ABB combines 120 years of energy expertise with a broad portfolio of products, systems and services to help its customers do more with less. ABB can help you balance production and quality demands with energy efficiency solutions that reduce energy use while complementing your existing processes.

ABB helps industrial and utility customers improve energy efficiency in two ways:

- By providing specialists capable of appraising how energy is used and identifying areas for improvement.
- By providing equipment, systems and solutions to monitor and report on energy usage, reduce energy consumption and losses, improve productivity and manage equipment and processes more effectively.

ABB's specialists can help improve energy efficiency in a number of plant and process applications.

**Industrial and power generation energy efficiency on-site assessments**

Our approach is flexible and allows for each customer’s particular starting point. Projects are taken through the entire journey from assessment to commissioning, and can realize 5-20% savings in energy and utility usage. ABB has produced savings in the key core and auxiliary processes of both integrated and secondary steel operations.

**Motor / Drive System Assessments & solutions**

Electric motors consume about two-thirds of industrial electricity. ABB has a simple, methodical appraisal process to identify energy savings for specific applications and help reduce consumption of motors and machines for energy-intensive applications like blast furnace blowers and descaling pumps.
Power Quality Assessments & solutions
ABB has extensive experience and the latest technology to improve power quality by eliminating disturbances and improving power factor for medium- and low-voltage industrial networks. This helps reduce energy inefficiencies and losses, and prevents equipment damage or failure and lost production.

Boiler Fingerprint
ABB’s experts can help you run your boiler more efficiently and more reliably, and improve safety while reducing your carbon footprint. This includes extending a boiler’s operating range and making it more responsive to process steam demands.

ABB has a diverse portfolio of equipment and solutions to complement its energy expertise. In addition to saving energy and reducing CO2 emissions, these solutions complement your operational goals of increasing throughput and product quality.

ABB Metals Integrated Production and Scheduling Optimization (MIPSO) solution helps manage the complexities of melt shop and rolling mill scheduling. In addition to reducing energy use, MIPSO helps maximize throughput and shorten wait and lead times.

cpmPlus Energy Manager is a decision support tool that allows you to monitor and report energy usage and set performance targets. The tool can help you accurately predict and balance energy demand based on production planning, and optimize energy purchasing and use.

cpmPlus also offers a Byproduct Gas Management solution for integrated steel plants that can help optimize large and complex gas networks and reschedule based on supply and demand changes. This also reduces gas flaring by up to 50%.

ABB offers a wide variety of high-efficiency motors (NEMA, IEC), and variable speed drives that can reduce energy use by 30% to 50% in many applications. ABB’s Direct Torque Control (DTC) motor control platform helps demanding applications like rolling mills reduce wear and downtime, optimize production and ensure product quality in addition to energy savings benefits. ABB also offers multi-motor operation, where several motors can be linked to one multi-drive.

ABB offers advanced Electro Magnetic Stirrer (EMS) solutions for stirring the melt, as well as related maintenance and service. More than 1600 furnaces and strands are equipped with ABB EMS. These can boost yield and product quality while saving energy for electric arc and ladle furnaces and continuous casters.

ABB’s specialists can help you analyze where and how you use energy.

ABB FACTS Static Var Compensators (SVC) offer dynamic reactive power compensation for EAFs, stabilizing voltage and reducing random voltage fluctuations, harmonics and unbalance. This results in reduced melt times and increases production as well as lowering per ton energy use. This also reduces electrode consumption and extends the life of furnace linings. ABB Arc Stabilizer increases steel output for EAFs running close to capacity by allowing the furnace to operate at a high average current closer to furnace limits.

ABB has a complete portfolio of transformers designed for reliability and durability as well as energy efficiency. This includes high efficiency amorphous metal core transformers with 40-70% lower no-load losses to EcoDry transformers for reduction of no-load losses and lower losses on the large average loads of energy intensive iron and steel applications.