

:viveconomics

Ofgem

Green supply

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1

Contents

Diagnosis of market failure	
Ofgem's role and the public interest	
The definition of additionality	
Three issues	
additional carbon savings	
additional renewable generation	
level playing field of subsidies	
Conclusions	

Performance of the market at present

Evidence from the marketplace

- low take-up (a few tens of thousands on green supply tariffs)
 - low or zero price premiums indicating no differentiation in underlying product
 - poor quality of information provision by some suppliers
- is typical of market failure through poor information
- consumer has inadequate information to compare quality of product offerings
 - consumer is then unwilling to pay more than the price of the lowest quality
 - producers respond by only producing product of the lowest quality

THIS IS A MARKET FOR LEMONS

Public interest issues

The public interest issues in this market for lemons

- non-additionality may undermine the credibility of suppliers AND the credibility of the Government's own claims for its renewables and climate change programmes
- reduced credibility leads to reduced support for climate change action
- market failure through poor information leads to welfare loss through forgone satisfaction of consumer demand

Ofgem's duties

- Ofgem has duties relating to sustainable development and customers' interests

Ofgem's role

- mistrust of suppliers is not solved by appointing a supplier-led body to set standards
- Ofgem's brand is not widely recognised, reducing its power to quality-mark tariffs
- a British Standard kitemark or similar could be considered
- doing nothing will lead to continued market failure and welfare costs

Ofgem's approach to defining additionality

To satisfy demand, additionality would relate to what consumers want

whether it is low carbon or renewables, consumers appear to expect additional benefit from their green tariffs in the form of fully or partially zero-carbon electricity

MORI's evidence shows that consumers have little confidence in or understanding of the benefits currently available

the form of benefit consumers desire is untested in research so far, but anecdotal evidence suggests consumers expect 'green supply' to be wholly additional zero carbon generation which would not have occurred in the absence of the green supply: in practice, they receive close to no zero-carbon component

if Ofgem wished to help the market provide what consumers want, it would have to adopt a definition of additionality reflecting consumers' interests

To avoid confusion, 'additionality' could be made consistent with the current definition among the climate change practitioner community

25 years of United Nations' deliberations have honed approaches to defining additionality

the action must not have occurred under Business As Usual, i.e. in the absence of the green supply

Issue one: additional carbon savings

Even if suppliers do build new renewables, this alone is not sufficient to ensure additional greenhouse gas savings associated with a green supply tariff

This is because the green tariff would contribute towards the UK's international obligations to cut greenhouse gas emissions, and as a result the Government would be likely to reduce action elsewhere in its climate change programme—evidenced by its track record of avoiding over-compliance with international environmental agreements

To avoid a compensating reduction in emission abatement elsewhere, the green supply tariff would have to retire Assigned Amount Units (AAUs), which is the currency of the UN Framework Convention on Climate Change

The easiest way to effect this retirement of AAUs, is to retire European Union Allowances (EUAs), which are legally stapled to AAUs, since EUAs are traded in a deep and liquid market

Hence for a green supply to be net zero carbon in effect, it is necessary to retire EUAs

Offsets through the Kyoto Flexible Mechanisms and the voluntary market

Additionality is crucial to the Clean Development Mechanism (CDM), where it has been controversial and a good understanding of the issues has emerged

Additionality is also crucial to the voluntary market as evidenced by the Gold Standard and Voluntary Carbon Standard

Retirement of Certified Emission Reductions (CDM and Joint Implementation) is a means of securing additionality since these are AAU instruments

Only Certified Emission Reductions are compliant with Defra's guidelines on offsetting, a limitation which has attracted considerable criticism from the voluntary offsetting market

Issue two: additional renewable supply

The effect of the Renewables Obligation is to crowd out independent renewables

the Government has committed to maintain a minimum headroom between the obligation and available renewable generation

thus the RO will expand to consume whatever renewables are available for the foreseeable future, as the target is moved up when new supplies are built

thus any project which is viable under the RO will be built, if not outside the RO, then within it hence green supply is not additional to the RO, unless:

the type of renewables built is too expensive to be viable within the RO

The conclusion is

any large scale renewables tariff cannot offer zero carbon supply in the sense in which consumers are likely to interpret the term 'green supply' or 'renewable supply', because it would rely on generation projects that would be viable under the RO

unless, the tariff deliberately targets expensive forms of renewables, such as offshore wind, wave, marine current devices or photovoltaics

In the short term, some additionality may be possible

In the short term, the constant headroom mechanism of the RO will not be triggered because supplies will not come close to meeting the target

- as a consequence, green supply with ROC retirement would starve the RO of supply and result in higher ROC prices

- higher ROC prices would stimulate the building of additional generation

- thus retirement of one MWh of ROCs would stimulate generation of less than one MWh of new ROCs: the ratio depends on the shape of the renewable generation supply curve

Hence, ROC retirement is not equivalent to additionality, but, in circumstances where the constant headroom mechanism is not activated, it does result in a degree of additionality

These effects are likely to be too complex to communicate to consumers in tariff documentation, so claims of partial additionality will be difficult to sell

Issue three: subsidies

The Levy Exemption Certificate (LEC) is a tax credit

HM Treasury is understandably keen to limit the quantity of tax credits in circulation

Tax credits are a subsidy

they are unrelated to additionality because they are non-rival, i.e. the award of the subsidy to output from one renewable generator does not affect the subsidy received by other renewable generators

If LEC retirement is a condition of green supply, the green supply renewable generation would not receive the subsidy

The questions are whether

HM Treasury is prepared to bear the cost of extending the subsidy to green supply renewable generation, and

whether renewable generation with the RO and under green supply should be treated equally (in terms of access to the subsidy)

Conclusions

A comprehensible, meaningful and standard definition of additionality should be adopted

Additionality is the issue about which consumers care most and has associated public interest issues arising from the 'market for lemons' problem

Additionality of greenhouse gas abatement requires the retirement of EUAs

Full additionality of renewable power generation requires sourcing power from expensive sources such as photovoltaics and offshore wind, which lie partly or wholly beyond the financial reach of the RO

Partial additionality of renewable power generation could be achieved through retirement of ROCs, until the RO guaranteed headroom mechanism kicks in, at which point this offers no additionality benefit

The question of LECs is not one of additionality, a fair, non-discriminatory approach would be to allow LECs from generation to be sold