Roughly 75 percent of plastic soda and water bottles end up in landfills, by some estimates. What a waste. We could argue about whether to blame lazy consumers, governments that fail to promote recycling, or the beverage industry. We could debate whether bottle bills will solve the problem. (They won't, by themselves.) We could try to persuade people to give up bottled water. (They won't.) Or we could look for market-based solutions, and see if they have the potential to scale.

That's what the The Coca-Cola Co. is doing. This week, Coke stages a grand opening for the world's largest bottle-to-bottle recycling plant in Spartanburg, S.C. (The plant's been running at less than full capacity for months.) The facility is a $60 million joint venture of Coke and the United Resource Recovery Corp. (URRC), which calls itself the world leader in transforming waste bottles into new ones. URRC has a patented process for recyling food and beverage containers made of polyethylene terephthalate, or PET.

The plant will have the capacity, when fully operational, to produce 100 million pounds of recycled PET plastic chips—enough to produce 2 billion 20-ounce bottles of Coke or Dasani or whatever.

It's a small step toward the goal of sustainable consumption—the idea the we can buy and consume stuff in a ways that don't degrade the environment or create waste. Coke has said that it ultimately wants to recycle or reuse all of its plastic bottles and cans.

I spoke earlier today with Scott Vitters, the director of sustainable packaging for Coke. Scott is passionate about the environment, albeit in a geeky way, and he's proud of the plant, which has been in the works for years.

"It's an important milestone for us," he said.

The best thing about the plant is that it is intended to make money for Coke and URRC. That means that the project can be duplicated elsewhere.

Here's how it will work, as explained by Scott: A separate recycling company, led by Coca-Cola Enterprises, the world's biggest Coke bottler (don't ask me to explain the interconnected Coke system), will recover PET from a geographic area stretching from the northeast to Florida. The used PET bottles will come from its own manufacturing system, from government recycling centers and from high-profile venues like NASCAR events, college football stadiums and the House of Representatives. As the "official recycler" at the Democratic national convention in Denver, Coca Cola Recycling even collected waste from the arena known as the Pepsi Center. "All that material went back into our bottles—gleefully," Scott says.

Another source for feedstock is a Coke-backed startup called RecycleBank, which rewards consumers who recycle more and throw away less. VC firm Kleiner Perkins is also an investor in Recycle Bank.
Getting enough feedstock into the plant is crucial to its success. "That traditionally has been a major hurdle to recycling," Scott said.

The plant will produce a plastic chip, which will be sold to yet another Coke-backed company. Most of the chips will be refashioned into plastic bottles. Coke also makes T-shirts, tote bags, fleeces and other stuff from recycled PET, mostly as a way to encourage consumers to recycle and burnish its own image.

How will the new plant make money? "Explaining the economics around recycling is always an adventure," Scott said. "You have to keep in mind different things. One is the evolution of the technology. This is about the fourth generation of recycling technology, and earlier generations were costly and environmentally ineffective. Second is the question of feedstocks, and how much they cost. Third is the cost of virgin PET. Today, that's dropping."

In other words, it's hard to know today whether the investment will pay off. "The driver for this program was environmental," Scott said. "It's not going to make anyone wildly wealthy. But we're looking to turn a profit, long term."

That's good news, for obvious reasons. If the Spartanburg plant makes money, more will be built. Right now, there's a need for a similar plant in the Midwest. Plastic bottles that are recycled near the west coast wind up in China, of all places, since it's cheap to send them over there on container ships that have delivered Chinese imports to west coast ports.

None of this is truly sustainable. Not even close. Think of the trucks, powered by gasoline, moving all of those bottles around. I didn't think to ask Scott how the plant is powered, but chances are it's operated by electricity made by burning coal.

But Coca-Cola, to its credit, is doing its part to solve a big and needless waste problem. Now we need governments to do more to promote curbside recycling—maybe with "pay as you throw" programs, that charge wasteful people more money. And, of course, we need consumers to think twice before throwing a bottle in the trash or, worse, by the side of the road.

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