

Resilient Communities

An Exercise in Strategic Thinking

Richard Heinberg
Post Carbon Institute

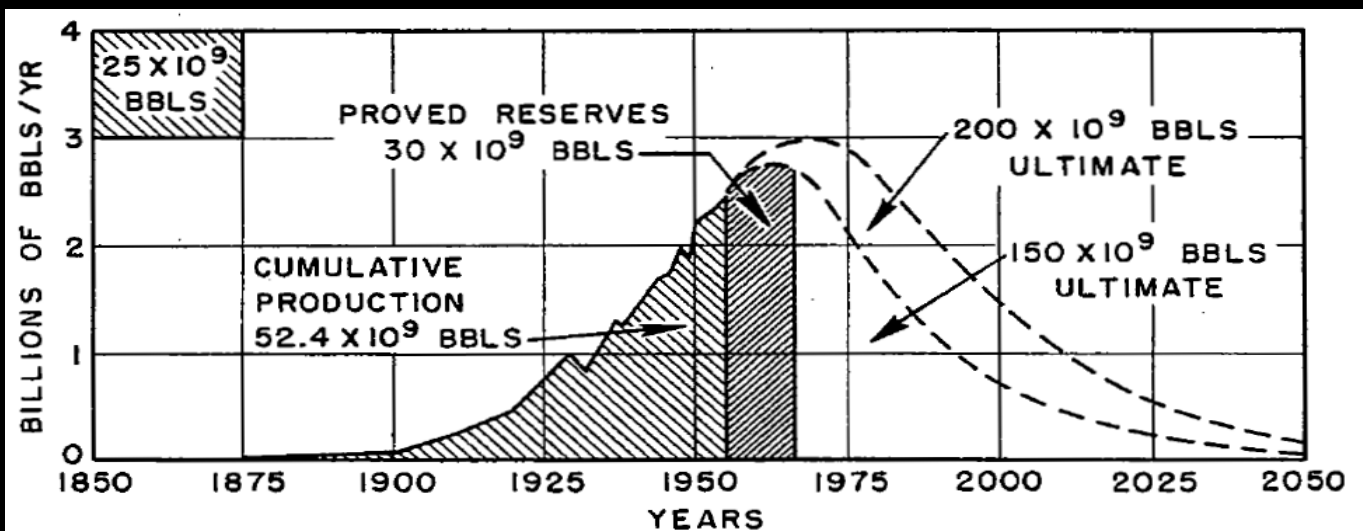


My relevant experience

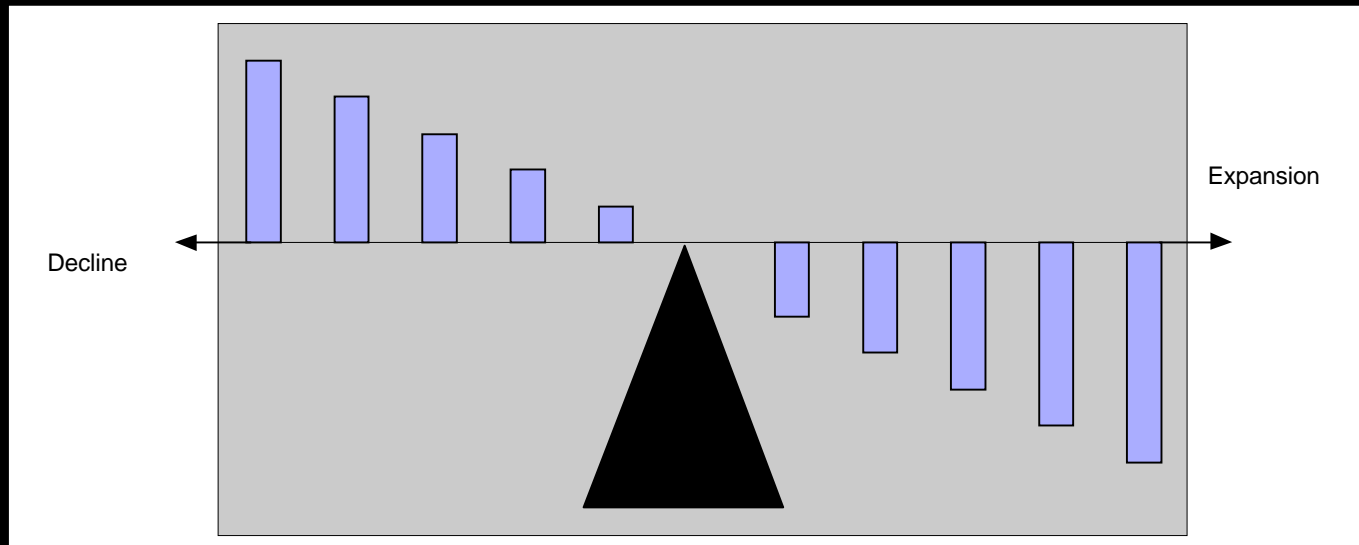
- Five years traveling extensively, speaking to over 300 groups (Relocalization Network, Transition Towns, etc.)
- Meetings with policy makers: MPs, MEPs, national leaders in Australia, NZ, US; mayors, city councils
- Member, Oil Independent Oakland Task Force

Eight assumptions

1. Global oil production has peaked (July 2008) and will never achieve a higher level. Gas and coal peaks are not far behind.



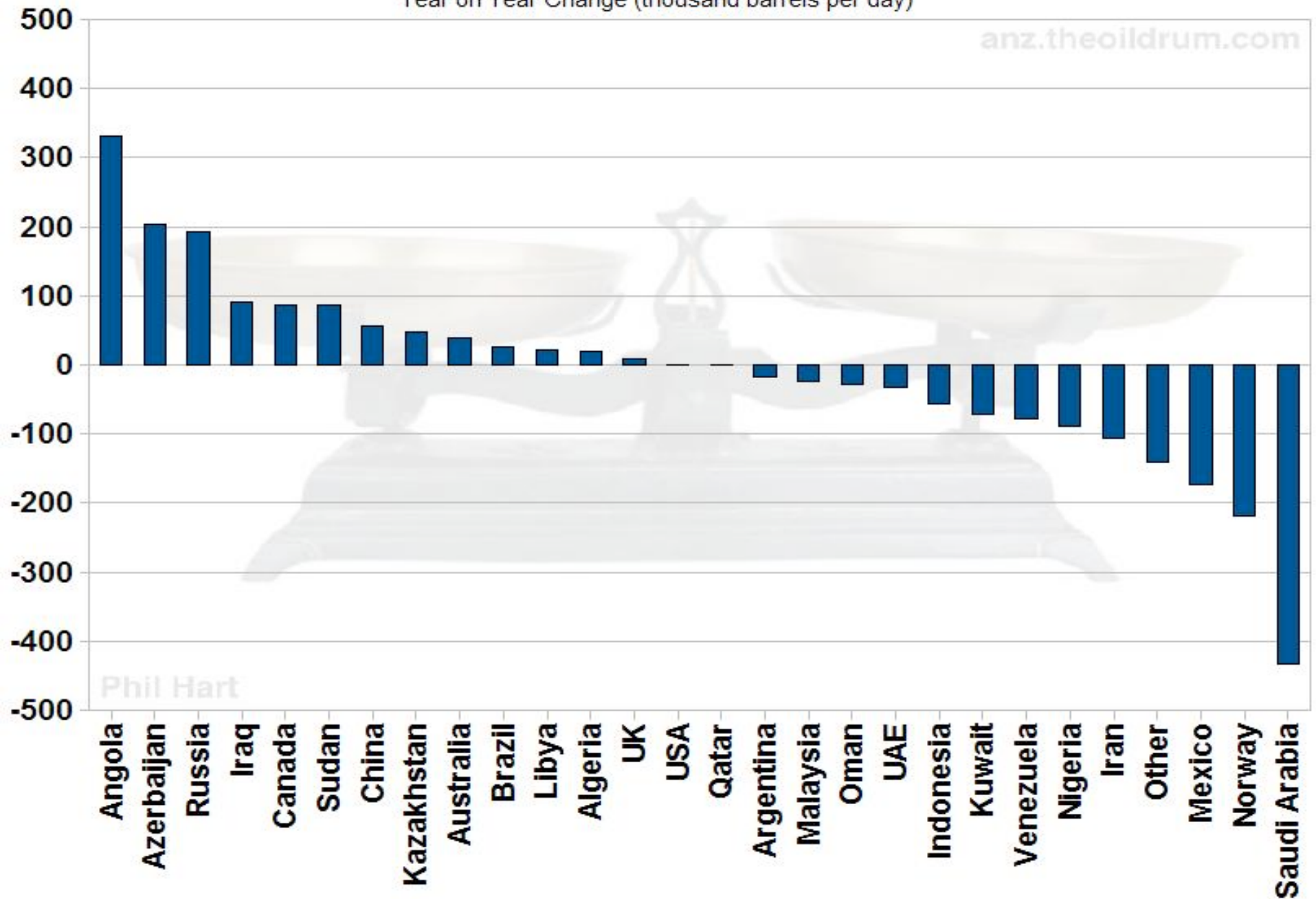
Global production falls when loss of output from countries in decline exceeds gains in output from those expanding



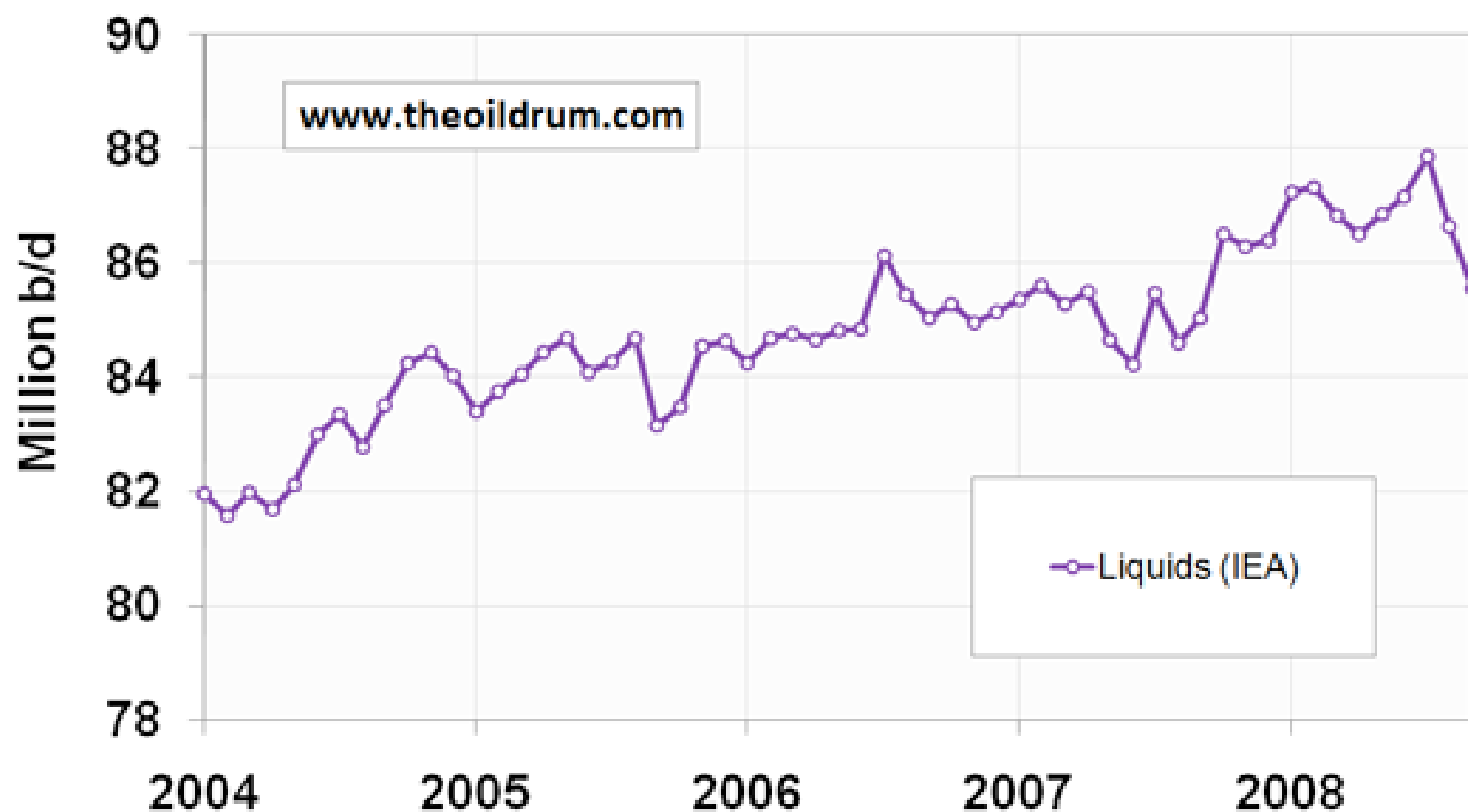
2007 Oil Production Balance

Year on Year Change (thousand barrels per day)

anz.theoildrum.com



World Liquids Fuel Production including biofuels



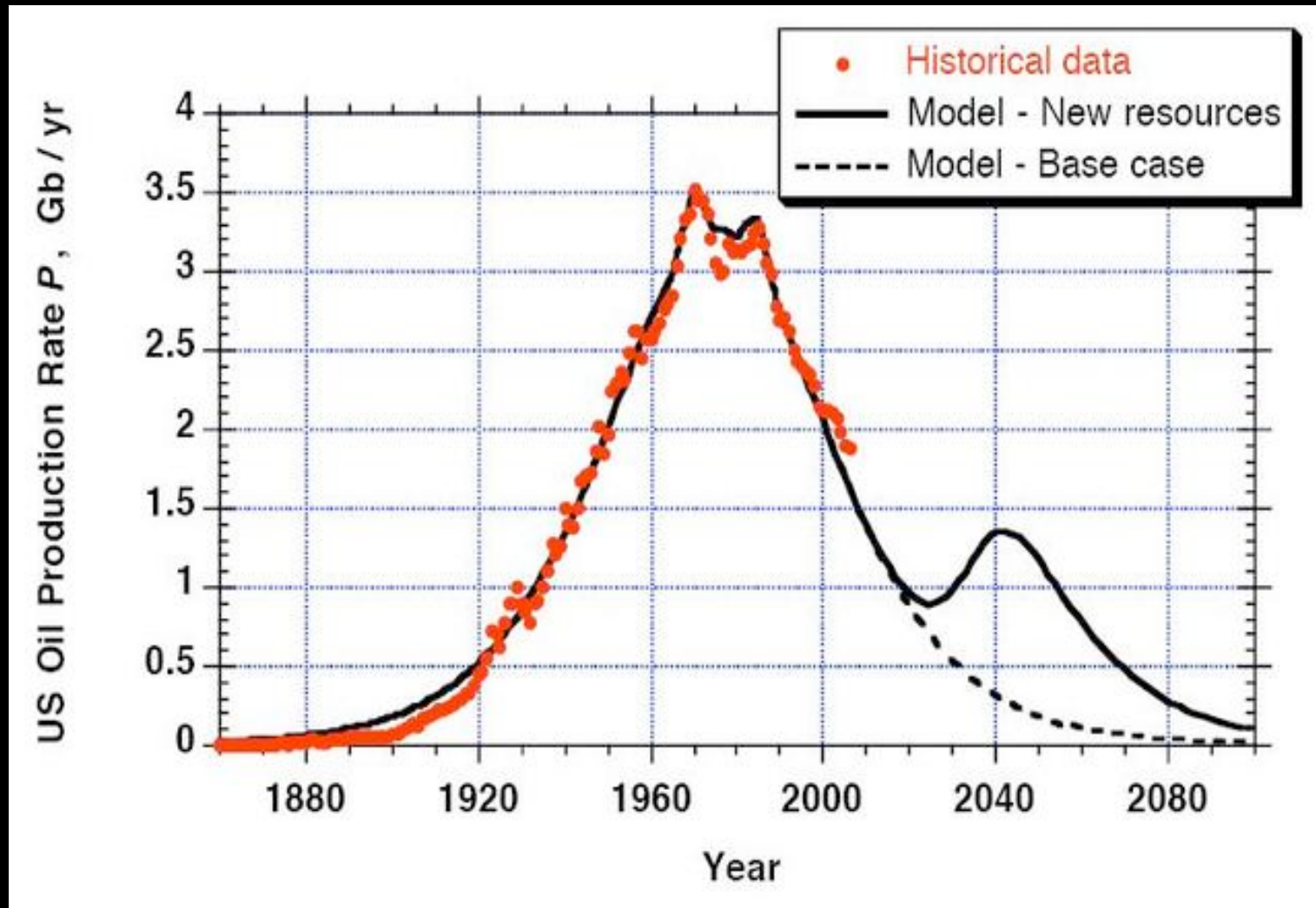
Why have oil prices collapsed?

- Volatility a symptom of tight supply
- Demand destruction
- Supply levels have not changed

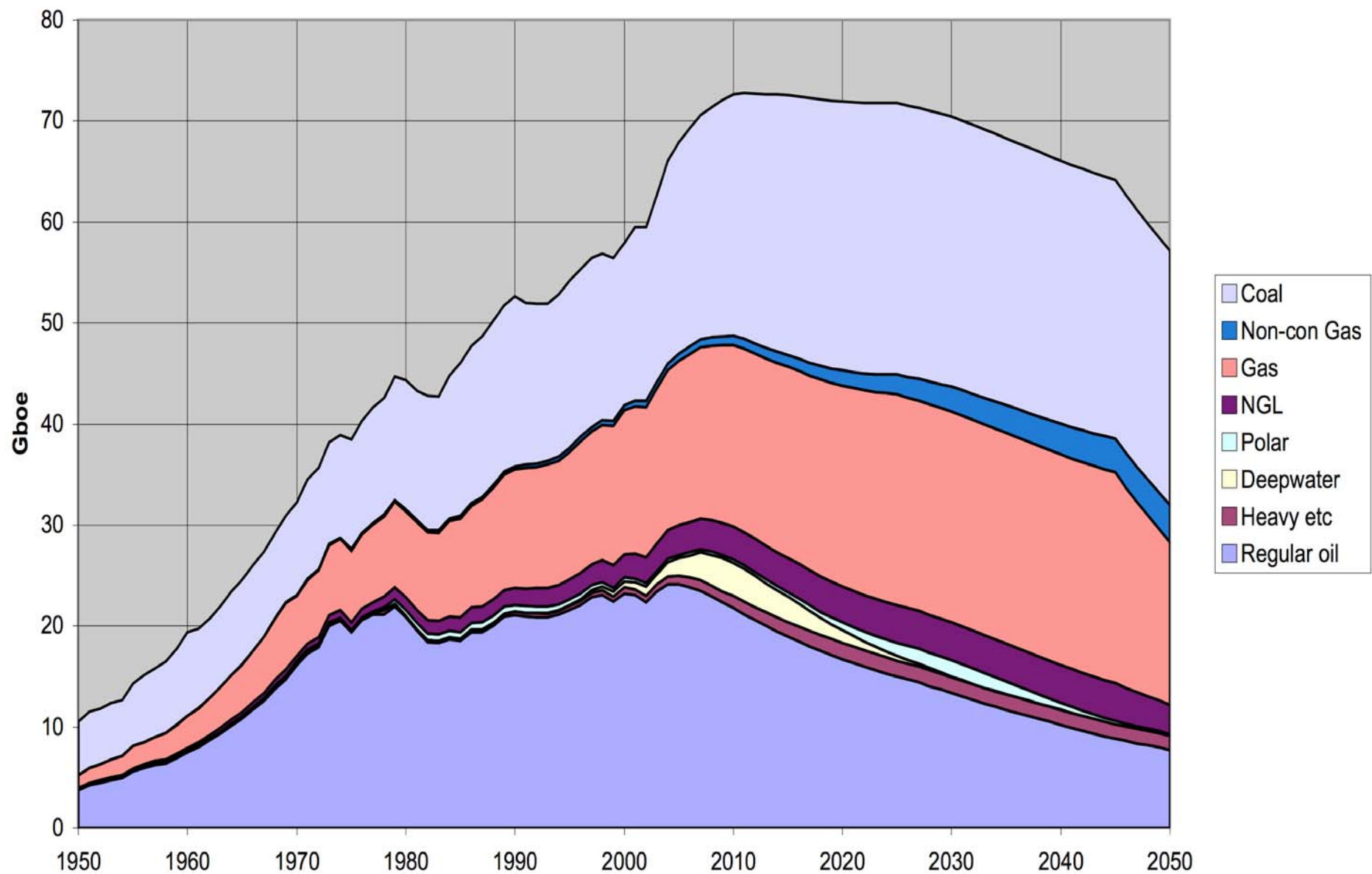
July 2008: The all-time peak

- IEA: Decline rate is 9%
- That means a new Saudi Arabia every 18 months is needed
- Lack of investment (given low oil prices) means new oil projects are being cancelled

What if we drill everywhere?



OIL, GAS & COAL PRODUCTION PROFILES



Eight assumptions

1. Global oil production has peaked (July 2008) and will never achieve a higher level.
2. Consequences will be severe.





Peak Oil means the end of affordable air travel



***Peak Oil means
Peak Food***



Eight assumptions

1. Global oil production is near its all-time maximum and will begin to decline within the next 18-24 months.
2. Consequences will be severe.
3. There will be no techno-fix.



Can't we make liquid fuel from coal?

Coal supplies
overestimated;
higher coal
prices on the
way

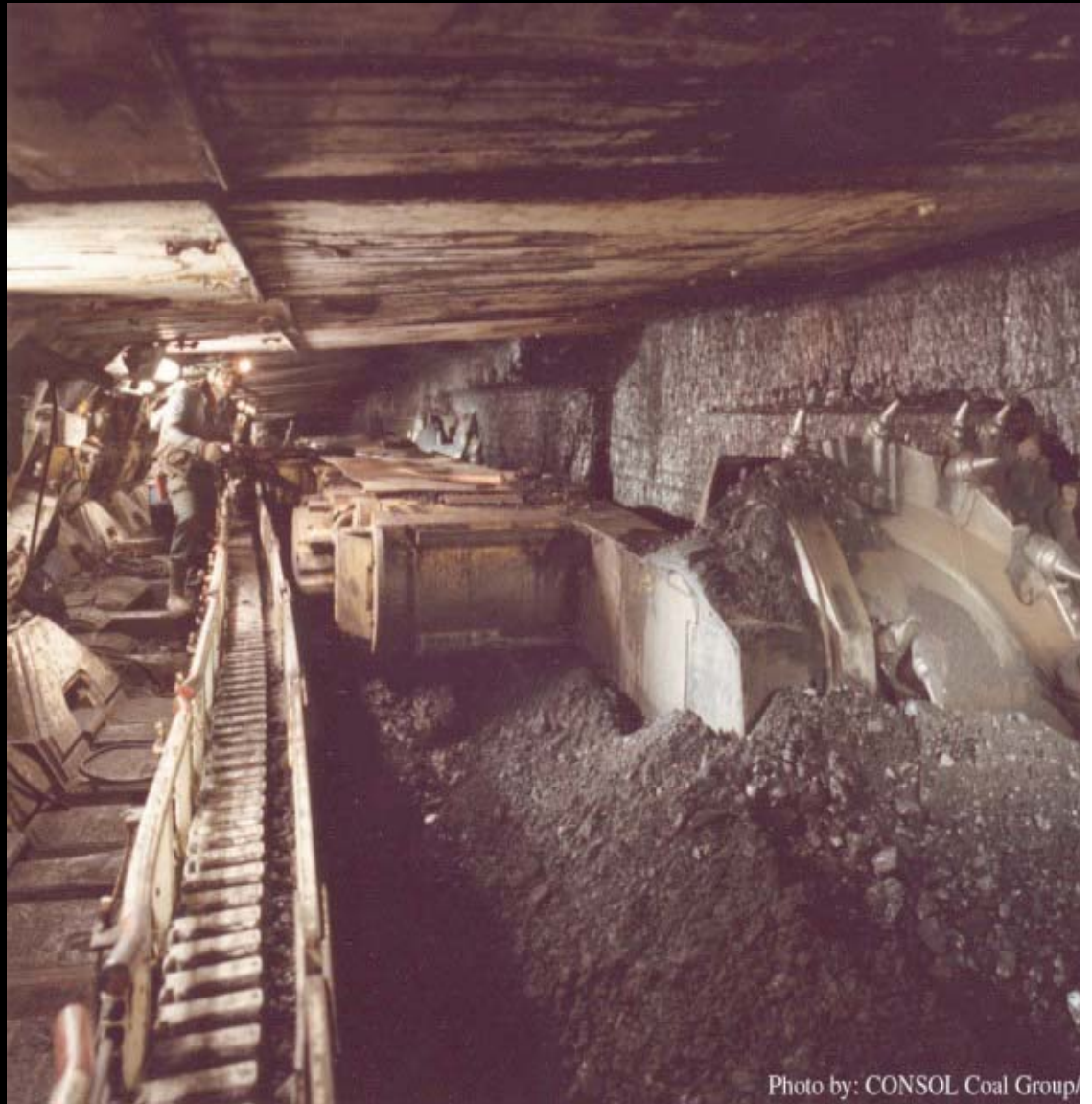
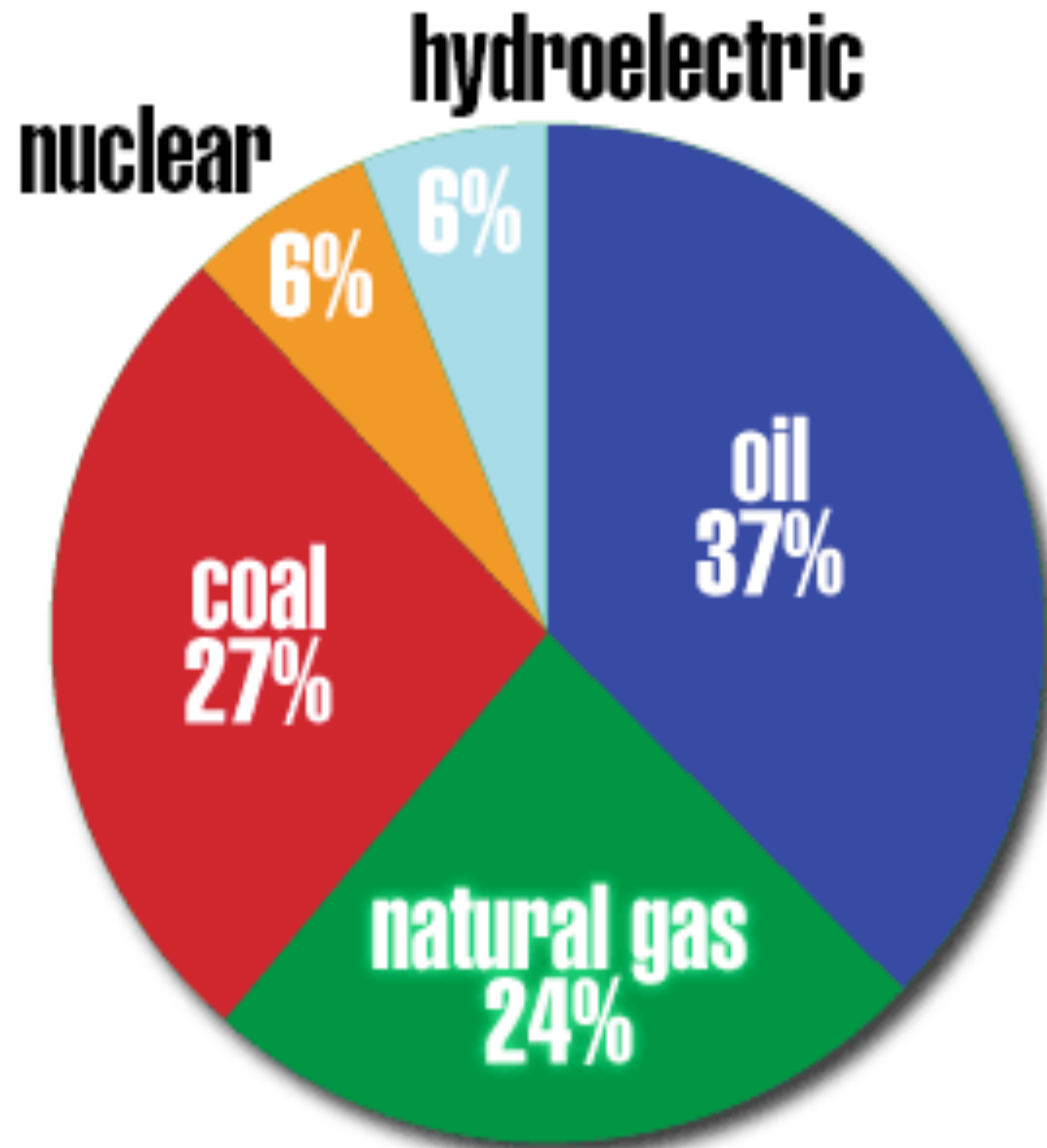


Photo by: CONSOL Coal Group



**World
Energy**

Eight assumptions

1. Global oil production is near its all-time maximum and will begin to decline within the next 18-24 months.
2. Consequences will be severe.
3. There will be no techno-fix.
4. Therefore society will have to power down (reduce and re-localize, implying changes in behavior and expectations).

Eight assumptions...

5. Meanwhile, Climate Change poses a thorny policy challenge: everyone wants to be seen to be doing the right thing, but enormous economic interests stand in the way of enforceable, effective global agreements.

Eight assumptions...

6. Climate Change makes global Powerdown necessary; Peak Oil means it is not only possible but unavoidable.

Eight assumptions...

6. Climate Change makes global Powerdown necessary; Peak Oil means it is not only possible but unavoidable.
7. The powering-down process will be complex, lengthy, and perilous.

Eight assumptions...

6. Climate Change makes global Powerdown necessary; Peak Oil means it is not only possible but unavoidable.
7. The powering-down process will be complex, lengthy, and perilous.
8. These are not the only looming crises --nor even necessarily the most imminent.

Just one other small matter of concern...

- Total value of US\$-based mortgage bonds: \$10.4 trillion
- 30 percent now expected to be lost in defaults and property devaluation (\$3.2 trillion in losses)
- Trillions more likely to evaporate from related derivatives markets (which total \$540 trillion)
- US GDP: \$15 trillion; Total world GDP: \$48 trillion

***Peak Oil may
mean the end
of economic
growth as we
have known it***



So: How can we use this information and understanding about looming crises ***strategically*** to ease the transition and make the end result more satisfactory for people and planet?

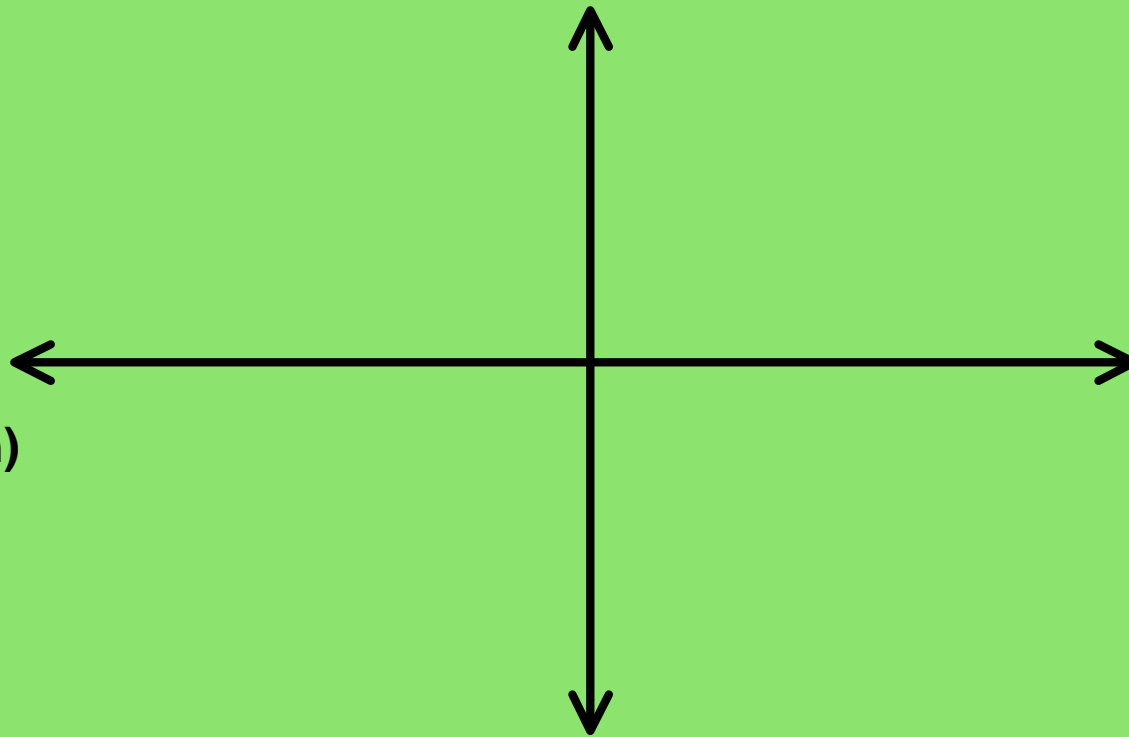
**Top-Down
(government policy)**

**Proactive
(planning
for linear
adaptation)**

**Responsive
(planning
for crisis
management)**

**Bottom-Up
(grass-roots
organizing)**

**4 Powerdown
Strategies**



Bottom-up

- Transition towns, relocalization groups
- Rationale: Power-holders will not lead the transition because of vested interests; it's up to us!
- Limit: Many needed changes require policy changes at government level

Top-down

- Portland etc., Post Carbon Cities
- Rationale: Only government has the power to re-allocate resources, build infrastructure, change laws (zoning, taxes, etc.), at the scale needed
- Limit: elected officials usually tied to vested interests, need public support

Proactive

- Energy Descent Action Plans
- Portland, Oakland, and other Post Carbon Cities
- Rationale: We must envision where we want to be and make a plan to get there
- Limit: Crisis may intervene to undermine efforts

Responsive

- Resilient Communities Action Plan
- Rationale: Proactive efforts may be too little too late. Real change becomes possible when necessity requires it
- Limit: Long-range planning is still needed (we need a vision of the ultimate goal)

Crisis = opportunity: historic examples

- Cuba
- The Great Depression
- WWII: recycling, rationing

PLANT A VICTORY GARDEN



**OUR FOOD
IS FIGHTING**

A GARDEN WILL MAKE YOUR RATIONS GO FURTHER

***We did it
before...***



Counter-examples...

- Germany in 1930s
- North Korea
- Naomi Klein: *The Shock Doctrine*

Resilience characteristics

- Redundancy
- Dispersed system control points
- Dispersed inventories
- Diversity
- Balancing feedback loops

The essence of the idea:

- Create a coherent disaster response plan for Peak Oil and economic or environmental collapse that draws on the skills and knowledge of community members
- Make the plan persistently visible to policy makers and the community at large

- Be sure that it solves the immediate problems facing policy makers (e.g., joblessness, food insecurity, inability of people to heat homes, transport fuel shortage, grid failure, etc.)

What alternatives?

Low-energy, low-impact ways of meeting human needs--such as:

- Natural healing (e.g., herbalism)
- Renewable energy
- Ecological agriculture, gardening, local food systems
- Low-energy home retrofitting & radical efficiency
- Car sharing, bicycle advocacy
- (Plus:) psychological/spiritual help for trauma

Ten steps to a Resilient Community

1. Form a working group

Ten steps to a Resilient Community

1. Form a working group
2. Identify people and organizations with something important to offer post-peak

Ten steps to a Resilient Community

1. Form a working group
2. Identify people and organizations with something important to offer post-peak
3. Ask their help and participation

Ten steps to a Resilient Community

1. Form a working group
2. Identify people and organizations with something important to offer post-peak
3. Ask their help and participation
4. Work with them to develop a contingency plan in their field: how to scale-up quickly?

Ten steps to a Resilient Community

1. Form a working group
2. Identify people and organizations with something important to offer post-peak
3. Ask their help and participation
4. Work with them to develop a contingency plan in their field: how to scale-up quickly?
5. Seek to coordinate with disaster management agencies (where possible)

6. Contact official agencies responsible for water, food, power, fuel, health care, etc.

6. Contact official agencies responsible for water, food, power, fuel, health care, etc.
7. Assemble a coherent Resilience Plan

6. Contact official agencies responsible for water, food, power, fuel, health care, etc.
7. Assemble a coherent Resilience Plan
8. Present the plan, obtain funding

6. Contact official agencies responsible for water, food, power, fuel, health care, etc.
7. Assemble a coherent Resilience Plan
8. Present the plan, obtain funding
9. Implement the plan

6. Contact official agencies responsible for water, food, power, fuel, health care, etc.
7. Assemble a coherent Resilience Plan
8. Present the plan, obtain funding
9. Implement the plan
10. Work with other communities to create a regional plan: repeat steps 1-10 at higher levels

- What's in it for the alternatives movements?
- What's in it for policy makers and officials?



Effective Messaging

- Appeal to values that transcend political differences: *conserving, self-reliance, community, local control*
- Be as inclusive as possible, non-adversarial
- Enlist local media

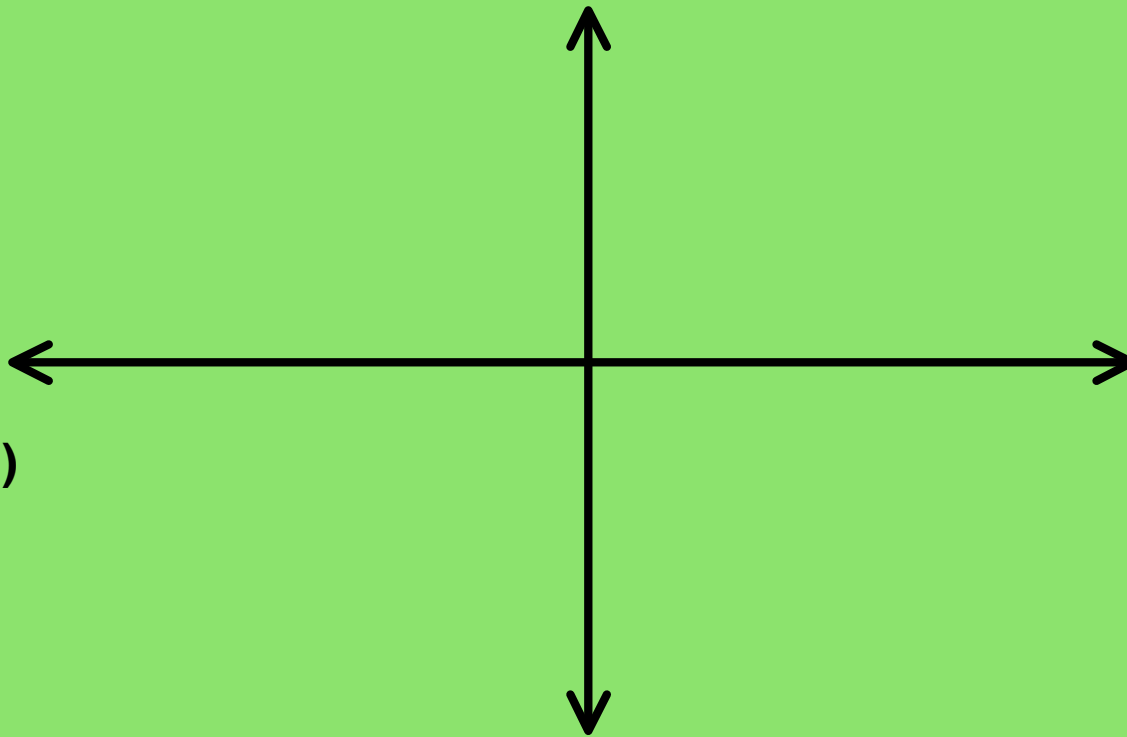
**Top-Down
(government policy)**

**Proactive
(planning
for linear
adaptation)**

**Responsive
(planning
for crisis
management)**

**Bottom-Up
(grass-roots
organizing)**

**4 Powerdown
Strategies**



At the national level (top-down):

- A Green New Deal
- Opportunity to create millions of jobs
- Opportunity to jump-start the long-delayed energy transition
- A way to circumvent political polarization and revitalize culture while addressing immediate economic crisis

Elements of the Green New Deal:

- Transport infrastructure: rail and public transit
- Food system: re-localize, remove fossil fuels from production and distribution
- Electrical power system: rebuild the grid for renewables
- Retrofit building stock for energy efficiency

- Re-skilling: training for basic productive tasks
- Shift from growth economy to steady-state
- Redefine progress
- Ban advertising?

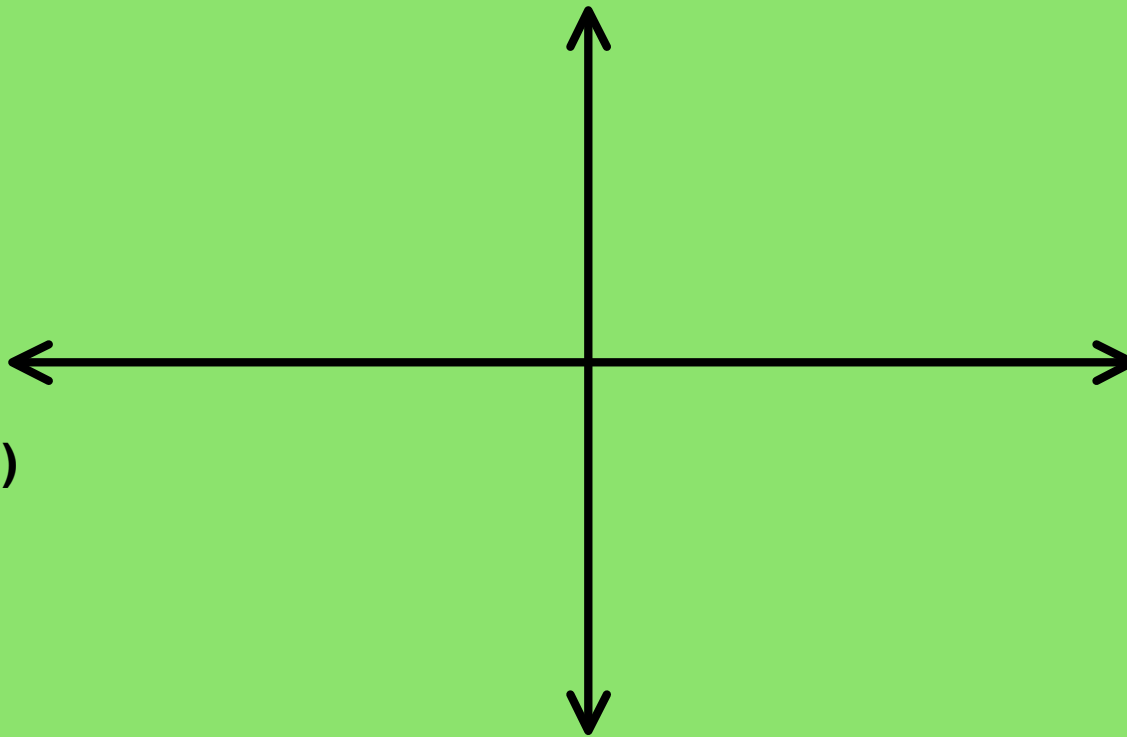
**Top-Down
(government policy)**

**Proactive
(planning
for linear
adaptation)**

**Responsive
(planning
for crisis
management)**

**Bottom-Up
(grass-roots
organizing)**

**4 Powerdown
Strategies**



What's your strategy?

- Disaster management is not for everyone! Choose *your* path...
- Do you have the capacity to undertake a particular strategy?
- Does your community have the capacity?

But remember...

**A crisis is a terrible
thing to waste**

PostCarbon.org

Who could coordinate this?

- Elements of the Resilient Communities strategy already exist in Transition Towns, Post Carbon Cities, and Re-localization projects
- All that is needed is a shift of emphasis on the part of a sub-group in a given organization