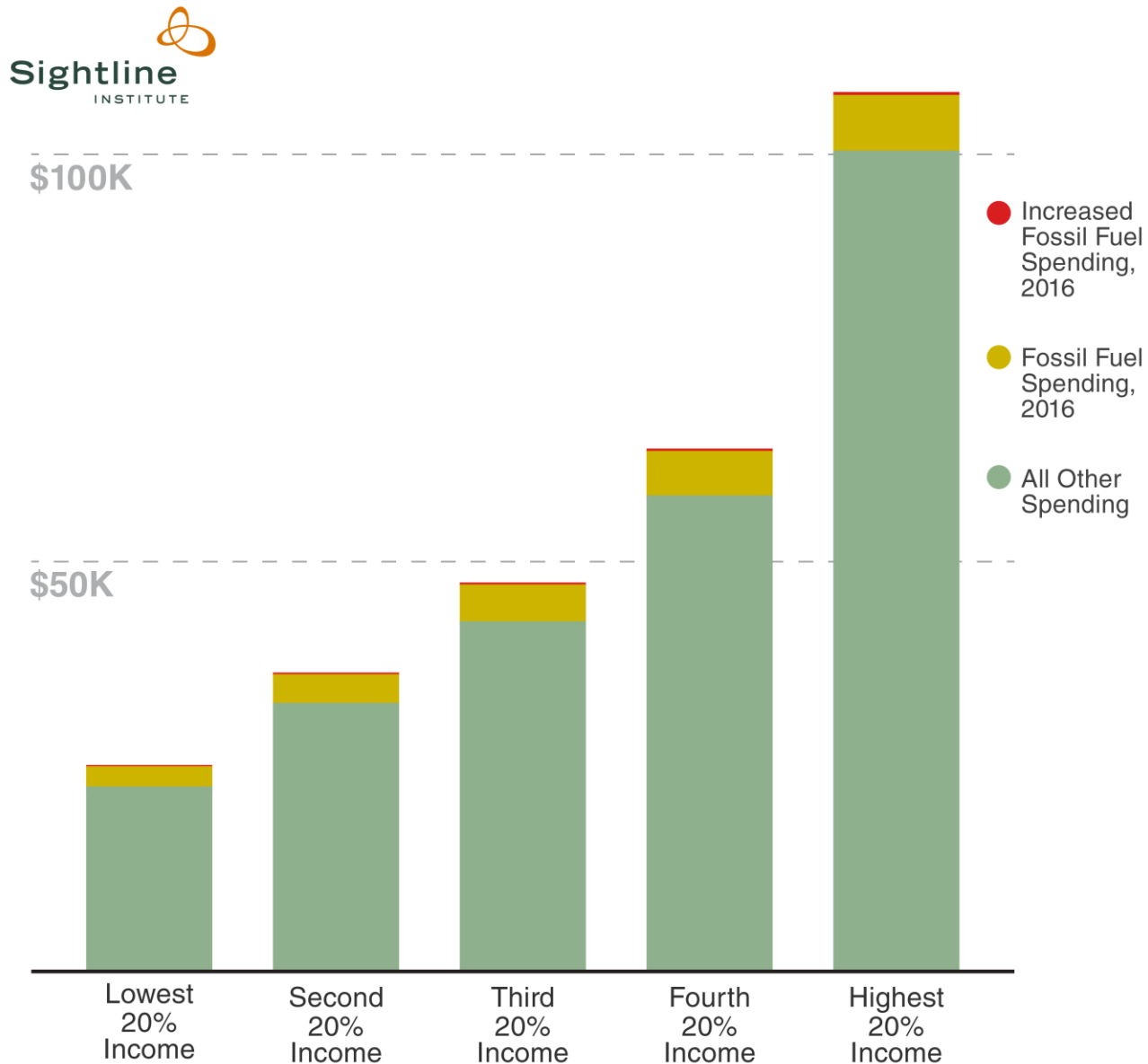
Kristin@Sightline.org

## AB 32 GHG Reduction Measures



AB 32 uses a package of clean energy policies. The Cap and trade acts as the overall enforcement mechanism.

# In 2016, Washington household expenditures on fossil fuels would increase an almost imperceptible amount.

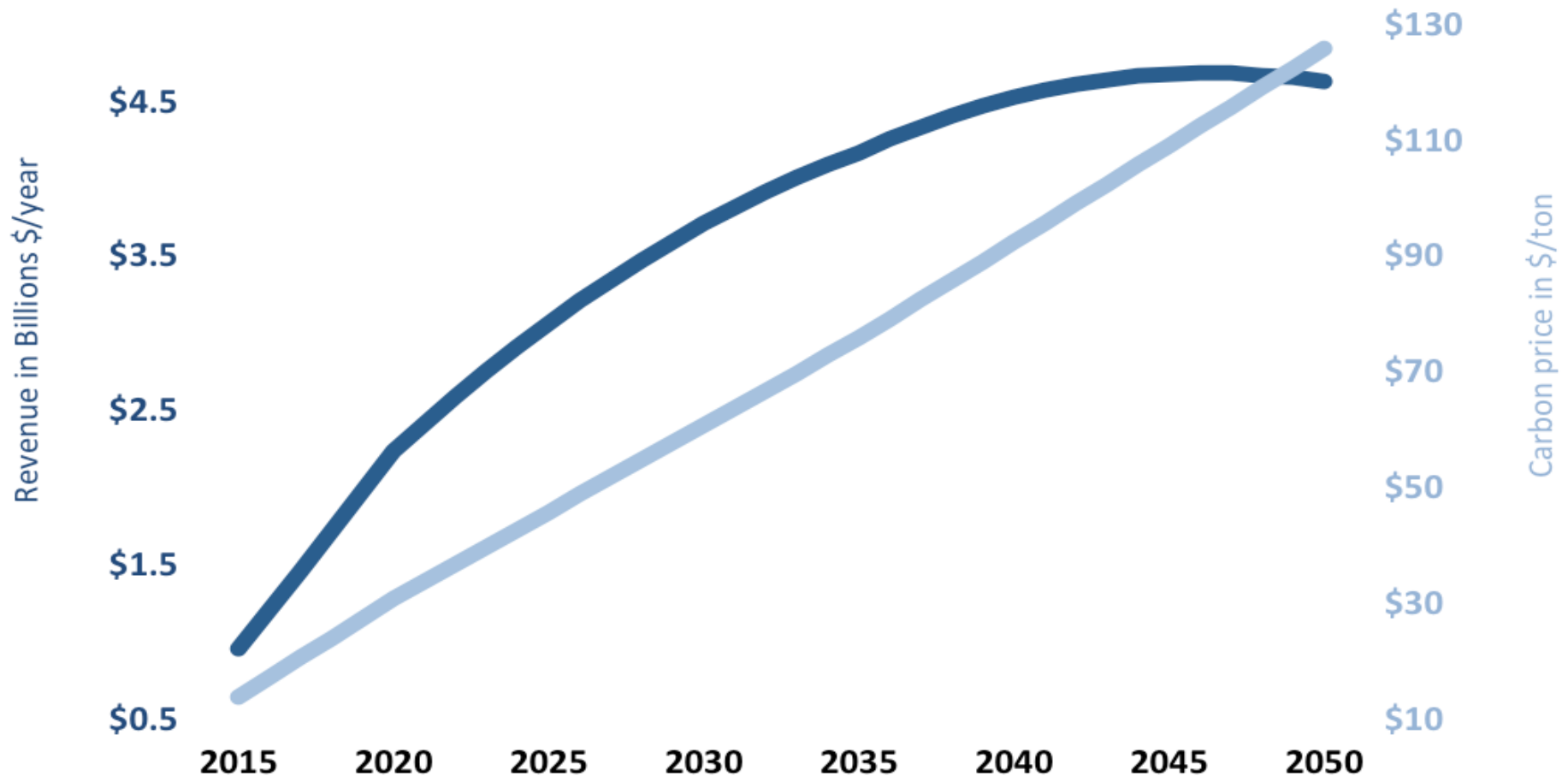


Source: Washington State Office of Financial Management

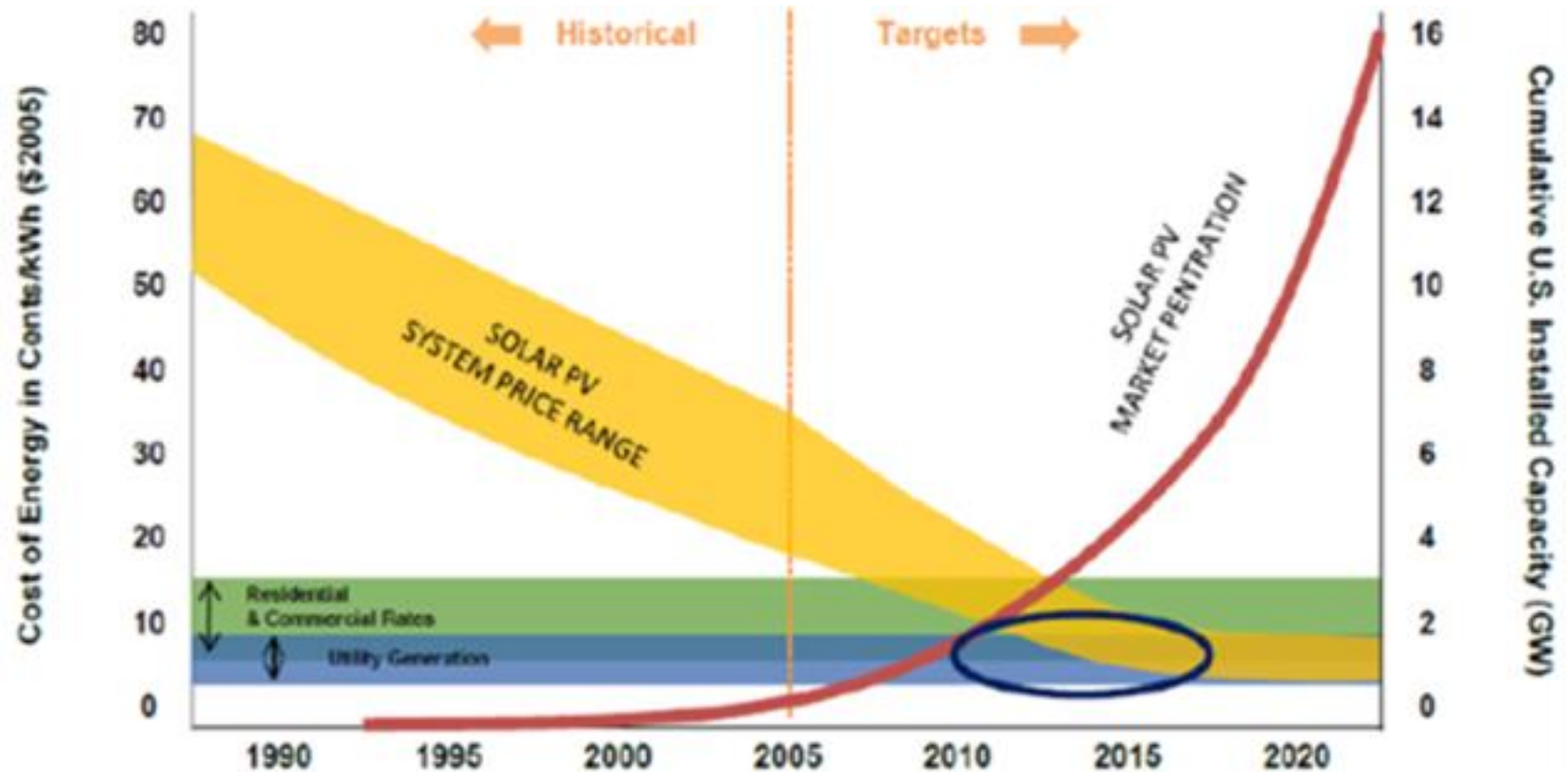


# Oregon would generate between several \$100 thousand and \$2 billion per year

**In the base case, Washington carbon revenue rises above \$4 billion**



# Solar is close to grid parity.

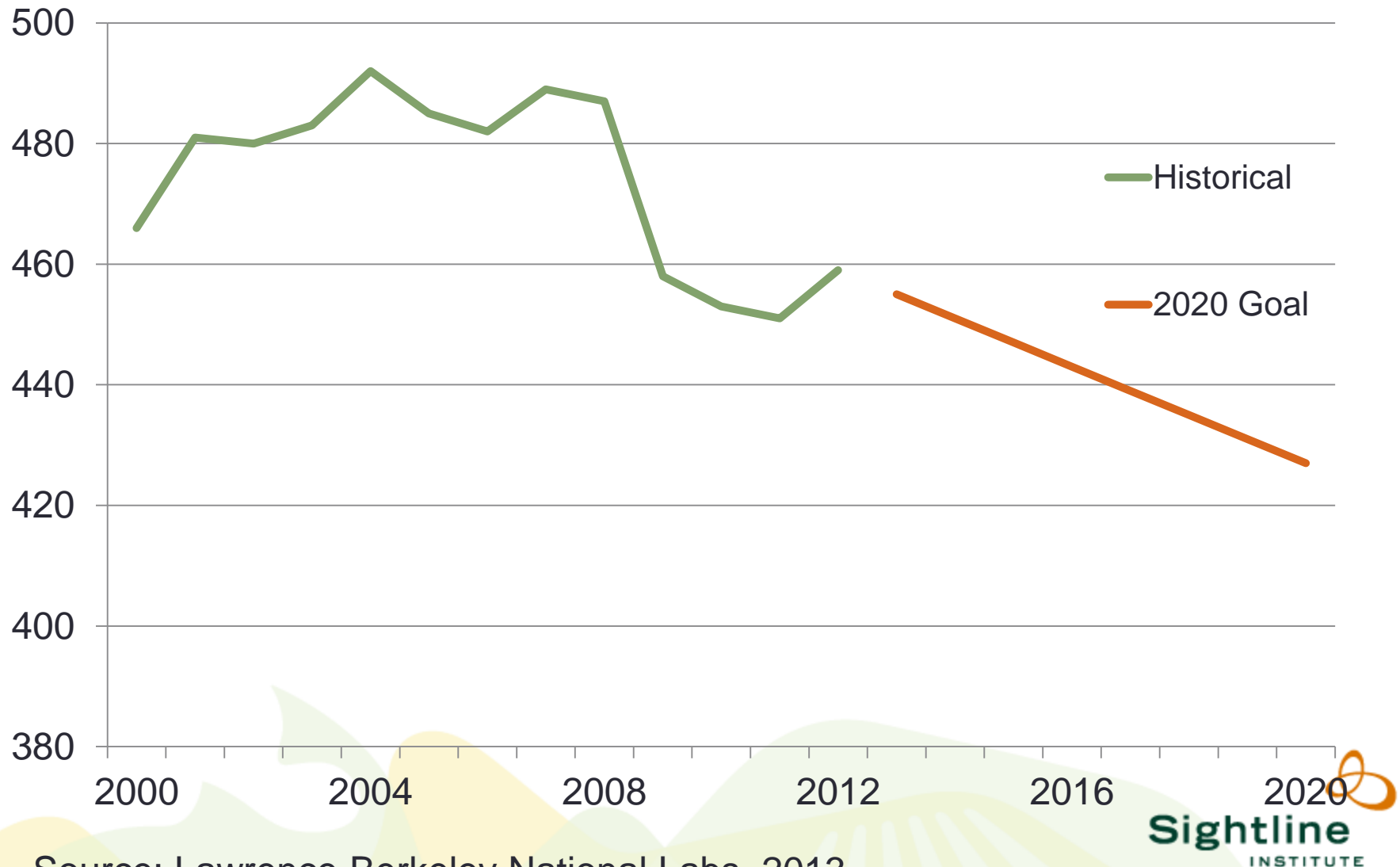


Source: US Department of Energy

The BC tax started at \$10 and went up to \$30.



# California is on track to meet its 2020 goal



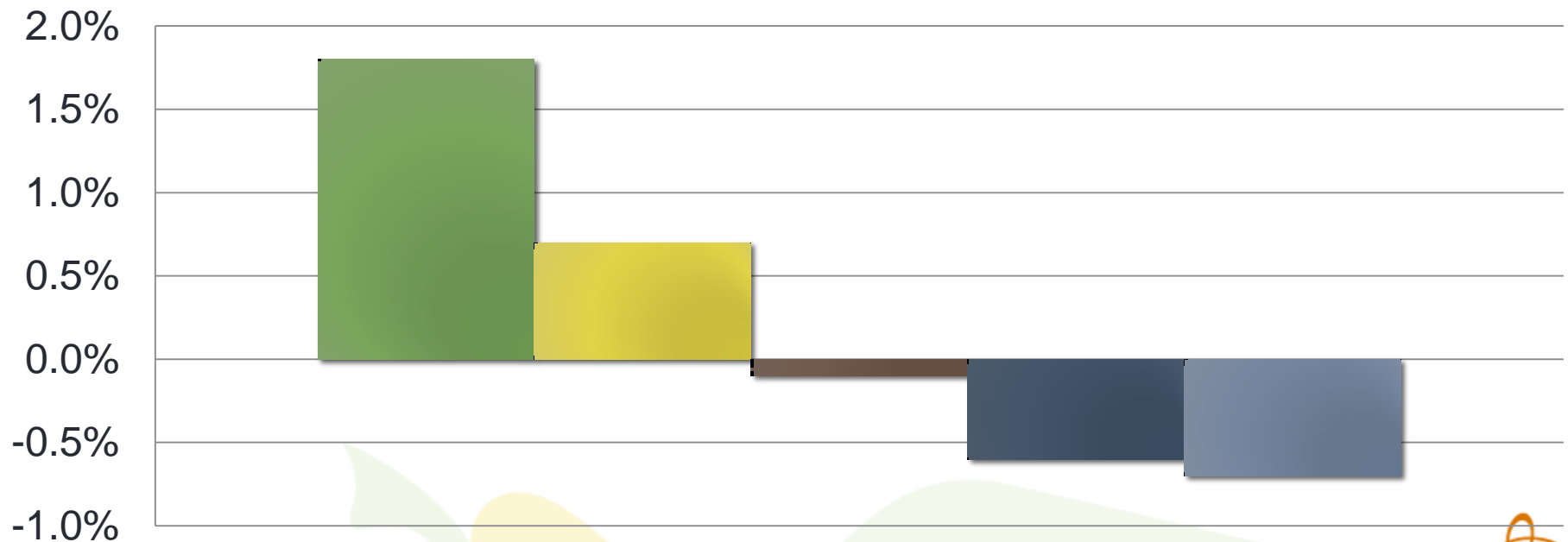
# California uses the money for:

- **Rebates:** flat per-household rebate on electricity bills
- **Investments:** Nearly \$1 billion per year to invest in clean energy
  - 25% of investments *must* benefit the state's most disadvantaged communities

# A flat rebate can make lower-income households better-off than they were without a price on pollution.

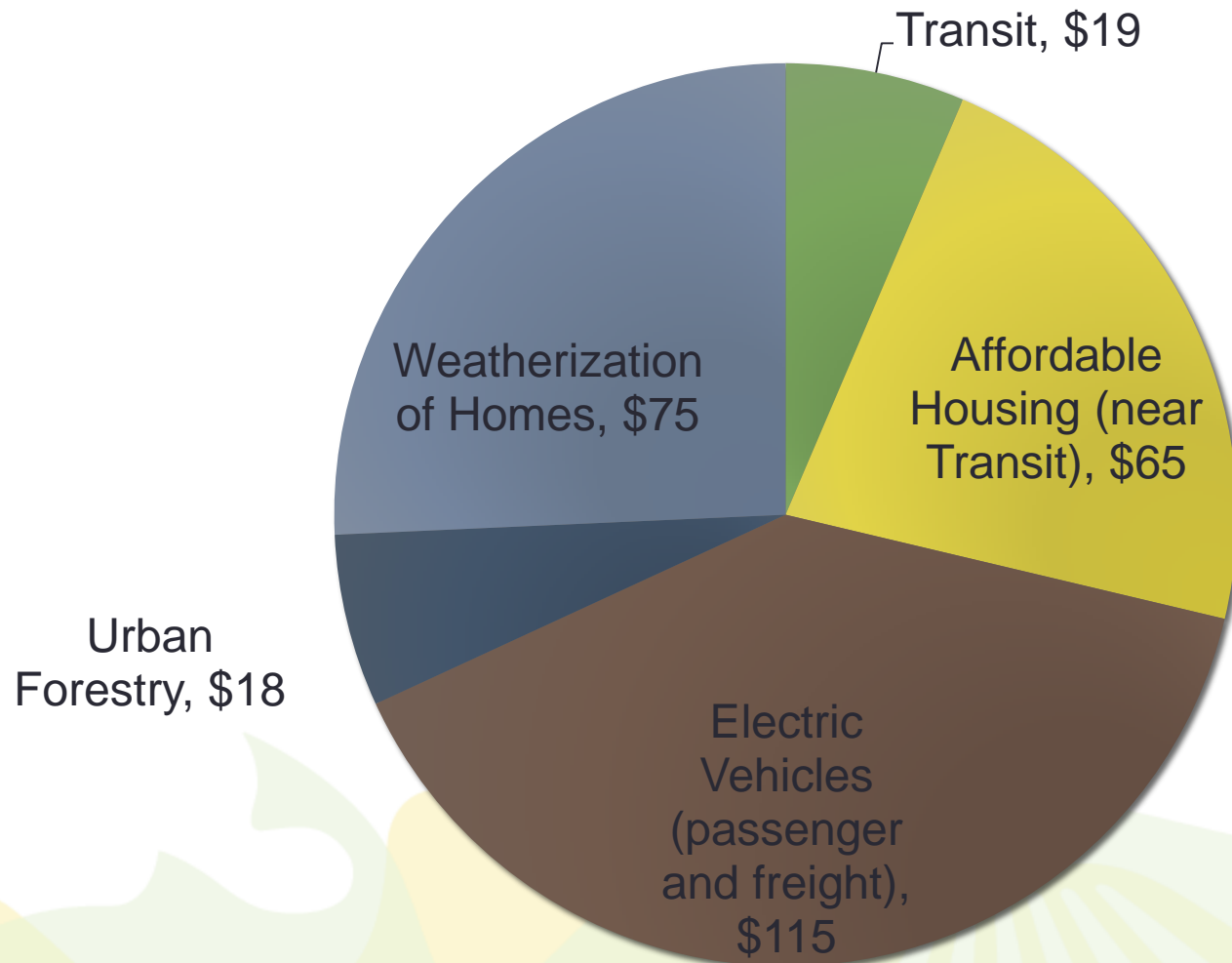
## Percentage change in after-tax household income with a carbon price plus rebate, by quintile

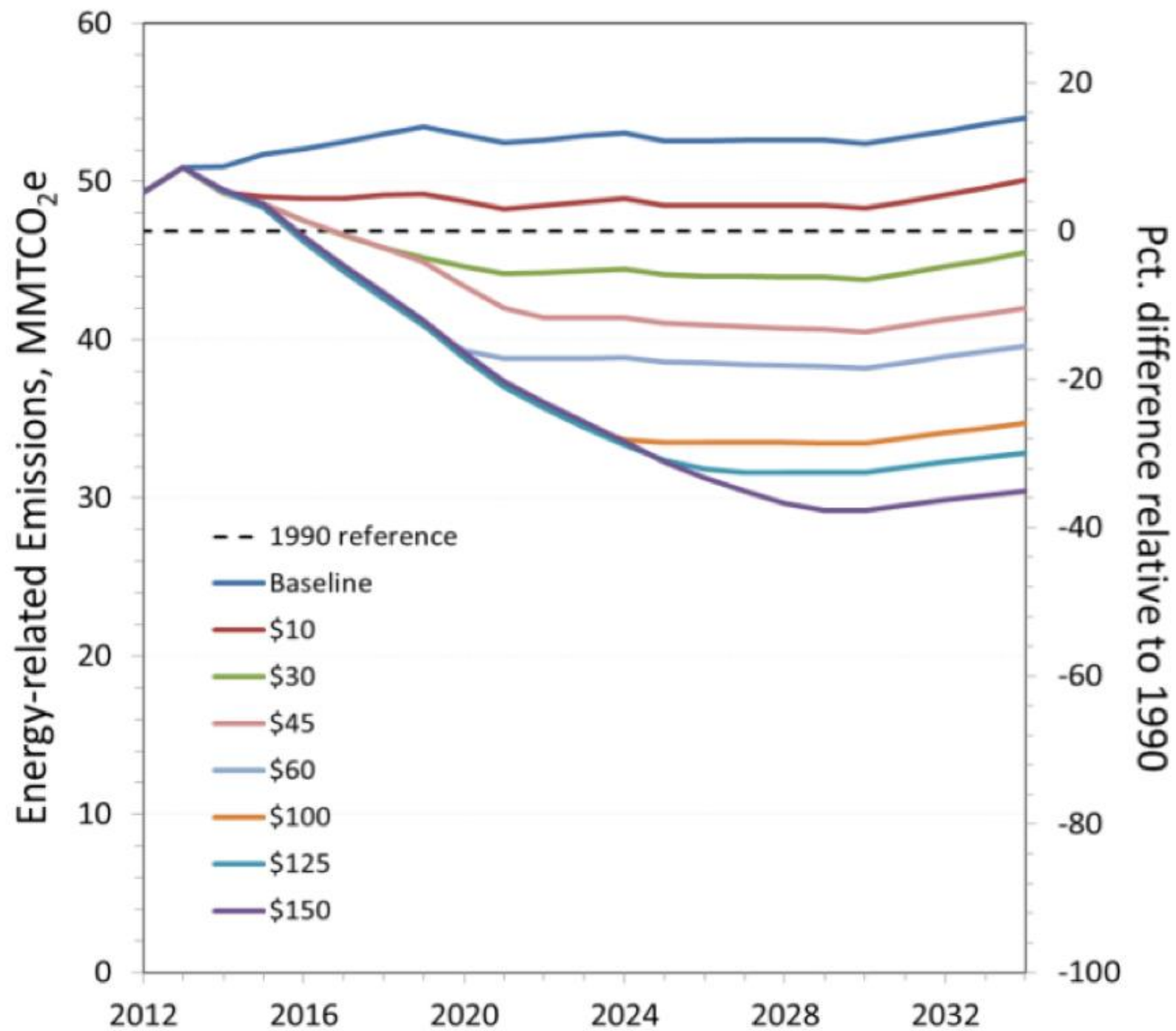
■ Lowest ■ Second ■ Middle ■ Fourth ■ Highest



Source: Congressional Budget Office, 2007

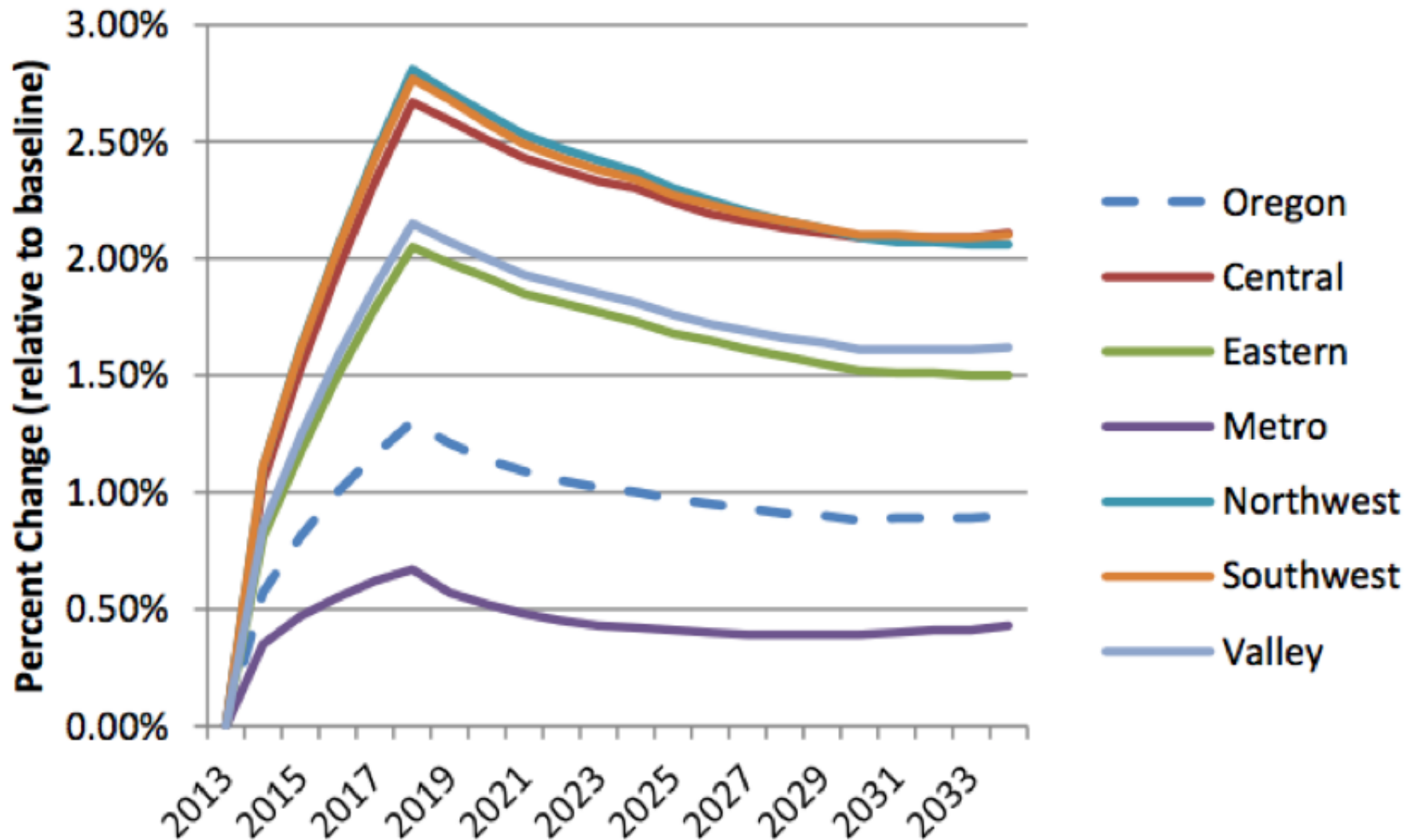
# California SB 535: spend 25% of the revenue on projects benefiting disadvantaged communities







\$30/ton invested in state general fund  
would increase wages across the state



# The jobs impact is pretty small.

