HOW MARKETS CAN MOVE THE NEEDLE ON CLIMATE CHANGE

As emission trading systems (ETSs) continue to develop around the world, it is important for policymakers to recognise the growth of corporate renewable energy procurement and voluntary renewable energy markets.
GOVERNMENTS, together with leading global companies, are creating instruments and policy options that facilitate the voluntary procurement and purchasing of renewable energy by residential and large commercial customers. This private-sector support for renewable energy can produce environmental and economic benefits beyond what can be achieved through regulation.

In recent years, a number of countries have seen growth in their voluntary renewable energy markets and infrastructure, including Chile, China, India, Japan, Mexico, Singapore, Taiwan and the United Arab Emirates, among others. Carbon markets are often being considered or actively developed in these same places, but when an ETS includes the power sector, it can change the benefits and impact of voluntary and corporate renewable energy procurement. ETSs may also impede voluntary demand, which can be an important driver of renewable energy development and emissions reductions.

Policymakers and corporate purchasers should understand how ETSs (and other carbon regulations in the power sector) affect the benefits of voluntary renewable energy use, and the proven solutions that exist to ensure that voluntary and corporate purchasers of renewable energy can make a difference under an ETS.

THE POTENTIAL OF VOLUNTARY RENEWABLE ENERGY MARKETS
Among many large companies, there is growing demand for renewable electricity from sources like wind, solar, hydropower, geothermal, and biomass. These companies are looking to demonstrate environmental leadership, reduce their carbon footprints, and get recognition from green certification programmes. Increasingly, these companies are also looking to save money, as renewable electricity has become cost competitive. Hundreds of companies have made renewable energy commitments through initiatives like RE100 over the past five years alone.

In the US, the voluntary market for renewable energy is nearly 20 years old and has experienced tremendous growth. In 2016, over six million electricity customers across the country procured about 95 million megawatt-hours of green power, which is about the amount of total electricity consumption in the state of Louisiana, or 2% of total US electricity sales. The market is also growing at more than 10% per year, representing a significant driver for new renewable generation capacity across the US. In 2015 and 2016, the majority of renewable capacity additions in the US — 60% and 55% respectively — were made outside of state-mandated renewable energy requirements.

Companies and governments alike have realised that the success of the national voluntary market in the US is replicable in other countries, provided that voluntary buyers can make credible, exclusive usage claims and have an impact on renewable energy development and emissions reductions beyond what is required by law.

Corporate support for renewable energy can produce environmental and economic benefits beyond what can be achieved through regulation.

WHERE VOLUNTARY RENEWABLE ENERGY AND EMISSIONS TRADING INTERSECT
Cap-and-trade systems often cover the power sector, since power generation is a significant source of CO2 emissions. In this case, carbon and renewable electricity markets can coexist and both contribute to climate goals.

Broadly speaking, “source-based” carbon systems, including ETSs, do not affect voluntary buyers’ claims of renewable energy generation that has lower or zero carbon emissions.

But these systems do affect whether voluntary purchasing activity is driving carbon emissions reductions beyond what is already required — that is, whether voluntary generation and purchasing is making a difference on climate change.

Under an ETS, while renewable electricity generation reduces emissions from the sector, it does not affect the overall level of emissions that is allowed by regulation (i.e., the cap). Emissions cannot exceed this overall level and emissions reduced below it can be reversed, or emitted, elsewhere. Renewable energy simply frees up room under the cap. In addition, emissions reductions due to renewable energy are automatically counted toward compliance by the regulated entities, and renewable energy generation effectively makes it easier for regulated entities to comply.

**A RISK TO VOLUNTARY DEMAND AND PRIVATE INVESTMENT**

Historically in the US, it has been important to voluntary buyers and investors that their renewable energy not only generates lower or zero emissions (which they can report in Scope 2 of their corporate carbon footprint, for example), but also that their renewable energy has some impact—that it is reducing emissions beyond what is already required and not subsidising compliance for fossil fuel generators.

In order receive these benefits from renewable generation in a region with an ETS, voluntary buyers would also need to purchase and retire emissions allowances, which is the only way to affect the level of emissions. This additional requirement could incur a significant increase in the price of voluntary renewable energy. As a result, voluntary demand for renewable energy may suffer under an ETS, either due to a lack of benefits or the price increase.

Whether voluntary demand declines or the emissions reductions from voluntary renewable energy are captured under the cap, a significant amount of additional emissions reductions are being left on the table.

**SETTING ASIDE ALLOWANCES FOR VOLUNTARY RENEWABLE ENERGY**

To encourage voluntary demand and remove a significant barrier to private investment and the development of renewable energy, emissions trading programmes can actually lower the cap on behalf of voluntary renewable energy generation. They can include allowance “set-asides” (sometimes called reserves), in which allowances are quite literally set aside and periodically retired on behalf of the voluntary market, which effectively lowers the cap. Set-asides counteract the automatic counting of emissions reductions associated with voluntary renewable energy and explicitly recognise emissions reductions from voluntary renewable energy as incremental to what would otherwise be achieved through the ETS.

Historically, the cost of these set-asides has been minimal for regulated entities, since the decrease in supply of allowances (and corresponding increase in price) is offset by the decrease in demand for allowances due to reductions from voluntary renewable energy (and corresponding decrease in price).

Voluntary renewable energy markets and ETSs are expanding around the world as complementary initiatives that can reduce carbon emissions. They can coexist, but voluntary renewable energy should be a separate driver of emissions reductions, so that voluntary buyers can move the needle with their investments. Otherwise, emissions reductions and private investment dollars may be squandered. There are proven examples of successful policy mechanisms that set aside and retire emissions allowances on behalf of voluntary and corporate renewable energy in both California and states participating in the Regional Greenhouse Gas Initiative in the US. Policymakers can use these as models for their own programmes, and corporate buyers can advocate for this type of mechanism to sustain and increase their impact in regions with an ETS.

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