An Unlikely Leader Rises to the Top of the Plastics Industry

OCTAL Leads the Way in Environmental Sustainability and Disclosure

Learn how one industry leader's commitment to sustainability is helping them realize tangible business benefits.
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Whitepaper: OCTAL Leads the Way in Environmental Sustainability and Disclosure
An Unlikely Leader Rises to the Top of the Plastics Industry
OCTAL LEADS THE WAY IN ENVIRONMENTAL SUSTAINABILITY AND DISCLOSURE

OCTAL, a global leader in the packaging industry, has seen tangible business benefits including cost savings, competitive advantage, strengthened partner relationships, and increased employee retention from being the first in its industry to track and publicly disclose the company’s waste, water, and carbon footprint as well as an in-depth product-level carbon footprint. Through analytical, tracking, and disclosure processes, OCTAL has identified numerous operational and market opportunities stemming from the development of a plastic that requires 65% less energy to produce than the average product available on the market today.

OCTAL is strategically located to serve the international market. Its production facility in the port city of Salalah, Oman, provides ready access to the world’s main east-west shipping lanes and an efficient link with the world’s largest ports. The Port of Salalah has direct shipping links to nearly all of the world’s major ports, including markets in Europe and the United States with a delivery time of 10-15 days. OCTAL is Salalah’s largest exporter, moving over 1 million tons of PET per year.

MANUFACTURING INNOVATION CREATES PARADIGM SHIFT

OCTAL makes the material used in the production of clear plastic packaging – everything from fruit, bakery, and yogurt containers to soft drink and water bottles and even Blackberry chargers. Up until 2008, it was business as usual in the plastic manufacturing market - then OCTAL came along with a remarkable innovation that turned the industry on its head, fueled OCTAL’s explosive growth, and created a new paradigm in the packaging industry.

The conventional manufacturing process for the material for plastic packaging, or PET (polyethylene terephthalate) sheets, involves nine steps from beginning to end. It typically depends on up to five reactors and requires separate processes for resin and sheet production. In short, it is very energy intensive.

OCTAL set out to do it differently using less energy: it uses only two reactors instead of five and its Direct-to-Sheet PET (DPET™) process uses only three steps instead of nine. OCTAL’s proprietary technology produces PET sheet directly from PET melt resin, resulting in a final product of superior quality and higher consistency with a smaller carbon footprint.

HOW OCTAL LEADS ITS INDUSTRY IN ENVIRONMENTAL EXCELLENCE

- Smallest carbon footprint of any comparable PET sheet.
- Uses 65% less electricity than conventional PET plants.
- Uses 100% recycled municipality wastewater.
- 20% less natural gas usage than conventional resin plants.
- Innovative plant design reduces carbon emissions.

NEW TECHNOLOGY DEVELOPMENTS IN PET SHEET

In addition to efficiencies gained in the process of DPET™ manufacturing, OCTAL’s production facility exceeds stringent environmental standards and is significantly more efficient than conventional PET sheet and resin plants. Through the application of innovative technologies, OCTAL has set new global environmental benchmarks for both product and environmental excellence.
On top of benefitting retailers and processors by providing their customers with greener, environmentally responsible packaging, DPET™ material has other benefits including:

- **65% LESS MANUFACTURING ELECTRICITY CONSUMPTION**
- **INCREASED PRODUCTIVITY AND REDUCED WASTE**
- **25% LOWER CARBON FOOTPRINT® THAN COMPETING PET MATERIAL**
- **RECYCLABILITY**

**SELLING THE DREAM**

Even before DPET™ was on the market, OCTAL was promoting the need for game-changing products. While DPET™ was in development, the sales team of OCTAL faced an uphill battle of “selling the dream”, as Joe Barenberg, Chief Operating Officer, calls it. For two years before OCTAL sold its first roll in December of 2008, they took time to understand the market and were talking directly to their (traditional PET) customers about what was important to them. “We asked, ‘If you could have the product any way you wanted, what would that look like?’ The customers responded saying that they wanted a high quality product of superior consistency - and if it could be made in a greener or more sustainable way, then that would be something they wanted to be a part of.”

That is a story they wanted to tell their customers, and this is a promise we have fulfilled,” Barenberg explains. “The DPET™ sheet has exceeded the expectations in terms of performance, quality, sustainability, and cost. It was radically different from anything on the market. It took our customers a little while to believe in it, but once they did – they started coming to us and asking for sole supply agreements. Even our competitors say it’s the best product on the market.”

Sudpack, a leader in flexible packaging based in southern Germany, has been a customer of OCTAL’s since 2010. Sudpack’s Managing Director in the UK, Ian Bone, believes that DPET™ has solid environmental credentials and has been successful for several reasons. “There has been a growing trend for thinner structures and DPET™ meets that need. Grocery retail chains in particular want lighter packaging and thinner gauge because they are committed to reducing the weight of their packaging. DPET™ uses less energy and is less expensive, so while there is intrinsic environmental value, there is also the cash savings to the customer that cannot be denied. Once a customer starts using DPET™ there is almost no going back, without rolling back on their environmental commitments!” Bone explains.

**CARBON FOOTPRINT COMPARISON OF DPET™® VS. CONVENTIONAL METHODS:**

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**PROACTIVE PATH TO SUSTAINABILITY**

OCTAL was founded in 2006 on the belief that they could build a better company and make a better product that is better for the environment. Because the company’s success is built on an invention that reduces the product’s (and thereby the company’s) carbon footprint, the business operations for OCTAL have grown up around it with this same principle in practice. Some companies start without sustainability in mind and eventually get there over time after giving in to investor, employee, or customer demands. This was not OCTAL’s path: From the very beginning, they took an aggressive, proactive approach.

OCTAL CEO Nicholas Barakat believes that good ideas happen at the right time – and he took a good idea and made it a reality. “The purpose of business is to create a better world and we wanted to create a packaging material company that responded to the growing consumer demand for something better. We saw the power of the mounting environmental movement and believed that the environment would be the almighty force in the future – so if we could create something unique then it could make a difference,” Barakat says. “And we’ve done what we set out to do and in the process invested $600 million to make this a reality.”

It is not only the environmental movement that drives suppliers like OCTAL to build a sustainable business. Large buyers such as Walmart and Proctor & Gamble have increasingly put pressure on suppliers to reduce greenhouse gas (GHG) emissions, implement eco-friendly changes to their operations, and disclose this information to organizations such as the Carbon Disclosure Project (CDP). While these improvements can bring reduced costs and improve public image, they also put suppliers in a more favorable light with buyers. Many suppliers now see this as a requirement for doing business and those who commit to it benefit greatly when they receive high marks from large buyers.
In this competitive business environment and difficult global economy, businesses need to differentiate themselves in smart ways that really stand out. We believe it’s not enough to just measure and manage – disclosure is really the most important piece of the sustainability commitment,” Razeem says. “OCTAL is in the business of making DPET™ and we lean on our sustainability experts to guide us through the complexities of carbon measurement and disclosure.”

OCTAL has also recently started using Mosaic®, a carbon accounting tool from Renewable Choice. Mosaic automates the carbon accounting process, replacing the manual work of spreadsheets with a web-based tool. Switching to Mosaic from the manual process has saved OCTAL an enormous amount of time and money: “We were trying to measure emissions using a complex enterprise carbon accounting system and found the project too costly and time consuming. In one month, Mosaic accomplished more than what we had in a year,” Razeem explains.

Matt Wood, Director of Sustainability Services for Renewable Choice, explains what makes OCTAL different: “OCTAL is very proactive when it comes to disclosure and transparency in terms of their sustainability efforts. They fully understand that conducting business in this way will pay dividends in the end. They also believe in efficiency in all areas of business and have seen great improvements since implementing Mosaic.”

The qualities of transparency and openness are woven into the corporate culture of OCTAL. Merlyn Rodrigues joined the company soon after its inception and has watched the positive power of transparency and disclosure: “Being open is one of our strengths – what you see is what you get. We provide metrics whenever possible in terms of our product and our company operations. People want open and honest communication and we have found that customers and employees are coming to us because of it. We operate on what we call a Knowledge, Commitment, Trust platform and we have found that being transparent in all that we do builds credibility and reliability with both our customers and employees.”

Beyond just creating a revolutionary product, OCTAL has taken many steps to conduct its business operations in the most sustainable and transparent way possible. OCTAL brought in consultants Renewable Choice Energy to help provide an analysis of its overall sustainability efforts and to reduce its carbon footprint.

“We needed a consistent methodology to evaluate what we were doing and to identify areas for improvement,” says Mohammed Razeem, OCTAL’s Project Engineer - Sustainability. “We also wanted to be as transparent as possible in all of our operations and wanted objective, third-party expertise with a series of disclosure efforts,” Razeem explains.

Renewable Choice helped OCTAL conduct sustainability assessments in several different areas including:

- A waste inventory.
- A comparison study of OCTAL products versus competitive materials.
- Measuring corporate GHG emissions in accordance with the GHG Protocol Initiative.
- A water inventory based on the Water Footprint Network protocol.
- Answering the GreenerPackage.com questionnaire.

After the assessments were completed, the time came to tell the world in the form of disclosure projects, including:

- Voluntary reporting the above results to the Carbon Disclosure Project (CDP).
- Reporting the above results to the GreenerPackage.com database.
- Conducting a product-level carbon footprint analysis for DPET™.

MEASURE, MANAGE, DISCLOSE

TRANSPARENCY AND DISCLOSURE

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OCTAL knows what they are doing is different and revolutionary. Transparency has a purpose – it enables you to perform at a higher level, it holds you to a higher standard. We do not see it as a burden – we firmly believe it is simply good business practice. The company does have an advantage over many businesses – it has been able to build its facilities as green as possible from the ground up.

Barakat explains, “We are fortunate in that we have not inherited old buildings that we are trying to ‘make green’. We were able to make all the right decisions from the
OCTAL is committed to ethical conduct and social responsibility as inherent elements of its business model. It defines its culture using a Knowledge, Commitment, Trust platform and is rapidly achieving its vision of becoming the global leader in PET packaging. Its commitment to this vision drives the people of OCTAL to challenge themselves to deliver social, economic, and environmental benefits to their stakeholders and the communities in which they operate.

Clearly, the future is bright for OCTAL. Since the DPET™ technology hit the market at the end of 2008, the company has grown rapidly. With only 400 employees on staff, it is on its way to revenues of $700 million in 2011 and $1.5 billion for 2012. It has offices in the US, UK, Europe, and China in addition to the facilities in Oman. Even though they are becoming a global powerhouse, the CEO still meets monthly with small groups of 20 employees at a time to have an open discussion and to brainstorm new ideas.

When our customers are successful, we are successful, consumers and businesses want plastic packaging that is better for environment, and so OCTAL will continue to introduce environmentally friendly production methods and demonstrate responsible stewardship of natural resources in 2012 and beyond. Reducing energy consumption and waste is an integral part of its technology and its culture, not just an afterthought.

Powered by a culture of transparency and disclosure, OCTAL will continue to drive innovation and manifest success.

WHAT THE FUTURE HOLDS

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SUSTAINABILITY 101

Corporate Sustainability:
A business approach that creates long-term consumer and employee value by balancing the business’ impact on people, planet, and profits.

Greenhouse Gas (GHG) Inventory:
A GHG inventory is a tool commonly employed to help stakeholders understand, track and reduce the carbon or GHG impact of an organization.

Supplier Sustainability Questionnaire:
A questionnaire developed by a purchasing organization to assess the sustainability practices of their suppliers. It often includes topics such as solid waste, energy and carbon, water, and social.

Carbon Disclosure Project (CDP):
The largest database of corporate climate information. CDP acts on behalf 534 institutional investors, holding $64 trillion in assets under management, and some 60 purchasing organizations.

Energy Audit:
One of the most powerful tools for identifying energy and cost savings opportunities. An energy audit is often combined with a GHG inventory to identify facilities that have potential reduction opportunities.
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