CAP AND TRADE

# INTRODUCTION

This short review is meant to help understand the Cap and Trade markets that exist around the world with a focus on the EU Emission Trading System (EU-ETS). ETS, the largest of the two of its kind, the second being the Regional Greenhouse Gas Initiative (RGGI) in the United States to a lesser degree in terms of size, ambitions, and complexity; and both have shown positive results. The ETS helped EU countries reduce their Greenhouse Gas (GHG) emission targets without hindering their economies. In fact European economies registered growth during the same period and EU was able to meet its Kyoto protocol commitments. The U.S has not ratified the Kyoto protocol therefore does not have emission reduction obligation vis-à-vis the treaty yet there are few state and inter-state initiatives Cap and Trade markets which also shown positive results.

# WHAT ARE THE EXISTING US CAPE-AND-TRADE SYSTEMS?

There are four main market based cap-and-trade programs in the US[[1]](#footnote-1) which are government initiated and designed to reduce greenhouse gases such as SO2 (sulfur Dioxide) and NOx (Nitrogen Dioxide) but not CO2 (Carbon Dioxide). These programs are:

1. The Clean Air Interstate Rule (CAIR), created in 2005 by EPA to build on the successes of the below programs to maximize additional GHG emission reductions. It requires 28 eastern states to make reductions in sulfur dioxide (SO2) and nitrogen oxides (NOX) emissions that contribute to unhealthy levels of fine particle and ozone pollution in downwind states.
2. Clean Air Visibility Rule (CAVR) which was created in 2006 and designed to offer ways to apply Best Alternative Retrofit Technology (BART) to reduce haze.
3. The Acid Rain Program (ARP)\_ national wide program\_ created under Title IV of the 1990 Clean Air Act Amendments to reduce the adverse effects of acid deposition through reductions in annual emissions of S02 and NOx, and
4. The NOx Budget Trading Program \_Regional program in the Northeast\_ which was designed to reduce NOx emissions during the ozone season.

All these programs are considered a success in that their markets are functioning well and are reducing greenhouse gas emissions.

There are other local cap-and-trade programs in the US. The California Cape-and-Trade program launched in 2013 and RGGI (Regional Greenhouse Gas Initiative) are the only ones dealing with CO2 emission reductions in USA. The others include Regional Clean Air Incentives Market (RECLAIM), and Highly-Reactive Volatile Organic Compound (HRVOC) emissions cap and trade program. These programs are locally initiated between state governors and sometimes between cities. RGGI for example is a cooperative effort between ten states (Connecticut, Delaware, Maine, and Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont) to cap and reduce CO2 emissions in the power generation sector.

# BENEFITS

The California cap-and-trade program[[2]](#footnote-2) is expected to reduce CO2 emissions by 30% by 2020, and 80% by 2050. The program is the second largest in the world behind the EU Emissions Trading System (ETS) and is a role model for the world. Countries such as china, and Australia, and other provinces in North America have signed memorandums of understanding with California to guide their collaborations. Beyond the environmental benefits, funds from these programs are been invested in social development programs to assisting the less fortunate ones of the community. Maryland for example used its benefits from the RGGI for efficiency upgrades and heating assistance for 4000 low-income apartments. California, however, is the only state that made it mandatory for a portion of the proceeds to benefit low-income households. As a matter of facts a program called affordable housing and sustainable communities would receive 130 million under the 2014 budget.

# US REGULATIONS

By law, cape-and-trade programs are required to spend 25% of their revenue in low-income communities and heavily polluted areas which was a result of a mounting pressure from environmental justice advocates in 2012. Of that money 10% should be directed to local businesses, the law, SB 535, specifies.

# EUROPEAN UNION EMISSION TRADING SYSTEM (EU-ETS)

The EU-ETS is operating its third phase (2013-2020), after running through the first (2005-2007) and the second phase (2008-2012) with highly praised success according to most studies including the 2012 Environmental Defense Fund report. The hurdles to be noted in its implementation include over-allocation of allowances, price volatility, and some fraud schemes that occurred in some member countries. The main raison for the over-allocation which happened during the first phase \_also called pilot\_ phase is that countries where allowed to determine individually how they want to allocate allowances due to lack of baseline data and often countries based their estimate on the good will of the entities’ own estimates. Most of the issues have been addressed and continue to be addressed while strengthening the system. Overall, EU-ETS covers 11,000 power stations in more than 30 EU countries, and it is said to have reduced Greenhouse Gas (GHG) emissions in Europe as much as 8% since its start in 2005 at a low cost. Moreover, the system broke the link between GHG emission growth and economic growth. ETS is the largest of the two of its kind; the second being the Regional Greenhouse Gas Initiative (RGGI) in the United States to a lesser degree in terms of size, ambitions, and complexity.

# WHERE THE EU-ETS REVENUE GOES?

Currently there is no budgetary or politically binding (earmarking) measure to regulate how member states would spend their revenues from the EU-ETS, though, it is recommended that 50% of money be used for renewable energy related projects. Some countries for example have earmarked it for budgetary and political expenditure for social objectives, but Germany for example earmarked all the revenues for a special energy and climate fund for national and international climate related projects.

# CONCLUSION

According to the literature Cap and Trade is working despite many short comings due to its complexity and rigor it requires. However, many countries are reluctant to commit to legally banding targets called for by the Kyoto protocol fearing it will damage their economies. Thus, big polluters such as Japan, India, and Russia did not take on targets for the second period of the Kyoto protocol (2013-2020). Canada withdrew from the Kyoto protocol in 2012 altogether.

Beyond the environmental benefits Cap and Trade markets could also provide financial benefits. For example Maryland used its benefits from the RGGI for efficiency upgrades and heating assistance for 4000 low-income apartments.

# REFERENCE:

*Center for Climate and Energy Solutions (CCES)-March2012: Market Mechanisms: Understanding the Options* [*http://www.c2es.org/publications/market-mechanisms-understanding-options*](http://www.c2es.org/publications/market-mechanisms-understanding-options)

*Climate action (CA): Questions and Answers on the revised EU Emissions Trading System (December 2008)* [*http://ec.europa.eu/clima/policies/ets/faq\_en.htm*](http://ec.europa.eu/clima/policies/ets/faq_en.htm)

*Environmental Defense Fund (EDF): Lessons for California from the EU Emissions Trading System* [*http://www.edf.org/climate/lessons-california-eu-emissions-trading-system*](http://www.edf.org/climate/lessons-california-eu-emissions-trading-system)

*GRIST\_2014: California’s cap-and-trade program will fund environmental justice* [*http://grist.org/news/californias-cap-and-trade-program-will-fund-environmental-justice/*](http://grist.org/news/californias-cap-and-trade-program-will-fund-environmental-justice/)

*SPURE-Blog\_ 2014: Show Us the Money: How Will Cap and Trade Revenues Be Spent?* [*http://www.spur.org/blog/2014-05-06/show-us-money-how-will-cap-and-trade-revenues-be-spent*](http://www.spur.org/blog/2014-05-06/show-us-money-how-will-cap-and-trade-revenues-be-spent)

*The EU Emissions Trading System: Results and Lessons Learned, 2012.* [*http://www.edf.org/sites/default/files/EU\_ETS\_Lessons\_Learned\_Report\_EDF.pdf*](http://www.edf.org/sites/default/files/EU_ETS_Lessons_Learned_Report_EDF.pdf)[*http://edf.org/euets*](http://edf.org/euets)

*The EU ETS double potential: Reducing GHG emissions and raising funds for international climate finance, 2014.* [*http://www.eoi.es/blogs/guidopreti/2014/04/29/the-eu-ets-double-potential/*](http://www.eoi.es/blogs/guidopreti/2014/04/29/the-eu-ets-double-potential/)

*Using EU-ETS Auctioning Revenues for Climate Action: Briefing paper, 2013. https://germanwatch.org/en/download/7749.pdf*

1. http://www.epa.gov/captrade/programs.html [↑](#footnote-ref-1)
2. <http://grist.org/news/californias-cap-and-trade-program-will-fund-environmental-justice/> [↑](#footnote-ref-2)