

**A Decade of Emissions Trading in the European Union:  
Lessons for Canada**

March 2016



By

Aviva Silburt

PhD student

Global Governance Program

Balsillie School of International Affairs

Dr. Miranda Schreurs, Professor of Comparative Politics and Director of the Environmental Policy Research Centre and at the Freie Universität Berlin, was one of several invited speakers participating in the [Climate Choices Canada](#) conference that took place February 18 to 20, 2016 at the Balsillie School of International Affairs. Dr. Schreurs shared her insights on climate policy in multi-level governance systems by comparing and contrasting the Canadian context with Germany and the European Union.

Dr. Schreurs has published numerous books and journal articles on climate policy, renewable energy cooperation, ethics and nuclear energy policy, and environmental politics. She has also served on a number of high level international and national advisory boards, including the European Environment and Sustainable Development Advisory Councils and the German Ethics Commission on a Safe Energy Supply and the Berlin Climate Change Advisory Council.

Aviva Silburt, a PhD student in Global Governance at the Balsillie School of International Affairs had an opportunity to chat one-on-one with Dr. Schreurs and learn more about the European Union's climate change policy regime and identify lessons from the European experience that will be valuable for Canada in formulating next steps on climate change policy.

*AVIVA SILBURT:* The European Union operates the world's largest cap and trade system, covering everything from power stations to manufacturing plants in 28 EU member states (as well as Iceland, Liechtenstein and Norway). For those who are unfamiliar with European climate policy, could you outline the main features of the [EU-Emissions-Trading System](#) and briefly describe how it works?

*DR. MIRANDA SCHREURS:* The Emissions Trading System (ETS) was established with the idea that industry should be able to have flexibility in how they reduce emissions. The system is based on the introduction of a "cap" or limit on the overall amount of greenhouse gas emissions (carbon dioxide) that can be emitted within the system, and emissions rights or "allowances" are allocated to emitters. Over time, the overall "cap" is lowered and the number of "allowances" allocated is reduced so that cost of carbon dioxide pollution increases, creating an incentive for polluters to reduce their emissions.

The EU-ETS initially focused on power utilities and major corporations, and over 11,000 firms are covered under the system, ranging from steel and glass manufacturers to chemical industries. It does not cover transportation, agriculture, households, though it was recently expanded to cover [airline-related emissions](#), which received significant opposition by other countries. All flights that arrive in, and depart from, Europe are included. Air and marine transportation was not included in the [agreement signed in Paris in November 2015](#), so coverage is not yet global, but these suggest areas for future climate change policy and action.

The EU-ETS is one of several climate change [instruments in place in the EU](#). Other instruments include directives that mandate EU member states to achieve energy-efficiency standards, or renewable energy targets.

*AVIVA SILBURT:* The EU-Emissions Trading System has been in place for a decade (since 2005). Has it been a success overall? What have been the biggest challenges, and how have they been addressed?

*DR. MIRANDA SCHREURS:* The EU-ETS has had some impact in reducing emissions, with estimates attributing 3 to 4 percent the EU's emissions reductions to the ETS. However, it is difficult to distinguish impact of the ETS from other instruments in the EU climate change regime.

When the ETS was originally designed, industry was asked how many allowances it needed. Industry provided an overestimation, which resulted in a huge over-allocation in allowances for the system. As a result, the cost of polluting was very cheap. The economists that designed the system envisioned that the price of allowances would increase over time to about \$30 (US) per tonne (of carbon dioxide), but in practice, the price has never been higher than the low "teens". In recent years, the price has been averaging \$4 to \$6 (US) per tonne. The major reason for the decline in price was the [economic downturn](#), which led to a decrease in demand for emissions allowances and further compounded the over-allocation problem. To address these issues, the EU temporarily removed a portion of the allowances from the ETS, placing them in a reserve (the "[Market Stability Reserve](#)"). The allowances will eventually be re-introduced into the system, though the EU would like to restrict the introduction of new allowances starting in 2020 to 2022 in order to drive up the allowance price.

A second major challenge has been ensuring effective monitoring, to prevent cheating in the system. [There have been abuses](#), including false reporting. Systems to monitor behaviour, ensure accurate reporting, and penalize abuses are needed.

When considering the success of the ETS, a third relevant factor is the relationship between the ETS and the EU's efforts to develop renewable energy sources. The ETS includes an allowance for emissions reductions achieved through "[flexibility mechanisms](#)" under the [Kyoto Protocol](#), meaning that companies can get credits for promoting renewable energy, for example. There is concern that the ETS-renewables linkage might not actually lead to a reduction in carbon dioxide emissions in the long-run, because it is not addressing the key sources of pollution and is instead focusing on other things, such as energy efficiency improvements, or renewable energy. While the advantage of the EU-ETS is that it is cost effective, especially for industry, there is a concern that it has diverted attention from emissions reductions to other things.

However, the EU has been very proactive about sharing its experiences with the world, about the benefits of the ETS as well as the EU's challenges. It is not surprising that these challenges would arise, because the EU system is the first of its kind for carbon dioxide. There has been a lot of learning, and the EU has undertaken measures to address these challenges, for example, on improved monitoring. Regarding the over-allocation issues, the ETS model is changing over time, and the EU is moving to a [new auction-based model](#). This model is currently in place in the [Quebec-California trading system](#); it is also used in the [Regional Greenhouse Gas Initiative \(RGGI\)](#). This kind of system is less easily politically manipulated, and enables prices to be determined by the market.

In terms of the general outlook for the ETS, prices have gone up a bit because of the removal of allowances from the system, but the current low oil, gas, and coal prices are countering the benefits of the recent changes made to improve the system. If you would ask Europeans right now about the effectiveness of the ETS, I think they would question whether it is the answer. Many people would say that it sounded really good on paper, but that the European experience has not been particularly great.

*AVIVA SILBURT:* Canada does not (yet) have a nation-wide, carbon pricing system in place to encourage emissions reductions. Instead, provinces have introduced their own initiatives independently. It appears that [Ontario and Manitoba intend to join Quebec](#) in introducing their own provincial cap and trade systems, linked in some way to each other (and possibly to California).

What can we learn from the EU's experience to inform the decentralized approach to climate change policy that is unfolding in Canada? Is there a role for the federal government in organizing or coordinating such a system?

*DR. MIRANDA SCHREURS:* What's interesting is that [emissions trading systems are emerging all around the world](#). For example, the city of [Tokyo](#) has an emissions trading system, and is currently the only city in the world with such a system. This is a smaller-scale, decentralized system, so there are lessons to be learned here, and [China](#) is working to develop a system, and there is California, and RGGI. So despite Europe's challenges, the emissions trading idea is taking off. In a way, with the rapid emergence of these systems, now is the time to get started. Getting in early has an advantage, because the cost of permits will be more expensive in the future.

Many of the systems in other countries have begun as decentralized systems. For example, China is experimenting with [local-level systems](#) and scaling-up nationally. So the current approach in Canada might not be such a bad thing.

There can be a role for the federal government, but there doesn't "need" to be one. In the California system, it is decentralized, and the federal government is not involved. This could be an option for Canada. But, one of the benefits of having a federal system, is the ability to balance the benefits. What I expect to see in the United States is that California will move ahead so fast and imbalances will start emerging, and other states may start losing out by not being part of the system.

The federal government could have a valuable role in coordinating and harmonizing rules and standards across provincial systems. Should other provinces decide to adopt independent emissions trading systems with different rules, regulations, standards, which would create inefficiencies and added costs in terms of administration. Federal government involvement at an earlier stage could help address those issues and help save costs.

*AVIVA SILBURT:* The [U.S. Supreme Court's recent decision](#) to temporarily block regulations for emissions from coal-fired power plants raises doubt about the potential of President Obama's efforts to curtail coal burning through executive order. Given that Canada's economy is so

tightly linked to the U.S., and its policies so closely aligned, is it reasonable to expect that Canada can pursue a climate change policy radically different from that south of the border? What insights from the European inform your perspective?

*DR. MIRANDA SCHREURS:* The fact that the U.S. Supreme Court has issued a stay on the implementation of President Obama's executive order on clean power plants does not mean that there will be no movement. The signal to industry is still there. Even though there is uncertainty about the status of the regulations, industry still needs to think about its long-term investment strategies. Should the Supreme Court eventually rule in favor of the regulation, industry would be in a tough place if they did not start moving early. There will be some movement regardless of what happens with the Supreme Court system, even though there is currently some uncertainty.

The other important point is that the U.S. needs to think about its international obligations, and not just domestic policy. When the U.S. went to Paris, it went with the understanding that it was striking deals with other countries, like China. If the U.S. does not follow through with its international commitments, other countries like China or India are unlikely to uphold their commitments. It raises the question of whether the U.S. is a credible negotiator, which is a heavy price to pay in terms of its implications for other heavy emitters like China and India. So there will be pressure for the U.S. to make changes regardless.

But it is a challenging situation for the U.S., which means it is a challenging situation for Canada, because Canada has tended to follow the U.S. on climate policy. However, there is a difference because Canada has already decided to introduce [regulations on coal-fired power plants](#). So Canada is ahead here.

If you ask me, this is a chance for Canada. Canada has the opportunity to be what it was 10 to 15 years ago, when it was seen as a global leader on sustainable development. Unfortunately, over the last 10 years, Canada has lost that image. Canada now has a chance to regain it. There is an advantage to this strategy because it could lead to new investments or help diversify its economy. What would be deadly for Canada is to remain too focused on a resource extraction economy, because in the long run, the volatility of the market and price swings, will really hit the Canadian economy. We are seeing the effects of this now with the current low oil prices. A more diverse economy creates more resilience to these shocks. So this could be a chance for Canada to become a player in a range of new and emerging technologies for the green economy and the future. The U.S. needs to do this too, but let Canada be the early mover.

The [Climate Choices Canada](#) conference has been a terrific opportunity to think about Canada should do, what it can do, and how it is going to reduce emissions. It has been wonderful to see that these conversations are taking place, because Canada is one of the big emitters, and if big emitters are not acting, we cannot expect other countries to act either. I look forward to seeing what happens next.

*We would like to thank Dr. Schreurs for taking time out her short visit to Waterloo to share her insights about the European Union and her perspective on climate policy in Canada with the Viessmann European Research Centre.*