TSPN Climate Action Panel – Discussed Topics

March 2019

Carbon Pricing

The panelists emphasized that carbon pricing, where the polluter pays, is an old policy instrument and proven to work in many environmental instances (e.g. Acid rain, Ozone hole). Properly designed and executed, carbon pricing is one of the - if not the - most efficient near-term policy to provide an important and strong economic signal to society, communities, and businesses to make the required changes to limit global warming.

What is seen as problematic, is the narrative and miss-communication around carbon pricing – specifically that it is called a tax and that the topic has become very politicized. In fact, carbon pricing is revenue neutral and all payments for carbon are regrouped: the majority returns to the individual via tax return while a small portion is returned to e.g. schools, municipalities, and used for projects to help us decarbonize our future.

To find a price for carbon, the panelists all agree that the primary decision for a price should come from industry. Industry is particularly uncomfortable with uncertainty, and uncertainty is a major inhibitor for investment. If uncertainty is removed by a definite price on carbon, proper investment decisions can be made and will be made by industry. Ideally, the first iteration for a price on carbon is provided by industry with contributions to the decision from all sectors including e.g. economy, agriculture and transport. The procedure where industry decided a price has worked in the past, e.g. for CFCs to protect the ozone layer, and governments should provide the necessary parameters. Additionally, one should also see the many areas e.g. clean technology, entrepreneurs in farming and forestation etc. who could see a new revenue stream associated with carbon. A carbon price should also be implemented for the financial sector to promote e.g. green mortgages and green homes. Overall, the design of the program is crucial for its success.

The moderator notes that from the panelists answers there are a lot of success stories already on carbon pricing and that it is not the first issue where market mechanisms were applied. Nevertheless, there is still a lot to be worked out and carbon pricing is not the only solution for climate change. Indeed, we need complementary policies, measures and instruments to see a real change. This change has to happen in all aspects of life: How we work, travel, do business, farm and forest, to name a few.

Cap-and-Trade

The trading piece allows for the opportunities to align and link different programs and to find tools of lower cost. There are numerous opportunities that may not be realized within borders but may become possible through cap and trade programs.

It was noted that the cap and trade system in Ontario was well designed in many ways, as it was linked to Quebec and California for a harmonized GHG market. Investors were active, they

were engaged and there where many requests about more information for business opportunities in Ontario under the cap and trade system. Loosing this program is a lost opportunity for business development in Ontario.

Geoengineering

To limit global warming to below 1.5°C or to reduce temperatures in the likely case we overshoot the 1.5°C or even higher temperatures, we need to consider many solutions. Carbon pricing and geoengineering among other possible solutions are not mutually exclusive. There are already several good initiatives and promising technology developments in the geoengineering sphere and, compared to only a few years ago, geoengineering is less considered unimaginable. This is perhaps partly caused by the realization that came with the IPCC special report (SR1.5) that geoengineering, specifically carbon sequestration, is required in the scenarios to keep warming below 1.5°C.

What is needed to move forward on geoengineering technologies is further development, government funding and policy around geoengineering. For scaled up sequestration, including bio sequestration (forestry), significant investment is needed. At the UN climate talks (COP 24) in December 2018, there was considerably thoughtful discussion around governance for geoengineering. As geoengineering becomes quite real, carbon capture and storage are ways to further explore and opportunities may specifically arise where business, academia and government are working together. Geoengineering is a space to watch, although it has trade-offs, e.g. it is extremely costly. And at this point it is unclear how fast technologies can be implemented; while there are great technologies being developed and we have faith in technology, to take action today, geoengineering is probably no the right discourse.

Despite the possibility of geoengineering, mitigation of global warming should not be neglected.

Infrastructure/Design

When it comes to infrastructure, the panelists stress that we need to think about the future – the buildings and infrastructure we build today will be locked in for decades. There are still infrastructure projects being developed without a **climate lens.** However, to adapt and be ready for the future this climate lens is urgently needed e.g. when designing efficient energy distribution such as district energy, heating and cooling. Some current projects are already applying a climate lens, however possible solutions are not yet utilized to the full extend.

Another big infrastructure piece is the design of roads. When we build or improve roads, we need to envision the future – how the world may look like in 2050. Will we have as many cars on the road as now? In general, for the transportation sector, electrification will be a big piece and we need to include this in our designs we develop today.

What is needed to make proper infrastructure decisions are robust emission data to understand the projected emission and to accordingly design our infrastructure for the future.

Then we also need the **resilience lens** to make sure that the infrastructure that we design is going to be resilient over the next 30 or 50 years.

Individual vs Collective Action

The power of the individual is huge – but collaboration is key and needs to happen quickly.

The Fridays For Future Movement inspired by Swedish student Greta Thunberg was mentioned by the panelists and nearly every member of the audience has heard about Greta Thunberg and the Youth Strikes for Climate. However, it was noted that there is not as much awareness about the Fridays For Future movement here in Canada. An audience member points out that there are Climate Strikes in Toronto since November 2018; however, not much was seen in media about the local and global climate strike movement. The panelists emphasize that these youth leaders need to be applauded and that they will take bold environmental action when they become leaders and elected officials. But bold action must happen NOW and this is up to the current leaders to hear the voices of the youth and to make proper decisions today.

It's very difficult for us to think we individually will change some decisions that we make in our daily lives and we have enough impact on the climate agenda at the timeline that we need to. It is clear, that one company or person cannot solve climate change alone and it has to be multifaceted with lots of different players. However, movements and solution ideas can start with one or two people and then grow to a massive initiative. What is important, is that action must scale.

Education & Training

In education and training, we need to ensure that we create the educational programs for people to gain the relevant skills needed in the future where the climate solutions we identify now are being implemented. This transition in academia needs to happen faster as it currently does. If programs are well designed to prepare or re-train people for the future job market and skills needed, it will take away the tension of economic repercussions, where people if not trained properly may become trapped in old industries. The priority of academic institutions must be that people are graduating with deep technical skills needed in the future. Climate change will affect everything on the planet and so it will also change how we do academia. It just must be part of everyone's perspective.