



Jun 26th, 10:40 AM - 12:00 PM

Are Interactive Web-Tools for the Public Worth the Effort? An Experimental Study on the Electricity Supply Transition in Switzerland

Georgios Xexakis

Renewable Energy Systems group, Faculty of Science - Department F.-A. Forel for Environmental and Aquatic Sciences - Institute for Environmental Sciences, University of Geneva, Switzerland,
georgios.xexakis@unige.ch

Evelina Trutnevyte

Renewable Energy Systems group, Faculty of Science - Department F.-A. Forel for Environmental and Aquatic Sciences - Institute for Environmental Sciences, University of Geneva, Switzerland,
evelina.trutnevyte@unige.ch

Follow this and additional works at: <https://scholarsarchive.byu.edu/iemssconference>

Xexakis, Georgios and Trutnevyte, Evelina, "Are Interactive Web-Tools for the Public Worth the Effort? An Experimental Study on the Electricity Supply Transition in Switzerland" (2018). *International Congress on Environmental Modelling and Software*. 76.

<https://scholarsarchive.byu.edu/iemssconference/2018/Stream-C/76>

This Oral Presentation (in session) is brought to you for free and open access by the Civil and Environmental Engineering at BYU ScholarsArchive. It has been accepted for inclusion in International Congress on Environmental Modelling and Software by an authorized administrator of BYU ScholarsArchive. For more information, please contact scholarsarchive@byu.edu, ellen_amatangelo@byu.edu.

Are Interactive Web-Tools for the Public Worth the Effort? An Experimental Study on the Electricity Supply Transition in Switzerland

Georgios Xexakis^{a,b}, Evelina Trutnevyte^{a,c}

^aRenewable Energy Systems group, Faculty of Science - Department F.-A. Forel for Environmental and Aquatic Sciences - Institute for Environmental Sciences, University of Geneva, Switzerland

^bgeorgios.xexakis@unige.ch ^cevelina.trutnevyte@unige.ch

Abstract: Interactive web-tools are a recent trend in decision support and participatory modeling. They are often regarded as powerful methods to familiarize the public with complex problems and allow for more active and enjoyable learning. They have been even suggested to have potential in lifting barriers to communicate uncertainty. Nevertheless, including interactivity is much more resource consuming than traditional methods and, in some cases, may even undermine or complicate the communication further. Although studies exist on how to design and assess interactive web-tools, there is little empirical evidence whether they can be more effective, in comparison with a static medium. We study this in the case of informing non-experts about the Swiss electricity supply scenarios for 2035 along with related impacts on public health, safety, built and natural environment. We conduct a 2x2 factorial experiment, using an online survey in Switzerland (N=400 total). The two factors of the study include: (1) the information format which can be a static website or a web-based RISKMETER tool we have developed and (2) whether or not uncertainty about the impacts on public health, safety, built and natural environment is present. We measure and compare across all groups the knowledge gained (both tested and self-reported), interest and perceived reliability of information. Our results shed more light on the pros and cons of each format, contribute to the discussion of using interactive web-tools in a scientific context and support scientists and policymakers in designing their communication strategies.

Keywords: interactive web-tools; decision support; uncertainty; environmental, health and safety risks;