

Greenhouse gas (GHG) emission data for 2010/2011

2010/11 was the fourth year that our financial regulator, Ofwat, asked us to report on our GHG emissions annually, their requirements followed the Defra guidance. The Tables below show the total GHG emissions, as reported to Ofwat, in tonnes carbon dioxide equivalent (tCO₂e), the renewable energy generation and emission benefits for Severn Trent Water Ltd's Regulated Business for the period 1st April 2010 to 31st March 2011.

Operational emissions of greenhouse gases (GHGs) have continued to decrease. Gross emissions decreased by 1.8% in 2010/11 to 579 ktCO₂e due to a decrease in the volume of sludge being processed and a slight variation methodology used for the calculations. In 2010/11 our total renewable electricity generated increased by 9.5 GWh increased to 192.3 GWh. Exported electricity is deducted from the gross operational emissions to give net operational emissions. Due to a 3GWh (7%) increase in exported electricity in 2010/11 our net emissions decreased by 2.2% to 554 ktCO₂e.

Operational GHG emissions per MI of treated water have increased this year to 0.385 t CO₂e per MI from 0.377 t CO₂e per MI due to higher energy consumption from raw water pumping. Operational GHG emissions per MI of waste water returned (based on volume put into supply) have decreased to 0.494 t CO₂ per MI from 0.541 t CO₂ per MI due to improved efficiency and a decrease in emissions from sludge processing. Operational emissions per MI of total waste water treated, as calculated by the more accurate volume measure of MCert, has decreased this year to 0.285 t CO₂e per MI from 0.288 t CO₂e per MI in 2009/10.

Operational Greenhouse Gas Emissions*	Tonnes CO ₂
Scope 1 Emissions (Direct Emissions)	
Direct emissions from burning of fossil fuels (including natural gas CHP generated onsite)	14,199
Process and fugitive emissions	136,012
Transport: Company owned or leased vehicles	13,568
Scope 2 Emissions (Indirect Emissions - Purchased Electricity)	
Total grid electricity used by company (including CHP electricity purchased)	410,821
Scope 3 Emissions (Indirect Emissions – Other)	
Business travel on public transport and private vehicles used for company business	1,445
Outsourced activities (if not included in Scope 1 or 2) Energy and other	3,186
Total Annual Gross Operational Emissions	579,231
Exported renewables (generated on site and exported)	-25,093
Total Annual Operational Emissions (net of export)	554,137
Self Supplied Renewable Energy (generated on site)	-79,001
Total Annual Operational Emissions (net of self supplied and exported)	475136

Annual operational GHG intensity ratio values	t CO ₂ /MI
Operational GHG emissions per MI of treated water	0.385
Operational GHG emissions per MI of sewage treated (Flow to full treatment)	0.285
Operational GHG emissions per MI of sewage treated (Water distribution input)	0.494

Renewable energy generated	GWh	Displaced tonnes CO ₂
Self Supplied	144.9	79,001
Exported	46	-25,093

Previous years data are available from our website: (<http://www.stwater.co.uk/server.php?show=nav.6373>)

*Figures derived from the *Carbon accounting in the UK Water Industry: methodology for estimating operational emission, Version 5. March 2010*