Climate Policy: Public Acceptance Necessary?

Justin Lepitzki

Dr. Jonn Axsen’s article, published in Policy Options in January 2015, looks at climate policy and citizen awareness. It challenges the idea that active citizen support is particularly important for successful climate policy. Many environmental groups and advocates subscribe to the “knowledge deficit” model. The model follows from the belief that citizens do not prioritize climate change because they are uninformed about climate science, and unaware about different policy options. The implied solution is to provide citizens with information to fill in the deficit, thus having them rally for effective climate policy. Meaning, public support must be active, and can be generated by providing information. The empirical results of Dr. Jonn Axsen and colleagues’ study provide evidence to the contrary. They show that effective climate policy can and has been implemented without public awareness. In fact, the lack of awareness may imply a broad level of support known as passive public support.

Their study surveyed a representative sample of 475 BC citizens to assess awareness, knowledge and support of existing BC climate policies. First, they found that the majority of BC citizens are unaware of the climate policies in place in the province. Just over 25% of respondents mentioned the carbon tax, but the remaining policies were virtually unknown by 98 to 99% of the sample. However, despite the lack of awareness, the vast majority of respondents (80 to 90%) stated that they were in favor of the policies once they were explained. Only the most well-known policy, the carbon tax, was controversial in that 56% were supportive.

The survey then tested the “knowledge deficit” model by providing more information about the effectiveness of each policy in terms of emissions reductions. The results showed no statistical effect on respondents’ stated support for three of the policies, and it significantly decreased support for the other two: the low-carbon fuel standard and the carbon-neutral government. Meaning, the study found no evidence for the knowledge deficit model. In fact, information provision might actually reduce citizen support.

This is a substantial finding for climate policy advocates and policy-makers alike. As Jonn Axsen explains, “While the provision of information is still likely to play some positive role in the general efforts to enact climate policy, perhaps it should not be the central strategy. Effort might be better directed to informing policy-makers that some effective climate policies are already politically acceptable.” From this study, it seems beneficial to prioritize the policies that are more effective and least politically...
controversial. While this means that a strong national carbon tax is unlikely to be enacted, there are still many other policy options that are likely to gain the “passive support” of Canadian citizens.

**Public Charging Infrastructure’s Influence**

**Joseph Bailey**

Policymakers often seek to increase the visibility of plug-in electric vehicle (PEV) chargers in public locations in effort to build familiarity and interest in PEVs. However, it is not clear if the visibility of public charging stations actually has an impact on PEV demand. Our study aimed to 1) assess the current levels of visibility for public PEV charging infrastructure within Canada, and (2) identify whether or not a statistically significant relationship exists between consumer awareness of public charging infrastructure and interest in purchasing a PEV. This study used data collected from a sample of 1739 Canadian new-vehicle buyers in 2013. It was found that about 18% of Canadian respondents had seen at least one public charger, while the proportion was highest in British Columbia (31%). A significant bivariate relationship between public charger awareness and PEV interest was also found. However, when controlling for multiple explanatory variables in regression analyses, the relationship was weak or non-existent. While perceived existence of at least one charger exhibited no significant relationship with PEV interest, perceived existence of multiple chargers did have a weak but significant relationship. This study found that public charger awareness was not a strong predictor of PEV interest; other variables such as the availability of level 1 (110/120-volt) charging at home were more important. See the published paper at [http://bit.ly/1chVmqZ](http://bit.ly/1chVmqZ). See media coverage of this study here [http://bit.ly/1LHU1Gz](http://bit.ly/1LHU1Gz).

**Jaccard’s European Modelling Adventure**

**Mark Jaccard**

In late April, Mark traveled to London and then Copenhagen to participate in workshops on energy-economy modelling of climate policies and energy efficiency strategies. In London, he was the keynote speaker at a workshop organized by University College London called “Including Behaviour in Energy-Engineering-Economy-Environment Models” and his talk was titled “How Much Behaviour and What Type is Useful?” He talked about innovations that EMRG has developed over the past 15 years to not only show how non-cost factors (risk, intangible benefits, time preference) can influence technology and fuel choices, but also to show how these factors can be dynamic over time, especially because of what some modellers call “the neighbour effect.” There was a lot of interest in Mark’s talk and he was pleased to see that many young modellers - even optimization modellers - are beginning to introduce some of these earlier innovations of EMRG into their models.

Mark then travelled to Copenhagen for the kick-off meeting of SAVE-E, a project funded by the Danish government to assess the potential for continued improvements in energy efficiency, with a focus on Denmark. In this new 4-year project, Mark’s responsibility involves assessing the macro-economic implications of energy saving policies, but he will also be involved in several other segments related to estimating the cost-effective potential for energy efficiency and modelling the effectiveness of various types of energy efficiency policies. Mark agreed to this project, in part because he and the project leader, Henrik Klinge Jacobsen of the Danish Technical University, intend to develop a Canada-Denmark research cooperation that will include exchange of graduate students, post-docs and research assistants. New EMRG students get ready!

**EMRG Student Joins Climate Corps**

Master’s Student Maxwell Sykes will be joining the Environmental Defense Fund’s Climate Corps program for the summer. Started in 2008, Climate Corps places graduate students in public, private, and non-profit organizations across the U.S. and China. EDF started the
program upon realizing that it was organizational rather than technological barriers that were getting in the way of clearly profitable energy efficiency investments. Fellows help their host organizations identify, evaluate, and implement projects related to energy efficiency, renewable energy, sustainability strategy, and more. EDF’s goal with the program is to help facilitate the transformation to an efficient and low carbon economy by demonstrating the value that can be created through environmental initiatives. Maxwell will be in Austin, TX helping the Austin Independent School District understand their historical energy and water use, evaluate and benchmark their performance, analyze options to improve performance, and make recommendations based on financial return and energy and water savings. Learn more about Climate Corps or become a host organization at http://edfclimatecorps.org.

**May Workshops and Conferences**

**Dominique Atherley**

May has been a busy month for Dr. Jonn Axsen and Research Associate Suzanne Goldberg. SFU hosted the third annual Electric Vehicle workshop on May 7-8 with researchers from University of Victoria, BCIT and UBC. The objective of the workshop was to share research objectives, findings and next steps on electric vehicle related research funded by a joint NRCan ECOII grant. Presentation topics included “PEV Perceptions and confusion”, “PEV owners perspectives”, “Forecasting the market share of EVs”, “Smart Integration of EVs in BC”, “Usage patterns of EV Stations”, and “PEV infrastructure at BCIT and its connection to renewable energy and energy storage”, among many others.

Dr. Axsen and Suzanne Goldberg also attended the Renewable Cities "Global Learning Forum" from May 13 -15. They ran a workshop the morning of May 14, titled “Life is an electric highway: A review of successful EV uptake policies globally”. The goal of this workshop was to discuss policies that can induce significant PEV deployment and the role of the City in the PEV deployment process. Dr. Axsen was also on the plenary panel the afternoon of May 14, where they discussed trends, innovations, and barriers in electrifying transportation. More details about the forum are available at http://forum.renewablecities.ca.

To complete their busy month, Suzanne Goldberg presented at the EVVE Conference in Halifax on May 25 where the theme was “EVs Coast to Coast: Innovation & Infrastructure”. Her presentation was on EMRG’s Canadian Plug-in EV Study (CPEVS). More details about the conference are available at http://emc-mec.ca/ev2015ve/. In addition to the presentation, Dr. Axsen published an early release of the CPEVS 2015 report on May 25. It is available at http://rem-main.remsfu.ca/papers/jaxsen/Electrifying_Vehicle_(Early_Release)-The_2015_Canadian_Plug-in_Electric_Vehicle_Study.pdf. The final version will be published in mid-June.

**EMRG Graduate Students Defend**

The past few months have been busy for some EMRG members. Two EMRG graduate students recently defended their theses:

*“Socio-political acceptance of smart grid as a tool to mitigate climate change”*

**Derek Peters** used British Columbia as a case study to explore socio-political acceptance of smart grid as a tool to mitigate climate change. He collected and analyzed data from the BC context via interviews with key stakeholders, media analysis of newspaper articles (from 2006-2012), and a survey of Canadian
citizens implemented in 2013 (n = 2930). He found that key stakeholders and media in BC focus much more on economic frames (e.g., reducing electricity costs) than environmental frames (e.g., climate abatement), and news media mention risks more often than benefits. The survey indicates that citizen acceptance of smart meters (one particular smart grid technology) is lower in BC than in Alberta and Ontario, but acceptance increases in all provincial samples when smart meters were framed according to environmental and economic benefits. In summary, smart grid deployment in BC is tending to neglect smart grid environmental benefits – including these factors might help to stimulate citizen support.

“Assessing Oil-Related Investments Under a 2ºC Global Objective”

James Hoffele’s research project analyzes the impact an international effort to stay within the 2ºC climate constraint would have on global oil markets to 2050, with a focus on the economic outlook for Canadian oil sands investments. The approach involves (1) an historical analysis of past oil market conditions; (2) a survey of world-class energy-economy-emissions modeling groups; (3) a review of the latest analysis of the 2ºC constraint conducted using these models; and (4) development of a graphics technique to illustrate a number of key relationships. The modeling results predict a rising carbon price on emissions would cause global oil demand to fall from almost 90 million barrels per day in 2014 to 63 in 2050. The falling demand would lead the average world oil price to fall below $40 per barrel well before 2050. He found the combination of low oil prices and higher production costs for relatively emission-intensive oil sands would render uneconomic new investment to further develop this resource, even in the near future.

EMRG Postdoctoral Fellow Awarded SSHRC

EMRG’s Postdoctoral Fellow, Nichole Dusyk, was recently awarded a two-year postdoctoral fellowship by the Social Science and Humanities Research Council. SSHRC is a federal research funding agency and supports research in the humanities and social sciences. This fellowship will support her postdoctoral research project, titled “Democratic Participation in the Era of Unconventional Fossil Fuels”.

EMRG Graduates in the Workforce

Danette Moule has had a busy spring of presenting her research, “Exploring pro-environmental lifestyles and values in Canada”, and has now accepted a new job in Alberta. In February, she presented at the CONFORWest Graduate Student Conference where she received an award for “Work most likely to positively impact the world”. She also presented her research at Selkirk College (Castlegar Campus) in February and the Interdisciplinary Graduate Student Conference in May. Danette has accepted the position of Sustainability Coordinator with the town of Drayton Valley, AB. She will be implementing their ambitious sustainability plan starting June 22.

Contact Us

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