



Modernize Your Recycling Program

FACT SHEET

RECYCLING MARKETS

An indicator of an excellent recycling program is how well it aligns itself with markets. Markets turn discards into “commodities,” and that entails a different way of thinking. Recycling is not so much “waste management” as it is the first link in delivering resources back to the economy.

Like the economic system as a whole, markets are always evolving, but they have some key features that should be kept in mind:

- Markets are increasingly global in nature. Many recyclable commodities originating in the U.S. now end up overseas. For example, one-third of all PET bottles collected in this country are bought by China. More than a million tons of paper is exported per month from the U.S. to the Far East, Canada and Mexico. Demand for recyclables is affected by the worldwide trading of secondary materials, many of which are turned into products and sent back to the U.S.
- Markets are also regional in nature simply because the factories that use the materials are typically huge, represent major investments and need to draw from a large area to feed their processes. One of the major end-users of old newspaper from North Carolina is a mill in Georgia that produces more than 800,000 tons of finished newsprint per year – it is one of a number of newspaper mills serving North Carolina, none of which are in our state. All the aluminum and steel cans collected in North Carolina likewise end up at mills out of state. Glass is one commonly collected material that ends up mostly back at glass plants in N.C.
- Long-distance transportation is a necessary and critical factor in marketing recyclables. That’s why much of the initial processing of these materials involves baling, densifying, grinding, etc., to get the most tonnage per space for efficient shipping. With that primary preparation, recyclables can be transported to many possible locations, which lends a great deal of flexibility to marketing the materials. For example, baled mixed paper can go to South Carolina or south China.

Most local governments do not directly market their own materials. So why does all this matter to them? First, because of the expansion and flexibility of global and regional markets, local recycling programs now have a more stable overall demand for their materials. Second, communities now have the ability to collect more and different types of materials. Third, awareness of the nature of markets also helps communities understand the trends of supply/demand and of recycling prices – they can in turn help their citizens understand these factors and become better recyclers.

RELATIONSHIPS BETWEEN PRICES AND DEMAND

And speaking of prices, one of the more unpredictable and sometimes frustrating aspects of recycling is the fluctuation in prices paid for materials. This fluctuation reflects consumption cycles for commodities worldwide, and is wrapped up in the growth of the domestic and world economy, the investment in both recycling and virgin manufacturing capacity by large corporations and many other complex factors.

Recyclables are really no different than any other commodity, whether it be corn, oil or soy bellies. Every commodity in the world goes through pricing ups and downs.

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Communities should never confuse recycling price fluctuations with a “lack of markets.” Ask yourself: does a fall in gasoline prices mean that there is no demand for it? Similarly, a drop in the price of newsprint doesn’t mean there is not a market for the material.

The bottom line is that there is a strong and stable demand for all the major recyclable commodities for the foreseeable future. ***Communities should have confidence that their collected materials will be marketable.*** Early on, when recycling programs were just getting started, it was common to have no markets for some materials. Now, anyone who says that there are no markets as a rationale for not recycling is simply wrong.

CHANGES IN MARKETS – NEW OPPORTUNITIES

The most remarkable thing about recycling markets is not how limited they are, but how they have grown and expanded.

For example, programs first started collecting only newspaper because that’s all the newsprint mills wanted. Now many of the major mills also want magazines and glossy stock to add to their fiber mix. In fact, these mills rely on glossy stock to assist with their de-inking processes.

Similarly, PET has evolved from being used for soft drinks only to being used for a wide array of beverages (water, sports drinks) and foods (salad dressing, peanut butter). The recycling markets for this material likewise include a diverse set of end uses from carpet to fiber to bottles. And these markets want every one of those bottles, no matter what was in it.

Markets have evolved and good programs should evolve with them. Here are some specific materials that communities should add to their collection programs:

Magazines – at the least, all local recycling programs should be collecting magazines, since newsprint mills need those materials for their fiber mix.

Office papers/junk mail - printing, tissue and some lower grade markets are available for these materials. Your households will appreciate having an outlet for their mountain of junk mail.

Cardboard – The most recyclable paper grade in the country, OCC has very stable domestic and export markets, and is under-recovered in the residential stream.

Residential mixed paper – Make it easy and simple for your citizens to recycle the highest possible fiber tonnages by adding residential mixed paper, the “all of the above” paper category. Mills have become very adept at using this material, which includes high grades like office papers/junk mail, catalogs and paperboard (cereal/food boxes, etc.).

All plastic bottles (or at least all #1’s and #2’s) – The ability to sort commingled plastics has expanded, with two plants in North Carolina (one the largest of its kind in the U.S) available to take this combined stream. Studies have shown at least a 15 percent increase in plastics collection by going “all bottles.” Again, simple for households to understand...

Steel cans – Surprisingly, there are communities that have still not added this staple commodity to their collection program, although it is easy to do so.

Specialty products - Markets are healthy and available for a wide range of other materials that can be added to drop-off operations (and in some cases curbside): electronics, toner cartridges, oil filters, cooking oil, textiles, antifreeze, used paint and eyeglasses are all examples of materials that at least some local governments in North Carolina are already collecting. Adding specialty products can help your diversion efforts, too.

HOW TO GET FROM HERE TO THERE

Demand for recyclables has improved and widened to include new commodities. How can you bring your program up to speed with current market realities?

The first answer is simple – find room in your drop-off and curbside containers for new materials. Probably the best way to do this is to plan for it through your budget cycle, and add the materials at the beginning of a new fiscal year.

You may not need any new containers or truck compartments at all because of the possibility of commingling. Remember to use the addition of materials as an opportunity to educate citizens on the reasons to recycle.

What if your curbside trucks or drop-off sites can't accommodate another material? Consider commingling. One of the other new "market realities" is the increasing availability of MRFs to handle commingled materials. Commingling can also help you consolidate drop-off containers, and again, make it simpler for the public to use your system.

What if your bins are too small to accommodate more materials? Consider switching to carts instead of bins, or if needed, add additional bins. Or add new materials to drop-off sites only, until you can include them in curbside. What if you can't afford carts? Consider phasing in parts of your collection area, and maybe going to every-other-week instead of weekly collection, since the carts will hold more materials.

What if you use a contracted hauler for recycling pickup? First, remember that you are the customer, and can request additional or changed services. You can use the occasion of a new bid cycle to make the change. If your hauler can't find markets for the materials you want to add, do some research and find out what other communities are doing – you'll find examples among your local peers to back you up. DPPEA can help you with this work and can assist in identifying markets your hauler may not know about.

How can you afford to add materials? Most additions will not cost much, if anything. You can also look at efficiency savings in other parts of your program, and disposal cost avoidance will always help balance out any additional costs. A more complicated tactic would entail making changes in garbage collection (going from twice/week to once/week) to create savings that can be used to expand recycling.

How do you determine what can be added? First, talk with your contracted hauler, your local MRF(s), or your current markets to see what they will accept. Making additions will likely have to be your initiative and will probably not be suggested to you by your service providers. DPPEA can also point you to peers or to specific market contacts that can help determine what's most feasible. Also, remember that DPPEA offers grant opportunities that can help you make these changes. Feel free to share your ideas with us – we may have some funding to help you reach your goals.

Keep in mind that what you want to do is likely already being done by other programs. They've already proven it's possible, and can provide great examples and sources of information on moving ahead.

HOW TO SURVIVE COMMODITY PRICE UPS AND DOWNS

The natural fluctuation of material prices may have negative effects on local programs that count on some revenue from the sale of recyclables. Here are a few suggestions for minimizing any possible problems:

- 1) Investigate using "floor" pricing and long-term contracts with markets.
- 2) When budgeting for the next year, use conservative estimates of future revenues.
- 3) In good times, use excessive revenues to pay down any debts or to accelerate any planned new or replacement equipment purchases. Buying when you have cash means not having to buy during low revenue periods.

Over the long term, wean your program from reliance on revenues and focus on efficiency improvements that reduce program costs that were covered by revenues.



The North Carolina Division of Pollution Prevention and Environmental Assistance provides free, non-regulatory technical assistance and education on methods to eliminate, reduce, or recycle wastes before they become pollutants or require disposal. Telephone DPPEA at (919) 715-6500 or (800) 763-0136 for assistance with issues in this fact sheet or any of your waste reduction concerns.

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