

HY-VEE, INC.



HAYLEY GIGOUS
SUSTAINABLE AND RENEWABLE ENERGY SYSTEMS
UNIVERSITY OF WISCONSIN - PLATTEVILLE



COMPANY PROFILE

Hy-Vee, Inc. is a supermarket chain with 235 retail locations in eight states. Founded in 1930, the company has grown to become one of the top 25 supermarket chains in the United States with about \$8.7 billion in annual sales. Along with numerous Hy-Vee grocery stores, Iowa is home to two distribution centers, located in Chariton and Cherokee, and a corporate office in West Des Moines. More than 75,000 employees across the Midwest work to deliver the company’s mission: “making lives easier, healthier, happier.”

PROJECT BACKGROUND

The goal of the 24-week Pollution Prevention internship project was to increase recycling efforts at Hy-Vee’s retail stores and to identify potential markets for recyclable materials. Waste volumes were measured, waste disposal costs were tabulated, and recyclable materials within the waste stream were identified. Further research was conducted into the logistics of transporting recovered materials, along with potential markets for the recycled items.

INCENTIVES TO CHANGE

Recent shifts in consumer trends have caused shoppers to seek sustainable companies, which in turn motivates supermarkets to meet that demand. Hy-Vee is already well on the path to sustainability, with a brand emphasis on healthy and sustainable living: each store has a registered dietitian, a HealthMarket, and sells sustainably harvested seafood. Hy-Vee is committed to sustainability, including initiatives such as green building, energy and resource conservation, and waste reduction, along with sustainable sourcing and procurement. Opportunities for continued improvements exist for the corporation to increase landfill diversion and recycling efforts. These changes hold the potential for an additional revenue stream if recyclable materials are sold.

CONVENTIONAL AIR POLLUTANTS AND GREENHOUSE GASES DIVERTED IN METRIC TONS
For Recommendations in Recommended Status

TOTAL FOR ALL SECTORS								
CO ₂	SO ₂	CH ₄	N ₂ O	CFC	NO _x	VOC	PM ₁₀	MTCO ₂ e
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	34,910.00

RESULTS

To develop a profile of the waste materials being generated, audits were conducted at various Hy-Vee store locations. The information gathered from these audits reinforced the potential impact of the project, identifying significant opportunity for developing a program to divert and capture numerous recyclables.

Recycling resources such as staff, space, and recycling facilities can vary greatly among store locations, making it difficult to develop a standard collection program at the local level. A toolkit of best management practices was developed, outlining local reuse or recycling opportunities for all recyclable materials generated at Hy-Vee stores.

Consolidated collection of recyclables at the two distribution centers could provide a long-term strategy to maximize collection efficiency, increase marketability of larger volumes of material, and yield higher revenue as a result. Adequate space to process and store recyclable materials is not currently available within the existing distribution centers. However, the construction of a dedicated recycling facility at each distribution center would allow the company to process divertible materials common to all stores, such as waxed cardboard and rigid plastics.

Potential challenges of a consolidated collection center may include the logistics necessary for backhauling recyclable waste streams to the distribution centers. Also, additional staff and equipment such as forklifts and balers may be required to process and store recyclables until picked up by vendors or haulers.



Rigid Plastics Recycling: Rigid plastic is most often in the form of high-density polyethylene (#2 HDPE), or polypropylene (#5 PP). These plastics are found in Hy-Vee stores in the form of bakery frosting buckets, deli salad tubs, pharmacy stock bottles, and other containers. The use and disposal of these rigid plastics is at a consistent rate within each store, however, opportunities to recycle rigid plastics are not available to all store locations at the local level. Across all stores, there are approximately 871 tons of rigid plastic that could be diverted from the landfill each year. Backhauling the plastic to the distribution centers for consolidated processing and pickup provides the greatest opportunity to divert rigid plastics from the landfill.



Waxed Cardboard Recycling: Most produce and meat is delivered to grocery stores in waxed cardboard boxes. The waxy coat deters the box from losing its shape when damp. Currently, these boxes cannot be recycled with regular corrugated cardboard and are landfilled with the rest of the waste stream.

A vendor was identified that collects waxed cardboard to create eco-friendly fire logs. Backhauling waxed cardboard to the distribution centers for consolidated processing and vendor pickup would optimize the recycling opportunities for this material. With this change, approximately 6,960 tons of waxed cardboard could be diverted from the landfill.

Food Waste Diversion: Food retailers account for a large amount of the food waste that is landfilled each year. Many Hy-Vee stores currently have a food diversion program. Using data collected from these stores, it is possible to estimate the potential impact if all Hy-Vee stores adopted their own food diversion programs. Pollution Prevention methodologies for diverting food waste from landfills include freezing and donating unexpired food, and composting of expired food. Through donations and composting, Hy-Vee could divert 13,804 tons of food waste from the landfill each year.

PROJECT	ANNUAL COST SAVINGS	ENVIRONMENTAL RESULTS	STATUS
RIGID PLASTICS RECYCLING	\$221,234	871 TONS	RECOMMENDED
WAXED CARDBOARD RECYCLING	\$375,840	6,960 TONS	RECOMMENDED
FOOD WASTE DIVERSION	\$745,416	13,804 TONS	RECOMMENDED

