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Driving a green stimulus plan for Europe Exchanges as anchor for markets in turmoil

Brussels, June 2020



1. Executive summary

The COVID-19 pandemic's impact on human lives and livelihoods around the globe is increasing day by day. But amid the tragic situation, this crisis can also represent the opportunity to rethink how to combine economic recovery and climate action.

EEX Group, as leading commodity exchange wishes to contribute to the debate around how a sensible European stimulus plan should look like. At EEX Group we initially registered considerable impacts on the energy and commodity markets we administer, in terms of volumes and price development. However, markets are moderately moving towards normal over the last few weeks, highlighting the flexibility and resilience of exchange-based trading and clearing infrastructure.

The current crisis has in fact brought into focus the critical function exchanges and clearing houses play in ensuring the resilience of commodity markets. EEX Group has managed to remain open during the crisis, smoothening its seriousness and helping thousands of businesses large and small across Europe to navigate the market turmoil.

Exchanges and commodity markets can sustain Europe's sustainable recovery by providing accurate and meaningful price signals, guaranteeing the robustness of the European financial system and facilitating market-based climate action investments.

The necessary political and regulatory conditions should be set out to allow markets unleashing their full potential.

1. **EU ETS.** The EU ETS should form the backbone of the recovery phase as it provides one single carbon price across industries and level the playing field amid the current plethora of state aid initiatives.
2. **Grids, bidding zones and market-based flexibility.** Upgrading the European energy transmission infrastructure and preserving large bidding zones will support economic recovery delivering transparency and long-term visibility to businesses and policymakers alike. Market-based flexibility solutions are also an essential tool to integrate renewables complementing infrastructure investments.
3. **Undistorted power prices.** Power prices discovery mechanism should not be distorted (in the form of regulated prices, subsidies, etc.) as meaningful price signals are the key to further integrate renewable energies and unlock sector integration potentials.
4. **Natural and renewable gas.** Fund should be directed towards enhancing the European gas infrastructure. Further, renewable gases will ensure security of supply in a renewables-driven energy system and strengthen Europe's manufacturing base.
5. **Guarantees of origin.** GOs serve to keep a check on how investments in green technologies are powering Europe's economic recovery. They should therefore be extended to cover more activities across Europe.
6. **Financial services legislation should support markets in facilitating climate action investments.** Changes to insolvency provisions should not endanger market stability and further criteria should be implemented to ensure a future-proof counterparty risk management. The current MiFID II strict limits on market participants' positions should be revised to liquidity supporting economic recovery.

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2. Introduction

The COVID-19 pandemic represents the chance to further combine Europe’s Green Deal ambitions with an effective and forward-looking stimulus plan. Energy and commodity markets are paramount to support a green recovery, but the necessary policy and regulatory conditions should be laid.

The context. The COVID-19 pandemic is first a human tragedy, with over 6.4 million people affected and more than 380,000 lives lost at time of writing¹. Priority should be given now to tackling the further spread of the virus and continuing saving lives.

But COVID-19 is also a global pandemic with unprecedented effects on economies around the world. Stimulus plans are being forged at national and regional level to lift countries out of the crisis. In Europe, the von der Leyen Commission just released its “Next Generation EU” recovery plan, sporting a EUR 750 billion of financing raised on the financial markets. The Commission also increased the 2021-2027 Multiannual Financial Framework to EUR 1.1 trillion².

The Commission’s proposal is ambitious and bold, but Member States will have to ultimately decide on its execution. Member States are also in the lead as to how resources are going to be used, as the Commission’s recovery instrument will aim at financing national initiatives and reforms.

Why this paper. With this piece EEX, EPEX SPOT and ECC, part of EEX Group, as leading global commodity exchanges and clearing house, offer their contribution to the public debate around how the recovery plan for Europe and the Member States should look like to marry environmental efforts with economic relief³. This paper also highlights the key role energy and commodity markets can play in supporting the definition and execution of such stimulus plans.

You will find three sections in this text: 1) an overview of the major impacts of the pandemic on energy and environmental markets; 2) an assessment of the key role exchanges and financial market infrastructures have been playing to support economies during the crisis; and 3) a round-up of energy and environmental market design and financial services regulation elements that are indispensable for markets to continue powering our societies and support a green recovery.

3. View from the exchange: COVID-19 impact on energy and environmental markets

There are three main bearings on energy and commodity markets of the social distancing measures most countries have enacted to tackle the COVID-19 virus spread: the rise of

¹ Johns Hopkins Coronavirus resource center. <https://coronavirus.jhu.edu/map.html>

² European Commission, Recovery plan for Europe. https://ec.europa.eu/info/live-work-travel-eu/health/coronavirus-response/recovery-plan-europe_en

renewable energy penetration in EU power systems; the oil supply shock; the depression of EU-ETS allowances price.

3.1 Renewable energy rise

Electricity demand has dropped considerably in many countries imposing social distancing measures⁴, pushing renewable energies to make up higher shares of the power mix. In addition, sunny and windy weather in March and April across Europe increased renewable energy generation.

This has major consequences on power system stability as transmission system operators need to balance demand and supply – the latter being harder to forecast as it comes mostly from variable sources. While the market was able to accommodate this extraordinary situation in a reliable and secure way, volatility has increased and indicates a need for more flexibility in the system.⁵

Higher renewable energy infeed will be common as of 2030 in Europe, which stresses the need for power systems to employ effective ways to accommodate higher shares of renewable energies.

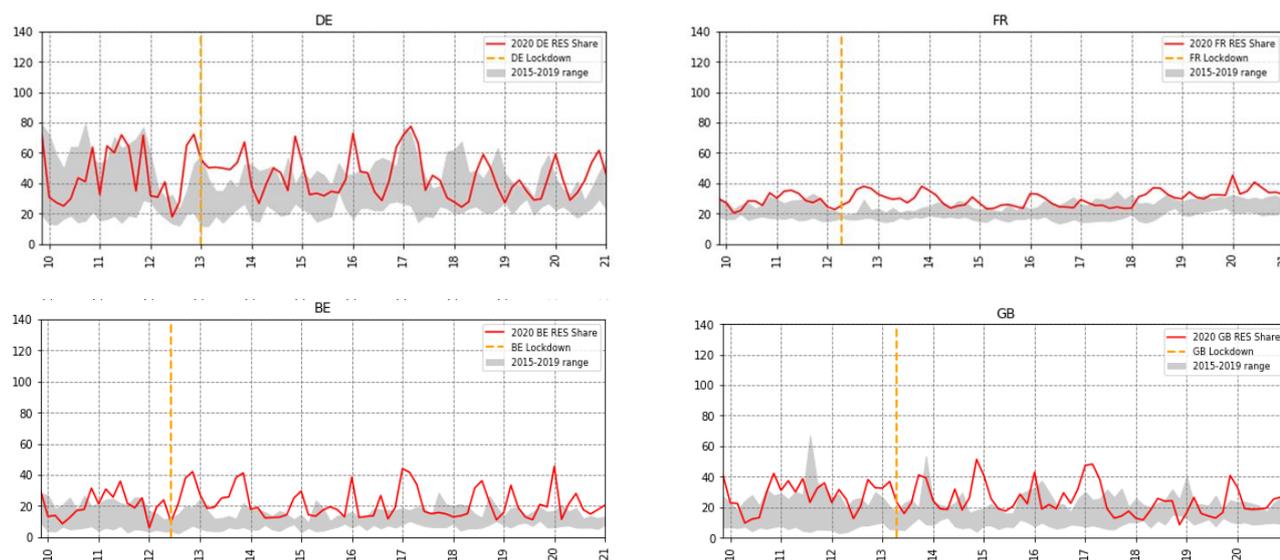


Figure 1: renewable energy share of consumption in selected European countries during lockdown weeks (Germany, France, Belgium and Great Britain - GWh/day)

⁴ Rachel Morison, Power Demand Slows in Europe as Virus Lockdowns Kick In, 20 March 2020. Available at <https://www.bloomberg.com/news/articles/2020-03-20/power-demand-slows-in-europe-along-with-coronavirus-lockdowns>; Fatih Birol, The coronavirus crisis reminds us that electricity is more indispensable than ever, 22 March 2020, available at <https://www.iea.org/commentaries/the-coronavirus-crisis-reminds-us-that-electricity-is-more-indispensable-than-ever>

⁵ Data from the EEX transparency platform (<https://www.eex-transparency.com/power/>) reports renewable energies representing more than two thirds of power generation in Germany since the start of the lockdown (13 March). Data also points out power demand fell by 20% across Italy and France, and by around 10% in both UK and Spain compared to first week of March last year.

3.2 Oil demand shock

Social distancing measures, of which lockdowns are the most extreme version, have brought mobility close to a halt in many jurisdictions. As such, global oil demand is expected to fall by a record 9.3 million barrel per day in 2020 whilst demand in April is estimated to be 29 million barrel per day lower than a year ago, down to a level last seen in 1995⁶. Simultaneously, the supply side has also experienced a troubled few months since the beginning of the year, with overabundant oil production.

Whilst several stakeholders believe demand will rise again⁷, the assumptions underpinning such forecast are straightforward. First, there are structural pressures on oil demand, such as transport energy efficiency, which has taken giant steps. For instance, oil consumption in the US is below 2005 level despite vehicle miles travelled increasing by almost 10% in 2005-2019⁸.

There are also behavioural impacts of the COVID-19 pandemic which can have lasting effects. With a large share of the working force becoming more used to home office, it is possible that more people will continue working from home even when the pandemic has elapsed. The aviation sector is also struggling to limit the damage of the current drop in travel demand, with consequent drop in its large demand of oil.

It is of course hard to tell whether such bleak outlook will materialise in these specific terms, but a diminished role of oil in our societies could represent the chance for diverting fossil fuel subsidies to steering economies towards energy transition and climate change mitigation efforts.

3.3 Environmental markets

Because of mobility restrictions measures introduced across many territories, global carbon dioxide emissions could fall by 5% in 2020, the largest amount since World War, even bigger than the 2008 financial crisis' 1.4% drop⁹. But much will have to be done to avoid emissions bounce back once recovery has picked up.

⁶ IEA Oil market report – April 2020, available at <https://www.iea.org/reports/oil-market-report-april-2020>

⁷ US Energy Information Administration, Short-term energy outlook, 7 April 2020, available at https://www.eia.gov/outlooks/steo/report/global_oil.php

⁸ Mark Lewis, Why we may have already seen the peak in oil demand, FT, 17 April 2020, available at <https://www.ft.com/content/bea183be-779c-491b-8ec6-f05da9fa5337>

⁹ Shadia Nasralla, Valerie Volcovici, Matthew Green, Coronavirus could trigger biggest fall in carbon emissions since World War Two, Reuters, 3 April 2020. <https://www.reuters.com/article/us-health-coronavirus-emissions/coronavirus-could-trigger-biggest-fall-in-carbon-emissions-since-world-war-two-idUSKBN21L0HL>

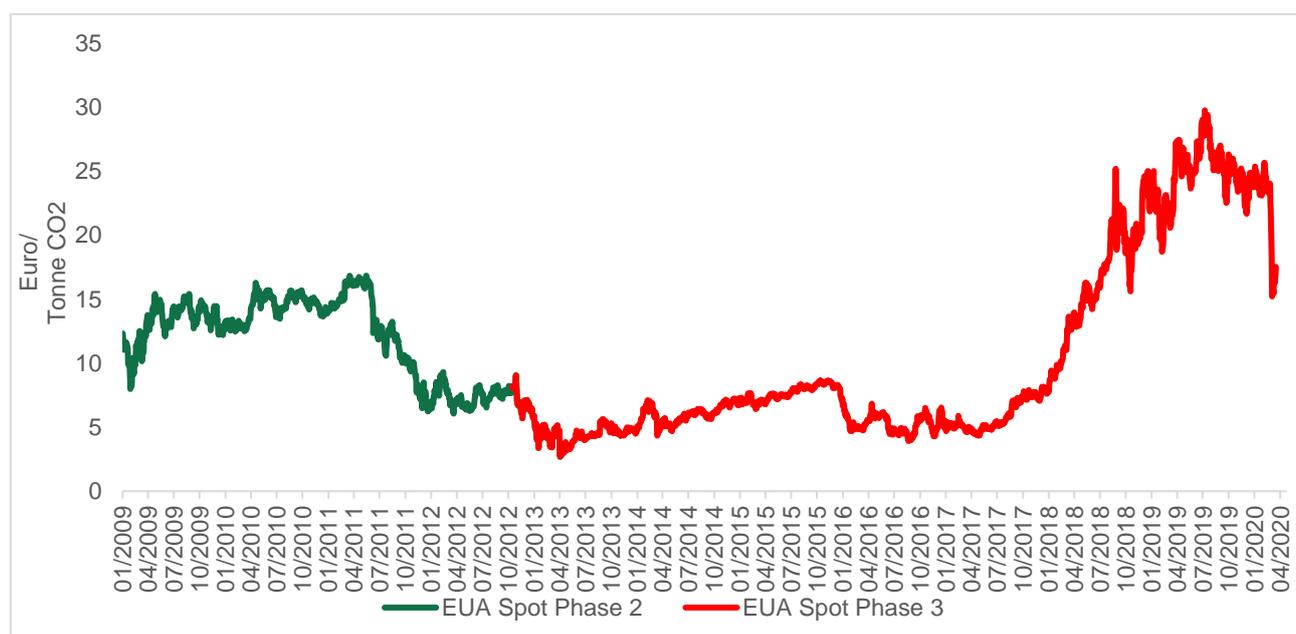


Figure 2: EU ETS allowance price development, 2009-2020 - source: EEX

The slowdown of economic activity brought about a drop in the demand for allowances. The ETS reacted as expected with a 30% fall in EU-ETS trading price (with allowance prices reaching a low of about EUR 15 on 18 March, since then rebounding to EUR 19 in the beginning of May¹⁰) and a consequent easing of the pressure on businesses across Europe.

This is an indication for policymakers of the flexibility of the ETS as a carbon pricing mechanism, as well as of need to keep closely aligned all elements of climate action policies. More specifically, policies aiming at reducing GHG emissions should be coordinated with reduction of ETS allowances, to ensure the effectiveness of the ETS as a climate change mitigation tool.

3.4 A look beyond the short term

As exchange, EEX Group, has a broad overview of commodity market dynamics and cycles. As outlined in the above section, COVID-19 has considerably affected energy and environmental markets, which reflected in the dropping price, in particular, of both ETS allowances and power.

A look at the settlement prices for both ETS and power future contracts sheds light on how long the current situation in commodity markets is possibly going to last.

Figure 3 below shows the settlement price¹¹ for the December 2021 contract, currently a very liquid one. Around mid-March market participants valued the ETS about EUR 10 lower than at the beginning of March – a key factor in that has certainly been the drop in emissions brought about by the COVID-

¹⁰ EEX, EEX Transparency Platform, <https://www.eex-transparency.com/power/>

¹¹ A settlement price is the daily price at which a contract trades. For more information visit <https://www.eex.com/en/trading/trading-forms-and-documentation/settlement-price>

19 pandemic. Just a couple of weeks after the price was back at over EUR 20, meaning traders do expect the ETS to go back to its normal price shortly.

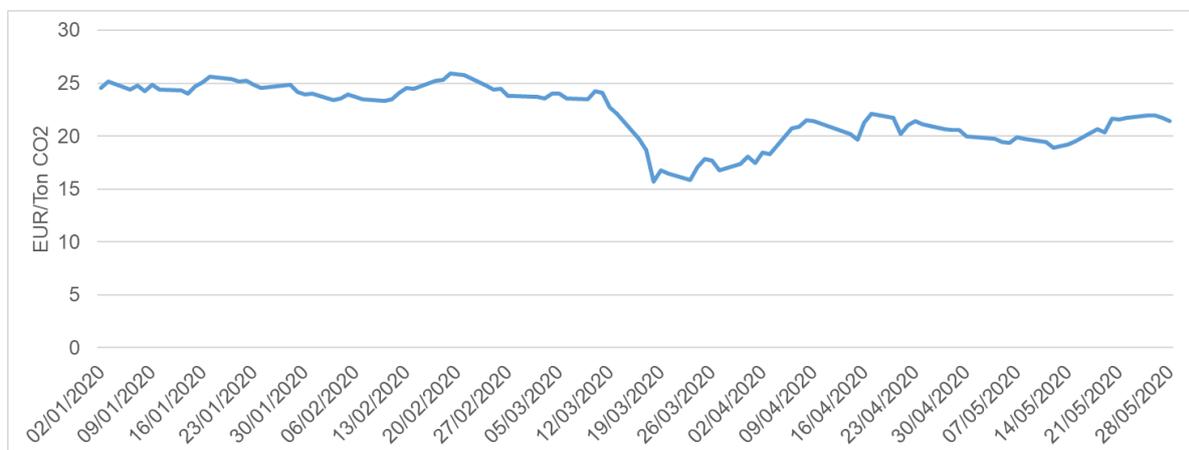


Figure 3: EU ETS settlement prices of the December 2021 future, January – May 2020 - source: EEX

As for the electricity market, the settlement price for the benchmark German power contract Phelix suffered a dip around mid-March, but then recovered over the following weeks and stabilised at a slightly lower level compared to January.

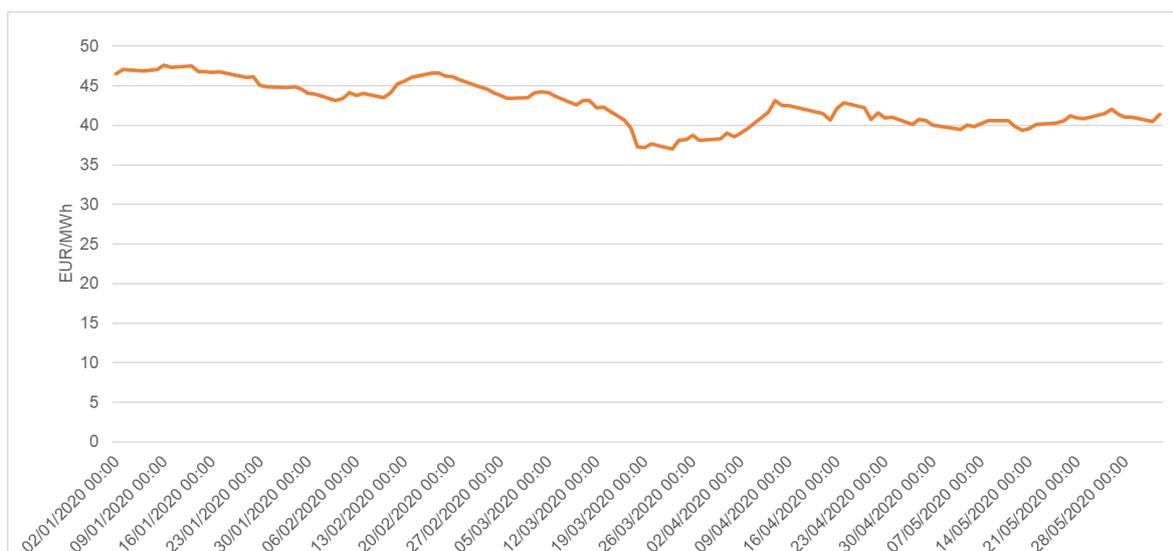


Figure 4: Settlement price for 2022 German power future contract (Phelix), January - May 2020 - Source: EEX

Both the ETS and power market point to a future recovery of European economy, reflected in prices slightly lower than the levels registered in January of this year, but higher than the current ones still affected by lockdown measures.

4. Exchanges as anchor for markets in turmoil

Exchanges provide an essential infrastructure for economic development. They have been critical in smoothing the harsh impact of the crisis by supporting businesses navigating the market turmoil and offering market players reliable prices and much needed liquidity. Trading companies have also managed to, for instance, adapt to lower energy demand and continue trading on the exchange with traders operating from home. These times of higher default risk have furthermore proven the key role of Central Clearing Parties model in providing counterparties with risk management at all times.

A reliable and resilient trading infrastructure smoothing the impact of the crisis. Markets have remained open for business amid the crisis and adapted to home working requirements immediately, without any effect on the safe and reliable operation of markets. Our markets continued to deliver reliable price signals for electricity, flexibility, gas, and CO2 emissions, as well as managing counterparty risk. Security of supply was guaranteed at all times, showcasing the high reliability and resilience of the trading infrastructure. Markets have been supporting companies adapting to the challenges the pandemic has brought.

The introduction of social distancing measures to fight the COVID-19 outbreak has meant closure for countless businesses and industries. EEX Group and the wider Deutsche Boerse Group have been swift in figuring effective ways to run markets in a completely decentralised manner.

The ongoing crisis has highlighted even more the critical nature of the services exchanges provide to society and the wider economic system – which will be even more needed to lift our economies out of the crisis.

4.1 Keeping afloat thanks to exchanges

High liquidity to adapt to the crisis. First, market players need to adjust positions to make sense of novel market dynamics. In the energy sector, for instance, utilities needed to adjust to lower demand by modifying short-term trading as well as long-term contracts. Without the high liquidity exchanges provide, they would have been left with insufficient or too little hedge, with consequent loss of welfare across society.

Unlimited trading possibilities. Second, the possibility to execute as many trades as needed has been particularly critical to small businesses who don't have large balance sheets to wear through the crisis. Exchanges allow companies to trade as much as they require, fitting their business strategy and according to the law of supply and demand.

Reliable prices. Third, exchanges provide reliable prices. With markets moving fast, it is often difficult to find reference points and meaningful prices – with large numbers of trading members and high volumes, exchanges are best fit to provide businesses with a safe haven where to carry out transactions and best face the crisis.

4.2 Trading from anywhere on the exchange

Digital and decentralised. With trading companies' offices shut down across the world, traders continue doing business remotely from their homes. This is possible thanks to exchanges' digital and decentralised capabilities, as well as front-end service providers offering internet-based services. Although trading switched to a remote mode, exchanges are guaranteeing the orderly operation of their markets and services, such as trading, clearing and settlement and reporting services, according to regulations.

Amid general production cycles disruption, trading businesses have been only relatively affected by social distancing measures: thousands of traders around the world are able to continue working and providing essentials services to economies across Europe and beyond. This is reflected in traded volumes at EEX and EPEX SPOT consistent with before the pandemic broke out.

4.3 Central counterparties protect markets

COVID-19 impact on credit risk. The COVID-19 pandemic has increased and will further increase credit risk for European businesses and financial institutions. Companies across most sectors have been affected by the shutdowns and had to downscale their production and planning. This implies their potential inability to honour financial commitments taken before the crisis. In the commodity sector this development will have a considerable impact on financial funding of assets as well as the fulfilment of closed contracts (such as bilateral power purchase agreements).

CCP mitigating default risk. This context highlights the relevance of the European central counterparty model for the integrity of the economic and financial system. Central counterparties such as the European Commodity Clearing AG (ECC) assume the counterparty risk of the cleared transactions and thus increase the resilience of the entire financial market.

Based on the European Market Infrastructure Regulation (EMIR) and its regulation according to the German Banking Act, ECC operates as a highly reliable organisation. This includes the continuous supervision and review of its business continuity plans and associated measures. ECC's customers benefit from the stable processes and systems of their CCP as well as from a single interface to clear their transactions.

Such benefits of a CCP pay off in particular in times of increasing credit risk and reduced availability of interfaces and bilateral contacts in OTC markets: the current pandemic confirms CCPs' ability to weather risks and unforeseen events: the implemented models are working as intended and market participants are able to continue trading and clearing.

5. Key questions for the pandemic aftermath

There are three key questions that should guide policy makers in charting sensible stimulus plans combining sustainability and economic recovery: 1) what will be the impact of low fossil fuel prices? 2) what is future of energy subsidies? and 3) how to best assess energy infrastructure investment?

Mitigating short-term impacts whilst preparing for long-term growth. Much ink will be poured on the uncertainties that lie ahead after the peak of the crisis has passed. How countries and regions organise their recovery plans also affects the capability to face the much longer-term challenge that is climate change.

Economic growth without carbon emissions bouncing back. As recalled, carbon emissions have consistently shrunk globally because of social distancing measures. The test for policymakers now is, in fact, supporting an economic upturn without letting carbon emissions bounce back – and therefore worsening the climate crisis.

EEX, EPEX SPOT and ECC highlight three main questions policymakers should address when strategizing about economic revival.

5.1 What will be the impact of lower fossil fuel prices?

Carbon intensive options become more attractive thanks to lower oil prices. The oil demand shock the COVID-19 pandemic contributed to has helped further decreasing fossil fuel prices. This is likely to make carbon intensive options more attractive in a spectrum of economic activities ranging from energy generation (improved fossil fuel competitiveness – compared to renewable energies) to transport (cheaper fuel – compared to alternative fuels, electric or hydrogen-powered vehicles).

Policy makers will have to be mindful of the implications on the environment of allowing consumers and industry to go back to unsustainable operating modes.

5.2 What future for subsidies?

Phasing out fossil fuel subsidies. Conversely, cheaper fossil fuels provide the chance to reduce or phase out fossil fuel subsidies, for instance to energy intensive industries or transportation. Governments could look into subsidies, taxation and exemption schemes¹² and rationalise them, making sense of the current low fossil fuel price.

Reconsidering renewable energy support. For the energy sector in particular, whilst low oil prices mean renewable energies could be penalised, the opposite has actually happened. Renewable energies made up the bulk of power generation across Europe due to falling prices over the last weeks, and they are expected to reach 30% of electricity supply globally this year¹³. This is an encouraging push to the already increasing competitiveness of renewable energies.

Such trend should shed light for policy makers when figuring if and how to support renewables in the context of the economic stimulus plan.

¹² Fossil fuel subsidies in Europe, Climate Action Network Europe.
<http://www.caneurope.org/publications/blogs/1278-fossil-fuel-subsidies#ESIF>

¹³ IEA, Global energy review 2020, April 2020. <https://www.iea.org/reports/global-energy-review-2020/renewables#abstract>

5.3 What role for energy infrastructure?

The EU power transmission infrastructure is resilient, but needs improvements. COVID-19's impact has been felt on different infrastructures across the world. The power transmission infrastructure has in particular been distressed by social distancing measures, with the drop in energy demand making renewables the largest power source across Europe (see sections 2.1 and 4.2). This puts considerable pressure on the grid given the variable nature of renewable energy generation. Thanks to the EU power grid resilience and the experience of European TSOs, no blackout has been registered so far. But the system is not yet ready to withstand much higher renewable shares.

Policy makers will have to assess what infrastructural investments, including in flexibility options, will both support economic growth as well as position national economies to better face the future.

6. How a green recovery plan should look like – elements of energy market design and financial services regulation

A sustainable stimulus plan needs to make sense of the broader urgency of acting on climate change, as well as supporting businesses' and consumers' economic upturn. Commodity markets and exchanges can sustain Europe's recovery if the necessary policy and regulatory conditions are laid out.

Decreasing emissions and preserving the European way of living. The current crisis also offers the possibility to further reflect on how to better combine climate action with economic relief plans in Europe. COVID-19 has revealed the devastating impact of halting most economic activities across the world on societies – and its positive effect on the reduction of global GHG emissions. The challenge for policymakers and stakeholders is to find better ways of bringing about a concrete decline in emissions whilst preserving social integrity.

EEX, EPEX SPOT and ECC strongly support a sustainable stimulus plan for Europe and welcome the European Commission's proposal. We outline here below the main axis along which Member States should shape the European grand scheme and build their national recovery strategies.

6.1 EU Emission Trading System ETS as backbone of the recovery plan

Commodity markets have proved to react well to the COVID-19 pandemic. As explained earlier in this document, markets also allowed businesses big and small to quickly adapt their strategies and operations to the rising flexibility and fall in demand. As such, markets should represent the mainstay of the recovery.

In particular, the EU ETS price has plunged in response to lower demand for allowances – exactly how a market is supposed to respond to a drop in demand. The current crisis is the opportunity to establish the ETS as the backbone of climate action in Europe going forward. The ETS, in fact, provides one single carbon price across industries, delivering transparency and long-term visibility to businesses and policymakers alike.

6.1.1 ETS levelling the playing level field amid state aid support

The European Commission should go full throttle on their original plan to extend the ETS to other sectors such as transport and buildings¹⁴. A single carbon price across sectors not only levels the playing field during business-as-usual, but will serve the same purpose when it comes to public support to companies in the aftermath of the crisis. What we currently see is businesses rushing for state aid, which could result in asymmetric support between Member States.

For instance, airlines are seeing their business shrink dramatically and need public money to hold up – depending on national approaches, some carriers could come out stronger or weaker from the crisis, with negative impacts on internal market competition (that is why companies such as Ryanair are challenging national state aid decisions¹⁵).

An extended and more comprehensive ETS could be used as a basis for a European market-based approach to public support, making state aid conditional on transparent and shared criteria. Governments could align on taxes on international flights as well as on fuel. Lastly, support would be calibrated with the need of raising 2030 and 2050 climate targets.

6.1.2 MSR framework delivers

The Market Stability Reserve (MSR) is the mechanism established by the EU to adapt the ETS to market realities and more ambitious climate targets by reducing the surplus of allowances. According to phase four of the EU ETS, between 2019 and 2023 the amount of allowances taken out of the market will double to 24%, which has already led to higher allowance prices.

In the context of the economic recovery, the European Commission and Member States should continue relying on phase four to make the ETS a robust tool of EU climate action, providing reliable and transparent carbon prices to coordinate national industrial and assistance policies.

6.2 Renewable energy integration

As IEA executive director Fatih Birol put it¹⁶, the pandemic projected Europe to 2030, where renewable energies will supposedly make up the largest chunk of power generation. Renewables can already compete with fossil fuels and the lower power demand prompted by social distancing measure across Europe has further improved renewable energy's market shares in all markets.

¹⁴ Ursula von der Leyen, A Union that strives for more. My agenda for Europe, Political guidelines for the next European Commission 2019-2024, 2019.

¹⁵ Siddharth Vikram Philip, Matthew Miller, and Charlotte Ryan, Ryanair cuts 3,000 jobs, challenges \$33 billion in state aid, 1 May 2020. <https://www.bloomberg.com/news/articles/2020-05-01/ryanair-to-cut-3-000-jobs-challenge-33-billion-in-state-aid>

¹⁶ Fatih Birol, The coronavirus crisis reminds us that electricity is more indispensable than ever, 22 March 2020, available at <https://www.iea.org/commentaries/the-coronavirus-crisis-reminds-us-that-electricity-is-more-indispensable-than-ever>

Markets are already supporting subsidy-free renewable energies integration. Well-functioning power markets are the most efficient basis for the market integration of increasing shares of renewables. Market parties can trade highly granular products very close to delivery, and thus accurately balance forecast errors and properly handle generation ramps. Transparent price signals and the possibility to trade ever closer to real-time across coupled markets have allowed increasing amounts of renewable energy, in particular variable sources like wind and solar, to be efficiently integrated into the system whilst ensuring production and consumption needs are met at all times. Market-based mechanisms for renewables support, such as direct marketing and tendering, will remain the most cost-effective instruments. Risk management tools sustaining renewables' increasing exposure to markets are already available, such as exchange-based hedging options.

Rather than falling back to direct subsidies, the European Commission and national governments should build on these achievements and focus on fully implementing the Clean Energy Package requirements to foster market-based renewable energies' integration into the power system. This would both prepare the European economy to the future of the energy sector and promote economic development through investments in clean jobs.

6.2.1 Power transmission grid expansion and bidding zone reviews

Upgrading the power grid. A critical barrier to renewable energy integration is the power grid. Policy makers should use stimulus plans, and the current very low borrowing rates¹⁷, to upgrade the energy infrastructure and extend the power grid. This is a much-needed development right now – and it will become critical going forward – to ensure security of supply and climate resiliency.

Large bidding zones helped mitigate COVID-19 impact and will support economic recovery. Another significant barrier to renewable energy development, and a bounty to economic recovery if overcome, is abrupt reconfigurations to bidding zones. Large bidding zones have allowed so many market players to adapt to the turmoil the pandemic has created thanks to abundant liquidity – and will be critical to provide the necessary liquidity for markets to fully bounce back after the crisis. As such, large bidding zones should be preserved. Should bidding zones be reviewed, that would have to be carried out according to univocal and clear principles¹⁸.

Transparency and long enough time lags are key. Bidding zone reviews are lengthy processes during which market players' visibility gets overcast – Transmission System Operators and national regulatory agencies need to ensure transparency at all milestones of the process. Also, markets in general, and long-term markets in particular, should be given enough time to implement changes stemming from a bidding zone reconfiguration.

¹⁷ European Central Banks, Key ECB interest rates.

https://www.ecb.europa.eu/stats/policy_and_exchange_rates/key_ecb_interest_rates/html/index.en.html

¹⁸ For a fuller discussion of the topic, please see EEX's response to ACER's consultation on the TSOs proposal for the methodology of bidding zone reviews, 24 April 2020. <https://www.eex.com/en/about/newsroom/opinions-and-expert-reports/eex-response-to-the-acer-consultation-on-the-tsos-proposal-of-a-methodology-for-the-bidding-zones-review/106004>

On both aspects, regulators and TSOs would profit from incorporating in their assumptions the lessons drawn from the German-Austrian bidding zone split in 2018.

6.2.2 Sector integration

Sector integration as cost-efficient pathway to economic system decarbonisation. EEX, EPEX SPOT and ECC strongly support the EU Commission's approach that an integrated energy system shall be at the heart of Europe's economic recovery post-COVID-19. Sector integration is the most cost-efficient pathway to a real decarbonisation of the energy system, allowing to optimise the energy system as a whole, instead of each sector independently. The expansion of renewable energies across all sectors and deployment of low carbon technologies will create new crisis- and future-proof jobs, strengthen European industry and improve the quality of life for Europeans.

Energy exchanges as platforms for sector integration. An integrated energy system offers the possibility to release system and grid flexibility and to put infrastructure and resources to their most efficient use. Integrating all forms of decarbonized energy supply and consumption is key to reach the 2030 and 2050 goals. Energy exchanges provide the platforms for sector integration: market participants from different sectors (utilities, municipalities, industrial consumers, etc.) already today trade energy commodities on the markets of energy exchanges - connected through efficient price signals.

Meaningful price signals as the key to unlock sector integration potentials. The potential energy exchanges provide should be strengthened. For this to happen, price signals need to become even more meaningful, particularly power and CO₂ prices.

Power prices reflect the entire physical reality of the power system if renewable energies are fully exposed to market-price risk. A strong and reliable price signal will set the right incentives to run power-to-x plants to produce for example hydrogen from electricity when it is most efficient. Also, the dissemination of price signals to decentralised assets and loads, such as (un-) charging electric vehicles, supports the whole energy system. CO₂ emissions should receive a dedicated market-based price tag in more than those sectors currently covered by the ETS.

6.2.3 Regulated prices

Regulated prices harm meaningful price signals. Following from the point above, abolishing counterproductive regulated prices represents a critical milestone towards making price signals meaningful. This will both facilitate the development of the power market towards climate resiliency, as well as spurring market competitiveness for economic resurgence after the pandemic.

By way of an example, the crisis has confirmed that the French ARENH mechanism is obsolete. The mechanism allows electricity suppliers access to energy produced by EDF's nuclear power plants at a price of €42/MWh in France. As electricity demand has decreased sharply during the lockdown, electricity market prices have fallen largely below the ARENH price. This has prompted alternative electricity suppliers who had contracted power from EDF to require their contracts to be discontinued.

ARENH is a clear example of the inflexibility of regulated tariffs, something that will go against the correct development of the internal market and the economic recovery. The reform of the mechanism

should be pursued to ensure that the nuclear output is sold via the wholesale market. This will increase liquidity and reinforce the price signal on the power market, to the benefit of French and European consumers.

6.2.4 Local flexibility markets

The COVID-19 crisis only reinforces the need to develop a flexible power system as a way to achieve climate neutrality. In times of stretched public finances, market-based flexibility solutions are an essential tool to integrate renewables complementing infrastructure investments. Only market-based flexibility options can unlock the full potential of flexibility and especially demand-side response.

More specifically, digital marketplaces, or local flexibility markets, appear as a particularly promising innovation. These market places gather parties with flexible assets (e.g. wind parks, solar PV, batteries, Power-to-X) and allow them to offer flexibility towards entities, typically system operators, that need to efficiently manage congestion in the grid and ensure security of supply.

The European green recovery plan should incentivise the development and scaling up of these local flexibility markets. The latter provide the right signals to invest in new, flexible assets and innovative technologies. This potential should be unlocked in all energy sectors to make smart sector integration a success.

As an example, the first trade that took place on the pioneer local flexibility market “Enera”, in Germany, occurred between the owner of a battery and a system operator¹⁹. The battery owner was paid 45.50 EUR/MWh to charge its battery to avoid grid congestions. As a result, excessive electricity flows were avoided, and so was the need to curtail renewable energy sources.

6.3 Green gas and unbundling

Gas is the cleanest fossil fuel available and, as a flexibility buffer, a fundamental vector to transition towards a cleaner energy mix to 2050. In the current context, its low price makes gas an even more needed fuel to sustain Europe’s recovery.

Given Europe’s 2050 carbon neutrality ambition, European and national investments should be directed to scaling decarbonisation options such as renewable gases.

Fund should be directed towards creating jobs, sustaining export and enhance the European gas infrastructure. The European clean technologies value chain can be a major driver for economic resurgence after the pandemic and a sensible stimulus plan should further endow it with capital to create skilled jobs, export opportunities and to ensure Europe’s extraordinary gas transport infrastructure is future-proof. Further, renewable gases will ensure security of supply in a renewables-driven energy system and strengthen Europe’s manufacturing base.

Unbundling of sector coupling activities is key. With a view to preserving the competitiveness of the energy market and to avoid the rise of isolated market island, unbundling of sector coupling

¹⁹ Enera project website, <https://projekt-enera.de/>

activities should be safeguarded. Transmission and generation activities should continue to be separate. Public support should be offered to private investments into new technologies facilitating renewable gases integration, as well as exploiting synergies between the gas and power systems in Europe.

The need for a regulatory framework for hydrogen The regulatory basis for integrating hydrogen in the gas grid and transport infrastructure needs to be set. Where a dedicated hydrogen network is established, the principles of unbundling need to be met and non-discriminatory third-party access is key.

6.4 Tracking the energy we use: guarantees of origin

GOs as a check on green technologies investments. European businesses' and consumers' demand for green electricity has soared in the last decade, which made guarantees of origins a functional tool to track the origin of electricity. GOs as a tracking tool can serve keeping a check on how investments in green technologies to power Europe's economic recovery are faring. When strengthened as a support tool they could provide significant revenue streams to renewables and help guiding investment in that area.

Expanding GOs to gas and heating and cooling. GOs could make the difference even beyond electricity. The current system of European guarantees of origin for power is operating fine but could become even more functional if extended to renewable and low-carbon gases, heating and cooling. For this to happen, it is key to ensure a truly European system where the location of a production facility is not relevant. Significant GO prices, e.g. through full disclosure, help to drive investment in renewable and decarbonisation activities. Following from the point above (5.3) a broader GO system would allow accurate tracking of renewable gas and ensure its fair compensation.

6.5 Financial services

Markets as a support to weather the crisis, and sustaining economic recovery if provided with the right tools. Financial markets have been hit by the COVID-19 pandemic as few other sectors have, with major stock indices worldwide suffering large losses²⁰. Yet, financial markets have been instrumental for companies large and small across the globe to weather the impact of the crisis. In particular, energy derivative markets have helped companies adapt their positions to dramatic change in energy demand, and manage their subsequent risk. As such, financial markets are critical to sustain Europe's recovery and should be equipped with appropriate tools to support the economic renaissance.

6.5.1 Insolvencies and CCPs

As recalled above (section 3.3) the EMIR Regulation codifies minimum standards for clearing and settlement in energy derivatives, entrusting clearing houses to protect markets from counterparty risk.

²⁰ Change in value during coronavirus outbreak of selected stock market indices worldwide from January 1 to March 18, 2020, Statista, March 2020. <https://www.statista.com/statistics/1105021/coronavirus-outbreak-stock-market-change/>

One of the tools CCPs own to perform such role is the calculation of risk exposure and accumulation of collaterals, which are resources clearing houses resort to in case counterparties become insolvent.

Changes to insolvency provisions should not endanger market stability. Changes to insolvency laws to foster liquidity in financial markets are obvious tools to rescue companies in dire situations but should be used wisely, avoiding impairing clearing houses to perform their duties. Collateral, in fact, should not be touched by such provisions. There is instead a variety of collateral options to relieve liquidity burden on market players such as emission certificates. ETS allowances represent in fact a storable good, and their use as collateral can also induce positive growth in the ETS market.

More criteria for a future-proof counterparty risk management. There are several more criteria that should underline stimulus plans for markets to be a vector of economic growth. Reliable exposure management should be guaranteed through daily monitoring of market participants' and other CCPs' liquidity and credit exposures and ensuring that it is covered by collateral at all time. CCPs, including non-regulated power spot CCPs, should keep sufficient available financial resources to cover remaining risks not directly connected to the clearing business. Moreover, short CCP settlement cycles (e.g. trading day + 1 business day) should be implemented as joint standards to limit cash settlement risks and reduce required collateral. The EMIR principles for the performance of activities of central counterparties could be used as a reference.

6.5.2 Enabling markets to sustain the recovery through fit for purpose financial legislations

A robust trading system, combined with sound policies to ensure a fair and orderly market, is essential under any market circumstances but especially when markets are in turmoil.

Achieving a sustainable recovery through accurate market prices. Without accurate and trusted price signals, market participants would not be able to hedge the risks stemming from the current energy price shocks and long-term investments needed for a cost-efficient energy transition.

Financial services legislation should not hamper this price discovery process but rather encourages trading volumes onto regulated markets, thereby contributing to a transparent trading environment needed for an efficient and sustainable recovery.

Addressing unintended MiFID II consequences in the review. Notably the Markets in Financial Instruments Directive has not delivered on its objective to improve the functioning and transparency of financial commodity markets.

Rather, the current unduly strict limits on market participants' positions, and subsequent constrained growth of open interest, hamper a more substantial increase in contracts traded on exchanges and cleared to central counterparties. The latter would in fact ensure the high level of security and transparency required for the economic recovery phase (as elaborated in 5.5.1 above). This illustrates the even more pressing need to address these unintended negative consequences in the upcoming MiFID II/R review.

Energy derivatives are by nature global products traded in highly competitive markets. More proportionate and efficient regimes would contribute significantly to the objective to strengthen the

liquidity and competitiveness of European energy derivatives markets, already denominated in euro, and thereby further strengthen the use and the international role of the Euro.

Markets facilitate climate action investments. Energy derivative markets have the potential to enable long-term investments in sustainable energy sources. Reaching the current 2030 climate and energy targets already call for additional investments of approximately €260 billion a year by 2030.

Increasing such targets means funds will have to come from sources other than the public sectors. Especially in the current situation where state funds are needed to tackle a health and subsequent social crisis, the European Commission should ensure the upcoming financial legislative initiatives contribute to the maximum extent to financing the European Green Deal as basis of the economic recovery and to increase the financial resilience of the economy.

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8. About

EEX Group is a group of specialised companies providing market platforms for energy and commodity products across the globe. The offering of the group comprises contracts for Energy, Environmentals, Freight, Metals, Natural Gas and Agricultural. The group offers market access and tailor-made solutions to trading participants as well as integrated process handling with its own clearing houses. The companies belonging to the group are specialised for the different markets and provide on-site support for their customers. EEX Group is based in 17 worldwide locations and is part of Deutsche Börse Group.

The European Energy Exchange (EEX) is the leading energy exchange in Europe which develops, operates and connects secure, liquid and transparent markets for energy and related products. As part of EEX Group, EEX offers contracts on Power, Natural Gas and Emission Allowances as well as Freight and Agricultural Products.

European Commodity Clearing (ECC) is the leading clearing house for energy and commodity products in Europe. ECC assumes the counterparty risk and guarantees the physical and financial settlement of transactions, providing security and cross-margining benefits for its customers. As part of EEX Group, ECC provides clearing services for EEX, EEX Asia, EPEX SPOT and Power Exchange Central Europe (PXE) as well as the partner exchanges HUPX, HUDEX, NOREXECO, SEEPEX and SEMOpX.

The European Power Exchange EPEX SPOT SE and its affiliates operate physical short-term electricity markets in Central Western Europe and the United Kingdom. As part of EEX Group, EPEX SPOT is committed to the creation of a pan-European power market. In 2018, its 289 members traded 567 TWh – a third of the domestic consumption in the eight countries covered. 49% of its equity is held by HGRT, a holding of transmission system operators.