

Report on Master Thesis

Institute of Economic Studies, Faculty of Social Sciences, Charles University in Prague

Student:	Jan Novák
Advisor:	Milan Ščasný, PhD.
Title of the thesis:	Willingness to pay for green electricity

OVERALL ASSESSMENT *(provided in English, Czech, or Slovak):*

The thesis consists of nine chapters: Chapter 1 introduces the subject and relevant market. Next chapter provides a review of relevant empirical literature, while Chapter 4 presents the methodology. Next three chapters describe the experimental design, econometric model, the survey, the questionnaire and data. The results are provided in Chapter 8, and last chapter concludes. The thesis structure follows standard scientific style writing.

Thesis is well written. Key relevant literature is nicely and comprehensively reviewed and summarized. The analysis relies on appropriate standard methods that are properly used in the master thesis. Uniqueness of the thesis presents the data. Performed analysis uses 404 observations gathered through own survey and well designed research instrument that was properly tested and piloted.

This thesis analysis individual preferences of Czech consumers for green electricity applying the discrete choice experiments (DCE). It uses a unique and very rich data from own survey that was conducted in two regions in the Czech Republic. It specifically elicits individual preferences for a program based on a green residential electricity package that is characterised by certain volume of PM and CO₂ emissions, the size of public support to renewable energy (RE), and the location where the public support will be provided. These research is very new in CEE region, as there has not been any similar stated preference study conducted so far.

A novelty presents the study experimental design. The discrete choice experiments is using the pivotal design, that is, the level of energy bill attribute in the status quo is the household-specific, as computed from previously provided data in the questionnaire. This strategy increases reliability and validity of the instrument. The energy bill is then linked to the RE share resulting from the payments of higher energy bills. Next two attributes are linked to air quality improvements and climate change mitigation that are measured by reductions in PM emissions, or CO₂ emissions, respectively. The levels of these two environmental attributes vary independently, allowing to disentangle the effect of PM reduction from the CO₂ reduction. Last two attributes describe the design of the RES public program – first, who is the beneficiary of the program (households, municipalities and small firms, regions and medium sized companies, and large companies) and, second, to which entities the revenues from the higher energy bills will be provided (in the region where a respondent lives, or country-wide). The estimation results from the study are in line with prior expectations and are also in line with the findings from other literature. The experimental design of the DCE is very well prepared and presents another value of this thesis. The experimental design is based on the state-of-the-art efficiency D-design, when the priors as estimated from the pilot data are used to re-do the design in order to increase statistical efficiency of the econometric estimates. It implies that the estimates are quite robust even for quite small sample size. The sample size is, however, very huge (N=404) considering the fact that the research presents a student thesis.

Report on Master Thesis

Institute of Economic Studies, Faculty of Social Sciences, Charles University in Prague

Student:	Jan Novák
Advisor:	Milan Ščasný, PhD.
Title of the thesis:	Willingness to pay for green electricity

There are only a few conclusions that accuracy might be improved or the conclusions might be better (and strongly) formulated. First, sociodemographic variables, such as women, cannot have an effect on WTP (see page 62). Properly speaking, for example, women are associated with smaller or larger preference for certain attribute and are likely to pay more or less. Second, higher income is likely to increase implicit value of WTP, and not to decrease the WTP (see page 64). Third, in the case of statistically not significant coefficients in the MNL model, I would prefer not to report the implicit values of the WTP (see table 13-15). I also think that the results might be better and clearly described. Hope this will be done in forthcoming articles that, as far as I am informed, Jan is currently preparing.

Most of my main comments have been reflected in the final version of this thesis.

High quality of presented research can be supported by the fact that Jan Novák has received a research grant on this topic from *Charles University Grant Agency* (GAUK). Data collection was funded just from this grant.

In the case of successful defence, I recommend „výborně“ (excellent, 1), and suggest considering this thesis for the Faculty Dean award.

SUMMARY OF POINTS AWARDED (for details, see below):

CATEGORY	POINTS
<i>Literature</i> (max. 20 points)	20
<i>Methods</i> (max. 30 points)	30
<i>Contribution</i> (max. 30 points)	30
<i>Manuscript Form</i> (max. 20 points)	17
TOTAL POINTS (max. 100 points)	97
GRADE (1 – 2 – 3 – 4)	1

NAME OF THE REFEREE: Milan Ščasný

DATE OF EVALUATION: September 14, 2015

Referee Signature

