Mitch Kelley

Douglas Luckie

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Aluminum Recycling: An Economic Stimulant

In recent years, recycling has become increasingly prevalent in the United States and has acted as a mechanism to help improve the ecological sustainability of our country, with corresponding economic rewards. Many various materials can be recycled; one recyclable material that is largely beneficial in its economic effect is aluminum. Aluminum is a major precious metal and it is used in many types of products ranging from car parts to pop cans. Cash incentives exist in some states to pay a small return for each aluminum can a person recycles. Even in a failing economy, scrap aluminum provides enough profit that it is making a large impact in the world of recycling. Recycling aluminum products is beneficial to American society because it is economically profitable on various levels of production and benefits consumers in many ways. Financial gains can be seen in different avenues ranging from increasing the profit margin for aluminum by keeping costs down through recycling, to job creation and philanthropic donations from can drives.

Scrutiny against the industry of recycling proposes that the processes involved in recycling common materials do not increase economic profits. Arguments are raised that the cost of transporting and sorting products uses extraneous human labor and is financially wasteful. While the cost of transportation is a primary source of cost in the process of recycling; the profits are greater than the expenses for aluminum recycling in particular. Proponents of the mining industry may suggest that because recycling aluminum is so prevalent, jobs are taken away from miners who extract virgin bauxite that is eventually made into aluminum. In reality, the numbers of jobs lost by displacing the mining industry with recycling are negligible, and in fact, many jobs for workers of a similar skill level can be created by supporting recycling initiatives and the recycling industry as its own business. Aluminum recycling alone creates jobs within the recycling centers and related process involved in recycling ranging from transport to corporate management. Another minor issue that is sometimes associated with aluminum recycling is that materials cannot be purely and infinitely recycled. However, when recycled, the materials from aluminum cans can actually be recycled and remade to no end: “Aluminum is infinitely recyclable with only minor material losses and without any degradation in quality. In contrast, other materials, such as paper and plastics, are often downrecycled into a product having weaker material properties” (Ellis, Scott C). The positive impacts of recycling aluminum greatly compensate for the comparatively small deficits.

Recycling aluminum has one of the largest economic influences of all materials with the potential to be recycled. The financial cost of recycling aluminum is much less than mining or acquiring it from virgin materials. In addition, the cost of mining aluminum derivatives is much more taxing on the environment than recycling aluminum products. Aluminum ores are non-renewable resources that will be depleted eventually if they are mined without regulation or any effort toward more sustainable practices, including recycling. If no regulation is implemented, the supply of aluminum will remain in a continuously growing state of deficit. Consequently, a large increase in the demand for aluminum would result in an increased value of the metal. However, if the aluminum recycling market continues to grow, concerns about the depletion of this precious metal will become much less threatening in regards to the ecological and economic implications of such an occurrence. This would sustain the Earth’s natural environment as well as keep the market for aluminum relatively stable and competitive in a constantly evolving national and global economy. The cost of energy to produce aluminum in comparison to the energy required to recycle it is far from insignificant. It costs dramatically more energy to make aluminum from mined materials than it does to recycle aluminum. Using recovered aluminum cans saves 95 percent of the energy required to make the same amount of aluminum from bauxite, its virgin source (Valentim, Antao R). Furthermore, the waste of energy and other nonrenewable resources is astounding: “in 2003, 54 billion cans were recycled, saving the energy equivalent of 15 million barrels of crude oil—America’s entire gas consumption for one day” (Morgan, Fred W). This is yet another statistic that reinforces the fact that recycling should be practiced by the public because of the huge amount of energy that can be saved through recycling aluminum products instead of allowing them to occupy unnecessary space in a landfill. With these kinds of numbers speaking for the enormity of energy consumed in aluminum production, it seems illogical not to recycle aluminum. All of the environmental, energy, and economic costs and expenses to produce aluminum from virgin materials are incredibly high when compared to the low cost that is needed to use recycled aluminum repeatedly.

Along with the low costs that come with the aluminum recycling market it also adds to society and the economy by creating jobs. Jobs in all sorts of fields are generated in the effort to continue the chain of recycling in general and also aluminum specifically. A study from the EPA “identified 26 different types of recycling organizations, some of which might not commonly be seen as “recycling” businesses, such as steel mills, plastic bottle manufacturers, and pavement producers. Recycling is an integrated system that starts with curbside collection of materials by municipalities, involves processing of recycled materials, and leads to manufacturing of new products with recycled content” (United States, Results of the National REI Study). This shows the diversity of jobs that are created in an economy that is desperately in need of job creation from corporate positions all the way to volunteer positions. The recycling industry creates opportunities where there was nothing and even though they may not be the best jobs in the market they are by far superior to their counterparts of mining virgin materials to create aluminum. In fact, mining can be very hazardous and have negative health impacts; “long-term exposure [to aluminum ore] may result in coughing, pulmonary weakness and shortness of breath. OSHA, in the Occupational Safety and Health Guideline for Aluminum, cites a 1991 study that linked long-term aluminum particle exposure to pulmonary fibrosis.” (Ecklin, Erika). This is just one of the many downsides that accompany the trade of being a miner. The recycling industry creates many jobs in many different fields that are carry less potential health risks than working in mines obtaining virgin materials to produce aluminum.

Along with all of the other benefits to recycling already discussed, the recycling of aluminum cans sometimes carries incentives for consumers to recycle by offering compensation for each can that is recycled. The state of Michigan offers the largest compensation with ten cents per can returned while other states such as California, Hawaii, Connecticut, Maine, Vermont, Delaware, Iowa, Maryland, New York and Oregon offer five cents per can returned at local stores. This gives consumers motivation to recycle their cans while providing them with a sense of stewardship towards the earth since they are doing what is best for the environment by recycling. Aluminum cans are the most recycled product by far and the money paid to consumers who do recycle their cans each year adds up quickly. This large sum of money goes to good causes such as Habitat for Humanity, local schools, and directly to the consumers who will continue to spend and stimulate the economy with the money received from returning their aluminum cans to be recycled. Can drives can become a possible fundraising option that directly benefits local communities. Money can be raised to support various extracurricular activities in schools, sports teams, and many other community organizations and projects. The opportunity to generate charitable potential for small, local organizations by recycling cans benefits communities in states that utilize returnable can policies.

In the industry of recycling, aluminum is superior to the majority of the other materials that can be recycled. Aluminum recycling generates greater profits than any other recyclable material: “Depending on current market prices, recycling one ton of aluminum cans typically yields well over $1,000 of revenue, while recycling a ton of steel, glass, plastics, or paper comes nowhere close to covering the average collection cost of $200 per ton” (Anonymous). Recycling aluminum products pays for itself as is seen with the revenue being considerably higher than any other material as it soundly covers the cost of collection per ton with a considerable amount remaining. The profits generated from recycling aluminum products are even used to offset the expenses of different kinds of recycled materials that fail to make a profit such as plastic, glass, and paper.

It appears that there are vast economic benefits in the aluminum recycling industry. With such wide-reaching benefits, it is puzzling why it is not legally mandated to recycle aluminum products. In order to see an increase in this market, it is a good idea to offer incentives for recycling aluminum nationwide. California, Connecticut, Delaware, Hawaii, Iowa, Maine, Massachusetts, New York, Oregon, and Vermont offer 5 cents to recycle aluminum cans while Michigan offers 10 cents per recycled aluminum can. In these states, the recycling rate of aluminum cans is drastically greater than in other states. This is perfectly simple logic: if you offer people money to do a simple service, they will be more likely to do it than someone who is not offered anything to do the same service. If there was legislation in place nationwide offering incentives for returning bottles and cans the number of recycled materials would greatly increase as can be seen in the states that already do offer such incentives. Also, incentives for recycling should be expanded to recycling all forms of aluminum, not just bottles and cans. Since this material is the most beneficial to be recycled, the United States should increase efficiency and maximize those benefits by recycling as much aluminum as possible. It appears that the has similar plans: “For increasing post-consumer scrap, federal programs could require can recycling, either through mandatory recycling or through a financial incentive, such as deposits. Either of these programs drives down the cost of obtaining scrap by shifting the cost of collection to consumers (through their time and effort expended to save and return cans), collection programs (also funded by consumers/taxpayers), and industry (in the case of deposits). This low-cost scrap allows suppliers to provide more scrap at an even lower cost” (United States, Markets for Recovered Aluminum). Incentivizing the recycling of aluminum is a great way to increase its recycling value and cut down the use of virgin natural resources.

Recycling aluminum products is an asset to the market in American society because it is beneficial to consumers and stimulates the economy. The aluminum recycling industry has a few negative aspects, but the positives greatly overshadow these insignificant costs. Mining new virgin materials to make aluminum is much more costly in regards to energy, money, and to the environment, while reconstituting aluminum out of recycled products is immensely cheaper in terms of money and energy and is less taxing on the environment. The recycling of this precious metal creates many jobs with a wide range of titles to put more people in the work force. Also, recycling aluminum cans should be encouraged because of the monetary incentive in the state of Michigan. The United States government should use this information on aluminum to put in place nationwide legislation to incentivize all aluminum products and reap the many benefits that accompany recycling this valuable material. With all of the affirmative features of recycling aluminum products, why does everyone not do it?

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