

# Vattenfall position

November 2019

## EU Long-Term Climate Strategy (LTS) and Climate Policy of the European Green Deal

### Key messages

- Vattenfall has the ambition of enabling fossil-free living within one generation. In the EU, the work has already started to deliver on the Paris Agreement, but **clearly the efforts need to be greatly intensified** across all sectors and regions. For that reason, the EU needs climate ambitions and a regulatory framework that guides the society in the right direction.
- The EU should set the long-term objective of achieving **a climate-neutral EU economy by 2050 at latest** as well as **increase the EU 2030 climate target towards -55 %** as proposed by the new European Commission, while ensuring that no country or citizen is left behind.
- **Electrification is a key enabler** for decarbonising other sectors in the economy. Replacing fossil-fuels with clean electricity is one of the most direct, efficient, flexible and sustainable ways of reducing CO<sub>2</sub> emissions from sectors such as transport, heating and industry.
- **The EU ETS policy should be further strengthened** in line with the raised EU long-term climate ambition. The Linear Reduction Factor (LRF) should be adjusted as soon as the EU has agreed upon a new long-term climate target, and the Market Stability Reserve (MSR) should have the same provisions for safeguarding a robust market development after 2023.
- International emissions reduction credits verified by the UNFCCC can play an important role for increasing cost-efficiency and stimulate more climate actions on the global scale. In EU climate policy, **inclusion of global credits may only be considered in the context of higher EU climate ambitions**, provided that a strong EU ETS carbon price is maintained.
- All sectors need to contribute to the unprecedented task of making the EU a climate-neutral economy by 2050. **In principle, expanding the scope of the EU ETS to other sectors is positive.** But not all sectors will be suited for that. What is important for the efficiency of EU climate policy overall, though, is that all sectors are subject to a CO<sub>2</sub> price signal.
- The decarbonisation of the EU's economy must be a fair transition. There will be both cost and benefits, but unevenly distributed due to different starting-points, adaptation costs and specific challenges. To be successful, **it will be key to develop well-balanced policies which enhance the social acceptance and involvement of citizens** in this endeavor.
- The conditions for **R&D and innovation in the energy field needs to be strengthened.** To achieve “net-zero” GHG emissions and reach the global 1.5 °C target, there will also be a need of negative CO<sub>2</sub> emissions (or CO<sub>2</sub> removal). These technologies also need to be duly recognised in the EU climate framework and supported to achieve market maturity.

### 1. It is time for stronger climate action and the opportunity is now

- Climate change is one of the greatest challenges of our time. The planet is rapidly getting warmer as a result of the increased concentration of greenhouse gas (GHG) emissions in the atmosphere. Turning this development around will require a profound transformation of the world's energy systems over the next decades. The work has already started to deliver on the Paris Agreement, which was a landmark decision in international policy making, but clearly efforts must be greatly intensified across all sectors and regions if the goals shall be met.

- The fight against climate change is at a critical juncture. The broader and much more ambitious Paris Agreement takes over when the Kyoto Protocol expires in 2020. In terms of individual contributions from the parties, there is an urgent need to update and strengthen the climate plans which are being submitted to the UNFCCC. The climate targets previously adopted and communicated by the EU and other countries in the world are clearly insufficient for limiting the global warming to 1.5 °C. Hence, they need to be revised in the near term.
- As a new EU institutional cycle begins, Europe has the unique opportunity to take decisive political action towards becoming a climate-neutral economy by 2050. There is a growing support among citizens and within business community for ambitious climate action and a clean energy transition which leaves no country or citizen behind. A European Green Deal, as proposed by the incoming President of the European Commission, constitutes a great opportunity to put in the next gear towards achieving a carbon-neutral European economy, powered by clean electricity.
- Vattenfall has the ambition of enabling fossil-free living within one generation. This corporate goal has already led to significant changes in our portfolio. We are continuously moving out of CO<sub>2</sub> heavy production assets, while investing largely in renewable energy and low carbon technologies. At the same time, we recognise that it will not be enough just to make the energy sector CO<sub>2</sub>-neutral. For that reason, we have entered a number of strategic partnerships to support the decarbonisation of other major CO<sub>2</sub> emitting sectors, such as industry and transport, primarily through electrification. Vattenfall is convinced that new partnerships with customers, suppliers, city partners, governments and regional/local authorities will be key for a sustainable future.
- We believe that our company's goal of enabling fossil-free within one generation fits well with the global objectives on climate, as well as the high expectations from our customers. Vattenfall's corporate ambitions on climate until 2030 have also recently been independently reviewed and approved by the Science-Based Targets Initiative (SBTi). However, in this endeavor we also need EU climate targets which are made fully consistent with the goals of the Paris Agreement, as well as a robust regulatory framework which guides the whole energy sector in the same direction.

## 2. The EU's mid- and long-term climate targets need to be aligned with the Paris Agreement

- The combined effect of all the climate targets contained in the national plans (NDCs) which have been submitted under the Paris Agreement to date is expected to lead to a continued global warming above 3 °C. It is clear that all parties must increase the ambition level of their respective pledges in order to align them with the overarching goal to limit the global mean temperature increase to well below 2 °C. This is valid also for the EU whose climate targets were set before the Paris Agreement and the ambitious 1.5 °C objective was adopted by world leaders in 2015.
- In 2020, the parties of the Paris Agreement are requested to submit their Mid-Century Low-Carbon Development Strategies to the UNFCCC. These should be in line with the objective of limiting global warming to 1.5 °C above pre-industrial levels, which according to the scientific evidence provided by IPCC means that we need to achieve climate-neutrality by 2050 on the global scale. At the same time, the first formal update of the Nationally-Determined Contributions (NDCs) already submitted to UNFCCC, will also take place in 2020. These climate plans contain quantitative climate targets for 2025 or 2030, which also need to be strengthened to adhere with a global 1.5 °C trajectory.

### 2.1. EU's mid-century ambition should be to achieve "net-zero" GHG emissions by 2050 at latest

- According to IPCC's scientific conclusions (SR15 report, Oct. 2018), the global community, as a collective, must reach a balance ("net-zero") between sources and sinks of GHG emissions by the middle of the century (2050) in order to have a fair chance of limiting the global warming to 1.5 °C above pre-industrial levels. As a developed region of the world, the EU should prepare and take all necessary actions for achieving net-zero GHG emissions by 2050 at the latest. In case short- to

mid-term climate action is insufficient on the global scale towards 2020 and 2030, then net-zero GHG emissions must be achieved earlier than 2050 on the global scale, otherwise the society will be strongly dependent on achieving large amounts of negative CO<sub>2</sub> emissions after 2050.

- Vattenfall welcomes that an overwhelming majority of the EU's Member States (24 Member States at the European Council meeting in June 2019) explicitly support the EU-Commission's Long-Term Climate Strategy with the ambition of achieving climate-neutrality ("net zero" GHG emissions) by 2050. However, full backing from all Member States is required. We therefore call on all EU policy makers to swiftly establish a consensus on the long term EU decarbonisation objective of achieving climate-neutrality by 2050. This objective should be enshrined in the first European Climate Law, and integrated in the EU's mid-century climate strategy that will be submitted to the UNFCCC in early 2020. This would provide long-term guidance for the private sector and investor community.

## 2.2. EU's 2030 climate target needs to be revised from 40 % to 55 % GHG emission reductions

- The EU's current 2030 climate target, which is to reduce the EU's domestic GHG emissions by at least 40 % until 2030 (relative to 1990 levels), was agreed in 2014, i.e. before the adoption of the Paris Agreement. Thus, it is not in line with the 1.5 °C objective that was endorsed by the global leaders in 2015. A revised EU climate target of 55 % GHG reductions by 2030 (relative to 1990) would better fit with what is required on the global level to reach 1.5° C according to IPCC.
- In March 2019, the European Parliament voted in favour of increasing the EU's 2030 GHG emissions reduction target to 55%. In July 2019, the new President of the European Commission, Ursula von der Leyen, promised – as a part of her key priorities for the 2019-2024 political term – to put forward a comprehensive plan to increase the EU's 2030 climate target towards 55 % in a responsible way. We believe that the European Council, who has the ultimate say on these matters, should endorse this pledge for 2030.
- While the EU's current 2030 climate targets date back to 2014, as mentioned, the EU has more recently (2018) decided to increase the ambition level of the two energy policy targets in the EU's 2030 climate and energy framework, from 27 % to at least 32 % for renewable energy and from 27 % to 32.5 % for energy efficiency. As a result, the EU's 40 % climate target for 2030 will most likely be over-achieved. But if the EU's 2030 climate target (and consequently the EU ETS allowance cap) is not adjusted accordingly, it will result in an imbalance of the overall 2030 framework, including a significant risk of new over-supply of ETS allowances and a weakening of the CO<sub>2</sub> price signal.
- By taking early action, the societal costs for delivering the EU's contribution to the Paris Agreement can become more affordable, at the same time as the EU can more strongly contribute to decarbonisation globally by exporting knowledge and clean technologies.

## 2.3. The EU needs a climate target for 2040 as well

- When developing the milestones of the EU's long-term climate strategy, it would also be appropriate to install an EU climate target for 2040. No such EU climate target exists today. Though, it would be clearly useful for creating more visibility for business on the GHG emission reductions which are required, and to cater for a cost-efficient transition path of decarbonising the EU's energy system.

## 3. The EU's Emissions Trading System (EU ETS) should be further strengthened

- Vattenfall believes that the EU ETS should be the principal instrument to achieve the EU's climate targets. It is one of the most long-term, cost-effective, environmentally predictable and internal market compatible policies at hand to significantly reduce GHG emissions. It has potential to be a very powerful and efficient tool to achieve the EU's climate objectives in the captured sectors, which

are jointly responsible for around half of the EU's overall GHG emissions. It is a technology-neutral instrument, meaning that it allows all CO<sub>2</sub> abatement options to compete on equal footing.

- In 2017, the EU Emissions Trading System (EU ETS) Directive was subject to a large overhaul in order to improve its functioning and make it prepared for the next trading period which starts in 2021. Among other things, the reform implies that very large amounts of surplus ETS allowances will be removed from the EU ETS market in the coming years, through a strengthening of the Market Stability Reserve (MSR) from 2019, a permanent cancellation of surplus ETS allowances in 2023, as well as an increase of the Linear Reduction Factor (LRF) which determines the annual pace of reducing the ETS allowance cap, from 1.74 to 2.2 % from 2021.
- Vattenfall is broadly supportive to the EU ETS reform agreed in 2017. However, already in that revision of the Directive, we insisted on the need to increase the LRF even further. The new LRF (2.2 %) that will be applied from 2021 is directly connected to the EU's -40 % GHG target for 2030. We believe that the LRF could have been set at 2.6 % already on basis of the EU's 80-95 % objective for 2050. However, in order to align the EU ETS with a forthcoming EU climate target future-proof with the 1.5 °C objective, it is likely that the LRF has to be increased significantly above that level.
- The LRF should be adjusted in the EU ETS Directive as soon as possible after the adoption of a more ambitious EU 2030 climate target. Above all, this is a consequential legal amendment which should make the EU's key climate tool equipped for the new political direction without further due. In case the adjustment of the LRF is delayed, e.g. postponed until the next planned review of this provision in EU ETS Directive in 2023, then the risk is that the LRF needs to be set disproportionately high in order to reach the same 2030 GHG emissions level, but in a much shorter timeframe. Such a non-linear and disruptive shape of the ETS allowance cap trajectory would be clearly unfavorable, since an early adaption will create more predictability and a more cost-efficient reduction pathway.
- The review of the MSR to be conducted by 2021 should lead to a continuation of the 24 % annual intake rate into the reserve, which in the current EU ETS Directive only applies between 2019-2023. This is important in order to prevent that any new over-supply of ETS allowances emerges, for example driven by the use of overlapping policies on the EU and national levels. It should also be secured that e.g. national decisions on decommissioning fossil fuel fired power plants lead to a withdrawal of a corresponding amount of ETS allowances.

### 3. The role of verified emission reduction credits in achieving the EU's long-term climate targets

- The new market-based mechanisms of the Paris Agreement have potential to increase the cost-efficiency and ambition level of the climate policy overall. International credits may facilitate enhanced ambition and contribute to closing the current gap between climate target (NDCs) and the global GHG emissions trajectory needed to reach the 1.5 °C goal. This is important as today's NDCs are rather pointing at 3-4 °C global warming. For countries under the Paris Agreement, on the buyer side, the access to verified and affordable credits makes it easier to commit to ambitious goals, and on the seller side the climate financing received also makes them able to take on further ambition.
- CO<sub>2</sub> pricing has a very strong proven ability to drive cost-efficient climate measures, mobilise large amounts of climate financing and stimulate the private sector in taking further climate action. More specifically, a global carbon market instrument, governed by the Paris Agreement, may stimulate GHG emissions reduction measures in countries and sectors which would otherwise not have occurred. As also stipulated by the Paris Agreement, the new global mechanisms should result in a net-mitigation of global GHG emissions, which is an improvement compared to the Kyoto Protocol.
- A decision on introducing verified global credits in the EU ETS market, as a compliance tool, should only be considered in the context of sharpening the EU's climate targets. It is absolutely essential that the EU-internal transformation pressure is maintained for achieving the EU decarbonisation goals and ensuring a strong and effective CO<sub>2</sub> pricing signal from the EU ETS policy. Clearly, the EU needs to handle these policy interactions more carefully than was done in the Kyoto period.

## 4. Extension of the EU ETS scope to other sectors

- It is of outmost importance that all sectors contribute to the unprecedented task of making the EU a climate-neutral welfare economy by 2050. Without a strong commitment from, and progress in, all sectors, this EU-wide ambition may not become a reality. A prerequisite is that a corresponding CO<sub>2</sub> price incentive must also be targeting the GHG emissions which come from non-ETS sectors.
- A shortcoming of the EU ETS is that it only covers part of the heat market, namely combustion plants over 20 MW (CHP plants and heat only boilers, primarily in district heating systems). This situation leads to a distortion of competition, at least in some Member States, and a risk of intra-EU carbon leakage. A potential solution to the problem is to expand the EU ETS to cover also decentralised heating devices, by adding fuel suppliers to the EU ETS (upstream), or by exposing individual heat boilers to an adequate CO<sub>2</sub> price through other means. This is important, in order to ensure that all sectors contribute, and that the EU's climate strategy is cost-effective on the whole.
- In principle, the proposal on expanding the EU ETS scope, as envisaged in the forthcoming European Green Deal by Ursula von der Leyen, is a step in the right direction. However, sectors which are not exposed to any CO<sub>2</sub> price (e.g. maritime) or an insufficient CO<sub>2</sub> price (e.g. individual heating, in some Member States) should be prioritised. In contrast, extension of the EU ETS to road transport should not be a priority, partly because this sector is already exposed to a range of other EU and national policies, incl. fuel taxes and CO<sub>2</sub> standards, and could lead to undesired effects.

## 5. Electrification is a key enabler for decarbonising the other sectors

- The ambitious route towards a CO<sub>2</sub> neutral energy supply across the EU well before 2050 offers substantial opportunities to deeply reduce the GHG emissions also in other sectors, mainly through electrification. Replacing fossil fuels with clean electricity will be an increasingly important tool for reducing CO<sub>2</sub> emissions within transport, heating and industry sectors. A study<sup>1</sup> from Eurelectric shows that scenarios in the range of 80-95 % GHG emission reductions can be effectively achieved by 2050 through increasing the electrification rate in the society from 22 % to 38-60 % by 2050. As always, the actual solutions look different for the different sectors and regions in Europe, due to their diverse starting-points, pre-conditions and specific challenges. In general, though, electrification is the most direct, efficient, flexible and sustainable way to decarbonise the economy, while also bringing significant co-benefits such as better air quality in urban areas, lower import dependency and higher energy-efficiency.
- In order to decarbonise the power sector and enable electrification across the society, a well-functioning and flexible power market is essential. Next to a level-playing field among all market participants, the regulatory framework should be designed in a technology-neutral fashion, to allow all investments to compete on an equal footing. A strengthening of the transmission grid infrastructure is required for the further integration of European power markets. To manage high shares of distributed power generation as well as the uptake of e-mobility, electrification of industry and rapidly increasing urbanisation in general, also distribution networks need to be strengthened and modernised. Further electrification can be promoted by extending the use of carbon pricing to those sectors and an improved regulatory framework overall (tax structure, CO<sub>2</sub> standards, charging infrastructure, etc.).

## 6. The decarbonisation of the EU's economy must be a just transition, leaving no country or citizen behind

- A socially fair transition and distribution of costs is absolutely vital for getting the necessary support for decarbonising the EU economy. In fact, the transition to a climate-neutral EU economy will

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<sup>1</sup> <https://cdn.eurelectric.org/media/3172/decarbonisation-pathways-electrificatino-part-study-results-h-AD171CCC.pdf>

involve both a lot of costs and benefits. In order to be successful, it will be key to develop well-balanced policies which enhance the societal acceptance and involvement of citizens in this major task, which cuts across all parts of the society.

- Customers must be given full clarity on the costs associated with the energy transition and their impact on final (wholesale) electricity prices. It should be easy for them to see the price tag, as well as to weight that against the many benefits of a CO<sub>2</sub>-neutral energy system and economy. That will improve the legitimacy of the transition and boost the support of the most effective policies.
- Distributional effects must also be taken into account when it comes to regional aspects, including the fact that the Member States have very different starting points, costs, and challenges associated with decarbonizing the economy. The concept of a Just Transition Fund should be further looked into, with a view to deliver a fair cost-sharing and to ensure that the climate financing leads to the highest possible level of climate protection.

## 7. The EU climate strategy should support climate measures leading to negative CO<sub>2</sub> emissions

- As shown in the scenarios from e.g. both the IPCC's special report and the EU-Commission's "A Clean Planet for all" communication (LTS), the EU and the world will most likely need to achieve negative CO<sub>2</sub> emissions to some extent, in order to reach the 1.5 °C objective. This may become particularly important if not every sector of the economy is able to fully decarbonise by 2050, or if the climate actions in the near- to medium-term do not materialise as required. A "net-zero" GHG emissions target means that it is possible to a certain extent to let measures leading to negative CO<sub>2</sub> emissions compensate for some remaining CO<sub>2</sub> emissions, which are very difficult or costly to eliminate. However, the EU does not have a strategy or any specific policy which incentivises the achievement of negative CO<sub>2</sub> emissions.
- The EU's new Innovation Fund, financed by a part of the revenues from auctioning of ETS allowances in Phase 4, will play an important role for driving development and innovation in still not commercially available CO<sub>2</sub> abatement technologies. Breakthrough technologies for developing the world's first CO<sub>2</sub>-free steel making process is a natural candidate for this. However, another important strategic area is negative CO<sub>2</sub> emissions, which can be achieved by applying bioenergy-CCS (BECCS) in both the industry and energy sectors.
- Different types of policy instruments will be required throughout the different phases of research and development, innovation, piloting and demonstration of BECCS, starting with investment support during a pilot phase, tendering in a demonstration phase, and in the prolongation an EU-wide market for achieving negative CO<sub>2</sub> emissions on the basis of a full-scale deployment, potentially linked to the EU ETS.

## 8. A stronger focus on Research & Development and Innovation is needed

- The conditions for research, development and demonstration in the energy field clearly need to be intensified, to support the challenge of fundamentally transforming the energy sector. In the early R&D and demonstration phases, it is important for public-private collaboration to share the risks. For the wider deployment of these, a robust international CO<sub>2</sub> price is key to make these climate-friendly production alternatives competitive.
- Public funding is important for innovation projects that have a business potential, lead to a significant reduction of GHG emissions and can become competitive globally. The funding needs to match the investment process, in terms of timing of payment, type, length of funding, etc. Public funding is also important to support the transition of carbon-intensive industries and regions towards a carbon-neutral economy, in a just and affordable manner.