



Comments on the Proposed CARE ADDENDUM #3

December 20, 2015

To the Carpet Team at CalRecycle and Carpet America Recovery Effort (CARE) –

XT-Green commends the efforts of CARE and supports the approval of the proposed CARE Addendum #3 of the California Carpet Stewardship Plan. This support is based on the need for these changes to be implemented as soon as possible to start getting the program back on track.

These changes include expanding the access to recycling centers. With this we request that the Phase V – Plus Expansion include the Counties of Orange, Riverside and San Bernardino. There are presently no collectors in these counties beyond private collections at larger generators.

Moving beyond Addendum #3, XT-Green is extremely concerned that the issues raised by CalRecycle associated with the current market crisis for nylon recycled output has not been adequately addressed. Therefore, more nylon solutions should be included in an additional Addendum issued during 2016. The only nylon change in Addendum #3, is an increase in the Type 1 incentive from \$.06 to \$.10 per pound of recycled output. This is the first increase since 2011 and will not come close to offset additional collection and processing costs over the past 5 years, not less offset the substantial decrease in the market value of the nylon recycled output.

Throughout Addendum #3, it is stated that various additional nylon solutions were “considered” but not included in the Addendum but will be considered again in 2016. XT-Green needs these changes in the nylon incentives to ensure the success of our new advanced carpet processing facility planned to begin operation in the third quarter of 2016.

The following is a list of these requests for changes submitted again for CARE’s consideration. This will help not only XT-Green but also the entire California Carpet Stewardship Program.

XT-Green has spent the past almost 3 years testing, developing and self-funding an advanced, next generation carpet recycling technology. Since the inception of this effort, the goals for the new technology and the new Southern California facility have included:

- Producing the highest quality reclaimed material
- Achieving record high recycling rates and generating minimal production waste
- Eliminating respirable dust exposure to our employees and fugitive particulate emissions to the environment
- Processing a wide range of carpet types and fibers but starting with nylon
- Utilizing recycled output as reclaimed material for products manufactured in California.

We are pleased to announce that XT-Green has successfully completed its final and most challenging stage of testing full-scale equipment for our innovative process and have demonstrated that our advanced technology will meet the above goals.

XT-Green thanks the CARE organization for its role in developing the XT-Green next generation carpet recycling technology. It was through relationships developed as members of CARE that XT-Green assembled the team and resources needed for this challenging project. We also appreciate the ongoing support and encouragement of Bob Peoples, Executive Director of CARE.

We also want to also personally acknowledge the long-term support of the CalRecycle carpet team, especially Kathy Frevert. Her support and kindness made a major difference in our efforts to overcome the increasingly-challenging obstacles to reach our goals.

With our technology development success, XT-Green is moving forward with our first California facility under the name of *EarthCare Recycling*. Although it will be located in Southern California, XT-Green plans to accept carpet from the entire state of California. The first phase of this facility is planned to begin operations by mid-2016 but...

In order to ensure a level playing field and the long-term viability of *EarthCare Recycling* (and other California carpet processors) additional changes are needed in 2016 beyond CARE's Addendum #3 of the California Carpet Stewardship Plan. These include:

- 1. Premium for processing Broadloom Commercial Nylon Carpet**

There are presently minimal recycling options for broadloom commercial nylon carpet both nationwide and in California, especially since Shaw stopped taking this material earlier this year. Processing broadloom commercial nylon carpet is difficult both technically and economically due to the lower face fiber yields and residual glue from installation that causes problems shearing or shredding this material. Therefore, the vast majority of commercial broadloom PCC is going to landfill or to waste-to-energy, even though commercial customers are interested in recycling both due to sustainability goals and available LEED credits for recycling their commercial carpet.

XT-Green's new advanced technology can process this material but the processing time is twice as long as residential carpet and the average face fiber yield is 50% less. There will also be additional capital and operational costs to process this material.

Therefore, to encourage processors to recycle commercial broadloom carpet a premium should be paid to offset the additional costs, e.g. a minimum of 50% above the incentive paid for residential nylon.

- 2. Tier 2 End User Nylon Incentive**

Due to the lack of secondary markets for PET recycled output, CARE established and will be increasing the payouts for "End User Non-Nylon Tier 2." These payouts have been successful in developing PET markets that would have not been economically viable without these incentives.

For nylon recycled output, there has historically been a market for this material with the buyers all being from outside of California, primarily on the east coast of the U.S. and international buyers, especially Asia. The volume of these markets and the value that they will pay for recycled nylon output has been significantly reduced due to lower oil prices and the resultant low cost of virgin nylon.

This lack of markets for the nylon has reduced the amount of nylon post-consumer carpet (PCC) processed. This has caused a severe contraction of carpet collections with the nylon carpet being too often landfilled due to the lack of buyers.

Due to the increased production of PET carpet, there is significantly less nylon PCC in the waste stream but it is still an important component to ensure a successful carpet recycling program. Unless end user market incentives are created for nylon recycled output like those for PET, the “problem material” without markets in the waste stream could flip from PET to the 30-40% represented by residential nylon PCC.

Therefore, similar to PET, secondary markets are needed for nylon recycled output especially in California. This should be paid to end users who turn this material into a product (this would not include pellets).

The proposed Tier 2 incentive for nylon would be @ 15 cents per pound of recycled nylon output used by the manufacturer.

3. **Higher incentives for low ash nylon recycled output** – Currently Tier 1 payments are based on > or < 25% ash according to the CARE protocol. A premium should be paid to high quality recycled content with < 5% ash. This will help create a level playing field for low ash/quality material, i.e. producers of recycled content with +5% to 25% are receiving higher payments as they are also being paid for the weight of the higher ash.
4. **Capital investments** – XT-Green will be making a major capital investment in the new facility. To support this, we’d like the incentive guarantees to be extended to a minimum of 3 years.

Thank you again for your good work in Addendum #3 and your consideration of these requests. Please contact me if you have questions or would like to know more about our new facility.

Regards --

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