Save Your Mother. Give To Yourself.

Global CLIMAX

Saving The Economy

&

Changing Climate Change


Tax all GHGs
Re-distribute:
Cash-back
Re-invest:
Renewable infrastructure
Economic stimulus
GHG emissions eliminated

1 The Climate Tax:

1. *ALL* GHGs & substances are taxed.

2. The climate tax is levied *EVERYHWERE*. At the same rate per ton of CO_2 equivalent. Globally.

3. 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/tCO_2e by Year 15

4. The 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, completely fiscal neutral
    a. 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
    b. 40% for building renewable energy infrastructure (excluding nuclear, bio-fuels and carbon capture technologies), public transport, and the replacement of fossil-based appliances
    c. 6% for re-forestation and mitigation
    d. 1% for education and R&D
    e. 3% into a global fund in support of the most affected and the least developed nations

6. Agriculture contributes 15-25% of global GHG emissions. Meat and dairy products therefore need to be taxed according to their associated CO_2e emissions

7. 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.

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 vison 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.

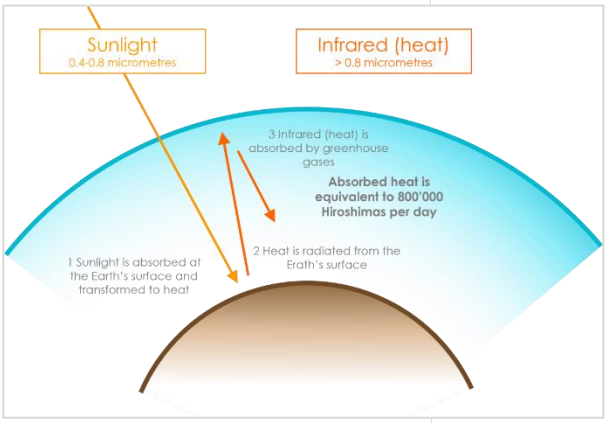
Unfortunately, the business community outside the fossil space is not vocal enough in calling what would be good for business: a rapid energy transition.

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

3 The State of the Climate: Global Heating

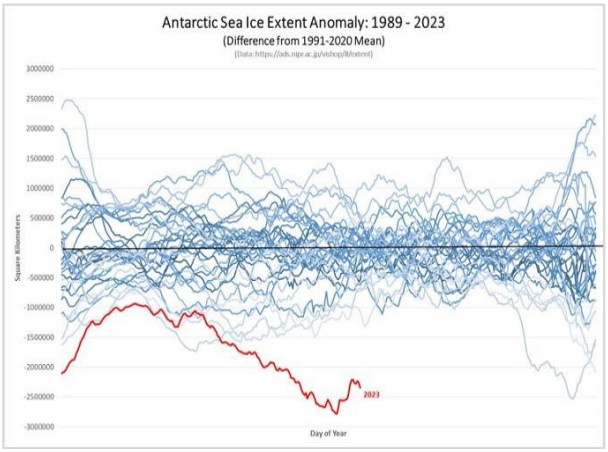
Climate physics is simple

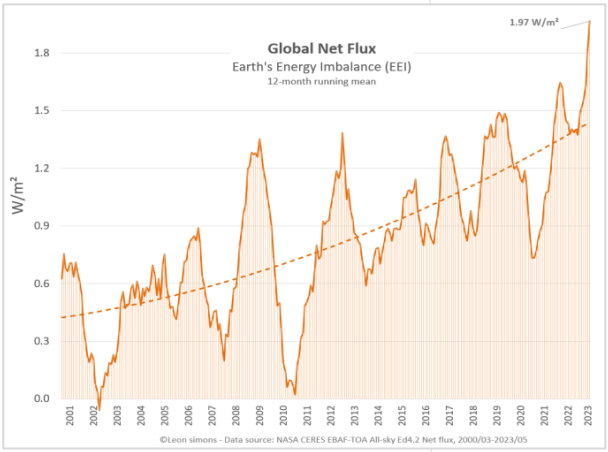
The physics of climate change (or: global warming) is simple: Sunlight travels through the atmosphere. Some of it is reflected by clouds and light surfaces (in particular snow and ice). Light that arrives at the surface of the globe is absorbed and transformed to heat energy. Heat energy (different t sunlight in terms of wavelength) radiates back to space. Infrared is absorbed in the atmosphere by greenhouse gases (first proven in 1856), creating an energy imbalance: more energy arrives in our atmosphere than goes out. Since we know how much energy is absorbed by a CO2 molecule, we can calculate the energy imbalance, and how that affects temperatures.



2023: heatwaves, floodings, droughts, wild-fires, storms

2023 has seen a long list of climate records around the globe. Oceans have seen record temperatures, the poles have warmed faster than anticipated, leading to a slow-down and destabilisation of the jet-stream, which in turn leads to prolonged and stable weather situations with heat waves.





We have seen heat-waves – in the oceans and on land – droughts, wild fires, often ended by ferocious storms and torrential rains with flooding of biblical proportions in every corner of our planet, unprecedent in human history. Unfortunately, there are indicators that suggest that the warming is accelerating.

Global heating is here.

The heating will continue to accelerate as long as we burn fossils. It is as simple as that. It is only a question of time before heatwaves, droughts and flooding will severely affect staple food harvest.

If we fail to act decisively now, it might well signify the end of human civilisation.

4 ClimaTax Summary

Implementing a global climate tax with revenues redistributed in cash and re-invested in renewable infrastructure will lead to:

- Renewable energy, financed through ClimaTax revenues, produce sufficient electricity to cover *ALL* energy requirements by 2033-2035,
- Energy-related GHG emissions will be close to zero by 2035,
- Thanks to cheap renewables, energy cost will not rise above historic outliers during the transition,
- Thanks to the cash-back: The majority of people will have more money in their hands than before during the transition, stimulating the economy,
- Restructuring of the energy infrastructure will create millions and millions of jobs.
- After the transition, the global energy bill will be 30-50% lower (U$ 1.5 trillion annually will be available for other purposes),

5 Global Climate Tax: The Scheme

Carbon offsetting, cap & trade systems, CDM, local/national trading/taxing systems, The Kyoto Protocol and the Paris Agreement agreements on emission reduction targets … Climate conferences and policies have produced a lot of pledges and targets. Net-Zero 2050. But Zero action plan. International climate policy is: targets insufficient, roadmap inexistent.

What needs to be done is already known:

- Stop burning oil, gas and coal to stop all GHG emissions
- Electrify everything
- Replace all fossils with renewable energy (install renewable overcapacity and battery storage)
- Use green hydrogen for industrial applications
- Plant billions of trees and re-forest cattle meadows to take CO_2 out of the atmosphere

But there is no plan how to do that. Nor how to finance the transition.

A Global Climate Tax is the simplest and economically most feasible way to achieve meaningful emission reductions in a short period of time.

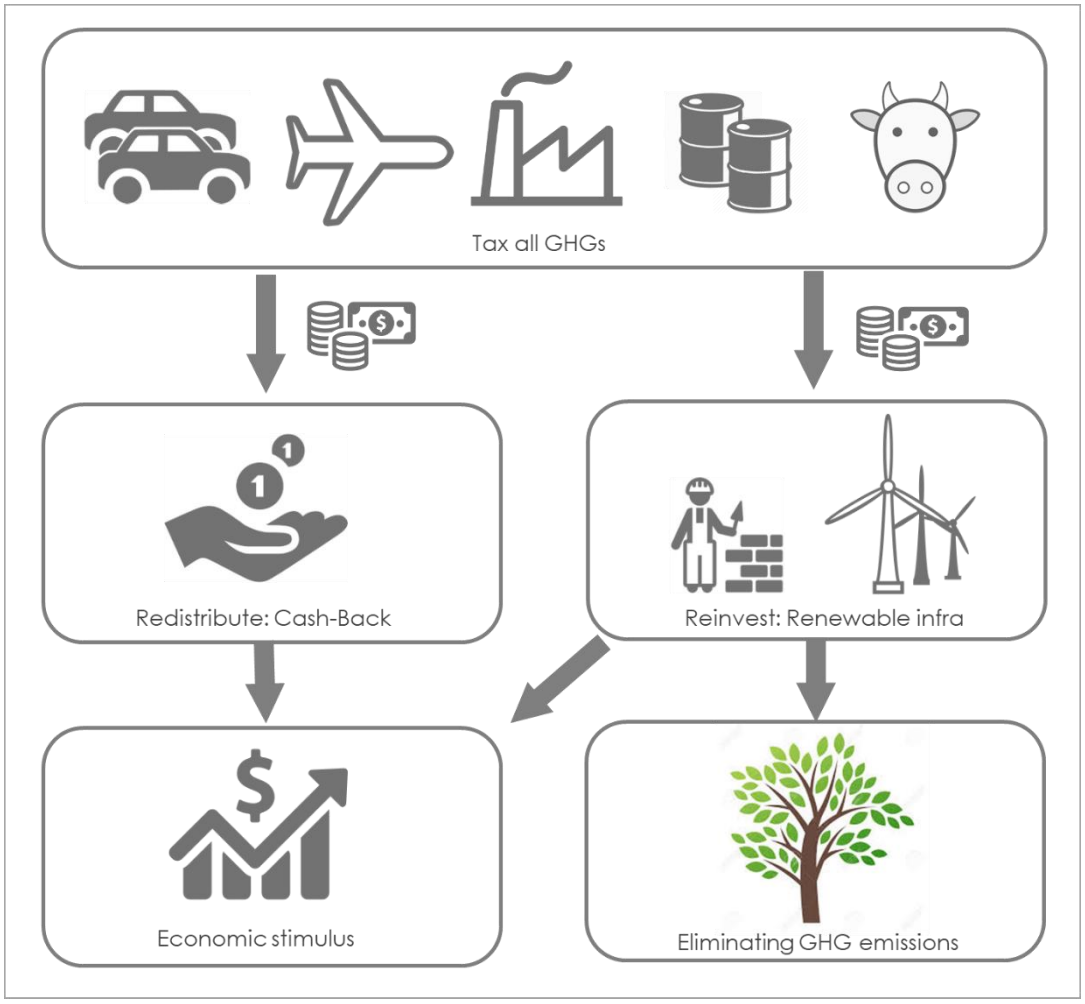
The concept of the global carbon tax is based on two simple principles:

1. Taxing GHG emissions, everywhere, equally.
2. Re-injecting all climate tax revenues into the economy at the national level, through
    a. Cash-back to the people
    b. Investment in renewable infrastructure

And

3. Impose a flat import tariff (30%) on all goods and services from countries that do not participate in the global climate tax

ClimaTax Scheme



- Renewables financed by ClimaTax revenues produce sufficient electricity to cover *ALL* energy requirements by 2033-2035.
- **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.
- **The global energy bill will be 30-50% lower after the transition** (2-4% of global GNI, equivalent to U$ 1.5 trillion annually will be available for other purposes)
- During the transition, global energy costs will amount to between 10-20% of global GNI, compared to between 7-15% historically (depending on the oil spot price of the year).
- 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.
- **Restructuring of the energy infrastructure will create millions and millions of jobs.** During the armistice in WW2, the US economy grew by 500%, 30 million jobs were created, worker wages rose by 150%. ClimaTax will create a similar boost.

6 Zero GHG Emissions by 2035

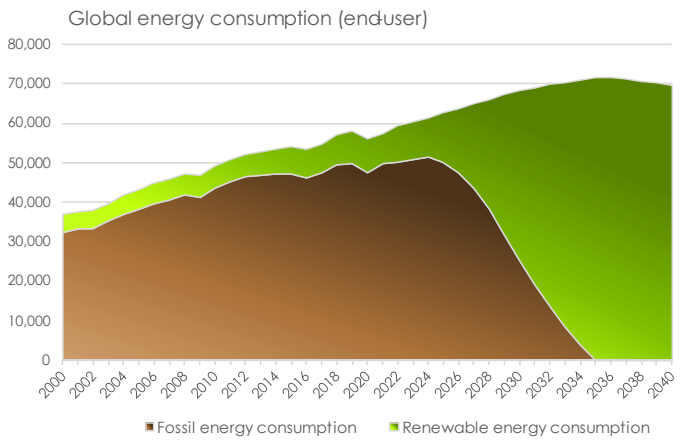
Three different scenarios of global climate tax levies have been simulated: "Soft", "Modest", "Serious", and "Emergency". They differ from modest and "soft" introduction and increase of the tax (U$ per ton of CO_2 equivalent), to a drastic and step introduction ("emergency") of a global tax on GHG emissions.

	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

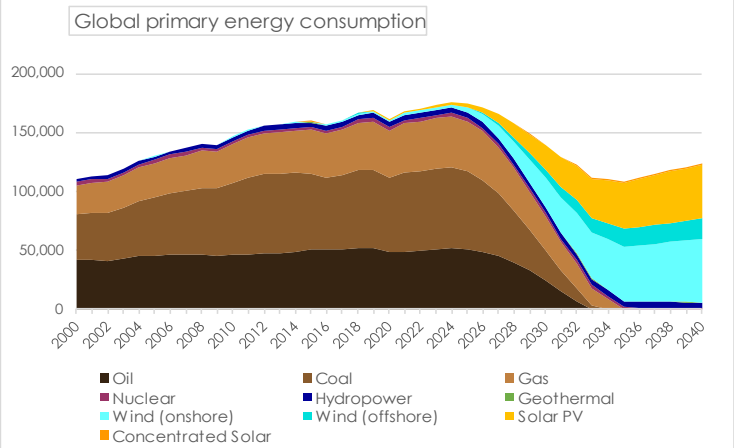
With a global climate tax, fossil energy usage could be replaced completely by renewable energy by 2033 (emergency scenario) to 2037 (modest scenario). This is under the assumption that each new additional renewable energy unit replaces a fossil unit. However, for some uses, fossil energy carriers will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

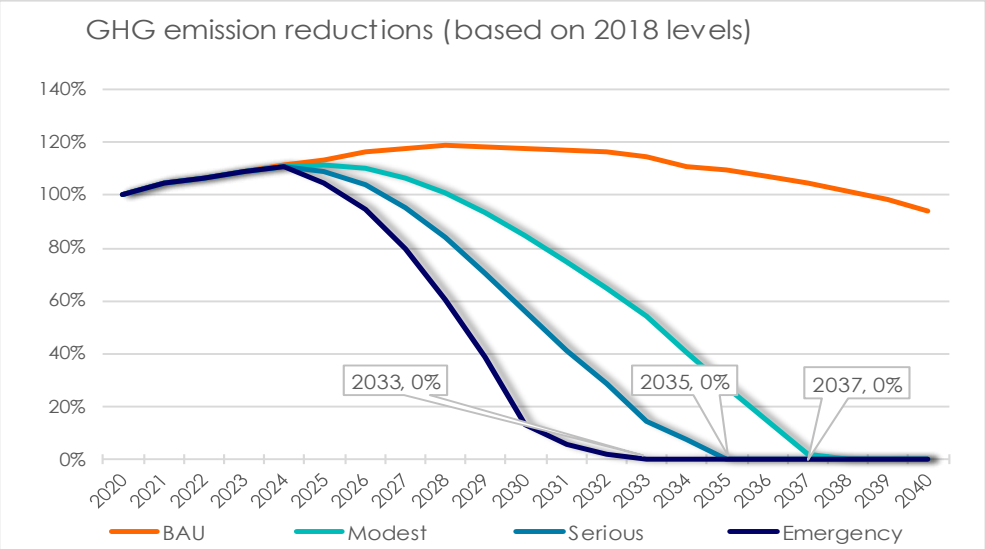
Energy mix ("Serious" tax level scenario)



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

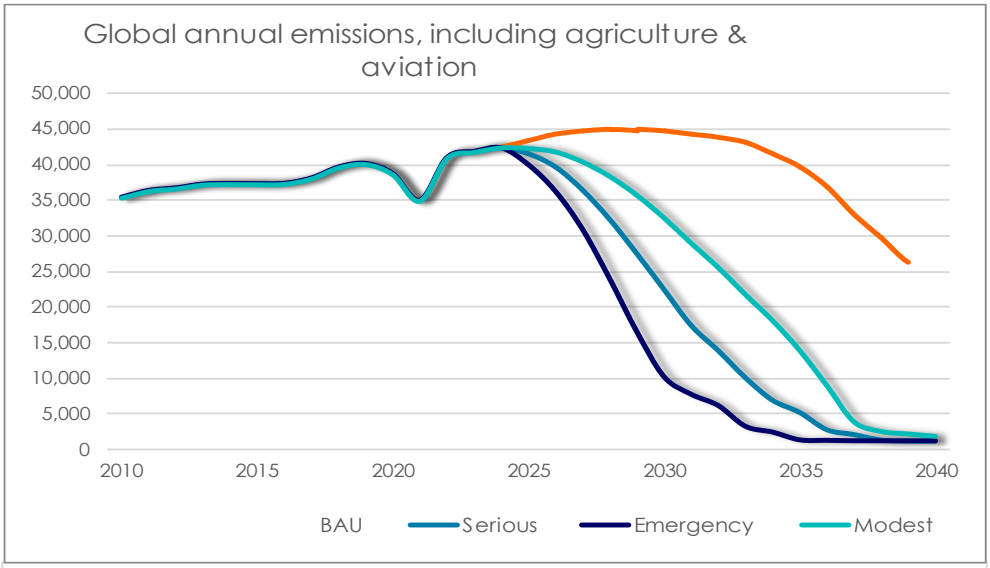
ClimaTax Carbon Emissions: Real-Zero by 2035

Replacing all energy-related fossils with renewables GHG emissions is equal to eliminating CO_2 emissions. Depending on climate tax levies per ton CO_2, 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.



Emission reduction based on availability of renewable energy. Depending on the tax rate real-zero CO2 emissions will be reached between 2033-2037.

Total Emissions, including agriculture and aviation



Global GHG emissions, including agriculture and aviation.

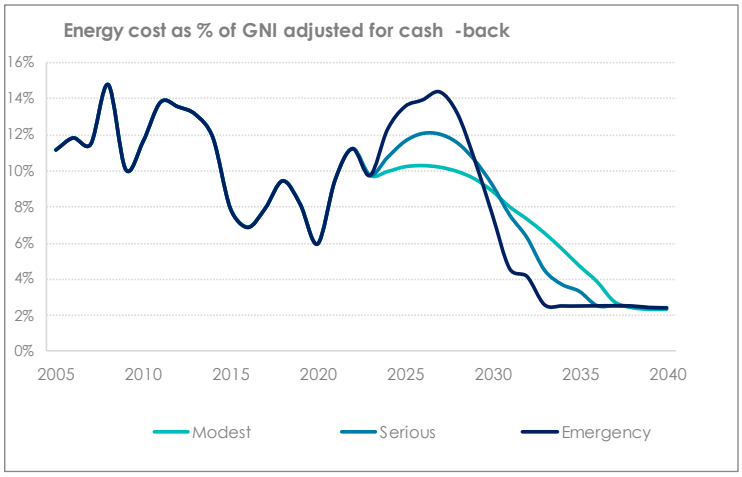
Key assumptions made for the simulation of a global climate tax:

- 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)

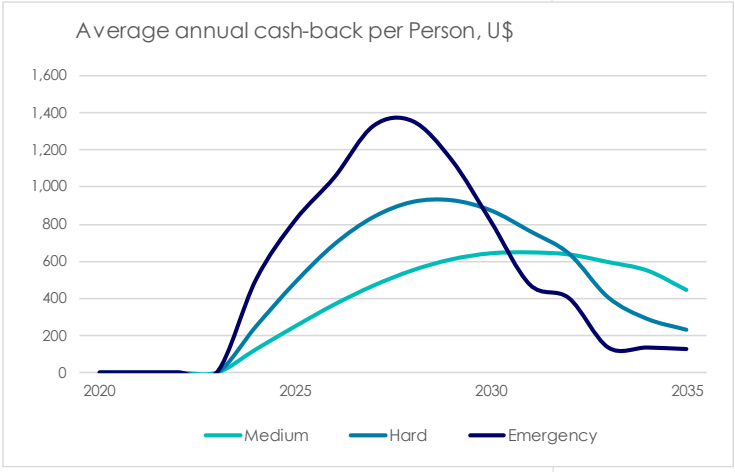
7 A global climate tax is an economic stimulus

Tackling climate change trough 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 ClimaCash 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.

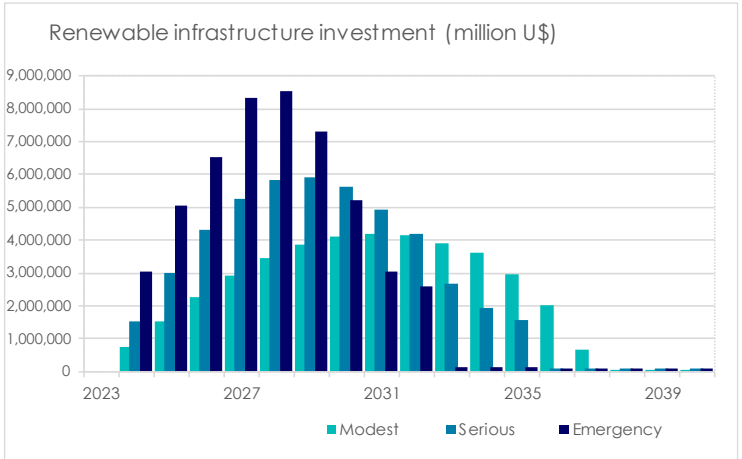


Global energy cost as % global GNI of before, during and after the global climate tax renewable energy transition for the different scenarios

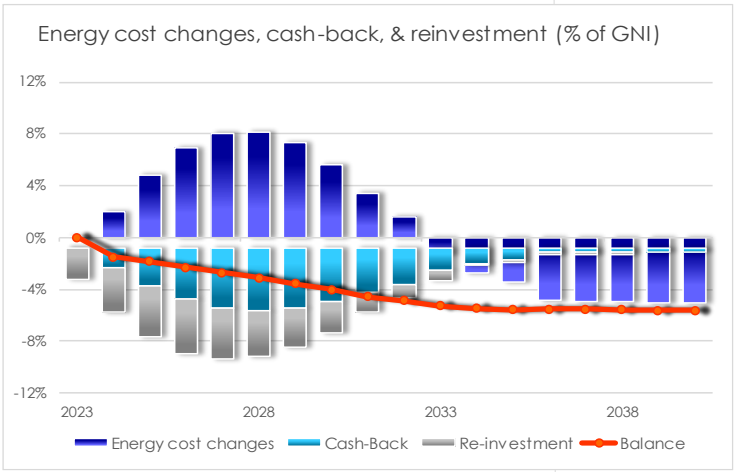


Cash-back per person and year – for each global citizen, in U$ per person- The average global person will receive more than U$ 8'00 over the transition. The exact amount is different from country to county

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

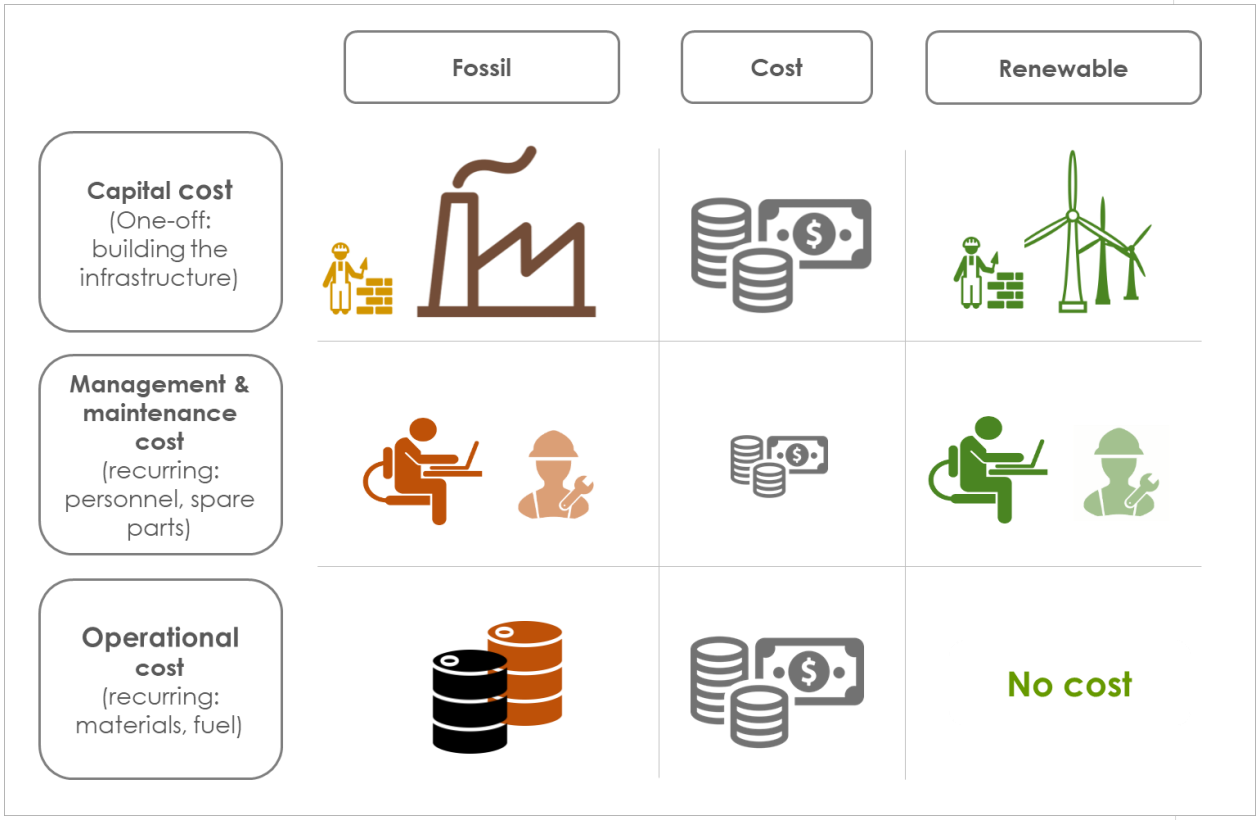
Re-distributing of tax revenues as cash-back ensures the level of purchasing power of ordinary citizens remains equal, while the lower income brackets enjoy higher purchasing power, leading to higher consumer spending. Local economies are set to profit from a global climate tax scheme.

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



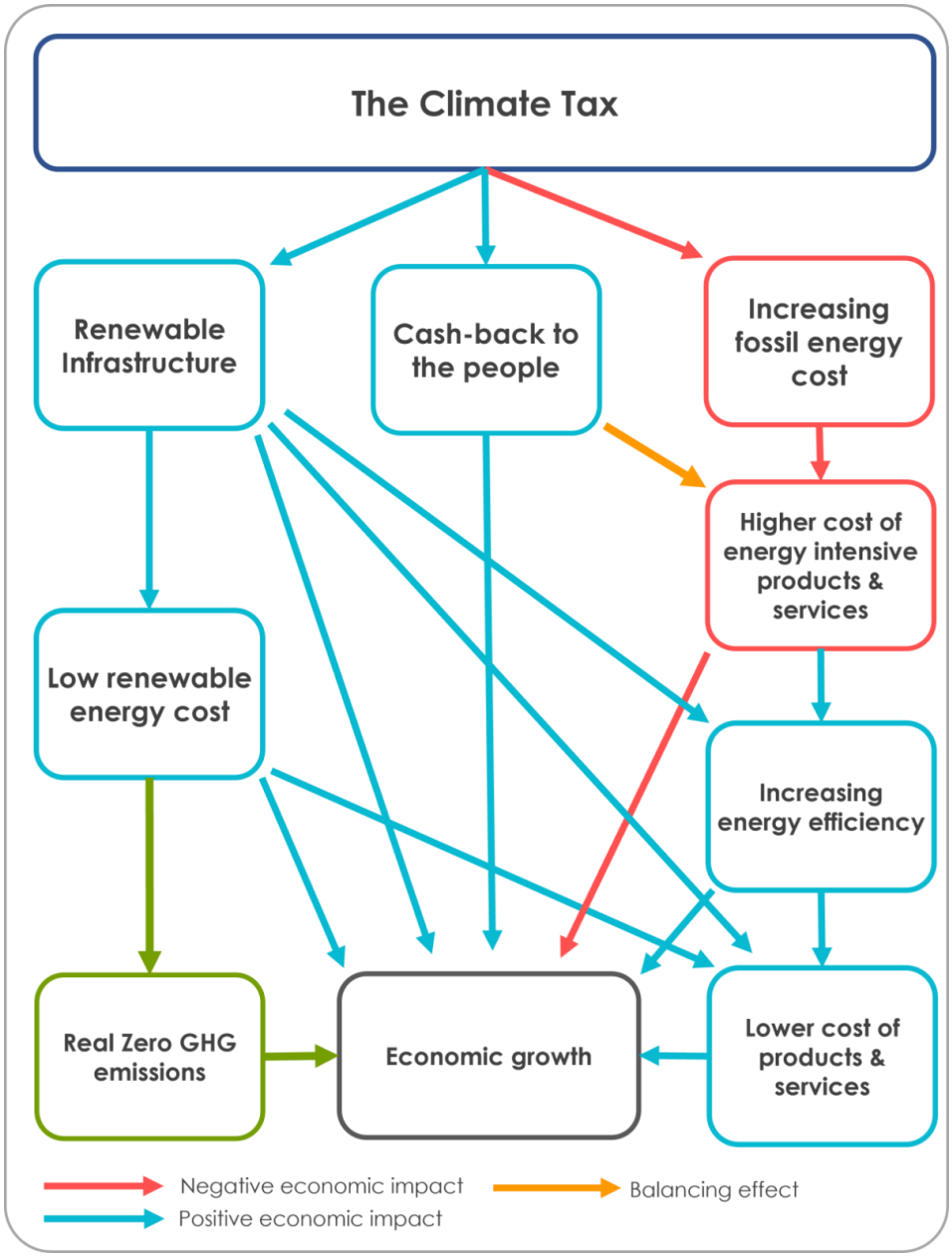
Generating electricity has three major cost parts: infrastructure cost (power plant, turbines, etc), maintenance costs (employees to run & maintain the infrastructure), and operational cost (fuel). ***With renewable energy, there is no fuel cost.*** Wind and Solar electricity are already now the cheapest 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 Why ClimaTax 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 ClimaTax 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

9 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 threated (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.

10 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.

1. Climate change is a global problem. Climate change can only be tackled on a global level.
2. Politics is either unable or unwilling to face the challenges.
3. The economics of climate change is simple: there needs to be a **cost attached to GHG emissions**.
4. **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**
5. 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)
6. For reasons not necessarily easy to understand, such a global agreement currently seems politically impossible.
7. OPEC countries, the fossil industry, the air transport industry, and potentially animal farmers are expected to lose income and therefor exercise strong opposition
8. The events of 2023 have completely altered the urgency around climate change
9. 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

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.

Further information: www.climatax.org
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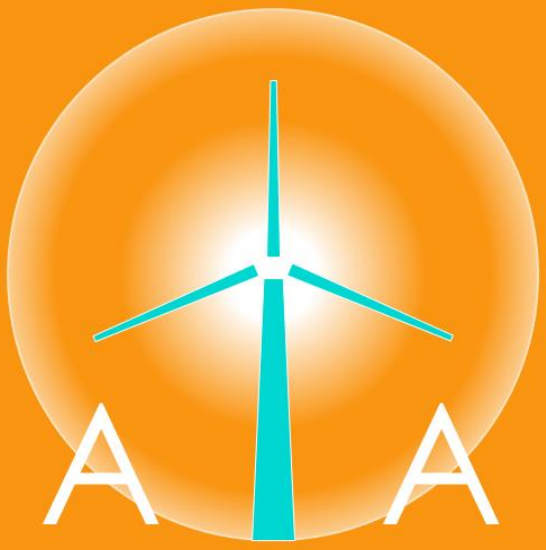
Change

Climate

Change



Global CLIMAX

NOW