

## Impact Report 2019 VERBUND's Green Bond 2014

The proceeds from the issue of VERBUND's Green Bond 2014 have been used to finance several projects for the generation of electricity from wind power and hydropower. Since the power is generated from renewable energy sources, these projects help to avoid  $CO_2$  emissions.

The construction of wind farms in Austria and Germany plus the Reißeck II pumped storage power plant has been partly or completely financed from these funds, as have measures to increase efficiency at the Ybbs-Persenbeug power plant (Project 2020). (For more information see the 2014 Second Party Opinion.) Further technical details on the individual projects can be found on the VERBUND website.

The impact reporting states the volume of electricity generated and emissions avoided each year as quantitative indicators. The method for calculating emissions avoided has been confirmed in accordance with the annual verification by ISS-ESG:

Year	Generation* [GWh]	Emissions avoided [t CO2e]
2015	330	274,132
2016	340	262,297
2017	399	303,222
2018	366	278,983
2019	411	313,198
Total 2015-2019	1,846	1,432,062

<sup>\*</sup> Total electricity generated or additional generation through the projects referred to above

## Calculation of emissions avoided:

The following figures are used to calculate the avoidance factor: first, the electricity volumes generated with fossil fuels based on ENTSO-E in TWh (source: Statistical Factsheet – ENTSO-E fossil fuels generation) and, second, factors for the direct contribution to the greenhouse effect based on energy sources used from the RE-DISS II project in kg  $CO_2e/kWh$  (source: Reliable Disclosure Systems for Europe – Phase II). The annual update of the factor also considers the shift to lower-emission production technologies such as natural gas.

The volume generated in the green bond projects is multiplied by this factor to give the emissions avoided. At the time of the update for the year 2019 were the available data used.