



Department
of Energy &
Climate Change

DECC Non - domestic building energy use project phase I

Annex 1: Comparison Stage Tables DECC Cover Heading A

June 2013

Comparison Stage Tables

Table 1: Summary of work undertaken in the comparison stage

Method	Audience	Number of interviews completed
Quantitative telephone interviews followed by an audit	Independents	11
	Small chains (2-9 sites)	1
	Medium chains (10-99 sites)	2
Quantitative online / postal survey followed by an audit	Independents	6
	Small chains (2-9 sites)	0
	Medium chains (10-99 sites)	0
Total		20

Table 2: Comparison of Accuracy of Numerical Data from Telephone Survey Relative to Site Audit

Telephone interview compared to site audit	Number of cases ¹	Number of cases where site audit = interview response	Number of cases where site audit > interview response	Average % site audit over interview response	Number of cases where site audit < interview response	Average % site audits under interview response	Overall tendency % ²
Total number of end uses	11	10	0	0%	1	25%	NA
Refrigeration: Number of units	11	5	1	17%	5	20%	- 7%
Lighting: Number of different types of bulb	11	6	4	67%	1	33%	+21%
Lighting: Number of individual bulbs	10	2	6	81%	2	38%	+41%
Heating and cooling³: number of units	9	7	0	0%	2	28%	-6%
Hot water: Number of units	10	10	0	NA	0	NA	0

¹ Number of cases where i. respondent had particular end use and ii. data returned for both the interview and site audit; where one or the other is missing, case has been excluded.

² For each data point, the overall tendency for the site audit data to vary relative to the interview; displaying by what percentage and in which direction

³ Heating and cooling combined to avoid double counting of split air conditioning units

Telephone interview compared to site audit	Number of cases ¹	Number of cases where site audit = interview response	Number of cases where site audit > interview response	Average % site audit over interview response	Number of cases where site audit < interview response	Average % site audits under interview response	Overall tendency % ²
Ovens: Number of units	4	3	1	50%	0	NA	+12.5%
Floor area	9	2	4	29%	3	43%	-1.5%

Table 3: Comparison of Accuracy of Numerical Data from Intermediate Survey Relative to Site Audit

Intermediate survey compared to site audit	Number of cases where site audit = interview response		Number of cases where site audit > interview response		Average % site audit over interview response	Number of cases where site audit < interview response		Average % site audits under interview response	Overall tendency % ⁵
	Number of cases ⁴								
Total number of end uses	5	5	0	0	NA	0	NA		
Refrigeration: Number of units	4	0	1	3	10%	3	18%	-11%	
Lighting: Number of different types of bulb	4	1	2	1	200%	1	25%	+94%	
Lighting: Number of individual bulbs	3	0	3	0	65%	0	NA	+66%	
Heating and cooling⁶: number of units	3	3	0	0	NA	0	NA	0%	
Hot water: Number of units	4	4	0	0	NA	0	NA	0%	

⁴ Number of cases where i. respondent had particular end use and ii. data returned for both the interview and site audit; where one or the other is missing, case has been excluded.

⁵ For each data point, the overall tendency for the site audit data to vary relative to the interview; displaying by what percentage and in which direction

⁶ Heating and cooling combined to avoid double counting of split air conditioning units

Intermediate survey compared to site audit	Number of cases ⁴	Number of cases where site audit = interview response	Number of cases where site audit > interview response	Average % site audit over interview response	Number of cases where site audit < interview response	Average % site audits under interview response	Overall tendency % ⁵
Ovens: Number of units	2	0	1	50%	1	67%	-8%
Floor area	4	1	1	6%	2	12%	- 5%

Table 4: Call Outcomes for Comparison Stage

Outcome of call	Telephone	Intermediate
No answer at all during fieldwork (trying at different times of day and on different days)	10 (7%)	22 (12.5%)
Completed telephone interview / agreement to participate in intermediate survey	11 (8%)	10 ⁷ (6%)
Spoken to someone at premises at least once (but no more than five times) but unable to identify and / or speak to correct respondent	4 (3%)	33 (19%)
Spoken to respondent at least once (but no more than five times) but unable to explain and secure participation with the project and / or complete survey at time of call	38 (27%)	28 (16%)
Unusable sample (no longer in business, not in target sector, number not working)	35 (24.5%)	38 (22%)
Awaiting head office permission to continue survey	15 (10%)	14 (8%)
Refusal (respondent)	16 (11%)	15 (8.5%)
Refusal (Head office)	12 (8%)	14 (8%)
Refusal (gatekeeper)	2 (1.5%)	0 (0%)
Total cases	143	174

⁷ Including the 6 completed surveys we received and 4 that were not received complete within the time given to respondents.

Table 5: Reasons Given by Respondent Refusing to Participate in the Project during the Comparison Stage (n=31)

Outcome of call	Telephone (n=16)	Intermediate (n=15)
Didn't give specific reason	1 (6.25%)	4 (26.67%)
Gave specific reason, of which:	15	11
Viewed participation as too much of a time commitment	7 (43.75%)	5 (33.33%)
Didn't see any benefit of participation	2 (12.5%)	3 (20%)
Wanted financial remuneration or other incentive to participate	2 (12.5%)	1 (6.67%)
Deemed information too sensitive to share with project / didn't trust how information would be used	1 (6.25%)	1 (6.67%)
Negative opinion of government	2 (12.5%)	0
Negative opinion of market research / negative experience in the past	1 (6.25%)	0
Against company policy to participate in research	0	1 (6.67%)

Table 6: Reasons Given by Head Offices Refusing to Participate in the Project during the Comparison Stage (n=26)

Outcome of call	Telephone (n=12)	Intermediate (n=14)
Didn't give specific reason	1 (7.69%)	1 (7.14%)
Gave specific reason, of which:	11	13
Viewed participation as too much of a time commitment for themselves / store staff	5 (38.46%)	3 (21.43%)
Didn't see any benefit of participation	1 (7.69%)	0
Wanted financial remuneration or other incentive to participate	0	3 (21.43%)
Deemed information too sensitive to share with project / didn't trust how information would be used	1 (7.69%)	1 (7.14%)
Negative opinion of government	1 (7.69%)	1 (7.14%)
Negative opinion of market research / negative experience in the past	0	2 (14.29%)
Against company policy to participate in research	2 (15.38%)	0
Additional site for a company where head office had already refused	1 (7.69%)	3 (21.43%)

Table 7: Potential Strategies to Minimise Bias

• Approach	• Strategies to minimise bias
All Methods	Review methodology to reduce questionnaire length and burden
	Incentives to tackle “what’s in it for me?” For example, consider information incentive – how a respondent's responses compare to average for stores like theirs
	Give respondent opportunity to complete survey in language other than English
	Formal notification e.g. letter from Minister endorsing work and stressing the importance of participating
Telephone survey	<p>Adopt alternative approaches for hard to reach groups (e.g. walkarounds)</p> <p>Send tailored summary of detailed questions to be covered in interview in advance of the call for large sites with multiple end uses</p>
Online/postal survey	Build in time to allow for respondent participation; consider use of mixed mode interviewing for sites with Internet access
Walk around	Approach owner/manager to obtain permission to perform walkaround
Audit	Where audits are required due to the complexity of the respondent’s energy use, consider using further incentives to increase participation rate – e.g. report on completion of audit?
Central head office engagement	<p>Provide incentive to respond – is there any opportunity for these organisations to feed into policy making where they provide data?</p> <p>Allow good time for engagement, establishing what data they have and what they are willing to provide, time to collate and submit information and opportunity for review – months rather than weeks</p>

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