

Aisin Manufacturing Illinois

2017 Illinois Sustainability Award Winner

I ILLINOIS

Illinois Sustainable Technology Center
PRAIRIE RESEARCH INSTITUTE

Aisin Manufacturing Illinois (AMI) is one of three Aisin plants located in the AMI Industrial Park in Marion, Illinois. Aisin is an automotive manufacturer of a wide range of products such as sunroofs, grill door shutters, back door components, center pillar garnishes, roof rails, and door handles. They serve various customers, including Toyota, General Motors, Lexus, and Subaru.



Part of AMI's mission is to help build a better vehicle-oriented society and benefit people's living environment. "Create with," "Harmonize with," and "Be with" are the slogans of resolution AMI follows for creating a prosperous society together with customers and local markets worldwide.

"GO GREEN" INCENTIVES

In February 2010, AMI implemented a "Go Green" program that incentivizes employees to make environmentally friendly purchases. Through this program, employees receive money back if they meet any of the following criteria:

- Purchased new or used hybrid vehicle
- Installed geothermal or alternative energy heating or cooling system
- Installed air conditioning or furnace system with SEER rating 13 or higher
- Performed any whole house energy efficiency upgrades
- Purchased LED or CFL lightbulbs or any new Energy Star rated item
- Purchased recycling containers or bins

In the program's inaugural year, AMI reimbursed \$1,580 to 47 team members. Over the past 7 years, the program has grown steadily. In 2016, AMI reimbursed \$9,268 and 138 team members participated.

WETLANDS

Construction of the AMI facility directly impacted an existing 0.4 acre wetland. Plans for a replacement 0.6 acre mitigation wetland were developed, to be located approximately 800 feet immediately south of the original wetland. The topography and the physical characteristics remained similar to the original wetland.

Following an initial 5 year monitoring plan, efforts to expand and diversify the wetland continued. From 2007 to 2017, AMI added several native plants to the mitigation wetland as part of Earth Day celebrations. For example, in 2015 willow trees were added, while 2016 plantings included re-establishment of native Swamp milkweed. Earth Day 2017 focused on re-establishing native shrubs to the area.



KEY STATISTICS

	\$212,982 in energy savings from 2008 to 2013
	1,709 tons CO ₂ avoided
	12,040 tons material diverted from landfill 2009 to 2016
	2,214 tons of material recycled in 2016
	\$9,268 in incentives to employees for "green" purchases in 2016

ABOUT AMI

Established: 2001

Location: Marion, IL

of employees: 1,641

Produces: A variety of automotive components and systems

NAICS code: 336390

Website: www.aisinil.com

ABOUT THE ILLINOIS SUSTAINABILITY AWARD

Since 1987, ISTC has presented Illinois Sustainability Awards to organizations in Illinois that have demonstrated a commitment to sustaining our environmental and economic health.

Any Illinois public or private organization is eligible to apply.

Find out more at istc.illinois.edu/istcawards or email istc-info@illinois.edu

TOOLS FOR SUCCESS

AMI utilizes several tools to continuously improve on their sustainability efforts.

These include:

- ISO 14000 Management System
- Employee opinions and improvement suggestions are incorporated into the environmental planning process
- Environmental “Go Green” incentives for employees that extend outside of the workplace
- Community outreach initiatives that promote a wider adoption of sustainability practices
- Use of outdoor space around the facility to improve habitats for plants and wildlife



ABOUT ISTC

The Illinois Sustainable Technology Center is a division of the Prairie Research Institute at the University of Illinois at Urbana-Champaign.

ISTC’s mission is to encourage and assist citizens, businesses, and government agencies to prevent pollution, conserve natural resources, and reduce waste to protect human health and the environment of Illinois and beyond.

Find out more at istc.illinois.edu or email istc-info@illinois.edu

ENERGY SAVING INITIATIVES

AMI has focused on energy saving activities since 2008. In these 8 years, extensive energy saving projects were implemented. From 2008 to 2010, one of the main projects focused on lighting. Through the elimination and reduction of lighting in non-critical areas, upgrading of mercury and fluorescent lighting, and installing of occupancy sensors, AMI saved over \$130,000 while reducing CO2 emissions by 856 tons.

By 2010, AMI began concentrating on its HVAC and industrial systems. Projects such as adding variable frequency drives to cooling tower fan motors, shutting down dual lane glass curing ovens, and replacing equipment with high efficiency models contributed to significant cost savings while reducing carbon emissions further. In all, between 2010 and 2013, AMI saved more than \$74,000 and reduced CO2 emissions by 791 tons.

Current projects include further upgrading lights to LED and processing upgrades from air powered switches to higher efficiency electrical switches.

ZERO LANDFILL FACILITY

On September 1, 2009, AMI achieved zero landfill status and has maintained that status ever since. Before major recycling activities began in 2007, AMI sent approximately 494 tons of trash annually to the landfill. In 2007, AMI began recycling 5 gallon pails, resin bags, aerosol cans, industrial absorbents and rags, sunroof glass, magazines, catalogs, and newspapers. Between 2007 and 2008, the amount of material sent to landfill decreased to 114 tons. In 2008, AMI resolved to reach zero landfill by continuing to strengthen their recycling program. They began recycling all injected plastic scrap, plastic applicator bottles, and brown paper towels from the restrooms, which were recycled as cardboard. On September 1, 2009 AMI ceased sending trash to a landfill.



Instead, they began sending non-recyclable material to Covanta Indianapolis, a facility that generates power by using waste materials as fuel.

Between 2009 and 2016, AMI diverted over 24,079,200 pounds of material from the landfill, 27% of which was sent to Indianapolis as waste-to-energy. The remaining 73% was recycled.

INCORPORATING REGRIND PLASTICS

Many of AMI’s manufacturing lines are incorporating regrind plastic back into production feedstock. Regrind is a material that has been processed at least once before and subsequently is shredded or granulated in order to be used again. Manufacturing lines are using anywhere from 20 to 30% of regrind plastic for new products. This significantly reduces the amount of injection scrap plastic that must be recycled and the amount of raw materials that are consumed by those manufacturing lines.