

Using tariffs as part of a package of water efficiency measures

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Services (EFRWS)

Sustainable water tariffs

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1. Water efficiency in context

Introduction

Sustainability and water efficiency

The role of economic regulation in promoting water efficiency is enshrined in European legislation. According to the Water Framework Directive, pricing policies should:

- provide adequate incentives to use water resources efficiently
- consider the social, environmental and economic effects

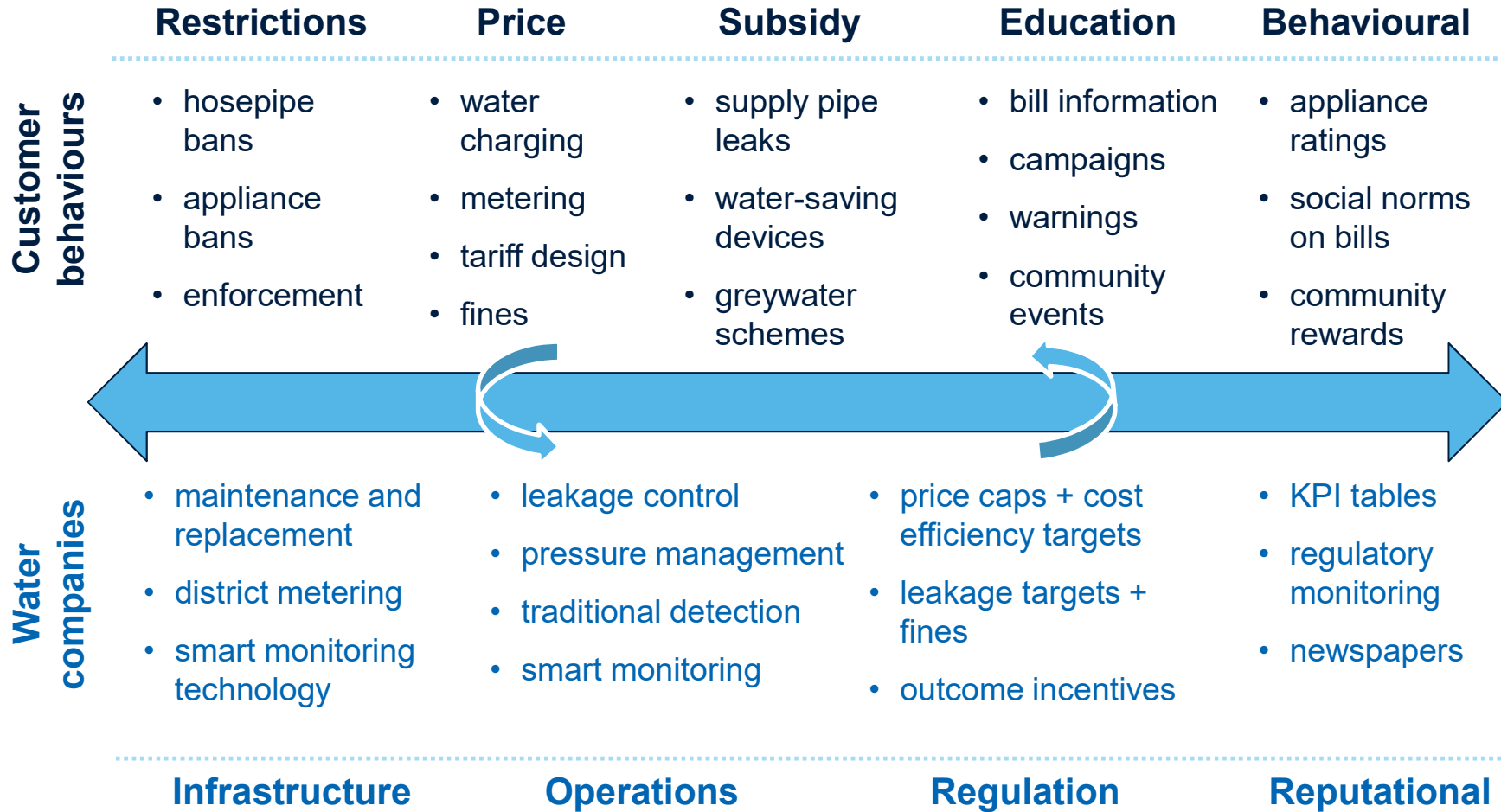
Challenges to sustainability:

- population and demand growth
- climate change
- declining resource availability

} Important role for water efficiency measures...

How to achieve water efficiency?

Many tools are available...



2. The role of price signals

The role of price signals

Theory and empirical evidence I

- requirements for price signals to work:
 - policy + charging + metering + tariff design + responsive consumers
- types of tariff
 - increasing block (IBT)
 - seasonal
 - smart
- evidence on impacts?
 - metering + pricing reduces household water consumption (eg, increased metering in England ⇔ reduced household PHC)
 - however, (very) mixed evidence on the impact of price *per se* and of specific tariff type impacts...

The role of price signals

Theory and empirical evidence II

- what's the international evidence of the impact of price (p/m^3)?
 - price is an important factor in explaining demand—although elasticity is generally considered to be between 0 and -0.5, i.e. inelastic
 - elasticity can be higher under IBTs than under uniform pricing
 - elasticity is generally higher in the summer months
 - elasticity varies significantly by region- or household-specifics
- impediments to using price as a tool?
 - fairness—concerns around the impact on vulnerable groups; moreover, water may be subsidised or tax-financed
 - complexity—water companies need good data to implement innovative tariffs; consumers need to understand the tariff design

2. Behavioural interventions

Beyond (just) price

Behavioural insights...

Which tools can change behaviour?

- water audits and saving kits
- social norms to encourage metering and water-saving technologies
- using visuals and prompts

Initiatives may involve providing customers with information and incentives in combination with behavioural nudges, such as through:

- incentive schemes—through which people can earn points for pledging to undertake activities that will reduce their water usage
- using company data—to provide timely feedback to customers to encourage more efficient water use (e.g. smart metering, email, apps)

Example of behavioural nudges

South West Water PR19 Business Plan

Using behavioural economics to help us connect with our customers and motivate them to save water, money and time.

Influencing customers to save money and water through behavioural economics

There are many areas where customers could be helped to save water – this may be purely by providing them with the information about how much they consume, or by providing incentives for customers who do actually use less. We have been working with two partner agencies, Greenredeem and Advizzo, to conduct pilots across our region with our customers.

greenredeem

Greenredeem

Greenredeem is an incentive scheme, through which people can earn points for pledging to undertake activities that will reduce their water usage.

Customers can access the scheme online and via mobile, where they can see the points earned, the money they have saved or compare their consumption to others in their area. The variety of information and the incentives are designed to engage a wide range of customers. The reward points can be redeemed with partner companies, donated to the overall community score or used to enter a prize draw. In effect, water consumption will be reduced through incentives and information provision including volume/cost and comparative data.

advizzo

Advizzo

Advizzo uses company data to help guide customers towards a more efficient use of water through personalised engagement via a number of routes (email, apps etc.).

The company specialises in using big data and behavioural science, and has reported reductions in usage of between 4% and 7%. The system works by taking information, tailoring it to individual customers and then providing it to them in a digestible format, with easy navigation hints and tips for water saving.

Customers can view their usage and, crucially, see how they compare with other people in their area or with similar profiles. This use of descriptive and injunctive norms has been proven to incentivise customers to change behaviours to bring them back to the peer group average.

If the customer decides they would like to reduce their consumption there are tools and tips they can access on the Advizzo platforms.

There is an additional benefit for more vulnerable customers, as the information provided to South West Water can be used to ensure that customers eligible for a special tariff have been placed on it.



- GreenRedeem scheme
 - community-based scheme
 - points earned on mobile
 - successful pilot => roll-out post 2020
- Advizzo scheme
 - individual-based scheme
 - big data and behavioural science
 - social norm comparison (water use)
 - targeted recommendations
 - used in conjunction with social tariff
 - successful pilot => roll-out post 2020

Source: South West Water (2018), 'Targeted controls, markets & innovation', PR19 Business Plan, September.

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