



UNPRI – CDP Worldwide Markets Skewed

PRESENTED BY MICHELLE STIRLING

COMMUNICATIONS MANAGER, FRIENDS OF SCIENCE SOCIETY

What is the UNPRI?

- ▶ United Nations Principles for Responsible Investment
- ▶ In early 2005, the then United Nations Secretary-General Kofi Annan invited a group of the world's largest institutional investors to join a process to develop the Principles for Responsible Investment. A 20-person investor group drawn from institutions in 12 countries was supported by a 70-person group of experts from the investment industry, intergovernmental organisations and civil society.
- ▶ The Principles were launched in April 2006 at the New York Stock Exchange. Since then the number of signatories has grown from 100 to over 1,800.
- ▶ Over \$100 trillion in AUM

- ABN AMRO Asset Management
- **Stichting Pensioenfond ABP***
- Amalgamated Bank
- AP2
- Asset4
- Aviva Investors
- Banco
- Bank Sarasin & Co. Ltd
- BC Investment Management Corporation
- BNP Paribas Asset Management
- **BT Pension Scheme***
- Caisse de dépôt et placement du Québec
- **Caisse des dépôts et consignations – CDC***
- CalPERS*
- Calvert Group
- **Canada Pension Plan Investment Board***
- Catholic Superannuation Fund
- Christian Super

- Government Employees Pension Fund of South Africa
- **Government Pension Fund of Thailand***
- Groupama Asset Management
- Henderson Global Investors
- **Hermes Pensions Management***
- Insight Investment
- **International Finance Corporation***
- Macif Gestion
- Mennonite Mutual Aid
- Mercer Investment Consulting
- Mitsubishi UFJ Trust and Banking Corporation
- **Munich Reinsurance AG***
- Nathan Cummings Foundation
- National Pensions Reserve Fund of Ireland
- **New York City Employees Retirement System***
- New York State Local Retirement System
- New Zealand Superannuation Fund
- **Norwegian Government Pension Fund***

Founders of UNPRI

- Christian Super
- CIA (Caisse de Prevoyance du Canton de Geneve)
- Comité syndical national de retraite Bâtirente
- **Connecticut Retirement Plans and Trust Funds (CRPTF)***
- Crédit Agricole Asset Management Group
- Daiwa Asset Management Co. Ltd
- Dexia Asset Management
- Domini Social Investments
- Etablissement du Régime Additionnel de la Fonction Publique – ERAFP
- Ethix
- F&C Asset Management
- **Folksam***
- **Fonds de réserve pour les retraites – FRR***
- FTSE Group
- **Wespath Investment Management (General Board of Pension and Health Benefits United Methodist Church)***
- Generation Investment Management LLP
- GES Investment Services

- **Norwegian Government Pension Fund***
- onValues Ltd.
- Pensionfund Metalektro (PME)
- **PGGM Investments***
- Portfolio Partners Limited
- **PREVI***
- **Public Sector Superannuation Scheme***
- Reputex
- Storebrand
- Sumitomo Trust
- **TIAA – CREF***
- Teachers' Retirement System of the City of New York
- Threadneedle Asset Management Ltd
- Trucost
- **United Nations Joint Staff Pension Fund***
- **Universities Superannuation Scheme – USS***
- Vigeo

Who can Join?

WHO CAN SIGN THE SIX PRINCIPLES?

Any organisation fitting one of the three signatory categories described below can sign up to the Principles for Responsible Investment. Commitment is required from the very top of the organisation, across the entire investment business.

ASSET OWNERS

Organisations that represent the holders of long-term retirement savings, insurance and other assets. Examples include pension funds, sovereign wealth funds, foundations, endowments, insurance and reinsurance companies and other financial institutions that manage deposits.

This is the principal category of signatory.

INVESTMENT MANAGERS

Organisations that manage or control investment funds, either on its own account or on behalf of others, and which does not own more than half of such investment funds.

SERVICE PROVIDERS*

Organisations that offer products or services to asset owners and/or investment managers. Although such companies are not stewards or managers of assets in their own right, they do have considerable influence over how their clients address ESG issues. For this group, becoming a signatory is a commitment to providing, developing and promoting services that support clients' implementation of the Principles.

**also referred to as professional service partners*

Signatories self-select the category that they fall into, but the PRI Board reserves the right to determine which category is most appropriate. While the categories are not designed to be overly prescriptive, these [General Guidelines](#) highlight the main principles the PRI follows to confirm a signatory category.

Private Funds are not required or permitted to join.

UNPRI is Focused on “ESG” – Environment, Social, Governance

- ▶ As indicated in this year's [Global Climate 500 Index](#), only a handful of the world's largest 500 institutional investors are aware of the carbon intensity of their investment portfolios; 21 of the 32 largest Canadian institutional investors appearing in the survey received either a D or an X rating, including the Alberta Heritage Savings Trust Fund and the Ontario Public Service Pension Plan. This indicates that Canadian pension funds and other large investors are not ready for the massive shift in the global energy system that is happening.
- ▶ Lots of pressure from UNPRI on signatories to be activists with governments and corporations.
- ▶ Likely the source of 'compelled speech' and diversity initiatives for boards.

Six Principles

WHAT ARE THE SIX PRINCIPLES FOR RESPONSIBLE INVESTMENT?

The six Principles for Responsible Investment are a voluntary and aspirational set of investment principles that offer a menu of possible actions for incorporating ESG issues into investment practice.

The Principles were developed by investors, for investors. In implementing them, signatories contribute to developing a more sustainable global financial system. They have more than 1,800 signatories, from over 50 countries, representing approximately US\$70 trillion.

PRINCIPLE 1

WE WILL INCORPORATE ESG ISSUES INTO INVESTMENT ANALYSIS AND DECISION-MAKING PROCESSES.

PRINCIPLE 2

WE WILL BE ACTIVE OWNERS AND INCORPORATE ESG ISSUES INTO OUR OWNERSHIP POLICIES AND PRACTICES.

PRINCIPLE 3

WE WILL SEEK APPROPRIATE DISCLOSURE ON ESG ISSUES BY THE ENTITIES IN WHICH WE INVEST.

PRINCIPLE 4

WE WILL PROMOTE ACCEPTANCE AND IMPLEMENTATION OF THE PRINCIPLES WITHIN THE INVESTMENT INDUSTRY.

PRINCIPLE 5

WE WILL WORK TOGETHER TO ENHANCE OUR EFFECTIVENESS IN IMPLEMENTING THE PRINCIPLES.

PRINCIPLE 6

WE WILL EACH REPORT ON OUR ACTIVITIES AND PROGRESS TOWARDS IMPLEMENTING THE PRINCIPLES.

*Comply or Explain



“Clean Energy” “Low-Carbon” Future Overtaking Fossil Fuels? NO.

PRINCIPLES FOR RESPONSIBLE INVESTMENT

ABOUT | EXPLORE | COLLABORATE | REPORT | NETWORKS | ACADEMY | PARTNERSHIPS | JOIN PRI | NEWS | CONTACT

LOG IN

Al Gore on why ESG consideration is part of a fiduciary's duty

Read more

Explore PRI

Region Asset Class ESG Theme Collaboration Type Resource Type Event Type

Search for...

In the news: Pensions & Investments | Principles for Responsible Investment names first head of China

LATEST RESOURCES

REPORT / GUIDES

A practical guide to ESG integration for equity investing - Chinese
November 14, 2017 - Read more

REPORT / GUIDES

Aligning values: why corporate pension plans should mirror their sponsors - Japanese
November 14, 2017 - Read more

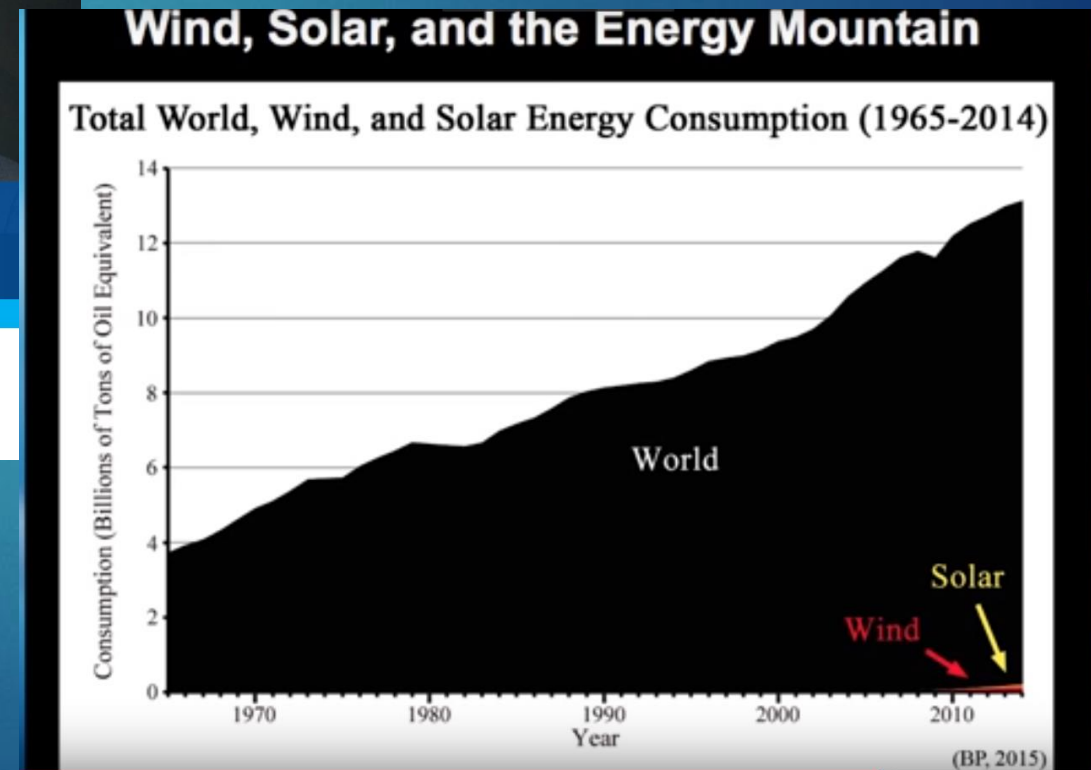
REPORT / GUIDES

Aligning values: why corporate pension plans should mirror their sponsors - Portuguese
November 14, 2017 - Read more

New Signatories

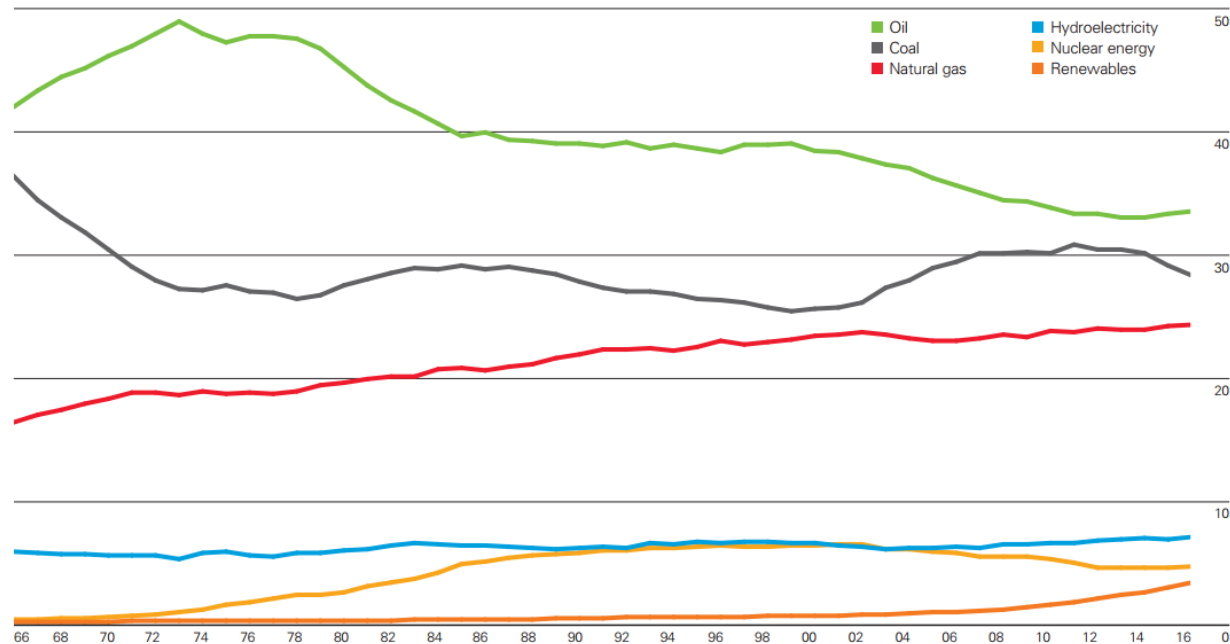
SilverStreet Capital LLP United Kingdom
Perfin Investimentos Brazil
FOCUS ASSET MANAGERS France

VIEW



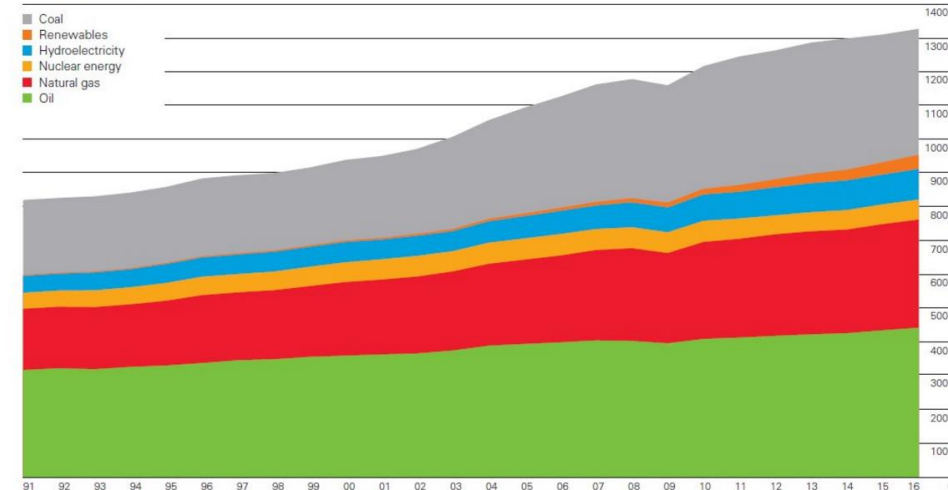
Oil, Natural Gas and Coal Continue to Grow

Shares of global primary energy consumption
Percentage



Oil remains the world's dominant fuel, making up roughly a third of all energy consumed. In 2016 oil gained global market share for the second year in a row, following 15 years of declines from 1999 to 2014. Coal's market share fell to 28.1%, the lowest level since 2004. Renewables in power generation accounted for a record 3.2% of global primary energy consumption.

World consumption
Million tonnes oil equivalent



WORLD ENERGY PRODUCTION 2016

Billion BTU's	
CRUDE OIL	53,174,163
COAL	50,649,348
NATURAL GAS	39,110,548
HYDROELECTRIC	10,520,953
NUCLEAR	8,498,105
WIND	2,021,778
BIOFUELS	803,789
SOLAR	402,429
GEOTHERMAL	110,240
TOTAL PRODUCTION	162,932,433
TOTAL CONSUMPTION	162,997,433

Activist Investors

SIGNING A PLEDGE FOR ACTION

Underpinning the PRI's climate work and its support for the Paris Agreement, the PRI signed **L'Appel de Paris (the Paris Pledge for Action)**, an opportunity for non-state actors to welcome the Paris Agreement on climate change and commit to implement it. By joining the pledge, businesses, cities, civil society groups, investors, regions, trade unions and other signatories promised to ensure that the ambition set out by the Paris Agreement is met or exceeded to limit global temperature rise to less than 2 degrees Celsius.

"We realise that dangerous climate change threatens our ability and the ability of future generations to live and thrive in a peaceful and prosperous world [...] and that taking strong action to reduce emissions can not only reduce the risks of climate change but also deliver better growth and sustainable development."

...ON CORPORATE CLIMATE LOBBYING

The PRI brought together a worldwide group of more than 60 investors, representing over US\$3.8 trillion, who have signed a **statement outlining investor expectations** that company lobbying on climate change related policy and regulation must be in line with the universally accepted goal of limiting global temperature rises to two degrees Celsius. They are explicitly calling for improvements in practice and transparency from investee companies on aspects such as their governance processes for climate policy engagement and their membership of or support for all third-party organisations that lobby on climate change.

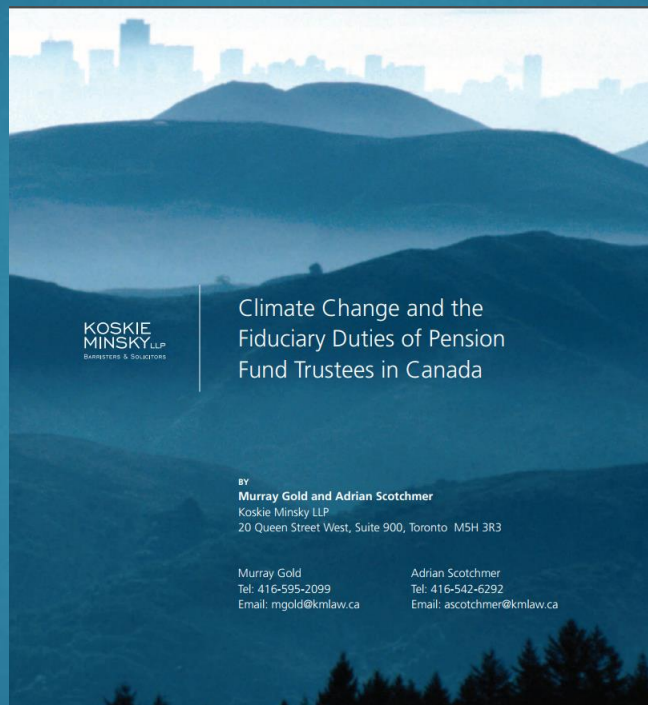
The PRI is continuing to coordinate **a working group of 22 investors** engaging companies in Australia, Canada and the USA on their climate-related lobbying activities, in particular where the company's public position is inconsistent with the positions of trade associations it belongs to. We are working with the **Institutional Investors Group on Climate Change (IIGCC)** on their parallel initiative in Europe. The statement and working group also bolster existing efforts underway including the UN's Caring for Climate programme on **responsible corporate engagement in climate policy**.

[READ MORE](#)

Activist Investors Driving Government and Corporate Policy

TOP 20, MOST ACTIVE SIGNATORIES in 2015/16:

- ACTIAM
- Aviva Investors
- Bâtirente
- BMO Global Asset Management
- Boston Common Asset Management
- Boston Trust & Investment Management Company
- California Public Employees' Retirement System CalPERS
- Calvert Investments
- CCLA
- Domini Social Investments
- Hermes Fund Managers Limited
- Interfaith Center on Corporate Responsibility
- Miller Howard Investments
- MN
- NEI Investments ←
- Pax World
- PGGM Investments
- Rathbone Brothers Plc
- Robeco
- Trillium Asset Management



Sept 1, 2015 -Lawyers Koskie Minsky report tells pension fund trustees that 'climate change denial is not an option.' Sept. 8, 2015, NEI + 120 inst investors w \$4.6 trillion in assets provide their climate change objectives to Premier Notley.

September 8, 2015

The Honourable Rachel Notley
Premier of Alberta, President of Executive Council, Minister of International and Intergovernmental Relations
Government of Alberta
Office of the Premier, Room 307, Legislature Building
10800 - 97th Avenue
Edmonton, AB T5K 2B7

Re: Renewing Alberta's Climate Change Framework

Dear Premier:

The undersigned institutions, representing over C\$4.6 trillion in assets under management, invest in companies that operate in Alberta. We are writing today to support the Government of Alberta in its stated intention to update and strengthen its climate policy and strongly agree that this should be a priority area for Alberta policy development. We believe that a robust and credible climate policy will be critical to the future success of Alberta-based companies, in particular the energy sector, and that it will provide necessary assurance to investors.

There is a growing consensus that a broad-based and credible price on carbon is essential for addressing climate change risks effectively.¹ Phasing in an effective carbon price will substantively reduce emissions over time while giving companies the opportunity to transition, and giving capital markets the opportunity to respond and allocate capital effectively. Failure to act now increases the risk that an economically-disruptive price on carbon or other regulatory measures will need to be imposed at a later date.

We acknowledge the leadership that Alberta has shown as one of the first jurisdictions to price carbon, and the government's recent announcement of a phased increase in that price. We encourage the Government of Alberta to keep carbon pricing as a central tenet of future carbon policy.

Example: NEI Investor in Suncor

Suncor Energy Inc.

Sector: Energy
Website: www.suncor.com
Funds: NEI Ethical Balanced Fund
NEI Ethical Canadian Equity Fund *

Q2
2017

In April 2017 Suncor published its low-carbon resiliency report to investors, as it had committed to do in supporting our 2016 shareholder resolution. This marked the first time a Canadian energy company had provided a report to investors on how it planned to stay resilient through the energy transition. The disclosure provided a substantive discussion of its strategy in relation to its oil sands assets, efforts to reduce its carbon footprint, exposure to carbon pricing impacts, its plans for diversification into renewables, and the risks facing some of its proposed projects in a low-carbon future. We met with Suncor in May 2017 to discuss the report and its experience in performing scenario analysis. The company reiterated that the process was extremely valuable and had helped inform company strategy and risk management.

COMPANY OVERVIEW

Suncor Energy Inc. is Canada's largest integrated energy company, focused on development of the Athabasca oil sands.

KEY ISSUES

Energy transition – climate strategy, GHG emissions & public policy

2013

In April 2013 we provided feedback to Suncor on its sustainability disclosure strategy, encouraging the company to increase disclosure on lobbying activities and submissions to government consultations.

In May 2013 we wrote to Suncor's CEO, asking the company to actively support the implementation of a significant price on carbon in Canada. In its response, the company agreed with our premise that Canada requires a price on carbon in order to stimulate innovation and drive efficiency.

We were able to vote for Suncor's executive compensation package for the first time at the 2013 AGM, as the company had adopted many of the suggestions we raised in earlier dialogue. We wrote to the board in July 2013 to convey our appreciation of the changes and suggest further improvements. The chair of the compensation committee responded to thank us for our feedback.

We met with the company in October 2013 to discuss further the issues raised in our May carbon pricing letter, and reiterated our concern that the industry would face continued opposition if it did not support a more progressive climate policy in Canada. We also raised the company's exposure to the risk of stranded assets in a carbon-constrained future. The company indicated that it has been exploring these questions and agreed to consider options for future disclosure on how it is mitigating risk. We shared examples of how leadership could be demonstrated in this area.

We met with the company in November 2013 to follow-up on its commitment, in response to a shareholder proposal withdrawn in 2010, to provide detailed carbon shadow pricing on new oil sands projects. The company noted that Fort Hills was the first new project to be sanctioned since our agreement and committed to discussions on how to fulfill the obligation.

<https://www.neiinvestments.com/documents/EngagementDialogues/Suncor%20Energy.pdf>

CDP Worldwide – a Rockefeller ‘charity’ aggregates GHG footprints & Issues Reports




Home What we do Members & signatories Reporting to CDP Reports & data

CDP investor initiatives

Climate change, water scarcity, flooding, pollution and deforestation present material risks and opportunities to investors.

In order to protect their long term investments, institutional investors must act to reduce the long-term risks arising from environmental externalities.

CDP investor initiatives – backed in 2015 by more than 827 institutional investors representing an excess of US\$100 trillion in assets – give investors access to a global source of year-on-year information that supports long-term objective analysis. This includes evidence and insight into companies' greenhouse gas emissions, water usage and strategies for managing climate change, water and deforestation risks.



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Catalyzing business and government action


CDP works to transform the way the world does business to prevent dangerous climate change and protect our natural resources. We see a world where capital is efficiently allocated to create long-term prosperity rather than short-term gain at the expense of our environment.

Evidence and insight is vital to driving real change. We use the power of measurement and information disclosure to improve the management of environmental risk. By leveraging market forces including shareholders, customers and governments, CDP has incentivized thousands of companies and cities across the world's largest economies to measure and disclose their environmental information. We put this information at the heart of business, investment and policy decision making.

We hold the largest collection globally of self reported climate change, water and forest-risk data. Through our global system companies, investors and cities are better able to mitigate risk, capitalize on opportunities and make investment decisions that drive action towards a more sustainable world.

Find out:

- How we work with 822 institutional **investors** holding US\$95 trillion in assets to help reveal the risk in their investment portfolios.
- How CDP works with thousands of **companies** to tackle climate change.



Find out how CDP is using measurement, transparency and accountability to drive positive change in the world of business and investment.

CDP Worldwide Downgrades Canadian Oil Sands



In the pipeline

Which oil and gas companies are preparing for the future?
Executive Summary

November 2016



Company findings

Rank	Summary
1 Statoil	Statoil performs strongly across most key areas. It has the highest percentage of gas in its proved reserve base and has increased the proportion of gas in its production the most in recent years. With a low reserve life (and high percentage of developed proved reserves) it potentially has more flexibility than others to adapt its capital expenditure strategy. The company has the lowest upstream emissions intensity and manages its methane and flaring emissions better than its peers. Statoil has also made recent commitments on low-carbon energy, focusing on offshore wind projects and has assessed the economic impact of the IEA450 scenario on its portfolio.
2 Eni	Eni's future potential production is dominated by conventional resources and it currently has no oil sands production. The gas share of its portfolio is set to increase significantly, with large gas projects due to come online in the near future (such as Zohr in Egypt, scheduled for Q4 2017 start-up). Eni plans to spend €1billion over the next three years on alternative energy, primarily solar projects in Italy, Algeria, Pakistan and Egypt.
3 Total	With the ambition of "20% low-carbon assets in 20 years" Total is positioning itself to have a fifth of its portfolio in low-carbon businesses by 2035 and has recently acquired Sunpower (solar panel producer) and Saft (battery manufacturer). The company's hydrocarbon production mix is forecast to be 50% gas by 2020, with a company target of 60% gas by 2035.

9 Chevron

Chevron performs below average across most metrics. It has the fourth highest upstream emissions intensity; however, it is one of only two companies that managed to decrease its emissions intensity from 2010 to 2015. Today, its portfolio is relatively oil based (only 31% gas) but this is expected to change as large LNG projects Gorgon and Wheatstone come online.

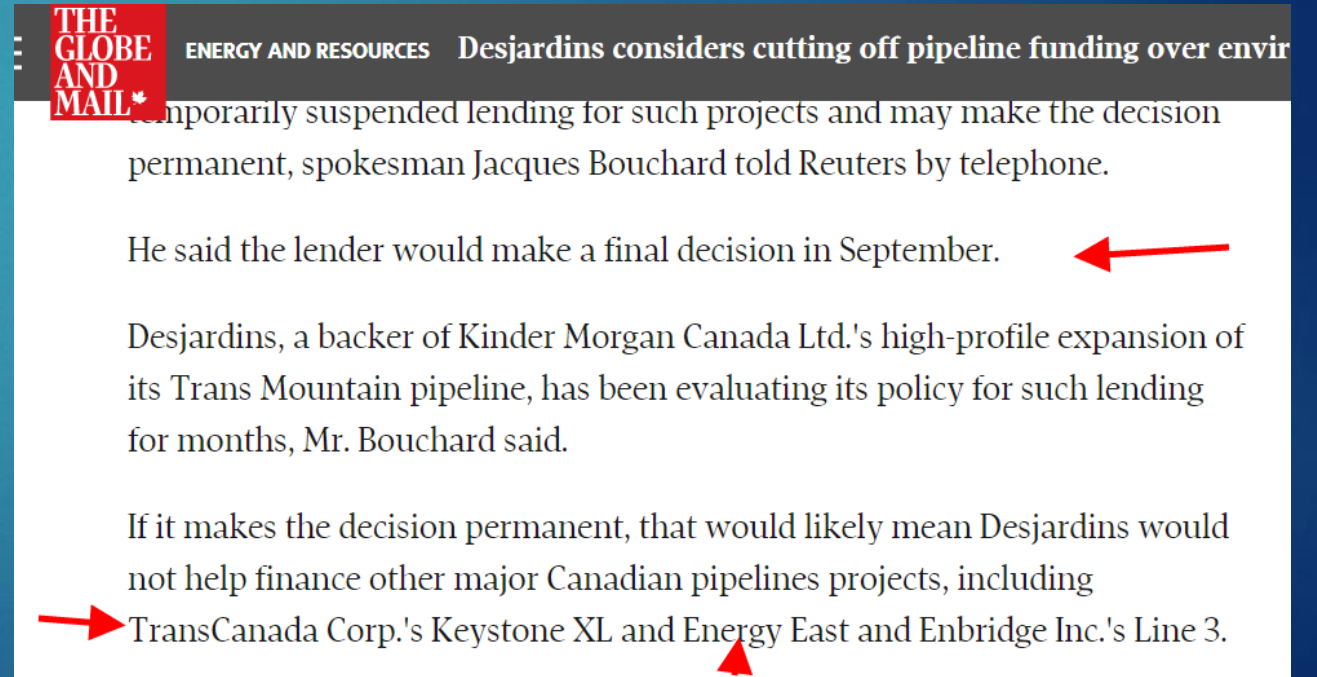
10 ExxonMobil

ExxonMobil performs below its peers in its emissions performance and wider climate governance and strategy considerations. Owing to the low-oil price environment, ExxonMobil recently announced that approximately 4.6bn barrels of oil equivalent may be required to be de-booked as proved reserves⁶. The company is also carrying out a wider assessment of its "major long-lived assets". This follows news that in September 2016 the company was being probed by the U.S. Securities and Exchange commission (SEC) over its reserve reporting and asset valuation.

11 Suncor

Suncor has the highest exposure to oil sands (*circa* 80% of its production and 95% of proved reserves). Due to its business model it has the highest upstream emissions intensity of all the companies. It sold its conventional natural gas operations in 2013 and recently acquired Canadian Oil Sands, making it almost entirely an oil player. However, Suncor management has supported a 2016 shareholder resolution on climate issues.

Banks and Institutional Investors Flee



Majors Pull out of Oil Sands

- ▶ Combination of investors seeing this as 'climate risk' via UNPRI (comply or explain, principle 6) and CDP downgrading oil sands
- ▶ Banks unwilling to finance due to 'climate risk' and activist shareholders
- ▶ Activist shareholders and ENGOs demarketing
- ▶ Activist shareholders using major oil companies to essentially extort them into financing renewable wind/solar farms – markets that have completely dropped off in EU
- ▶ Insurance co's pressured to NOT insure any carbon based entity
- ▶ Vulture investor opportunities

SEVEN OIL MULTINATIONALS THAT ARE PULLING OUT OF CANADA'S TAR SANDS

MAR
14
2017



Patrick DeRochie
Program Manager,
Climate & Energy

Categories: [Climate Change](#), [Energy East](#)



Last week brought multinational oil co

Shell's withdrawal from the oil industry: the world oil prices, stronger political pressure, and renewable energy market.

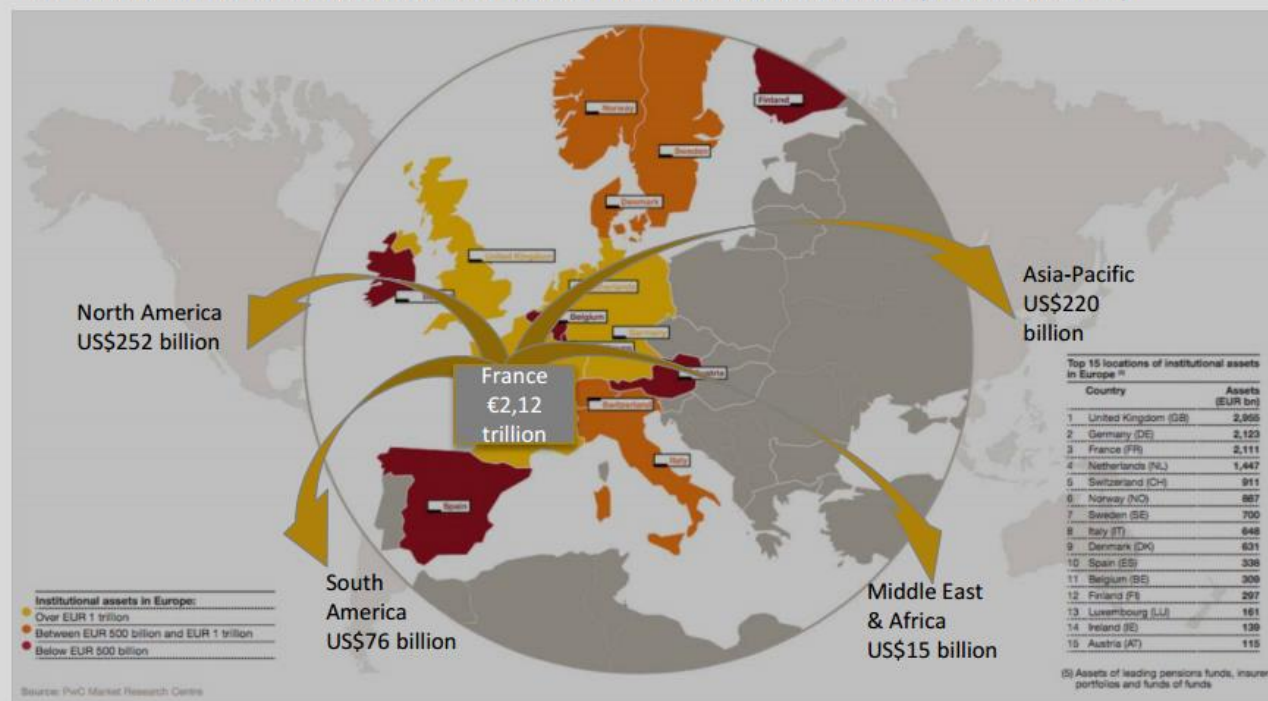
Rather than trumpet the [Trudeau did last week](#) and a [just transition](#) economy.

1. **Statoil.** In December 2016, [Norway's Statoil](#) sold all of its tar sands assets at a loss and exited Western Canada altogether, due to low oil prices, domestic pressure from Norwegians, and an ["energy market \(that\) has changed since \(2007\) quite considerably."](#)
2. **Koch Industries.** Just days after Statoil left the tar sands, Koch Industries, owned by the infamous [climate-denial-funding Koch brothers](#), [ended plans to build its proposed Muskwa tar sands project](#) west of Fort McMurray.
3. **Imperial Oil.** In January 2017, Imperial Oil, the Canadian subsidiary of ExxonMobil, [announced it would "write down" 2.8 billion barrels](#) of its bitumen reserves in Alberta. This was the company acknowledging that the tar sands oil could not be economically produced under prevailing low energy prices.
4. **ConocoPhillips.** In February 2017, American oil giant ConocoPhillips was forced to admit that [2 billion barrels of its previously "proven" tar sands reserves](#) might have to stay in the ground. ConocoPhillips also suggested low global oil prices made the reserves uneconomical to produce.
5. **ExxonMobil.** Also in February 2017, the United States' largest oil company, ExxonMobil, announced that it can no longer profitably develop up to [3.6 billion barrels of its tar sands reserves](#) unless oil prices rise. That's 3.6 billion barrels of oil that could be [left in the ground](#).
6. **Marathon Oil.** On the same day as Shell's tar sands divestment, Houston-based Marathon Oil [signed a deal to sell](#) its Canadian tar sands operations in an effort to cut the highest-cost assets from its portfolio.
7. **Royal Dutch Shell.** The Marathon divestment was drowned out by the bigger news of Shell selling off all of its tar sands assets for \$7.25 billion. The oil giant's CEO said that the tar sands ["are no longer a strategic fit for Shell."](#)

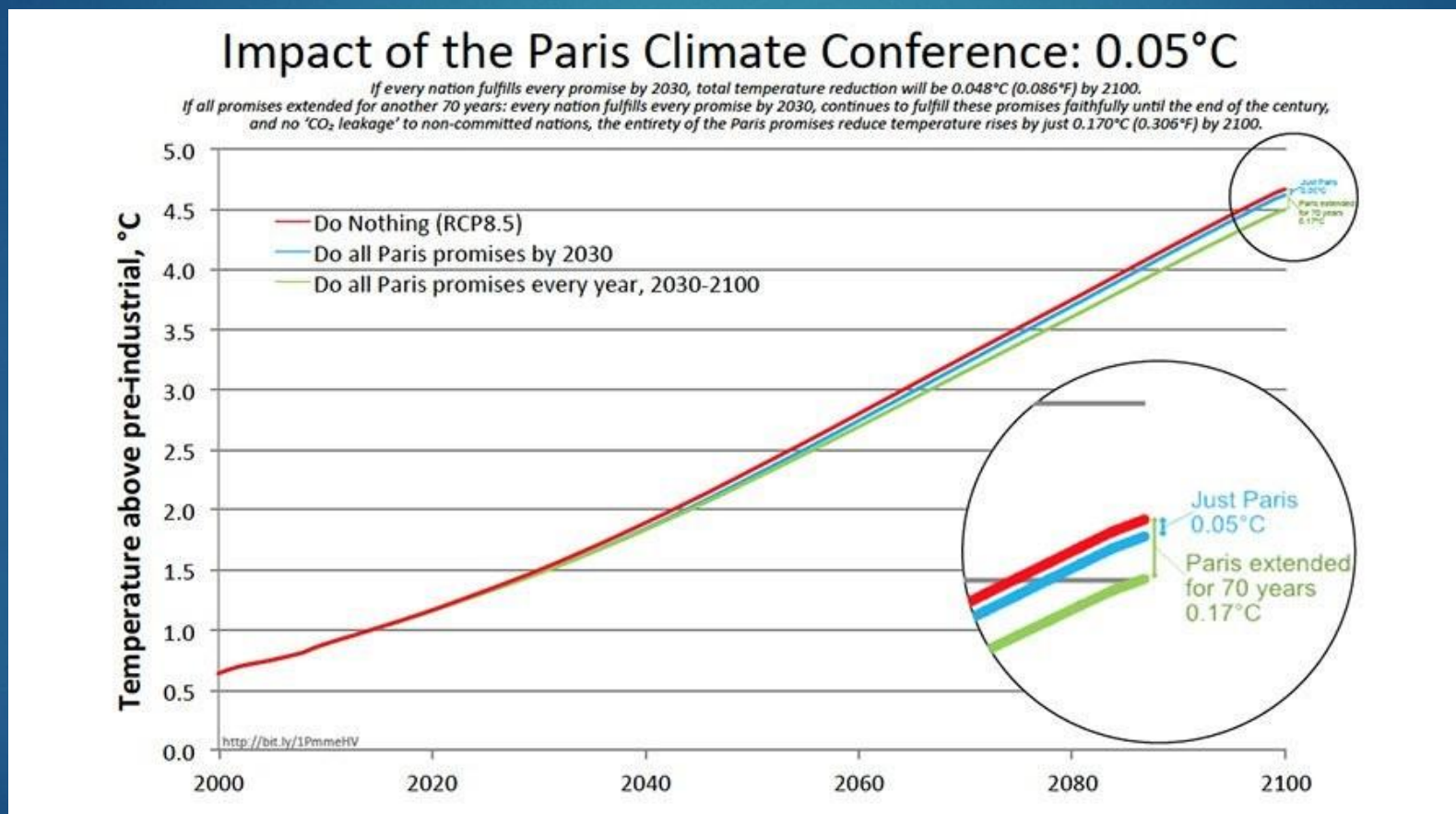
France Unilateral Demand for 2°C Target

With more than €2 trillion of assets under management, and US\$500 billion invested outside Europe (Fig. 1.4), French institutional investors will significantly boost the demand for climate metrics. This new market is likely to drive innovation in metrics globally and set the international standard. The GHG Protocol, the UNEP-FI and the 2° Investing Initiative will work closely with the French government to ensure the consistency of future international guidance with the French framework. 2° Investing Initiative has produced a summary of the law's requirements for investors and implications for implementing the law (2° Investing Initiative 2015a).

FIG 1.4: FRENCH INSTITUTIONAL ASSETS AND RELATED INVESTMENTS OUTSIDE EUROPE (SOURCE: PwC 2014)



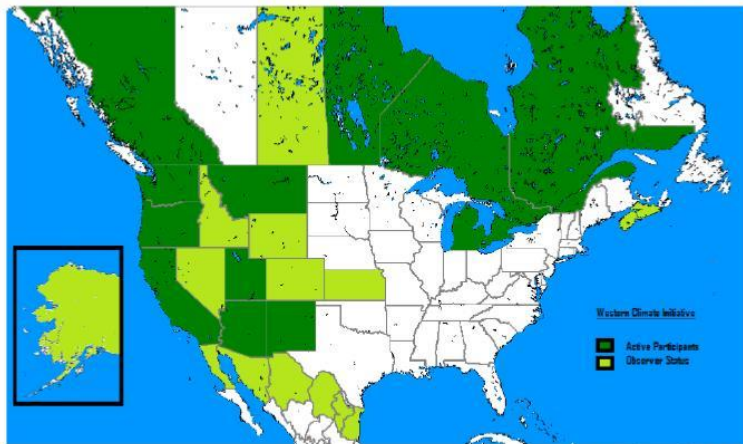
Paris Agreement will never reach that Target



Oak Foundation + other Billionaire Philanthropies Fund ENGGOs to Push Carbon Trading

Alberta was the first jurisdiction in North America to have a price on carbon, but that money goes into an R&D fund. As the map from INTERPOL'S "Guide to Carbon Trading Crime" shows, surrounding areas have some kind of carbon trade agreement. Alberta represents both emissions volume and has natural wind resources that could be generating Renewable Energy Credits for someone. However, these policies have led to heat-or-eat poverty for taxpayers in Europe and have devastated manufacturing industries. Furthermore, emissions have not been reduced, in some cases INTERPOL reports they were increased, in order to make more money, and INTERPOL also reports that white collar and organized crime like the benefits of trading in "an invisible substance whose value lies in the lack of delivery to no one." (Mark Schapiro, Harper's Magazine, Feb. 2010)

States and Provinces covered by the Western Climate Initiative (WCI)



Source: Carbon-Politics.com

Carbon trading to reduce global CO₂ emissions



If the world's current greenhouse gas (GHG) emissions and growth trends continue, the planet could warm by between 4°C and 6°C by 2100. Scientists agree that this could have devastating impacts: the inundation of coastal cities, massive crop failures, droughts and heat waves.

Market mechanisms that encourage fewer GHG emissions are proving successful at reducing global warming pollution. For example, a "cap and trade" system imposes a cap, or limit, on the total carbon dioxide emissions a region or country can produce each year. Permits allowing for the production of GHG emissions can be traded within the system, so that those who find it easy to reduce their emissions can sell excess permits to those who find it more difficult or expensive to cut back. In this way, global warming pollution is reduced while economic growth is generated. This rewards industries or sectors that pollute less, and penalises those that pollute more.

Oak Foundation has supported the work of many groups in North America and Europe to establish two cap and trade systems, which have seen varying degrees of success. The European Trading System (ETS), the cornerstone of the EU's efforts to combat climate change, regulates emissions from power plants, energy-intensive industries and commercial airlines – altogether amounting to about 45 per cent of Europe's GHG emissions. However, the system is currently selling too many permits, so emissions are not falling fast enough, and the price of each tonne of pollution is too low. There are efforts underway to reform this – if successful, the ETS will reduce European emissions to about 20 per cent below 2005 levels by 2020.

In 2009 the US Northeastern States passed the Regional Greenhouse Gas Initiative (RGGI). Unlike the ETS, the RGGI only regulates emissions from the power sector. Sales of permits have generated USD 1.35 billion; this money has been reinvested in renewable energy, in energy efficiency and in helping low-income consumers pay their energy bills. The RGGI has also been successful in terms of reducing GHG emissions – overall, emissions fell from 188 million tonnes of global warming pollution in 2005 to 92 million tonnes in 2012. On top of this, RGGI has helped the region move away from coal and oil to natural gas and renewable energy and to focus on increasing the efficiency of buildings and transportation.

Via UN Clean Device Mechanism, Various Parties make Millions on Pollution



How Can You Benefit From this Information?

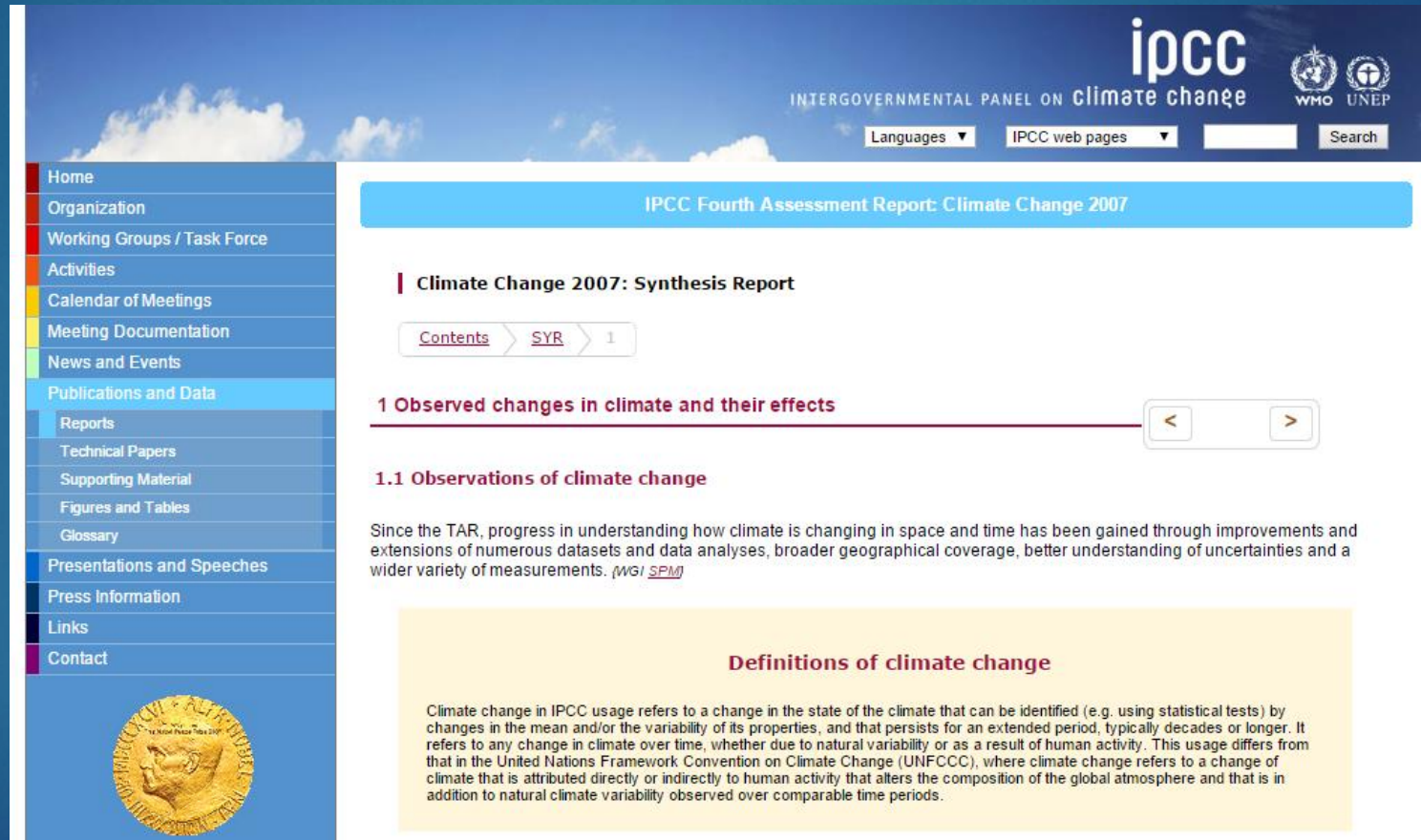
- ▶ Follow which 'ethical' UNPRI signatories are invested in what corporations
- ▶ Watch CDPWorldwide for their reports and how they grade various energy companies – those at the bottom of the list will likely see many investors dump shares
- ▶ Watch what UNPRI signatories push companies to invest in – i.e. most inst investors are into TESLA, despite no evidence that it can meet its claimed goals, but it meets the ESG objectives

It May All Fall Down

- ▶ Carbon markets entail “...the lack of delivery of an invisible substance to no one.” (Mark Schapiro, Harper’s Magazine Feb. 2010 – “Conning the Climate”)
- ▶ UNPRI and CDP operate on the ‘climate catastrophe’ viewpoint of the UNFCCC which claimed humans were the cause of ‘dangerous’ climate change. This is a political, not scientific definition.

The ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, **“...stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system...”**

Scientific Definition and Evidence Show Human GHG/CO₂ a Small Factor



The screenshot displays the IPCC website interface. At the top, the IPCC logo and the text "INTERGOVERNMENTAL PANEL ON climate change" are visible, along with logos for WHO and UNEP. A navigation bar includes "Languages", "IPCC web pages", and a "Search" field. A left-hand menu lists various site sections, with "Publications and Data" highlighted. The main content area features a blue banner for the "IPCC Fourth Assessment Report: Climate Change 2007". Below this, the "Climate Change 2007: Synthesis Report" is the focus, with a breadcrumb trail showing "Contents" > "SYR" > "1". The section "1 Observed changes in climate and their effects" is selected, with a sub-section "1.1 Observations of climate change". A paragraph of text explains the progress in understanding climate change since the TAR. A yellow box titled "Definitions of climate change" provides a detailed scientific definition of climate change in IPCC usage, distinguishing it from the UNFCCC definition.

ipcc
INTERGOVERNMENTAL PANEL ON climate change
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Contact

IPCC Fourth Assessment Report: Climate Change 2007

Climate Change 2007: Synthesis Report

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1 Observed changes in climate and their effects

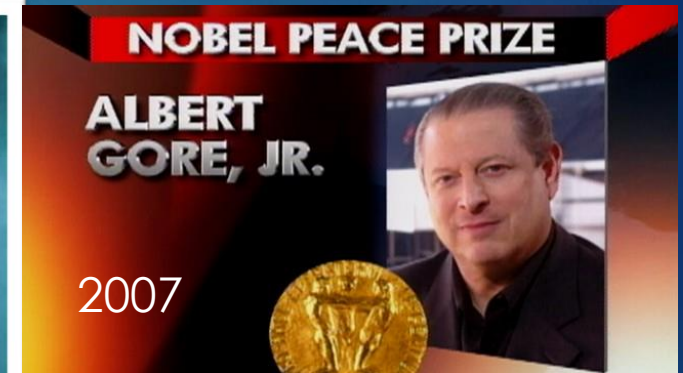
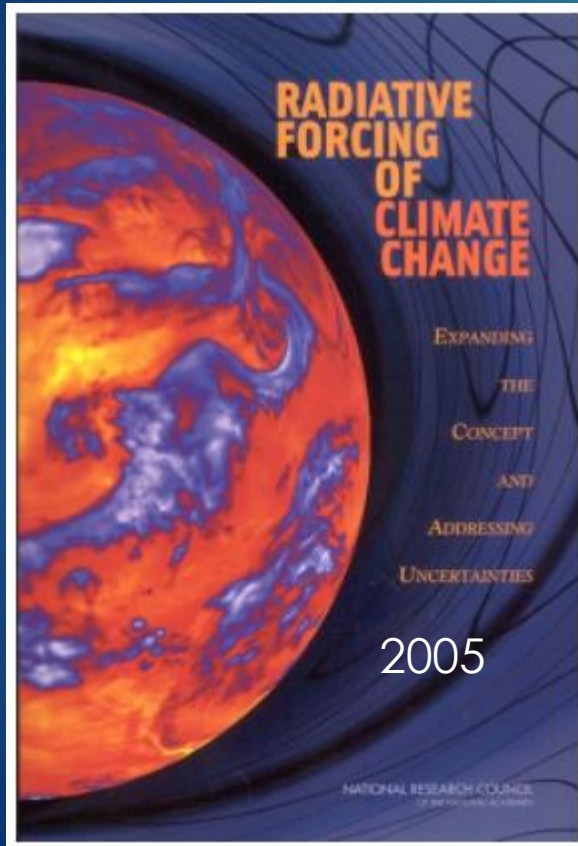
1.1 Observations of climate change

Since the TAR, progress in understanding how climate is changing in space and time has been gained through improvements and extensions of numerous datasets and data analyses, broader geographical coverage, better understanding of uncertainties and a wider variety of measurements. (WG1 SPM)

Definitions of climate change

Climate change in IPCC usage refers to a change in the state of the climate that can be identified (e.g. using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. It refers to any change in climate over time, whether due to natural variability or as a result of human activity. This usage differs from that in the United Nations Framework Convention on Climate Change (UNFCCC), where climate change refers to a change of climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and that is in addition to natural climate variability observed over comparable time periods.

By 2005, Scientists Questioned the Theory
But Al Gore's 2006 Movie Captured Public,
Celebrity and Investor Attention – Funding of
ENGOS Grew



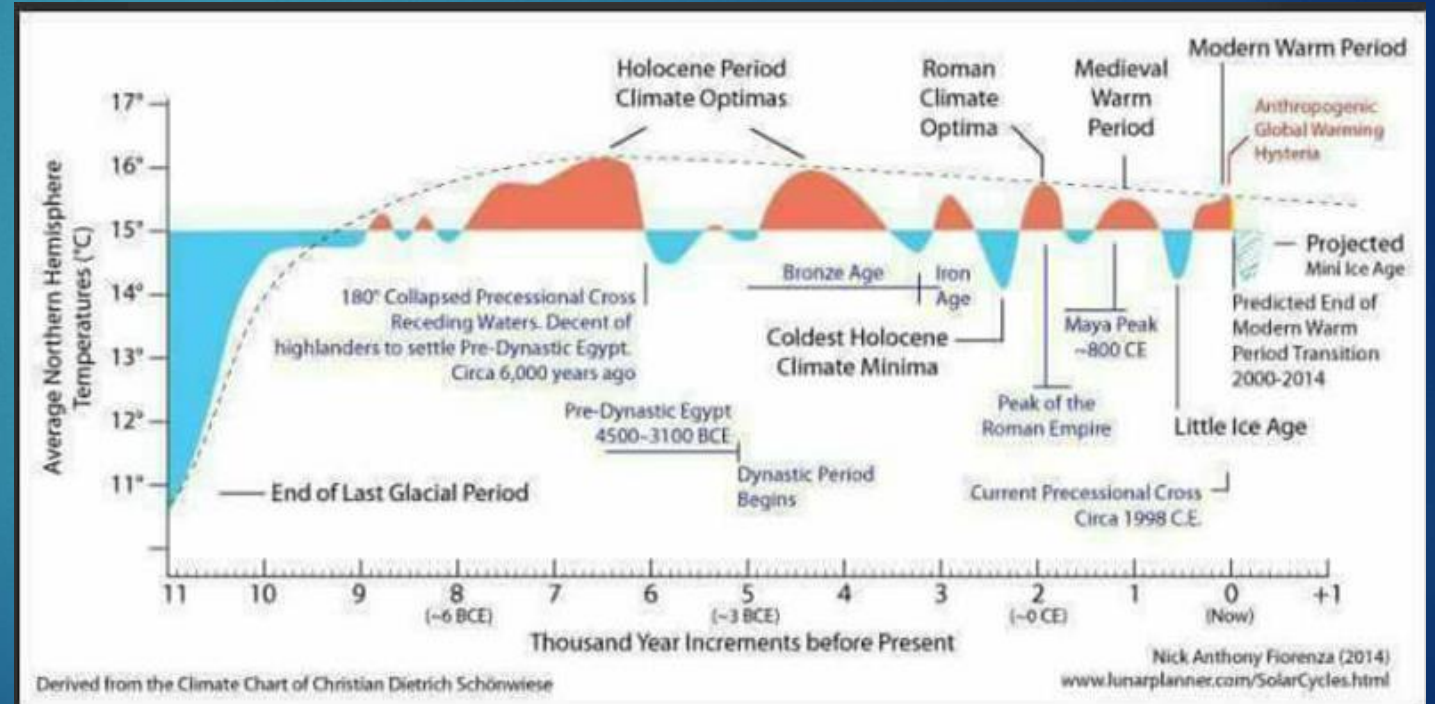
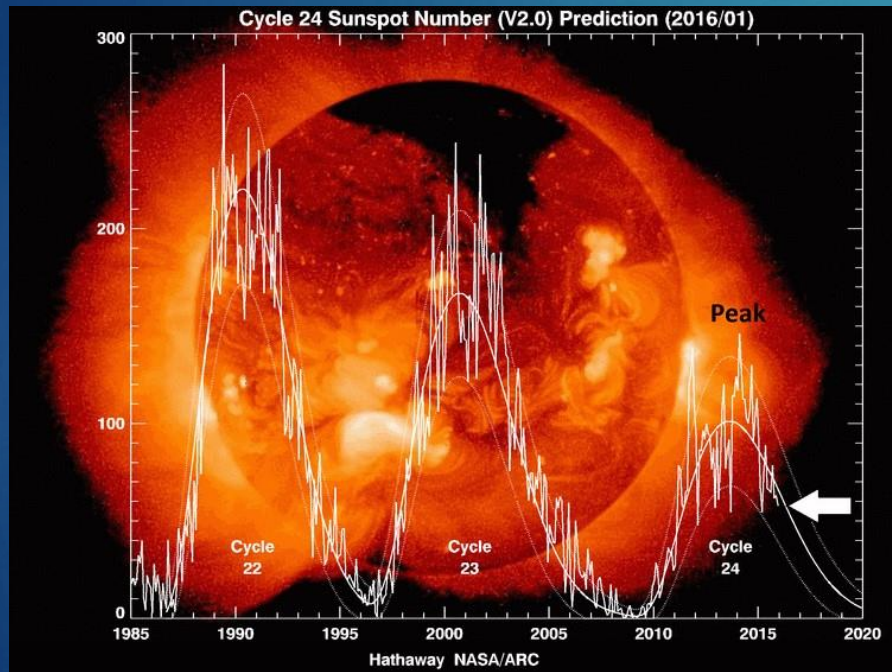


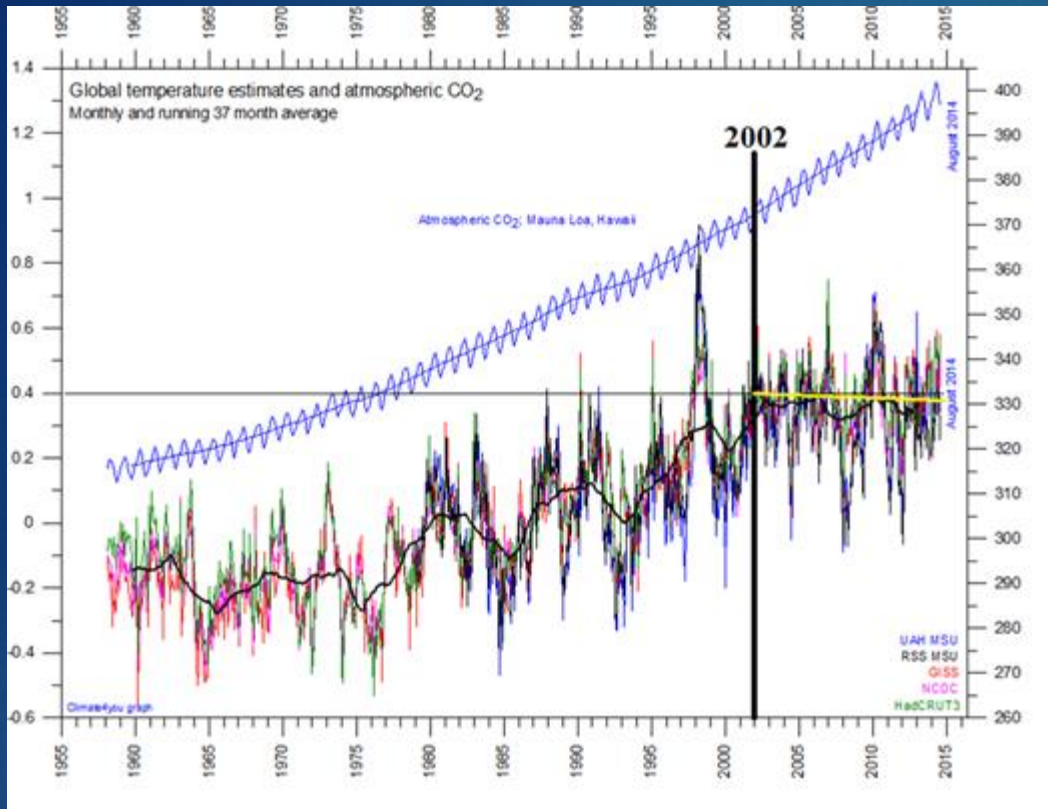
Guide to Carbon Trading Crime



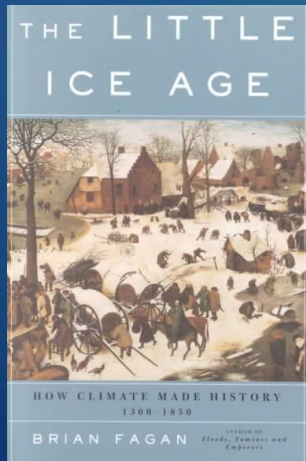
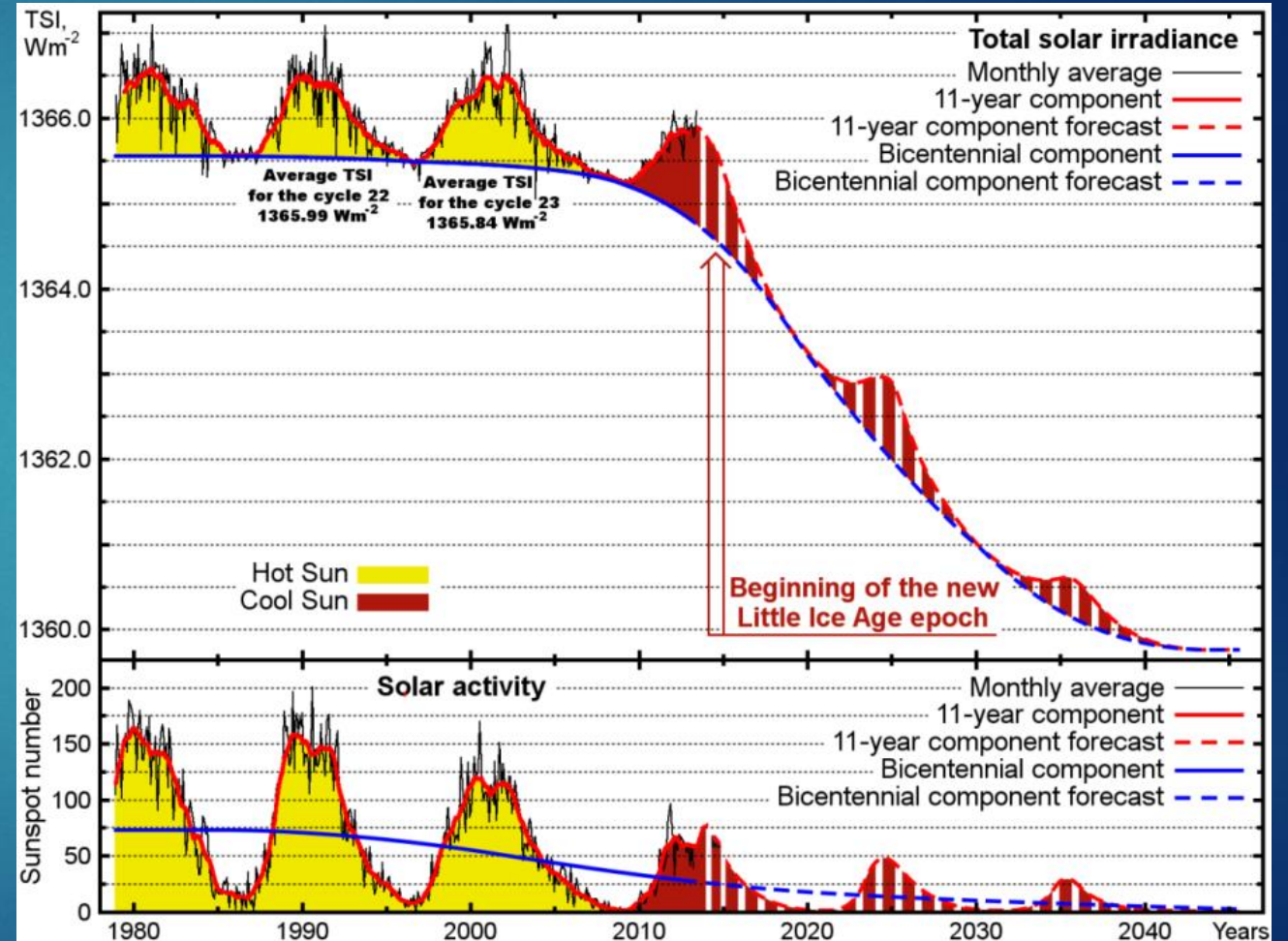
So Why Implement Wind and Solar?
They generate trade-able carbon certificates (RECs)

Reality? Climate cycles from Warm to Cool – Solar Minimum in Progress – Fossil Fuels Required





Carbon dioxide concentration increases; temps have flatlined.



**"CO₂ is not a control knob
that can fine tune climate..."**



Judith Curry
Atmospheric Scientist
Georgia Tech



PATTISON

Climate — Change your Mind.

Is it you? Is it really CO₂?

Earth



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About

- ▶ Friends of Science Society is an independent group of earth, atmospheric and solar scientists, engineers, and citizens, celebrating its 15th year of offering climate science insights. After a thorough review of a broad spectrum of literature on climate change, Friends of Science Society has concluded that the sun is the main driver of climate change, not carbon dioxide (CO₂).
- ▶ Friends of Science Society
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