

Issue

(1) context: energy storage in future low carbon system

– essential, or alternatives better?

of central importance

(2) benefits of energy storage to various stakeholders – private, system, consumer

helpful analysis, inc non-financial aspects

(3) analytical framework for system and societal impacts

valuable contribution

Methodology

(1) analysis of price–demand relationships : graphics

graphics are a good way to illustrate effect of adding storage

familiarity with economics theory an advantage....

.... even better, consider alternatives

(2) stakeholder workshops + interviews

stakeholder concerns clearly crucial – but who were they? list in Annex?

Results

(1) storage effect on demand => reduced production cost

not just about time shifting to higher price period

also smoothing variable RE

(2) current market structure fails to reward some storage benefits : damage uptake?

v. interesting findings from stakeholders (§6 , Fig.10)

clear pointers to follow-on research

(3) benefits inc facilitating use of renewables

leading to jobs, exports (§5.2.7, Fig.8)

Strengths

(1) thorough and erudite analysis

important not to focus solely on financial benefits

(2) clarification of stakeholders + groups

and of storage impact on price + benefits

graphics skilfully used to present points clearly

(3) insight into need to align private/system/social benefits (§4.1)

(4) §5.2.1 on utilisation of assets v. good

helpful points – worth making earlier in paper

Improvements

(1) make clearer who meets cost of storage

“investors” not clear ; ultimately, consumers pay?

(2) likewise, who operates storage?

§4.0 implies contracting out – not elec supplier operated?

(3) no mention of technologies ; nor efficiency, before §5.2.1

(4) benefits (Fig.7) – also reduced fossil fuel imports

(5) retiring plants not possible (p.17): really? self serving assumption?

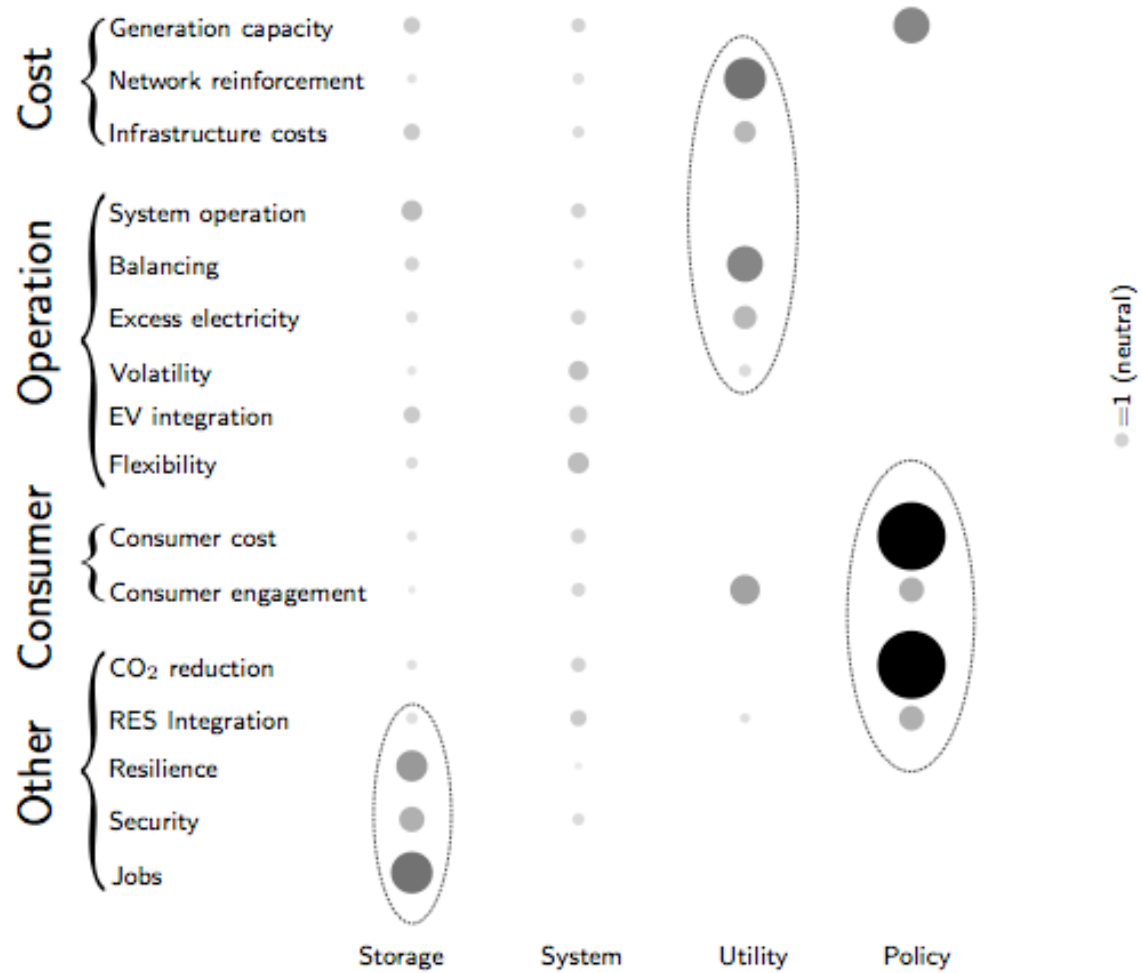


Figure 10: Relative importance of benefits to stakeholder groups. The size of circles is scaled by their relative importance squared (P^2)

