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Dow and the Circular Economy: Trash to Treasure?

Erica Ocampo, Sustainability and Advocacy manager for Packaging and Specialty Plastics at the Dow Chemical Company, was gazing at the steam rising from her mug of tea while sitting in her office in Midland, Michigan. The company's plastics-to-energy pilot program in Citrus Heights, California, called the Energy Bag Pilot Program, had come to a close just a few weeks ago, and it was time to share the results with Neil Hawkins, a Dow corporate Vice President and its Chief Sustainability Officer. Individuals within Dow had envisioned a use for non-recycled plastics (NRP) for several years and wanted to take steps toward advancing the circular economy. In contrast to a linear economy in which items are created, used, and disposed of once they have reached the end of their serviceable life, a circular economy closes this loop. Items instead are created, used, and then can be either restored or reprocessed in order to recover energy or materials that can be used again.ⁱ In the summer of 2014, Dow co-sponsored the pilot program, which enabled residents in Citrus Heights to send their NRP to a facility that converted them into synthetic crude oil.

Hawkins was keenly interested in what the results would be of the Energy Bag Pilot Program, as it was a first-in-its-kind program working toward the circular economy in the U.S. In the EU, Dow had already implemented a circular economy-based chemical leasing business model.ⁱⁱ The new program would help the company take the pulse of the U.S. market to determine if it was smart for Dow to integrate the circular economy into its business strategy. The results of the pilot were coming at the right time, as Hawkins was preparing with his global team to set Dow's 2025 sustainability goals. Ocampo was keen to show the remarkable promise of a circular economy-driven project and answer how the waste-to-energy project could be embedded in a circular economy. She had much to share with him on the success of the Energy Bag Pilot Program — its implications not only for the future of Dow, but for the entire plastics end-of-life management and packaging industries. She gathered her reports on the program in one hand, and grabbed her tea mug with the other and headed toward Hawkins' office.

ⁱ See Appendix C for a diagram of the process.

ⁱⁱ This model maximized the efficiency of chemical solvent cleaners and reduced total consumption.

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