



Commitment to Energy Conservation

As a foundry, we recognize the critical importance of energy conservation and sustainability across various dimensions, including electricity usage, water management, waste reduction, recycling practices, and greenhouse gas emissions. Our commitment to these areas is a testament to our dedication to environmental responsibility and long-term viability.

Electricity Conservation: Melting metals in a foundry is an energy-intensive operation. To conserve electricity, we implement energy-efficient technologies, optimize our processes, and invest in advanced control systems. These measures not only reduce our environmental impact but also lead to significant cost savings.

Water Management: Efficient water use is crucial to minimize our environmental footprint. We implement water recycling systems to reduce consumption and minimize water waste. This not only helps conserve a resource but also lowers operating costs.

Waste Reduction: We are committed to waste reduction through better process control, waste minimization techniques, and recycling initiatives. By reducing waste, we decrease disposal costs and reduce the environmental burden of landfilling.

Beneficial Reuse: Through initiatives like recycling scrap metal, reclaiming used sand, refractory material recycling, and slag utilization, we find value in materials and energy streams that were once discarded.

Recycling Practices: Foundries are inherently recyclers. Recycling is a fundamental aspect of our sustainability efforts. This conserves resources, reduces the need for raw materials extraction, and minimizes the energy required for manufacturing new products.

Greenhouse Gas Emissions: Foundries can be significant contributors to greenhouse gas emissions due to energy-intensive operations. To mitigate our carbon footprint, we invest in cleaner energy sources, such as renewable electricity or more efficient combustion technologies. Additionally, we explore carbon capture and storage options to further reduce emissions.

Lifecycle Assessment: We conduct lifecycle assessments to evaluate the environmental impact of our products, from raw material extraction to final production and distribution. This comprehensive approach helps us identify opportunities for further improvements in sustainability.

Employee Engagement: Sustainability is a collective effort. We engage our employees in sustainability initiatives, raising awareness and encouraging their active participation in continuous improvement programs. Engaged employees often generate innovative ideas that further enhance our conservation efforts.

Regulatory Compliance: We ensure strict compliance with environmental regulations and stay up-to-date with evolving sustainability standards. This not only minimizes legal risks but also demonstrates our commitment to responsible business practices.

Energy Conservation is at the core of our sustainability efforts. It's not only about reducing our **environmental footprint** but also about ensuring our long-term **viability** in a rapidly changing business landscape. We are committed to this journey of **responsible** and **efficient energy management**, understanding its profound implications for both our business and the environment.

Energy

As a foundry, we recognize the substantial environmental implications of our energy-intensive operations. The processes of melting metals, relying heavily on electricity, natural gas, and coke, are major contributors to our energy footprint. Recognizing this, we are unwavering in our commitment to optimize our energy usage.

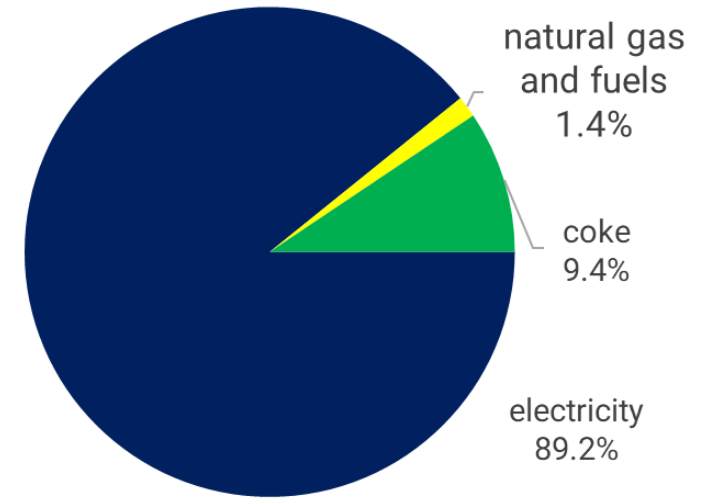
Our dedication to energy efficiency is twofold. While it is rooted in our environmental responsibilities, it also has a direct bearing on our operational costs. By minimizing our environmental impact, we ensure our resilience and adaptability in an ever-evolving business environment. We are steadfast in our pursuit of responsible energy management, recognizing its deep significance for both our enterprise and the planet. Simply put, energy conservation sits at the heart of our sustainability initiatives.

Energy Conservation Efforts

The largest opportunity to reduce our environmental impact is through energy conservation. Current conservation efforts include:

- **Efficient Furnace Technology:** We utilize energy-efficient furnaces and retrofit our existing furnaces with advanced linings and heat recovery systems as upgrades are possible to reduce energy consumption.
- **Optimized Operations:** Time our melting processes during off-peak hours, when possible, to benefit from lower electricity rates.
- **Regular Maintenance:** Ensure that all our electrical equipment, including motors, compressors, and conveyance systems, is maintained regularly to operate at maximum efficiency.
- **Variable Frequency Drives (VFDs):** We have installed VFDs on our motors, allowing them to run only at the necessary speed, reducing electricity consumption.
- **Efficient Lighting:** We have upgraded to LED lighting and employ motion sensors in areas that are not continuously occupied.
- **Training and Awareness:** All our employees are aware of the importance of energy conservation and train them in best practices.
- **Optimal Charge Material:** We use pre-sorted and cleaned charge materials, as these reduce the melting time, thereby saving energy.
- **Energy Audits:** Conduct energy audits regularly to pinpoint areas of inefficiency and develop strategies to address them.
- **Energy Partnerships:** Partner with local utility providers, utility agencies and ENERGY STAR to further energy conservation
- **Efficient Compressed Air Systems:** Ensure that compressed air system is leak-free and operates at the most efficient pressure settings.
- **Optimize Sand Systems:** Optimal reuse of sand, leading to reduced requirements for new sand preparation and saving energy.

2022 Energy Usage



Grede has pledged to meet the ENERGY STAR Challenge for Industry with a goal of reducing energy intensity by 10% over a span of 5 years.



Currently, all facilities are on track to reach this significant milestone.