

## Climate Change: The Elephant in the Room

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### Climate Change Anniversaries It's not just the Oil Embargo's Anniversary!

- 35<sup>th</sup> Anniversary (soon) of the first First World Climate
   Conference
  - 1<sup>st</sup> major global climate change conference (Feb 1979)
- 25<sup>th</sup> Anniversary of the U.N. Intergovernmental Panel on Climate Change (IPCC)
  - 1st meeting Nov 1988, endorsed by Gen Assembly in Dec
- 25th Anniversary of the Global Warming Prevention Act
  - First major Congressional bill to address climate change (but did not pass)

#### Moving Away From Fossil Fuels: An Urgent Need

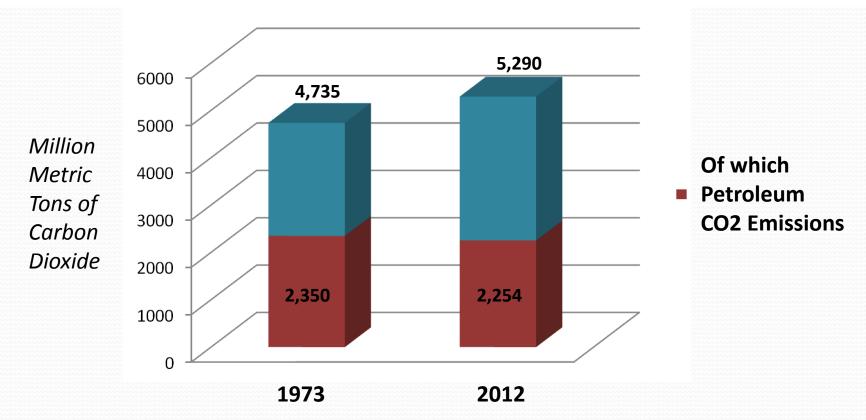
- Fossil fuels (oil and coal) are responsible for the CO2 emissions that are causing climate change
- Fossil fuels are also partly responsible for the superpollutants (such as methane from natural gas production and black carbon from diesel vehicles) that are also heavy contributors to climate change (to the tune of 40%)
- IPCC: no more than 1 trillion metric tons of carbon can be burned if we want to keep warming below 3.6 F

We've already burned 0.5 trillion tons...

#### Oil Represents 42.6% of U.S. CO2 Emissions From Energy

#### U.S. Carbon dioxide emissions from energy consumption

(U.S. Energy Information Administration)



#### The Case For Action Is Clear

- IPCC Report Assessing Climate Change Science
  - 5<sup>th</sup> Report released Sept 30
  - 259 climate scientists from 39 different countries
  - Input from thousands of government officials and experts
  - Draws on 9,200 peer-reviewed studies and publications
  - Representatives from 195 governments signed off.
  - Operates by consensus, which leads to conservatism. YET:
  - => Warming of the climate is unequivocal
- => Extremely likely [95% confidence] that human influence dominant cause of observed warming

#### The Global Community Is Worried

- 194 Countries and the European Union have ratified the U.N. Framework Convention on Climate Change
  - George H.W. Bush signed the Convention for the U.S.
  - The U.S. was the **first industrialized nation to ratify** the framework on October 15, 1992 (21st anniversary!)



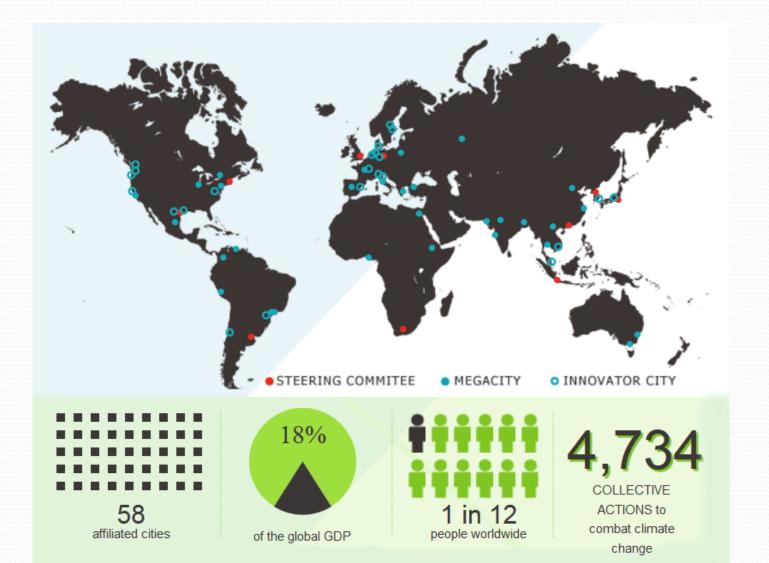
#### The Feds Are Worried

- "For the sake of our children and our future, we must do more to combat climate change" — President Obama
- U.S. Government Accountability Office: Climate Change Represents a "High Risk" for the U.S. government.
  - Climate Change made the 2013 High Risk Report (1st time)
  - April 2013 report: Future Federal Adaptation Efforts Could Better Support Local Infrastructure Decision Makers
- National Climate Assessment expected early 2014
- Proposed Federal legislation:
  - e.g. STRONG Act—Senators Gillibrand and Wicker

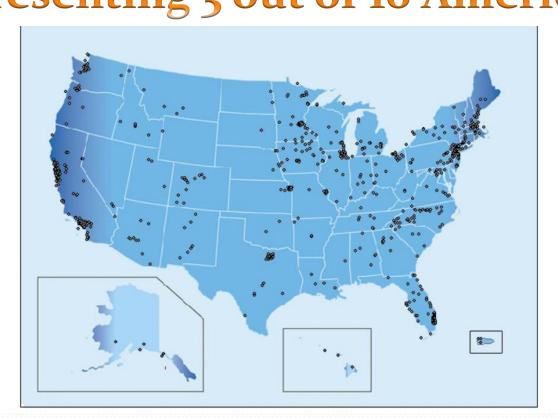
#### Cities Are Worried

- Cities, which produce 70% of global greenhouse gas emissions, are taking the lead:
  - The C40 Cities Climate Leadership Group includes 58 of the world's largest cities, chaired by Mike Bloomberg
  - The U.S. Conference of Mayors' Climate Protection
     Agreement includes 1,060 mayors
  - Resilient Communities for America (RC4A) includes 91 top mayors and county leaders

#### C40 Cities Climate Leadership Group



# U.S. Conference of Mayors' Climate Protection Agreement 1,060 cities have signed on Representing 3 out of 10 Americans



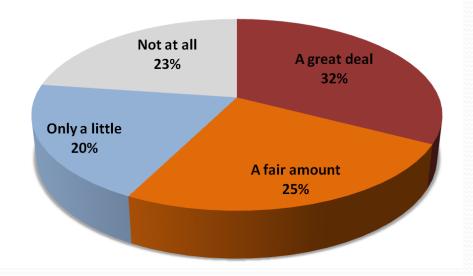
#### **Business & Academia Are Worried**

- 650+ companies support the Climate Declaration (BICEP / CERES)
  - Tackling climate change is one of America's greatest economic opportunities of the 21st century (and it's simply the right thing to do)
  - Iconic brands such as GM, Microsoft, Nike, Unilever....
- The American College & University Presidents' Climate Commitment (ACUPCC)
  - Commit to eliminate net GHG emissions from specified campus operations; promote research & educational efforts on climate change
  - 674 signatories to date
  - 517 submitted Climate Action Plans

#### The Public Is Worried

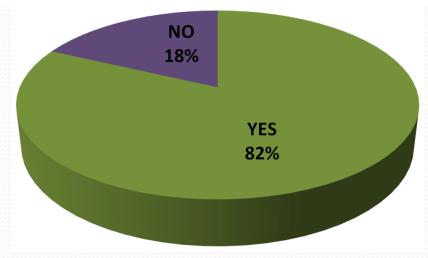
How much do you personally worry about global warming?

(Gallup poll, April 2013)



People and organizations should prepare for the damage likely to be caused by sea level rise and storms

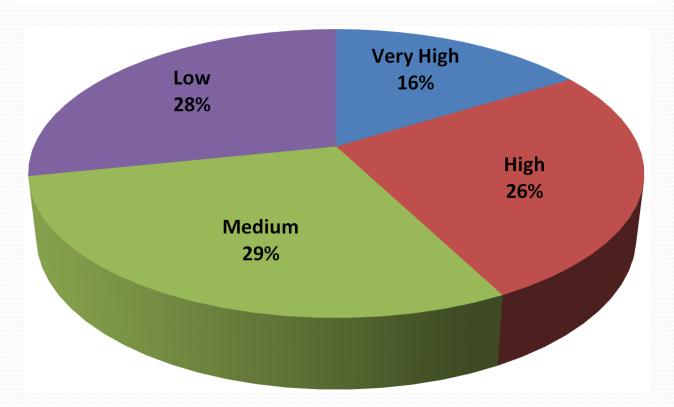
(Stanford Woods Institute, March 2013)



#### The Public Wants Action

#### What kind of priority should global warming be for the president and Congress?

(Yale Project on Climate Change Communication, April 2013)



#### The Administration Is Acting

- National Climate Plan
- New fuel efficiency and emissions standards for cars and light trucks (corporate average fuel economy (CAFE)):
  - Will double to 54.5 miles per gallon (MPG) by 2025.
  - Expected to save 163-170 billion gallons of fuel and generate over \$450 billion in net economic benefits.
- Draft Rules for limiting carbon pollution from new power plants (should be definitively issued by fall 2014):
  - Power plants represent 40% of energy-related emissions of greenhouse gases (2012)
- R,D&D investments for biofuels, electric drive, and transit
- Tax incentives and Renewable Fuel Standard (RFS)

## Moving Away From Fossil Fuels: A No Brainer

