Fiscally and environmentally sustainable tariff designs from across the world

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Overview

▶ What’s sustainable?
▶ Some examples of how to do it right
▶ Some examples of how to do it wrong
▶ The differences between the two
▶ My preferred structure
▶ Question and answers...
What’s sustainable?

...roughly in this priority (to the public):

1. Customers get as much safe water as they want
2. Revenues cover operating, replacement and investment costs
3. Environment is neither depleted nor polluted
4. Service to all, without political controversy
5. Utility managers keep their jobs!
I’m not the first to speak on this today, but let’s clarify…

- Taxes (social access) vs user charges (economic access)
- User charges can improve accountability ("customers")
- Fixed vs variable costs and charges
- Block rates (pros and cons)
- Externalities – pollution and scarcity
- Social tariffs work when you don’t need them and fail otherwise
Doing it right – Singapore

- Residents and business pay €0.77/m³
- Heavy residential users and shippers pay more
- These prices recover costs and reflect scarcity
- Managed from rain to taps to sewers to NEWater
- Government provides subsidy to poor

More:
http://www.pub.gov.sg/general/Pages/WaterTariff.aspx
Doing it wrong – Las Vegas

 Prices: IBRs are “wide” and “shallow”
 Cheap: Residents start off facing €0.27/m³
 Strategy: More supply, not less demand
 Corruption: Builders want cheap prices for more homes

http://www.aguanomics.com/search/label/Las%20Vegas – maybe because lvvwd.com is down!
Doing it right – Amsterdam

Dutch water abundance can be a problem...

Water systems are funded/managed in pieces:

**Waterboards:** Manage drainage and irrigation

**National:** Manages flood defences and navigation

**Cities** Charge watershed and wastewater taxes per capita

**Conservation** Prices (€1.24) are 5x Las Vegas’s; consumption is \( \frac{1}{5} \)

**Utilities** Charge flat rate prices on use and compete via benchmarking

More: [http://tinyurl.com/p7uvngz](http://tinyurl.com/p7uvngz) (VEWIN)
Doing it wrong – Los Angeles

- Residents and business pay different prices (ca. €1.56/m³)
- Larger lawns and summer use gets MORE cheap blocks
- Prices do not reflect scarcity or environmental damage
- Multiple, overlapping, conflicting water managers

More: http://tinyurl.com/new4yft
Differences between good and bad

- Sustainable versus ecosystem-depleting
- Reliable versus interrupted
- Pro-poor vs pro-rich (if pro anyone…)
- Absorbs rather than fractures from shocks
- Common sense versus complex accounting
My “best practice” recommendation

- Build a system that can reach all residents
- Build loan repaid by user fees
- Fixed/variable charges in proportion to fixed/variable costs
- Scarcity surcharge
- Counteract “gold plating” and enhance benchmarking via “performance insurance” that frees regulator to focus on outcomes, not inputs (energy use) or outputs (RPI-x, cross-customer average weighted price, etc.)

http://kysq.org/pubs/Performance_Insurance_DZ.pdf
What about the rest of the world?

Let’s talk about the utilities you know, have worked for, read about, etc.
Thank you!

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Blog: aguanomics.com
More: kysq.org for books, talks, papers, calendar, etc.

2015 Water Smarts Calendar

...because every day is a water day.