

Primary Energy and Greenhouse Gas Emission Savings 2015

CO₂e and primary energy savings were reported for the entire portfolio of 10 investments for a range of energy efficiency and renewable technologies including CHP biomass, building retrofits and electric vehicles. Once a project has been in operation for a full year, the eeef receives annual audits stating its actual energy consumption.

Year-on-year consumption variances are expected due to a number of factors, such as weather and static data, and therefore project savings can change annually. As shown below, these projects achieved total accumulated savings of 181,391 tCO₂e and 19,541 MWh of primary energy savings through the end of 2015.

PROJECT NAME	REPORTING THROUGH THE END OF Q4 2015 ⁵			
	CUMULATIVE CARBON SAVINGS (tCO ₂ e)	CARBON SAVINGS (%)	CUMULATIVE PRIMARY ENERGY SAVINGS (MWh)	PRIMARY ENERGY SAVINGS (%)
Jewish Museum Berlin Foundation	3,732	26 %	15,420	23 %
University of Applied Sciences Munich	178	6 %	5,697	34 %
City of Orléans ¹	50,271	71 %	-101,020	-41 %
University Hospital S. Orsola-Malpighi	23,579	23 %	-2,156	-1 %
Banca Transilvania ³	41,297	45 %	171,751	42 %
City of Rennes ¹	40,055	59 %	-100,355	-44 %
Bolloré	19,021	91 %	15,868	16 %
Société Publique Locale d'Efficacité Energétique	1,752	60 %	7,427	45 %
City of Venlo	1,174	59 %	6,084	59 %
Universidad Politécnica de Madrid	332	51 %	845	35 %
Totals ²	181,391	57 % ⁴	19,541	40 % ⁴

¹ Both the Rennes and Orléans CHP biomass plants are in full operation. In both facilities, the CHP biomass plants are achieving significant carbon savings when compared to baseline (Rennes 59 % and Orléans 71 %). Both facilities negative primary energy savings are predominantly due to a switch from highly efficient fossil fuel boilers and CHP plants (80 % or more) to CHP biomass boilers of around 65–70 % efficiency. It is understood that primary energy savings for these projects may improve over time as the biomass plant efficiencies reach their optimum.

² All project savings are calculated following international protocols, including the International Performance Measurement and Verification Protocol (IPMVP) for energy accounting and ISO 14064 for carbon accounting. All methodologies used by the eeef are validated by a global engineering company. Currently, all projects with concrete data are reporting in alignment with these guidelines, and all new projects are aligned with these frameworks. Project savings represent total project investment volumes.

³ The cumulative BT savings represent seven sub-projects. The portfolio's percentage savings are calculated based on all sub-projects using a weighted average methodology.

⁴ For carbon, percentage savings are based on the entire portfolio and calculated using a weighting methodology. For primary energy, percentage savings are calculated using a weighting methodology, but only include projects from the portfolio which provide primary energy savings i.e. renewable energy projects are not included.