

Can feedback vanquish energy vampires? And if so, how?



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Method

Pre-feedback Questionnaire

Assessed: habits (“unplugged unused appliances is part of my routine”), knowledge (“If I wanted to reduce my energy costs I would know which appliances to unplug”) and attitude (“It is important to be environmentally friendly”)

Pp’s input info into “Vampire Calculator”

(Indicate no. of devices “off” but still plugged in)

Pp’s receive feedback re. costs of vampires

(Different framings used depending on condition)

Post-feedback Questionnaire

Assessed: vanquishing intentions (“unplug energy vampire appliances”), knowledge (as above), subjective appraisals (perception of money savings and appreciation for feedback).

Feedback re. costs: Study 1

▶ Control

“Appliances that consume energy when they are not in use but are still plugged in are called 'Vampires!'”

▶ Generic Total (\$100)

“Appliances that consume energy when they are not in use but are still plugged in are called 'Vampires!' In the United States, vampires are adding an additional \$100 to each home's energy bills”).

▶ Personalised Total (PT):

“Per year the appliances you leave plugged in but not in use (i.e., in standby mode) are costing you: ___ \$! Appliances that consume energy when they are not in use but are still plugged in are called 'Vampires!'”

▶ Personalised Total (PT) + Disaggregated

As above + cost for each energy vampire

▶ Personalized Total (PT) Plus Advice

As above + advice for vanquishing energy vampires

Participant Details

	Study 1	Study 2	Study 3	Study 4	Study 5	Study 6
N	323	96	161	128	175	248
N of males	182	47	90	68	80	95
Age range	18 -72	18 -80	18 – 72	18 – 67	18 – 69	18 – 69
Mean Age (SD)	31.64 (11.37)	33.05 (12.30)	31.64 (11.37)	33.43 (11.12)	35.09 (11.77)	34.99 (11.78)

What participants said about the feedback...

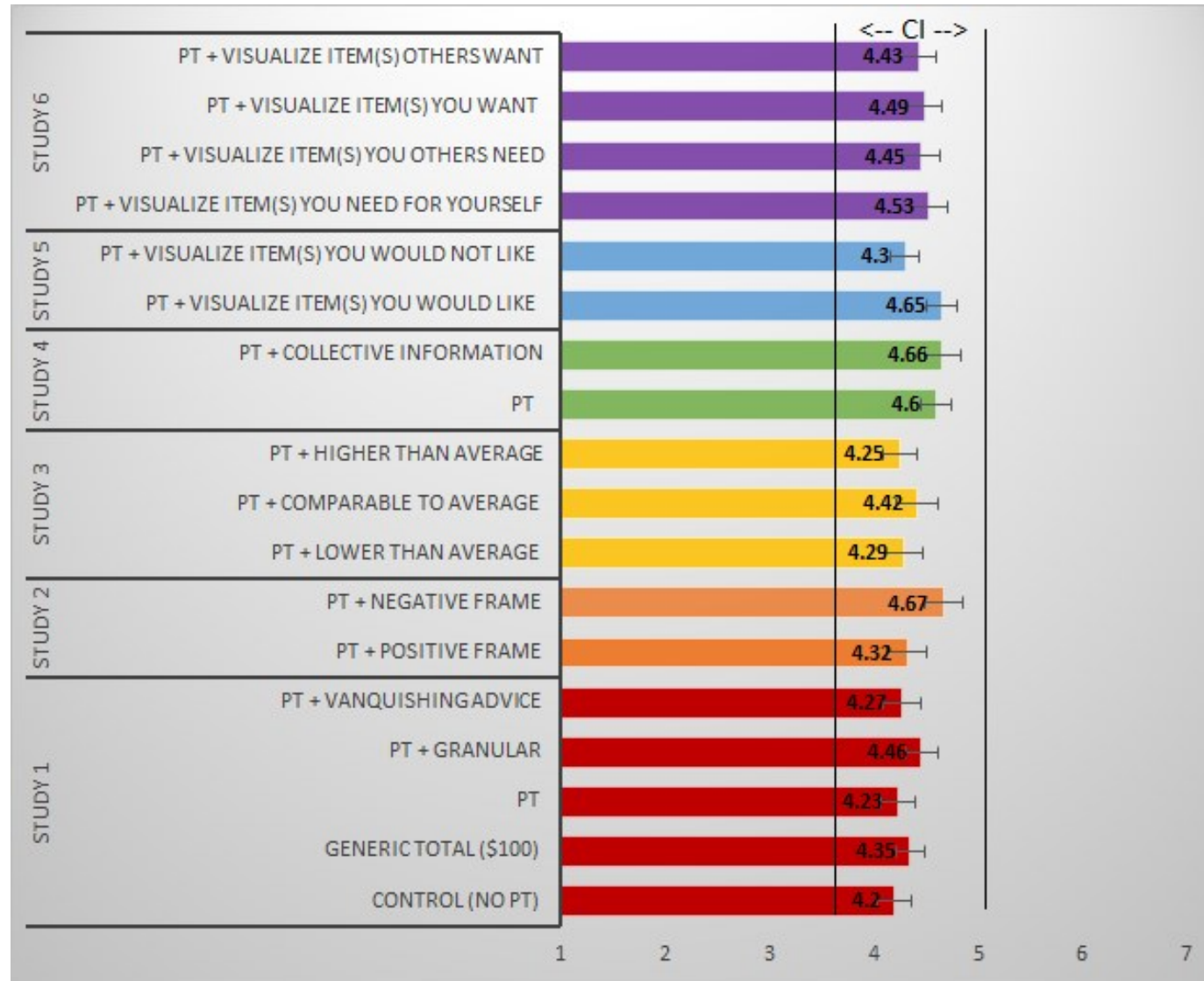
“Found the amount that I could save very enlightening”

“THIS WAS VERY INFORMATIVE.”

“I will unplug my appliances at the main switch to save money. Thank You”

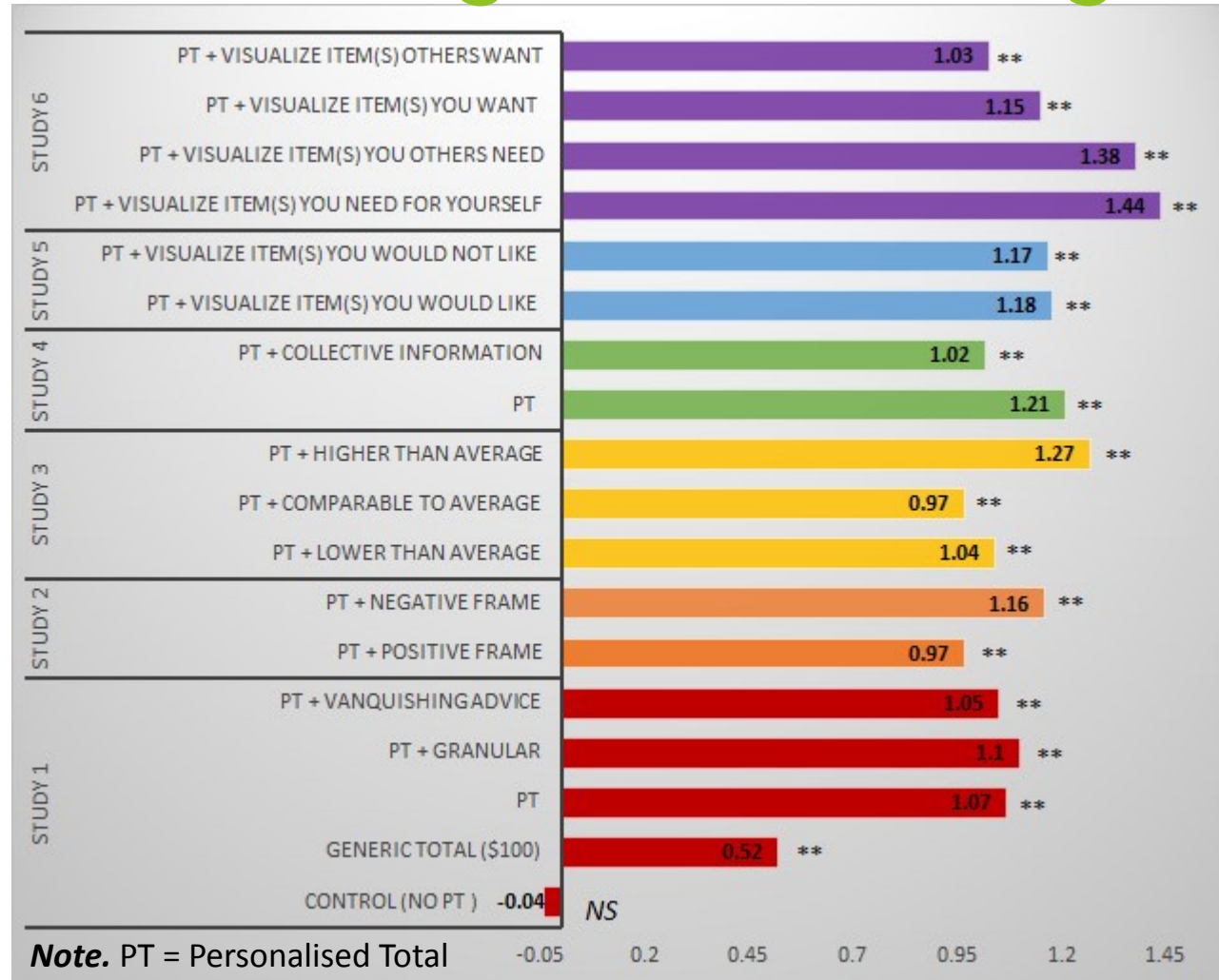
“I definitely think this was an eye opening survey. It is going to change the way appliances are left in my home when not in use.”

Results I: Vanquishing Intentions



Note. PT = Personalised Total

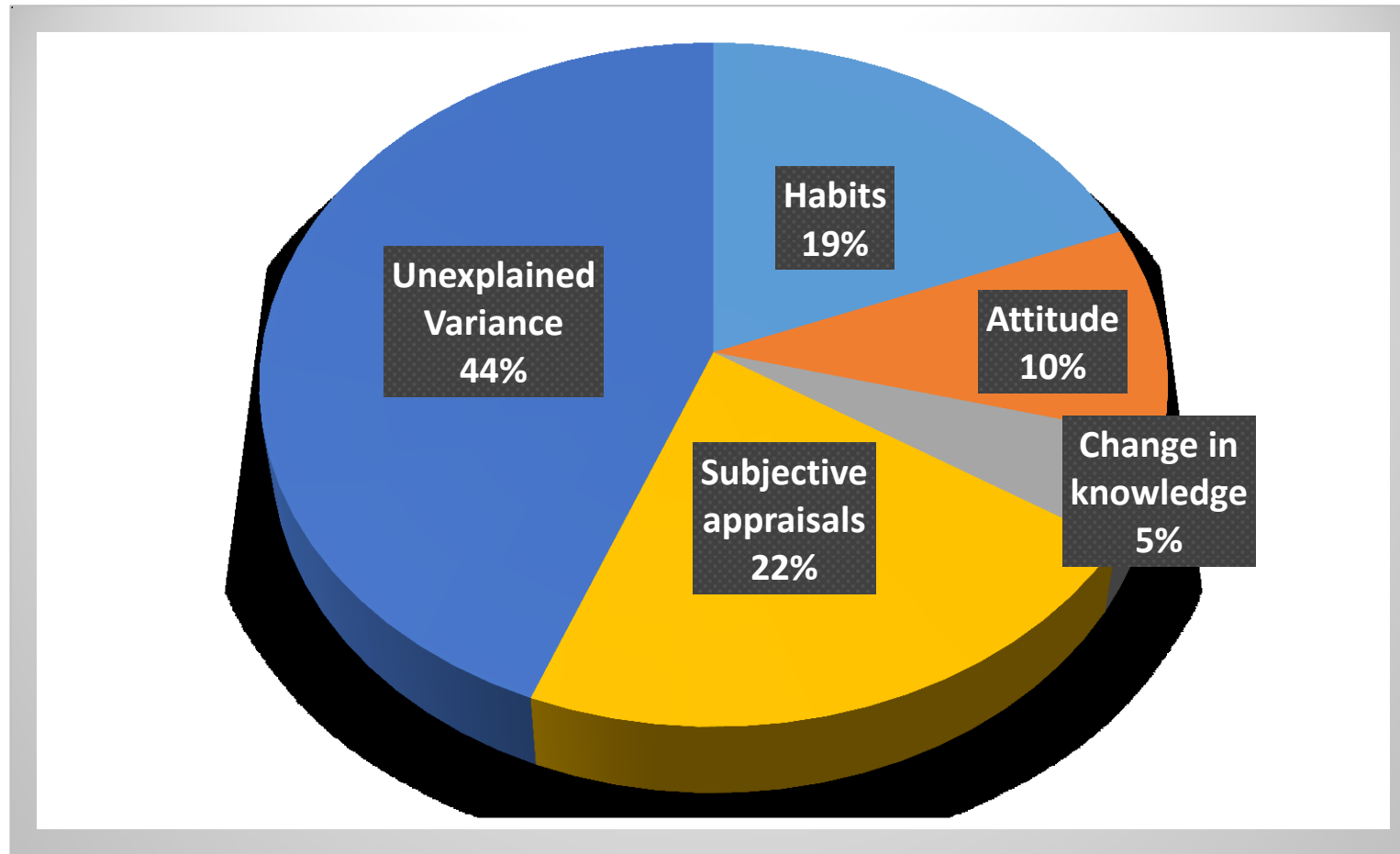
Results II: Changes in Knowledge



Note. PT = Personalised Total

←Change in knowledge→

Predicting Behavioural Intentions



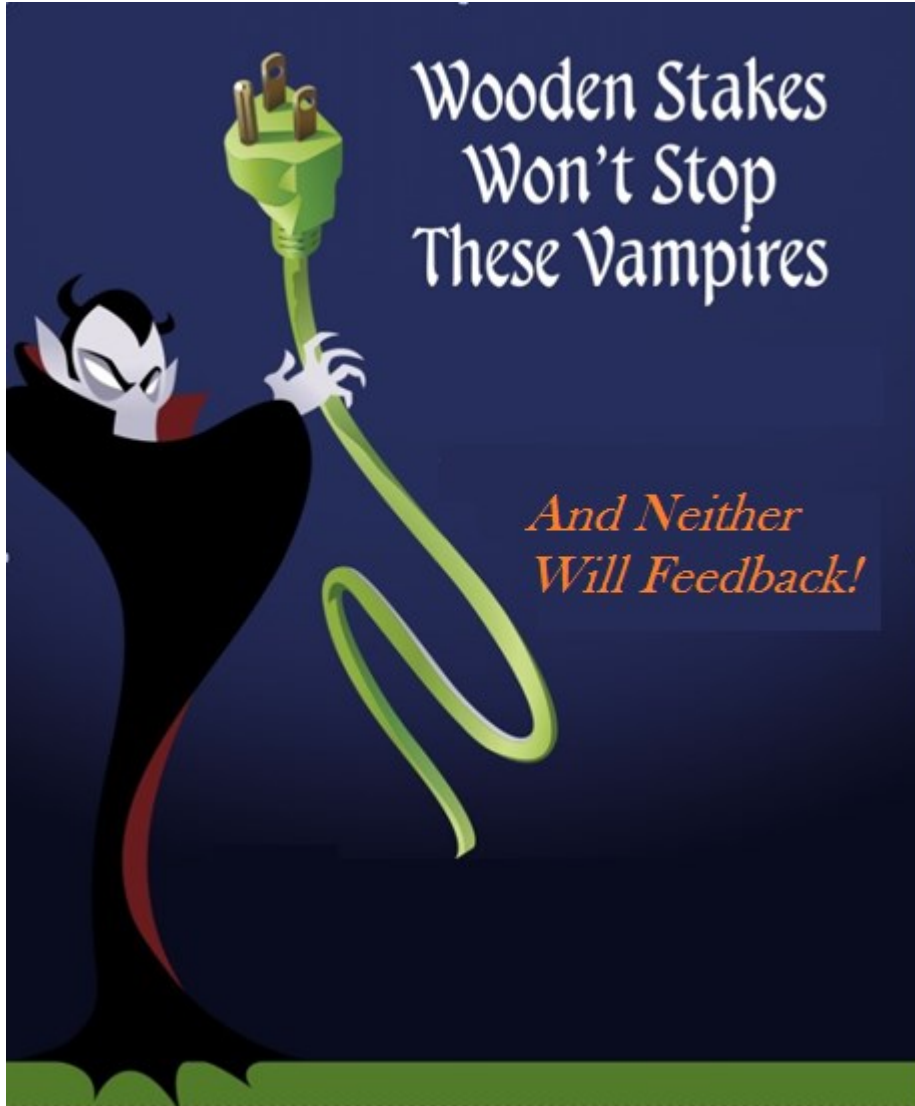
The bad:

- ▶ Measured behavioural intentions and not actual behaviour
- ▶ Presenting costs of energy vampires is a “One Shot” feedback technique. Continuous feedback may have been more effective.
- ▶ Maybe should have examined different feedback techniques in combination (e.g., loss framings + visualization).
- ▶ The importance of visual imagery?

The good:

- ▶ 6 studies → 17 different feedback conditions. Yet consistent findings.
- ▶ Some indication of how other factors contribute (56% of explained variance)
- ▶ Made (some) progress towards considering application & theory simultaneously.

In conclusion...



- ▶ Clearly not the case:
Feedback → Energy Reductions
- ▶ More complex than this:
- ▶ Contribution of habits, motives, knowledge, subjective appraisals etc.
- ▶ Information strategies alone are not enough to shift behavioural intentions.

Study 2: Losses vs. Gains



You could save \$xx per year!



You are wasting \$xx per year!

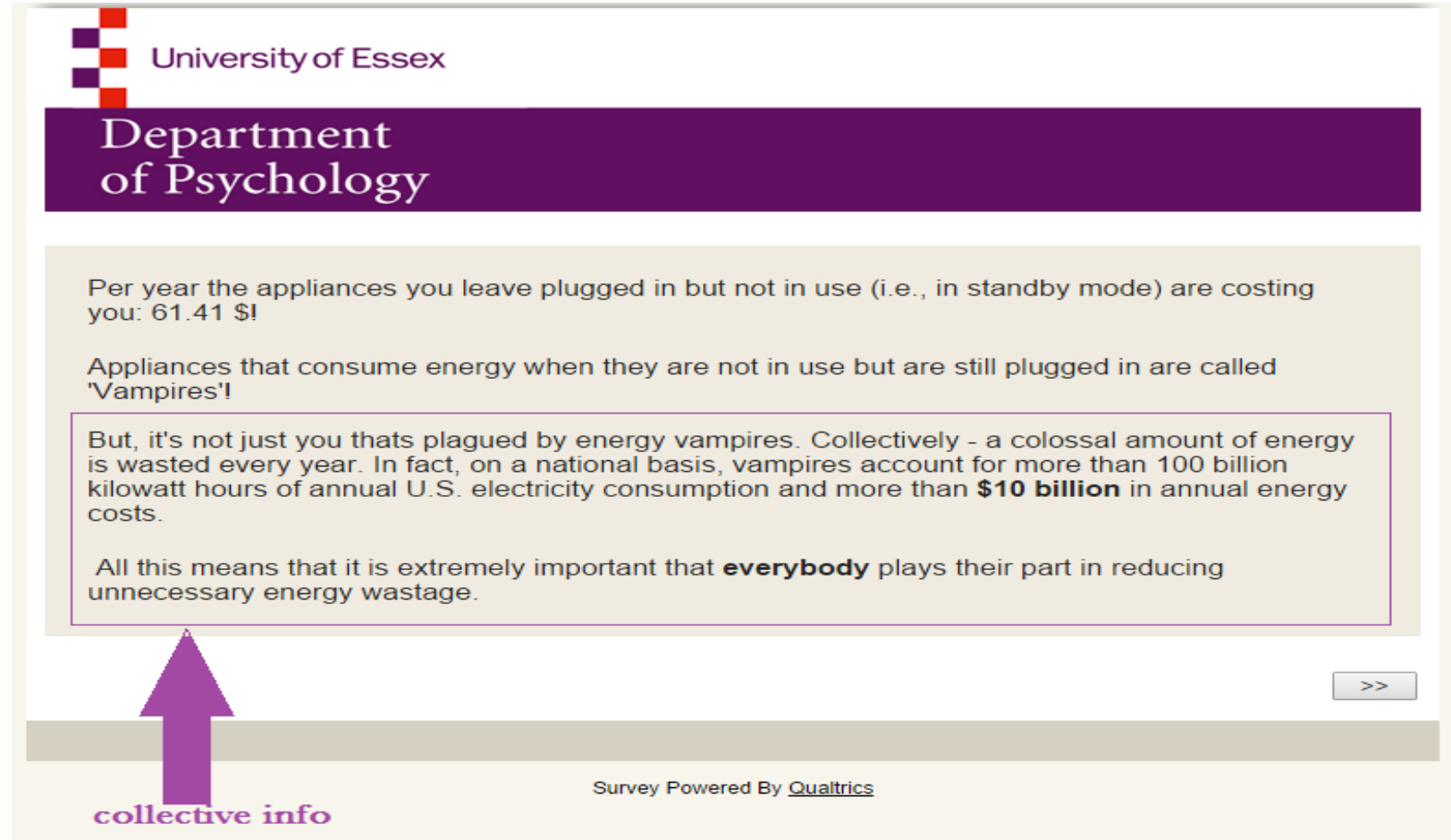
Study 3: Social Comparisons


“Per year the appliances you leave plugged in but not in use (i.e., in standby mode) are costing you: ___ \$! Appliances that consume energy when they are not in use but are still plugged in are called 'Vampires'!

Your energy vampire costs are LOWER than/comparable to/HIGHER than the average American home.”



Study 4: Bigger Collective Costs



 University of Essex

Department
of Psychology

Per year the appliances you leave plugged in but not in use (i.e., in standby mode) are costing you: 61.41 \$!

Appliances that consume energy when they are not in use but are still plugged in are called 'Vampires'!

But, it's not just you that's plagued by energy vampires. Collectively - a colossal amount of energy is wasted every year. In fact, on a national basis, vampires account for more than 100 billion kilowatt hours of annual U.S. electricity consumption and more than **\$10 billion** in annual energy costs.

All this means that it is extremely important that **everybody** plays their part in reducing unnecessary energy wastage.

>>

collective info

Survey Powered By [Qualtrics](#)

Study 5: Making money meaningful

Now, we'd like you to visualize what you could buy with this money. It could be one high value item or several small value items. The choice is yours. However, it is important that you picture something that you would actually like to purchase. When you've thought of something please describe it in detail in the box below.

Now, we'd like you to visualize what you could buy with this money. It could be one high value item or several small value items. The choice is yours.

However, it is important that you picture something that you would **NOT** really like to purchase. By this, we meant something that you would **NOT** be pleased to have. When you've thought of something please describe it in detail in the box below.

Pp imaginings...



Study 6: Making money meaningful II

		Imagine what you could buy that you...	
		NEED	WANT
Could purchase for....	MYSELF		
	OTHERS		