Steel & Sustainability

We know that steel is one of the most sustainable metals as it's merely used (and therefore reused) as opposed to consumed.

But, to ensure the steel industry stays ahead of the game we need to maintain its position as an environmentally friendly "green" construction material.

To do this we must to commit to continuous improvement in life cycle, production, and operational practices.

Here we've segmented the areas where sustainability can be measured, monitored and therefore improved.

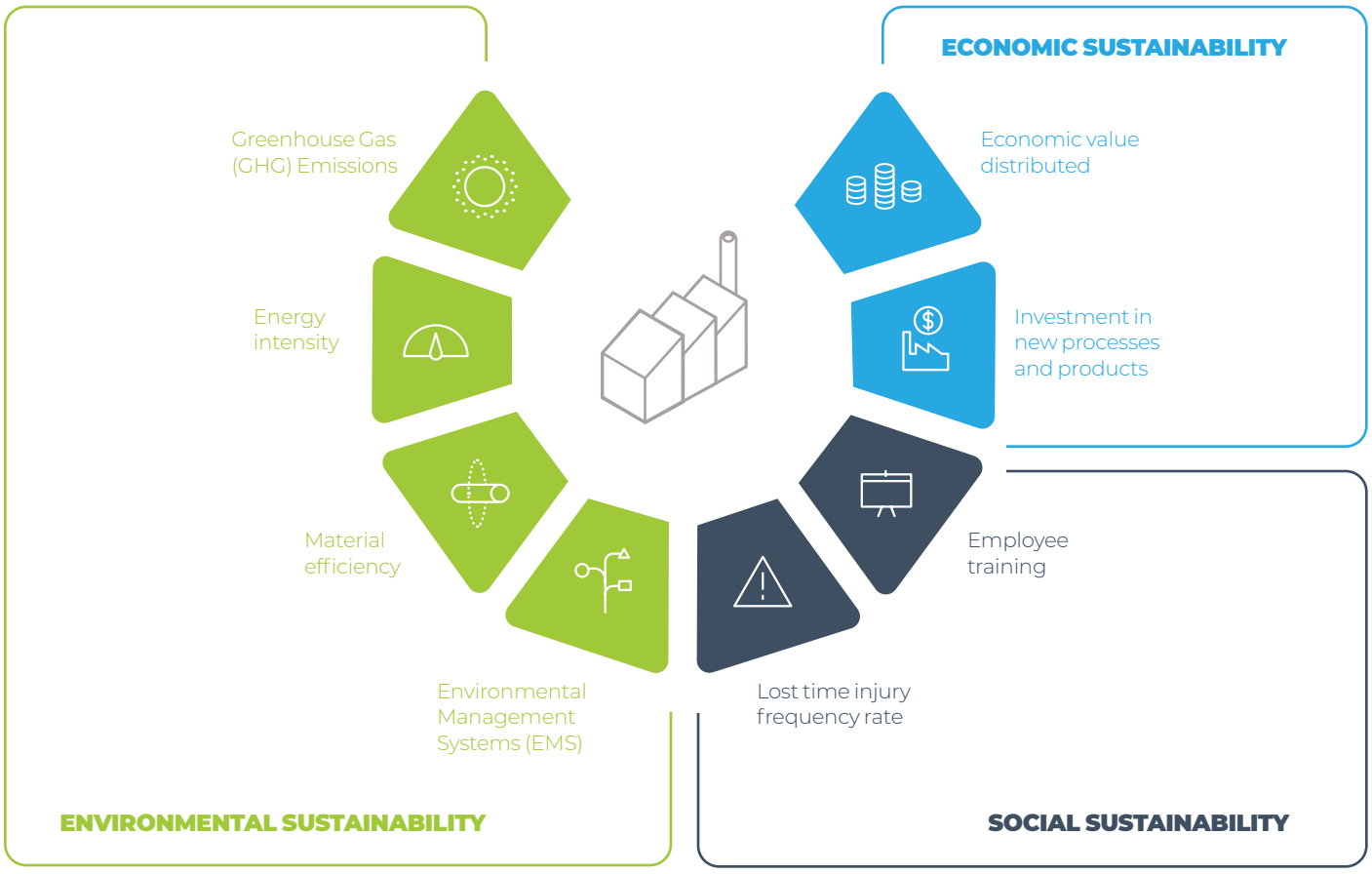
Join us on this journey of discussion and discovery.

#steelsustainability

Take action today

www.pecnw.com

Sustainability Metrics



Greenhouse Gas (GHG) Emissions

Reducing GHG emissions in steelmaking must be tackled on a global level. Making the substantial CO2 reductions required will need technology transfer, collaboration and breakthrough technologies.

Energy intensity

Steel production is energy-intensive. Reductions in energy consumption benefit the environment and enables increased competitive advantage.

Material efficiency

The recovery and use of by-products within and outside the steel industry combined with the responsible management of natural resources contribute to material efficiency and help to prevent waste.

Environmental management systems

Energy and environmental management systems are an effective way to manage energyl performance and to ensure code compliance.

Advanced lighting control systems can provide many of the same monitoring capabilities in the absence of an EMS or BMS system.

Lost time injury frequency rate

The steel industry employs millions of people. The safety and health of the people who work in the steel industry is of paramount importance.

Employee training

Training programmes aim to expand the knowledge and skills of employees and help them to make the best use of their talents.

Investments: processes & products

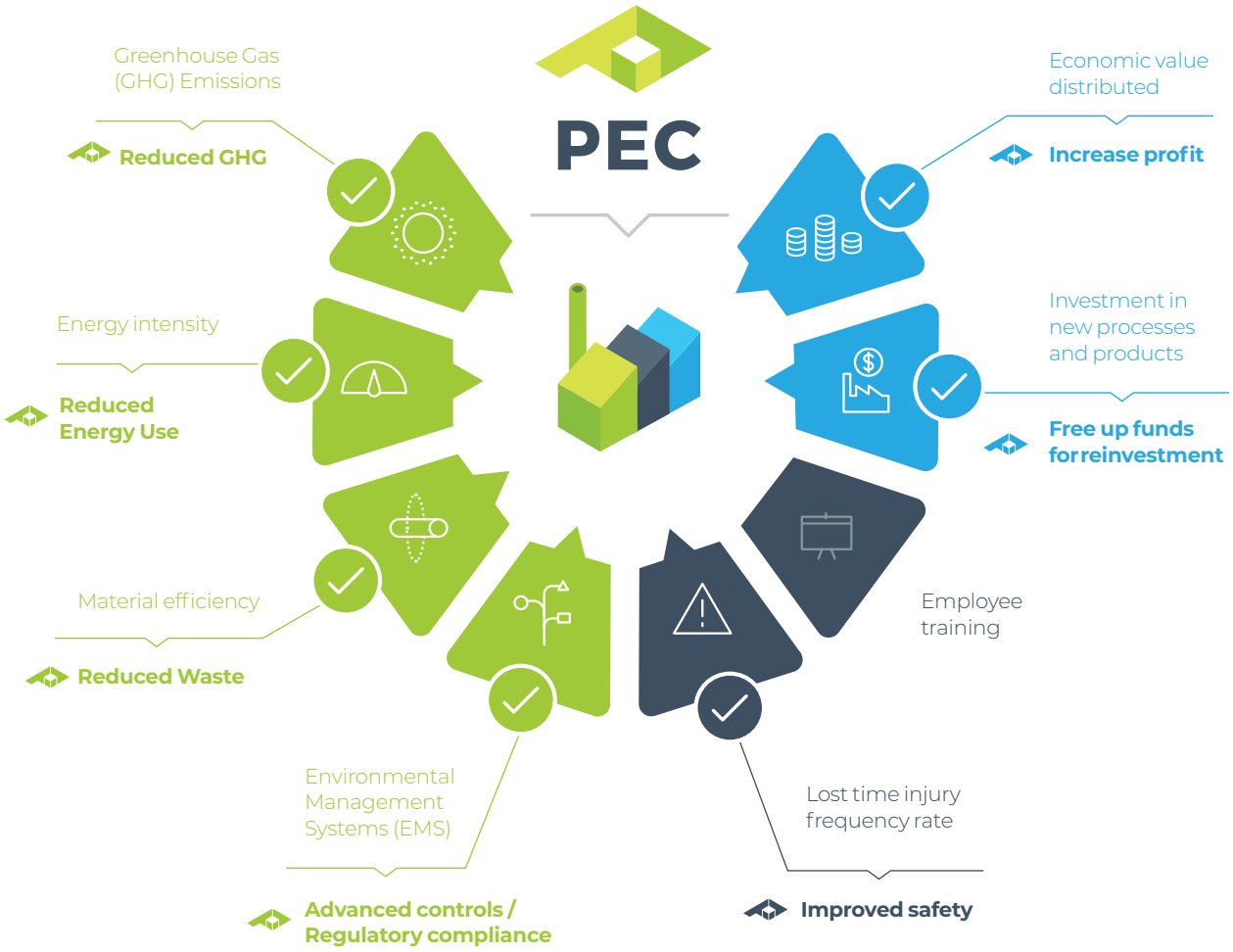
Investments in new processes and R&D contribute to long-term sustainability in the steel industry.

Economic value distributed

Steel is critical to economic growth. It is important to quantify the value companies create and to establish how much of this wealth is distributed to society.

Source: https://www.worldsteel.org/en/dam/jcr:c2fc4379-e6dc-4631-badb-8e7c41660b32/sustainable_steel_2016_vfinal.pdf

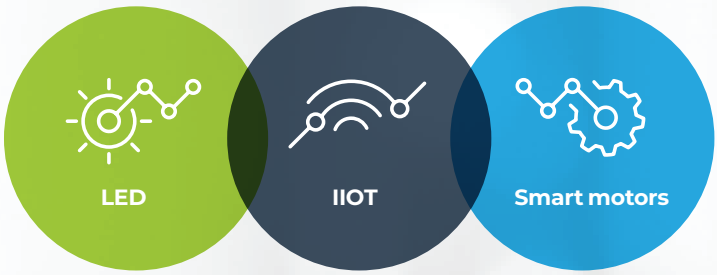
Optimized Sustainability Score



Future-Proofed Solutions

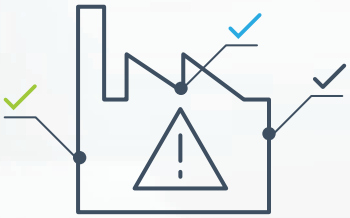
Energy optimization solutions improve almost every WSA metric. By transforming your lighting and HVAC performance your facility can see significant improvements in energy use, energy spend, product waste, and safety.

Furthermore, the technology available with connected LED and motors systems future-proofs industrial spaces to generate savings year-over-year providing additional insight, visibility and control of your systems.



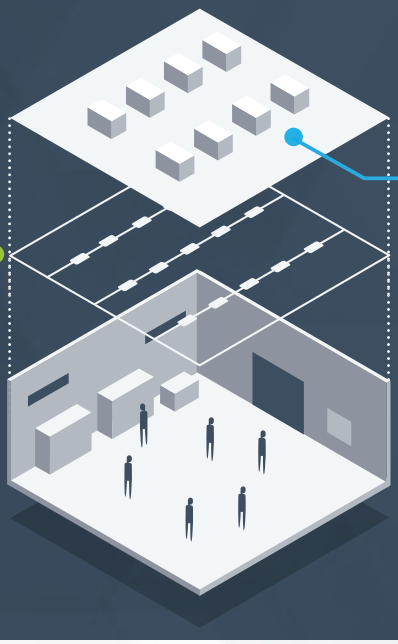
Room for improvement

The graphic below highlights some of the issues with legacy lighting & HVAC motor systems that can be significantly improved by energy optimization (LED & Motors) upgrades. Adding advanced controls unlocks automation and system performance metrics giving you a level of control and analytics previously unimaginable.



Legacy Industrial Lighting

- Energy use
- Energy bills
- Safety
- Lightlevels
- Sustainability issues
- Maintanence costs



Old Belt-driven AC induction Motors

- Energy use
- Energy bills
- Reliability
- Air cleanliness
- Sustainability issues
- Maintanence costs

LED

Upgrading to LED can have a huge impact on your facility operations, save money as well as helping you meet sustainability goals

25x Longer lifespan

72% Less energy (avg)

Increased light levels

Increased Safety

Reduced waste

Intelligent Technology

Advanced network controls can help automate and maximize your systems. This gives you a greater level of control and allows you view your system performance data in detail allowing you to predict issues in advance.

Smart Motors

Smart motors can help you optimize HVAC motor performance, send maintenance notifications, and schedule run times to maximize energy savings.

75% Annual energy savings

60% RTU fan cost reductions

50% More efficient

Automated scheduling

Cleaner air & reduced pathogens

Intelligent Technology

Farwest Steel

Total Savings

Annual kWh savings

1,386,441 kWh

Annual energy savings

$110,914

Incentives

$230,550

That's equivalent to...

CO^2 removed — **843.1** Tons

Carbon sequestered by — **1,280** Acres of trees

Gas Saved — **114,452** Gallons

EMJ Metals

Total Savings

Annual kWh savings
2,924,300 kWh

Annual energy savings
$269,439

Incentives
$426,982

That's equivalent to...

CO^2 removed — **2,279** Tons

Carbon sequestered by — **2,700** Acres of trees

Gas Saved — **232,654** Gallons