

Post-carbon Pathways: Identifying and removing social and political roadblocks to rapid emissions reductions

Australian German College for Climate and Energy Transitions
Science and Pretzels workshop, January 15 2014

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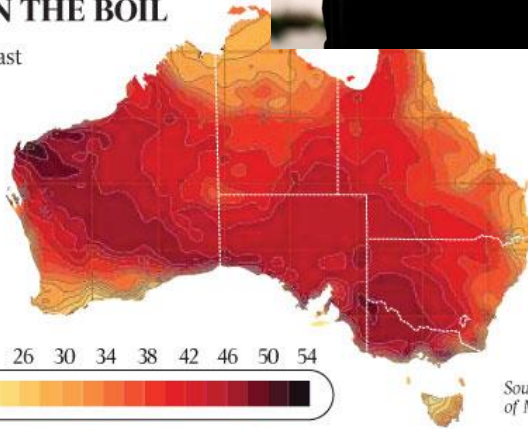


NATION ON THE BOIL

Tomorrow's forecast temperatures at 5pm (AEDT)/ 2pm (AWST)

°C

10 14 18 22 26 30 34 38 42 46 50 54



Source: Bureau of Meteorology





Prof. John Schellhuber, Director, Potsdam Institute for Climate Impact Research

Prof. Ottmar Eidenhoffer, Co-chair IPCC Working Group 3

Adrian Gault, Chief Economist, UK Climate Change Commission

Prof. Kevin Anderson, Tyndall Centre

Roy Neel, Chief of Staff to Al Gore

Prof. Mark Jacobsen, Stanford University

Lester Brown, Earth Policy Institute

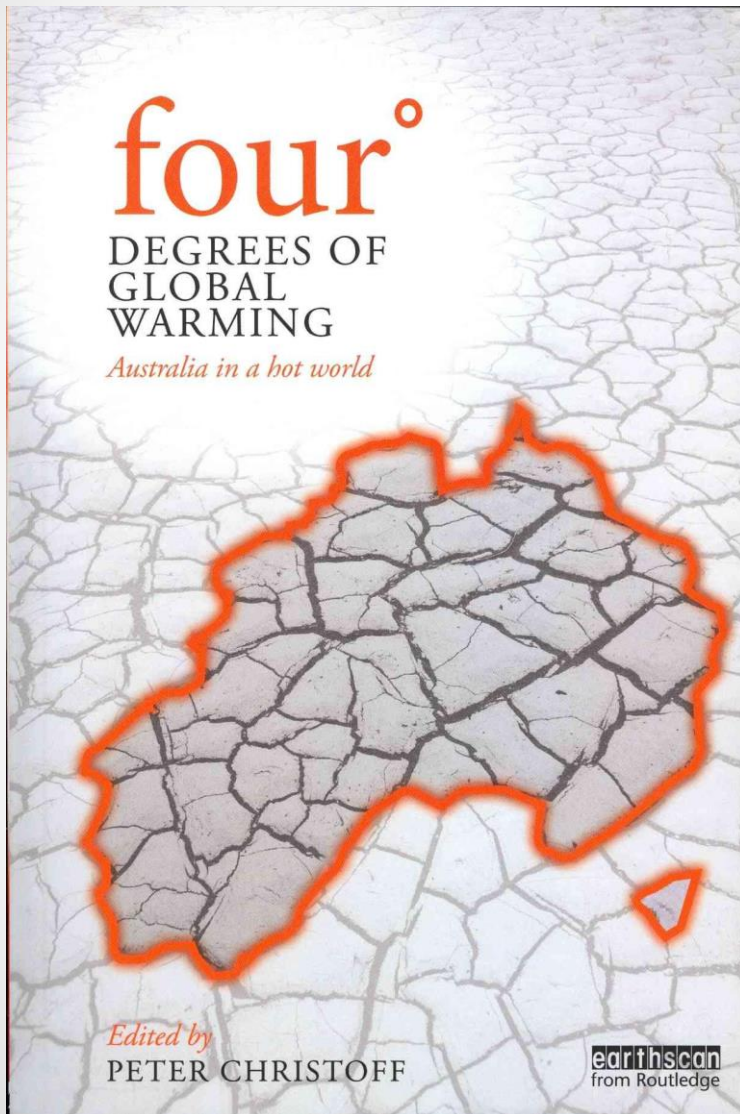
Amory Lovins, CEO, Rocky Mountain Institute

Bill McKibben, 350.org

James Goldstene, CEO, California Air Resource Board

Anna Skarbek, Executive Officer, Climate Works Australia

1. The probability and risks of global warming of 4 degrees or more are rapidly escalating

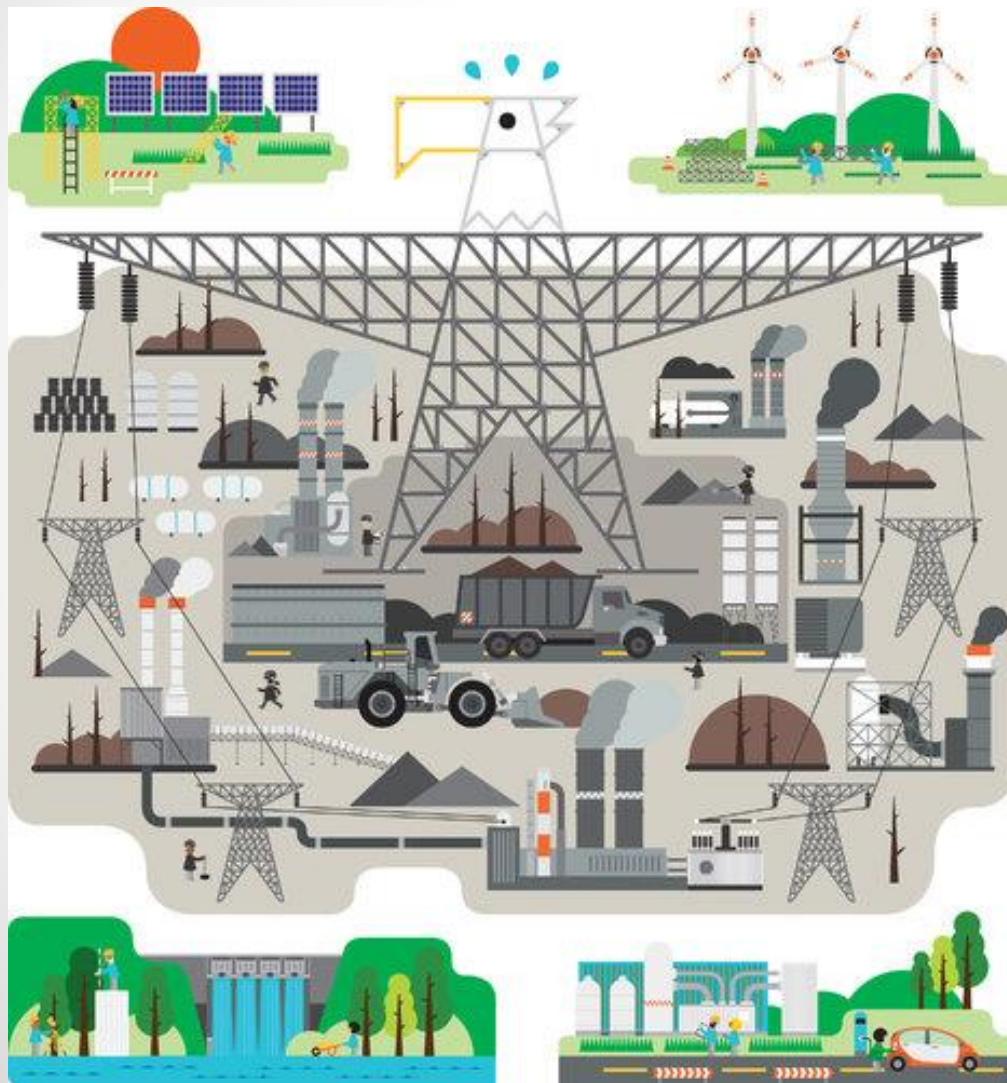


**Prof. Kevin Anderson, Deputy
Director Tyndall Centre, UK**

“This is not message of futility but a wake up call of where our rose tinted spectacles have brought us.

Failing on 2 degrees C is no reason to give up on mitigation, making hay whilst the sun shines and resigning to an impact and adaption future.”

2. The technological and economic roadmaps leading to rapid emissions reductions are now widely understood



- Replace fossil fuels with renewable energy
- Improve energy efficiency
- Reduce energy demand
- Draw down carbon
- Strengthen resilience

3. The key roadblocks preventing a swift transition to a post-carbon economy are primarily political and social

“Meeting 100 per cent of global energy demands through renewable energy is technically and economically feasible. The main problems are political and social.”



Prof. Mark Jacobsen, Director of Atmosphere and Energy, Stanford University, co-author *Powering a Green Planet*

“The end goal of zero emissions is achievable but not if we continue with our current policies....

- A lack of strong, consistent carbon pricing signals.
- Lack of action on fossil fuel subsidy reform.
- Mixed messages and stop-go policies when it comes to supporting renewable energy.
- Failure to tackle regulatory and market rigidities that favour fossil fuel incumbency and undermine demand-side options that could empower consumers to choose clean energy.”



Angel Gurría, Secretary General, OECD

Roadblock 1: Denial of the necessity and urgency of rapid emissions reductions



Roadblock 2: The power and influence of vested interests, particularly in the fossil fuel, finance and media industries

“The biggest barriers to solving the climate crisis are the vested interests of big oil and big coal and the influence they have.”

Lester Brown, *Earth Policy Institute*



Prof. Ross Garnaut

“It is inherent in the human condition that where most people stand depends on where they sit.

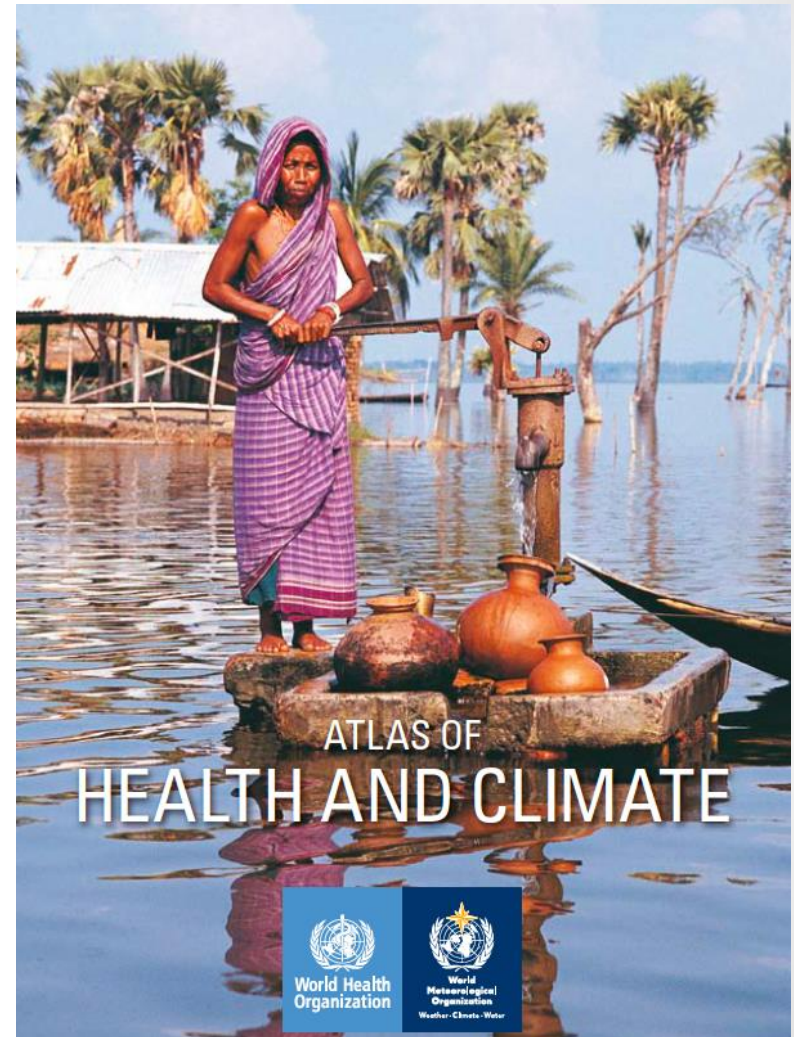
Many Australian business people have a vested interest in the failure of global efforts to mitigate the dangers of climate change.

One consequence is that our business leadership contains an unusually high number of people who express the opinion that the best of climate science is wrong on global warming.”

Roadblock 3: Social and technological path dependencies



Roadblock 4: Unconstrained and inequitable consumption



Roadblock 5: Governance and implementation constraints





“It’s an all too common story. You speak to people who’ve tried to install solar panels on their roof and they tell you how difficult it was and the guy that they dealt with didn’t seem to know all the different options and had his own agenda.

There’s a whole raft of issues there that are very difficult to overcome are not the glamorous part of the policy process.

Once you’ve announced the policy, that implementation side gets forgotten a little bit. Whereas, actually, in terms of success, it’s critical.”

Alex Kazaglis, Senior Policy Analyst, UK Committee on Climate Change

Imagine it is 2033....

Imagine we now live in a world in which the transition to a just and resilient post carbon society is now well underway and there is now real hope that catastrophic climate change will be avoided.

How did this happen?

1. Evidence, education and experience



Jenny Cladd, CEO,
Climate Project

“Little by little, every year, the evidence, the increased education of the public, of the politicians, of businesses...

All of this inch-by-inch is going to have the effect of making the deniers and those who profess to do nothing and put more money into drilling oil, digging out coal, more and more marginalised.”



Yeb Sani, Philippines
Delegation, COP 19
Warsaw, 2013

“To anyone who continues to deny the reality that is climate change....I dare you to go to the islands of the Pacific and see the impacts of rising sea levels....to the vast savannas of Africa where climate change has likewise become a matter of life and death as food and water becomes scarce...

And if that is not enough, you may want to pay a visit to the Philippines right now.”

OFF THE CHARTS: 2013 WAS AUSTRALIA'S HOTTEST YEAR

3. WHAT IS THE LINK BETWEEN BUSHFIRES AND CLIMATE CHANGE?

THE HEAT IS ON

2013 AUSTRALIA'S HOTTEST YEAR ON RECORD



THE SCIENTIFIC EVIDENCE IS IRREFUTABLE

IT'S TIME FOR ACTION ON CLIMATE CHANGE

The Climate Council is an independent, crowd-funded organisation focused on climate change to the Australian public.
CLIMATECOUNCIL.ORG.AU

...ect link between climate change the long-term is a hotter climate. ge is increasing y and severity of i and driving up s of very high fire ner.

Changes in temperature and rainfall may also affect the amount and condition of fuel and the probability of lightning strikes.



The world is a dangerous place, not because of those who do evil, but because of those who look on and do nothing.

-Albert Einstein



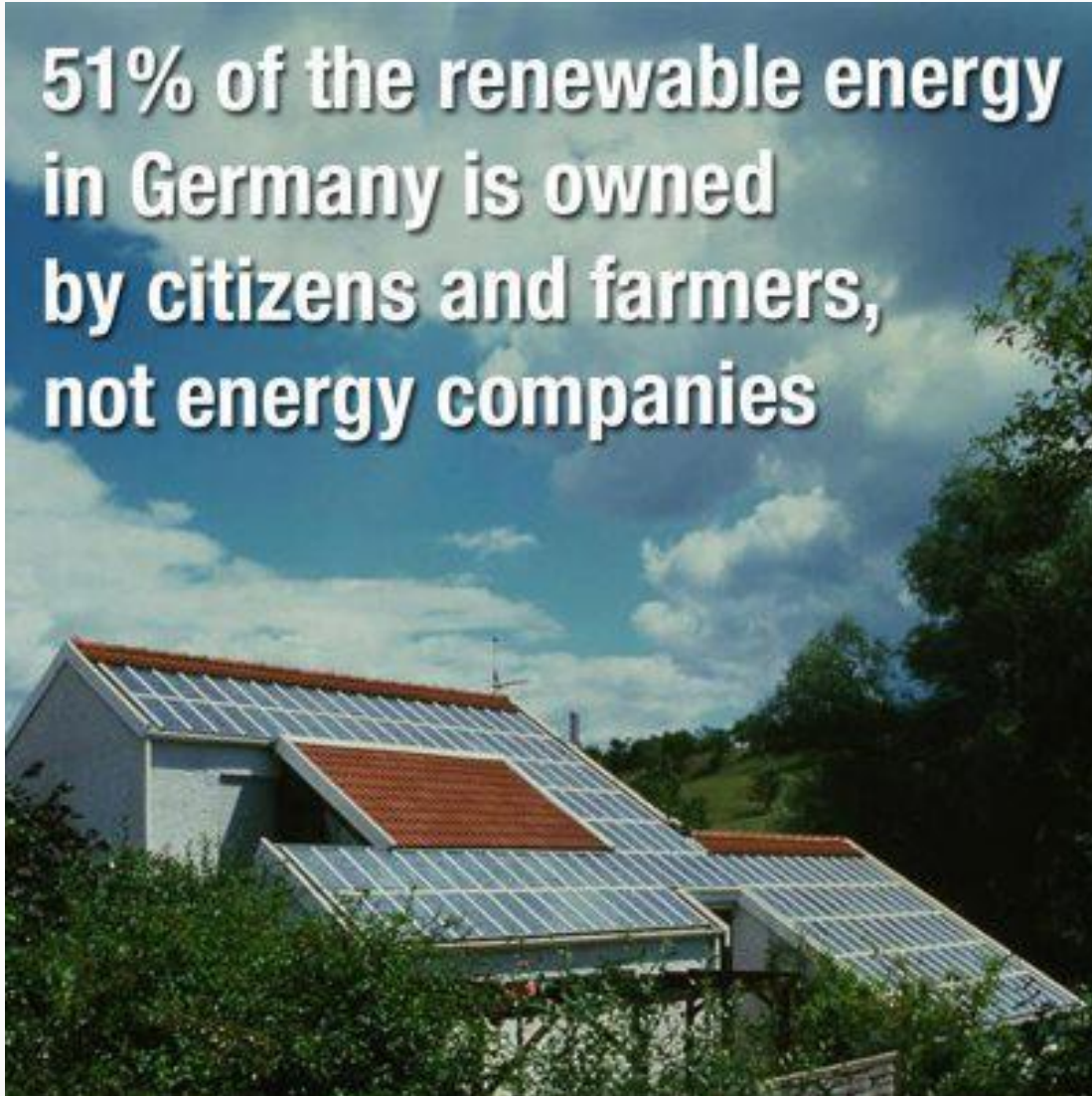
Ian Dunlop, Club of Rome and Safe Climate Australia

“We are running out of both time and options because we are not being honest about what has to be done.

The solutions exist, but unless we are honest about the problem, they will never be adopted.”

2. Disruptive technological, social and economic innovation

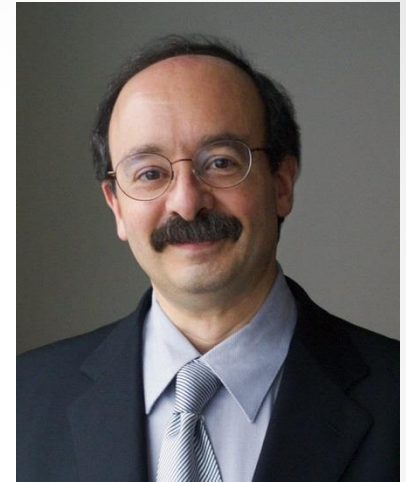
**51% of the renewable energy
in Germany is owned
by citizens and farmers,
not energy companies**



“As we look back on this now... one wonders what all the fuss was about. We used to think that catastrophic climate change was a big problem because we supposed that it had to be solved by difficult treaties between national governments.

But that assumed - quite wrongly - that the solutions would be costly and painful rather than attractive and profitable, for the simple reason - now so blindingly obvious in hindsight - that it was so much cheaper to save the fuel than to buy it in the first place, let alone burn it.

So as the economic logic gradually overcame the dogma that it must not have been cost-effective to save energy or we'd have done it already, we really unleashed the dynamism of individual choice and corporate and social innovation....”



Amory Lovins, CEO
Rocky Mountains
Institute

Unleashing innovation

“There's a magical point in markets where they all suddenly tip. They're looking for ‘Where's the opportunity for growth and discovery and opportunity?’ There's a point coming in energy like that. China ramps up its response and the US starts to panic...

Once the money is saying, ‘Hello - we can do this!’ then the policy will take off. Then that will become self-fulfilling - the collapse of the coal and oil industry....”



Paul Gilding, *The Great Disruption*

“Public will, individual psychology and technological innovation come together to create tremendous innovation dynamics.

In a few years renewable energy has already overtaken, at least in installed capacity, the nuclear industry in Germany. So this is ‘proof of concept’ – that yes we can create big transitions....”



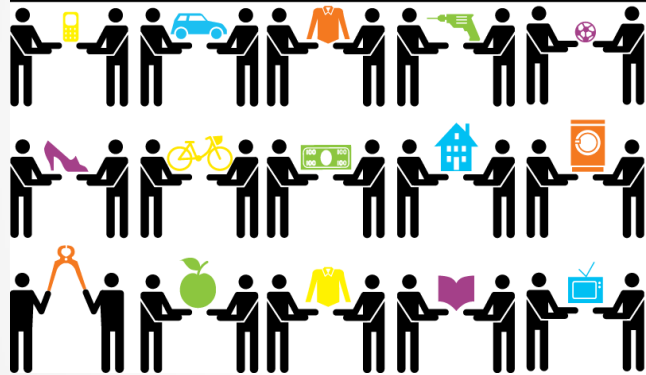
Prof. John Schellhuber
Potsdam Institute for
Climate Impacts Research



WHAT'S MINE IS YOURS

THE RISE OF
COLLABORATIVE
CONSUMPTION

Rachel Botsman
and Roo Rogers



Sustainable
Development Commission

Prosperity

PLEASE FIND
ALTERNATIVE
ROUTE

without
growth?

The transition to a
sustainable economy



VEIL

collaborate
transform

victorian eco
innovation lab

inspire

4. Government, community and business leadership – at multiple levels

“How we got there is a collection of acts of leadership by leaders who emerged to seize the moment. Who just said ‘no we cannot let our climate be so fundamentally changed. We can’t afford what that’s going to do.

It will be consumers demanding new products; it will be companies providing new products. It will be the media. It’ll be people from all walks of life demonstrating true leadership, taking on the status quo, taking on a sense of negativism and ‘it’s too late-ness’ and saying ‘no we can’t let this happen and we’ll work together.”

Kevin Curtis, Climate Reality Project, Washington D.C.



“Even if you understand the science, it’s still hard to connect climate change to the actual effects. So it’s not surprising at all that people question our efforts to regulate in an area that might have an economic cost, when they don’t see the actual impact of what we’re doing.

Or they’ll say California alone is only a small percentage of overall global emissions - why are we doing this - if not everybody else is....

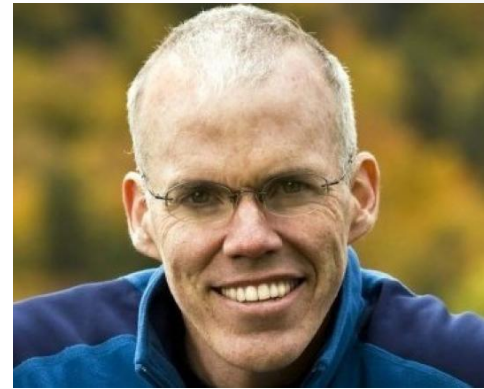
The primary response is all about leadership. That we are the incubator, that we’re developing these programs so others can adopt them, and copy them. We can learn from them and they can learn from us. It really is an issue of ongoing and sustained leadership.”



**James Goldstene,
Executive Officer,
California Air Resources
Board**



**DIVEST
NOW**
FOSSIL FREE



Bill McKibben

“Environmentalists clearly weren’t going to outspend the fossil fuel industry, so we’d need to find other currencies: the currencies of movement.

Instead of money, passion;
instead of money numbers;
instead of money, creativity.”

4. Decisive and visionary action at moments of crisis

“I’ll give you several reasons why the fairytale might come true. One is, very sadly, that a few disasters will happen. Hurricane Katrina changed a lot in America. Nobody, in particular not climate scientists, hope that disasters generate these type of dynamics, but invariably it will happen....



Prof. John Schellnhuber

The second thing is leadership. What Merkel did with the German experiment is happening because Merkel had the guts to really to say she was wrong. This type of leadership will be necessary, maybe in China, maybe in the United States, maybe in Australia even...

The third thing is social innovation. I just went to a region in Germany where people say ‘We want to have energy supply completely done on a communitarian basis. We the citizens will buy the power plants. We will buy the networks and the grids. We will do it.’”



“The trigger is going to be some sort of natural disaster that wakes people up. We’re already seeing that happening, in that we’re probably locked into irreversible change in the Arctic with the disappearance of the sea-ice.

Before long the community will wake up to what is occurring and demand action along the lines that... ‘We have been looking at the problem for 30 years and done virtually nothing. Now we have to really start moving.’

The pressure will then come on the business and political worlds for real action. It will require different leadership from anything we’ve seen before as we will have to move to a war-footing....”



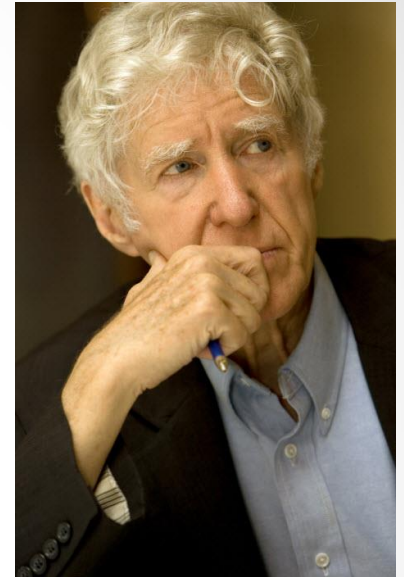
Ian Dunlop, Club of Rome
and Safe Climate
Australia

“Who saw the Berlin Wall coming down until it actually went down? Or I look at the Arab Spring of 2010. These weren’t random events. They’d reached a kind of tipping point.

Partly it’s political. Part of it is technological. Part of it is demographic. A lot of young people - they have the internet now so they can organise, they can exchange information. It changes the whole ballgame.

I liken it to recognising the link between smoking and health 20 years ago and the tobacco company CEOs are under oath saying, ‘There’s no proof of a link between smoking and health,’ and get away with it.

Then, within a year or two, everything had changed and they couldn't say anything because no one would listen to them and no elected member of Congress would be seen in public with a tobacco company CEO. It just changed that fast.”



Lester Brown,
CEO, Earth Policy
Institute



2014 priorities

- Strategies for accelerating transition to a just and resilient zero-carbon future
www.postcarbonpathways.net.au
- *Roadblock removal* research and writing projects
 - Denial and paralysis
 - Vested interests
 - Path dependencies
 - Unsustainable and inequitable growth and consumption
 - Governance and implementation constraints
- *Imagine 2033* – continued...



POST CARBON PATHWAYS

Imagine it is 2033....

Imagine we now live in a world in which the transition to a just and resilient post carbon society is well underway and there is now real hope that catastrophic climate change will be avoided.

How did this happen?

Thankyou



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