7 PRIORITIES TO HELP THE GLOBAL ECONOMY RECOVER

WHILE BUILDING A HEALTHIER, MORE RESILIENT, NET-ZERO-EMISSIONS ECONOMY

ENERGY TRANSITIONS COMMISSION

OVERVIEW

Economic stimulus packages established by governments around the world will be vital to sustain economic activities, jobs and livelihoods over the next few years. The current crisis reduced the already low interest rates at which advanced economy governments can borrow, while it increased the risk premium paid by many private sector players as well as countries perceived as riskier. In that context, governments are in a position to drive a massive wave of investment to stimulate the global economy, either by using their own balance sheets or reducing the cost of private capital through various forms of financial support[i]. Indeed, trillions have already been committed to support immediate economic stabilisation and longer-term economic recovery. Development finance institutions will need to play a crucial role in ensuring that such action extends to developing countries facing higher risk premiums.

We should learn the lessons from the COVID-19 crisis, which has dramatically demonstrated the unpreparedness of the global economy to systemic risks, despite early warning from scientists. In 2019, climate change was linked to at least 15 extreme weather events costing between US$1-10 billion each[ii]. The IPCC predicts that such extreme weather events will likely become more frequent with the rise in global temperatures [iii]. Investing in high-carbon activities without climate conditionality in the hope that it will help the global economic recovery would only prepare the ground for future systemic crises. Economic stimulus packages should contribute to building a healthier, more resilient, net-zero-emissions economy.

The Energy Transitions Commission is a coalition of leaders from global organisations across the energy, industry, finance and civil society sectors. Their companies and organisations have been hit by the economic downturn, but they continue to be committed to building a better economy. This should be one that enhances the health of people and ecosystems, and that builds our resilience by better anticipating and mitigating risks. In particular, it is vital to reinforce action to address the climate change related risks, by achieving net-zero greenhouse gases emissions by mid-century and driving sustainable economic prosperity.

Clean energy, low-carbon and digital solutions are fundamental pillars of a better economy: they can improve the quality of the air we breathe, enhance our quality of life, limit the occurrence of climate-related disasters. They can also underpin new businesses and new jobs: according to IRENA, the cumulative gains for transforming the energy system could reach US$98 trillion between 2020 and 2050, greatly exceeding the related investment costs (US$ 15 trillion)[iv].

Governments have the choice, the power and the responsibility to build this new economy faster with businesses and civil society. We believe they can do this and help the global economy recover by putting 7 key priorities at the heart of economic stimulus packages*.

These are:

1. Unleash massive investment in renewable power systems
2. Boost the construction sector via green buildings and green infrastructure
3. Support the automotive sector while pursuing clean air
4. Make the second wave of government support to businesses conditional to climate commitments
5. Provide targeted support to innovative low-carbon activities
6. Accelerate the transition of the fossil fuels industry
7. Don't let carbon pricing and regulations spiral down

** These recommendations constitute a collective view of the Energy Transitions Commission. Members of the ETC endorse the general thrust of the arguments made in this report, but should not be taken as agreeing with every finding or recommendation. The institutions with which the Commissioners are affiliated have not been asked to endorse the report.*

1. UNLEASH MASSIVE INVESTMENT IN RENEWABLE POWER SYSTEMS

Investment in clean power systems constitutes the single biggest investment opportunity of the next decade. A massive wave of investments in renewable electricity generation, flexibility provision and power grids is indispensable to both decarbonise existing power provision and meet growing electricity demand from rapid electrification of buildings, transport and industry. The ETC forecasts a multiplication by 4 to 5 of electricity demand globally by 2050[v]. This would require a multiplication by 10 of the pace of renewable deployment (from 160GW of new wind and solar capacity installed in 2019[vi] to 1500GW per year on average over the next 30 years[vii]), along with substantial investment in grid infrastructure.

Even in the midst of the crisis, some leading power companies have confirmed their investment and hiring plans for 2020. But many governments have also delayed or cancelled planned auctions for this year, which could rapidly weaken the sector. History has shown that making clean energy a priority in stimulus packages can be a driver of job creation in the following years. After the 2008 financial crisis, the US recovery spending prioritised funding for clean energy, creating 900,000 jobs over a 5-year period[viii]. A recent analysis from IRENA indicates that more than 17 million jobs could be created in the renewable energy sector globally by 2030, doubling the size of the workforce in the sector[iii].

The expansion of renewable power systems can also in time have a spillover effect on the economic recovery by driving down energy prices for businesses and households. Today, despite the recent fall in fossil fuels prices, renewable power is cheaper than fossil fuels-based thermal power generation in many major markets [ii]. This remains the case even after accounting for the cost of flexibility provision[ix]. Indeed, over the past few weeks, power prices have dropped in many countries reflecting both lower demand and greater reliance on renewable generation. In a depressed economy, businesses and households alike could benefit from lower energy bills underpinned by a renewable expansion.

Financing renewable projects remains challenging, due to high capex, inappropriate power market design and perceived market uncertainties, especially in developing economies. In a context of economic crisis, private finance will be particularly risk averse. To accelerate necessary investments in renewable power generation, flexibility provision and grid infrastructure, governments can therfore play four distinct roles:

- They can de-risk private investment by launching competitive auctions for renewable power generation which guarantee competitive electricity prices while providing investors with greater certainty on future revenues, or by incentivising long-term contracts with customers.
- They can enable a new wave of investment in transmission and distribution grids.
- They can support investment in renewable power systems via the lending and investing of government-sponsored development finance institutions in both developed and developing countries.
- They can accelerate the process from planning to shovel by fast-tracking permitting for new projects (e.g. via simultaneous rather than sequential procedures and increased human resources in relevant administrative services).

2. BOOST THE CONSTRUCTION SECTOR VIA GREEN BUILDINGS AND INFRASTRUCTURE

The construction sector has often been at the forefront of economic recovery plans: while consumer demand is depressed, this sector can be boosted by demand arising from the public sector. Construction also has the double advantage of being labour-intensive and having a knock-on effect on many industry sectors in its supply chain (equipment manufacturing, steel, aluminium, cement…). Today, a massive investment plan is needed to revitalise the economy and get people back to work; and where to direct this investment flow should be obvious: US$50 trillion of investments are required across key energy and energy-using sectors by 2030 to put the global economy on path to low-carbon energy systems[x].

In the immediate aftermath of the crisis, many public buildings, including schools, universities, city halls and community centres are likely to stay partly or entirely closed for a few months, as physical distancing remains in place in many regions. Central and local governments have a unique opportunity to undertake energy retrofitting work while the premises are mostly empty. Building retrofitting (including electrification of heating) can often be undertaken more rapidly than new infrastructure projects and thus provide an initial wave of demand for the construction sector when larger projects might not yet be shovel ready. In the longer term, it could also contribute to the return to financial equilibrium of local governments by lowering their operational costs.

Energy retrofitting of a broader set of residential and commercial buildings can then offer a second wave of demand for the construction sector. These retrofits will benefit businesses and households in the medium-term as they translate into lower energy bills. However, government-backed schemes — covering the often dissuasive upfront cost of insulation, boiler replacement, heat-pump installation, on-site solar and building efficiency digital controls, and implemented through large-scale projects at neighbourhood level to reduce costs – will be essential to incentivise a wave of retrofits in a depressed economy.

Beyond retrofitting, the build-up of new residential and commercial buildings can also be a driver of economic recovery in rapidly urbanising countries in South East Asia and Sub-Saharan Africa – while countries which are already well advanced on the path towards urbanisation should be wary of misplaced incentives that could result in overbuilding and the creation of ghost cities. Governments and development finance institutions can support these construction programmes where relevant, combining them with high energy efficiency standards which will lower operational costs over the lifetime of the buildings.

Beyond buildings, major investments are also required over the coming years to build the infrastructure that can support sustainable economic development across developed and developing countries. These investments may be less shovel-ready than building retrofits, but, if planning starts today, they could constitute a powerful third wave of demand for the construction industry in 12-18 months. They would entail:

- Energy infrastructure beyond power – e.g. retrofitting of gas pipelines to reduce methane leakages and enable a potential switch to green hydrogen, development of a CO2 transportation infrastructure for hard-to-abate industry sectors;
- Transport infrastructure – e.g. deployment of the charging infrastructure for EVs, development of high-speed rail;
- Digital infrastructure to support the rapid digitalisation of the economy, which was suddenly accelerated by lockdown measures during the COVID-19 crisis;
- Resilient urban infrastructure, including waste and sanitation systems, both in developing countries to improve living standards and in developed countries to enhance the resilience to climate-related physical risks of existing infrastructure.

Public procurement practices for buildings and infrastructure can be designed to prioritise materials with lower carbon content, thus sending a clear market signal up the supply chain for the development of low-carbon cement, steel, and other sustainable materials.

3. SUPPORT THE AUTOMOTIVE SECTOR WHILE PURSUING CLEAN AIR

The automotive sector has been severely hit by the global economic standstill. At the peak of the crisis, sales of passenger cars have dropped 40-80% across regions. Sales of electric vehicles (EVs) have similarly experienced sharp decreases[xii]. This sudden stop comes at a critical moment in the deployment of EVs. The cost-competitiveness of electric vehicles (EVs) versus internal combustion engine vehicles (ICEs) is approaching a tipping point. This tipping point needs to be reached in the 2020s for EVs to dominate two/three-wheelers and car purchases by 2030 and heavy-duty vehicles purchases in the early 2030s. This in turn is essential to reach a full renewal of the fleet by mid-century. But this tipping point will only be reached with learning curve and economy of scale effects driven by ever-increasing EV sales.

In the meantime, the COVID-19 crisis has also had two direct consequences which could lastingly impact urban transport in contradicting ways:

- On the one hand, several dense cities have experienced large outbreaks. As long as physical distancing measures remain in place, and possibly even longer term, many people are likely to have a bias against public transport and prefer private vehicles for their commute.
- On the other hand, studies have shown that bad air quality may be a vector of transmission of respiratory viruses like SARS or COVID-19 and is associated with higher mortality rates. Meanwhile, during lockdown, urban populations have experienced first-hand and in a dramatic way what clean air looks like. Several surveys show that lower levels of air pollution count among the positive dimensions of the COVID-19 crisis that citizens would like to continue benefitting from after the crisis – alongside flexible working[xiii].

In this context, car manufacturers and their supply chains could benefit from three forms of public support:

- Policies stimulating demand, in the form of vehicle-scrapping and purchase subsidies, will initially lead to a rebound of sales of ICE vehicles. But subsidies can both be differentiated – with greater support for EVs than for ICES – and rapidly phased out for ICES, so as to incentivise a shift to EV purchase over the next 5 years. This would help accelerate retirement of old ICE vehicles and enable households (and businesses) to purchase electric two/three-wheelers and cars at a discounted price – offering them access to vehicles that are lower-cost to fuel and maintain. Such a scheme would also help speed the electrification of the retail delivery sector, which has been boosted by lockdowns around the world.
- Cities could also develop two/three-wheelers-on-hire and car-sharing schemes, to provide their citizens with private mobility options while avoiding inefficiencies related to individual private vehicle ownership.
- In parallel, any direct support to car manufacturers could be subject to setting an ICE production phase-out date (ideally in the early 2030s for two/three-wheelers and passenger cars) and be focused on investments needed to drive a shift to electric mobility (e.g. support for EV and battery manufacturing capacity).

4. MAKE THE SECOND WAVE OF GOVERNMENT SUPPORT FOR BUSINESSES CONDITIONAL TO CLIMATE COMMITMENTS

Direct economic support to SMEs and bigger corporates will be a lasting feature of recovery packages. Emergency cash injections are rightly focused on protecting economic activities and jobs as effectively as possible. But the second wave of economic support from governments will be focused on rebuilding national economies. This spending should incentivise the transition to more sustainable and resilient business models and supply chains to strengthen each country's economic fabric ahead of future climate-related shocks.

Climate commitments are not only good for climate, they also increasingly prove to be good for business. Companies that pay particular attention to their social and environmental footprint are likely to be more financially sustainable than the average in the medium term[xiv]. Over the past 10 years, listed companies with green activities have performed better than fossil fuels stocks; and over the past few weeks, ESG portfolios have withstood the crisis better than conventional portfolios on financial markets[xv]. The world is moving towards net zero – a financially viable business plan must take this into account.

Lasting government funding – in the form of direct subsidies or other forms of financial support like loan guarantees – should therefore be conditional on clear climate commitments. These conditionalities can be designed so as not to slow down immediate business recovery by focusing on medium-term targets. They might also need to differ between major corporates and SMEs not to impose administrative burden on smaller companies. They should at least encompass:

- The obligation to disclose climate-related financial risks from 2021 onwards in line with TCFD recommendations, to inform the company's strategy as well as its investors;
- Clearly defined decarbonisation targets for 2030, in line with an objective of net-zero emissions by 2050;
- An investment plan outlining how new investments will contribute to the companies' emissions reduction trajectory.

Governments could also adopt an innovative policy approach: they could forgive emergency support loans contingent on proven subsequent reductions in the carbon-intensity of their output. This approach would allow immediate lending to all sectors, including carbon-intensive sectors, while building in focus on future emissions reductions.

In key heavy-emitting sectors, specific commitments could be developed in line with low-carbon transition requirements for these sectors. For instance, support to the automotive industry could be conditional on a commitment to end production of ICE vehicles by a certain date (for instance the early 2030s for passenger cars), support to the airline industry conditional on a commitment to growing levels of sustainable aviation fuel purchase, or support to power-intensive manufacturing activities conditional on a commitment to purchase 100% renewable power.

5. PROVIDE TARGETED SUPPORT TO INNOVATIVE LOW-CARBON ACTIVITIES

Innovation in both technologies and business models is a major driver of economic growth. While supporting incumbent businesses, stimulus packages should also continue championing the development and early deployment of innovations which have the potential to drive the competitiveness of national economies over the next decades. Many of these innovative activities can also contribute to the reduction of greenhouse gas emissions. This is the case of zero-carbon hydrogen production, low-carbon fuels for the shipping and aviation industry, low-carbon materials (like green cement or green steel), circular business models (in particular used materials collection and recycling activities), digital solutions for system and energy efficiency, among many others.

Governments are able to support the development of these new economic sectors at relatively low cost, as the scale of investments required in these activities is much lower than in power and construction[ix]. What matters in these emerging economic sectors is to accelerate technology deployment to unlock learning curve and economies of scale effects, which will enhance their cost-competitiveness. But the novelty of the technology and uncertainty on future markets often drive up cost of capital for early deployment projects. Governments could therefore focus on three major types of policy interventions:

- Continued innovation support to bring those technologies to market, with a focus on early-stage development and industrial-scale demonstration;
- Public financial support mechanisms, like loan guarantees, dedicated to new low-carbon technologies to de-risk and lower cost of capital for early deployment;
- New regulations and mandates – including a ratchet-up mechanism which will tighten obligations over time – to create demand at scale for new products over the next 10 years (e.g. sustainable aviation fuels mandates, lifecycle emissions regulations on cars and buildings, hydrogen blending mandates for heating networks…).

6. ACCELERATE THE TRANSITION OF THE FOSSIL FUELS INDUSTRY

Before the COVID-19 crisis, the rise of electric mobility was already making peak oil in the late 2020s probable, and cheap renewables were squeezing coal assets out of the power market. As the world progresses towards a lower-carbon economy, demand for fossil fuels is likely to shrink. If that transition is not anticipated, it could result in the creation of significant stranded assets[xvi]. In light of these long-term trends, leading fossil fuels players have already announced climate ambitions and commitments, such as to reduce emissions in their upstream oil and gas production and/or the carbon-intensity of the fuels they provide to their clients, as well as to grow new low-carbon activities, for instance in the renewable energy, bioenergy and hydrogen spaces.

Over the past month, oil and gas markets have been hit by an unprecedented fall in demand and a price war, which brought the price of a barrel below the US$20 mark. Structural trends combined with this economic downturn mean that coal, oil and gas prices are likely to remain low for the foreseeable future. This situation opens a window of opportunity for governments to accelerate the transition of the fossil fuels industry:

- For major economies, in particular major energy importers, this represents a key opportunity to remove any remaining fossil fuels consumption subsidies, made unnecessary in a period of low prices, and to increase fossil fuel taxes without triggering significant consumer price increases. Those reforms could provide a useful source of fiscal revenues in a period of high countercyclical public spending.
- For oil and gas producing countries and coal-rich economies, this crisis precipitates a transition that was already looming for the decade ahead. Fiscal stimulus could usefully be invested in an early phase-out of the least competitive assets, the diversification of their economy, and supportive measures for workers and regions which will be impacted by the transition.

7. DON'T LET CARBON PRICING AND REGULATION SPIRAL DOWN

After the global financial crisis of 2008, depressed economic activity resulted in lower carbon prices (for instance in the EU Emission Trading Scheme) which persisted for many years, undermining incentives to improve energy efficiency or to adopt new low-carbon technologies. It is essential that such a development is not repeated after this crisis. Reducing greenhouse gas emissions should be a key feature of building a more resilient economy.

Carbon markets which already exist have been significantly hit by the COVID-19 crisis. In Europe, smart use of the Market Stability Reserve has absorbed excess allowances, with the effect of supporting market prices in the EU ETS after an initial drop, but the structure of the market means that low economic activity could durably subdue future carbon price levels. Meanwhile, carbon taxes and carbon regulations, which create an implicit carbon price, will play an essential role to keep incentivising carbon emissions reductions. Although low-carbon solutions are increasingly cost-competitive in some sectors like power and automotive, significant carbon prices, eventually reaching US$100 per tonne of CO2 or more, will be required to drive carbon emissions reduction in some of the harder-to-abate long-distance transport and heavy industry sectors .

In the wake of the COVID-19 crisis, carbon prices and carbon regulations which are already in place might find themselves under renewed attack. We encourage governments to stand firm: stimulating demand across multiple sectors of the economy will be more effective for economic recovery and have more lasting economic effects than deregulation. Although carbon prices and regulations might be perceived by some as a cost today, they are essential policy tools to internalise current externalities and incentivise the search for least-cost solutions to climate change, building a resilient economy and lessening the risks of major climate-related economic crises in the coming decades.

By combining measures of the sort outlined above, tailored to specific national circumstances, governments can both support economic recovery from today's crisis and underpin the energy transition required to avoid a climate crisis in the future.

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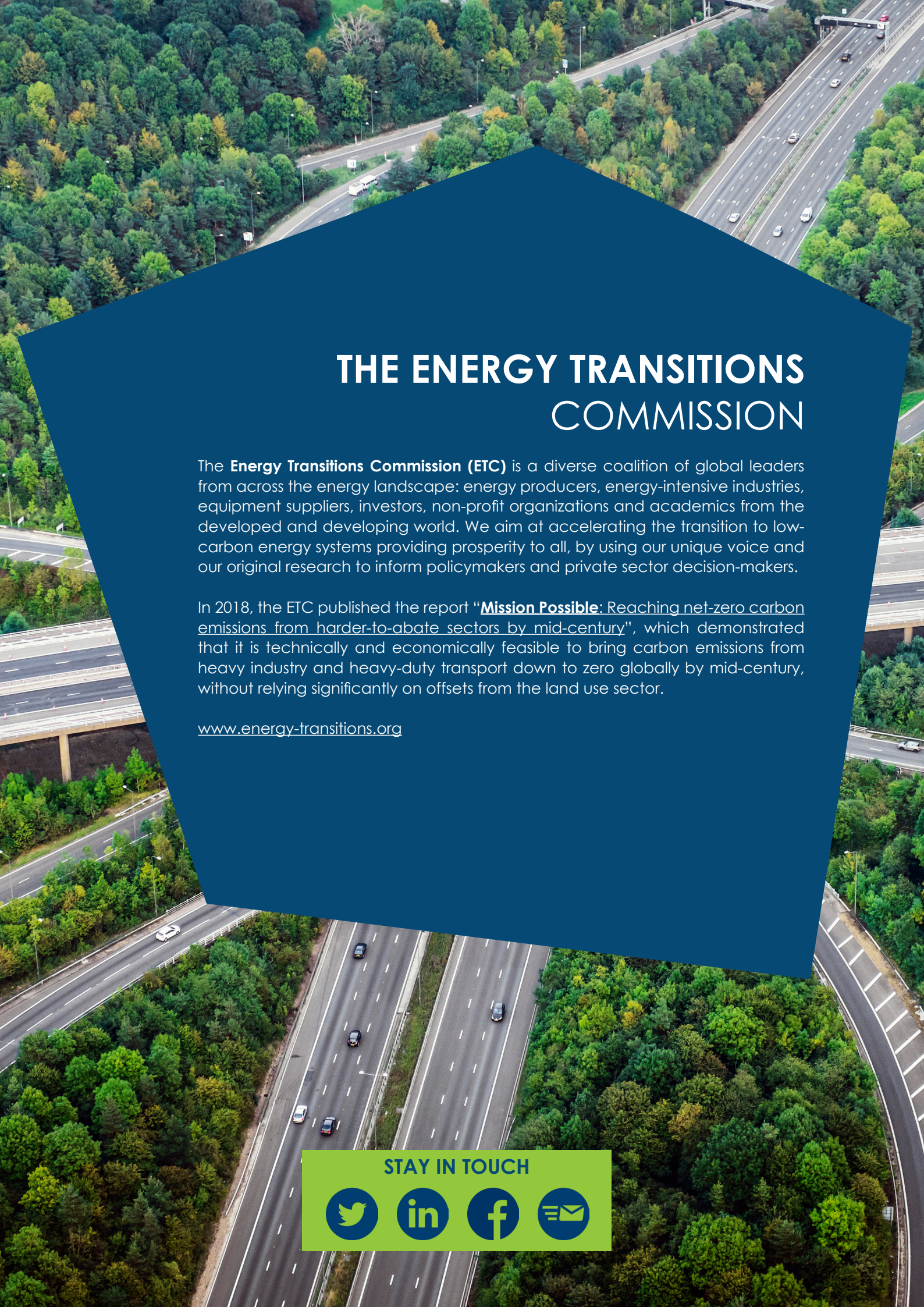

THE ENERGY TRANSITIONS COMMISSION

The **Energy Transitions Commission (ETC)** is a diverse coalition of global leaders from across the energy landscape: energy producers, energy-intensive industries, equipment suppliers, investors, non-profit organizations and academics from the developed and developing world. We aim at accelerating the transition to low-carbon energy systems providing prosperity to all, by using our unique voice and our original research to inform policymakers and private sector decision-makers.

In 2018, the ETC published the report "**Mission Possible**: Reaching net-zero carbon emissions from harder-to-abate sectors by mid-century", which demonstrated that it is technically and economically feasible to bring carbon emissions from heavy industry and heavy-duty transport down to zero globally by mid-century, without relying significantly on offsets from the land use sector.

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