

Greenhouse gas (GHG) emission data for 2014-15

The table below shows Severn Trent Water Ltd's total GHG emissions in tonnes of carbon dioxide equivalent (tCO₂e) for the period 1 April 2014 to 31 March 2015. This is the thirteenth year we have reported our GHG emissions performance. Each year, we report on Severn Trent Water emissions as a regulatory KPI in our [regulatory performance report](#). We also report our direct emissions from Severn Trent plc in our [Annual Report and Accounts](#), in line with mandatory reporting requirements. Here we break down our emissions for Severn Trent Water in more detail.

Our GHG emissions for Severn Trent Water in 2014-15 were 4% less than in 2013-14 and 12% less than in 2009-10. We have done this primarily by using less energy and generating more renewable energy. We have achieved this in a context of serving more customers and achieving higher water quality standards; both of which would ordinarily act to increase our emissions.

We have set ourselves a stretching carbon target to reduce our emissions to 458 kt CO₂e by 2020. To meet our target, we need to deliver consistent improvement in energy and fuel efficiency over the next 5 years. This will also help us to deliver the cost savings we need to maintain the lowest bills for our customers. To ensure this measure drives us to improve our own performance, we measure success against our target independently of changes to the national electricity grid, by applying the same grid emissions factor we used to set our target (the 2013 grid factor).

Operational Greenhouse Gas Emissions*	t CO ₂ e (2013 grid factor)	t CO ₂ e (2014 grid factor)
Scope 1 Emissions (Direct Emissions)		
Direct emissions from burning of fossil fuels	11,226	11,276
Process and fugitive emissions	133,580	133,580
Transport: Company owned or leased vehicles	14,231	14,231
Scope 2 Emissions (Indirect Emissions - Purchased Electricity)		
Total grid electricity used by company (including CHP electricity purchased)	321,233	357,701
Scope 3 Emissions (Indirect Emissions – Other)		
Business travel on public transport and private vehicles used for company business	1,343	1,343
Outsourced sludge transportation	3,845	3,845
Total grid electricity used by company (including CHP electricity purchased) – Transmission and Distribution	27,567	31,279
Total Annual Gross Operational Emissions	513,024	553,255
Exported Renewable Electricity (generated on site and exported)	(16,979)	(18,838)
Exported Renewable Biomethane (exported to the gas grid)**	(5,409)	(5,409)
Total Annual Operational Emissions (net of export)	490,636	529,008

Annual operational GHG intensity ratio values*	t CO ₂ e/unit	
Operational GHG emissions per MI of treated water	0.334	0.371
Operational GHG emissions per MI of sewage treated (Flow to full treatment)	0.227	0.239

Renewable energy generated by Severn Trent Water***	GWh	Displaced t CO ₂ e	
Self Supplied	160.5	(77,613)	(86,266)
Exported electricity	38.1	(16,979)	(18,838)
Exported biogas	25.3	(5,409)	(5,409)

*Figures are derived from the Carbon accounting in the UK Water Industry: methodology for estimating operational emission, Version 9. (March 2015). Previous years' data are available from our website: <http://www.stwater.co.uk/category/1075>.

Note that we apply the grid emissions factor to renewable energy supplied from Severn Trent assets outside the appointed Severn Trent Water business.

**This year we began exporting renewable biomethane to the national grid from our award winning plant at Minworth. To represent the fact that this gas offsets the use of natural gas, we have multiplied the volume of biomethane exported by the natural gas emissions factor to account for a carbon benefit in our net calculation. We obtain and retire Green Gas Certificates associated with this biomethane.

***This excludes generation from non-appointed renewable assets such as wind, crop and food waste.