Regulation in Water Markets and Competition in the Water Industry

– The Case of Scotland (UK) –

Infraday 7th/8th October 2011

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Outline

- Introduction
- Country Specific Characteristics & Challenges
- Regulation of the Scottish Water Industry
- Competition in the Scottish Water Sector
- Conclusions
- References

EU-Project TRUST

“The central objective of the European project initiative TRUST is to deliver co-produced knowledge to support Transitions to the Urban Water Services of Tomorrow, enabling communities to achieve a sustainable, low carbon water future without compromising service quality.”

***Transitions to Urban Water Services of Tomorrow* (2011)**

EU-Project TRUST

- 30 partners from 11 different countries
- WA 2: Policy, Financing & Society
- One subtask of this WA is to give a status quo of several European water markets and their regulatory frameworks.

http://www.trust-i.net/

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Country Specific Characteristics & Challenges

- The land area of Scotland is about 80,000 km² with around 18,000 km of coastline. There are many islands belonging to mainland. 118 are inhabited islands whereas more than 800 islands are uninhabited.

http://www.maps-of-britain.co.uk/large-map-scotland.htm

- The Scottish population is fortunate to have extensive fresh water resources.
- Over 90 % of the total fresh water volume in the United Kingdom is available in Scotland.
- Particularly Scotland’s fresh water resources represent around 2 % of its land area.

Country Specific Characteristics & Challenges

- Mild and wet climate: The absence of temperature extremes and rainfall during the whole year, without longer draught periods are characteristic for Scotland.
- Around 5,194,000 inhabitants
- Low population density: around 65 people per square kilometre
- By 2033 there are estimated about 5,540,000 inhabitants, which means an increase of 6,7 %.
- As in all countries, the water industry has to face the typical challenges of a network industry: strongly increasing returns on scale, high levels of capital intensity, and long life of industrial assets.

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Legal Framework

Water Industry (Scotland) Act 2002

The Scottish Parliament

- **Before 2002: water and wastewater services in Scotland were managed by three public water authorities. They were responsible for the regions North, East and West and had a monopoly status in their local draw area.**
- **By the Water Industry Act, which was passed in 2002, the three public water authorities were consolidated and thereby Scottish Water was established.**

Legal Framework

Water Services etc. (Scotland) Act 2005

The Scottish Parliament

- **Permits and regulates the wholesale of water and sewerage services from Scottish Water to licensed providers**
- **Established the Water Industry Commission for Scotland as economic regulator concerning charges and competition**

Main Players in the Scottish Water Industry

Beside of the Ministers and the Scottish Parliament, there are four other players, which mainly influence the structure and work of the Scottish water sector.

Scottish Water
Always serving Scotland

water industry commission FOR SCOTLAND

dwqr

SEPA
Scottish Environment Protection Agency

Scottish Water

- **Publicly owned company, accountable to the Ministers and the Scottish Parliament**
- **Delivers potable water to all 2.4 million households in Scotland and removes their sewerage**
- **Offers water and wastewater services as wholesale to different licensed providers, which complement these performance with extended services and compete for business customers and non-profit organisations**

Scottish Water
Always serving Scotland

Scottish Water

Key facts

- Head office in Dunfermline
- ~ 47,575 km of water pipes
- ~ 50,412 km of sewer pipes
- More than 1,800 wastewater treatment works (including 1,200 septic tanks)
- 284 water treatment works
- Produces 1.3 billion litres of drinking water every day
- Removes 840 million litres of wastewater every day

Scottish Water
Always serving Scotland

The Water Industry Commission for Scotland

- **Economic regulator of the Scottish water market**
- **Established by the Water Services Act in 2005**
- **The main task “[...] is to ensure that the Scottish water industry provides a high-quality service and value for money to customers.”** **_WICS_ (2011): Who’s who in the Scottish water industry**
- **Pursuing this target the WICS is setting prices for water and sewerage services, facilitating competition in the field of business customers and non-profit organisations as well as licensing new providers**

water industry commission FOR SCOTLAND

Drinking Water Quality Regulator

- Established by the Water Industry Act in 2002
- Main task is to ensure a good tap water quality around Scotland by monitoring the performance of Scottish Water and enforcing higher quality standards
- Acts independent and is authorised to get relevant data from Scottish Water and to make technical inspections
- Gives hints for future investment needs to the Scottish Ministers

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Scottish Environment Protection Agency

- Established by the Environment Act 1995
- Main task is to protect and improve the Scottish environment
- This includes the target of a sustainable protection and improvement of the Scottish water resources
- SEPA regulates activities which have direct influence on the water environment and gives hints for future investment needs to the Scottish Ministers
- Monitoring the right handling of Scottish Water's discharges is one way to improve the environment

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Lack of Competition

- The high capital intensity,
- the dependence of drinking and waste water pipes and
- the long lifetime of assets lead traditionally to the fact that only one provider prevails in one region.

Regulation vs. Competition ?

Competition via Regulation ?

Network opening

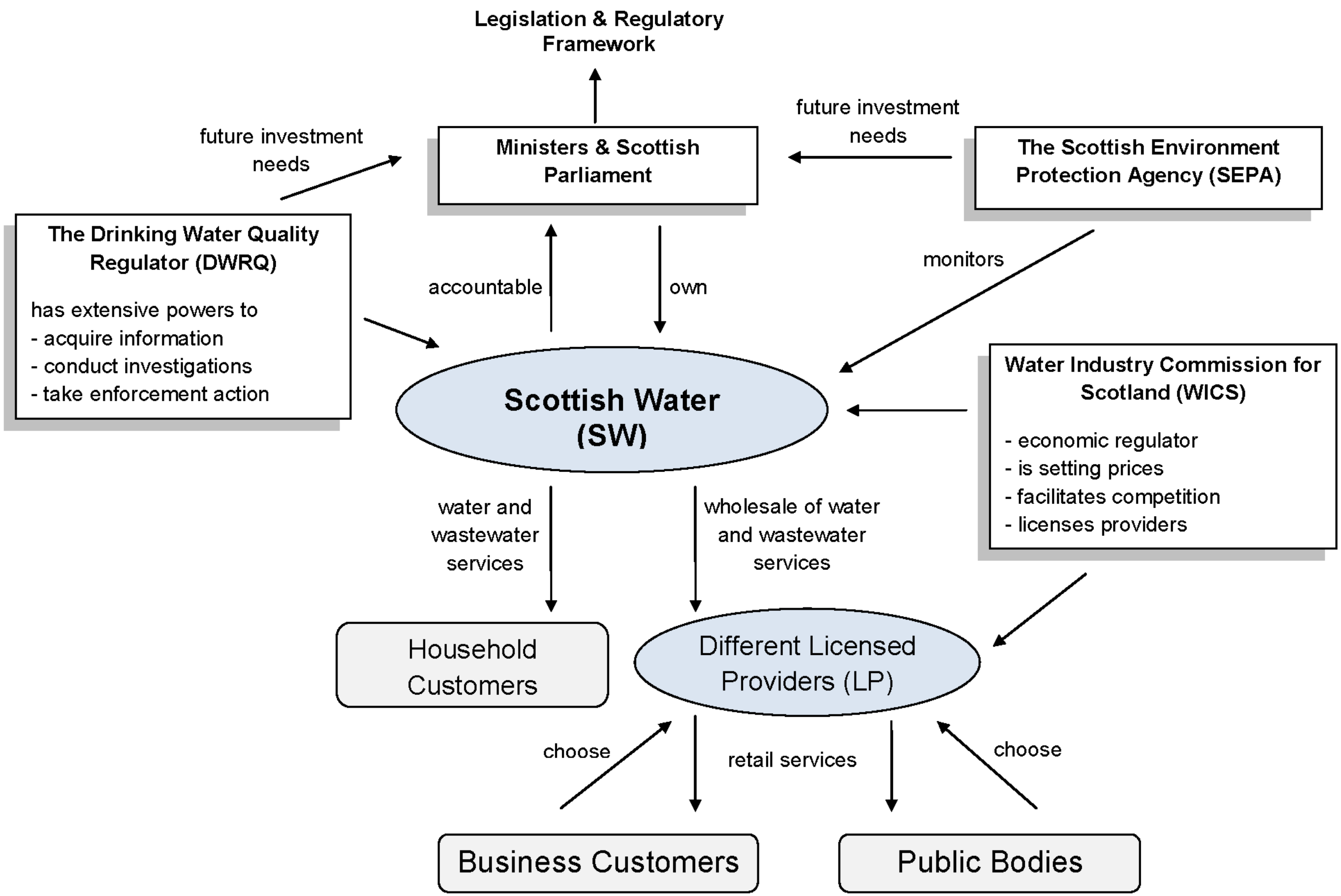
“In substance, to foster competition by network opening means allowing consumers to contract directly with suppliers of their choice for the services they require, and to force the network operators that lie ‘on the way’ to convey the resource in return for a ‘fair and reasonable’ toll.”

***Bouttes, Jean-Paul; Leban, Raymond* (1995)**

Competition in the Scottish Water Sector

- Since April 2008 the 130,000 business customers and public bodies are able to choose between the retail services of licensed providers.
- This is possible, because SW acts as wholesaler of water and wastewater services to different retailers.
- These retailers complement the pure physical services with customizing services like water metering, billing and contact opportunities, which the end consumer has to pay for.
- Depending on how much they are willing to pay for the additional services, the non-domestic customers can choose between all providers regardless of their location.

Main Structure of the Scottish Water Industry



Own illustration based on *Water Industry Commission for Scotland* (2011): Who's who in the Scottish water industry

Water supplier

- Currently the business consumers can choose between 4 water supplier
- They were licensed by the Water Industry Commission for Scotland, which is responsible to check, if the providers possess adequate knowledge, expertise and experience. Furthermore, the applicants require financial acumen and business viability.

How to switch between Suppliers

- Switch by contacting the new provider and giving him the supply point identification number
- Chosen retailer will coordinate the switch in cooperation with an independent organization: CentralMarketAgency
- Responsible for administering the competitive retail market: keeping a customer register, recording the switch of non-domestic customers between two retailers and calculating the wholesale charges which have to be paid to Scottish Water
- Members: all licensed providers and Scottish Water as founding member
- Further duties: *Market Code*, *Code Subsidiary Documents*

Self supply

- **Beside of the opportunity to choose a retailer, non-domestic customers are able to get a self supply license.**
- **In this case the customer pays the wholesale charges to Scottish Water, but does not receive any additional services as for example meter reading or incident assistance from any retailer.**

Competition in the Scottish Water Sector

- Scottish Water has still a monopoly status: all retailers are bound to the wholesale services of SW and thereby to its prices.
- To avoid the misuse of this lack of competition on the wholesale level is one of the main challenges of the Water Industry Commission for Scotland.
- More precisely the WICS sets the prices for SW's wholesale services. On the one hand to ensure low price volatility and on the other hand to make sure that the costs which are related to the drinking water quality and environmental issues can be recovered.

Competition in the Scottish Water Sector

- On the retail level also exists a safety net to protect the interests of non-domestic customers: Every retailer has to offer standard services for a default tariff.
- This default charge is the maximum price the non-domestic customers had to pay for Scottish Water's water and wastewater services, if the retail market opening did not take place.

Advantages

- The retailers are asked to deliver better performance for lower prices: more cost-effective measures and additional services are important to survive in the market.
- Innovation: expanded services are for example e-services like e-billing, easier contact opportunities and quicker responses to customer requests, incident assistance and services to identify and reduce leaks.
- Individualism: The non-domestic customers can choose between the retailer's offers and extra services, finding the best price to value ratio for their own.

Advantages

- Aiming best customer satisfaction, the retailers as informed buyers of wholesales put pressure on Scottish Water to improve its performance as well.
- This has also an indirect, positive influence on the water and wastewater services for household customers, because if SW improves its performance, it will not only affect the non-domestic level.
  ➔ Overall Performance Assessment
- Further advantages are the simple switching between retailers and the environmental benefits, because the retailers offer more information about the customer's detailed water consumption and how to reduce it.

Overall Costs and Savings

	Costs/Savings £	Costs/Savings €
Set-up costs to 2009 – 10	- £ 22.5m	- € 26.2m
Ongoing costs to 2009 – 10	- £ 8.5m	- € 9.9m
Savings achieved to 2009 – 10	+ £ 18.4m	+ € 21.4m
NPV of ongoing costs from 2010 – 2011 onwards	- £ 110.7m	- € 128.8m
NPV of savings achieved to date, from 2010 – 2011 onwards	+ £ 261.0m	+ € 303.7m
NPV of retail dynamic efficiencies	+ £ 84.9m	+ € 98.8m
NPV of wholesale dynamic efficiencies	+ £ 110.1m	+ € 128.1m
Total	**+ £ 332.8m**	**+ € 387.2m**

Water Industry Commission for Scotland (2011): **Retail competition in Scotland: An audit trail of the costs incurred and the savings achieved, p.14.**

Disadvantages

- According to Waterwatch there has been a significant increase of customer contacts.
- Still not aware of competition, experience difficulties switching supplier or are frustrated by the additional bureaucracy
- Furthermore, the licensed providers were not always delivering the services the customers expected them to do.
- The current market shares of the retailers might give a hint that full competition on the retail level has not been reached yet.
- It is striking that Business Stream, who is the licensed subsidiary of Scottish Water, is the leading retail service provider by serving around 90 % of the non-domestic customers.

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Conclusions

- Young regulatory framework
- Courageous step to be the worldwide pioneer in opening the retail water market
- The physical water supply and wastewater removal is still in the hand of the publicly owned company Scottish Water, which ensures a save handling with the network and all assets around Scotland.
- Furthermore, it promotes the exploitation of economies of scale.
- The benefits are visible especially in the performance efficiency and the financial savings. Even if the savings would not be met full, it would be an outstanding result.

Conclusions

- The non-domestic customers are no longer bound to a ‘one-size fits all’ solution. Instead, they decide if they are willing to pay for the additional services or not.
- Teething problems have to be resolved, because a competitive retail market is only working, if the customers are interested and informed.
- The market share should be observed carefully over the next years.
- It will be interesting to see how the market develops and whether the competitive retail system will also be applied to the 2.4 million household customers in Scotland one day.



Thank you
for your attention !

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