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From Experience

Sustained Sustainability

In a [2009 From Experience "Letter From The Editor,"](#) Warren Green shared observations about sustainability from his previous 22 years in industry, as well as forthcoming trends that appeared to be on the horizon. Fifteen years later, Warren revisits those ideas and shares recent observations with you.

One mainstay of sustainability dating back to the 1980s, "Reduce, Reuse, Recycle," is still active in the food industry, and can be found in new incentives such as creating the zero-landfill plant. At the same time, the economics of implementing



significant energy and waste reduction programs and technologies poses hurdles for some clients. The bridge that we've observed between these past

and future visions is achieved through a host of best practices that provide economic, environmental, and social benefits.

- **Cultural changes drive sustainable changes.** The cultural change needed for a successful program begins within the food production plant, and requires a dedicated investment in the long-term vision.
- While the three common pillars of the past – Profit, Planet, and People – might today be seen in a new light as **Environmental, Social, and Governance (ESG)**, we observe these three pillars being expressed in our projects in plant design, material and equipment selection, and sustainability programs. Successful clients make small step changes that push forward while keeping people, plant, and profits in mind.
- **Benchmarking energy, water, and waste is more important than ever.** However, we still observe that some companies do not measure and benchmark their current operations in an intentional manner before delving into long and expensive sustainability

ventures. Establishing benchmarks and maintaining instrumentation and accounting to measure status quo and subsequent improvements is imperative for a sustainable, long-term program.

- In addition to reducing the carbon footprint, creating a zero-landfill plant has become a key goal for our clients. **Reduce-Reuse-Recycle** is a foundational principle for zero-landfill. Technologies that are becoming increasingly available and installed include more advanced on-site waste treatment, reverse osmosis, and other filtration systems to re-use water or concentrate waste. Our clients are finding recycling outlets more readily available for plastics and paper, as well as packaging stock being made from more recyclable materials. Commercially, biodigesters are being operated to receive liquid wastes in addition to the traditional outlets for animal feed for off-spec product.
- Some technologies available today, e.g., boiler stack economizers, that may have been new in the past, are a standard part of Hixson's designs. Likewise, **new "green" technologies are appearing** on the horizon and are on the precipice of commercial viability. Some technologies that we expect to see included as standard elements of design in the coming decades include industrial electric and thermal batteries for storing solar and wind power, industrial heat pumps to convert low energy streams into hot water, steam, or chilled water, and combined heat and power units.

Looking back to 2009, the sustainability progress Hixson has observed in the food industry has gradually improved. We have observed that the best programs sustain momentum by making realistic decisions, and implementing long-term, corporate-wide visions to improve the environment.

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CONTACT US

Direct any comments or questions to:

**Warren J. Green, Vice President/
Manager, Process Engineering**

wgreen@hixson-inc.com

Phone: 513.241.1230

www.hixson-inc.com