



Enel views on EU ETS

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Round table – Strategic challenges to the EU ETS in the long-term

Bruxelles

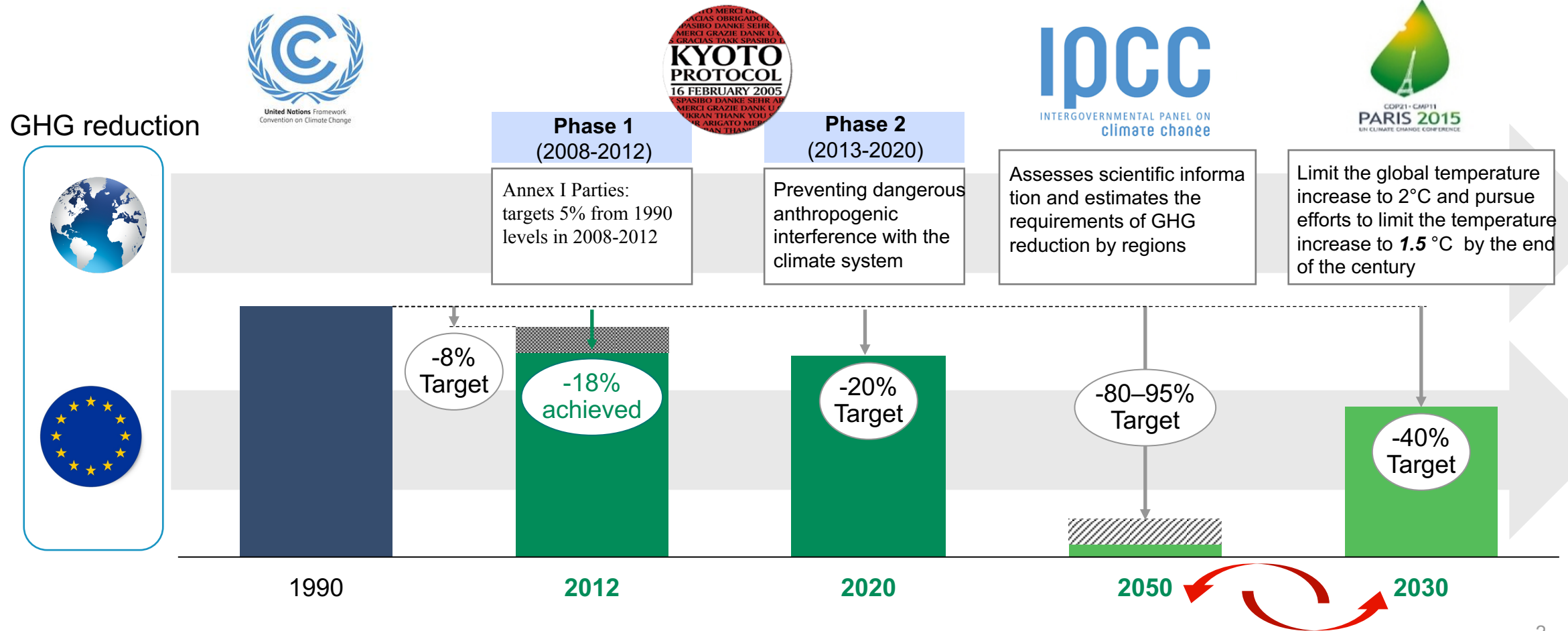
September 27th, 2019



Regional ambitions to be consistent with global needs



Coordination between global and regional policy objectives

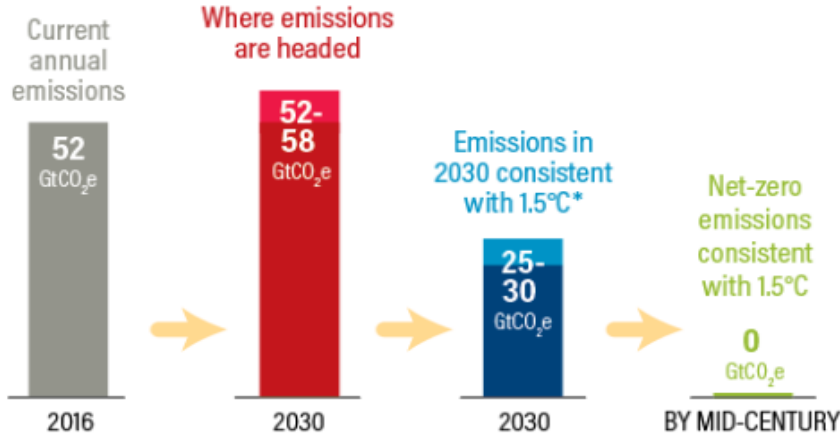


Translating IPCC 1.5°C Special Report

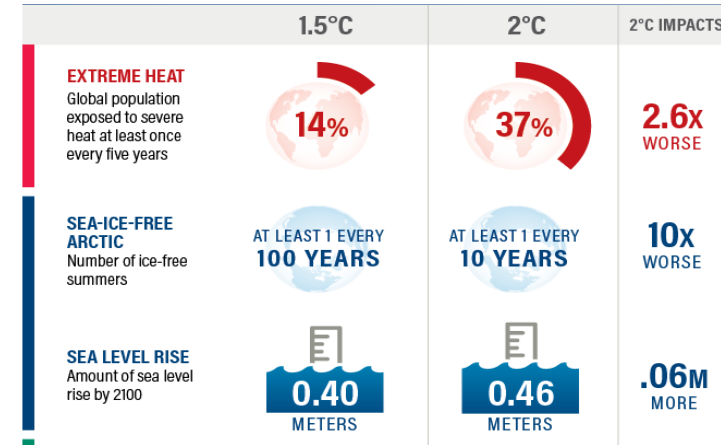
Fully decarbonised electricity key lever for 1.5°C target



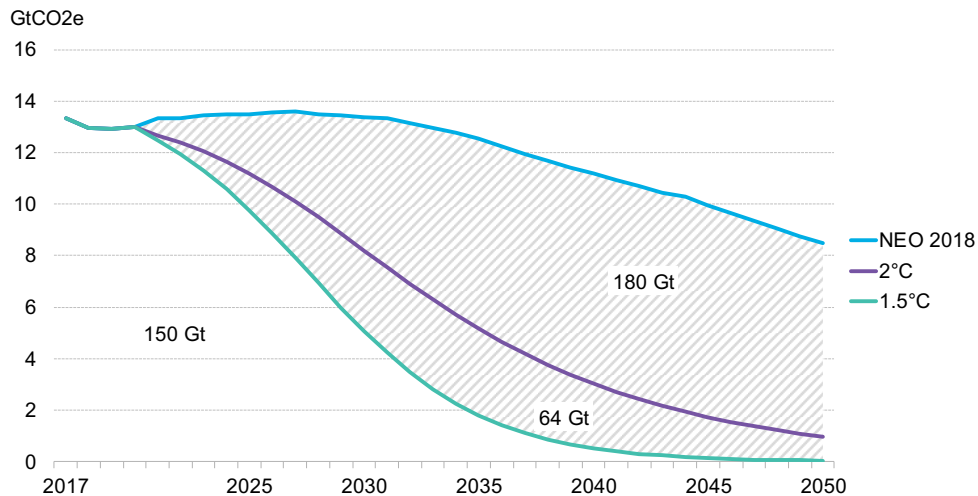
Global emission targets



Climate change impacts (from 1.5°C to 2°C)

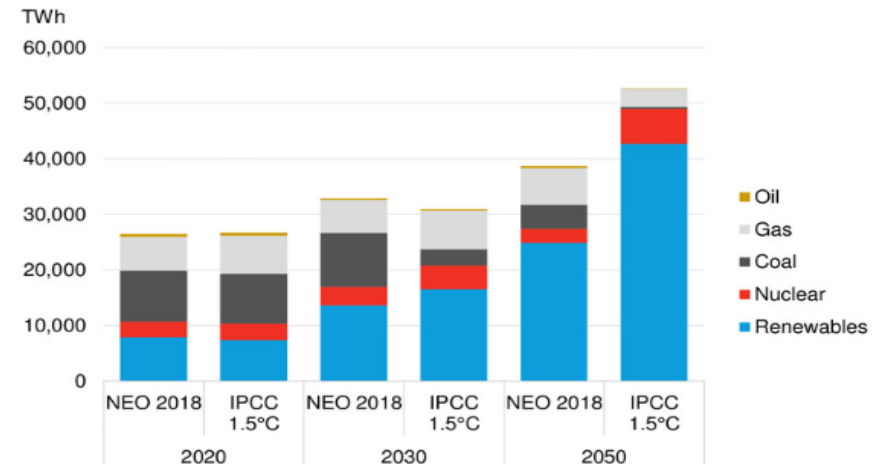


Global power sector emissions in NEO 2018 vs 2°C and 1.5°C pathways



Source: BNEF 2018, NEO – New Energy Outlook Report

Electricity generation in 2020, 2030 and 2050 (NEO2018 vs IPCC1.5°C)

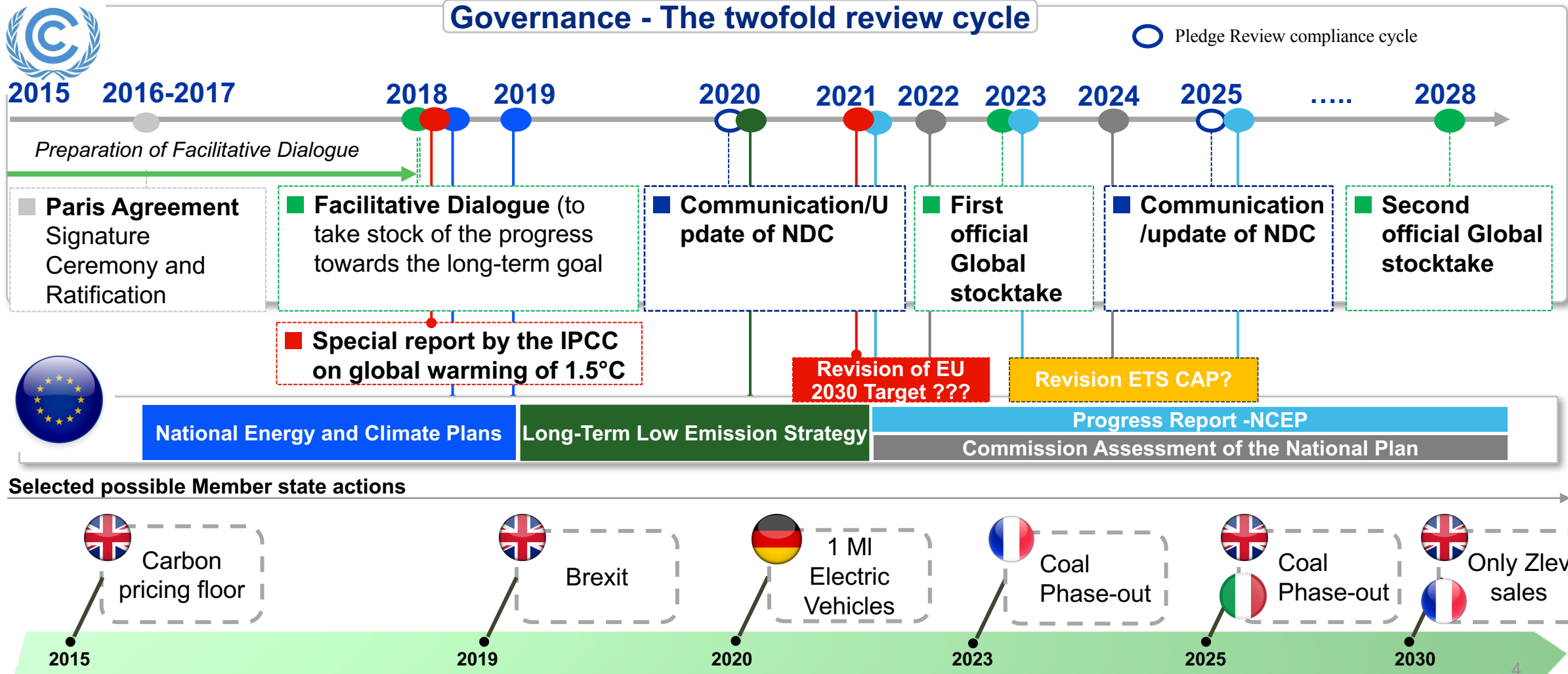


Source: BNEF 2018, NEO – New Energy Outlook Report

Timing - Coordinating across policy levels



The Paris Agreement calls for advanced effort



Source: Enel - internal analysis

*linear reduction factor related to avg. EUA 2008-2012. Yearly reduction of 38,3 Mt CO₂ for 2013-2020 and 48,4 Mt CO₂ for 2021-2030; ** Decision (EU) 2015/1814; *** EU ETS Directive

New Green Deal as opportunity to shake EU economy

Increase Climate ambition looking at the EU economy and focusing to a Just Transition



Turning points for the European Ambition

- The policies and targets for Energy Efficiency and Renewable Energies are expected to reduce greenhouse gas emissions by around 45% by 2030
- LT Vision for an EU Low carbon Economy may include a net zero emission economy by 2050 and could imply different (2030) transition pathways – and different 2030 GHG targets
- UE Presidency has stated it will pursue an increase of EU NDC ambition, with the goal of raising the 2030 GHG emission reducing target to 50-55%



“The Green Deal represents an unprecedented opportunity for Europe to move away from fragmented policymaking”

Green New Deal for Europe is an ambitious and pragmatic plan to transition to zero greenhouse gas emissions and transformation of the Europe through these main pillars:

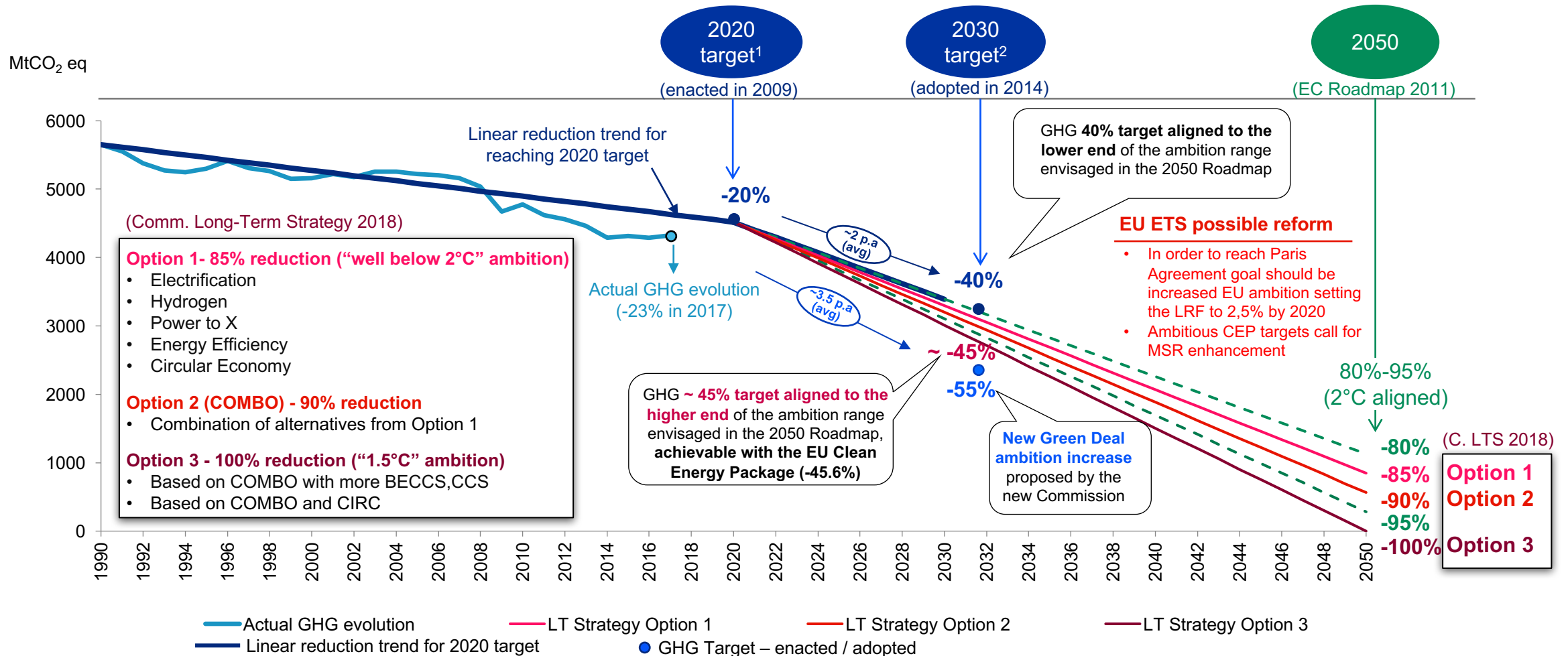
Emissions reduction

Economic growth

Just Transition

Carbon neutrality will require more ambitious targets

2030 targets may be revised to be consistent with 1.5° IPCC Scenario



Source: European Commission, November 2018 – “An in-depth analysis in support of the Commission Communication COM(2018) 773” – A Clean Planet for all A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy. Eurostat

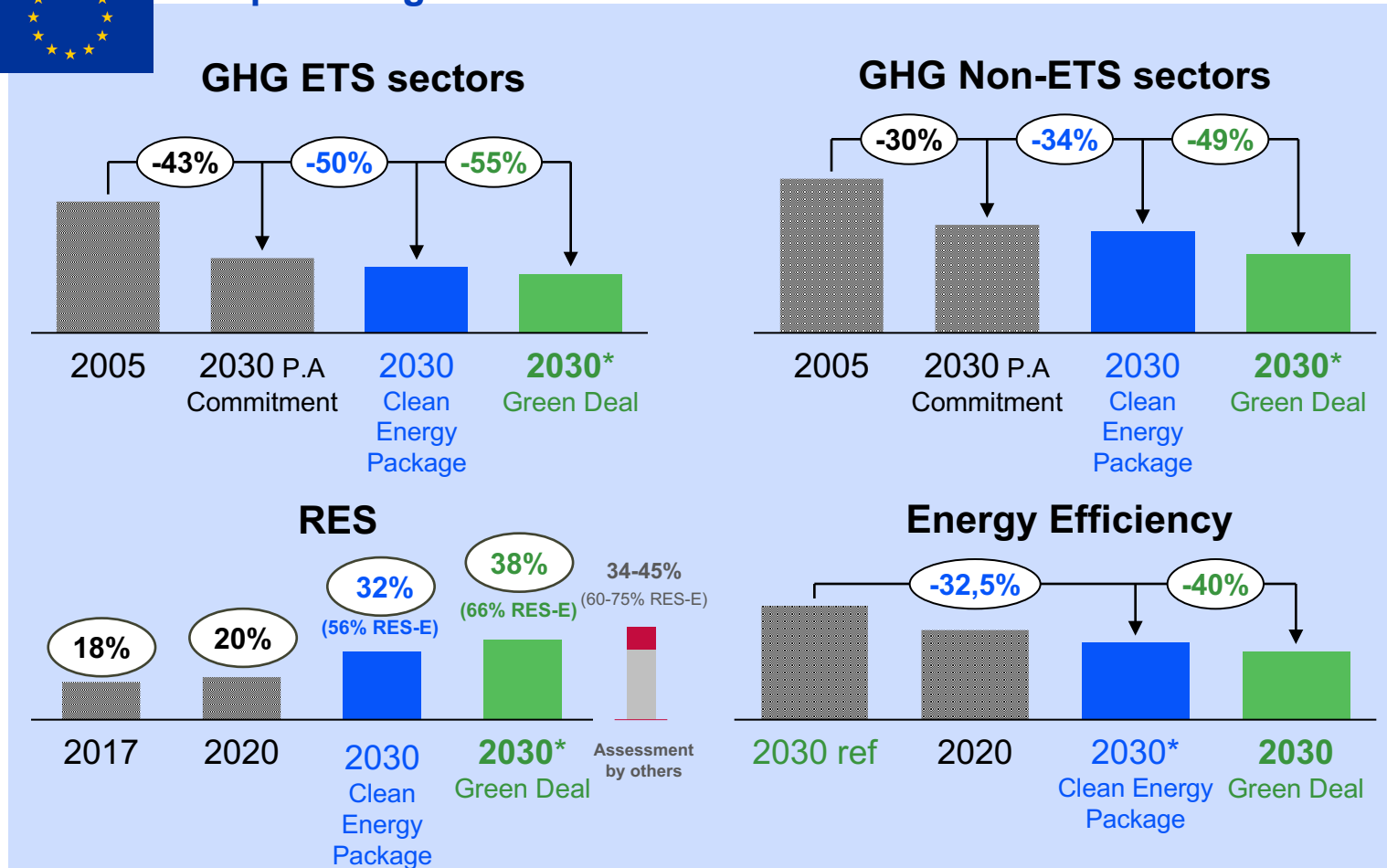
Abbreviations: GHG – Greenhouse gas, BECCS - Bio-Energy Carbon Capture and Storage, CCS - carbon capture and storage, CIRC - Circular Economy

Europe is called for increasing ambition

Paris Agreement may force EU to re-consider its targets



European targets



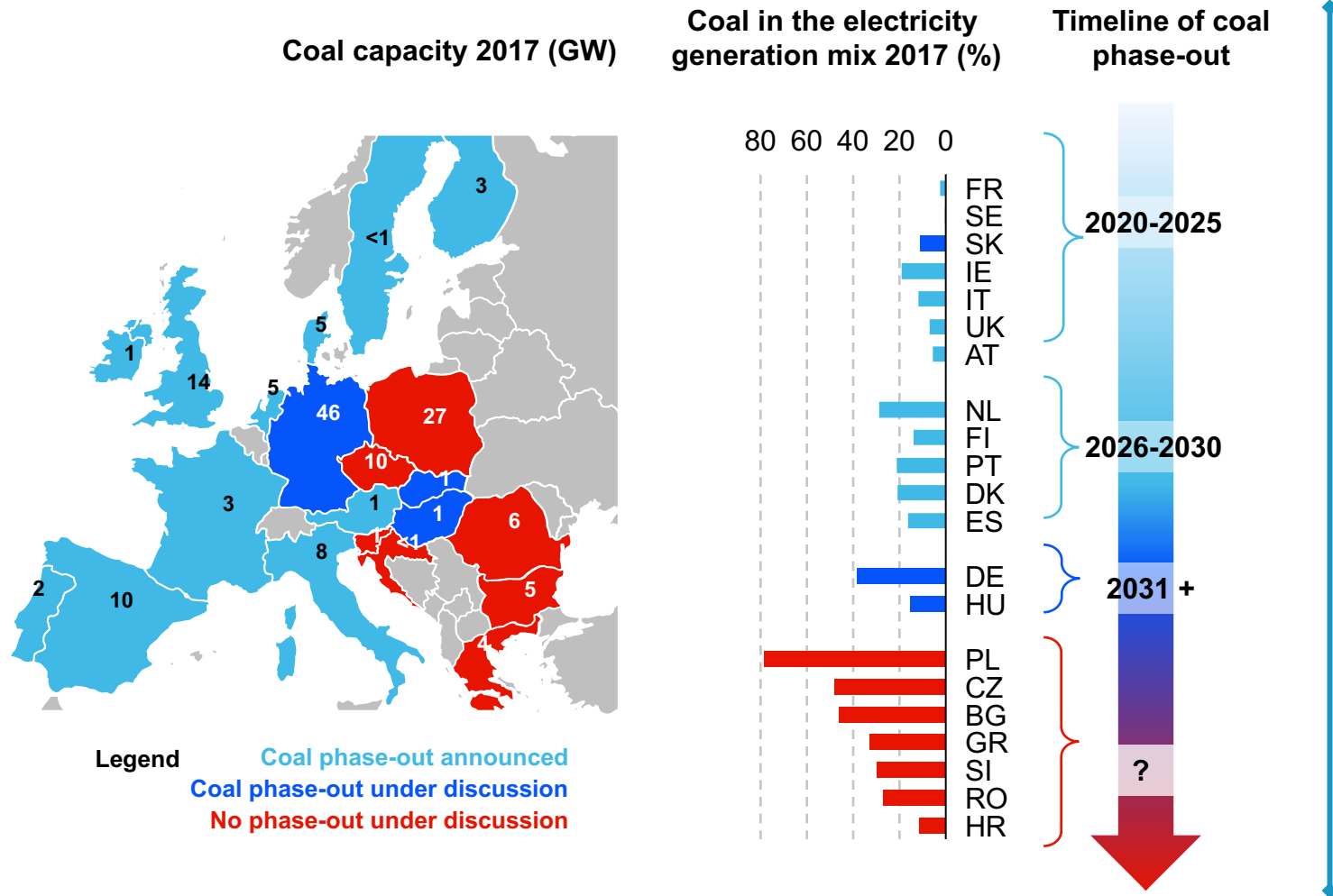
- The EU committed under the Paris Agreement to cut GHG emissions in the EU by at least 40% below 1990 by 2030
- Under the current regulation (**Clean Energy Package**), the EU could reach up to 45.6% GHG emission reduction by 2030
- New EU **Green Deal*** ambition could increase emission reduction target to 50-55% by 2030
- RES and Energy Efficiency targets should be re-set to be consistent with the emission targets ⁽¹⁾

Sources: EC, EC Primes technical note 3232.5

(1) Green Deal possible revisited EU 2030 Energy and Climate targets for RES, EE and GHG ETS/non-ETS estimated internally as a preliminary approximation based on assessments made by third parties (Climate Action Tracker, CAN Europe, Sandbag, European Climate Foundation), assuming an ambition increase to a 55% GHG reduction target by 2030

National policies may undermine the ETS

Without cancellation, a surplus in the order of 200 to 500 MtCO₂/yr could be generated



TAKEAWAYS

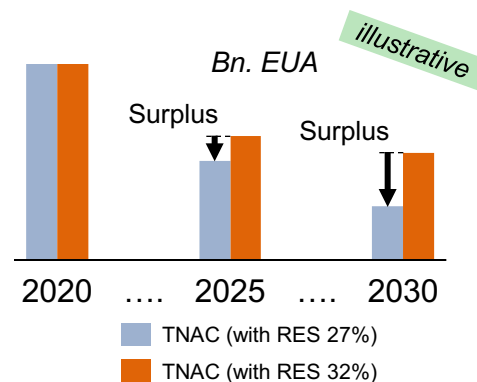
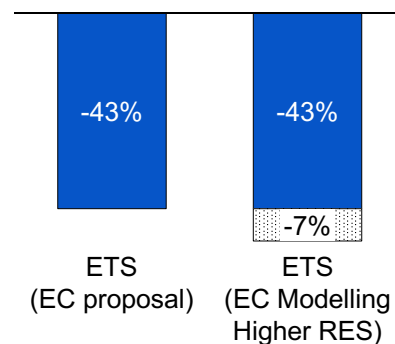
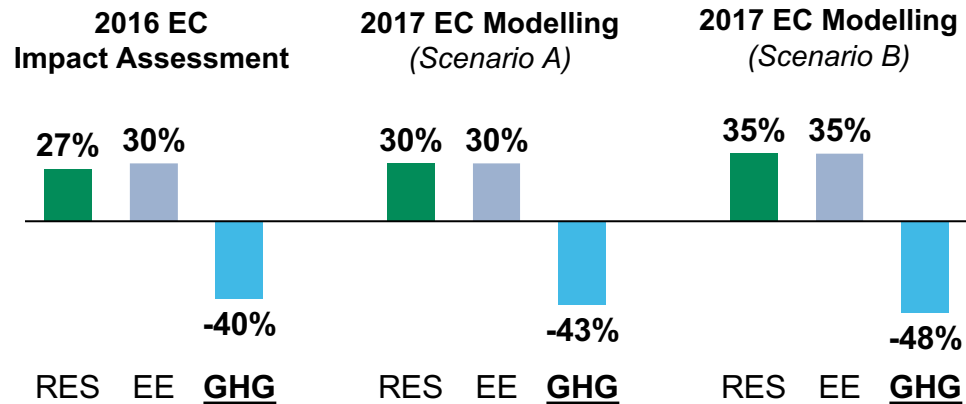
- Besides DE and IT, another 10 countries have already announced coal phase-out by 2030, which may amplify EUA demand reduction
- Coal is the largest CO₂ emitter within EU ETS and a political phasing out could lead to up ~500 Mt CO₂ emission reductions by 2030. Volumes could be even higher, having a roller-coaster effect on the surplus
- Cancellation of EUAs demand is a complex decision in terms of timeline and volumes (e.g. replacement with new gas capacity, impact on the MSR)

Ambitious CEP targets call for MSR enhancement

Reviewed RES target could generate a surplus in the order of 100 - 250 MtCO₂/yr



EC Impact Assessment*



TAKE AWAYS & POLICY RECOMMENDATIONS

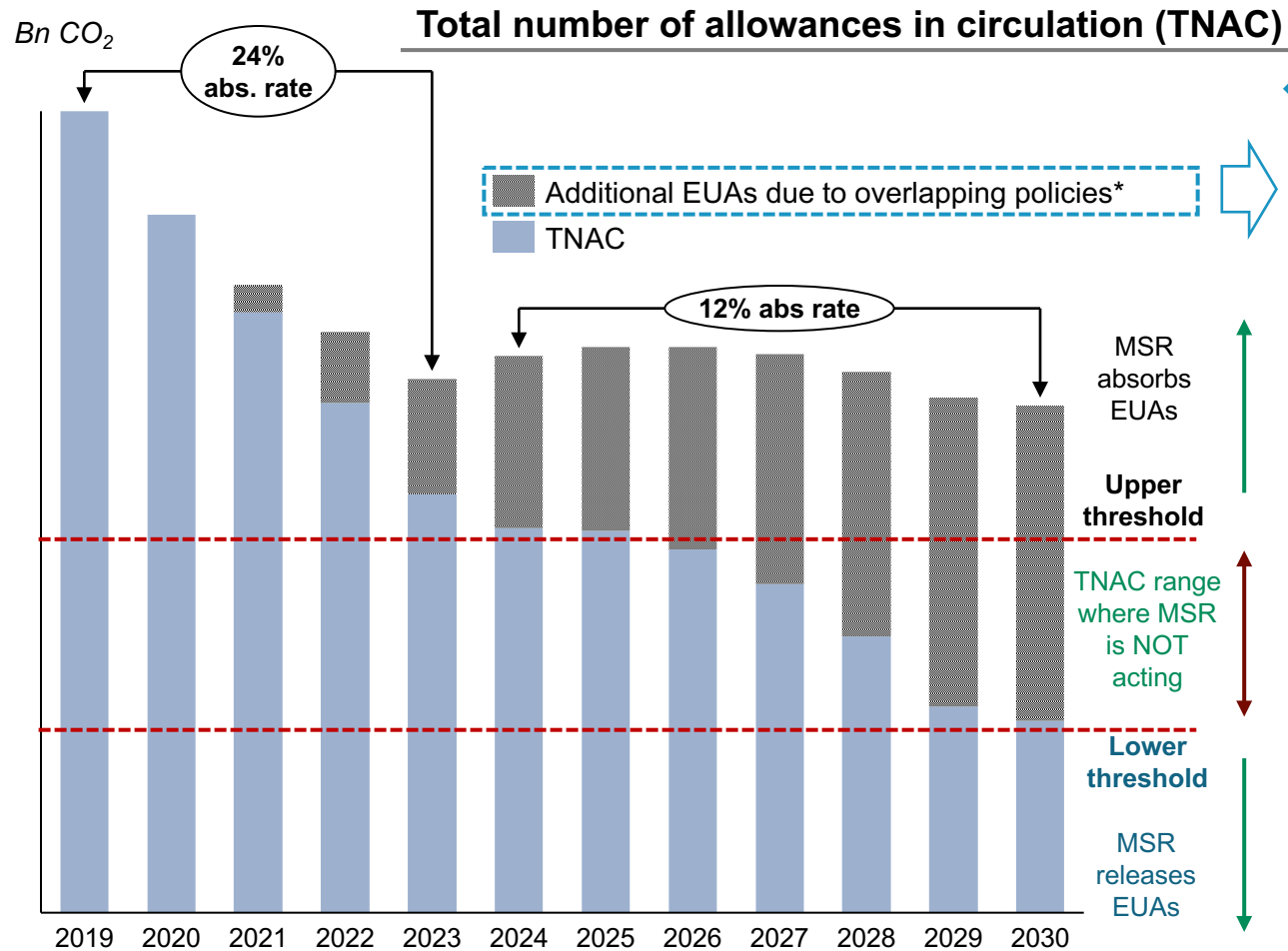
- The revised Renewable Energy Directive sets a headline target of 32% energy from renewable sources at EU level for 2030, with a possible upward revision in 2023
- The revised Energy Efficiency Directive sets a 2030 EU target of 32.5%, with a possible upward revision in 2023. This was higher than the originally proposed 30% incorporated in the current ETS cap
- In the EUCO** scenarios (EE 33% and EE 30%) EU ETS target still remains unchanged*** but the EC assessment results highlight the need for ETS overall ambition review following the setting of the final new 2030 RES and Energy Efficiency targets

- ✓ Total number of allowances in circulation (surplus) is expected to increase considering higher capacities of renewables energy in the market, especially after 2025

*Source: European Commission (EC) impact assessment 2016 for Clean Energy for all package and sensitivity scenarios with updated RES technology costs performed in 2017 by EC; RES - share of renewable energy consumption; EE (energy savings) compared with the business-as-usual scenario; GHG - Total greenhouse gas emissions compared to 1990 levels. ETS and Non ETS emissions reduction vs. 2005 levels; EC, Non paper on complementary economic modelling ** EC, EUCO 33 scenario.***the efficiency gains are focusing rather in non-ETS sectors

EU Action – Preparing the MSR Review

A more resilient ETS is possible if the review is prepared ahead of time



STATE OF PLAY

- **Overlapping policies** not envisaged in the ETS P4 cap design will most probably **generate significant surplus**
- Especially after 2024 allowances in circulation (surplus) ~ 1.1 Bn EUAs, always higher than the 0.8 Bn EUAs threshold
- **Coal phase-outs (either political decisions or through EPS)** and **renewables target** are the most impacting overlapping measures with the EU ETS and also overlap among themselves

RECOMMENDATIONS

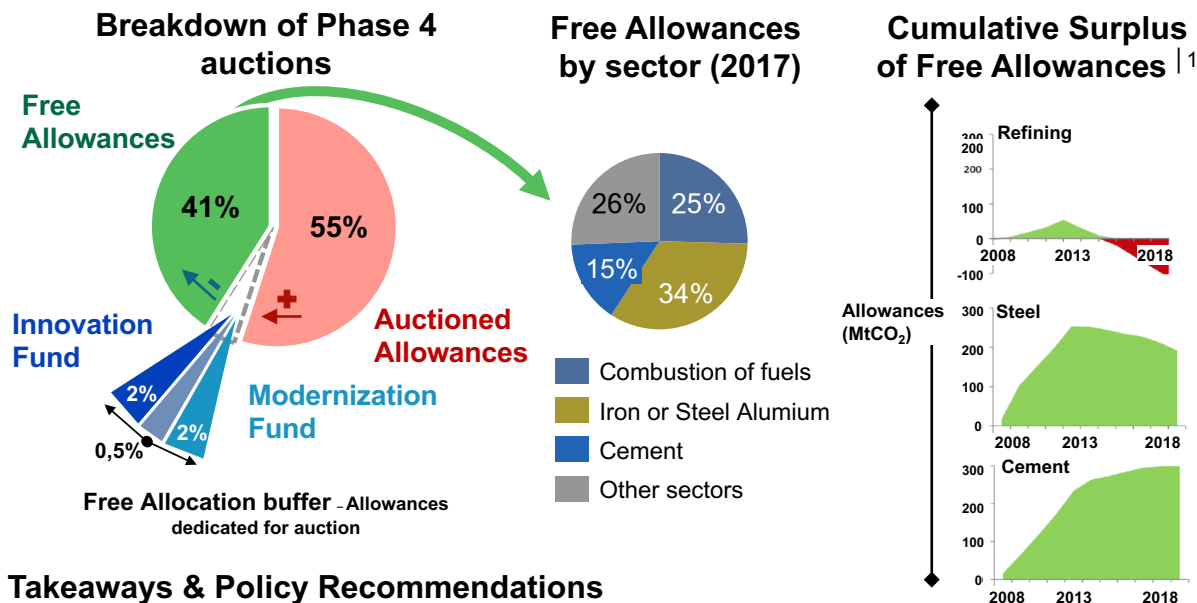
- **Starting 2024, MSR should extend use of the 24% absorption rate until 2030** (today foreseen btw. 2019-2023) or even increase its rate up to ~30% if needed
- **Possible consideration of reducing the upper threshold of 833 Mt** in order to guarantee further absorption in MSR

* illustrative. Conservative estimation of additional surplus due to 1. RES target 2030 (32% vs. 27%) and 2. Coal Phase-Out (in Germany and Italy only).

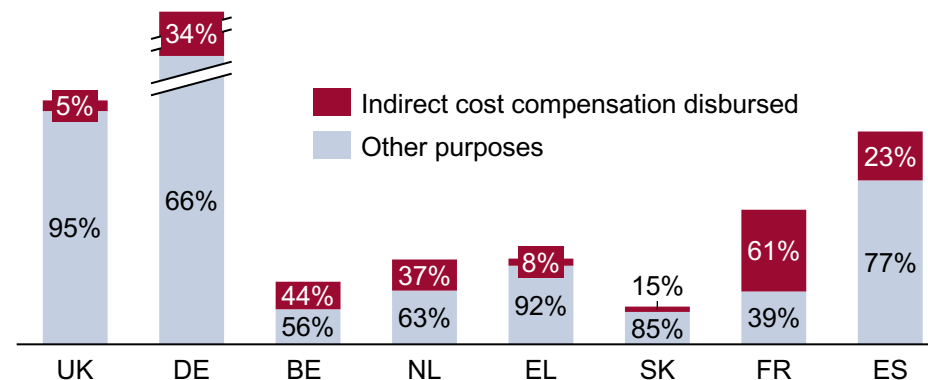
Magnitude and distribution of carbon leakage impact



Competitiveness impacts need to be smoothed with enhanced compensation mechanisms



Share of auctions revenues devoted to indirect cost compensation in 2017⁴



Takeaways & Policy Recommendations

- “By far, the most frequently encountered conclusion from the available economic studies is that **no evidence was found of negative statistically significant effects of the EU ETS on firms’ competitiveness (nor, therefore, of carbon leakage)**”²
- **The free allocation of allowances causes a positive impact** on both the GDP and GVA of energy intensive sectors in the short term (until 2030)³
- ✓ **Safeguard the EU industrial competitiveness, while promoting sectors playing a key role** within the transition towards a low carbon economy

Takeaways & Policy Recommendations

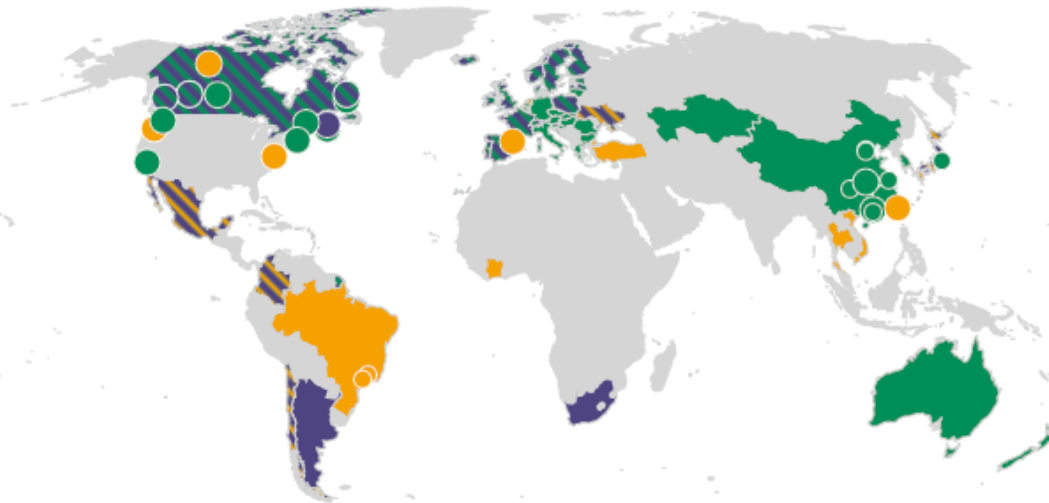
- **Increasing auction volumes/prices provides more available financial resources** to support sectors eligible to indirect cost compensation
- ✓ **Reinforce the State Aid rules guidelines, in order to harmonize national policies**, mitigating also the risk of carbon leakage across
- ✓ **Increase the transparency provisions in the MS reporting process** for all the Countries (independently of the 25% threshold)

Global Action – The EU ETS as a partnership platform



A strong EU ETS can continue to lead the way and encourage joint action

Current Carbon Pricing Initiatives



- ETS implemented or scheduled for implementation
- ETS or carbon tax under consideration
- ETS implemented or scheduled, tax under consideration
- Carbon tax implemented or scheduled for implementation
- ETS and carbon tax implemented or scheduled
- Carbon tax implemented or scheduled, ETS under consider...

STATE OF PLAY

- **International offset credits are eligible for compliance under the EU ETS in phase 3.** The use of credits from Least Developed Countries (LDCs) or from countries with bilateral agreements is not restricted
- **The EU does not currently envisage continuing use of international credits after 2020**
- **The Council recalls that 2019 is a critical year for accelerating domestic climate action and raising global ambition.** The EU is planning to host a conference on international carbon, according to EC

RECOMMENDATIONS

AMBITION. In 2023 EU should increase its ambition after first UN official stocktake and therefore increase the linear reduction factor (LRF) and/or MSR withdrawal rate. Consequently in 2025 EU should update the NDC in order to align its actions to the Paris Agreement goals

LINKING. EU should support linking of ETS systems at regional and global level. EU shall support a swift implementation of art.6.2 of PA for increased market liquidity and stabilization of prices, also helping to reduce the risk of carbon leakage

OFFSETS. Credits should be used to support an increase of EU overall ambition and to safeguard competitiveness of EU ETS industrial sectors – also contributing international cooperation for sustainable development

Regional agreements evolving to create joint markets



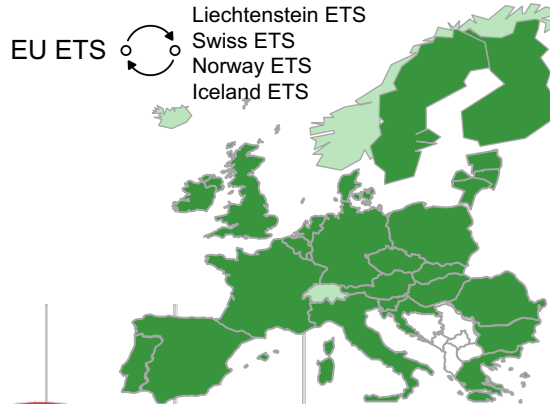
North America

- California ETS and Québec ETS are linked by a circular arrow.
- California, Québec have established a cooperative carbon market by linking their ETSs
 - Mexico seeks to link its scheme to the Western Climate Initiative in the near future



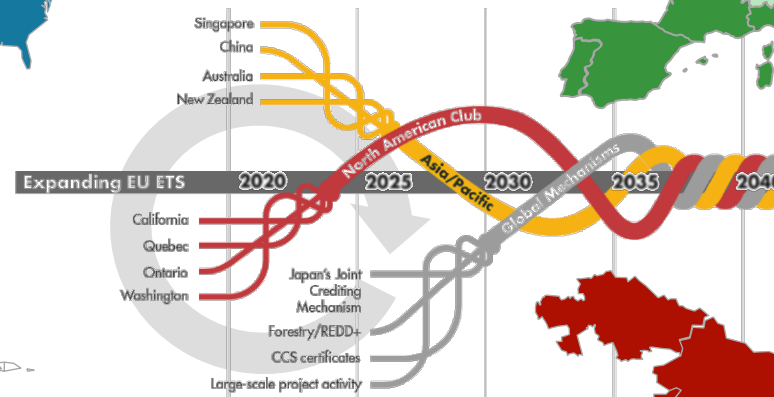
Latin America

- Chile, Mexico and Colombia have already implemented carbon taxes
 - Peru and Argentina have announced their intention for a carbon pricing scheme



Europe

- EU ETS was linked in 2007 with Norway, Iceland and Liechtenstein becoming the first international agreement for emissions trading
 - In 2015 EU ETS was linked to Swiss ETS



Asia Pacific

- China, Japan and Korea are exploring areas for cooperation and potential linking between the ETSs
 - China and Korea have started discussions on a potential collaboration on carbon markets with New Zealand



Conclusions

A sustained EUA price will be key for an efficient decarbonisation



- After an unexpected 2018, ETS prices range ~ 23 €/t in 2019, slightly fluctuating in H1 based mostly on events such as Brexit announcements, EU power prices and weather trends
- In phase 4, surplus induced by coal phase-out policies is the main factor that may undermine EUA price stability unless properly balanced through voluntary cancellation
- A renewables deployment higher than what considered in ETS reform proposal is expected to induce more surplus especially after 2025 and should be considered in the next MSR review (2021)
- Market Stability Reserve (MSR) is key to stabilize the total allowances in circulation. Currently analysis indicates that a healthy ETS market balance required maintaining until 2030 the 24% absorption rate
- A higher overall GHG ambition (45%) should automatically lead to a revision of the Linear Reduction Factor (from 2.2% up to ~2.5%) and MSR review