

### **CIF Project # - 127 Mixed Rigid Plastics Processing Capacity**

#### **Background**

In January 2009 Stewardship Ontario and CIF issued a Request for Proposals (RFP) called the “Blue Box Plastics Recycling Enhancement Initiative” for the re-processing of Blue Box (BB) packaging material. The project objective was to develop new re-processing capacity in Ontario for BB plastics because, at the time, municipalities were facing increasing pressure to add mixed rigid plastics to their recycling programs. Stewardship Ontario and the CIF each budgeted \$1.9 million in funding towards one or more of the plastics re-processing projects that would meet the project goals and award criteria.

#### **Summary of Results**

The focus of the RFP, in terms of the target materials, was on #1-7 rigid Blue Box plastic packaging (including streams where bottle grade #1 & #2 may have been removed through prior processing) and/or recyclable blue box film plastic from Ontario households. Proposals for processing only post-consumer bottle grade #1 and/or #2 plastics from Blue Box programs were not considered.

The RFP closed on March 5, 2009. Proposals were received from Entropex, EFS Plastics Inc. and jointly from Advanced Plastics Recycling and CRB Innovations Inc. Staff from Stewardship Ontario (SO) and CIF reviewed the proposals with the assistance of consultants from Genivar and Love Environmental. Proposals from Entropex and EFS Plastics were accepted because the two projects involved the application of fundamentally different sortation technologies thereby maximizing the potential for success and learning.

Entropex submitted a two-phase proposal. The first phase was a pilot to determine the availability of mixed rigid material, the resin composition, equipment pricing and designs, and to develop end use markets. The second phase was a full-scale rollout, with the intent to commission a 30,000 tonne per year facility based on the findings of the pilot. Entropex’s proposal required a significant financial investment and municipal MRF upgrades to prepare the feedstock for the facility. As a result, SO and CIF agreed that SO would contribute to the development of the facility and CIF would contribute to the upgrading of municipal recycling facilities. Ultimately Entropex entered into receivership in July of 2016.

The proposal from EFS Plastics Inc. involved the development of a new 39,000ft<sup>2</sup> facility in Listowel, Ontario capable of processing both #3-7 plastics and film at a cost of over \$6M. The new facility was initially designed with an initial capacity of 7,500MT/yr of mixed plastics and 2,700MT/yr of film processing capacity. In 2013 EFS made a further \$1M

investment to expand their film processing capacity. EFS ultimately went on to successfully build out the facility to a 75,000ft<sup>2</sup> plant with 12,500MT/yr of mixed plastics and 5,500MT/yr of film recycling plastics and opened a second plant in Hazleton, Penn.

### **Financials**

The CIF and SO contributed equally a total of \$2.238 million to stimulate investments of over \$8M by EFS and its partners into one of the most successful plastics recycling operations in North America.

### **Learnings**

Investment into both EFS and Entropex proved to be a successful strategy for dealing with development of a new market. EFS proved to be an excellent partner because of their willingness to be transparent about developmental and market issues thereby allowing the partners to engage in timely and effective solutions development. One of the biggest challenges faced in the early days of the project was the unwillingness of many municipalities to commit their plastics to either plant. Municipalities noted that they were under tremendous pressure to maximize revenues from the sale of recyclables and often received higher prices from overseas markets which, in turn, forced EFS and Entropex to source materials from the USA. Careful consideration should, therefore, be given in developing markets to ensuring sufficient tonnage is committed or otherwise available.