

# TENNESSEE GREEN STAR PARTNERSHIP MEMBER HIGHLIGHT



By: Caleb Powell

Nucor Steel Memphis, Inc. (Nucor Memphis) produces special bar quality (SBQ) steel using an electric arc furnace that opened in 2007. SBQ steel is a class of long steel products engineered for tough applications, such as bearings, crankshafts, and gears. Nucor Steel Memphis is committed to being the safest, highest quality, lowest cost, most productive and profitable bar mill in the world. Nucor Steel is the largest recycler in the USA and produce their steel from recycled material (95% metal-scrap). Nucor Steel headquarters is in Charlotte, North Carolina.

Nucor Memphis operates an electric arc furnace to melt down scrap metal to form new steel shapes. Nucor steel mills are already recognized for achieving a greenhouse gas intensity rating that is one-fourth the global average and one-fifth of a traditional integrated blast furnace steel mills. Nucor Memphis has taken greenhouse gas and energy savings one step further by collaborating with their local power utility to develop a strategy of "load shedding". Load shedding works by shedding high power loads during peak demand periods. Operating the plant during periods of low power grid conditions makes Nucor Memphis far less reliant on high CO2 intensity sources.

The Memphis facility is one of Tennessee's largest metal recyclers. Every year, Nucor's melt shop processes hundreds of thousands of tons of scrap metal into new steel shapes ready for forging into new products which would otherwise be disposed of in landfills or left abandoned in neighborhoods and communities. Recycling scrap metal also reduces the need to mine precious metals from the ground and preserves valuable natural resources such as iron ore, coal, and limestone. This facility has figured out ways to recycle other materials throughout the steel making process.

## FEATURED THIS MONTH

- Established 2007
- Employs approximately 520 employees
- Member since 2022

## FUN FACT:

- Nucor Steel is the largest metal recycler in the USA.



Click the above picture to see the Nucor Memphis video.

In 2021, Nucor Steel Memphis installed a system of oil capture equipment including rope skimmers and an oil spill containment boom working in conjunction to remove floating oil from the water system supplying the hot rolling and finishing operations of the facility. This installation captured and recycled 34,000 gallons of used oil in the first year. Prior to the installation of this equipment, Nucor Memphis captured about 14,000 gallons of used oil from the water system per year. Recapturing used oil saves money and cleans up the water system, making it easier to recycle it back into the system.

As a corporation, Nucor has committed to a 35% combined reduction in steel mill Scope 1 and Scope 2 Green House Gas (GHG) intensity by 2030, using 2015 baseline goals. This goal will take Nucor's steel mill CO2 emissions down to 77% less than 2020's global steelmaking average. Nucor became the first major industrial company in the world to join the United Nations 24/7 Carbon-Free Energy Global Compact, which is aimed at accelerating the decarbonization of the world's electricity systems. In addition, Nucor is also making investments in clean energy and other technologies that have the potential to reduce its GHG emissions even more. Nucor has signed several Virtual Power Purchase Agreements that are funding the development of wind and solar projects. As of today, nearly 40% of their power comes from clean or renewable energy sources.

Community involvement is a very important part of Nucor Memphis' mission. Every fall, they host an event called the Annual Nucor Community Festival where they give away backpacks filled with school supplies and hold a mini festival on the grounds. The facility holds a Feed the Needy Thanksgiving Food drive every year and contribute to an annual wish list goodwill foster home. Nucor also understands the importance of teaching in the community and holds the Reach Memphis Nucor Steel Scholars each year, which is a program through local high schools to experience mentorship and guidance through high school to set the students up for success after they graduate.



**[The Tennessee Green Star Partnership](#)** is a voluntary environmental leadership program designed to recognize industries in the state that are committed to sustainable practices. If you are interested in joining Nucor Steel Memphis and other sustainable industries in Tennessee by becoming a member, please contact us.