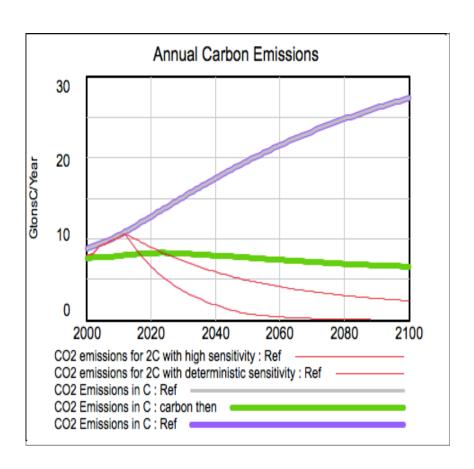
Grim Realists: Yesterday's Reality

Our recommendations

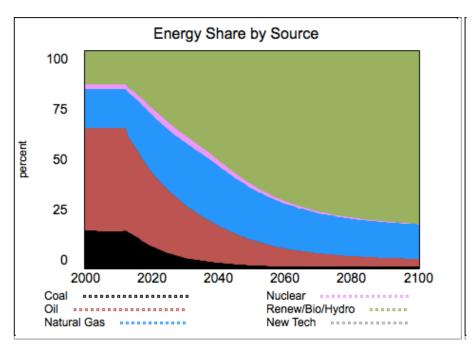
- Start acting: 20 years ago!
- Extreme Performance
 Standard: 50%
 - No subsidy/tax on carbon producers: near ZERO effect
 - No separate emission tax
- Massive subsidies (200%)
 for Nuke/Bio/Green energy
- Obscene reduction (40%) of Other Gases thru policy req
- Accelerated retirement: 5%
- Pray.



2100 Temperature Increase = **2.8 degrees**

RG-III Innovative and Sustainable

- Energy Mix 80% non-carbon by 2100
- 90% reduction in other greenhouse gas emissions by 2100
- Carbon Tax: \$70/t starting 2012
- Continued GPP growth
 - 3.5% short term
 - 1% long term
- Synergistic health and quality of life gains



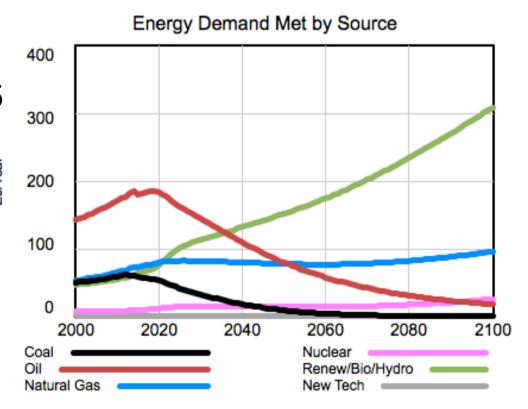
Mean global temperature increase 2000-2100: 2.1°C

Op2.2mistic: Efficiency, performance, subsidies

Our recommendations

- •Energy efficiency: 0.05
- •Renewable breakthrough: 0.5 starting in 2020
- •Performance Standard: 45 starting in 2018
- •Subsidy reductions: -2 starting in 2014
- ·Land use:

REDD – 0.9 Other gases – 0.9

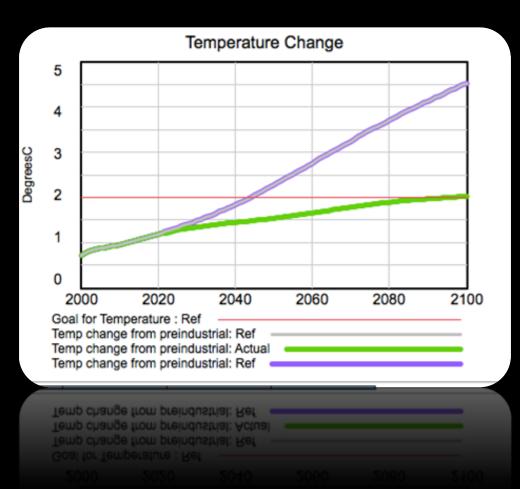


2100 Temperature increase = 2.2 degrees C

Int'l Energy Court: Reward the Good and Punish the Bad

Our recommendations:

- 1. "Other gases" and "REDD" to 1.
- 2. "Improve... rate of capital" to 0.07.
- 3. "Carbon tax" to \$50 (over 20 years).
- 4. "Performance Standard" to 60.
- 5. "Subsidy or Price" to -5 for oil, coal and +5 for renewables.
- 6. "Accelerated retirement" for coal to 0.06.



ReVIVE: Renewable energy, Vehicles, Incentives, Value Carbon, Efficiency

Our recommendations

Renewable Energy

- Breakthrough 0.6, 2020

Vehicles

Price on oil -5, starting 2012

Incentives

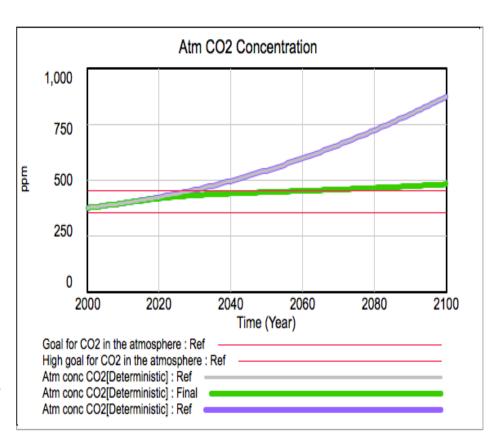
Subsidize RE by 5, starting2012

Value Carbon

Emissions price \$50/ton CO₂
 beginning 2012

Efficiency

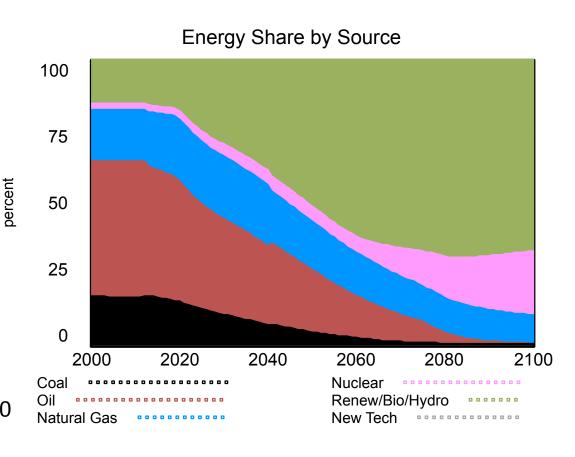
Efficiency Improvement 0.06



Team Panda Express: Taxes, Timing, and Gas

Our recommendations:

- Carbon Tax of \$100 integrated over 40 years
- Performance standard of 20 beginning in 2018
- Annual Improvement Rate of New Capital: 5%
- Other Gases: 0.6
- Price on Gas: -5 beginning in 2040 but w/ 0.2 Breakout Cost Reduction(BCR) in 2012 (Fracking)
- Nuclear Subsidy: \$3 per GJ for 30 yrs starting in 2012
- Nuclear BCR: 0.4 in 2050
- Renewable Subsidy: \$5 per GJ until 2060 and BCR of 0.3 in 2040



2100 Temperature Increase = 2.4° C