

Poland - Water Sector



The purpose of this document is to familiarise British water sector companies with the realities and possibilities the Polish water sector offers to foreign investment. This brief summarised many aspects of the sector, presenting opportunities for a variety of British water-related companies as well as providing succinct information about forthcoming investments. The Polish water sector has been, for quite a long time, underinvested and giving the need to implement EU regulations on cleaner environment, extensive opportunities in this area are emerging. Further information in this document will illustrate a broader picture of the water sector in Poland.

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Poland-in brief

Capital: Warsaw (1,702,139 inhabitants)

Population: 38,115,000

Official language: Polish

Market in Europe: 6th largest market

Command of English: ca 70% of Graduates have a fairly good or good knowledge of English, in the other social and age groups the level of spoken English is gradually rising

Currency: 1 zloty (abbr. PLN) = 100 groszy

GDP (2011): PLN 1522.7 bln (£ 298.6 bln)¹

GDP per capita: 12, 440 \$

Unemployment rate: 12, 9 %

Market characteristics: a steadily growing economy, stable market

Mayor industries: machine building, iron and steel, coal mining, chemicals, marine, food processing, glass, beverages, textiles

Business culture in Poland:

- Formality, hierarchy, still heavy bureaucracy in some sectors
- Public sector “shy”
- Directness
- International outlook, keen Europeans – many Poles work in other EU nations

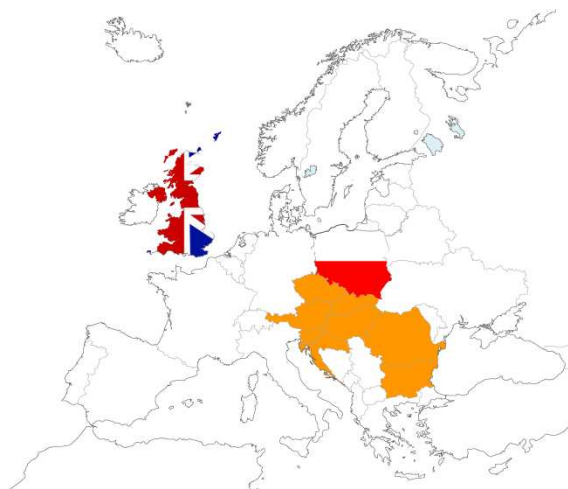
Poland water resources – facts and figures

Annual water income: 92 billion m³

Water availability index (m³/per capita/per annum) : 1600 (when EU’s average is 4500 m³/pc/a) – Poland is placed 22nd among 27 countries

Percentage of freshwater resources divided according to their class:

- 1st class – 7 %
- 2nd class – 33 %
- 3rd class – 40 %



¹ Information from the Central Statistical Office (GUS)

- Classless – 20 %²

Total Freshwater Consumption: 10,3566.5 hm³

Water network: 273 000 km (over 6000 km built in 2010)

Density of water network (100 km²) : ranging from 42.2 km (Zachdnio-pomorskie) to 160.4 km (Śląskie)

Access to water systems: almost 100 % of urban and only 55 % of rural inhabitants have access to water systems, country average 86 %

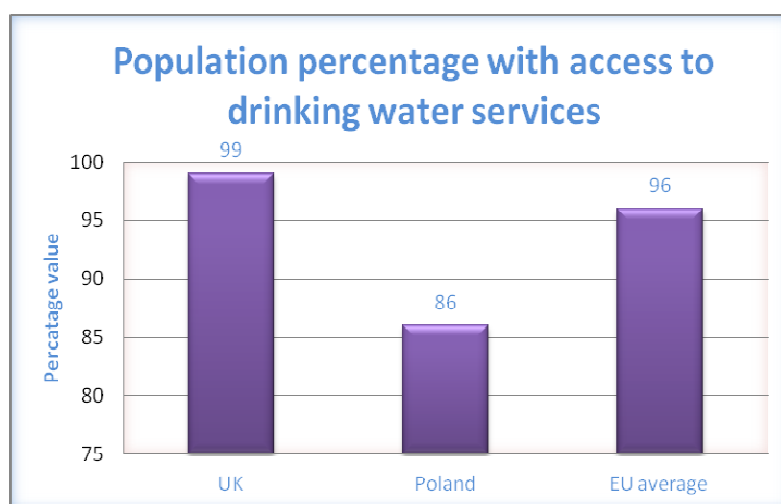
Wastewater network: 108 000 km (7000 km built in 2010)

Municipal wastewater treatment plants: 3 196 855 (servicing cities), 2 341 (servicing villages)

Access to wastewater treatment services: 60 % of urban and rural population

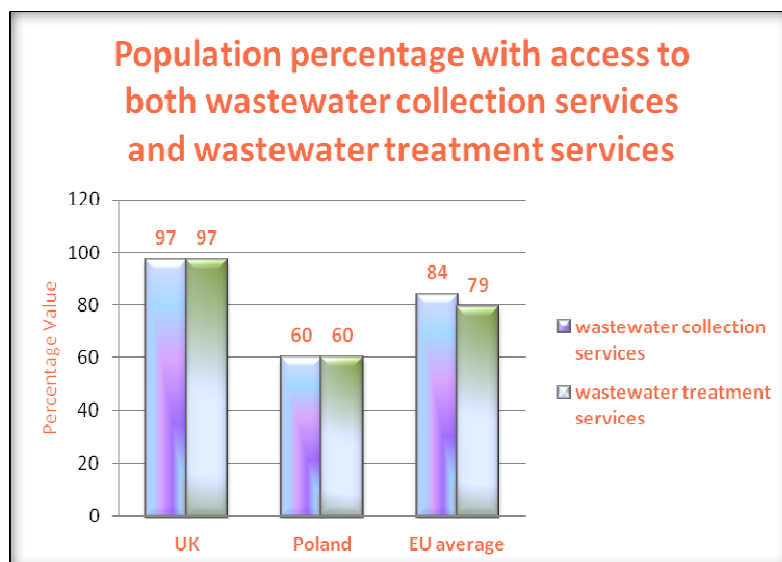
Joined price of water and wastewater (per m³ in 2011): from PLN 9.23 (GBP 1.8) to PLN 44. 89 (GDP 8.8)

Poland versus UK in water resources and use



Graph 1 – Illustrates population percentage with access to drinking water services in the UK, Poland and an EU average

² This classification illustrates the quality of water and how it can be used. 1st class is used as drinking water, 2nd class is used for animal husbandry and recreational purposes, 3rd class supplies the agriculture and industry sectors, while the classless category are water resources that are polluted and not useable.



Graph 2- Illustrates population percentage access to wastewater collection services and wastewater treatment services in the UK, Poland and an Eu average.

Poland- administrative and legal perspective

- ✚ Water Law is an act regulating all aspects of water ownership, control, management and use of water. The current water law from 2001 is not completely compatible with EU regulations, thus Poland is planning on implementing a new water law, allowing a better use of EU structural funds for water-related development projects.
- ✚ Ministry of Environment is the responsible body for water management and policy.
- ✚ The Inspectorate of Environmental Protection is in charge of implementing environmental regulations. Together with the Institute of Meteorology and Water Management is conducts reports on the quality and quantity of water.
- ✚ The National Water Management Authority and especially its president are the central authority in water management, water use and conservation.
- ✚ The State Council for Water Management is a body of the National Water Management Authority which gives opinions and advices on various issues concerning water management.
- ✚ The main aim of the National Fund for Environment Protection and Water Management is financial support for projects indented to protect the environment and improvement of water protection, management and use.
- ✚ The Ministry of Infrastructure is, on the other hand, is the responsible body for implementing the *Common water supply and common sewage supply Act*. Additionally the ministry regulates water tariffs.
- ✚ Gminas, which are an equivalent of communes/municipalities, are responsible for providing public water services and wastewater management. They enforce this through water and wastewater companies (municipality-owned commercial-law companies, or in rare cases operate in a private-public partnership), which have an additional duty of developing and maintaining water and wastewater networks.
- ✚ The Ministry of Treasure plans to privatize about 100 municipal entities. Up to date concession has been granted to four private enterprises: SAUR Neptun Gdansk; AQUA Bielsko-Biala; PWiK Tarnowskie Gory and PWiK Dabrowa Gornicza.

Poland- water management sector

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Poland needs to spend almost EUR 18 billion (GBP 14.5 billion) on investment to bring water and wastewater management into line with EU environmental standards by 2015.

Turnover (data available for latest year only): 6.950 billion (GDP 1.4 billion)

Investments (data available for latest year only): PLN 2.2 billion (GBP 416 million)

Last year's investments resulted in increasing the number of sewage treatment plants by 109 plants and its wastewater system by 8 900 km. Within the last 10 years the amount of treated wastewater increased by 77.6 %.

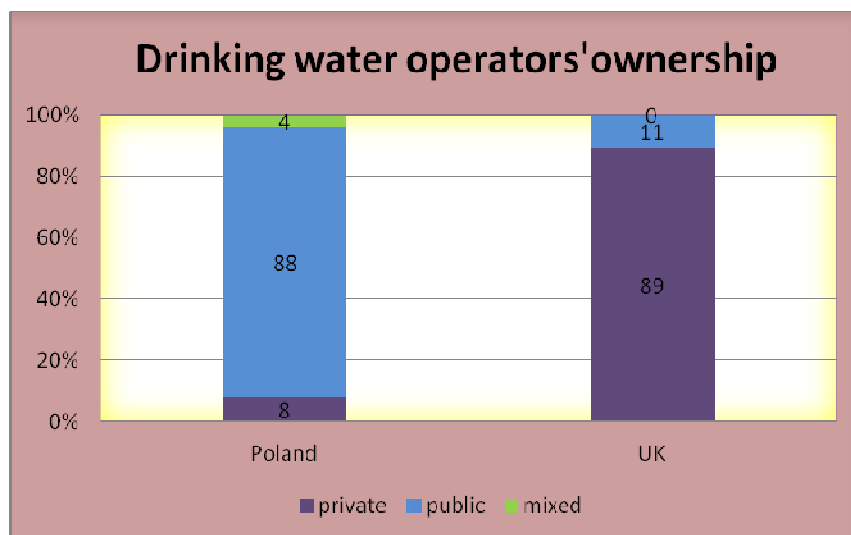
Funding from operational programme were allocated to:

- Water management and wastewater treatment PLN 11.9 billion (GBP 2.3 billion) - PLN 10.25 billion (GBP 2 billion) from EU and PLN 1.64 billion (GBP 321 million) counterpart funding
- Flood control PLN 2.4 billion (GBP 470 million) – PLN 2.05 billion (GBP 401 million) from EU funds and PLN 361 million (GBP 70 million) from counterpart funds
- Projects helping enterprises adapt to environmental protection requirements 1.025 billion (GBP 200 million) - PLN 804 million (GBP 158 million) from EU funds and PLN 205 million (GBP 40 million) from counterpart funds.

Current state of water installations: over 3000 water gates, 6000 pumping plants, 138 water tanks, 1000 reservoirs and just below 750 hydropower plants (both large and small ones)

Employment within the water-delivery sector: 115 200 people (drinking water sector- 57 900, wastewater sector- 57 300)

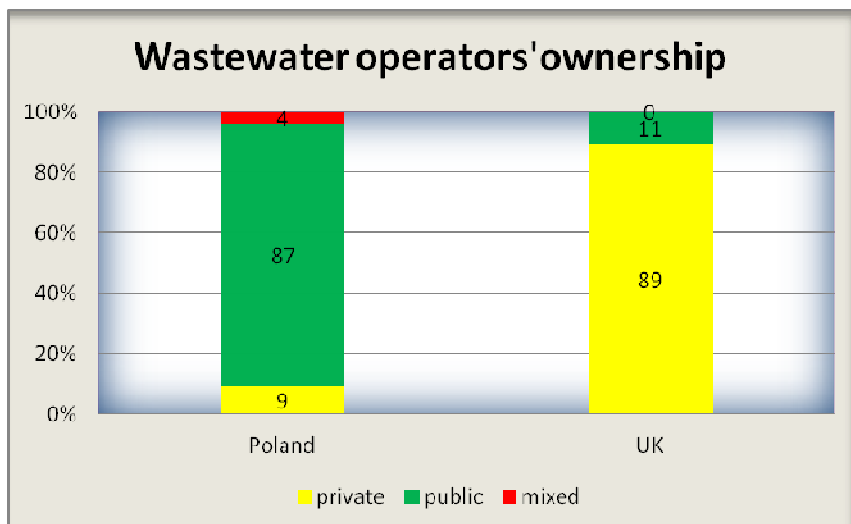
Ownership of drinking water operators: this has been summarised in graph 3



Graph 3 – Presents the ownership of drinking water operators in 2010 in Poland and the UK

Ownership of wastewater operators: summarised in graph 4

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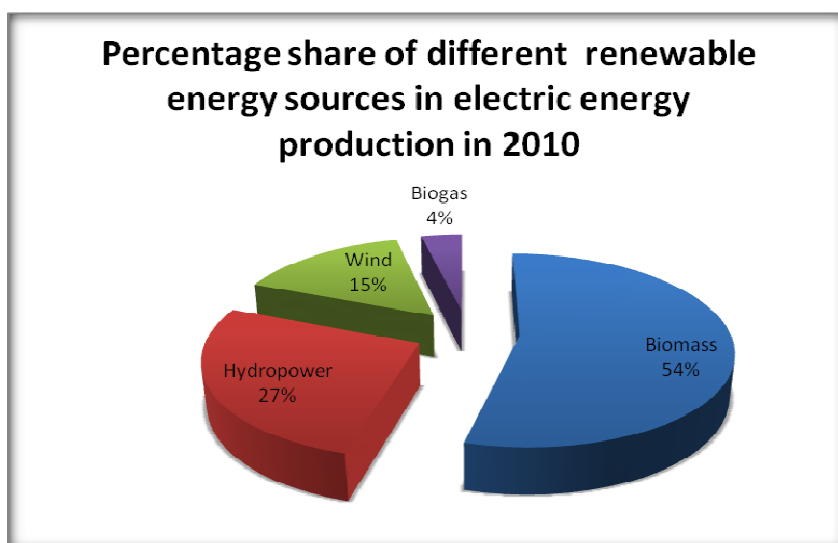
Graph 4 – Illustrates the ownership of wastewater operators in 2010 in Poland and the UK.

Total length of navigable river and canal routes: 3600 km

- 70.3 % (2 575 km) of which are transport routes
- The remaining less than 30 % are paths dedicated to tourism and leisure
- The total load of good transported by inland water routes has decreased by 9 % in relation to 2009.

Poland-hydro energy

- Of the already mentioned 730 hydropower plants, ca 622 are small hydropower plants (małe elektrownie wodne-MEW) with a capacity of up to 5 MW. However according EU regulations small hydropower plants are such with a capacity of 10 MW.
- The total amount of electric energy generated by hydropower plants was 2 919.9 GWh/annually, which accounts to 26.8 % of total electric energy produced in 2010. This is illustrated in the below graph.



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Graph 5- Represents the percentage share of different renewable electric energy production in 2010

- The majority of electric energy generated by these installations came from hydropower plants with a capacity exceeding 10 MW.
- Additionally, 77 storage reservoirs have been used for generating electric energy.

Poland- flood alert programme

Number of water towering structures: 3 370

- They are also part of the flood alert system
- The General Office Building Control reported that 868 structures are hazardous and should be repaired or replaced.

Investment allocated to the flood alert programme: PLN 516 million (GBP 101 million) from the budget reserves were allocated to counteract and dispose of the effects of natural disasters (i.e. floods).

These funds were given to the following: Voivodeships's council (PLN 399 million), Regional Councils of Water Management (PLN 117 million).

Digital System for Protecting from Unexpected Hazards (ISOK): The purpose of this project is to increase and improve the country's safety as well as to diminish the loss caused by floods.

The flood alerting system is very regionally based, with state and EU funds supporting certain phases of large scale projects. One such project is the Flood Protection of Żuławy. In July 2012 PLN 28 million were allocated to refurbishing Radunia canal. Another example of this the modernisation of Nysa reservoir in southern Poland. The entire projects is worth PLN 187 million, with PLN 114 million coming from EU funds.

Poland- Investments in the water sector

- ✓ The EU has allocated PLN 24.6 billion (GBP 4.8 billion) for 2007-2013 for this purpose
- ✓ It has been estimated that future investments in the water sector are worth PLN 73.8 billion (GBP 14.5 billion), with PLN 18.5 billion (GBP 3.6 billion) being allocated to building water systems, PLN 13.1 billion (GBP 2.6 billion) for construction of sewage systems and PLN 42.2 billion (GBP 8.3 billion) for building sewage treatment plants.
- ✓ About PLN 13.5 billion (GBP 2.7 billion) will come from non-returnable EU funds
- ✓ About 1500 towns and gminas (counties) will invest in new sewage systems and wastewater plants by 2015.
- ✓ The National Fund for Environment Protection and Water Management (NFOŚiGW) assigned subsidised for the following projects: building and rebuilding of water tanks, weirs, water gates, canals; building of Świnn Poręba reservoir; writing expertises on water management; monitoring and analysing natural water-related hazards, specialist equipment

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for rescue actions; monitoring water, air and noise levels; building sewage systems; apparatuses for managing sewage sludge; sewage treatment plants.

- ✓ Some investments that will be carried with hydroelectric power:
 - ✚ The Group of Hydropower Plants in Nidzica (ZEW) is planning on heavily investing in small hydropower plants up to 2015. They are intending to build a few new plants in southern and south-eastern Poland. In relation to the aforementioned investments the company intends to construct weirs.
 - ✚ Additionally the National the state council for water management will soon publish a list of places where they would want hydropower investment.
 - ✚ Building of five hydropower plants on the Narwia river, to help meet the needs of 200-600 households. Each worth around PLN 60 million (GBP 11.8 million)
 - ✚ Polish Energy Group- Renewable Energy (PGE EO) has announced a tender for the construction of a hydropower plant in Lubuskie Voivodeship.
 - ✚ Energia (a Polish company) announced the possible location of five barrages on Vistula. It has been estimated that the entire investment is worth PLN 2.5 billion (GBP 0.5 billion).
- ✓ INWAPO is a project dedicated to the modernisation and upgrading of inland water routes in Central Europe. Part of the project will aim to activate the Vistula route between Gdansk and Warsaw. The budget (including EU funds) is PLN 15.6 million (GBP 3.1 million), and it is led by a consortium with the leading partner being Venice Port Authority.
- ✓ The State Council for Water Management is planning to announce a tender for updating the plans and designs of basin water management in Poland.
- ✓ Massive investment should be also allotted to rebuilding and refurbishing of water management structures, as many of them are old (over 50% were build 50 years ago) and in a poor condition.
- ✓ The government is attempting to create floodplains that would save the more valuable land and properties from being flooded. This will be partially done through a system of dyke building and partially through flooding less expensive land. So far consultation with local communities and land evaluations are taking place.

Poland- opportunities for British companies

The sector offers considerable opportunities for British water companies, contractors, consultant engineers, manufacturers, suppliers of specialist machinery, equipment and materials, design engineers and constructors of hydropower plants.

Poland does not manufacture specialist water sector equipment and therefore other opportunities include supplying sewage treatment plants; monitoring and measuring equipment and sludge

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treatment equipment; water and sewage meters; pipes, fittings and wells for building water supply and sewage systems; hydraulic units, pumps and plumbing fittings; machines and appliances for building, repairing and maintenance of water supply and sewage network; regeneration of water supply and sewage network and deep wells and modern technologies of renovation of water supply and sewage system.

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