

Resilient Vancouver Task Force

Proactively planning for energy scarcity, accelerating climate change and economic uncertainty

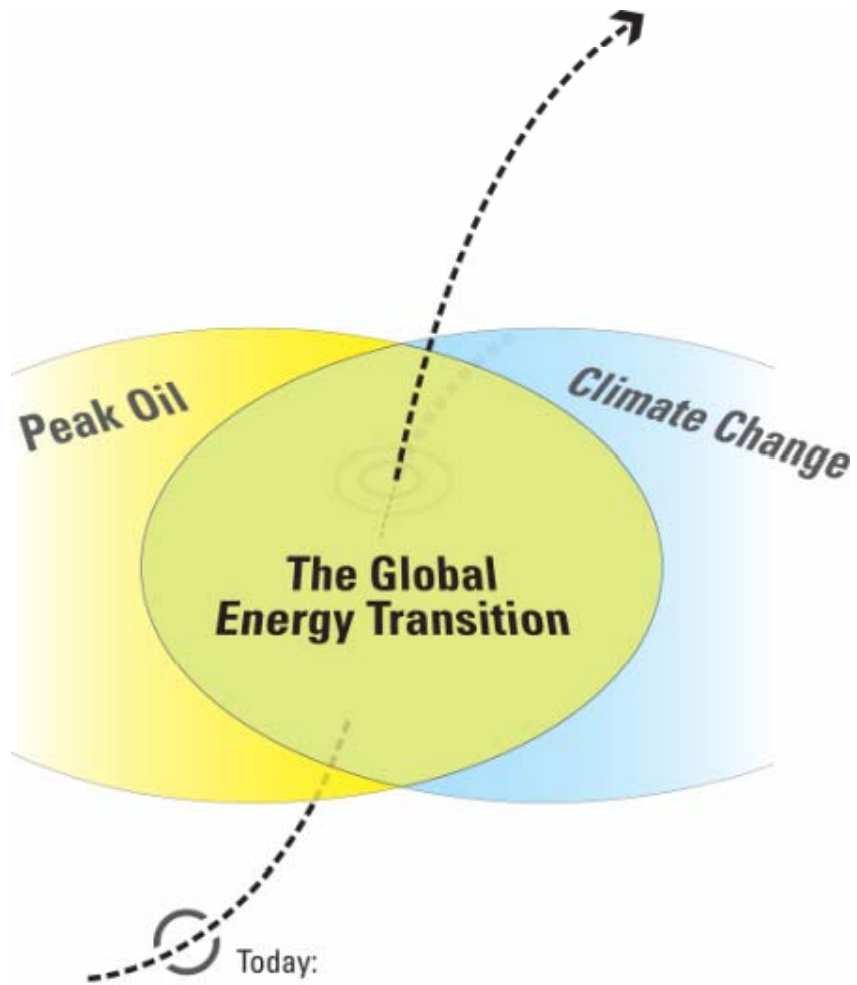
DRAFT 2 March 13, 2009

Bryn Davidson

Executive Director
Dynamic Cities Project
www.dynamiccities.org

DRAFT

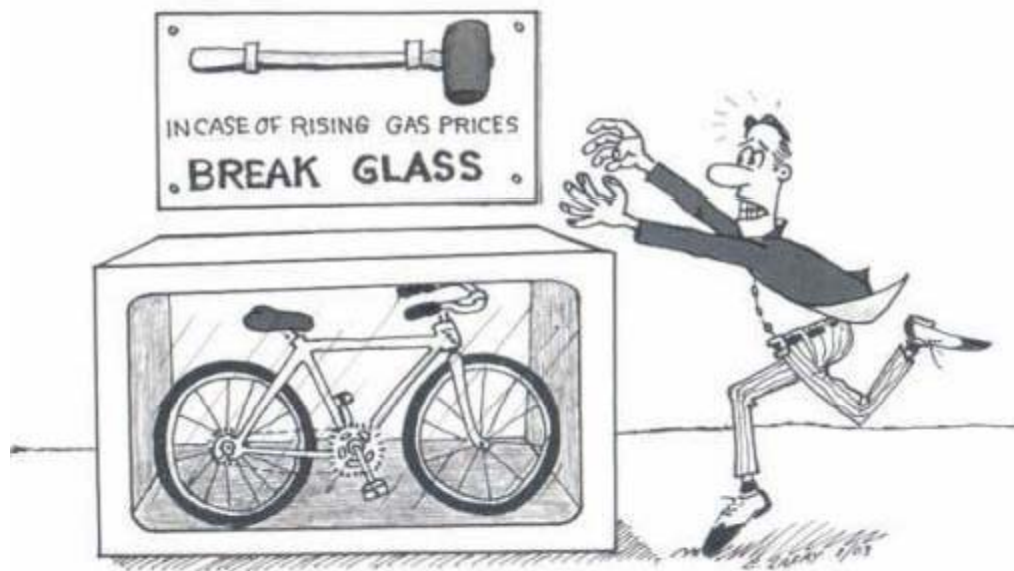
This is a preliminary draft aiming to define rough terms of reference, and does not necessarily represent a consensus opinion of the various ad-hoc members of the Resilient Vancouver working group



Powerful global forces
are redefining the future
we're planning for...



..and getting to a sustainable future is unlikely to be a smooth transition...



..and getting to a sustainable future is unlikely to be a smooth transition...



Tornado-struck Kansas town rebuilds green

A year after a tornado struck Greensburg, Alan Hewitt and other residents are rebuilding the town to environmentally-sustainable building standards.



..but turbulent events
can be a catalyst for
positive change...



Smart investments in planning, infrastructure and community development can create a dynamic, resilient city.



The Dynamic City

=

Sustainable

+

Resilient

Sustainable

+

Resilient

Best practice policy
and planning within
a stable economy

Preserving social and
environmental justice in the
face of transient energy,
economic, and climate shocks.



Worst Case Scenario



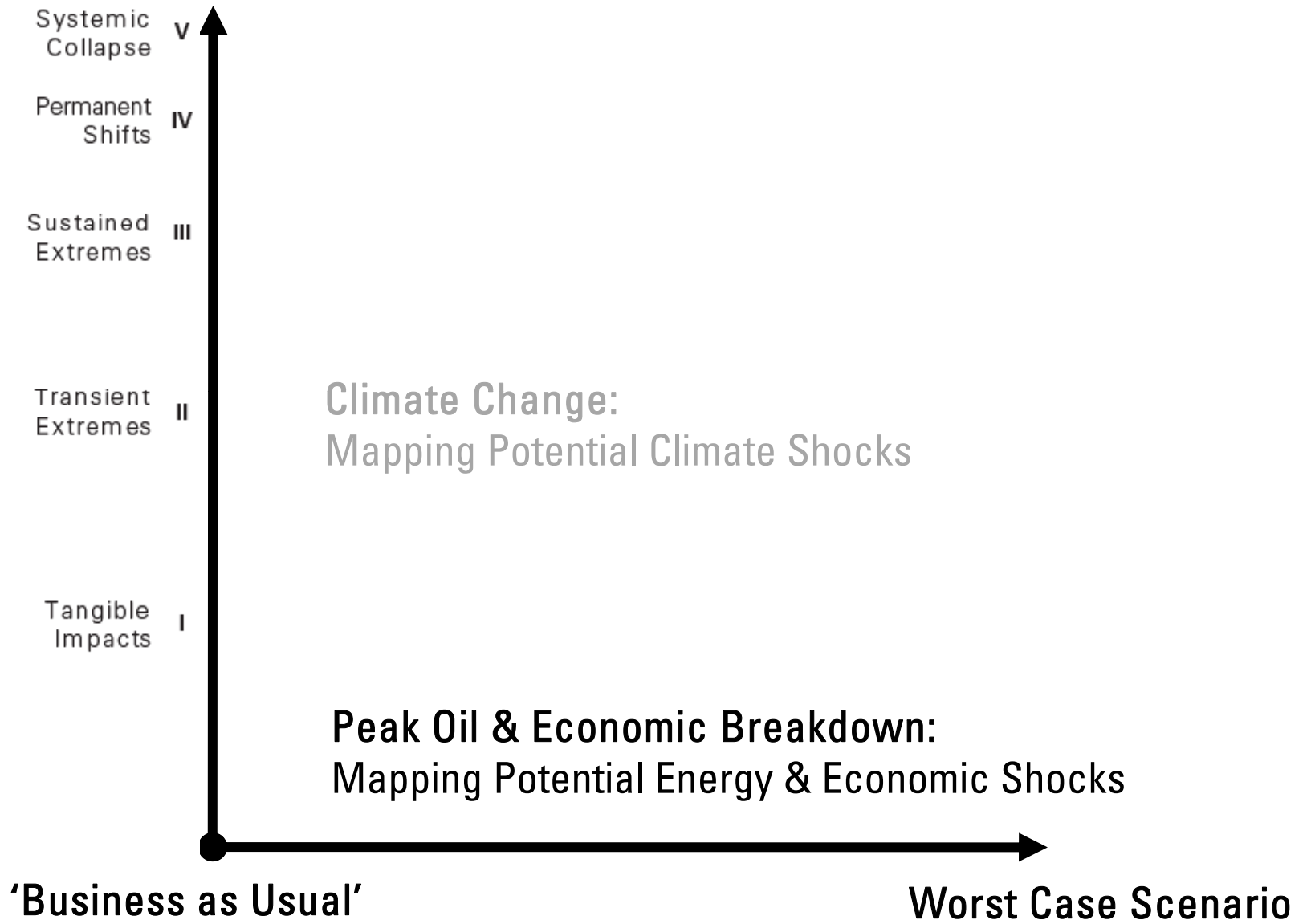
'Business as Usual'

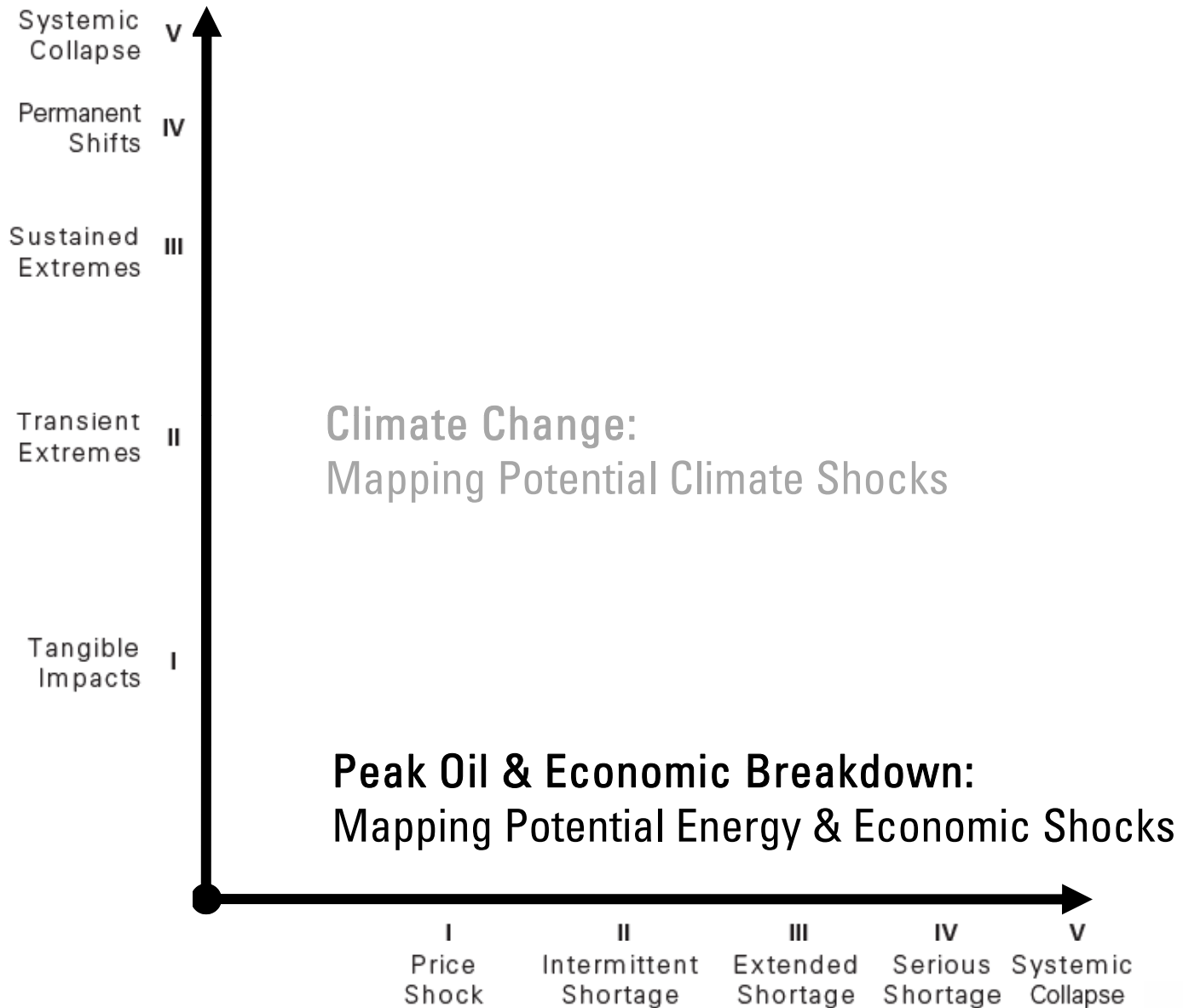
**Climate Change:
Mapping Potential Climate Shocks**

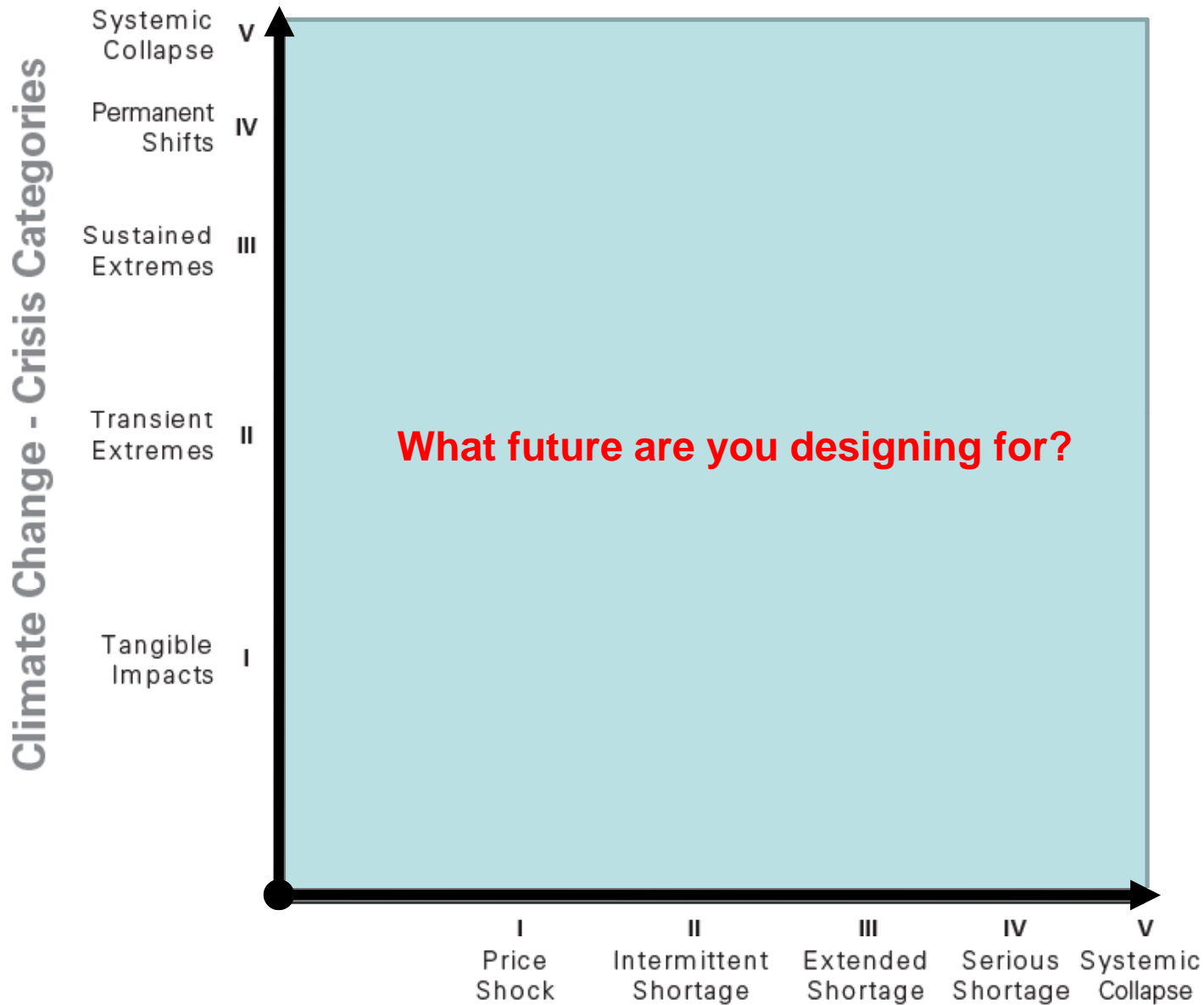




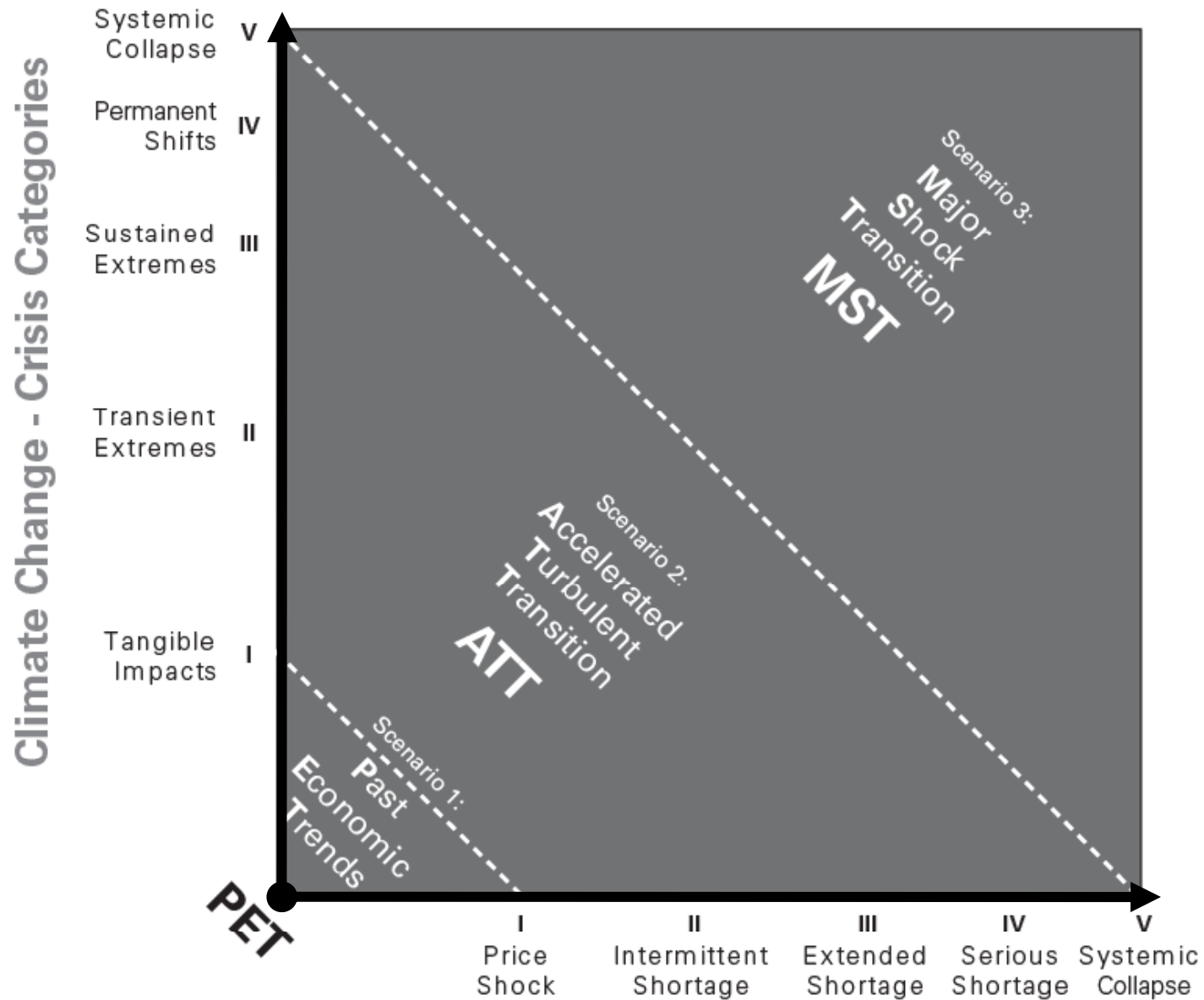
Climate Change: Mapping Potential Climate Shocks





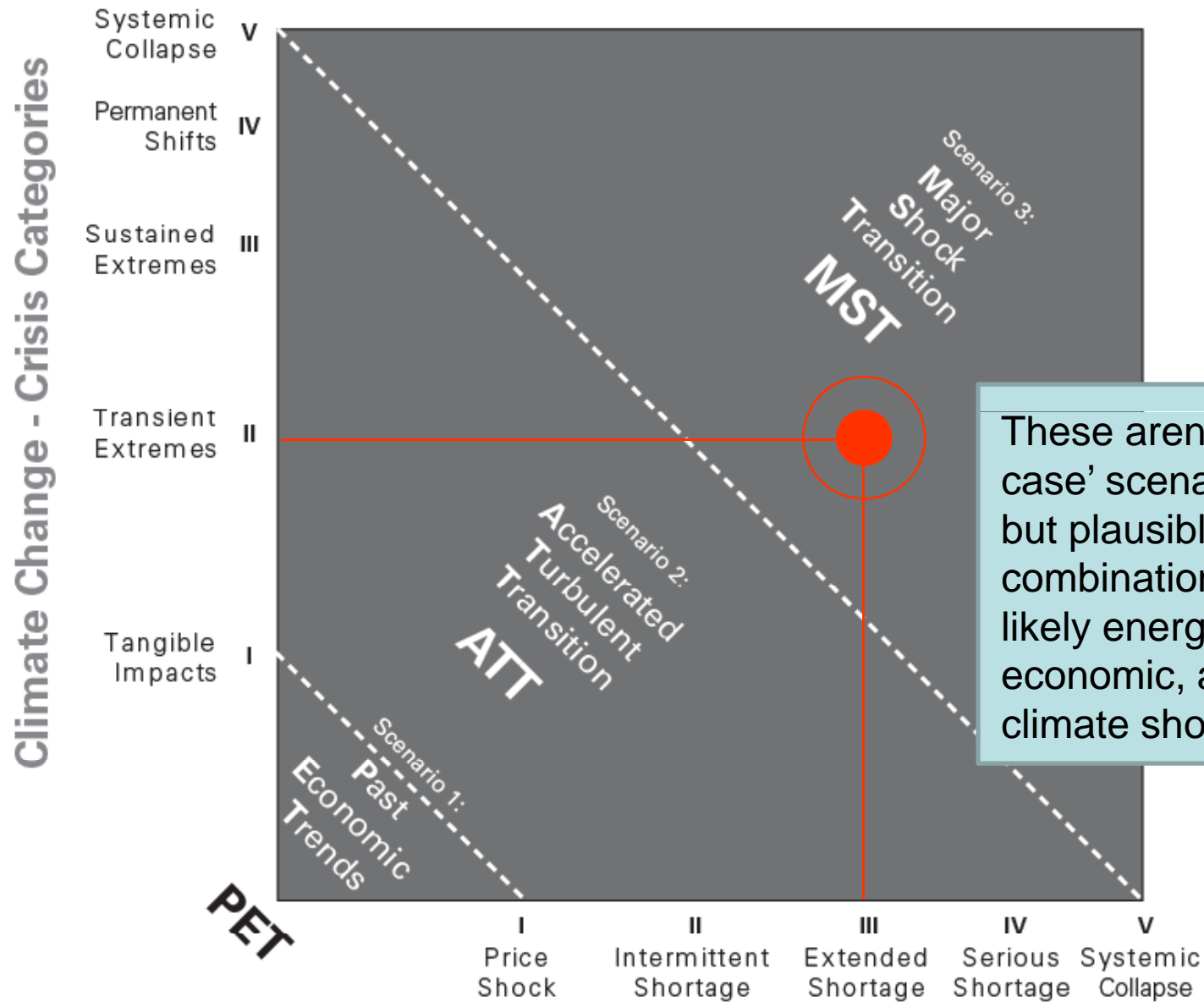


3 Scenarios for the energy transition: 2010-2050



Peak Oil - Energy Crisis Categories

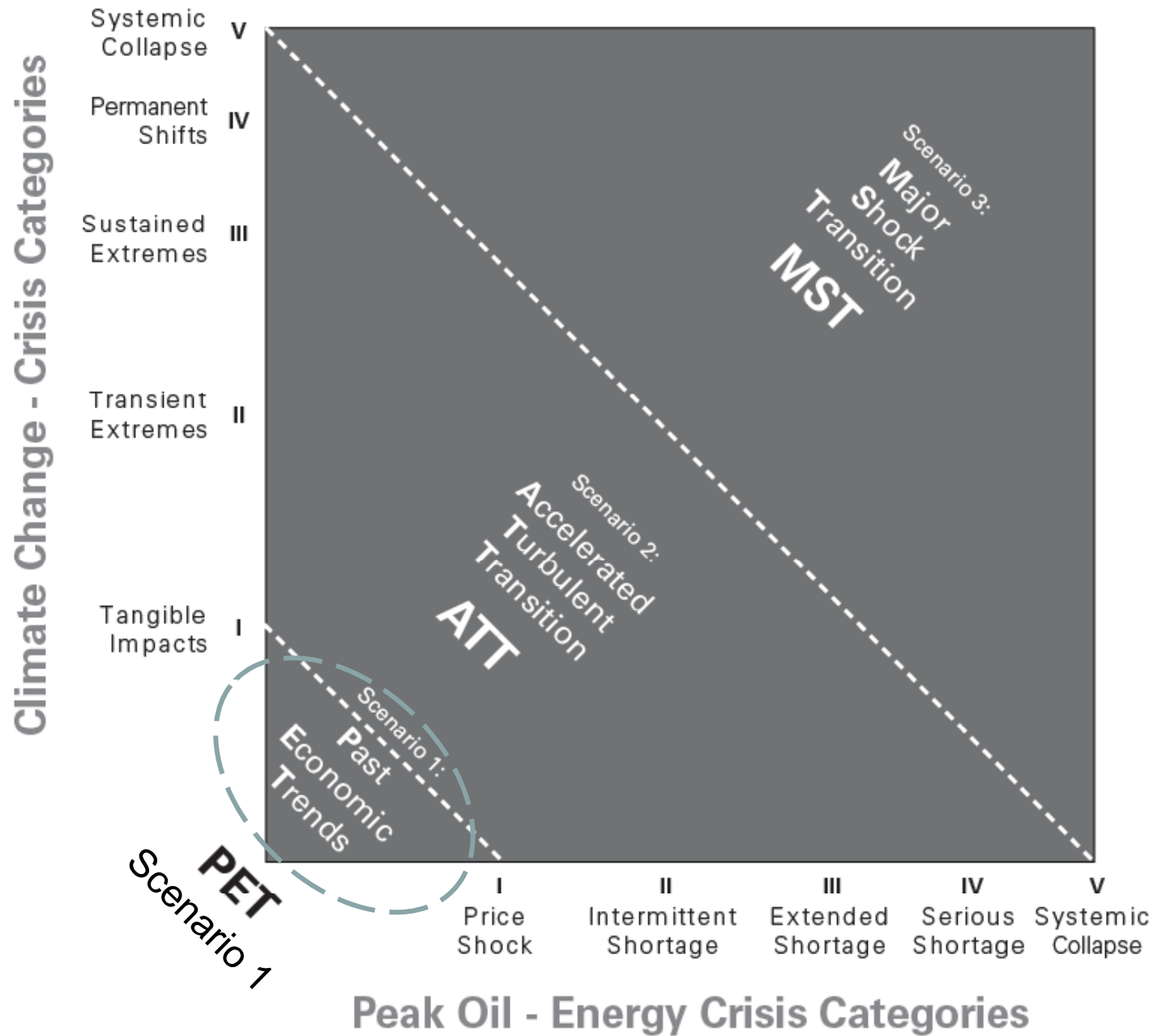
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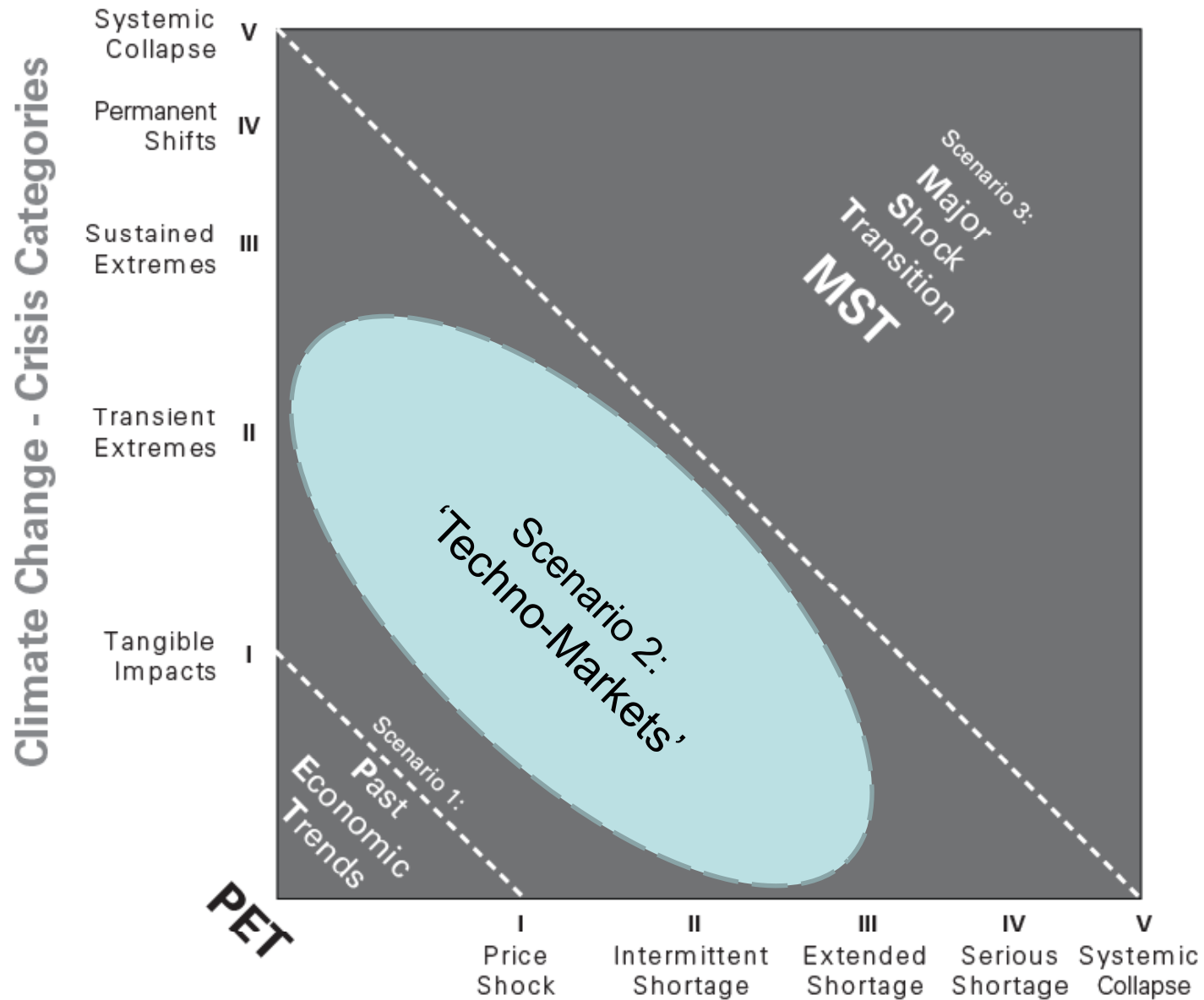
These aren't 'worst case' scenarios, but plausible combinations of likely energy, economic, and climate shocks

Peak Oil - Energy Crisis Categories

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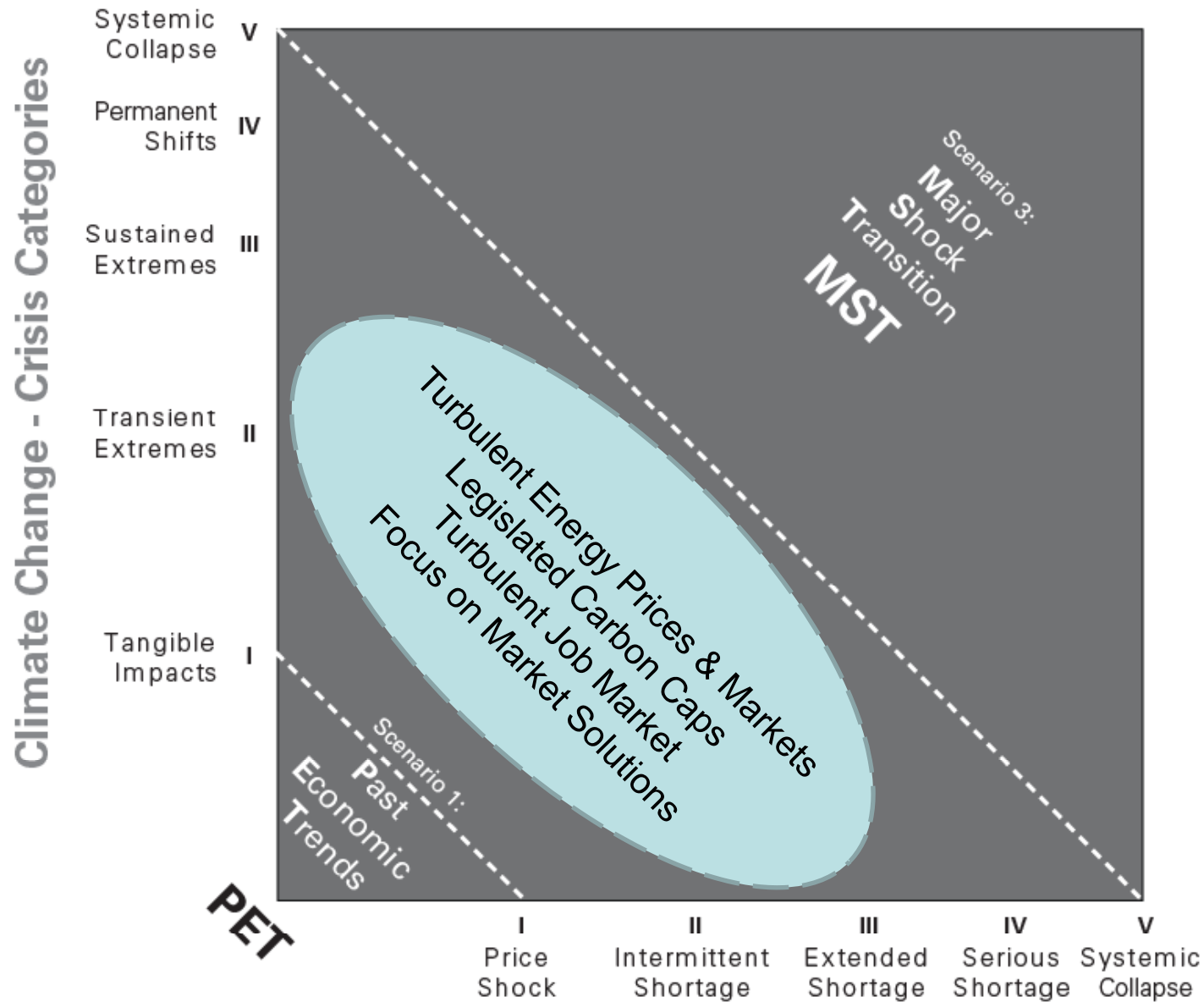


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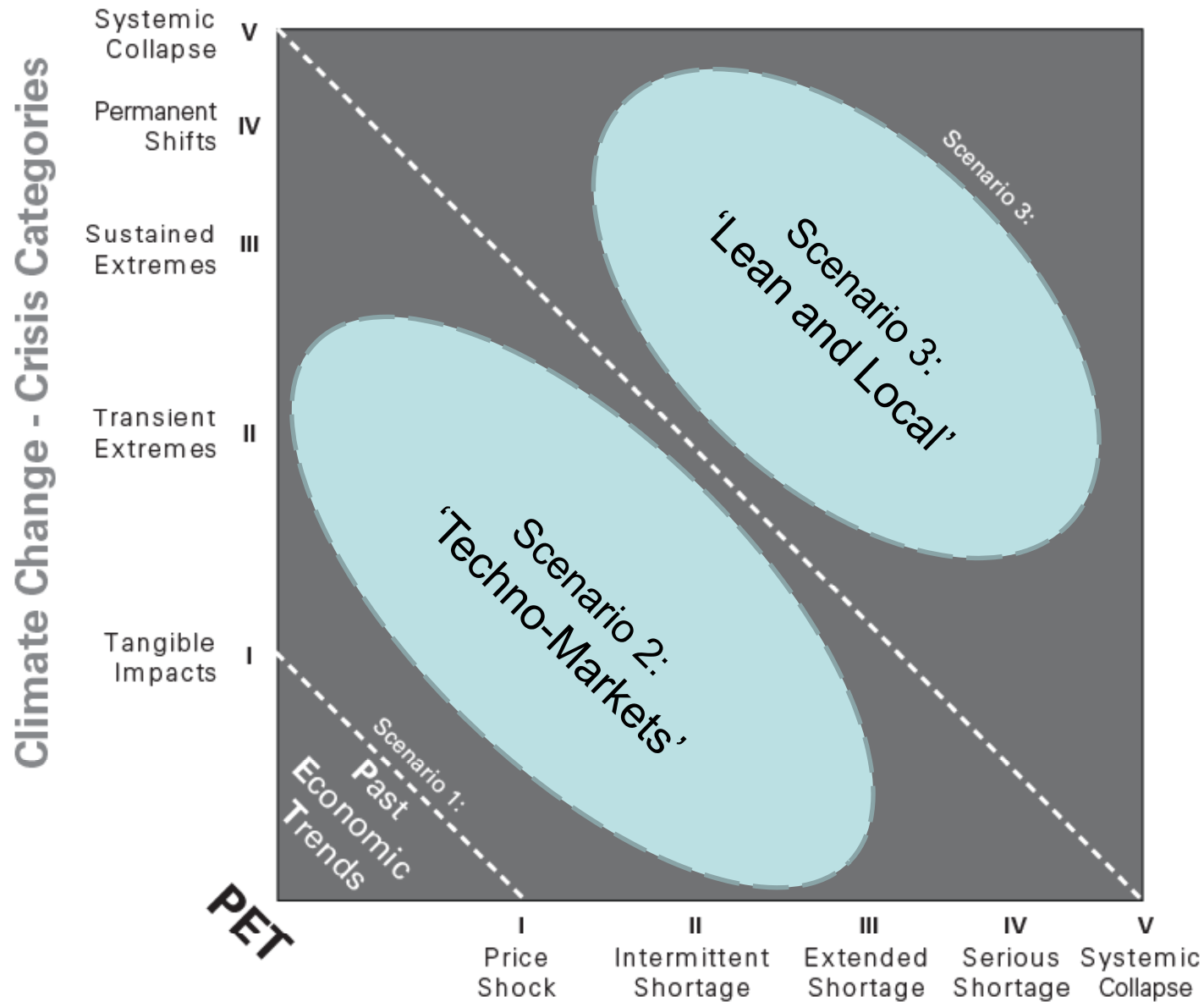
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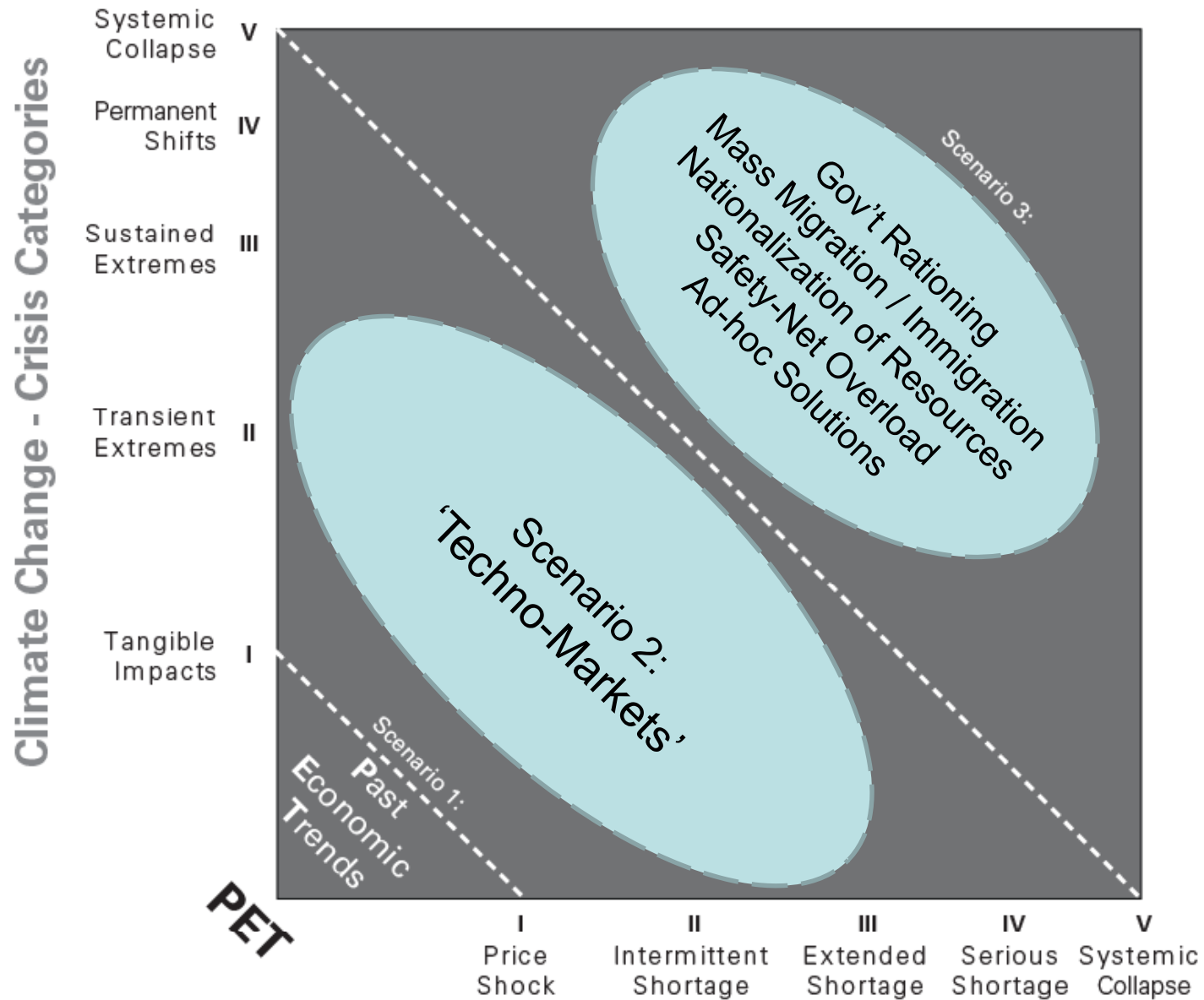
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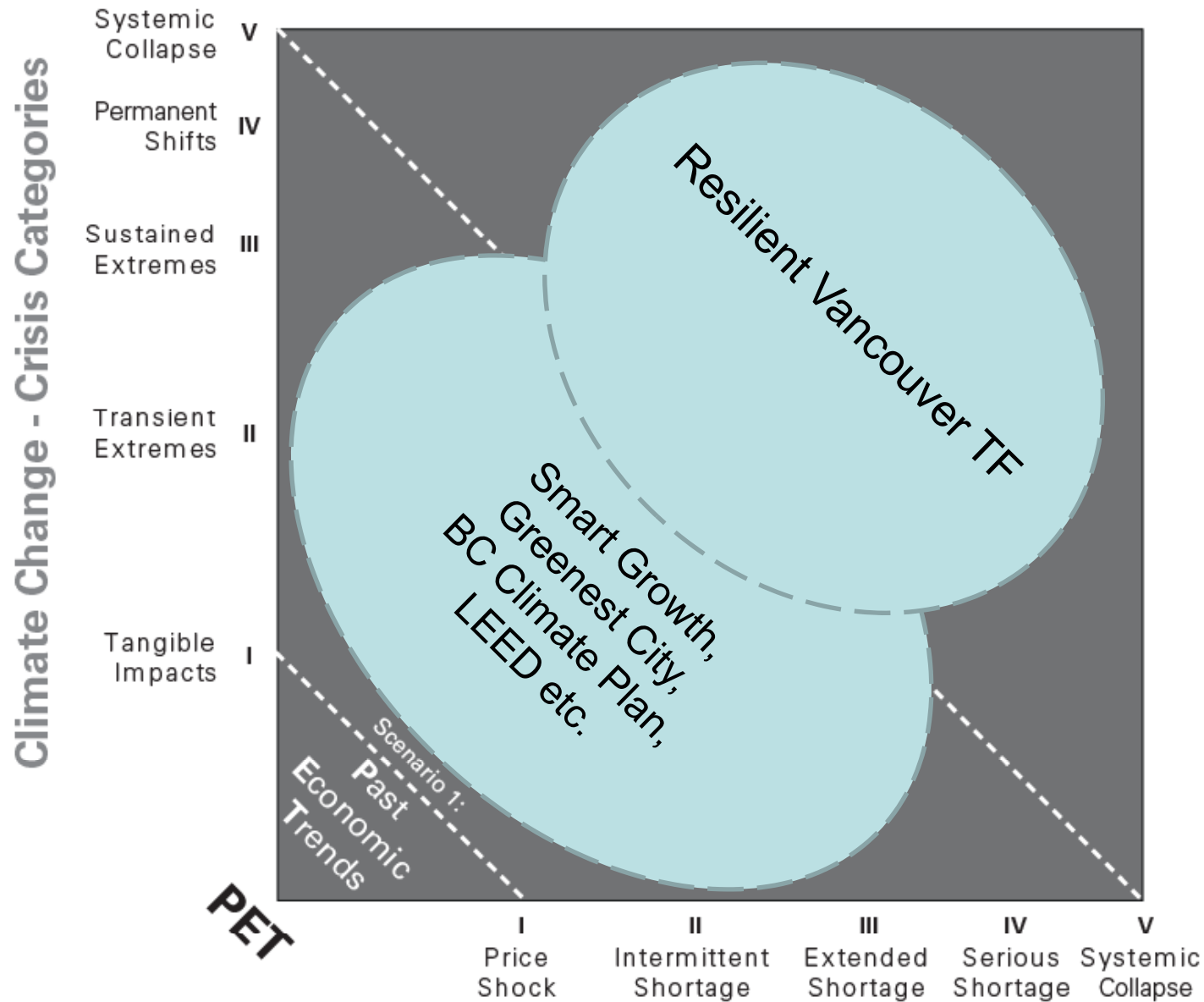
Peak Oil - Energy Crisis Categories

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Peak Oil - Energy Crisis Categories

3 Scenarios for the energy transition: 2010-2050



Peak Oil - Energy Crisis Categories



Sustainable
Development

+

Resilient Vancouver
Task Force

Incorporating Global
Sustainability Best Practices

Rapid Response Plans,
'10x' Community Projects,
alternate scenarios for testing
infrastructure investments

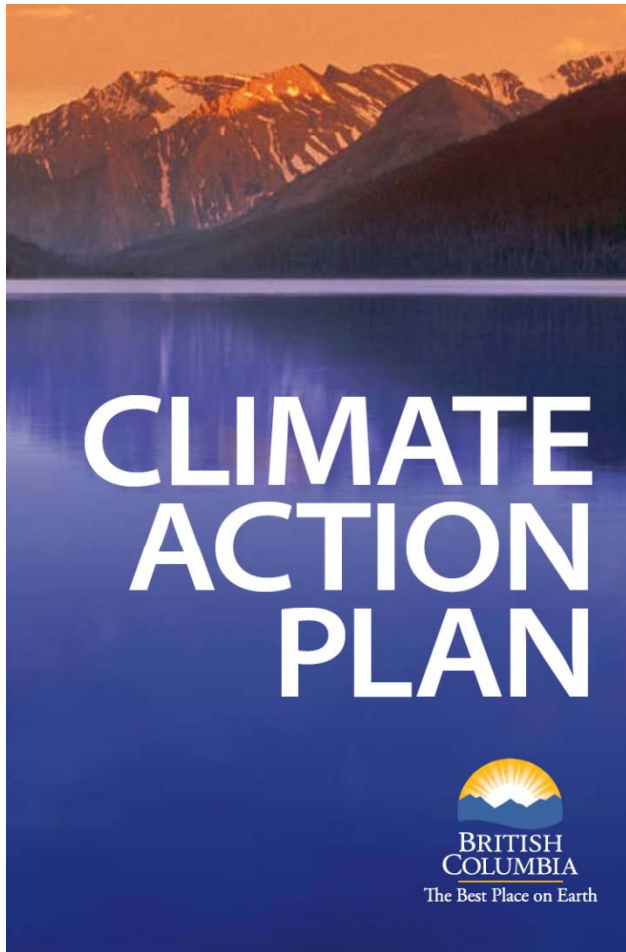


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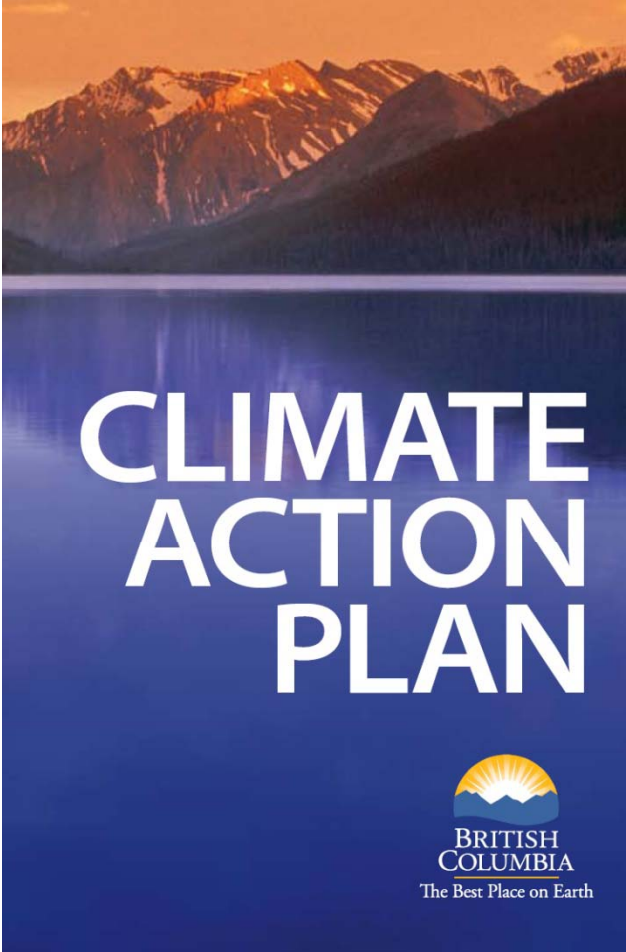
Example 1:
Planning for Climate Change & Oil Depletion



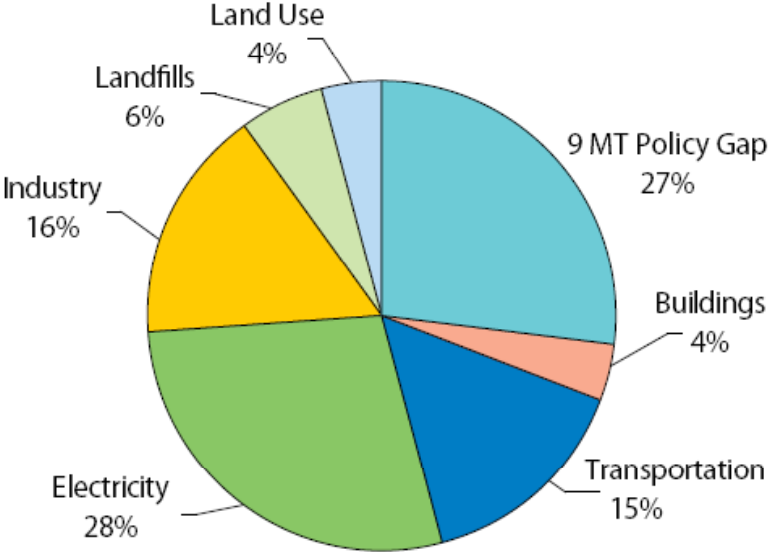
Climate plans: a good start...



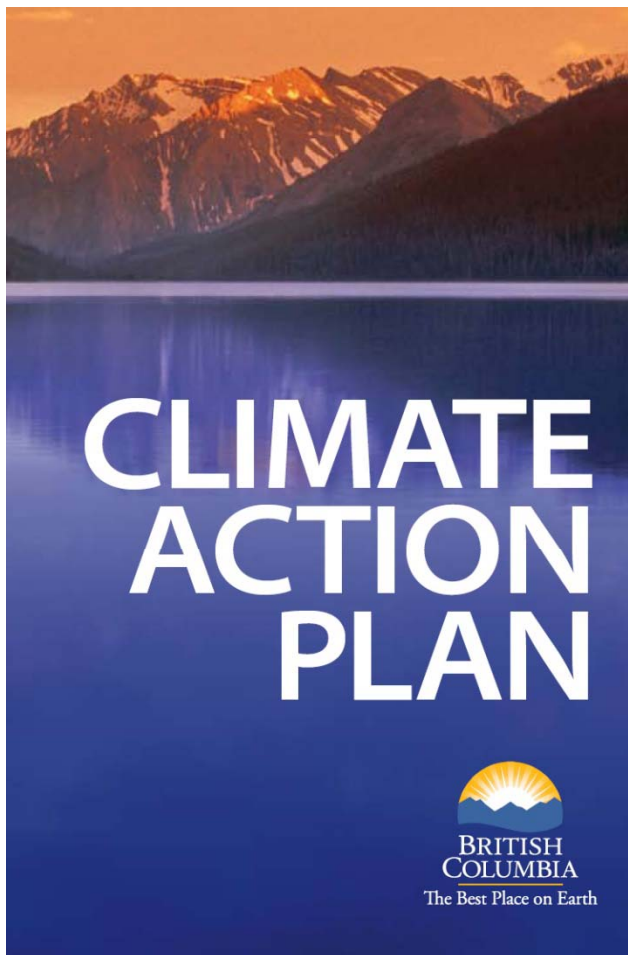
Climate plans: a good start...



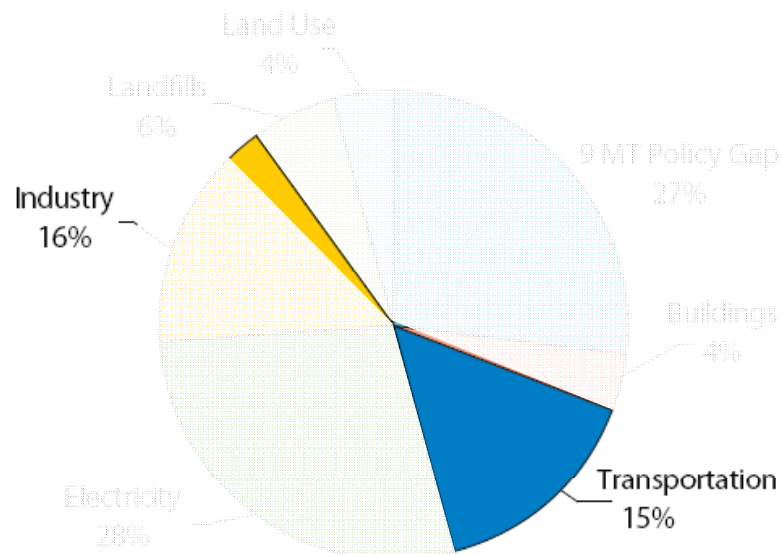
Percentage of Target Reductions Achieved by Sector



Climate plans: a good start...

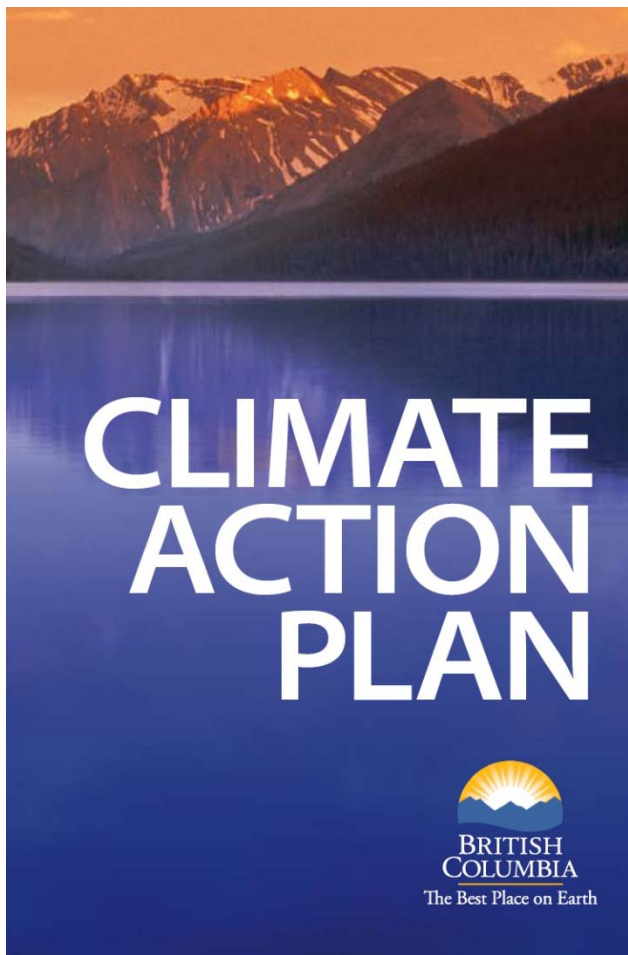


Percentage of Target Reductions Achieved by Sector

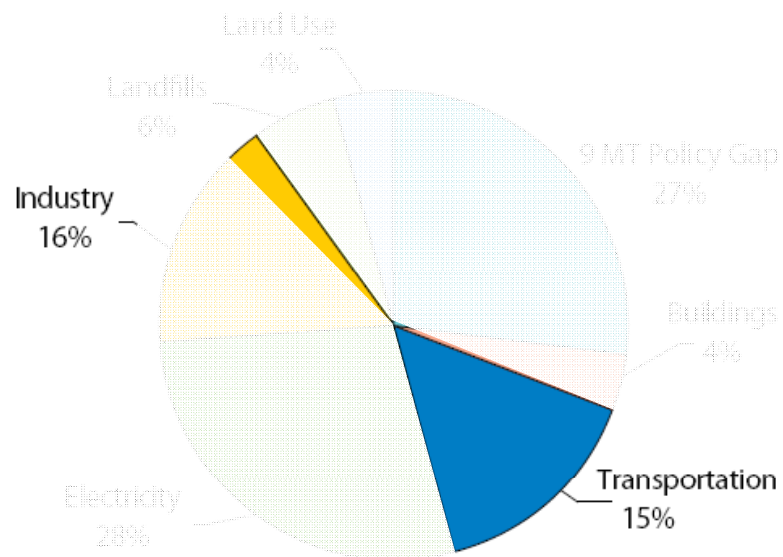


Only ~18% of strategies target *both* emissions *and* oil dependence...

Climate plans: a good start...



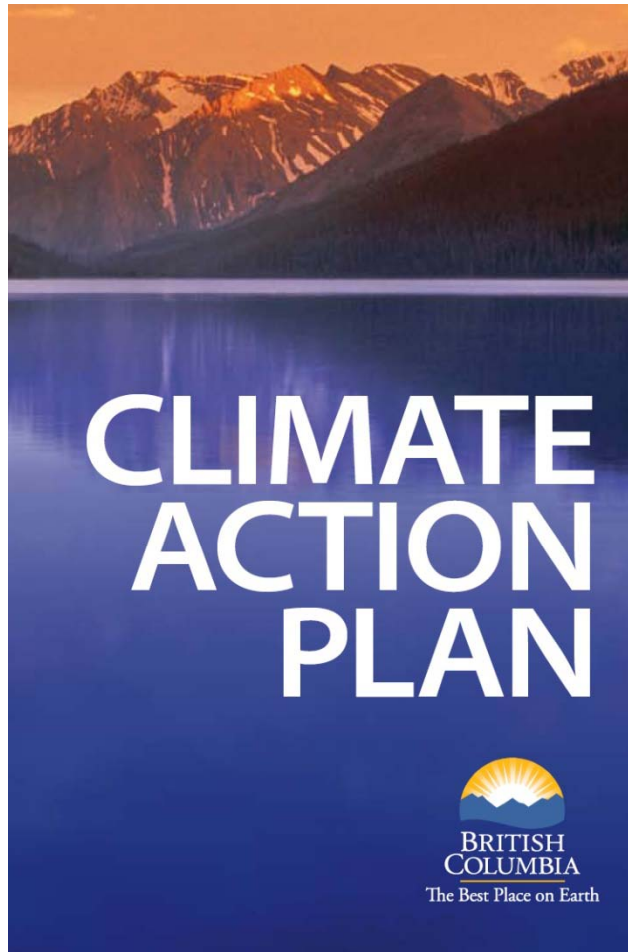
Percentage of Target Reductions Achieved by Sector



Only ~18% of strategies target *both* emissions *and* oil dependence...

....BC's climate plan could handle ~1% annual decline in oil supplies.

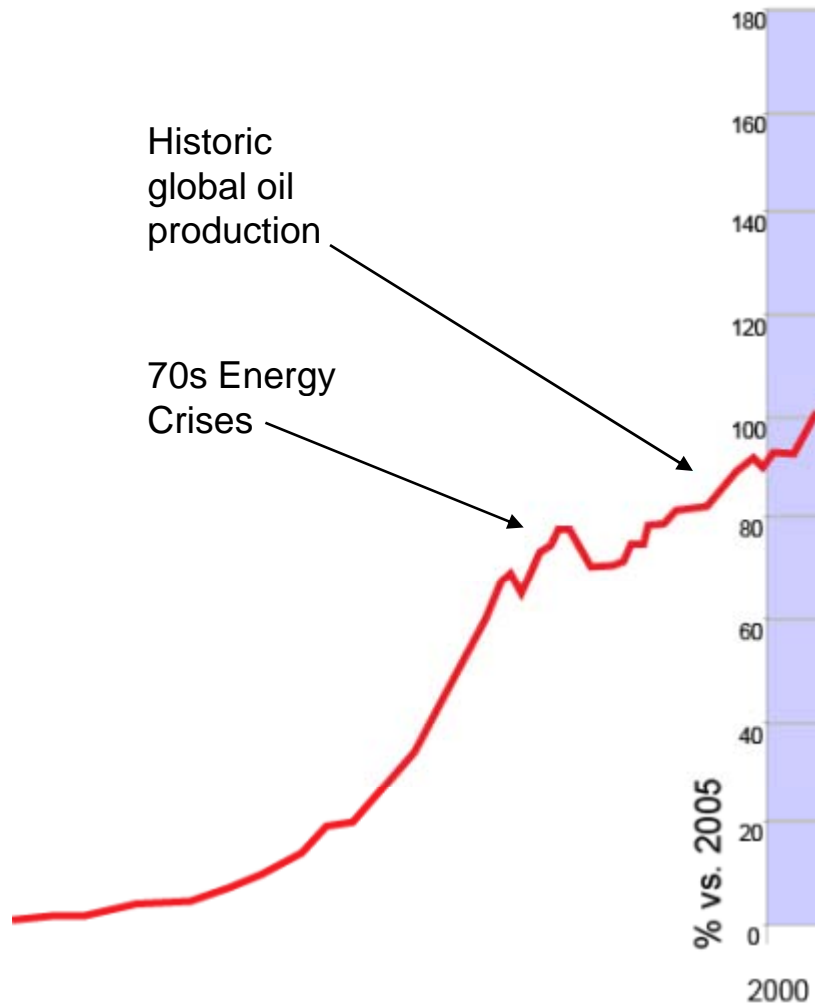
Climate plans: a good start...



What if depletion is faster than 1% / year?

Oil Depletion Models

For the US and Canada -Dynamic Cities Project

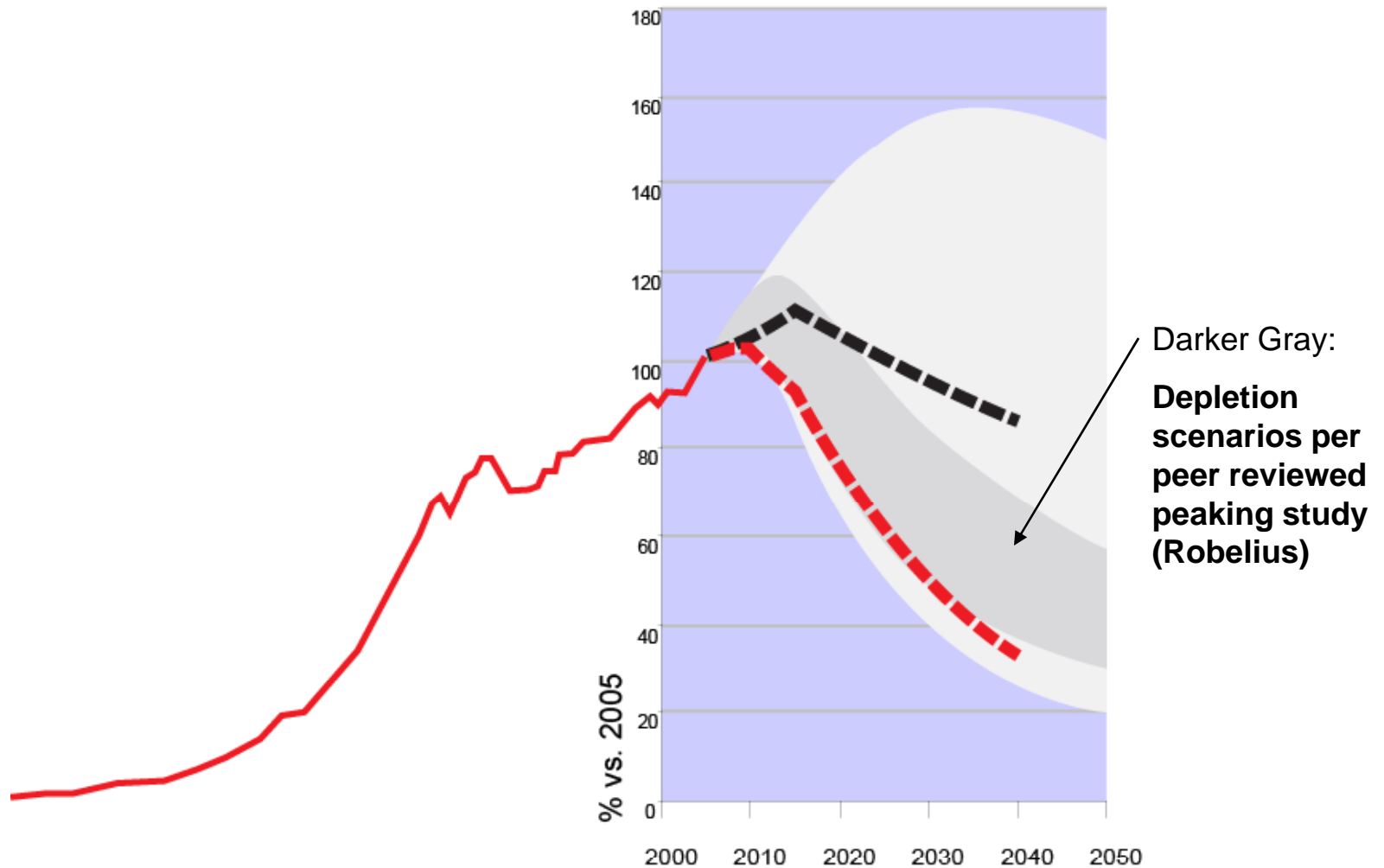


Peak Oil Analysis Papers:

<http://dynamiccities.squarespace.com/files-documents/peak-oil-papers/>

Oil Depletion Models

For the US and Canada -Dynamic Cities Project



["Giant Oilfields and Future Production"](#)

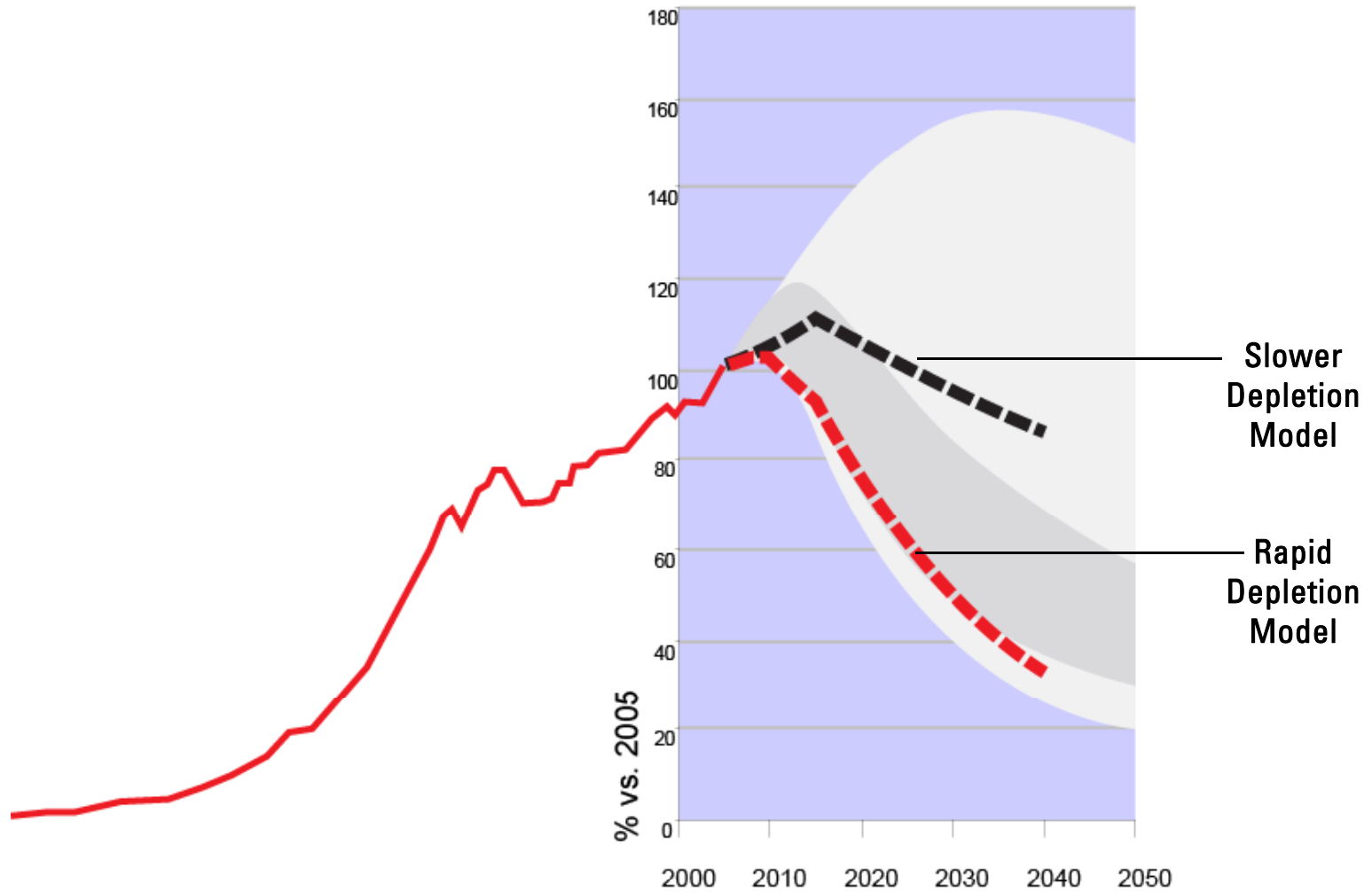
(3.3M) [2007] Frederik Robelius. PhD Thesis, University of Uppsala.

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Oil Depletion Models

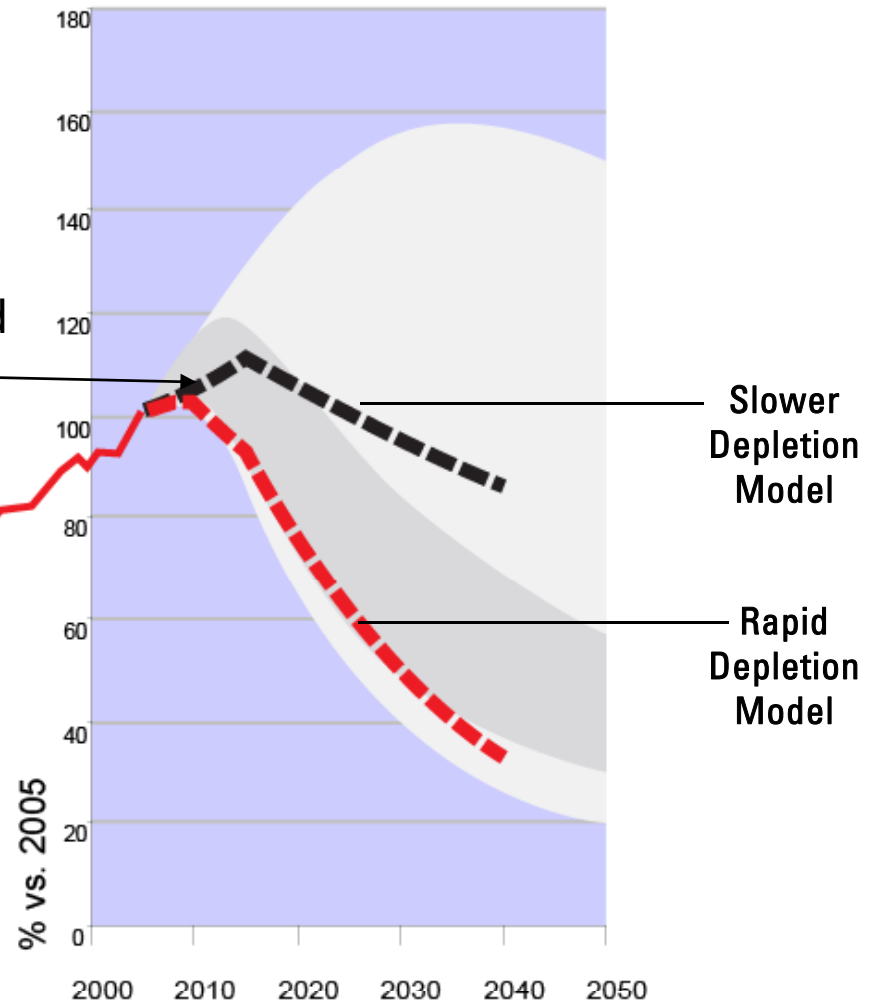
For the US and Canada -Dynamic Cities Project



Oil Depletion Models

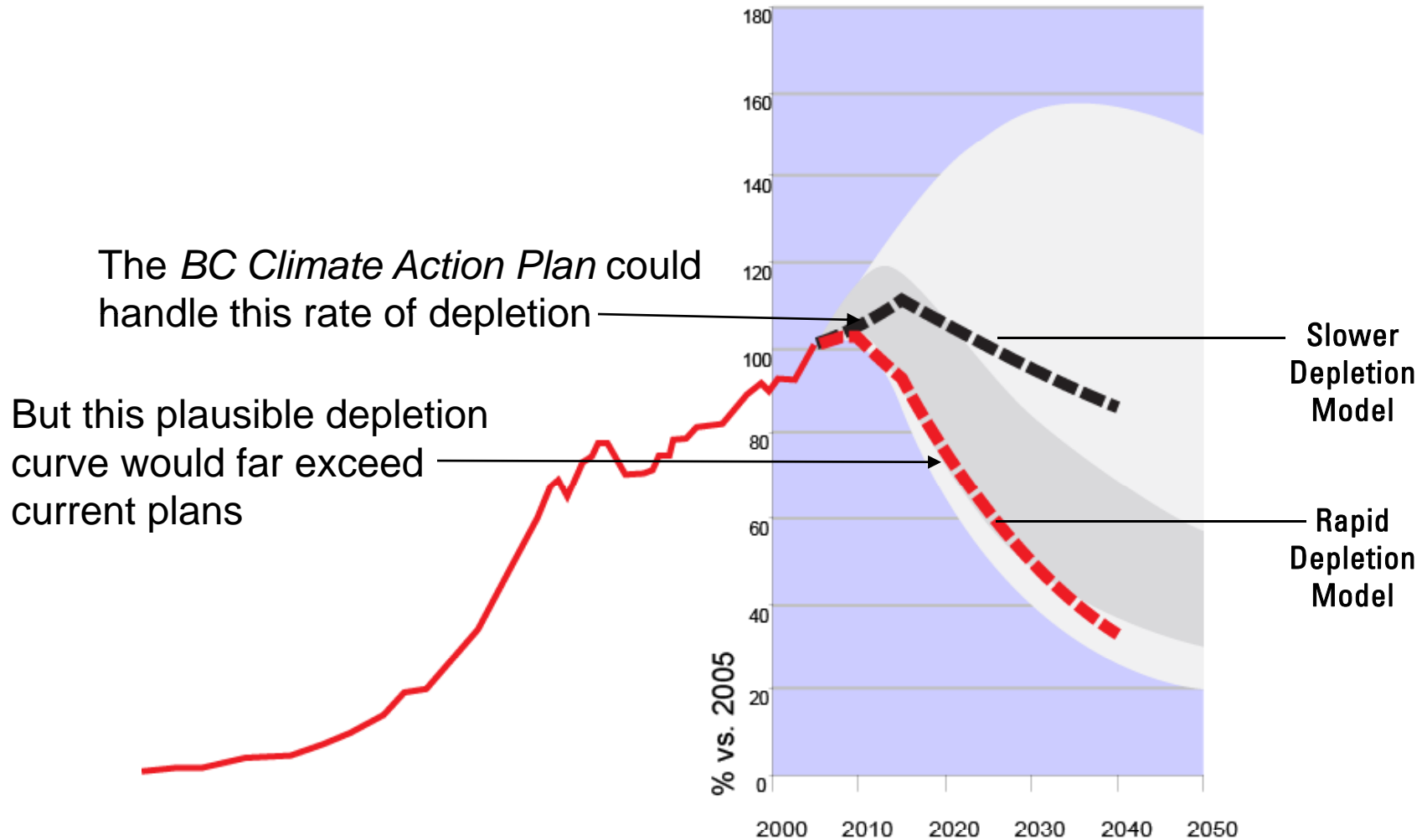
For the US and Canada -Dynamic Cities Project

The *BC Climate Action Plan* could handle this rate of depletion



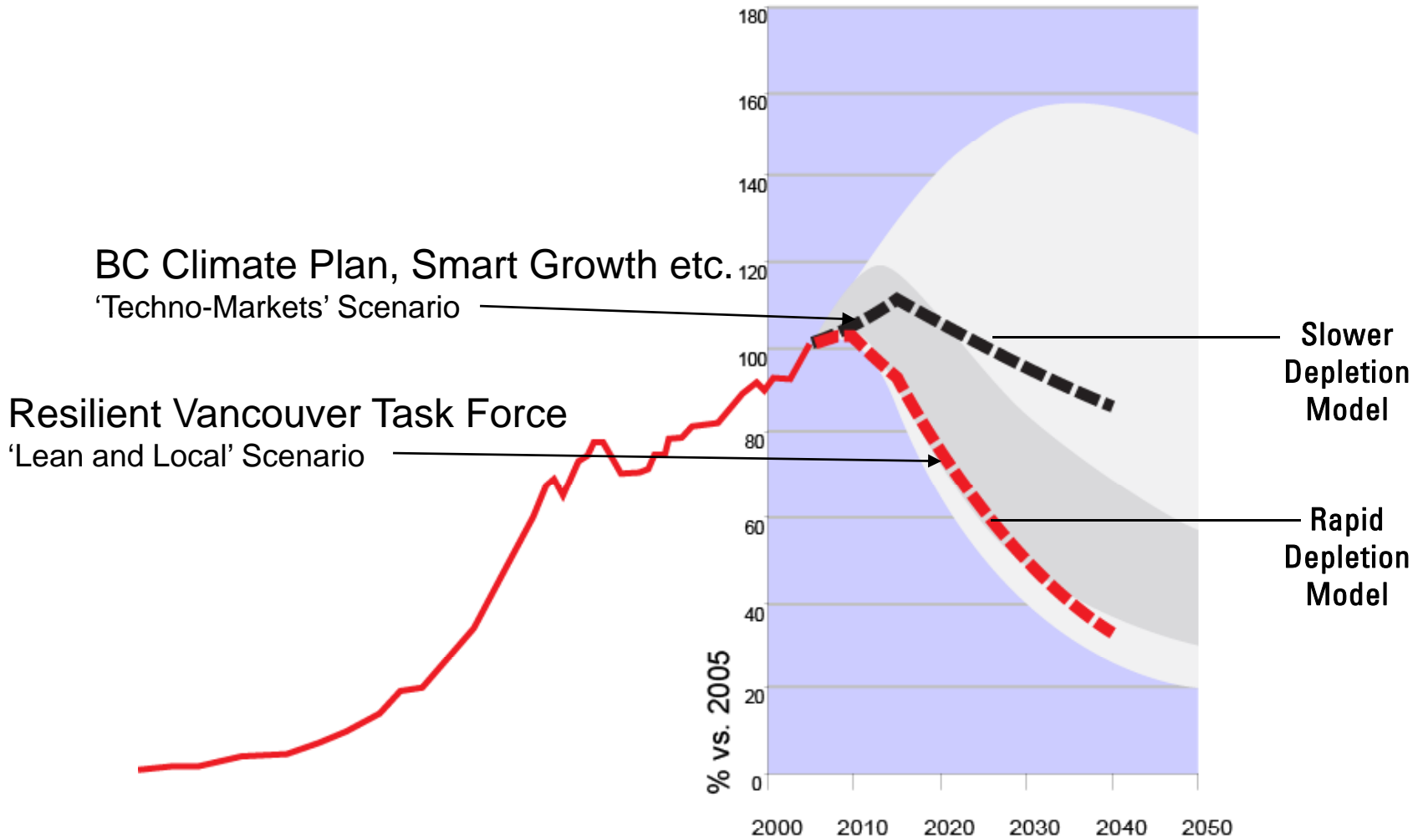
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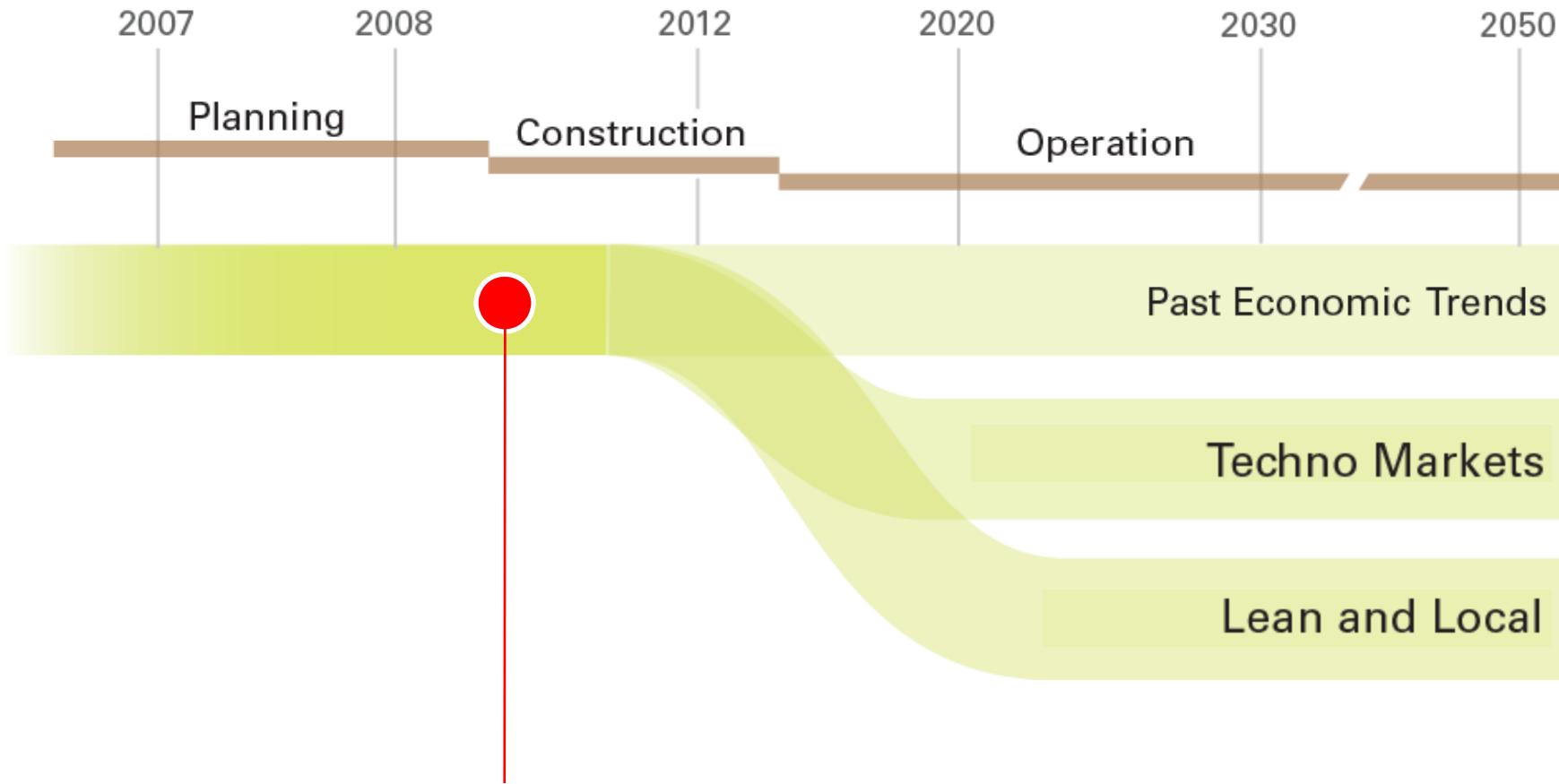
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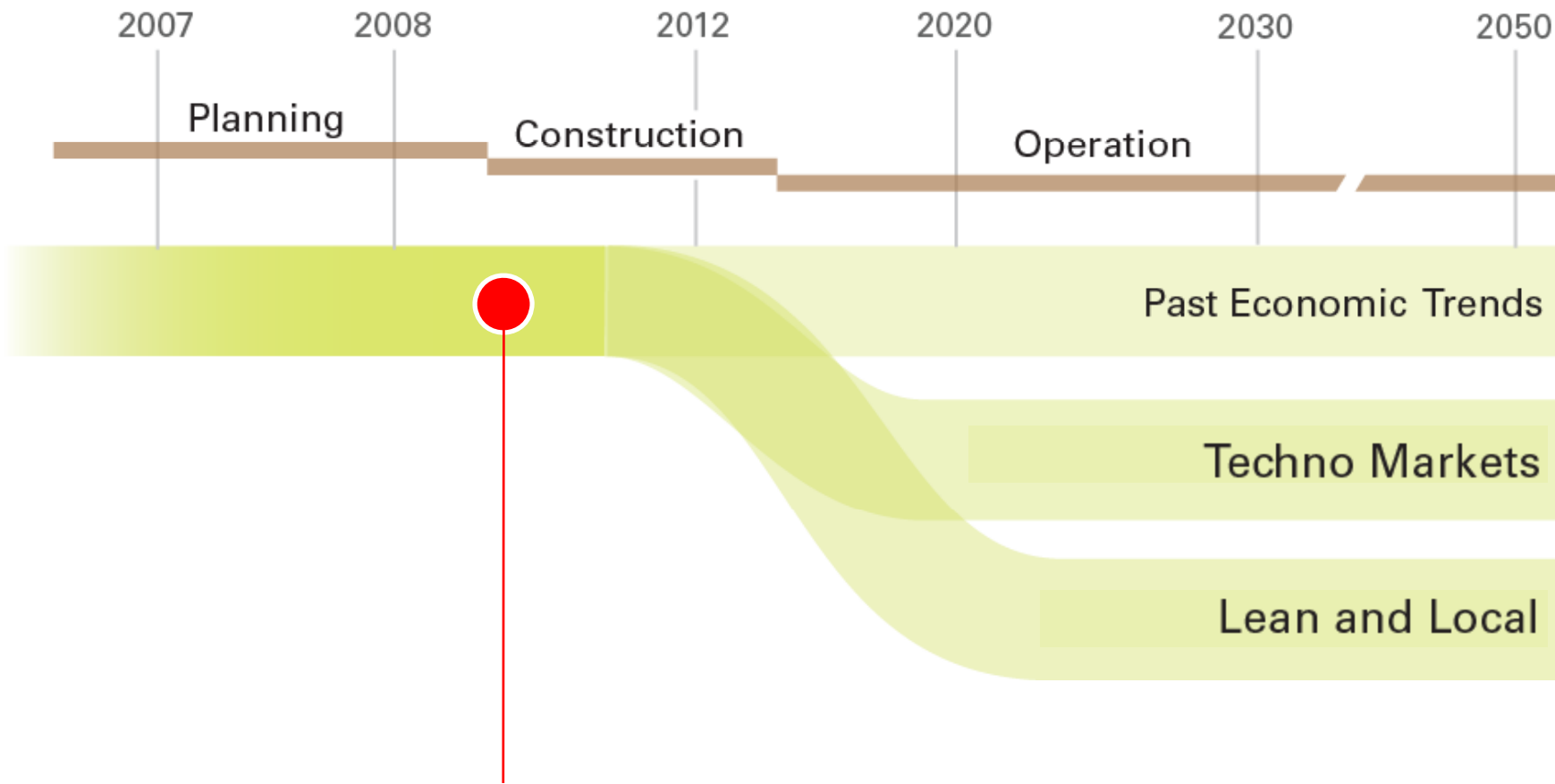
Example 2:
Resilient Infrastructure Planning and Investment

3 Scenarios for the energy transition: 2010-2050



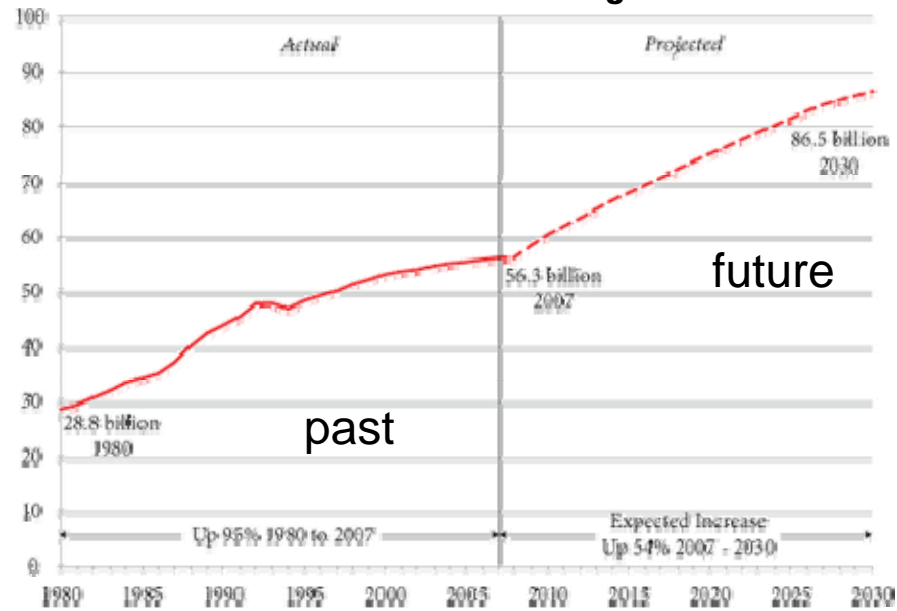
What future are you designing for?

3 Scenarios for the energy transition: 2010-2050



**What future are you designing for?
[all of them]**

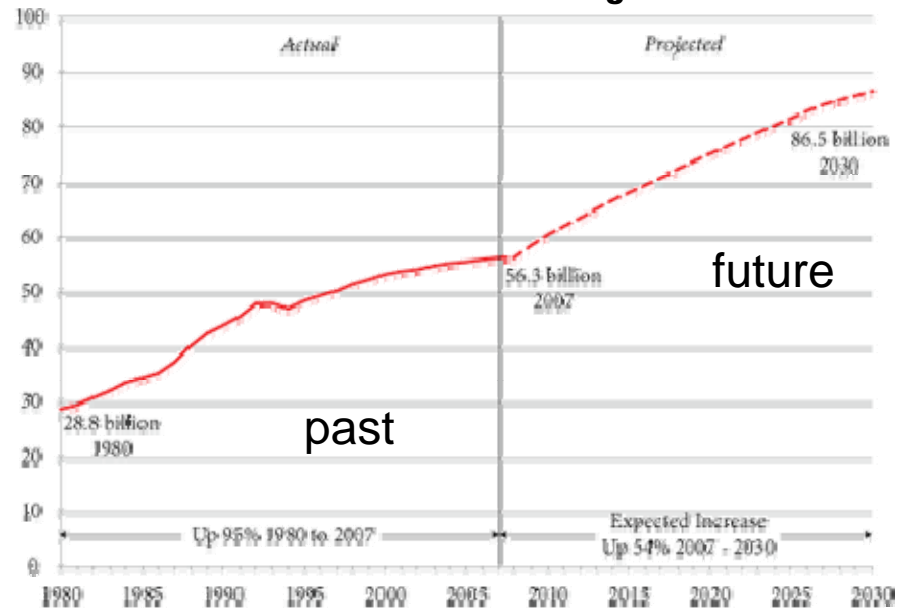
Vehicle miles in Washington State



Buried within every planning organization are charts like this one....

chart source = sightline.org

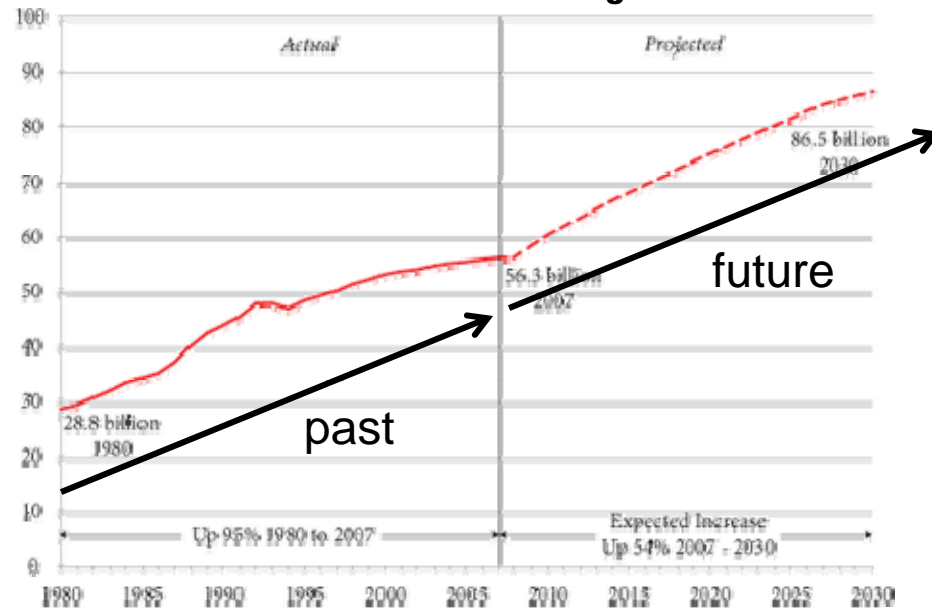
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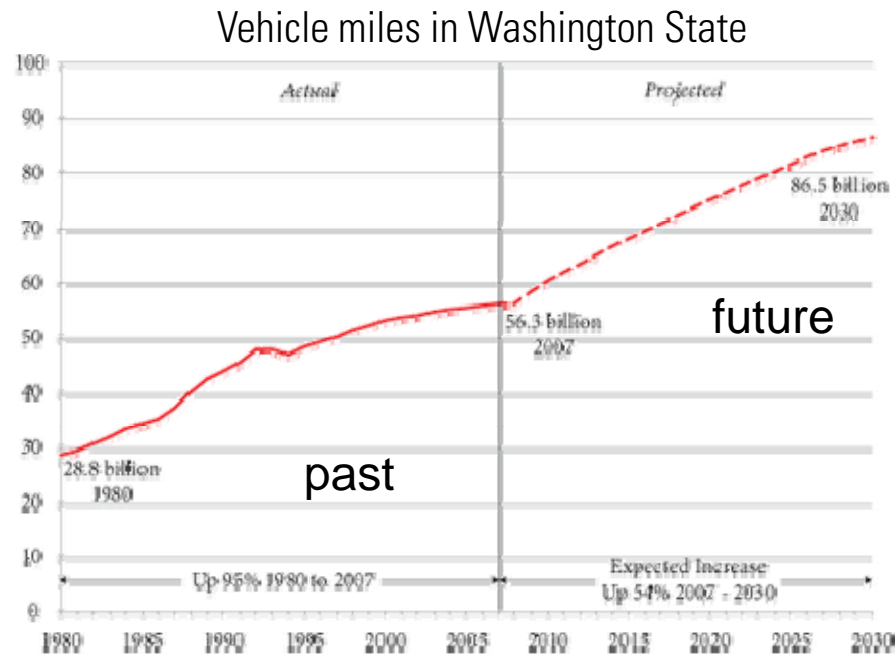
Buried within every planning organization are charts like this one....

...they are developed by economists to predict the future demand for infrastructure such as highways.

Vehicle miles in Washington State



These projections are typically *extrapolations* of past trends...



=

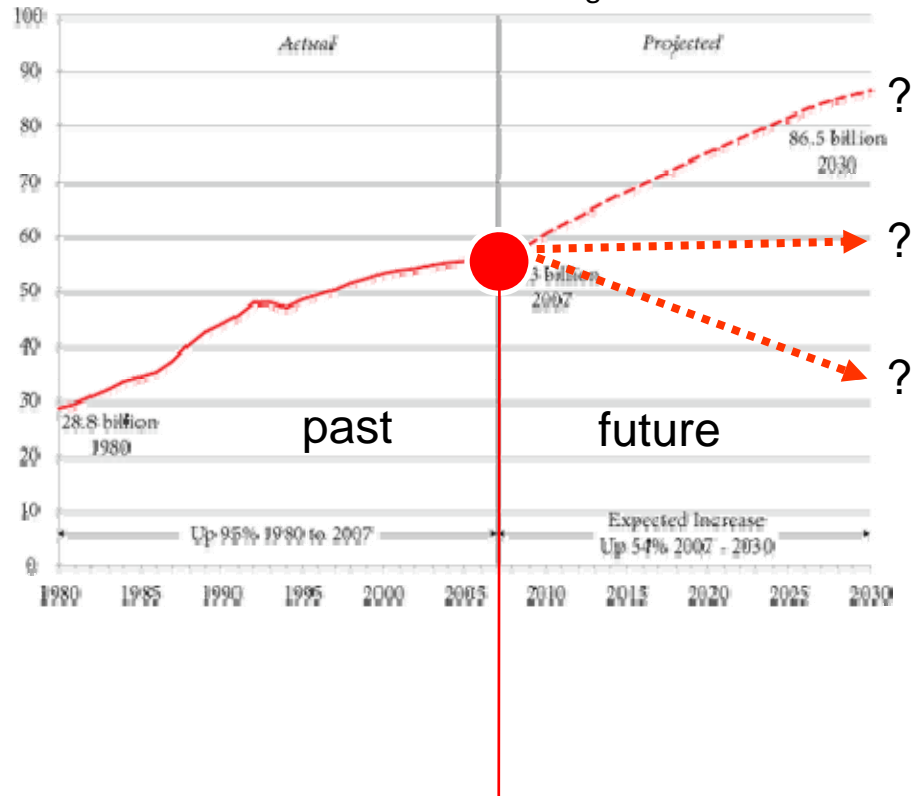


These projections are typically *extrapolations* of past trends...

**...and typically lead to
'more of the same'**

chart source = sightline.org

Vehicle miles in Washington State



What if the future is different than the past?



Airlines Desert Small Towns, Despite Costly Investments in Infrastructure

If you build it, will they come? Not in Hagerstown, Maryland, where airlines have left town despite a brand new runway.

"Earlier this decade, city officials in Hagerstown, Md., started making the case to build a longer runway at their airport to lure service by regional jets, instead of the turboprop planes that provided its only flights.

Several years and \$61.4 million later, the city opened its concrete welcome mat, a new 7,000 foot runway, last November — two months after the airport lost scheduled air service altogether.

Despite its costly investment, a dogged marketing effort by local officials and even help from Congress, the airport has had no luck attracting a new carrier, as the industry struggles under soaring fuel prices.

"Could we pick a worse time to go out and get commercial service? Probably not,"

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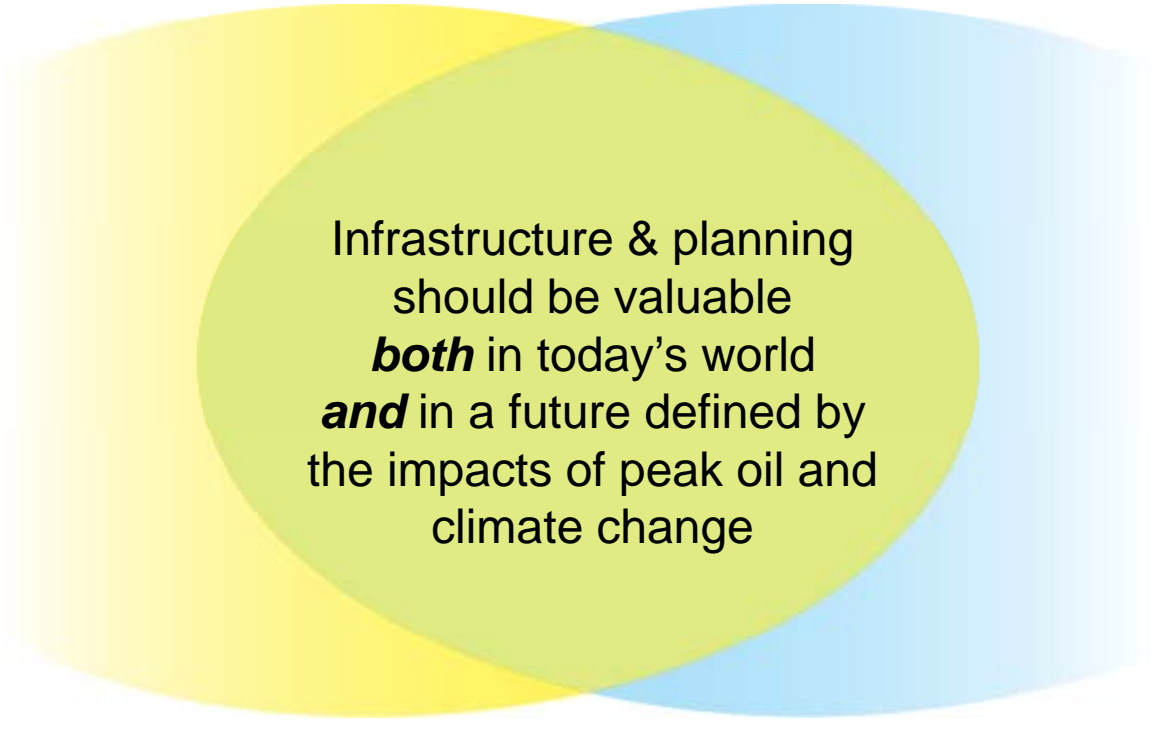
"Could we pick a worse time to go out and get commercial service? Probably not,"

This city spent \$61m on a *stranded asset*.

Peak Oil

+

Climate Change

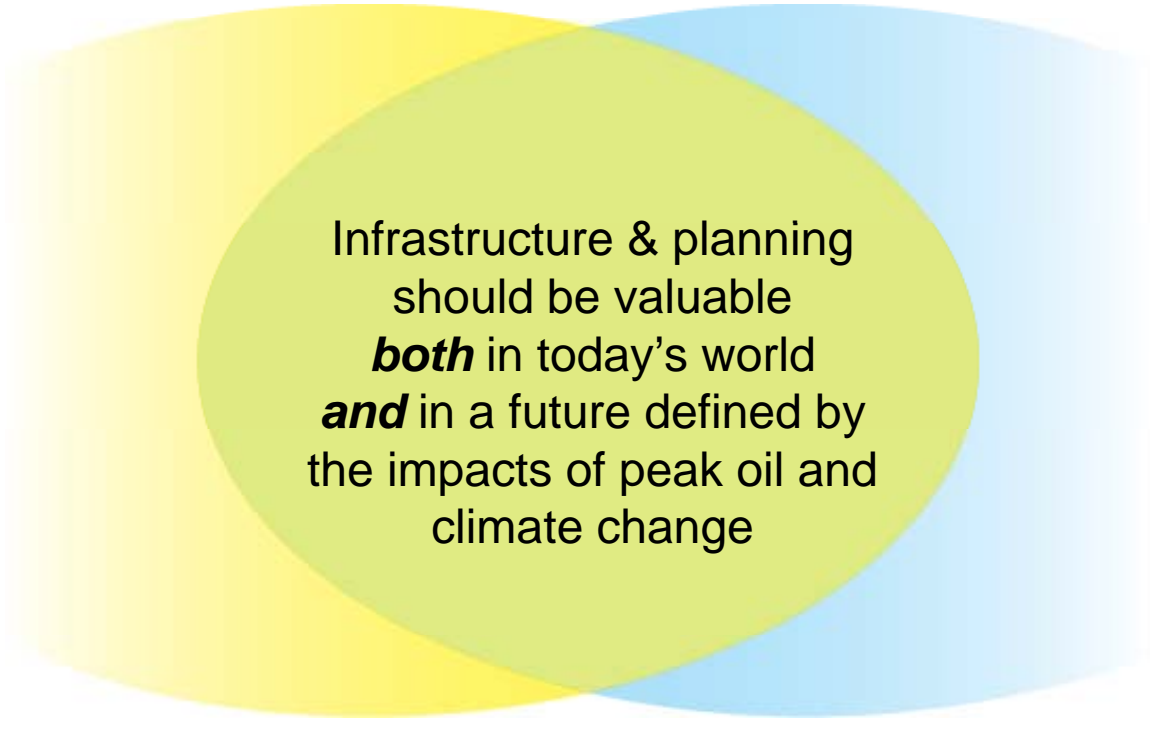


Infrastructure & planning
should be valuable
both in today's world
and in a future defined by
the impacts of peak oil and
climate change

Peak Oil

+

Climate Change



Infrastructure & planning
should be valuable
both in today's world
and in a future defined by
the impacts of peak oil and
climate change

Resilient Vancouver will expand the vision of what's ahead
so that we can invest in infrastructure that retains its value across all futures.



Resilient Vancouver Task Force (RVTF)

1. Present RVTF concept and coordinate with key players

- Mayor / Councillor(s)
- Greenest City Task Force
- Key Municipal Committees



Resilient Vancouver Task Force

2. Define 2 futures with key stakeholder groups: [‘Techno-Markets’ vs. ‘Lean and Local’]

- Oil and Gas Depletion Rates
- Energy Prices
- Likely short term shocks (energy, climate, food, housing, economy)
- Population and Migration
- Sea Level Rise
- Regional Food Production Capacity
- Economic Performance and Technology Uptake
- Unemployment and other safety-net impacts
- Scale of required re-localization and conservation
- Security and conflict concerns

Resilient Vancouver Task Force

3. Workshops with Vancouver Gov't and Community Groups

- Presentations on Peak Oil / Climate nexus and potential impacts
 - Aiming to increase energy literacy and buy-in
- Define 2 transition scenarios for each group
- Targeted SWOT* analysis with each group
- Gather feedback for final coordinated action plan

*Strengths, Weaknesses, Opportunities, Threats

Resilient Vancouver Task Force

4. Next Steps - Action Areas

- Update incremental plans, policy and funding priorities
 - Oil depletion resolution & oil consumption target (as complement to emissions target)
 - Coordinate with 'Sustainable Development' groups (i.e. resiliency tests for current best practices)
- Rapid Response Plans
 - Work with emergency services and community groups
 - Plans for energy, food, or other transient shortages
 - 'Crash' programs for energy conservation and food production (i.e. 3 year crash program for getting to 50% local food etc....)
- '10x' Community Seed Projects
 - Goal: Build community capacity for resiliency and rapid change
 - Start small, aim for 'quick wins'
 - 10x the impact of incremental plans... or 1/10th cost.... at 1/10th the time
 - Fun, engaging... as competition with prizes?
 - Media coverage, and interactive online reporting

Resilient Vancouver Task Force

5. Resources

- Funding for initial project organization and outreach?
- Initial buy-in from key stakeholders?
 - TransLink, Metro, Port, City of Van, other munis...
- Council mandate for meetings with community and municipal groups
- Funding / Resources for:
 - presenters / facilitators
 - concise final report
 - seed project admin
 - seed project prizes

- Example: 'Cool Vancouver' Task force - \$200k funding in late 90s
- Greenest City Task Force ~\$20-30k (?) in partnership with local business..

DRAFT

The following are a few of the 'Resilient Vancouver' ad-hoc group:

Andrea Reimer – City Councilor, city & provincial liaison for the task force

Bill Rees – Professor, [UBC School of Community and Regional Planning](#), co-creator of the [Global Footprint](#) model

Rick Balfour – architect & urban planner, Balfour & Associates, NCI, MVPC, author of “Strategic Sustainable Planning” [plancanada.com](#)

Herb Barbolet - Associate, [SFU Center for Sustainable Community Development](#), co-founder of [Farm Folk/City Folk](#)

Rex Weyler – author, journalist, co-founder of Greenpeace International [rexweyler.com/](#)

Jon Cooksey - [writer/producer](#), activist, [“How to Boil a Frog”](#)

Vandy Savage – marketing & communications (possible task force secretary & liaison to Ms. Reimer)

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604.728.0606

bryn@dynamiccities.org

