

# Scaling Sustainable Biofuels: Why Policy Matters

May 3, 2016

NW Wood-Based Biofuels & Co-  
Products Conference



**Climate Solutions.**  
PRACTICAL SOLUTIONS TO GLOBAL WARMING



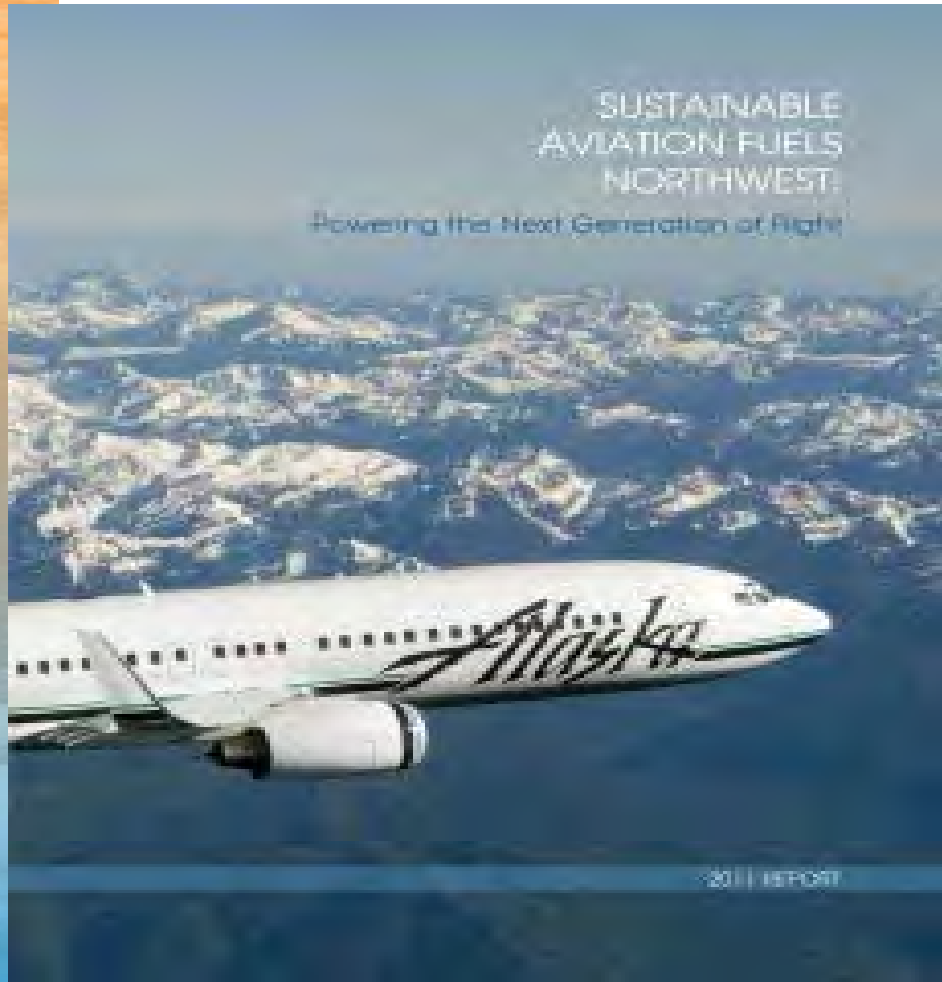
# Climate Solutions Mission

Accelerate *practical, profitable* solutions to global warming by:

- ✓ Galvanizing leadership
- ✓ Growing investment
- ✓ Bridging divides

**GOAL:** Make the Northwest a national and world leader in the clean energy economy





# Sustainable Aviation Fuels Northwest

# Our Work – Sustainable Aviation Fuels

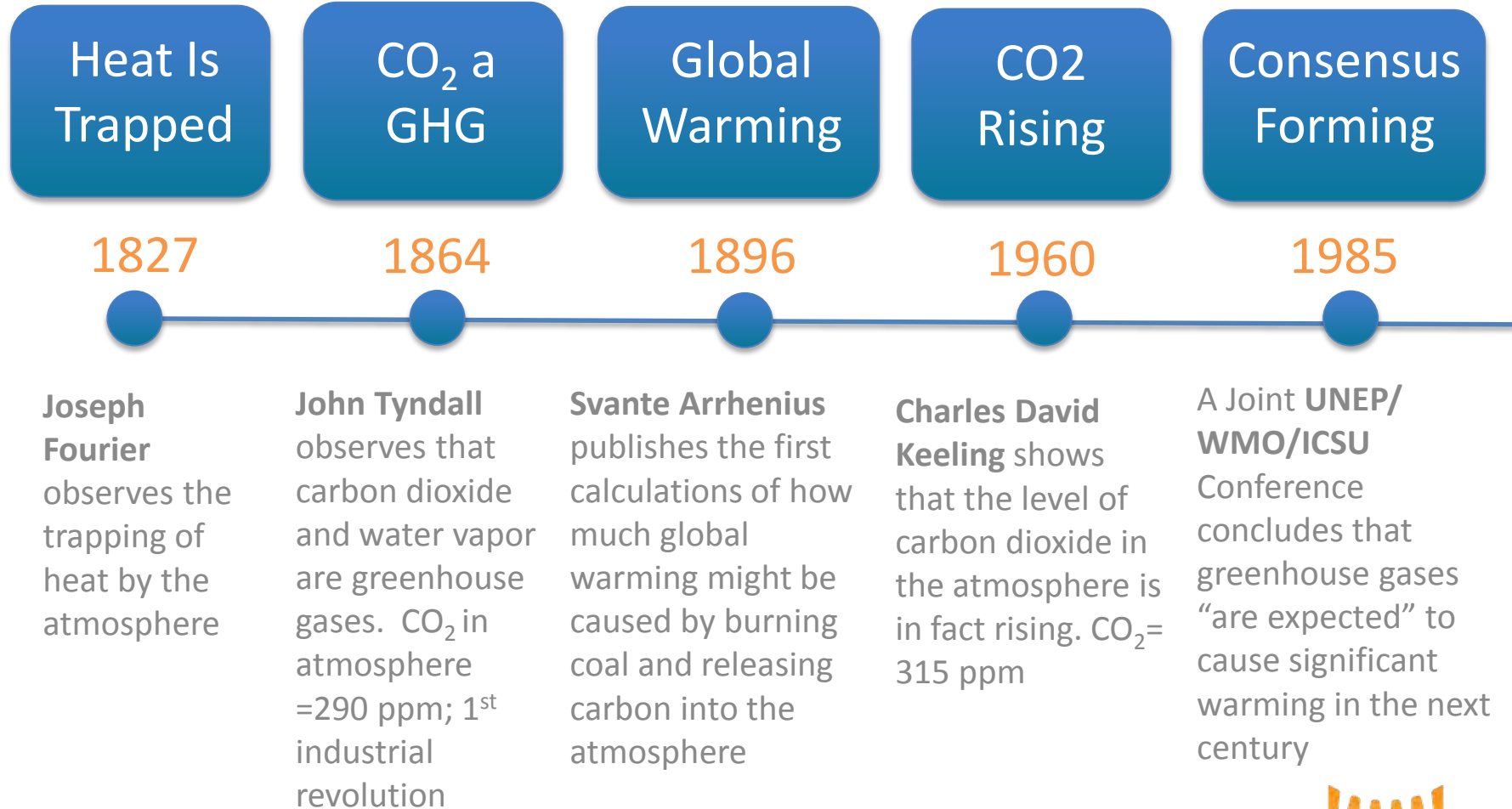


**Climate Solutions**  
PRACTICAL SOLUTIONS TO GLOBAL WARMING  
[www.climatesolutions.org](http://www.climatesolutions.org)

**a primer and state of the industry**  
october 2015

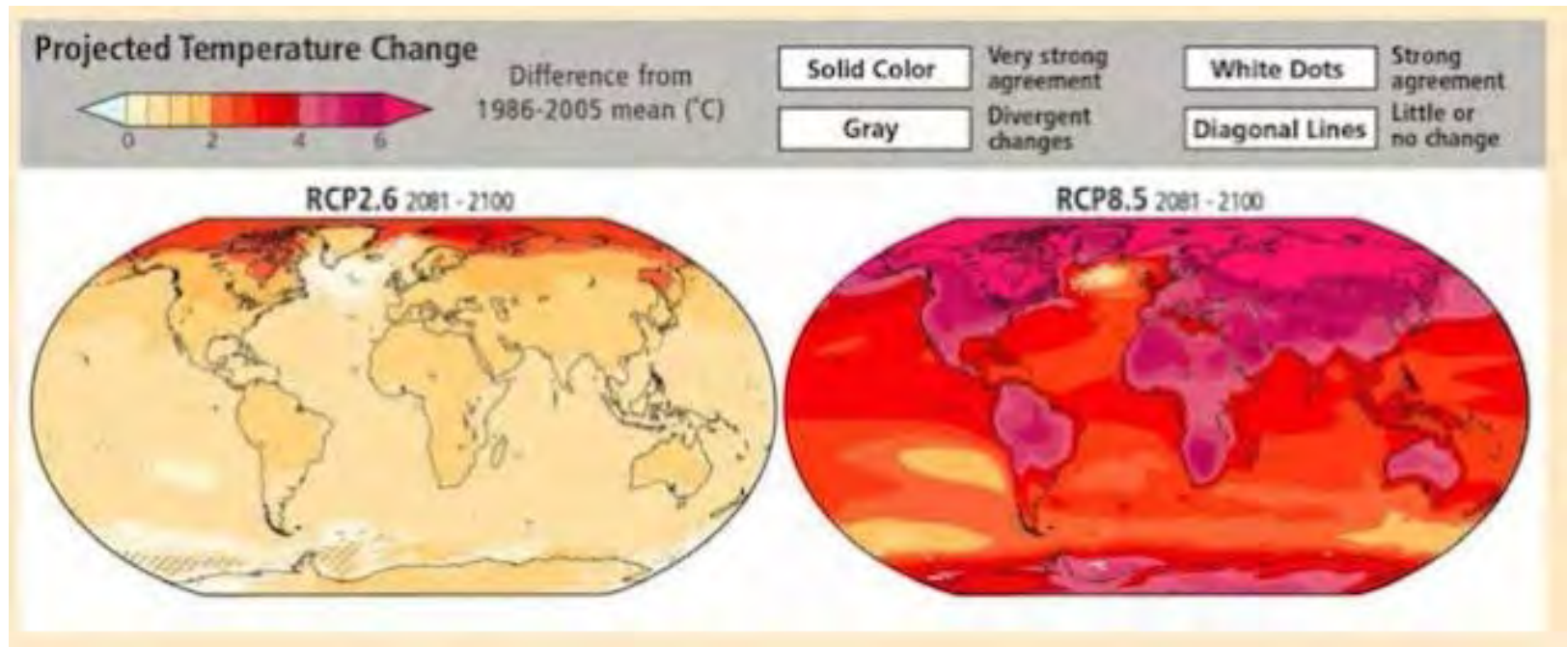


# The Climate Crisis: Not New Science...





# Managing the Unavoidable, Avoiding the Unmanageable



Current path: “is incompatible with organized global community, is likely to be beyond ‘adaptation’, is devastating to the majority of ecosystems and has a high probability of not being stable”

- Kevin Anderson, Director, Tyndall Centre for Climate Change



# What Can We Do?

- Stop Making it Worse
- Get Serious about GHG Reduction-Fast
- Adopt Policies to Send Right Market Signals

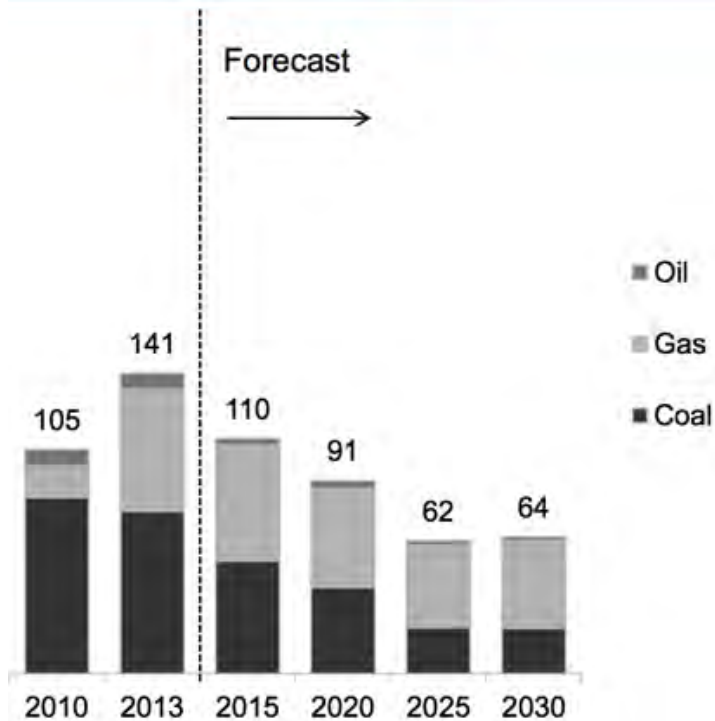




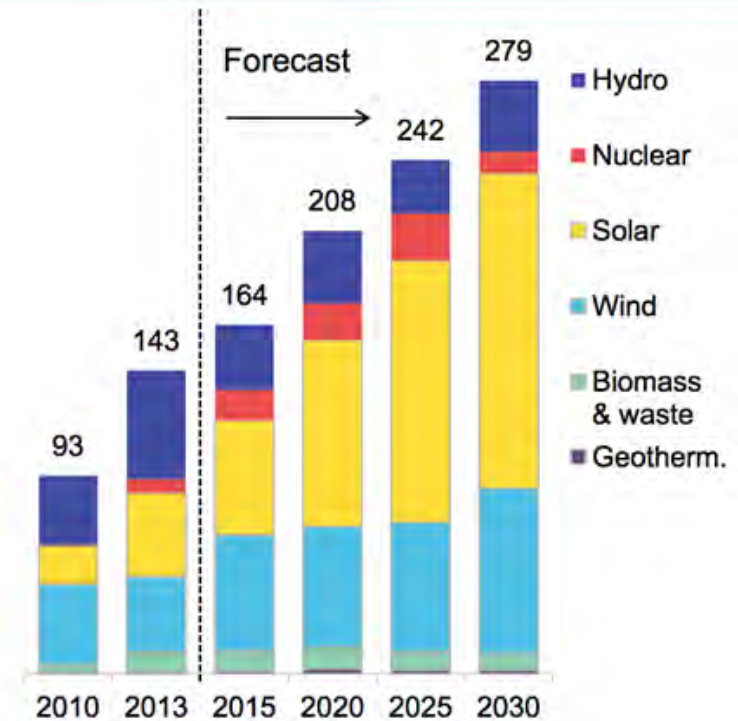


# Fossil Fuels Losing Race Against Renewables

## FOSSIL FUEL



## CLEAN ENERGY



*"Fossil Fuels Just Lost the Race against Renewables"* April 14, 2015

<http://www.bloomberg.com/news/articles/2015-04-14/fossil-fuels-just-lost-the-race-against-renewables>



# National Bank of Abu Dhabi – Oil Can't Compete with Renewables

While fossils have been heart of energy investment for past decades, future dollars will flow primarily to renewables

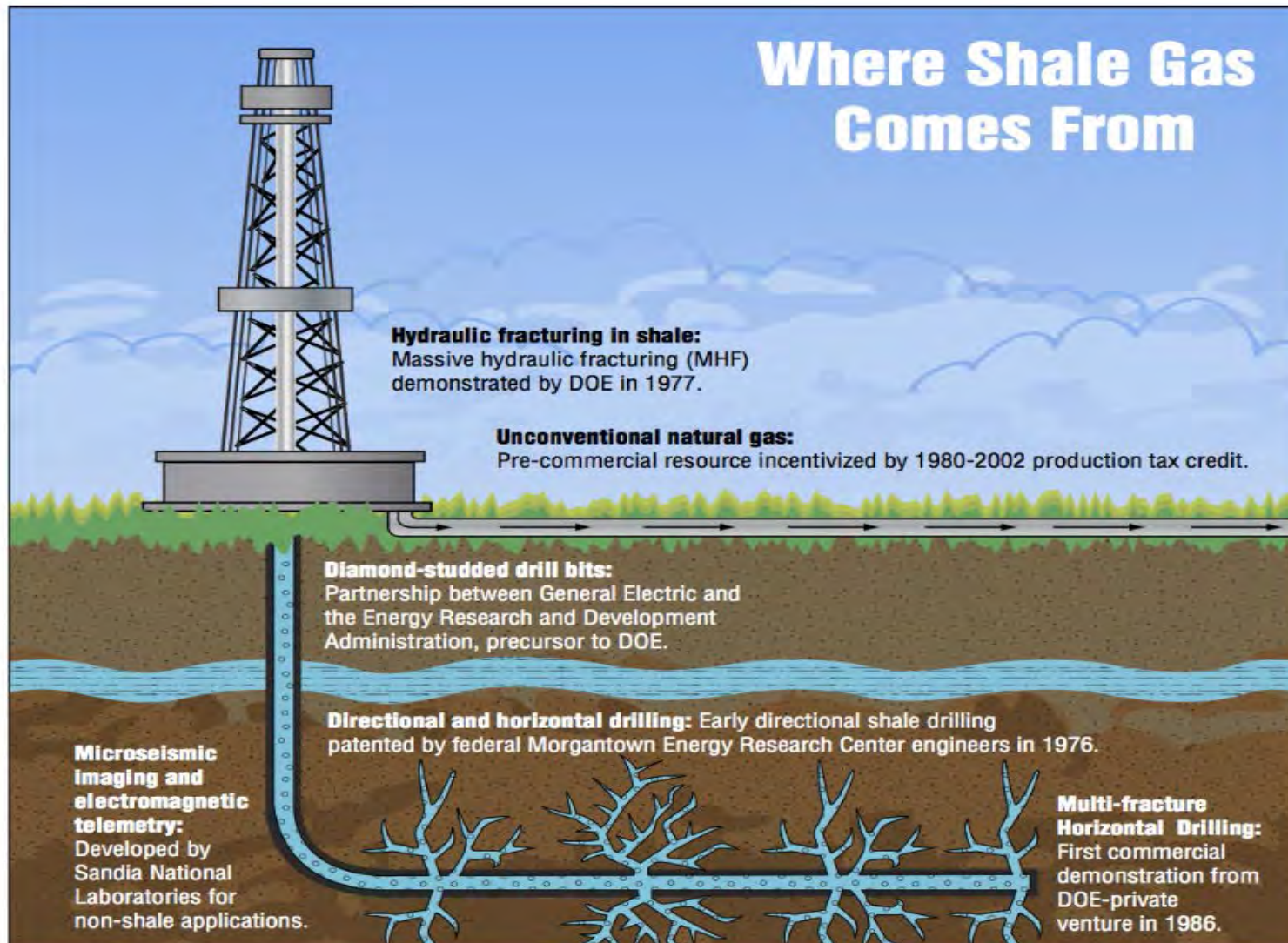


# Adopt Policies to Send Right Market Signals

- Question is no longer **whether** we are in the midst of an energy revolution – It's happening
- Two key questions:
  - Will it **happen fast enough** to avert the worst impacts of global warming and climate chaos?
  - Will our States and region **be a leader** in global economic transformation?
- Strong **policies and collective action** needed – not just individual initiatives



# Government Has Always Played a Key Role in Energy Development

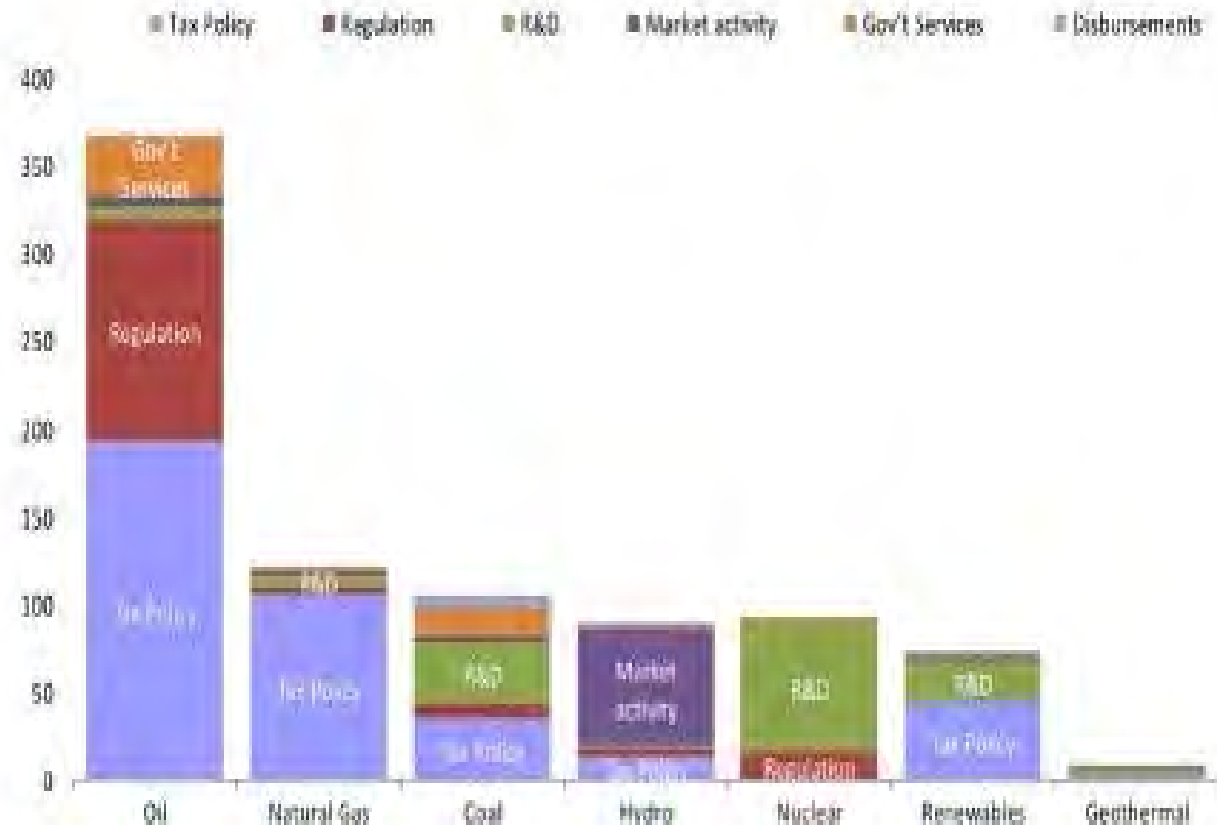




# Historically Fossil Fuel Subsidies Dwarf Support for Renewables

Exhibit 3 – Comparison of Federal Expenditures for Energy Development, 1950–2010

(Billions of 2010 Dollars)





# Policy Priorities

- Build Strong Markets for Renewable Fuel Producers
  - Promote durable policy to drive demand
  - Support broader climate and clean energy policy
  - Adopt Policies that drive demand for sustainable fuels with low life-cycle carbon emissions



# West Coast Leadership – Global Significance



Collectively – World's 5th largest economy

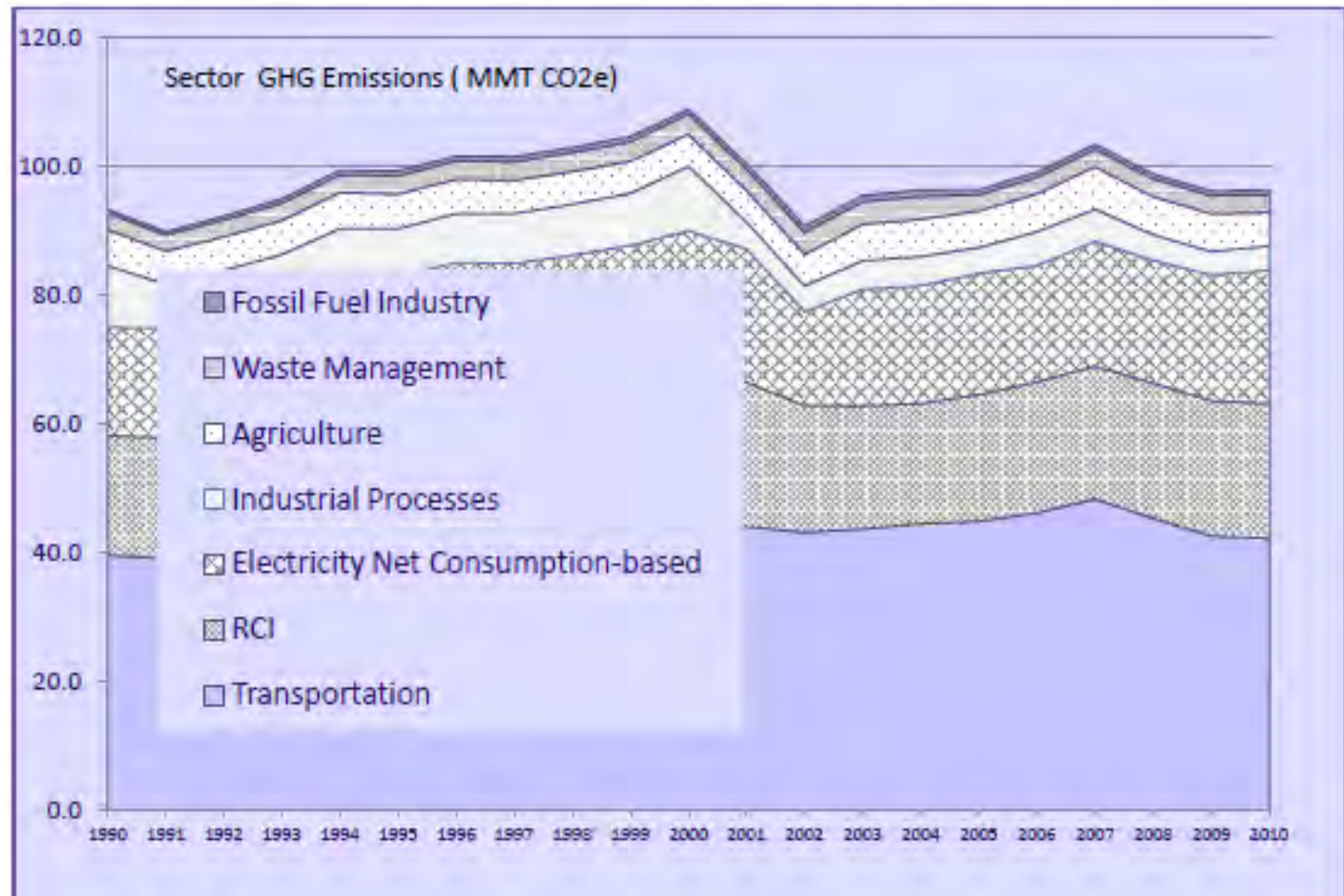
## Key Elements:

- Price and Limit global warming pollution across economies
- Promote cleaner fuels for transportation
- Eliminate imported coal from grid



# Why do we need policies to reduce carbon emissions in transportation?

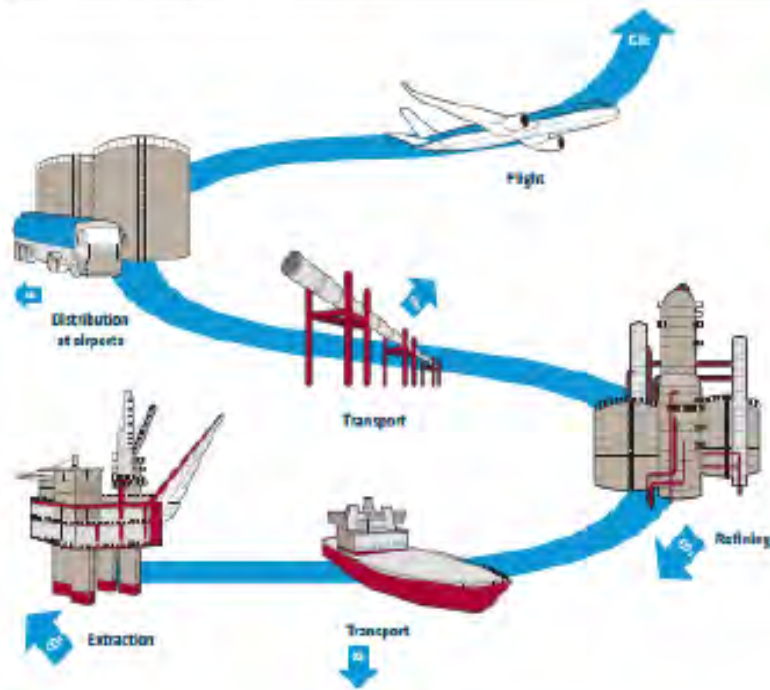
Figure 1: Total annual GHG emissions (MMt CO<sub>2</sub>e) by sector from 1990 – 2010



# Why Sustainable Advanced Biofuels Are a Climate Solution

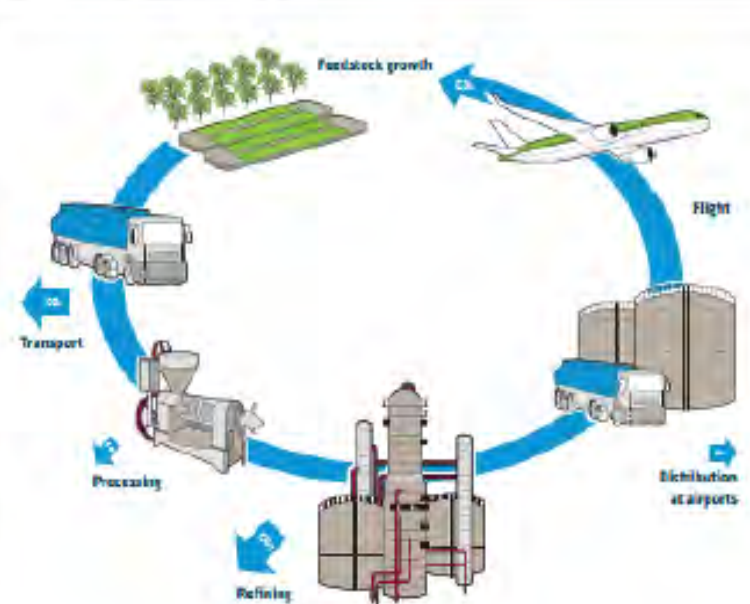
Figure 2. Carbon Lifecycle of Fossil Fuels Versus Biofuels.<sup>9</sup>

Carbon lifecycle diagram: fossil fuels



At each stage in the distribution chain, carbon dioxide is emitted through energy use by extraction, transport, etc.

Carbon lifecycle diagram: biofuels



Carbon dioxide will be reabsorbed as the next generation of biofuel feedstock is grown.



# Sustainable Fuels

## Not all bio-energy is sustainable energy

- Industry needs to prioritize second and third generation biofuels that meet rigorous sustainability criteria – Validates NARA

## Don't reinvent wheel – use developed sustainability criteria in analysis

- Roundtable on Sustainable Biomaterials is “gold standard”
- Forest issues still huge hot button





# Sustainable Fuels –Public Mistrust



# Sustainable Fuels – Public Mistrust



# Climate and Energy Policy: Oregon

- Clean Fuel Standard Adopted, 2015
  - Rollback rejected
  - Still key fight for petroleum industry and allies
- Clean Electricity and Coal Transition 2016
- What's Next?
  - Potential Carbon Cap Legislation?
  - Other measures to reduce transportation emissions?
- Renew Oregon



# Climate and Energy Policy: Washington

- Carbon WA – I 732 –Carbon Tax
  - On ballot, November 2016
- Alliance for Jobs and Clean Energy
  - price pollution, invest in solutions and resilience
  - Proposal – potential future initiative or legislation?
- Clean Air Rule - Capping climate pollution under Washington Clean Air Act



# Clean Air Rule – Our Children's Trust

## "These Kids Can't Wait": New Win in Youth Climate Lawsuit in Washington

Judge orders state Department of Ecology to create new rules to cap emissions by end of 2016

by Nadia Prupis, staff writer



8 Comments



Friday's ruling is "the first time [that] a U.S. court not only recognized the extraordinary harms young people are facing due to climate change, but ordered an agency to do something about it." (Photo: Joe Brusky/flickr/cc)





# Clean Air Rule

- Establishes economy-wide cap on greenhouse gas emissions under Washington State Clean Air Act.
- Potential concerns:
  - Needs to be built on best practices and drive real reductions
  - Should not allow excessive use of “offsets”
  - **Will rule penalize biofuels compared to biomass?**



# Clean Fuel Standard

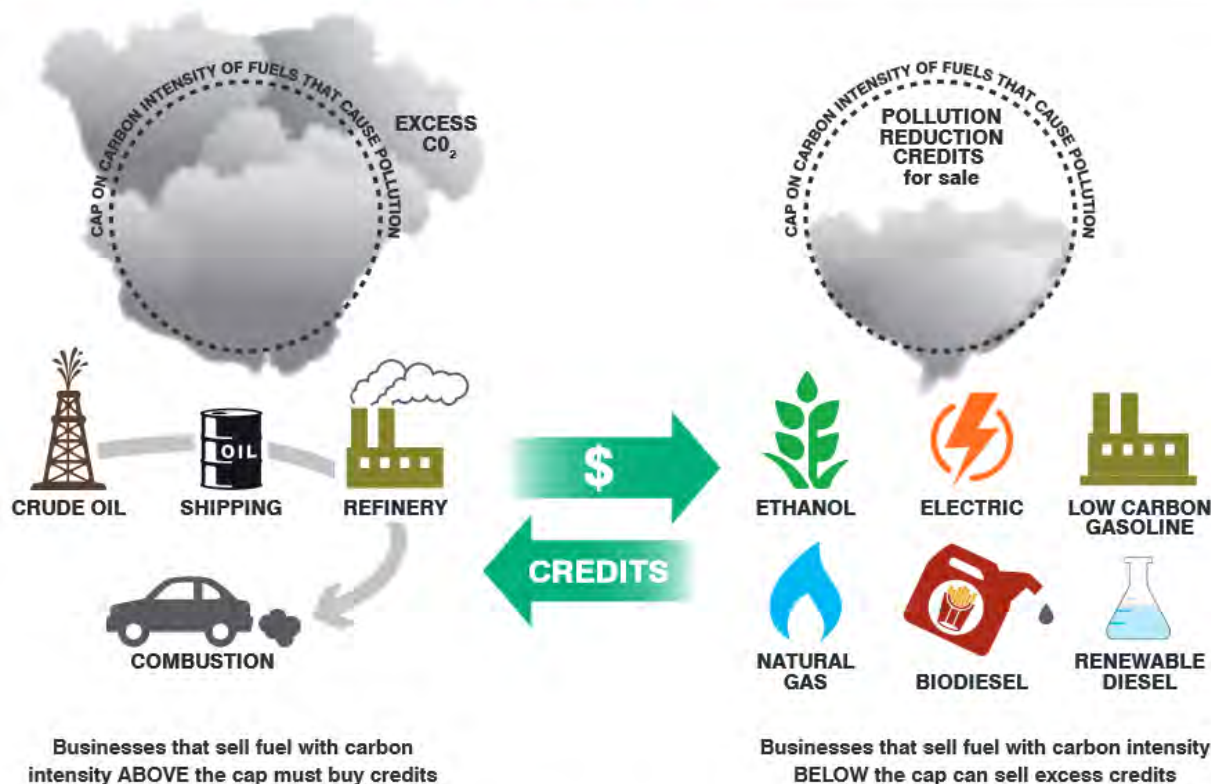
- Key driver for biofuel growth in California, British Columbia and now Oregon
  - Most local production now sold into those markets
- Progress in WA stymied by “poison pill”



# Clean Fuel Standard

FIGURE 2-1

Operation of California's Low Carbon Fuel Standard



An LCFS limits the amount of carbon emissions from fuels and allows clean fuel producers to sell their carbon credits to businesses that have trouble meeting the carbon intensity requirement.



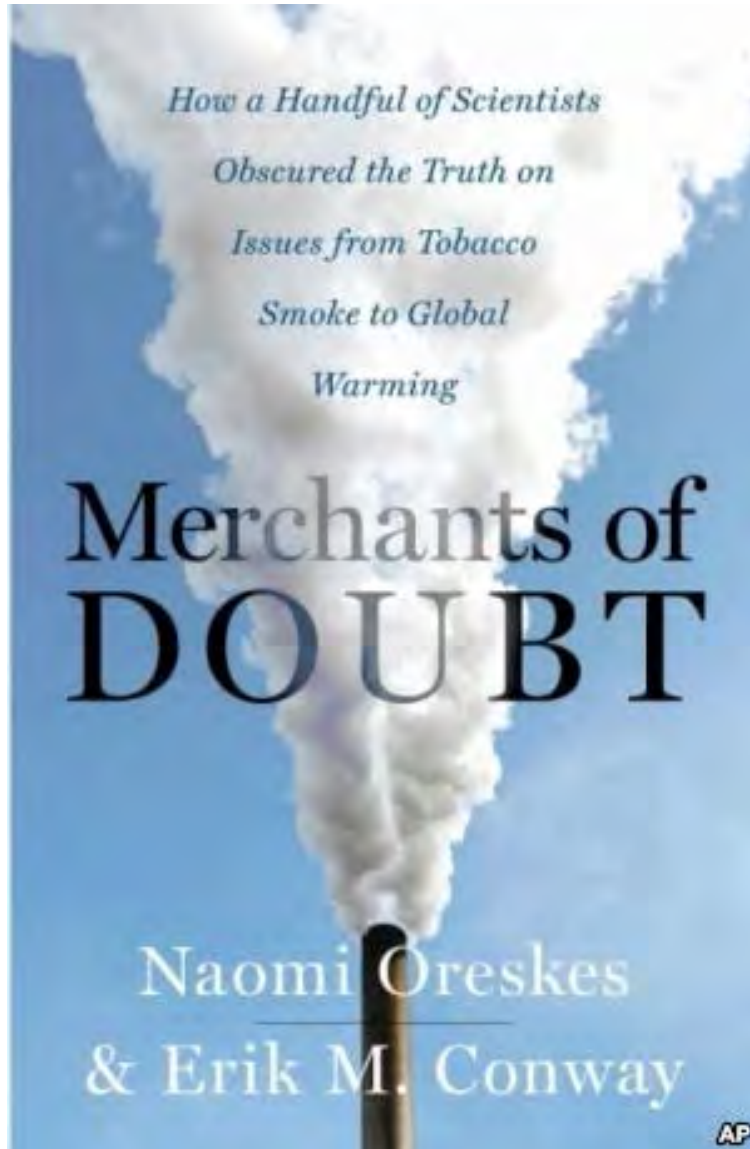
Courtesy, EDF, American Lung Assoc, TetraTech: "Driving California Forward"

# Other Key Policies

- Federal RFS
- State RFS
- Incentives
  - Loan guaranties
  - Tax free financing
  - Tax breaks
  - Public purchasing
- Key issue with Incentives: How to pay?



# What's Holding Us Back?



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# Exxon-Mobil Investigated for Concealing Climate Science

IN 1978 EXXON SCIENTISTS  
TOLD COMPANY EXECUTIVES

GLOBAL WARMING IS REAL!  
IT'S CAUSED BY HUMANS  
IT WILL BE A GLOBAL  
DEASTER...



THEY WERE FACED WITH A  
CHOICE: SAVE THE PLANET...

WE SHOULD  
TELL THE  
PUBLIC  
FOCUS  
ON CLEAN  
ENERGY  
LET'S RALLY  
SUPPORT IN  
CONGRESS



...OR LIE THEIR ASSES OFF.

THE  
PUBLIC  
CAN'T  
KNOW!  
WE'LL HIRE TOBACCO  
LOBBYISTS TO CREATE  
BOGUS STUDIES!  
WE'LL RALLY  
SUPPORT IN  
CONGRESS!



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# THE END



In 2014, WSPA has activated a significant number of campaigns and coalitions that have contributed to WSPA's advocacy goals and continue to respond to aggressive anti-oil initiatives in the West.

Each campaign was structured to address specific state or local issues and provide an excellent opportunity for the petroleum industry to educate consumers and voters in all of WSPA's five Western states.

WSPA has also invested in several coalitions that are best suited to drive consumer and grassroots messages to regulators and policymakers.



## Invest Engage Guide

Upstream

Downstream

# In Both Oregon and Washington, Clean Fuels Central to Transportation Budget

**Northwest legislative gridlock is no accident**





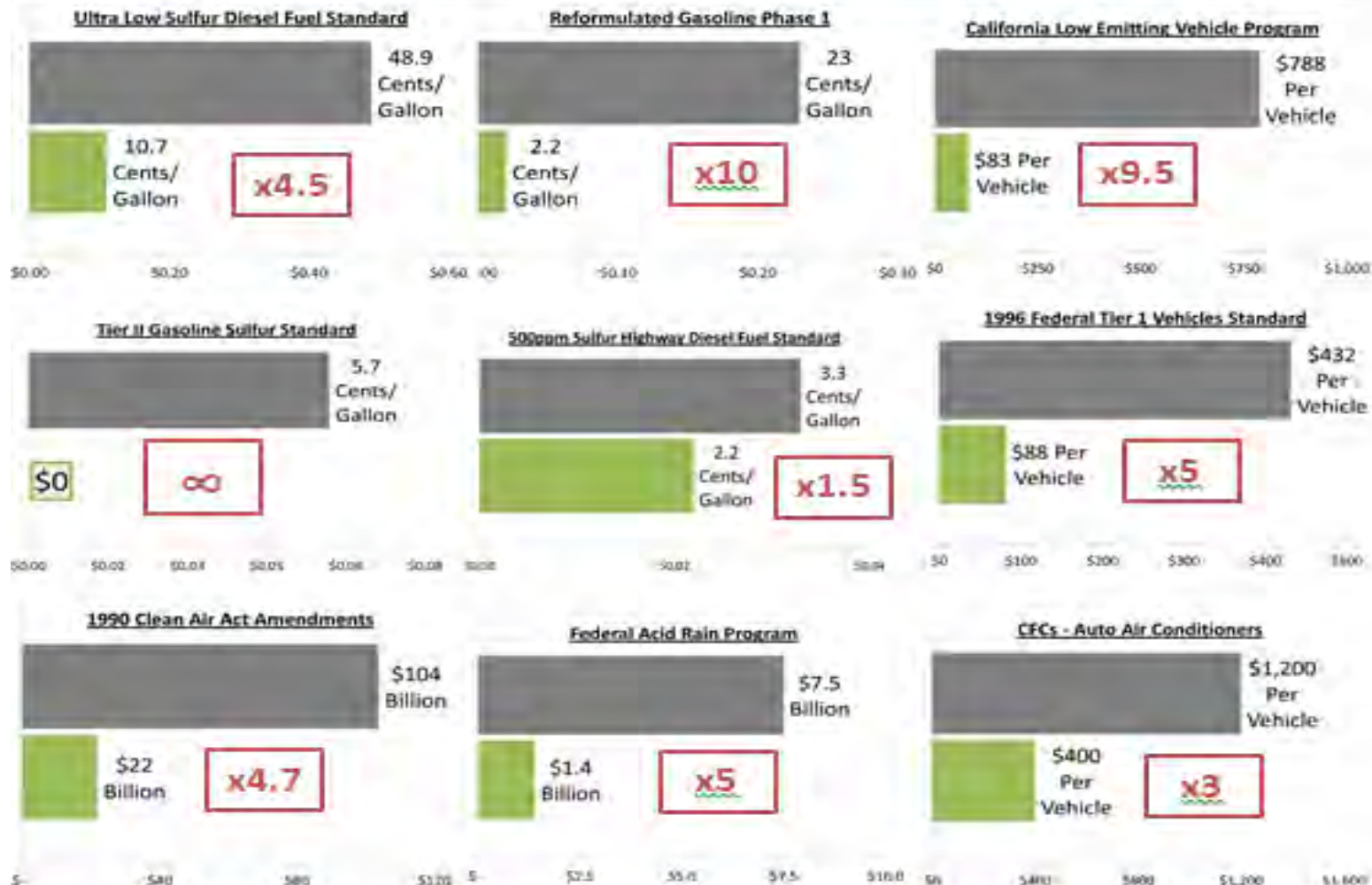
# Costs: Industry Estimates v. Reality

Key:

Oil Industry Cost Estimate

Actual Cost

Industry Exaggeration



# "The riskiest decision a business person can make is to do nothing."

- Businesses stepping up to support state and regional climate action
- Business voice for Climate and Clean Energy Policy Needs to Grow



Washington Preamble: There is a clear and present need for action on climate change to protect our region's natural assets, its vibrant communities and its growing economy. We business leaders of the Pacific Northwest endorse the Climate Declaration because we support using energy efficiently, investing in cleaner fuels, advancing renewable energy, and reducing greenhouse gas emissions.

Starting today, right here, the Pacific Northwest can lead the way. We can create a healthy climate and a strong, more resilient economy, by fostering innovation, advancing public health, spurring economic development through job creation and speeding technological advancement throughout our region.

#### Washington Businesses Support the BICEP Climate Declaration

**What made America great was taking a stand.** Doing the things that are hard. And seizing opportunities. The very foundation of our country is based on fighting for our freedoms and ensuring the health and prosperity of our state, our community, and our families. Today those things are threatened by a changing climate that most scientists agree is being caused by air pollution. We cannot risk our kids' futures on the false hope that the vast majority of scientists are wrong. But just as America rose to the great challenges of the past and came out stronger than ever, we have to confront this challenge, and we have to win. And in doing this right, by saving money when we use less electricity, by saving money to drive a more efficient car, by choosing clean energy, by inventing new technologies that other countries buy, and creating jobs here at home, we will maintain our way of life and remain a true superpower in a competitive world. In order to make this happen, however, there must be a coordinated effort to combat climate change — with America taking the lead here at home. Leading is what we've always done. And by working together, regardless of politics, we'll do it again.





Thank you

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**Climate Solutions.**  
PRACTICAL SOLUTIONS TO GLOBAL WARMING

