



October 19, 2015

## Comments of EcoSolution Recycling (ESR) regarding CARB's Cap-and-Trade Regulation

Because sustainable development and the desire to always do more for the environment are fundamental values of our Company, ÉcoSolution Recycling's (ESR) mission is to develop and implement integrated management technologies for a safe and optimal recycling of end of life domestic cold appliances and halocarbons. ESR extracts and destroys halocarbons within the cooling circuit and the insulating foam of the appliances and by doing so is the only company in North America that achieves such high environmental standards. The greenhouse gas reductions achieved per appliance are monitored and quantified on a continuous basis. ESR's technology warrants a complete traceability and gas identification/characterization from the appliance to the complete gas destruction.

From this mission stems our engagement to offer adapted solutions that exceed regulatory requirements and environmental standards, in an effort to maximize GHG reductions.

The innovative technology ESR employs not only allows to recycle more than 96% of the physical components of de-manufactured appliances, but also to extract all refrigerants contained therein, such as the blowing agents trapped in the polyurethane insulating foam. While some refrigerants contribute to ozone depletion, ALL massively contribute to climate warming.

HaloSecure Recycling (HSR), a wholly owned subsidiary of ESR, was created in 2014. HSR is dedicated to the management, reuse and safe disposal of halocarbons. Our integrated facility aims to provide the Province of Quebec and Canada with a unique infrastructure. It will be dedicated to the safe management of refrigerants. This is an important project in North America for greenhouse gases (GHG) reduction since such dedicated infrastructures are needed in order to safely destroy halocarbons. HSR should receive the governmental permits by year-end and initiate operation of its plasma destruction unit (PDU) by spring 2016.

We would like to take the opportunity of this discussion regarding the cap and trade system to submit certain items that deserve your attention.

Finding 1: Offsets are based on four principal criteria concerning the GHG emission reductions. They have to be: real, verifiable and verified, permanent and additional. Additionally involves a project that goes beyond the current practice and on the basis of the most stringent regulations. For ODS destruction, Quebec installations are facing competition from other North American destruction facilities; there are 3 in USA and 1 in Alberta, Canada. Different operating criteria are in force following the different jurisdictions.

For example, they all need to have a destruction efficiency of 99,99 % as stated in the Montreal Protocol, while Quebec regulations requires 99,9999 %. The wastewater generated by the flue gas treatment must be treated and the discharge requirements are very stringent. For example,



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the destruction of 300 tm of refrigerants at our PDU facility in Quebec will decrease fluoride emissions in the wastewater of about 100 tm of the same installation in the USA. Following the principles that the most stringent regulation shall apply to all, it would be fair that all destruction facilities operating under the cap and trade have to meet the same high standards of Quebec in a harmonization objection. In the same vein, Article 2.1 of the "Compliance Offset Protocol Ozone depleting Substances Project" should be harmonized with the Quebec regulations and require a destruction efficiency of 99.9999 %.

Moreover, the regulations regarding air emission standard should be harmonized between both jurisdictions to adopt the most stringent air emission standards for ODS destruction facilities and for wastewater treatment.

Finding 2: It is equally unfair that gas collected in Quebec can be destroyed in the USA, while the reverse is not possible. In the context where other states, provinces and Mexico plan to join the WCI, the border restriction for halocarbons destruction should be eliminated. We suggest that Article 3.2 of Compliance Offset Protocol Ozone Depleting Substances Project from California to be modified to allow ODS destruction in Canada for US halocarbon generators.

Finding 3: Substitution halocarbons (HFC and HCFC) also have high global warming potential. They have and will have a major impact on GHG emission in the next future years. They have to be taken into account in the planning of GHG reduction actions and in our efforts to capture and destroy halocarbons from **domestic cold appliances**. HFC and HCFC's must be included in the ODS destruction Protocol and become eligible for offsets. Not including the destruction of these halocarbons as eligible for offsets puts in jeopardy our optimal management projects for end of life domestic cold appliances. The funding source generated by these potential offsets is essential in the current financial model.

USA and China have indicated their intentions in working together to reduce the use of HFCs. Canada and Mexico have done the same at the last meetings of the members of the Montreal Protocol. HFC-134 reclaim does not generate economic value so there seems to be a significant gap between the sales volumes of HFC's compared to its recovery rate. We believe it is an urgent action to take. HFC are observed as an interim refrigerant while the industry works towards introducing alternative replacements that do not contribute to climate change. Including all refrigerant into cap-and-trade regulation will help Québec, Ontario and California to meet ambitious GHG reduction targets.

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