

# Analysis of the CO<sub>2</sub> power emission factor for indirect compensation



## UNIDEN

**THE GUIDELINES OF THE EU EMISSIONS TRADING SCHEME (ETS), ESTABLISHED BY THE EUROPEAN COMMISSION IN 2012, ALLOW MEMBER STATES TO COMPENSATE SOME ELECTRO-INTENSIVE PARTIES FOR PART OF HIGHER ELECTRICITY COSTS (INDIRECT COSTS) RELATED TO THE INTRODUCTION OF A CARBON PRICE.**

The aim of such compensation is to avoid carbon leakage. The compensation level is based on an emission factor (tCO<sub>2</sub>/MWh) that estimates the increase in power prices associated with an increase in carbon prices. The future of the compensation mechanism in the context of the revised EU-ETS scheme is yet to be determined and the CO<sub>2</sub> emission factor could be revised by the European Commission. Compass Lexecon was mandated by UNIDEN to perform an independent analysis of the emission factor evolution.

## OUR INPUT

Compass Lexecon reviewed the different possible approaches for emission factor calculation as well as the relevant geographic market for France. The experts also conducted an empirical analysis of the past level of the CO<sub>2</sub> emission factor and a prospective analysis of the future level of the CO<sub>2</sub> emission factor.

## IMPACT:

The results of the empirical analysis of historical emission factors indicate an emission factor around 0.75t/MWh for the Center-West Europe (CWE) region in 2013-2015 with the counterfactual method. This result is consistent with the historical emission factor used by the EC over the same time period. When comparing the existing and counterfactual approaches, we found that the two methods show consistent results. Our projections of the emission factor rely on a set of recognized third party assumptions for the evolution of the power sector and indicates that the emission coefficient will vary in the range [0.48;0.63]t/MWh over the period 2019-2025 as a result of the changes in the generation mix.

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## About FTI Consulting

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