



## CARPET AMERICA RECOVERY EFFORT<sup>SM</sup>

Developing market-based solutions for the recycling & reuse  
of post-consumer carpet

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Director Caroll Mortensen  
CalRecycle  
1001 I Street  
Sacramento, CA 95812

Dear Director Mortensen:

On behalf of CARE, I am writing to seek approval for an addendum to the California Carpet Stewardship Plan version 3.2.2 (Plan) approved by CalRecycle. We listened to the concerns raised by staff and stakeholders and have completed a comprehensive analysis of past performance of the subsidy program. We believe the loss of 2 major recyclers located in the State in 2013, representing more than 25% of the existing capacity, was a major setback. Despite this loss, recycled output was maintained (as opposed to lost) and in recent quarters gross collections are up. We must now look to reestablish growth in recycled output which is fundamental to the success of this program.

CARE's Sustainable Funding Oversight Committee, its highest level decision-making entity, has approved a series of changes and additions to the subsidy program, all of which we believe are within the scope of the currently approved Plan. These changes will require an increase in the assessment.

While the projections for pounds of gross collection and recycled output are our best guesses, we believe, barring major macroeconomic shifts, the subsidies proposed here will allow us to achieve the 16% recycled output by 2016 and 24% by 2020 goals in the currently approved Plan. Following are details on the proposed changes and request for assessment increase.

### **Incentive Changes**

The current base plan serves as a foundation and has been in place since July 2011. Payout for high value (Type 1) recycled output materials<sup>1</sup> at 6 cents/lb. and lower value (Type 2) material at 3 cents/lb. will remain unchanged. The Growth Incentive on Type 1 material remains at 10 cents/lb., while the threshold target for payout will be adjusted upward annually as growth continues, per the original Plan, and is in addition to the base subsidy for Type 1. There remains no growth incentive on lower value Type 2 recycled materials.

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<sup>1</sup> **Type 1 Recycling Material:** Output of the materials with the most benefits to manufacturers of finished products. Examples of Type 1 recycling materials include post-consumer carpet fiber, post-consumer carpet backing, engineered resins and material for carpet cushion.

**Type 2 Recycling Material:** Output of the materials with benefit to manufacturers of finished products, but a lower value than Type 1 recycling materials. Examples of Type 2 recycling materials include carpet filler and non-functional filler.



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CARE conducted “what-if” analyses of more than 30 ideas and combinations before settling on this set of approved choices. One of the key changes to the Program we will implement is a guarantee of stability in subsidy funds by providing a 12 months plus current quarter notification before any decrease in funding is implemented. CARE learned that there was significant concern that investment risk was high associated with the uncertainty of how long a subsidy would remain in place. This element of the Plan is designed to reduce risk for investment and provide the ability to plan ahead in terms of cash flow.

Recognizing that non-nylon, and polyester (PET) in particular, is experiencing a significant increase in sales and represents a growing challenge for recycling output, CARE is implementing two targeted elements for the revised Plan. First, the existing subsidy payment for End User Non-Nylon Tier 2<sup>2</sup> pounds will go from 10 cents/lb. to 17 cents/lb. We have already seen good progress in the non-nylon area, but know we need to accelerate the recycling rate in order to meet the 2016 and 2020 recycled output goals of the Program. Thus, in addition to the increase in the Tier 2 non-nylon subsidy payout, we are also adding the implementation of a Tier 2 growth bonus for non-nylon of 10 cents/lb. The target for the End User Non-Nylon Tier 2 Growth bonus will be set based on 2014 results, to be evaluated in Q1 2015, once Q4 data are in for 2014. Based on current results on non-nylon growth and interest already expressed based on higher incentives, CARE believe this subsidy will have a significant impact.

It is important to note that today the calcium carbonate (CC) that results from processing has no useful outlets, yet typically represents 30-40% of the weight of the collected broadloom carpet. Finding a use for this material would significantly increase recycled output through improved recycling output yields. We believe the subsidy placed on this material for use as a raw material at 7 cents/lb. has the potential to stimulate the recycling of CC into carpet backing and for the production of Portland cement. It is important to note, this is a raw material use credit and is not a fuel application for kilns. The concentrated CC from processing has no fuel value to a cement kiln (i.e., the BTU value is far too low) being typically 80+% CC. It does, however, given the right stimulus, offer an offset for the recycle of a material that is strip-mined as virgin limestone used to make cement today. While the impact on virgin limestone replacement would be minimal, the value of this recycled stream would add to our total recycled output as opposed to sending it back to landfill after original collection.

Another new element of the program is a carpet tile Reuse or Recycle subsidy of 10 cents/lb. This approach offers several high impact advantages. First, we desire to increase reuse of this product as it is one of the easier reuse applications due to size, ease of handling, and typically commercial tiles are cared for under a maintenance program and thus, tend to be in better

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2. Tier 2 refers to manufacturers that represent the stage in the supply chain after recycling processors.



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condition enabling reuse. When carpet tile is recycled, 100% of the tile is recycled into new carpet backing so there is no material left after processing. Therefore, based on current yields for nylon, tile on a weight basis is approximately 2x the yield per square yard than that of broadloom (assumes broadloom is ~50% backing on average). Additionally, tiles on average weigh about twice that of broadloom. Thus, for every square yard of tile reused or recycled we get 2x the recycled output weight. In summary, every square yard of tile is equivalent to 4 times the weight value of broadloom for recycled output. CARE will modify report forms and track carpet tile reuse, and carpet tile recycling separately to ensure it isn't confused with Type 1 recycling materials. There is currently a large transportation cost for recycle of tile from the west coast since most recycling occurs near the east coast. Until such capacity exists in California, this incentive is expected to facilitate increased tile recycle. The reuse component of this incentive is more difficult to evaluate and CARE will work to collect this information under the changes to be implemented.

Taking all these factors into account, CARE has done projections on the potential pounds that will be driven by these new and enhanced subsidies. We project a high probability of hitting our recycled output goals to achieve the 16% by 2016 and 24% by 2020 targets in the Plan, as stated above.

### **National Voluntary Product Stewardship Program**

CARE is aware of the differences between the Plan and the national Voluntary Product Stewardship (VPS) Program. One key difference is the focus on sorters in the VPS Plan. CARE gave careful consideration to the inclusion of sorters under the revised Plan analysis. CARE made a strategic decision not to include California sorters in the subsidy program at this time for one simple reason. Since there has been an uptick in collection this year (currently at 36% or greater than 2.5 times the national average of ~14%) and recycling output has decreased, incentives for sorters to increase collection will not bring about increases in recycled output. Improving recycled output yield is currently a much greater urgency and thus the focus of the new incentives.

Our focus must be on growing recycle outlets for all materials, not only polyester (PET), but also nylons, and in particular nylon 6,6. Global markets for nylon 6,6 have dried up and pricing for all plastic streams have contracted. Recent developments in fracking have dropped natural gas prices and the plummet in oil prices have combined to dramatically alter global recycling markets across all commodities by lowering virgin material prices. CARE is monitoring these developments closely and will periodically review progress and make adjustments felt necessary to drive success. Obviously, CARE has no control of such macroeconomic events, but must adapt to their impacts. The changes in the subsidy program outlined here reflect this reality. CARE will revisit this Plan element if/when the need dictates.



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The issue of CARE's recently announced VPS program was raised as to its impact on the AB2398 program. At this time CARE does not believe there will be any adverse impact since the VPS program is not open to any California sorters and carpet collected in California cannot qualify for VPS funding. The subsidies in the California Plan are much larger vs. those of the VPS Program giving processors latitude on how they may be deployed to maximize recycled output which could include sorters if market dynamics dictate. In addition, the VPS Program recognizes all post-consumer carpet sold and shipped, including ex-U.S., a distinction vs. AB 2398.

The table below summarizes each element of the proposed addendum.

Element	Metric	Status
Type 1 Recycled Output Payout	\$0.06/lb	No Change
Type 2 Recycled Output Payout	\$0.03/lb	No Change
Bonus for Type 1 Output Growth	\$0.10/lb	No change: Growth target changes annually
Tier 2 End User Non-Nylon Payout	\$0.17/lb	Modification: Increased from \$0.10 to \$0.17/lb
Tier 2 End User Non-Nylon Growth Payout	\$0.10/lb	New: Analogous to the Type 1 growth bonus
Calcium Carbonate	\$0.07/lb	New: Paid for CC used as a raw material only
Tile Reuse/Recycle	\$0.10/lb	New: To drive reuse and 100% recycle of tile

**Resources:** CARE will be increasing staffing support for the California Program by adding a fulltime resource by the end of Q1 2015. In addition, CARE hired Mike Tinney to work on market develop of new and existing products containing post-consumer carpet content.

### Assessment Increase - Recommendation for Approval

In order to fund the subsidy increases on projected growth in recycle output pounds, it is necessary to increase the assessment from \$0.05 to \$0.10 per pound. This increase in assessment is not part of the currently approved Plan. Thus, CARE is requesting immediate approval of the increased assessment (\$0.10/square yard) to enable roll-out to consumers (through retailers) on April 1, 2015. This timing maximizes the ability to move the markets in 2015, but recognizes business cannot respond instantaneously when investment decisions and production capacity expansions are made or product development must be carried out. This recommendation is certainly consistent with feedback from certain stakeholders. The assessment would add about 5 additional dollars to the cost of carpeting the average home<sup>3</sup>. CARE feels it will require about 60 days to educate the retailers and mills on this assessment change and to make the necessary modification to billing systems for implementation.

3. Assumptions 100 square yards at an incremental increase of 5 cents/square yard vs. current assessment.



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**Additional Information**

**Reserve:** CARE currently carries a 2 quarter running average as a reserve for the fund. The value is computed by taking the sum of the last four quarterly total payouts and dividing by 2. This decision was based on the need for fund stability and to help insure a major and unanticipated jump in recycled output will not deplete the fund. CARE will revise the formula for calculation of the reserve as need dictates.

**Rural Counties:** CARE considers our rural county expansion program a bright spot in our efforts to expand recycle opportunities to all the people of California. This program is functioning well and, consistent with the approved Plan, will expand from 10 to 16 rural counties by June of 2015.

**Education and Outreach:** As part of improved/expanded education and outreach, CARE has engaged Gigantic Idea Studio (Oakland, CA) to conduct research into the multiple stakeholder groups, develop key messaging and formats to impact each group and develop content. CARE has also awarded the Polyester Grant to the University of Connecticut and will be getting underway in 2015 once the final research contract is completed with the University. Our kickoff meeting is scheduled for late January. The grant is desired to stimulate new ideas and technologies for the use of polyester. It is worthy of note that no California based university submitted a proposal after two grant calls.

It is CARE's hope that CalRecycle will see these steps as a significant enhancement to the currently approved Plan and a major commitment to advancing the program and driving continuous and meaningful improvement.

Sincerely,

Robert Peoples, Ph.D.  
Executive Director

cc: Howard Levenson  
Brenda Smyth  
Kathy Frevert  
Sustainable Fund Oversight Committee  
Sustainable Plan Committee