Climate Change Basics

• The scope and urgency of the climate crisis
• Who should I believe?
• What can I do about it?
• Visions of a brighter future

EXXON CEO CLAIMS FRACKING IS SAFE
ExxonMobil
FILES LAWSUIT-TO STOP FRACKING NEAR HIS 100 ACRE HORSE RANCH.
We're in a Crisis

A very serious crisis...

And we’re the cause

Global Temperature and Carbon Dioxide

Separating Human and Natural Influences on Climate

Why a 4°C Warmer World Must be Avoided

We Must Act Decisively and Urgently

By 2100:
- Highest temps in 30 million years.
- Sea-level rise of 3-6 feet.
- Drought over 40% of inhabited land.
- Hundreds of millions of refugees.
- Half of all known species extinct.
- Prof. Kevin Anderson: “a 4°C future is incompatible with an organized global community.”

“2°C is dangerously high, and we’re headed for 6°C”

Are Humans Going Extinct?

https://www.youtube.com/watch?v=A7ktYbVwr90
Climate Change in Our Backyard

April 1 snowpack projected to decline 37-44% on average in WA by the 2040s

1-4 feet of sea level rise by 2100

Ocean acidification threatens species like oysters and salmon

At 2.2°F of global warming, forests are weakened by drought and more insects

Who Should I Believe?

• 97% of climate scientists
• All national academies of science
• Pope Francis
• State Department
• Department of Defense
• International Monetary Fund
• World Bank
• International Energy Agency
• United Nations
• Most nations

• Or a dinosaur industry?
Who Should I Believe?

- *It’s all about money and power*
  - Operating profits of 50 top US oil companies (2013): $51B
  - IMF estimated subsidies to US fossil fuel companies: $500B
  - Annual [disinformation](#) campaigns:
  - Koch brothers’ 2016 political contributions planned: $1B

- The only “climate conspiracy” is the conspiracy to confuse the public, buy votes, and delay the inevitable energy transition!
One ton of \( \text{CO}_2 \) pollution would fill a 33-foot sphere

Burning 80 gallons of gas or diesel creates one ton of \( \text{CO}_2 \) pollution

https://www.youtube.com/watch?v=DtqSiplGXOA
Our Emissions Decisions Determine Our Future

Average American: 17 tons/yr

Should be: 1.7 tons/yr

The bad news: You MUST change your behaviors...

http://www.eia.gov/totalenergy/data/annual/pecss_diagram.cfm
The Old vs. New American Dream

- More is better
- Time is money
- Greed is good
- We will dominate nature
- Disrespect for ecosystems
- Disrespect for species, others
- Etc.

- Enough is better
- Time is life
- Compassion counteracts greed
- We are part of nature
- Economy is a subsidiary of Earth
- Decisions for next 7 generations
- Etc.
What Can I Do About It?

1. Direct your frustration at reducing your personal and community’s emissions

   • Calculate your CO₂ emissions, reduce, track

   • Insulate your house

   • Buy less gas

   • Eat less meat

   • Divest your fossil fuel infrastructure

Personal and local actions are necessary but not sufficient!

What Can I Do About It?

II. Drive Climate-Repairing Policies at All Levels of Government

• Increase awareness
  – Teach-ins, LTEs, marches, protests, direct actions

• Lobby for the right policies to reduce greenhouse gas (GHG) emissions
  – No coal or oil terminals; RPS; vehicle feebates; RFS; PUC policies; organic farming; fossil fuel divestments;...

• Campaign for and fund the right candidates

• Lobby to get Big Money out of elections

“We know we have a problem and we know what to do about it, but we have no political will.”
—Tom Steyer

http://cgcan.org
Visions of a Brighter Future

• The fossil fuel industry says renewables will be too costly, too small, and too unreliable—but exactly the opposite is true
• Costs of renewables and storage dropping rapidly
• Commuter EVs already the lowest cost of ownership!
• Solar financing now with zero-down!

http://thesolutionsproject.org/  
https://www.youtube.com/user/tonyseba
Summary

• The climate crisis is urgent and existential
• Believe the climate scientists and progressives
• Reduce your emissions and lobby for better policies
• The fossil fuel industry is delaying your brighter future by any means they can

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