

A black and white photograph of a wind turbine in a field of tall grass under a cloudy sky. The turbine is the central focus, with its three blades extending outwards. The grass in the foreground is tall and golden, and the sky is filled with dramatic, dark clouds. The entire image is framed by a thick orange border.

Going all
renewable & electric

would save the World

US\$ 4 trillion

Per Year.

The good news (part 1)

Solar & wind, combined with batteries,
is now the cheapest form of energy
humanity had ever available

The energy transition is happening
faster than anticipated

The bad news (part 1)

It is not happening fast enough

The good news (part 2)

Accelerating the energy
transition
can save the World
U\$ 4 trillion.
Per year.

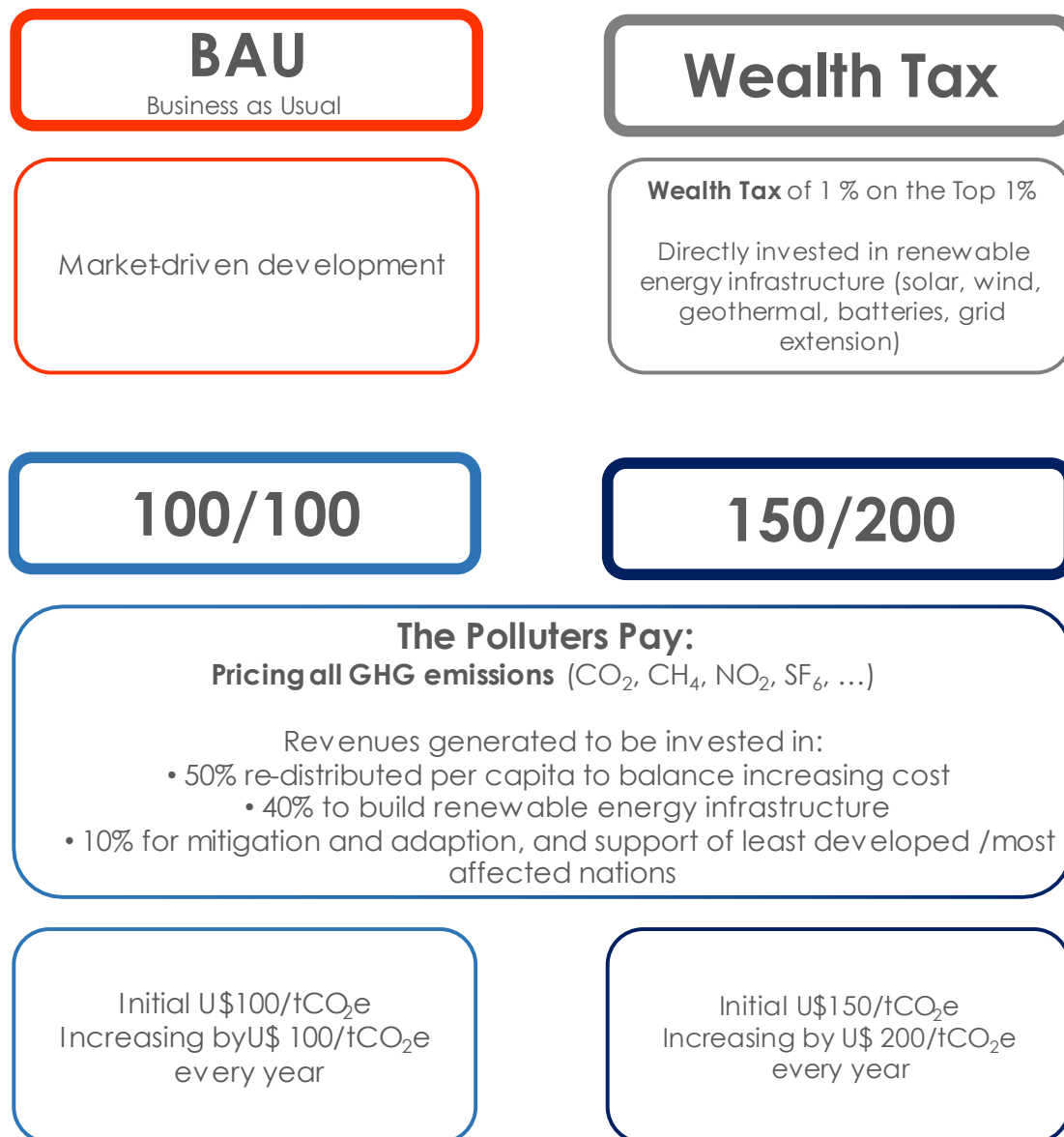
The bad news (part 2)

It's politics...

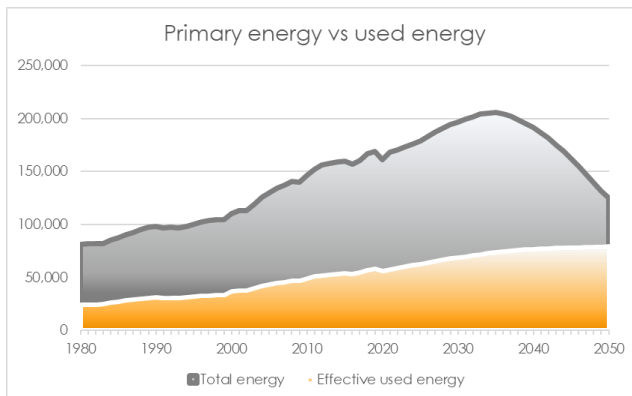
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1 Four scenarios

For the modelling of the energy mix, the calculation of the associated climate emissions and the cost of energy supply, four different scenarios have been modelled:

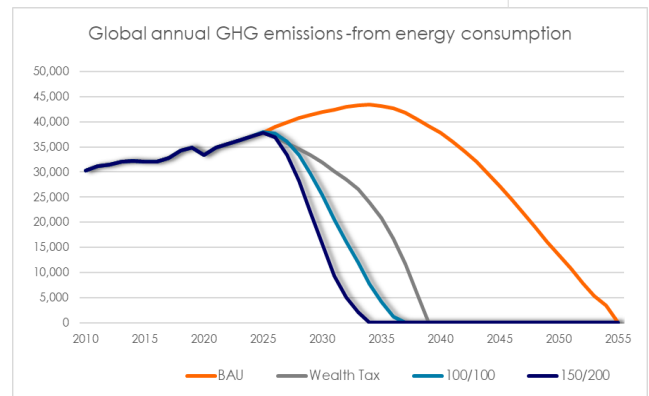


2 At a Glance



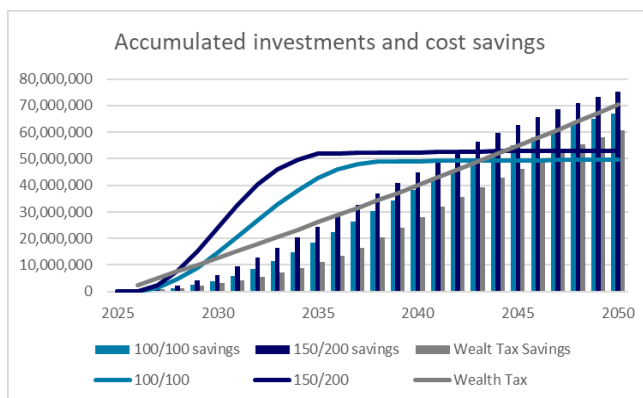
Thanks to renewable and electronic technology that is much more efficient, cheaper and simpler compared to fossil energy, the energy transition is now inevitable.

Only outright political market-interference or technology banning could delay the transition.



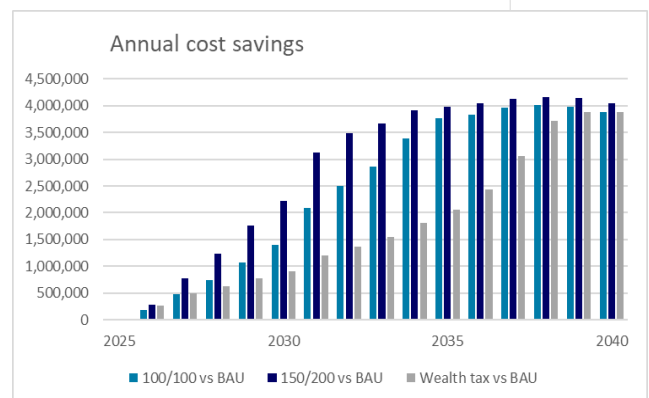
Under a business as-usual model, there will be more than enough renewable technology by 2055 to replace all fossil fuels. Not because of, but despite the toothless climate commitments.

We could also accelerate this process by financing a rapid transition that the state of the climate urgently demands for our survival - and save the World economy trillions of dollars



A full energy transition requires investments of U\$ 53 trillion. This investment can be financed in 3 ways:

1. Polluters pay through high pricing of CO₂ (with a cash-back element to counter initially increasing costs)
2. Taxing the richest segments of humanity. Taxing the income/wealth of the top 1% could generated U\$ 300 billion/year,
3. Have the central banks printing money. If directly reinvested into the economy, this will not cause inflation



The quicker the investment is released, the higher the benefits in form of energy cost savings, and the shorter the pay-back period.

Going all renewable and electric, quick, can save the World economy more than U\$ 4 trillion per year.

With a pay-back time of less than 15 years.

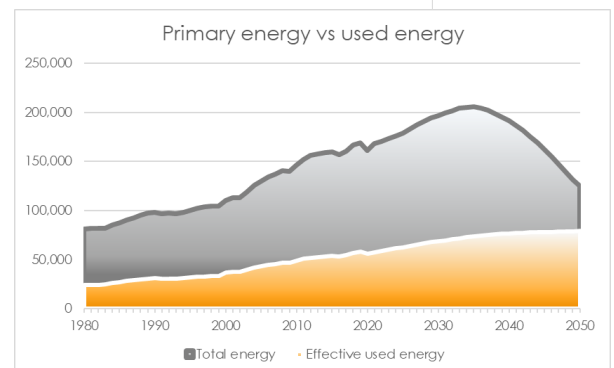
3 Constantly Overlooked: Energy Efficiency

3.1 Energy efficiency

Energy economic differentiate between “primary energy” – the energy used – and “secondary energy” – the amount of energy actually consumed. It is the difference created by energy conversion efficiency: when you drive a gasoline-powered car, a significant part of the energy contained in the gasoline ends up as heat, meaning it is of no use to the driver. It is wasted energy.

Every process that involves conversing energy through combustion (burning) is governed by the laws of thermodynamics with physical boundaries. In ideal lab conditions, a combustion engine can convert a max of 38% of the energy into transport energy. An electric motor, in contrast, converts 100% of the electricity into movement.

Replacing combustion processes with electric alternatives reduces the required input energy (primary energy) by 60-80%. Renewable energy is not only cheaper. Going electric requires a lot less energy



Energy conversion

Energy input to heat

Oil/gas heating



~95%

Heat pump



300-400%

Energy input to transport

Gasoline/Diesel



~22%

Electric



~80-90%

3.2 Technology Replacement Pace

The current situation strongly resembles the early 20th century, when automobiles displaced horses as preferred mean of transport. Or electric light displaced candles.

Electric cars are now on par with gasoline cars in terms of purchase cost reach, thanks to the rapid advancement in battery technology, which in turn were made possible by large-scale investment in battery R&D.

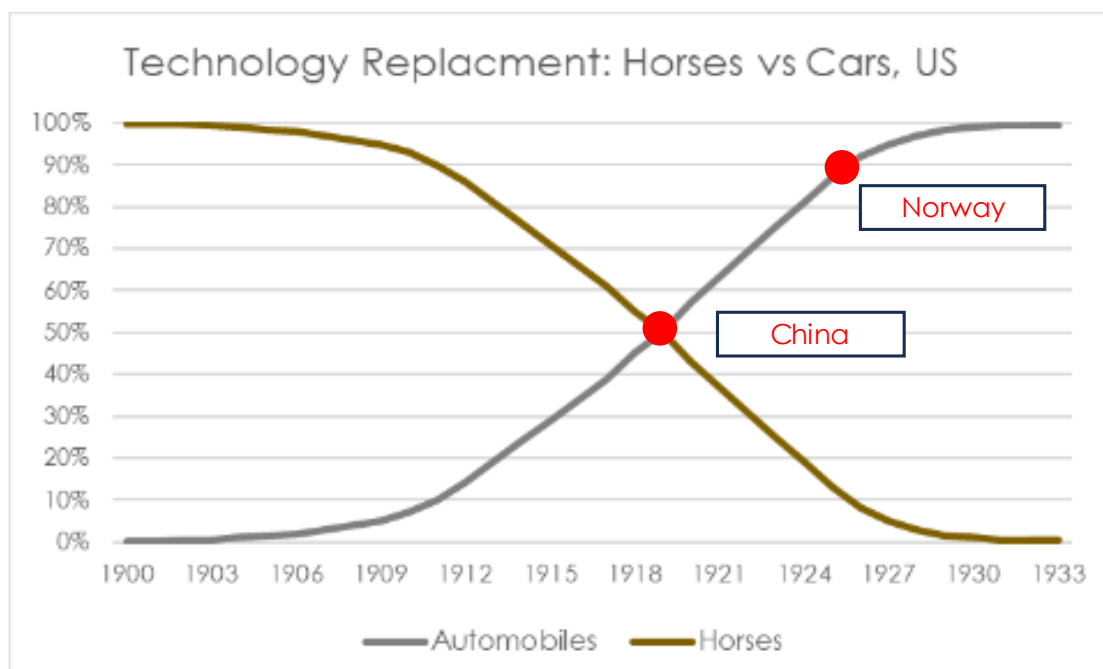
Electric vehicles are technology-wise much simpler than gasoline-powered internal combustion engine vehicles. Just a motor on the wheel and the electronics to control the wheels. No need for an engine block, a gear-box, and transmission. There is no need for a break, as it is built in the motor.

EVs are easier and cheaper to build and maintain. They accelerate faster. EVs use 4 times less energy.

Once a technology is recognised as superior to a competing in terms of efficiency, usability, and – in particular – cost, the new technology will displace the outdated technology.

China saw 30 million cars sold in 2023. That is double the market size of the US at 15 million cars sold.

Of those 30 million cars sold in China in 2023, 50% were electric.



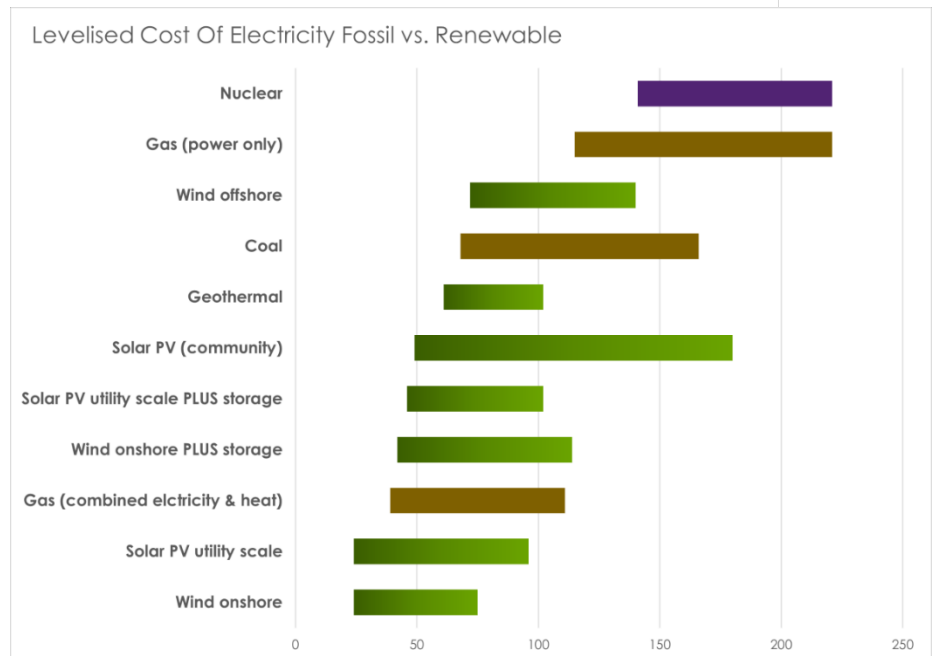
Horse/automobile replacement rate, USA 1900-1933

China has passed the threshold of 50% EV market share. In Norway, already 90% of sold cars are electric. The reason is simple: economics, and technology. Electric cars are surpassing fossil fuels in purchase cost, are technologically superior, and much cheaper to operate and maintain.

It is highly likely that the car market will be fully electric before 2030 – without regulation.

3.3 Renewable energy cost

Solar PV and wind have been the cheapest form of electricity for a couple of years now. According to the international Energy Agency, renewable electricity is now the [cheapest form of energy in human history](#).



Data: [Lazard](#)

The cost of electricity is given through the cost of the power plant generating the electricity. The cost of power plants is dictated by three main factors:

1. Capital cost: the cost of building the power plant (wind mill, installation of solar panels)
2. Maintenance cost: monitoring and maintaining the equipment, and replacing parts if required
3. Operational cost: personal cost to monitor the operations, and fuel costs.

The largest of the three main costs are capital and operating costs, while maintenance costs are $\ll$ comparable small.

For renewable electricity, the operational fuel is provided by the sun and wind, i.e. operational costs for renewables are zero.

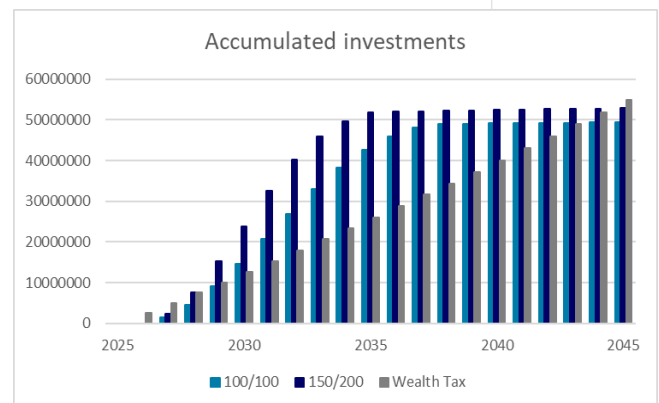
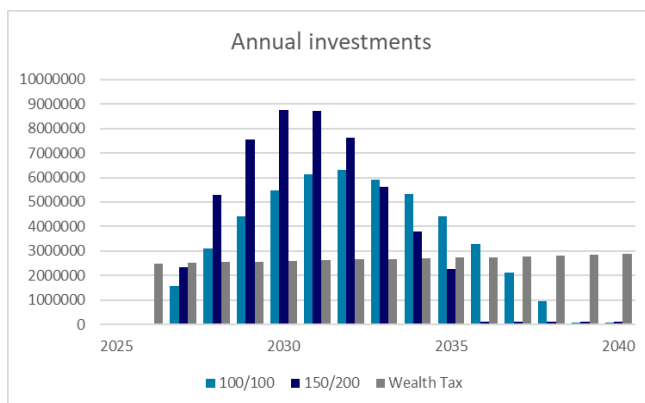
This is why renewable energy is cheaper.

	Fossil	Cost	Renewable
Capital cost (One-off: building the infrastructure)			
Management & maintenance cost (recurring: personnel, spare parts)			
Operational cost (recurring: materials, fuel)			FREE

4 4 trillion: renewable vs fossil global energy cost

4.1 Investment requirements

A full transition to all renewables and electric infrastructure requires total investments of about U\$ 5 trillion.



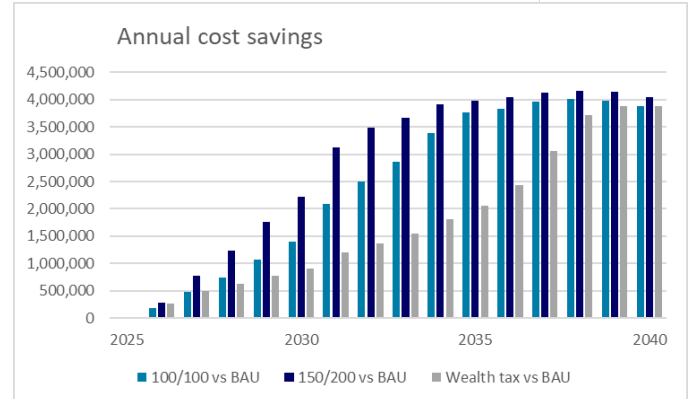
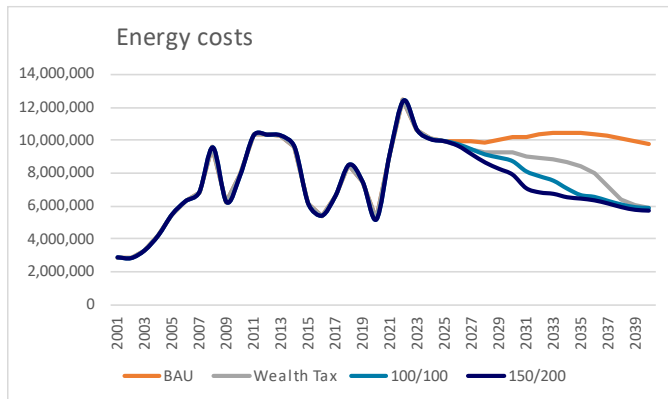
Depending on the financing model, the investments are collected and released at different amounts at different times.

For financing the investments, there are three options:

1. The polluters pay through a charge on all GHGs
2. Raising funds through taxing the wealthiest elements of society. Taxing the top 1% globally could raise about U\$ 300 billion per year.
3. Central bank loans: every government can print money. Since all the funds would be directly re-invested in the local economy, there are not adverse impacts on the economy in the form of inflation or other effects expected.
4. In an ideal case, a combination of the above

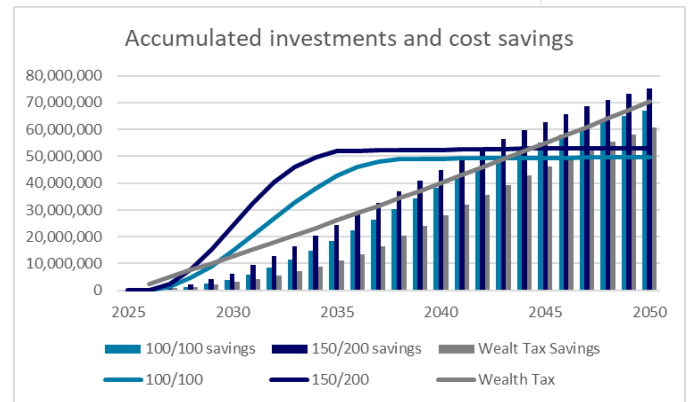
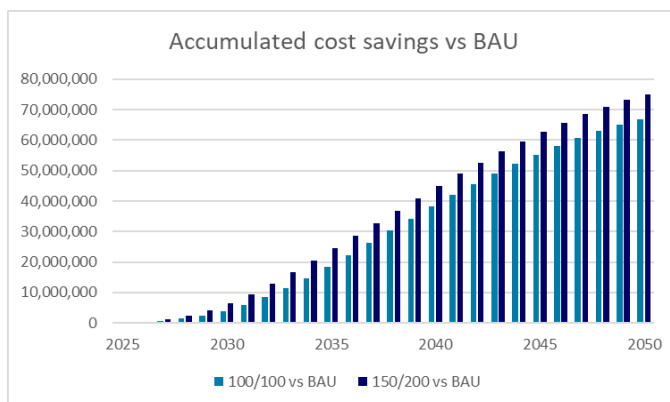
If the polluter pays model is chosen, it is paramount that a significant part of the revenues generated are re-distributed directly to the people per-capita. In the absence of such counter-measurements, the poorer segments of the population will be inappropriately negatively affected, which might lead to social fractures. A cash-handout on the other hand puts more money in the hands of the people, boosting local economies. It is calculated that if 50% of the polluter charge is redistributed, more than 60% of the population will have more disposable income available than previously.

4.2 Energy costs



Renewable energy is cheaper to generate than extracting, transporting and burning fossil fuels. Going all renewable and electric will lead to significant cost reductions, with global energy costs reduced by 40% compared to a business-as-usual scenario where the energy transition is left to the markets.

Annual cost savings amount to U\$ 4 trillion.

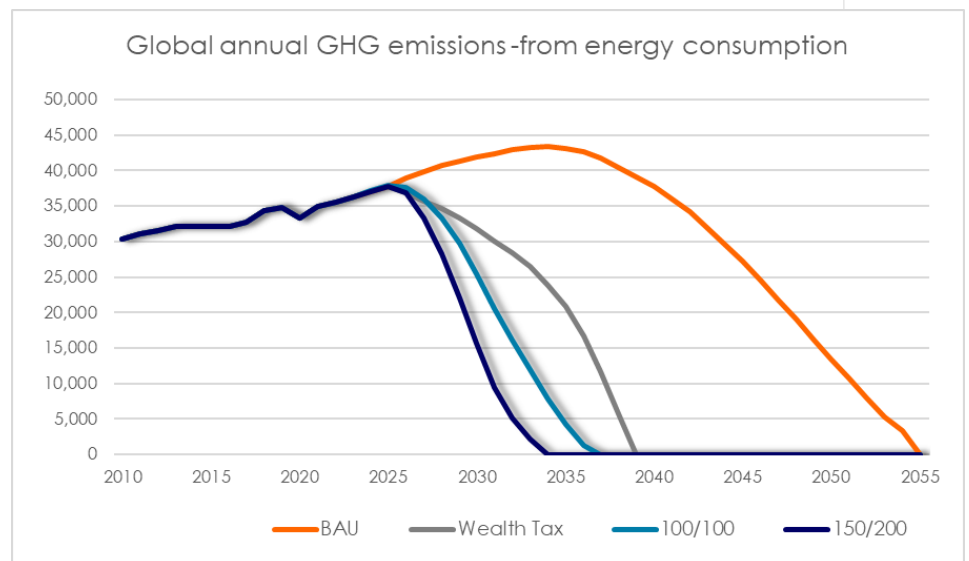


Accumulated cost savings amount to more than U\$ 70 trillion by 2050. The pay-back time for the transition investment amounts to 15-12 to 15 years, depending on the financing model, between

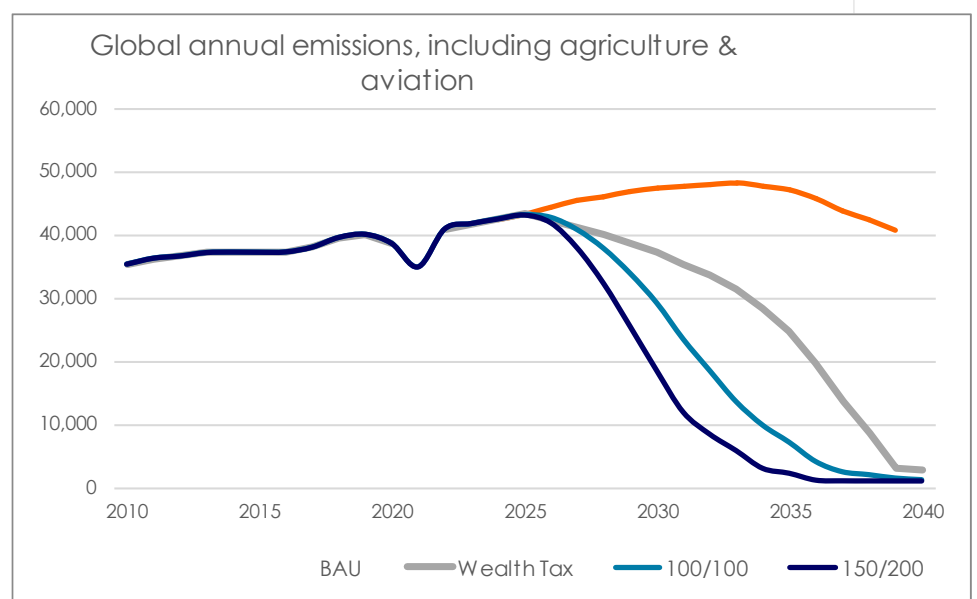
5 Global emissions renewable vs fossil

The energy transition is happening. Even under a business-as-usual scenario, i.e. without any real political approach to reducing emissions, net-zero can be reached by 2054.

Using a more stringent approach such as raising funds through wealth taxes and/or climate fees would allow to reach net-zero by 2035 and 2040.



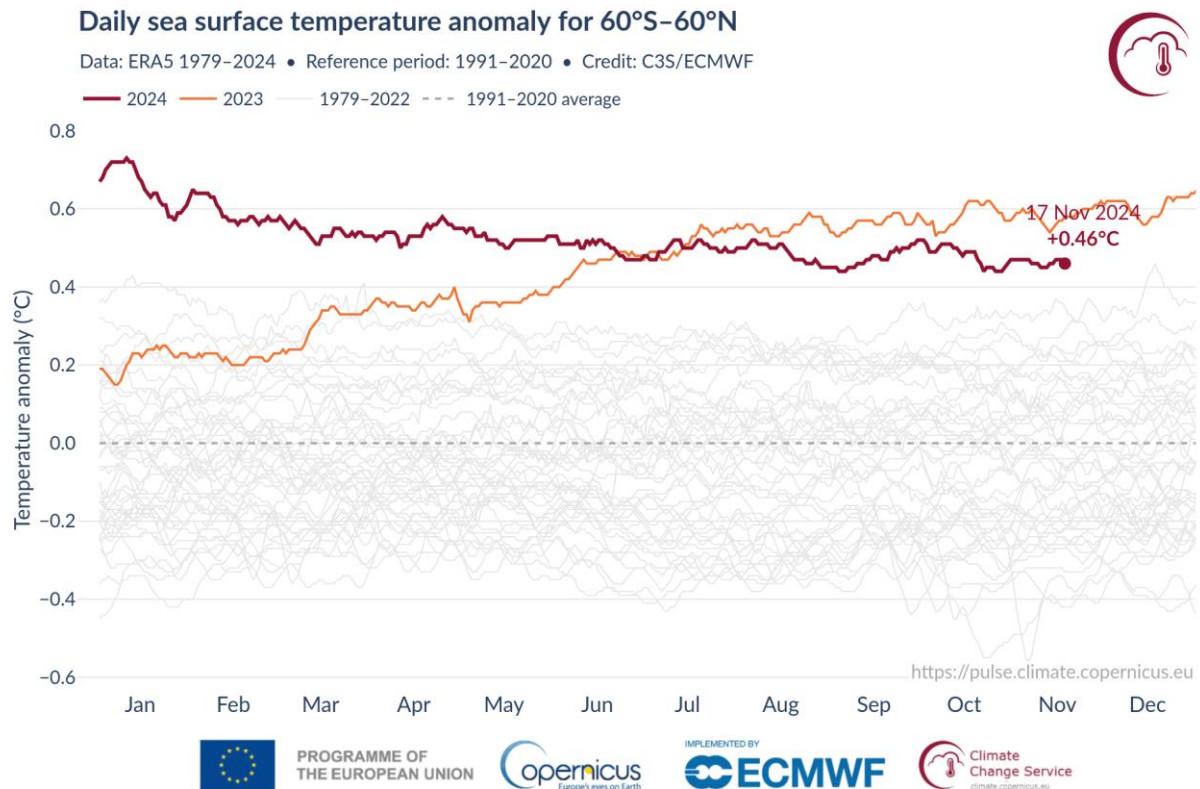
Energy-related emissions could be completely eliminated by 2035 under the polluters pay 150/200 scenario. However, technology probably will not be as advanced by then to replace liquid fuels in aviation. In addition, emissions from agriculture will also remain.



6 It's 5 past 12

To put it mildly.

Where we are at is this:



The climate data is writing record after record – global temperatures, local temperatures, sea temperatures, everything.

2023 could have been El Niño. Or any other anomaly. We are now in a (mild) La Niña, where temperatures should be cooler. They are not. A variety of reasons is responsible for this, but mostly – we are already in the feedback loops. The pace of warming is accelerating.

6.1 All the feedback loops

Once the global warming reaches a certain threshold, there are natural processes that reinforce the warming, the so-called feedback loops:

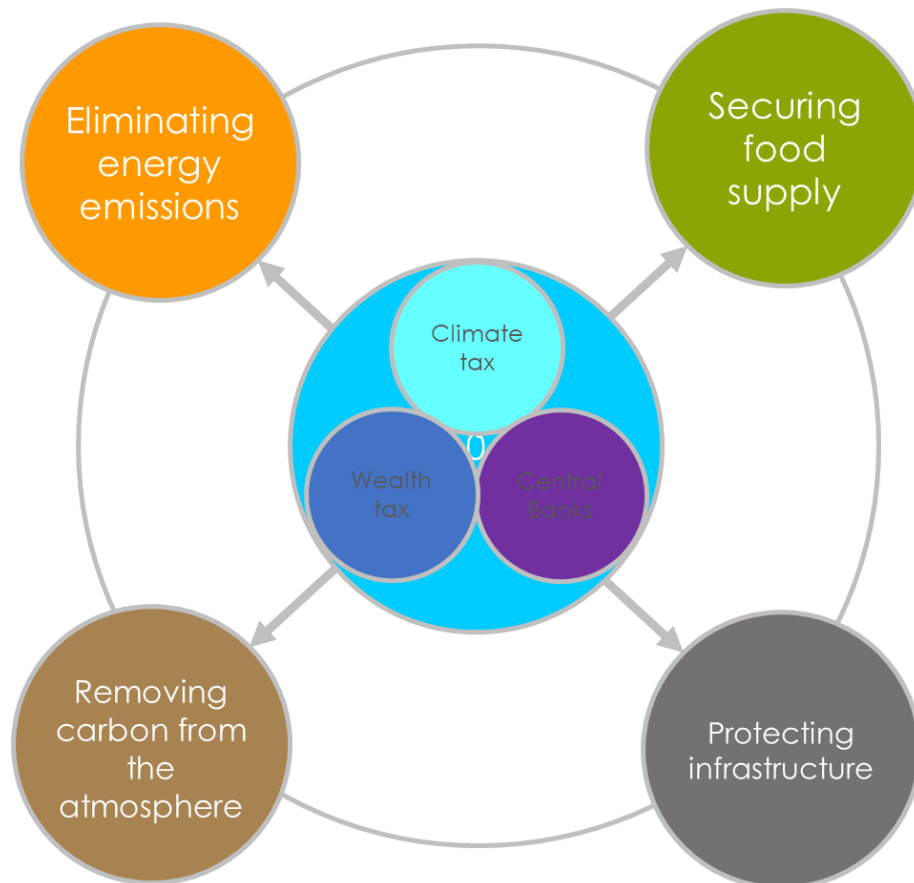


- Melting ice sheets and glaciers revealing dark water/ground -> more heat absorption -> more warming
- More wildfires -> more CO₂ release -> more warming
- Biodiversity loss & higher temperatures -> less CO₂ absorption -> more warming
- Permafrost thawing -> releasing CH₄ -> more warming
- Higher evaporation -> more H₂O in the atmosphere -> more warming
- Higher temperature -> less clouds -> less sunlight reflection -> more warming
- Cleaner shipping fuels -> less aerosols -> less clouds -> more warming
- Ocean acidification -> less CO₂ absorption -> more warming

6.2 Last exit

It is no longer enough to just reduce/eliminate climate emissions.

We are already in the feedback-loops of climate change/global warming, and weather extremes are set to become even more ferocious and widespread than the constant weather catastrophes we have witnessed around the globe in 2024. That was only the appetiser



End emissions	Food supply	Removing carbon	Infrastructure
Make polluters pay to fund the energy transition	Droughts, fires, floods, storms and hail are threatening our food supply. Soon we will not be able anymore to feed 8 billion people	We are already in the feedback loop stage of climate change. If we don't remove carbon, fast, the warming will continue even if we stop emitting carbon	Floodings destroy cities heat makes live unbearable.
AS long as we don't cat emissions, temperature will continue to increase.	High-tech: Ramping up precision fermentation and lab processes to produce protein Multiplying vertical agriculture to protect harvest from the forces of nature Nature based: organic farming, permaculture farming, adapted to the specific environment Experiment with species that can withstand the coming changes	Technology does not work, Nature based solution instead: growing hemp/bamboo (high CO2 absorption). Use materials in construction or as advanced materials, use for construction materials, store dry or as bio-char to indefinitely bind CO2.	Rewilding as much as possible, bot in natural areas as well as in cities

7 Base data and assumptions used for model calculation

This model is based on effective end-user energy demand (as opposed to primary energy demand).

Renewable energy cost (historic, current, and forecasts): IRENA, industry associations, with small calculated adjustments based on market penetration under the 4 scenarios

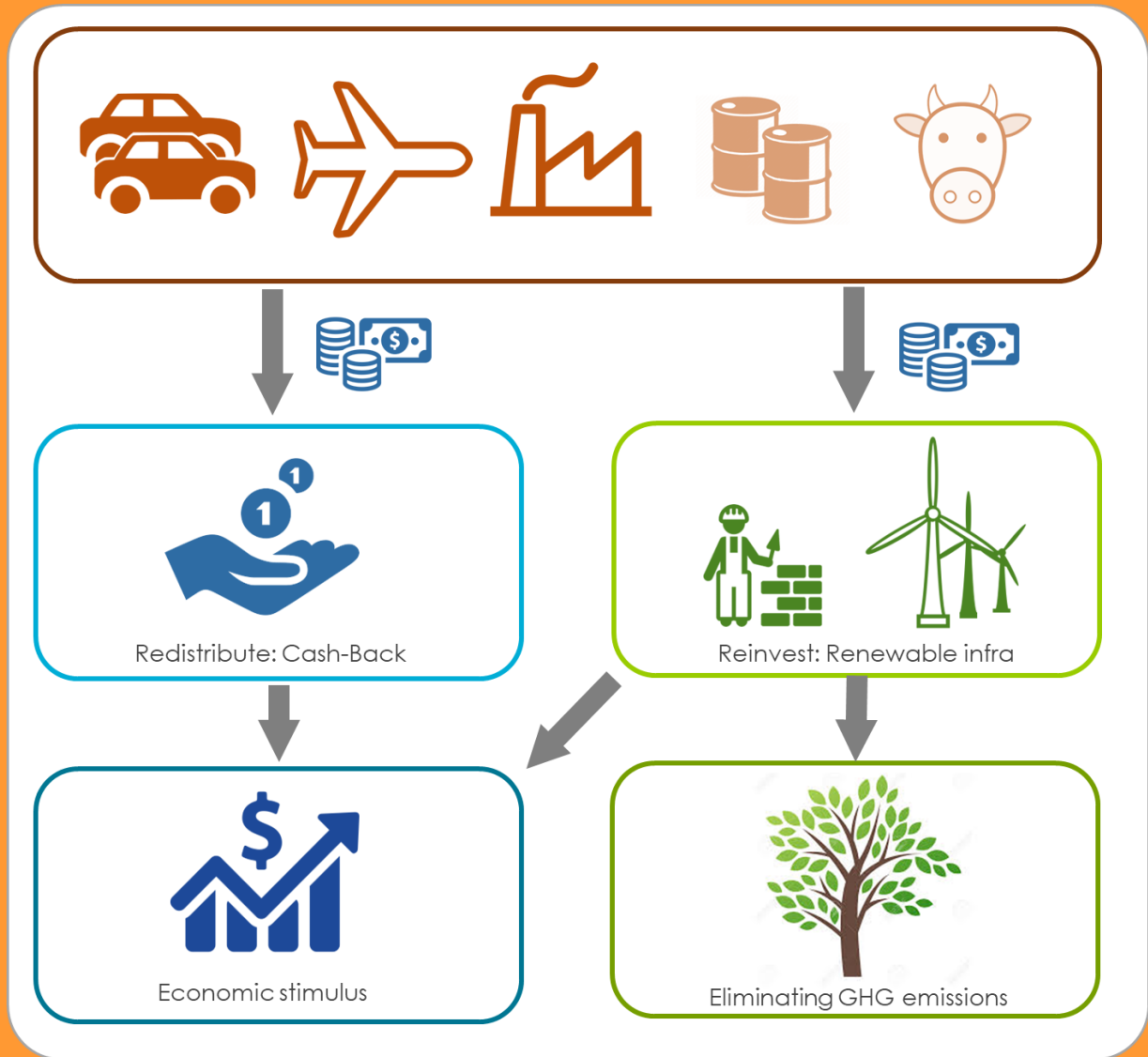
Indicator	Source
Economic development (historic and forecasts)	IMF
Population growth	WHO, World Bank
Oil/Coal/Gas price development (historic and forecasts)	OPEC/IEA, with adjustments calculated based on changing market share under the different scenarios
Renewable energy cost and market penetration (historic, current, and forecasts)	IRENA, IEA, industry associations, with small calculated adjustments based on market penetration under the 4 scenarios
Policy developments	CCPI, IEA, IPCC

General observations and assumptions

Uncertainties

- Global development hardly ever occurs linearly. The calculations used in this model do not account for potential future disruptions, be they caused by increasing conflict, increasing climate disruptions (highly likely), or any other reason
- Forecasting future costs, technology development and market penetration can at best be estimated. The models presented here are based on conservatively calculated thresholds
- Plastic use (which are also based on hydrocarbons) is not factored into these calculations. However, under the 100/100 and 150/200 scenarios, it is highly likely that non-hydrocarbon-based alternatives would become quickly economically viable and replace a significant volume of the hydrocarbon plastic market

The Polluters Pay



Global
ClimaTax

8 Polluters Pay - The Global Climate Tax:

1. Taxing fossils

Tax all fossil fuels (and all other GHGs).

2. Everywhere

The climate tax is levied *EVERYWHERE*. At the same rate per ton of CO₂ equivalent. Globally.

3. Same rate. Globally. Incremental Introduction

The tax is gradually introduced to allow the economy to adjust. The tax starts at U\$100/tCO₂eq in Year, increasing by U\$100 every year to a maximum of U\$ 1500/tCO₂e by Year 15

4. Nationally administered and distributed

The Climate Tax is levied *AND* redistributed at country level, at the point of emissions (point of sale to the end-consumer, similar to VAT)

5. ALL tax revenues are redistributed & re-invested, completely fiscal neutral

50% as cash-back directly to each individual, re-distributed regressively (low-income brackets receive higher cash-back) to balance the temporarily increasing energy bill

40% for building renewable energy infrastructure (excluding nuclear, bio-fuels and carbon capture technologies), public transport, and the replacement of fossil-based appliances

6% for re-forestation and mitigation

1% for education and R&D

3% into a global fund in support of the most affected and the least developed nations

6. Sorry. Cows too.

Agriculture contributes 15-25% of global GHG emissions. Meat and dairy products therefore need to be taxed according to their associated CO₂e emissions

7. Invite everybody

Countries that do not participate in a global climate tax scheme are taxed a flat import tariff of at least 30% on *all* imports. These tariffs will be redistributed to the population as cash-back.

8.1 Global Climate Tax Outcomes

- Renewable energy powers the World
There will be sufficient renewable energy available (financed by ClimaTax revenues) to cover *ALL* global energy requirements by 2033-2035.
- Zero emissions by 2035
Energy-related GHG emissions will be close to Zero by 2035. Due to technical constraints (electric aviation), remaining stocks of fossil-powered appliances, and agricultural requirements, GHG emissions are expected to continue into the 2040's, albeit at a low level of appr. 3-7% compared to today.
- Global energy cost will be 30-50% lower after the transition
The World will save U\$ 1.5 trillion annually in energy costs, equivalent to 2-4% of global GNI. This money will be available for other purposes
- Economically beneficial from Year one
Economic During the transition, global energy costs will amount to between 10-15% of global GNI, compared to between 7-15% historically (depending on the oil spot price of the year). Because renewable electricity is cheaper than fossils, and electric appliances mor efficient than fuel-powered machines, cost
- Maco-economic stimulus
The Economy will gain momentum: 50% of tax revenues are directly reimbursed to each individual as cash-back. The majority of people will have more money in their hands than before, boosting local economies.

8.2 The Good, the Bad, and the Ugly

The good: we have the technology, and it is cheaper than fossil

We already have the technology – renewable electricity generation (now the cheapest form of energy), electric vehicles (equal in cost purchase to fossil vehicles, and much cheaper in operation), heat pumps (3-4 times more efficient than fossil heating and cheaper in operation), battery capacity increasing and costs coming down.

The energy transition is good for the economy. it will dramatically reduce global cost for energy (between 2 and 4% of global GDP), freeing huge resources for other purposes.

A global climate tax is going to supercharge the energy transition.

The Bad: Global heating

2023 is the year that global heating has arrived. It is no longer climate change or global warming - it is now global heating. The heating will continue to accelerate as long as we are burning oil, gas and coal. All the extremes we are seeing are only the beginning. It is only a matter of time before heat waves and droughts, interrupted by torrential rain and floodings, will severely affect staple food harvests.

A global climate tax could ensure that the worst outcomes possibly could be prevented.

The Ugly: Particular interests and the lack of political courage

Unfortunately, there is still very little public awareness about the state of global heating – despite all the alarming signs. We all seem to be pre-occupied with our own personal worries. And busy checking our phones.

Unfortunately, current pledges regarding global heating are nowhere near sufficient to sufficiently curb GHG emissions. The targets are insufficient, and roadmaps inexistent.

Unfortunately, the current generation of politicians seem to lack the vision and courage to drive positive change.

Unfortunately, the owners of and CEOs in the fossil industry seem unwilling to compete in a real market and lack the vision to use their capital resources to change their business model. With its waste financial resources, the fossil players wield disproportionate power over politics and the media, trying to slow the energy transition.

Unfortunately, the business community outside the fossil space is not vocal enough in calling what would be good for business: a rapid energy transition.

A global climate tax is the most illusionary concept to finance a rapid energy transition – except for everything else.

8.3 Zero GHG Emissions in 10 years

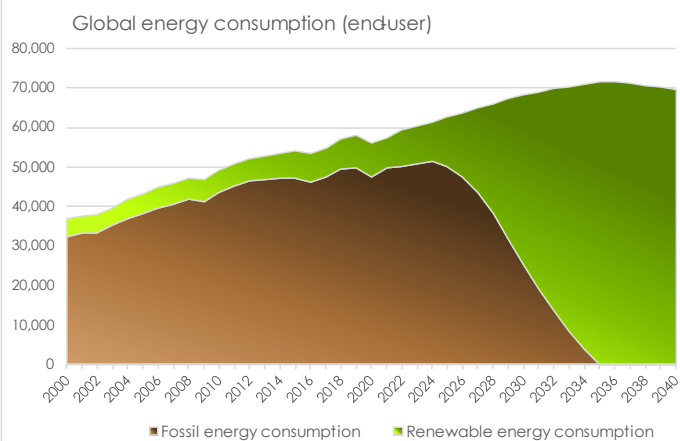
Three different scenarios of global climate tax levies have been simulated: "Soft", "Modest", "Serious", and "Emergency". They differ from modest and "soft" introduction and increase of the tax (US\$ per ton of CO₂ equivalent), to a drastic and step introduction ("emergency") of a global tax on GHG emissions.

	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Business as usual	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
«Modest»	50	100	150	200	250	300	350	400	450	500	600	700	800	900	1000	1100	1000
«Serious»	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1500	1500
«Emergency»	200	350	500	750	1000	1250	1500	1750	2000	2250	2500	2500	2500	2500	2500	2500	2500

Energy mix

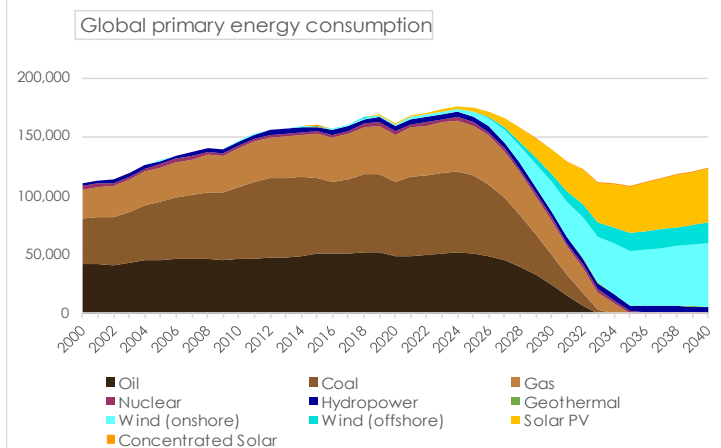
With a global climate tax, fossil energy usage could be replaced completely by renewable energy by 2033 (emergency scenario) to 2037 (modest scenario). This is under the assumption that each new additional renewable energy unit replaces a fossil unit. However, for some uses, fossil energy carriers will likely be used for longer, in particular aviation.

Fossil-renewable mix ("Serious" tax level scenario)



Secondary (end-user need) energy consumption, "serious" scenario: fossil vs. renewable energy usage fossil energy consumption could be replaced completely by 2035

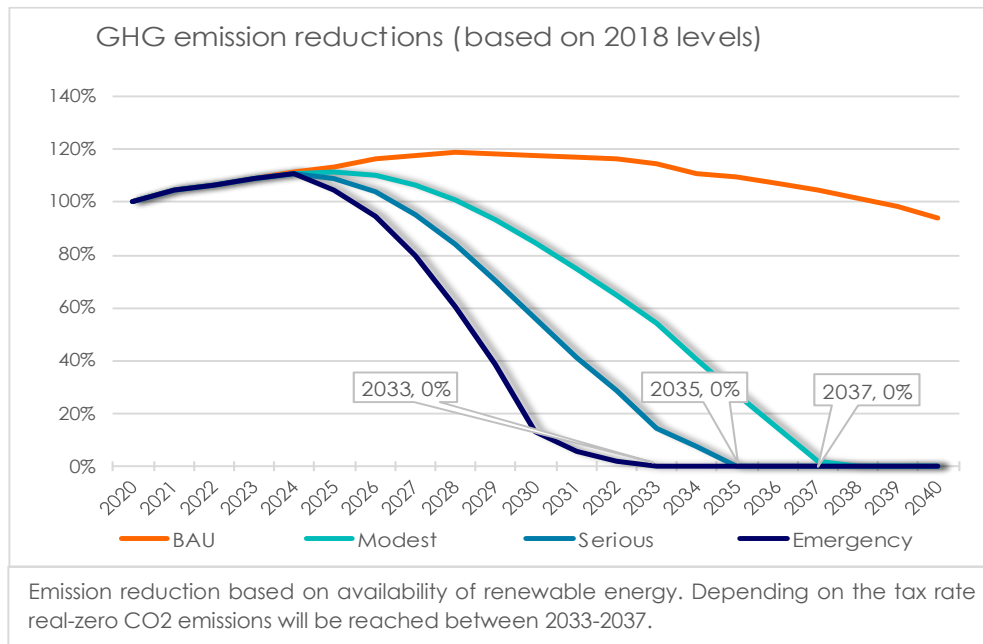
Energy mix ("Serious" tax level scenario)



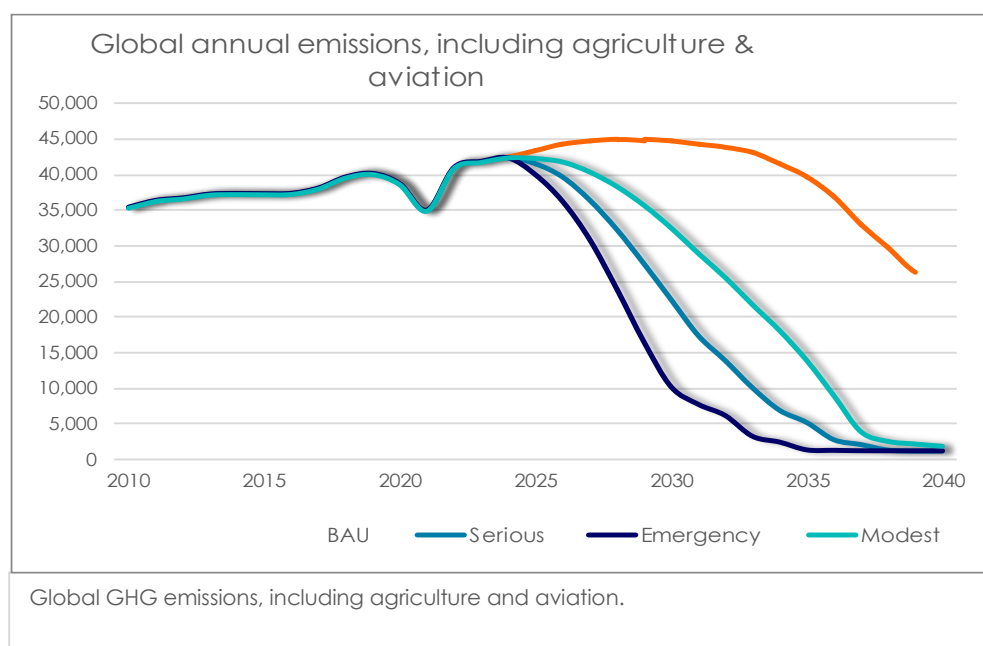
Global energy mix (primary energy, serious scenario): wind & solar energy to cover most energy demand. The dip in energy usage is explained by the much higher efficiency of electricity use vs. fossil combustion

ClimaTax Carbon Emissions: Real-Zero in ten Years

Replacing all energy-related fossils with renewables GHG emissions is equal to eliminating CO₂ emissions. Depending on climate tax levies per ton CO₂, this could be achieved between 2033 to 2037. However, considering technical constraints to replace liquid fuels for special applications (in particular aviation), it is probable that some energy-related GHG emissions will continue into the 2040s, albeit at a very low level. In addition, certain agricultural emissions seem impossible to eliminate, in particular emissions from rice paddies. Taken together, these emissions are expected to represent approximately 5% of 2022 global emissions.



Total Emissions, including agriculture and aviation



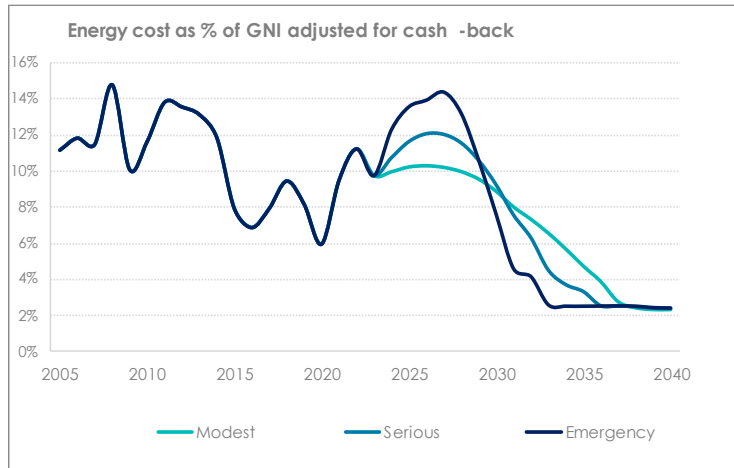
Key assumptions made for the simulation of a global climate tax:

- Population, GNI, and global end-user energy consumption are increasing at the average growth rate of the past 10 years
- Price of crude oil (and natural gas & coal) will grow with inflation from current levels, but start slightly falling after 2027 due to sinking demand
- Cost projections of renewable electricity are based on historic trends and forecasts by international energy agencies (IEA, IRENA), conservatively projected into the future
- Each new unit of end-user energy generated by renewables will replace a fossil end-user energy unit. Initially mainly gasoline will be replaced (electric cars), but also heating oil and gas. Soon after, coal-, oil-, and finally gas-power power plants will be replaced. This leads to a theoretical zero-fossil usage in 2035. In reality, some fossil energy consumption is likely to continue into the 2040s for certain use cases (in particular, aviation)
- The operating life of nuclear power plants nearing decommissioning in the 2020s will be extended until sufficient renewable capacity is available. Nuclear plants currently under construction are included in the calculations, but no further plants are built thereafter
- Until batteries capable of seasonally storing sufficient renewable electricity will be available, existing fossil generation capacity will be used and/or retrofitted to provide electricity from gas, generated by surplus renewable electricity (power to gas to power)

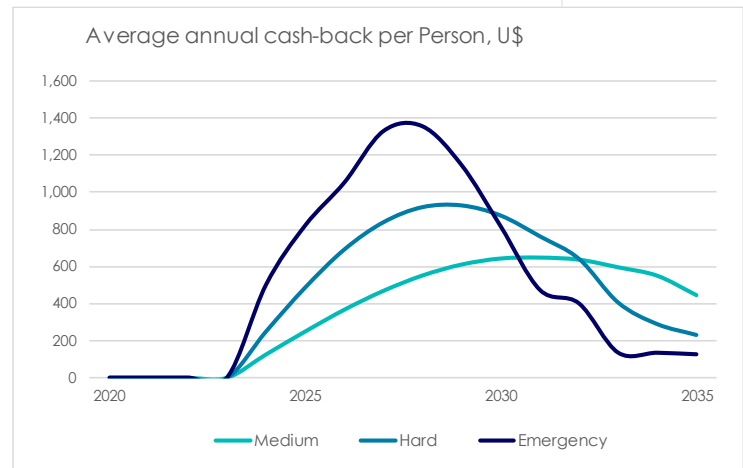
8.4 Climate Fees are economic stimuli

Tackling climate change through a climate tax is a huge development and business opportunity – the biggest business opportunity since WW2. Jobs lost in the fossil energy industry will be more than compensated in new industries (renewable energy, batteries, electric heating, cars, intelligent solution development).

Thanks to the cash-back, lower income thresholds will enjoy higher purchasing power. Investments facilitate innovation & growth. The total global energy bill will be 1-2% of global GNI lower after the transition period of 5-10 years – that U\$ 900 billion, available for other purposes. Every year.

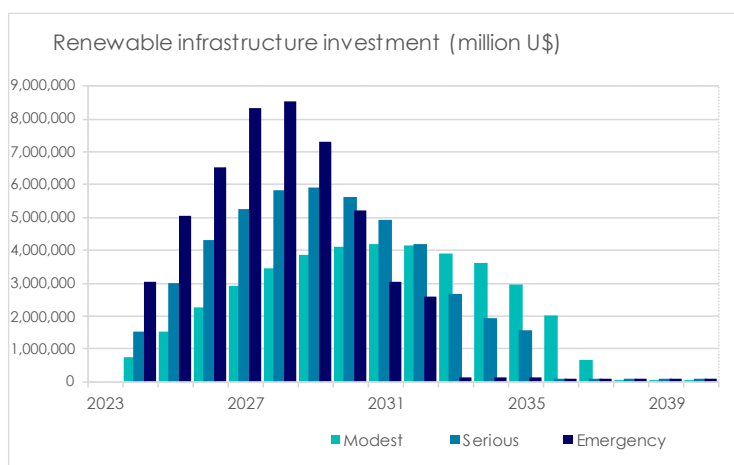


Global energy cost as % global GNI of before, during and after the global climate tax renewable energy transition for the different scenarios

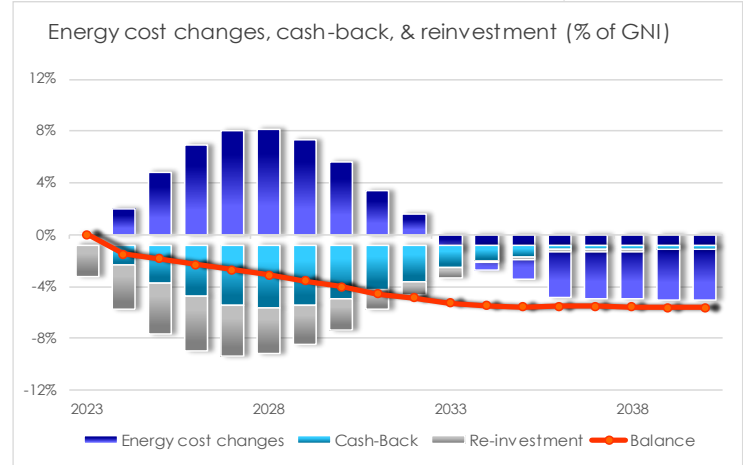


Cash-back per person and year – for each global citizen, in U\$ per person- The average global person will receive more than U\$ 8'00 over the transition. The exact amount is different from country to county

At the beginning of the transition period, the prices of energy intensive goods and services will increase. In parallel, the global cost for energy demand is rising as a result of the tax. However, the cost does hardly rise above fluctuations seen in recent years due to changes in crude oil spot prices, i.e. the global economy will not be affected by increased energy cost.



Climate Tax revenues available for renewable energy infrastructure investments under different tax levies



Increasing initial energy cost rise is more than offset by cash-back and investments - purchase power is not affected

Re-distributing of tax revenues as cash-back ensures the level of purchasing power of ordinary citizens remains equal, while the lower income brackets enjoy higher purchasing power, leading to higher consumer spending. Local economies are set to profit from a global climate tax scheme.

Investment in renewable infrastructure leads higher to availability, and further falling cost of renewable electricity. In addition, the World will be much less prone to volatility and price shocks as they are common in the fossil World.

The overall impact of the global climate tax is expected to be **positive after a maximum of two years.**

A global climate tax essentially makes money go around faster. It frees capital for combating climate change through rapid dissemination of renewable energy and intelligent efficiency technologies while simultaneously phasing out global heating fossils. The cash-back in the hands of the lower income segments will put the additional money back into the macro-economy. The implications of the global climate tax on the global economy is highly positive.

Why renewables are cheaper than fossil energy

	Fossil	Cost	Renewable
Capital cost (One-off: building the infrastructure)			
Management & maintenance cost (recurring: personnel, spare parts)			
Operational cost (recurring: materials, fuel)			No cost

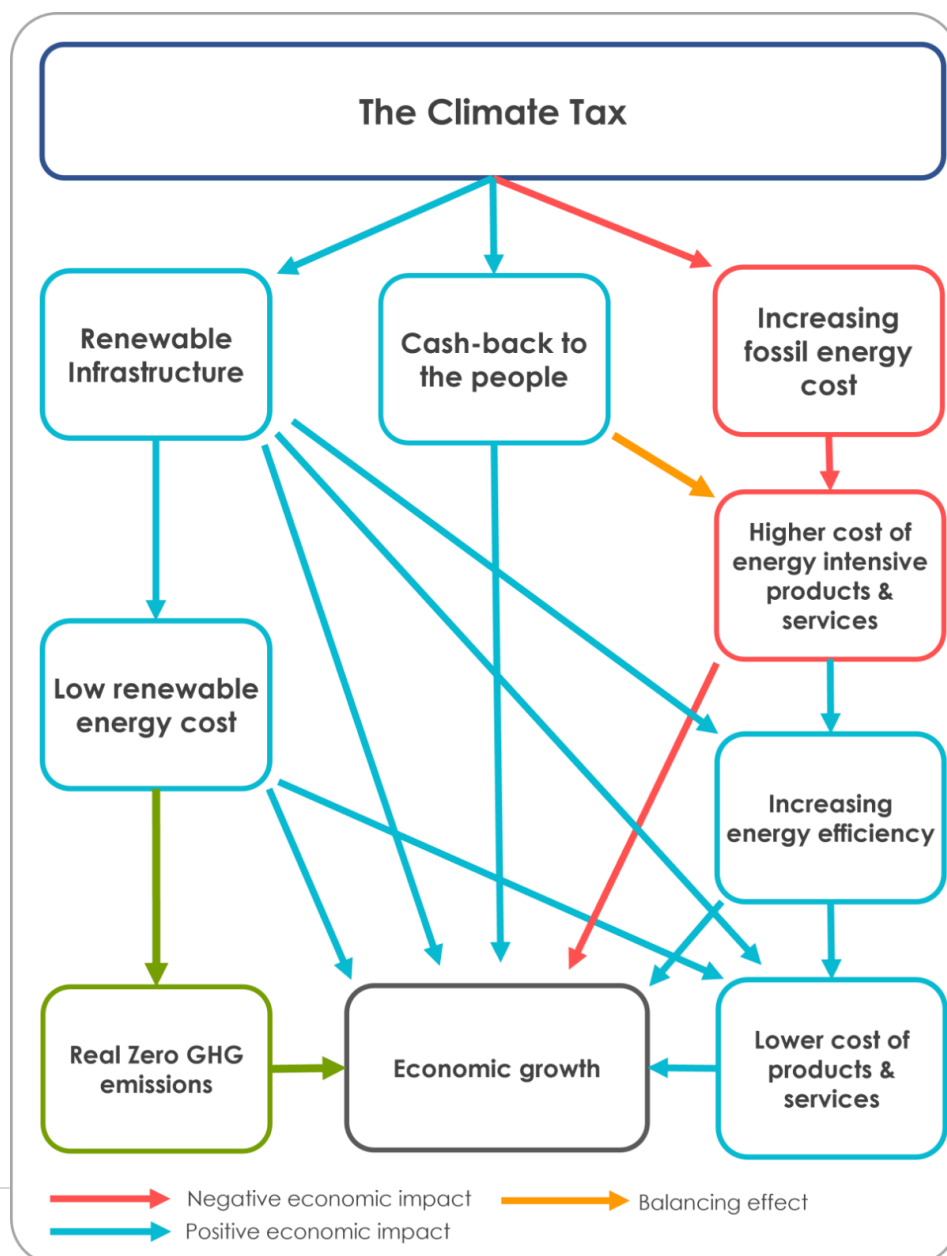
Generating electricity has three major cost parts: infrastructure cost (power plant, turbines, etc), maintenance costs (employees to run & maintain the infrastructure), and operational cost (fuel). **With renewable energy, there is no fuel cost.** Wind and Solar electricity are already now the cheapest source of energy. The cost of renewable energy will fall further with the investments generated through the climate tax, and fossil becomes more expensive and therefor unattractive for owners and investors.

8.5 Why Climate Fees works

The economics of climate change is simple: attaching a price to carbon dioxide. Another established wisdom is that it is better to build the new before scrapping the old.

Here is why the global climate tax works:

- The Climate Tax increases cost of fossil energy. The cost pressure of ClimateTax will drive further innovation and efficiency
- Cash-back will increase purchase power of low-income brackets, maintain the purchase power of the middle class, and not affect the high-income brackets. More cash in the hands of the lower-income brackets equals higher spending, equals more opportunities for local businesses
- Wind and solar are cheaper than fossil generated electricity, already now. Electric appliances are much more efficient than fossil-fuelled applications. The investment in renewable energy infrastructure is further lowering cost of clean energy: the energy of choice will be renewable
- The investments in the renewable energy infrastructure will create millions and millions of new jobs – way, way more than will be lost in the fossil industry



Taxing GHG emissions means higher cost. It also means rewarding higher efficiency. Higher cost of fossil energy will lead to

- Higher efficiency: meaningful emissions taxes kick off an innovation drive in the economy for more efficiency and new technologies, reducing energy and material consumption
- Higher investment in viable and clean alternative technologies, thus further driving down price of renewable energy, batteries, and electric appliances through economics of scale and increasing the renewable share in the global energy mix
- Reduced emissions

Re-injecting the climate tax revenues in the economy through cash-back and investments will lead to

- Rapid further expansion of installed renewable energy generation capacity and associated technology (e.g. storage)
- Driving down cost of clean energy technology
- The cash-back element increases consumer spending, thus serving as an economic stimulus

8.6 The Barriers to Implementation

There are technical barriers, to achieving a fossil-free world, and there are human barriers to implement a global climate tax. The main technical barrier currently is the still low capacity of batteries to seasonally store electricity in colder countries, and the lack of batteries to power commercial airplanes. For now, there are alternatives such as power to gas, albeit with loss. The business opportunity and cost pressure is accelerating the development of high-capacity batteries, electric air-transport and alternative fuels for aviation (e.g. solar fuels). The technology to produce renewable electricity is already in place, at costs that are more than competitive with fossils: the technical barriers are not really barriers.

Human barriers present a bigger challenge. International conferences on climate change have concentrated on pledges and targets far in the future. However, how to achieve and manage emissions reductions is left to individual countries. Most countries are failing to achieve even the modest reductions agreed upon under the different climate treaties. There are also local, regional and even international cap-and-trade systems, carbon offsetting, and national tax schemes. But **none of these approaches has made any meaningful difference**. Targets are insufficient, and roadmaps inexistent.

In short: it's the politicians. It's "the markets". And the large corporations that are afraid of a free market without state support and subsidies. The owners of those corporations. In short – all those who perceive to be profiting from the status quo, or perceive to lose profits from a rapid energy transition.

The main human barriers include (but are not restricted to) -

- Lack of public awareness on the climate emergency
- Lack of political will, courage, and vision
- Lack of global agreement
- The influence of large players who consider their business model threatened (the fossil industry CEOs and owners, & OPEC countries)
- The unwillingness of the financial markets to stop investing in, and seeking rent of, investment in the fossil realm
- The lack of a working approach/system to actually achieve emission reductions in practice and across all sectors, with minimal prohibitions and without negative impact on the economy

It is hard to say whether the political inactivity is due to incompetence, unwillingness, or lack of believe in common global action. Regardless of the deeper reasons for the inactivity: **it is clear that the current political mainstream – and/or current political figures – will not provide a meaningful solution.**

The solution therefore has to come from somewhere else.

We are living in the 21st century. Our leaders and politicians are supposed to face up to the challenges of our time. So maybe, we can force politics hand. Citizens around the World campaigning, marching, pressuring governments. Global warming is also bad for business. We need businesses to get vocal, and use their economic leverage to pressure government. It is a question of critical mass – but it needs both citizens and businesses. So that on the next conference, a global climate tax is agreed and implemented immediately.

8.7 Conclusions

Climate change is here. Yet there seems to be no solution that politicians are able and/or willing to agree upon. A possible solution that does not negatively affect the economy while financing a clean renewable energy infrastructure is a global climate tax.

- Climate change is a global problem. Climate change can only be tackled on a global level.
- Politics is either unable or unwilling to face the challenges.
- The economics of climate change is simple: there needs to be a cost attached to GHG emissions.
- A fiscal neutral global climate tax that reimburses citizens (climate dividend) and simultaneously finances the development of a renewable energy infrastructure could reduce emissions to nearly zero while stimulating the economy
- A global climate tax could reduce emissions to nearly zero by 2035, while lowering the global cost for energy by 30-50% (2-4% of World GDP)
- For reasons not necessarily easy to understand, such a global agreement currently seems politically impossible.
- OPEC countries, the fossil industry, the air transport industry, and potentially animal farmers are expected to lose income and therefore exercise strong opposition
- The events of 2023 have completely altered the urgency around climate change
- Disseminating Information, raising awareness and constant pressure from the street, coupled with vocal pressure from the business community seems the only way to force politicians to act.

Scenario calculation and data sources

Key assumptions made for the simulation of the global climate tax scheme:

- World population, GNI and energy usage (end-user demand) grows at the average of the last 10 years
- Each additional energy unit of renewable produced energy replaces a fossil unit
- Historical energy data is derived from IEA, IMF, and BP Energy Statistics
- The spot price for oil is assumed to grow with global inflation (before climate tax), but expected to decline slowly and after 2027 due to sinking demand
- Renewable cost projections are based on historical trends, projections made by IRENA, and SolAbility calculations. All projections are strongly on the conservative side.
- Provision for the losses of the increased requirements for storage of renewable electricity have been included
- Not all emissions can initially be taxed, but the rate is increasing over time
- Assumptions have been verified through interviews with experts

Data sources

- World Bank
- IMF commodity database
- IEA energy data
- BP energy statistics
- IRENA

About this Report

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The contents of this report have been researched, calculated and compiled by SolAbility. SolAbility is a Swiss-Korean sustainable competitiveness think-tank with a successful history in sustainable management consulting, and the proud publisher of the Global Sustainable Competitiveness Index.

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About ClimaTax

ClimaTax is a non-profit association according to Swiss Civil Law, based in Zürich, Switzerland.

The physics of climate change is simple: light comes in, heat is absorbed by GHGs in the atmosphere, creating an energy imbalance, leading to global heating. We are slightly concerned about where we are heading and what the science is telling us.

We believe that action needs to be taken.

Now.

A Global Climate Tax is politically the most illusionary approach to finance a rapid decarbonisation – except for everything else.

PS - a global climate tax will also save our economy.

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