Superstorm Sandy, The Elections & Sustainability
ExxonMobil CEO Rex Tillerson:
June 2012

“We have spent our entire existence adapting, OK? So we will adapt to this. Changes to weather patterns that move crop production areas around — we’ll adapt to that. It’s an engineering problem, and it has engineering solutions. And so I don’t — the fear factor that people want to throw out there to say we just have to stop this, I do not accept.”
Sea Surface Temperature During Hurricane Katrina
Warmer air can hold a lot more water vapor.
With each additional $1^\circ \ (C)$ of temperature, the atmosphere’s capacity to hold water vapor increases by 7%.
There is already 4% more water vapor over the oceans than there was only 30 years ago.
This is the size of ONE TONNE CO₂

Take up the challenge - reduce every way YOU can. Now!
1,000,000,000,000 Tons of CO2 from Oil, Coal & Gas Already Dumped in Our Atmosphere
World Bank: 
“A 4°C world can, and must, be avoided.”

- Inundation of coastal cities
- Increasing risks for food production
- Substantially exacerbated water scarcity in many regions
- Increased frequency of high-intensity tropical cyclones
- Irreversible loss of biodiversity, including coral reef systems
- High uncertainty and new risks
PriceWaterhouseCoopers: “We have Passed a Critical Threshold”

- the “global economy now needs to cut carbon intensity by 5.1% every year from now to 2050 to achieve this carbon budget... Keeping to the 2°C carbon budget will require unprecedented and sustained reductions over four decades.”
NWF
Student Guide on Dirty Energy Politics

www.campusecology.org/
dirtyenergypolitics
As of September, $158 Million in Ads Attacking Clean Energy and Clean Energy Supporters
I DO NOT BELIEVE IN GLOBAL WARMING
Do you think climate change is adding to the severity of recent extreme weather such as Superstorm Sandy and the summer droughts?

Zogby Voter Poll (2012 Elections)

- Yes: 57%
- No: 28%
- Not Sure: 15%
Do you believe elected officials should take steps now to reduce the impact of climate change on future generations, or wait until there is more evidence?

- **Take Steps Now**: 66%
- **Wait Until There is More Evidence**: 27%
- **Not Sure**: 7%
Are you worried about the growing cost and risks of extreme weather disasters fueled by climate change?

- Worried: 69%
- Not Sure: 4%
- Now Worried: 27%
Then it's agreed. We'll hold hearings on global warming.
CARBON BOMB?

TAR SANDS OIL-IN-PLACE

James Hansen estimate
TAR SANDS THAT WILL BECOME ECONOMIC TO BURN

Alberta ERCB estimate
TAR SANDS THAT WILL BECOME ECONOMIC TO BURN

150 NATIONS

BRAZIL CANADA INDIA JAPAN GERMANY CHINA USA

All fossil fuel CO$_2$ emitted in history
Clean Energy = Jobs + Clean Air^2
Photovoltaic Solar Resource: United States - Spain - Germany

Annual average solar resource data are for a solar collector oriented toward the south at a tilt = local latitude. The data for Hawaii and the 48 contiguous states are derived from a model developed at SUNYAlbany using geostationary weather satellite data for the period 1998-2005. The data for Alaska are derived from a 4-km satellite and surface cloud cover database for the period 1996-1997. The data for Germany and Spain were acquired from the Joint Research Centre of the European Commission and is the yearly sum of global radiation on an optimally-inclined surface for the period 1961-1980. States and countries are shown to scale, except for Alaska.
REPLACE ONE INCANDESCENT LIGHTBULB WITH A COMPACT FLUORESCENT LAMP AND YOU WILL SAVE THIS 500 POUND PILE OF COAL.
Figure 1. The Clean Economy Compared with Other Sectors of the U.S. Economy

- Biosciences: 1.4 million jobs
- Fossil Fuels: 2.4 million jobs
- Information Technology-Producing: 4.8 million jobs
- Clean Economy: 2.7 million jobs

Millions of Jobs
Figure 1. U.S. and China Clean Energy Asset Finance

Source: Bloomberg New Energy Finance
Portage Glacier, Alaska

1914

2004
Get Involved!

• Challenge elected officials and candidates at every level and from both parties to commit not to take campaign contributions from fossil fuel companies.

• Fight dirty energy projects in your backyard.

• Support the Environmental Protection Agency’s pollution standards

• Take action on your campus or in your community to showcase sustainability and lead the way.
Twitter: @jeremysymons

www.campusecology.org/dirtyenergypolitics
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@CampusEcology