The Value of Lost Load (VoLL) Phase Two: Refining the Approach Pilot Survey – key findings report

This report was submitted on 4 April 2017

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Date: 4 April 2017

VERSION HISTORY

Version	Date	Author	Status (draft, etc)	Comments
Version 1	4 April 2017	Ariel Bergmann	Draft	

APPROVAL

Name	Role	Signature & date

GLOSSARY OF TERMS

Abbreviation	Term
CE	Choice Experiment
GB	Great Britain
LCT /LCTs	Low carbon technologies
MPAN	Meter Point Administration Number
NIA	Network Innovation Allowance
SMEs	Small and medium enterprises
VoLL	Value of Lost Load
WTP	willingness-to-pay

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1. EXECUTIVE SUMMARY

The Value of Lost Load (VoLL) project is investigating whether a single uniform VoLL, applied to all customer segments, remains appropriate as Great Britain (GB) is increasingly reliant on electricity to drive its economic growth and transition to a low carbon society.

The project is funded by the Network Innovation Allowance (NIA) and commenced in 2015 for a 28 month period.

The VoLL Phase Two: Refining the Approach Pilot Survey – key findings report 30 November 2016 disseminates the results and learning associated with a pilot of the quantitative survey instrument, prior to a planned GB distribution and widespread engagement with consumers.

The objective is to improve the final survey design and so enhance understanding of the researchers, and increase the quality of information provided to the consumer and the quality of their responses.

The analysis of the pilot survey confirms that the existing single value of VoLL is not appropriate as it does not adequately reflect the significant variation in both financial and social values that occurs between customer sub-groups, i.e. households and small and medium enterprises (SMEs).

Initial findings show that domestic customers' willingness-to-pay (WTP) to avoid loss of electricity supply is approximately £1,700/MWh and £11,000/MWh for SMEs.

Customer's willingness-to-accept (WTA) compensation for lost load is higher than the comparable WTP value for both domestic and SMEs, £2,800 and £30,000, respectively. This higher WTA reflects the greater value people place on a service they already have than on their willingness to pay to retain it.

The survey also investigated the value that customers would have with increased reliance on electricity that results from employing low carbon technologies (LCT) in the future and hypothetically in the present. The estimated WTA value for these type of domestic consumers was shown to be four times greater than for those who would not be using LCT.

There were substantial different values assigned to VoLL across a wide spectrum of customers.

One influential customer support mechanism that can mitigate the VoLL is a simple telephone call that provides proactive information about the interruption.

2. THE OBJECTIVES OF THIS PEER REVIEW

The objective of this peer review is to evaluate the soundness of the evidence, findings, and lessons learned to improve the survey before wider distribution and engagement with the GB public.

This review has been undertaken by Dr Ariel Bergmann, who is a Lecturer of Energy Economics at the University of Dundee. His research concentrates on the use of choice analysis and valuation of public and private goods and services using both qualitative and quantitative survey techniques. Surveys have been conducted at international, national, regional and local community scales throughout Europe, the United States, South Asia and Africa. Topics investigated range from provision of local council services; renewable energy development; sustainable economic

development; environmental and natural resource usage and development; financial services in both the United Kingdom and Europe; and energy policy preferences of United Kingdom politicians and civil servants. Dr Bergmann has supported and been engage with numerous communities on development of local energy projects. He is Associate Editor at Resources Policy and referee at several other high level academic publications. He has undertaken research projects for the UK and Scottish Governments, local councils and districts, and the European Commission.

Ariel Bergmann has extensive experience in designing and evaluating the suitability of market research methodologies and the application of advanced statistical analysis and econometric techniques in analysing consumer preferences and choices.

3. ASSESSMENT OF THE VOLL PHASE TWO PILOT SURVEY REPORT

Based on the Pilot Survey five actions were taken to improve the survey before the primary large scale survey is implemented:

1. Elements of the choice experiment (CE) were simplified
2. Volume of educational material included was reduced
3. Layout and formatting was changed
4. Modifications were made to gather information on the customer if (Meter Point Administration Number) MPAN details were not provided
5. Adjustments were made for recruiting early adopters of LCTs.

All of these modifications commonly result after a pilot survey, indicating that a robust sample size was engaged and a thorough analysis was conducted.

Given the amount of changes in the survey instrument that has resulted it would be good practice to run an additional pilot survey. As is planned per Section 7.1. This does not need to be as extensive as the first pilot survey but a small size of 20 (+/-) persons and 4-5 SMEs. These do not have to be randomly selected or new to the VoLL project, as the objective is to simply test if the changes to the survey meet the objective of improving clarity of understanding and usefulness of the survey instrument.

Another issue identified in this peer review is a need to clarify the quantity of respondents to be involved in the summer 2017 survey. In Section 1.3 the quantity of surveys to be completed is given. A clear definition of “completed” needs to be determined, as there are various levels of “completion” that provide all information requested and those that provide substantial useful information, to those that provide little or no useful information. The dropout/non-completion rate for online surveys can be a major limiting factor to successful research when the survey task is too complex or too demanding of the respondent. It is encouraged to determine the quantity of high quality responses necessary to have robust and statistically significant findings, not just the number of completed surveys.

4. CONCLUSION

The Value of Lost Load (VoLL) Phase Two: Refining the Approach Pilot Survey – key findings report is a high quality document that presents the pilot study in good detail, both procedurally and findings. The debriefing and analysis of potential weaknesses or aspects that can be improved for the next iteration, prior to engagement with a much larger population is both extensive and sufficient. Once a version two pilot survey has been conducted to test and assure the changes have captured the anticipated improvements to the survey there is a high likelihood of large scale survey being successful in acquiring the research objectives.