



Coalition for Resource Recovery

OVERVIEW OF FOUNDER'S CIRCLE OPPORTUNITY

Modeled on the Sustainable Packaging Coalition, Global Green USA's Coalition for Resource Recovery (CORR) is an industry working group inspired by cradle to cradle principles and dedicated to identifying, promoting, and implementing cost-neutral or better programs to divert, reclaim, recycle, and add value to waste. The CORR will target the following major waste streams: commercial food waste, wholesale packaging and food & beverage packaging.

As the largest city in the U.S., New York City (NYC) offers an unparalleled opportunity for a national replicable demonstration aimed at total solid waste stream diversion. NYC's Five Boroughs generate and export 15,000 tons of land filled garbage each day, at a cost over \$400 million dollars annually.*

Due to rising costs of energy, commodity values, and an increase in corporate measures to produce sustainable products and packaging, the price of recycled materials has skyrocketed. This has resulted in materials that were once considered trash now viewed as important feedstocks. Assisting the City of New York in dramatically increasing its solid waste diversion will not only impact city land use, the economy and energy consumption, but will have national implications due to NYC's prominence and opportunities to replicate the initiative in other markets.

Through coordinating the efforts of businesses, government, and NGOs, these valuable resources can be discovered and harvested, profiting all constituencies, and reducing greenhouse gas emissions and energy demand.

Global Green's Coalition for Resource Recovery will facilitate this transformation through an innovative supply chain coalition approach that supports the discovery and harvesting of assets in New York's City's waste stream.¹

To support this important work, Global Green USA is seeking visionary companies to join the founder's circle of the Coalition for Resource Recovery. Founder's circle support will fund the adaptation of the coalition model successfully employed by Wal-Mart's Sustainable Value Networks and GreenBlue's Sustainable Packaging Coalition to support the discovery and harvesting of assets in NYC's waste stream.² Strategic planning will include an analysis of business needs of founding members; identification of key partners in government and non-profit sectors to leverage existing initiatives; identification of funding opportunities; and will fund administrative costs associated with the launch of the program.

Contribution levels are based on annual operating revenues of founding member companies.

Founders Circle Contribution Levels:

| Annual Operating Revenue | Corporations | Government Agencies |
|---------------------------------|---------------------|----------------------------|
| \$100 million or more | \$11,000+ | \$1,000+ |
| \$10M – 100 million | \$6,000 | \$1,000 |
| Less than \$10 million | \$2,500 | \$500 |

¹ Note: The Coalition for Resource Recovery was previously referred to as the Manhattan Prospect.

² The Sustainable Packaging Coalition's membership terms and governance model has been donated by GreenBlue.

The Coalition for Resource Recovery is a project of Global Green USA. Founded by President Gorbachev, Global Green USA is a national environmental organization addressing three of the greatest challenges facing humanity:

- * Stemming global climate change by creating green buildings and cities.
- * Eliminating weapons of mass destruction that threaten lives and the environment.
- * Providing clean, safe drinking water for the 2.4 billion people who lack access to clean water.

Global Green's unique approach merges innovative research, cutting-edge community based projects and targeted advocacy that:

- * Educates hundreds of millions of people annually
- * Leverages billions of dollars for environmental initiatives
- * Implements ground-breaking environmental policy

PHILOSOPHY

The Coalition for Resource Recovery views each waste flow segment as a potentially valuable and recoverable resource that can be harvested and reinvested on a cost neutral or better basis.

Through a combination of policy and proactive corporate and community measures, cities and their constituents can recover materials and food waste at the end of their useful life for the return of materials to biological and/or industrial cradle to cradle cycles.

The Coalition for Resource Recovery is rooted in holistic approach to sustainable design, recognizing the important role that design and procurement play in facilitating the recovery of high value materials at the end of their useful life. The philosophical underpinnings of the Coalition for Resource Recovery are aligned with and expressed in GreenBlue's Sustainable Packaging Coalition's definition of sustainable packaging³.

MISSION AND APPROACH

The Coalition for Resource Recovery's mission is to utilize value chain collaboration to identify, promote and support the deployment of cost neutral or better diversion of waste through source reduction or maximizing value recovery of materials at the end of their useful life.

The Coalition for Resource Recovery's approach is based on the premise that by convening disparate groups, opportunities and underlying obstacles surface and best practices can be transferred. Through this methodology, both short term gains and systemic solutions can be achieved.

The Coalition for Resource Recovery approaches its mission through:

- Promoting a culture of resource stewardship and sustainable practices through accurate and publicly broadcast scorekeeping
- Connecting members of the value chain to facilitate identification of new opportunities and the transfer of best practices among participants;

³ www.sustainablepackaging.org

- Identifying successfully employed and promising waste diversion technologies, programs, and incentive systems currently employed worldwide for use
- Appropriating identified waste diversion technologies to the New York City model; and deploying and monitoring them in actual practice
- Apprising the public, city, and coalition members of waste diversion gains and accompanying cost reductions, energy savings, and carbon footprint shrinkage;
- Replicating and assisting in replication of successful resource recapture programs in other major markets through existing or initiated coalitions (i.e. Atlanta Recycles).

Business Benefits

Participation in the Coalition for Resource Recovery provides a number of benefits to businesses including:

- Assistance in launching groundbreaking recycling programs in NYC.
- Promotion of involvement through the Coalition for Resource Recovery's website and press releases.
- Providing a forum for learning about proven and emerging waste diversion technologies and networking with like-minded businesses.
- Facilitating joint funding and corporate participation in R&D such as market research regarding recycling behavior or development of recyclability protocols.

PROGRAM SCOPE

The Coalition for Resource Recovery's definition of waste encompasses all materials defined as either refuse or recycling by the City of New York.

Waste diversion activities to be considered for promotion or implementation by the Coalition for Resource Recovery include but are not limited to the following:

- Source reduction
- Compaction/eliminating volume of organic materials
- Alternative waste treatment methods (insinkerators, anaerobic digestion, plasma gasification)
- Promotion through advertisements, scorekeeping, labeling, and rewards and incentive programs
- Procurement groups for recycled content
- Sourcing protocols to ensure cost effective recyclability and resulting high value material

2008 – 2009 Proposed Projects

Value chain coalitions will be developed for food waste, wholesale packaging, and fiber-based prepared food packaging. Initial projects of these coalitions are outlined below. The projects outlined reflect the types of projects that can be undertaken by supply chain coalitions. Additionally, program identification, deployment, evaluation, and promotion will be an integral component of all value chain coalitions.

Commercial Food waste

Food waste is a significant portion of the waste stream throughout the US as well as in New York City. Approximately 285,000 tons of food waste is discarded annually from restaurant and retail operations in NYC, accounting for ~11% of New York City's commercial putrescible solid waste stream. Transporting this waste and discarding it in distant landfills results in the release of an estimated 200,000 mtCO₂e/yr.⁴

Through connecting members of the value chain, a range of options will be evaluated for reducing food waste including: Food rescue programs, dewatering (reduce volume & weight of organics by removing water), anaerobic digestion, composting, and energy recovery.

Through education, dialog, and deploying and monitoring pilot tests, the CORR will reduce food waste discards at restaurants and retail operations.

Wholesale Packaging

In the US, over a million tons of Old Corrugated Cardboard, OCC, (3.5% of all OCC and >12% of Non-Recycled OCC) are coated with non-biodegradable, nonrenewable water repellents for transporting refrigerated and iced perishables. However, high performing, cost-competitive recyclable coatings are available, and boxes with recyclable coatings are identifiable through the Fibre Box Association recyclability seal. The CORR will facilitate the transition to recyclable wholesale packaging through a demonstration trial at Hunts Point Food Distribution Center located in New York City's South Bronx. Hunts Point Food Distribution Center is the largest food distribution center in the world. The conditions under which boxes are exposed at Hunts Point are considered worst case. Therefore, many procurement specialists use Hunt Point conditions as the performance test for wholesale packaging distributed nationally. For these reasons, a successful demonstration at Hunts Point would have national implications for the procurement and ultimate recycling of Old Corrugated Cardboard. The CORR will support this demonstration and transition to recyclable wholesale packaging by raising awareness about box options among Hunts Point vendors and restaurants that procure meat and produce at Hunts Point, and monitoring and reporting on box performance, solid waste reductions, greenhouse gas reductions, and cost savings to key stakeholders⁵

⁴ Tonnage based on CA waste characterization percentages. CIWMB. 2006. Targeted Statewide Waste Characterization Study: Waste Disposal and Diversion Findings for Selected Industry Groups and 2004 Commercial Waste Management Study data for commercial putrescible waste and percent contribution from various commercial sectors. Estimated GHG gas emissions are calculated using EPA's Warm tool assuming a hauling distance of 150 miles and national ave. for landfill methane capture.

⁵ American Forest and Paper Association Website: www.afandpa.org; "Characterization of MSW in the US: 1998 Update," U.S. EPA, OSW, 1999, www.epa.gov/osw; FBA & Corrugated Packaging Council - Website: www.corrugated.org and www.fibrebox.org; National Recycling Coalition, Alexandria, Va., Measurement Standards and Reporting Guidelines. Website: www.nrc-recycle.org; National Solid Waste Management Association's Waste Recyclers Council Processing and Collection Cost Studies, Washington, D.C.; Resource Recycling Technologies, Out of Operation; "Scrap Specifications Circular 1998," ISRI, Washington, D.C.; Profiles in garbage – Corrugated Packaging and OCC, WasteAge.

Fiber-based Food Packaging

5.9 mill. tons/yr of paper plates and cups, and folding cartons are discarded in the US; 7.9% of the NYC, DSNY-managed refuse stream is soiled paper, paper plates and cups, and materials classified as ‘other non-recyclable paper’. 21.5% of refuse from Quick Serve Restaurants is classified as miscellaneous or remainder/compostable paper.⁶ The US would enjoy a net ghg benefit of 23 million MTCO_{2e} if all paper plates and cups and folding cartons that are currently discarded were recycled⁷.

Though food packaging has seldom been considered a likely candidate for recycling in the USA, it is considered an excellent source of high grade recyclable fiber in Japan, China, and several European countries where it is commonly separated, collected, and recycled. The CORR, in partnership with PIRA, seeks to adapt the recyclability protocol for recyclable transfer packaging to classify and certify fiber-based food packaging as a high grade secondary fiber that can be collected and recycled with OCC. With this designation and proper sorting mechanisms, spent food packaging can be collected with OCC bundles, reducing the waste stream and adding significant quantities of fiber to the recycling stream. Once the protocol has been developed, pre-sort receptacles will be piloted.

Program Identification, Deployment, & Evaluation

A central component of the CORR will be the identification, deployment, evaluation, and promotion of waste diversion pilots in New York City. Identification of programs will be undertaken through identifying successful technologies in other markets that can be deployed in NYC and providing a forum for coalition participants to explore opportunities and pursue innovation. CORR also will assist companies with deploying pilots by facilitating connections with the city.

Results of pilots and waste diversion initiatives will be communicated through the CORR website which will contain a ‘scorekeeping tool’ that will measure and communicate progress of Coalition for Resource Recovery programs in terms of solid waste diversion, greenhouse gas reductions, and savings to the city or business as a result of the program to participants, media, the City, and communities throughout the United States.

PROPOSED ORGANIZATIONAL STRUCTURE

The following organizational structure will serve as the basis for discussions with founding circle members and the advisory committee to formalize the structure for the Coalition for Resource Recovery for 2009 and beyond. The model described below is the model employed by GreenBlue’s Sustainable Packaging Coalition.⁸

The Coalition for Resource Recovery will operate through the productive efforts of participating companies, Global Green USA. The organizational structure of these relationships is outlined below and includes: Global Green USA Board of Directors (BOD), Global Green USA, Coalition for

⁶ US EPA MSW Facts and Figures. DSNY waste characterization. Cascadia Consulting CA Commercial Waste Characterization. GHG benefit calculated using EPA Warm tool using landfill with national ave of methane recovery as baseline. 2004 Commercial Waste Management Study. 2004-2005 NYC Residential & Street Basket Waste Characterization Study.

⁷ Calculated using EPA waste reduction model tool.

⁸ The Sustainable Packaging Coalition’s membership terms and governance model has been donated by GreenBlue.

Resource Recovery Executive Committee (EC), and Coalition for Resource Recovery participants and Coalition for Resource Recovery Project/ Value Chain Workgroups (PWs).



GlobalGreen USA Board of Directors (BOD): A self-elected body which oversees all Global Green USA activities undertaken and ensures all work by Global Green USA furthers its mission. Therefore, the BOD has ultimate oversight of Coalition for Resource Recovery activities. Directors serve on a voluntary basis without financial compensation.

GlobalGreen USA President & CEO (P): The Global Green USA Executive Director is a professional who serves as the managing director/executive officer of Global Green USA. The Executive Director manages the activities of the Global Green USA staff and serves as the primary contact between the staff and the Board of Directors.

GlobalGreen USA Staff (Staff): A group of professionals who are responsible for carrying out the daily activities of Global Green USA. The Coalition for Resource Recovery Director is a senior member of Global Green USA who is responsible for and manages all aspects of Coalition for Resource Recovery activities. The Coalition for Resource Recovery Director serves as the primary point of contact for all parties involved in the Coalition for Resource Recovery.

Coalition for Resource Recovery Executive Committee (EC): An advisory committee (6-10 members) whose purpose is to review all CORR activities & budgets and recommend appropriate decisions and actions to Global Green USA. The EC includes a senior member of Global Green USA, an appointed representative of CENYC as standing positions. The advisory will also include representatives from participating companies who will serve for a term for an agreed upon length to be determined.

Coalition for Resource Recovery Members (members): Any organization that qualifies for membership under eligibility in section F of this document and has been approved by Global Green USA based on those criteria. CORR members attend and participate in meetings, project workgroups and other educational activities. Each member organization has one vote within the CORR.

Coalition for Resource Recovery Project/Value Chain Workgroup (PW): Temporary and permanent groups that Coalition for Resource Recovery members form to jointly work on specific tasks which further the mission of the Coalition for Resource Recovery.

Policies

Global Green USA is ultimately responsible and accountable for all actions of the Coalition for Resource Recovery. Global Green's President & CEO and Staff will make every effort to closely follow the recommendations of the Executive Committee (EC). However, the Director may modify or deviate from recommendations of the EC if they pose legal or fiscal liability to Global Green USA, or are contrary to already approved decisions regarding project management or implementation. The Director will notify the EC prior to taking actions that are contrary to EC and/or project team recommendations.

EC is authorized to request a meeting with the Global Green USA BOD if concerns are not being appropriately addressed by Global Green USA's Executive Director and Coalition for Resource Recovery staff.

Annie White (Key Contact)

Coalition for Resource Recovery Director, Global Green USA

Annie White serves as the director of the Coalition for Resource Recovery, an industry working group inspired by cradle to cradle principles and dedicated to identifying, promoting, and implementing cost-neutral or better programs to divert, reclaim, recycle, and add value to waste. Annie's expertise lies in facilitating the collaboration of diverse constituencies to identify and implement innovative approaches to improve environmental and social outcomes. From 2003 to 2005, Annie served as the founding executive director of GreenBlue's Sustainable Packaging Coalition, an industry working group dedicated to realizing sustainable packaging solutions through supply chain collaboration. The Sustainable Packaging Coalition has grown from its nine founding member companies to over 150 members, and has been lauded as 'One of the most influential groups in packaging'.

While working with McDonough Braungart Design Chemistry and through independent endeavors, Annie has consulted with Fortune 500 clients on issues including: sustainable products and packaging, recycling, and sustainability reporting and communications. Clients include: Nike, Ford, Volvo, Wal-Mart, and Waste Management. Annie earned an MBA from the Ross School of Business and an MS in Sustainable Systems from the School of Natural Resources and Environment at the University of Michigan. She also holds a dual BS in Biology and Environmental Science from the College of William and Mary.

Scott Seydel
Chair, GreenBlue, Global Green USA
Board, National Recycling Coalition

A member of a family with longstanding involvement in Atlanta's history, Scott Seydel oversees an enterprise he founded in his twenties, offering its products through U.S. and global manufacturers in over three dozen countries. Sustainability and environmental stewardship has been a cornerstone of Scott's business endeavors, influencing his companies' emphasis on energy and waste minimization, recycling and recyclability.

Scott is the chief executive of several process chemical companies that illustrate his stewardship principles. The Seydel Companies' Pendergrass (Georgia) plant has repeatedly captured first place in the U.S. Environmental Protection Agency's National WasteWise competition. EvCo Research in Atlanta recycles plastic beverage bottles into water barrier coatings applied to textiles, paper, carpet, and building products. The Chemol Company in Greensboro (North Carolina) recycles spent vegetable oils from restaurants and fast food fryers and tallow from processing plants to make lubricants, cosmetic emollients, carton coatings, and cutting oils, substituting non-renewable and non-biodegradable paraffin waxes.

Serving as Board Chairman of Global Green, the U.S. arm of former Soviet President Gorbachev's global sustainability organization headquartered in Geneva (Switzerland), Scott has been involved in guiding the organization's initiatives in promoting commercial and residential green building projects and renewable resource power generation, water conservation, municipal waste recycling, and the decommissioning of military bases and weapons of mass destruction.

His interests in municipal waste diversion and recycling have been furthered through his Chairmanship of the Board of the GreenBlue Institute (Charlottesville) and its Sustainable Packaging Coalition. Scott is currently focusing on Cradle-to-Cradle conversions of solid waste components at their point of origin in an effort to increase downstream spent material values and the attendant cash incentives for collection and recycling. He is pursuing this transformative objective through his membership on the Executive Committee of ATLANTA RECYCLES and in a similar project in New York City where he resides.