Coatings for Energy Generation
Today’s energy generation industry includes both renewable and fossil fuel branches. Most non-solar energy-generating machinery relies on mechanical systems for transformation of one energy type into another. Mechanical systems operate under challenging conditions, like high contact loads on bearings in a wind turbine, abrasion and corrosion encountered while extracting oil – whether off- or on-shore – or cavitation on blades of steam turbines.

Ionbond’s coatings are engineered to withstand these challenging conditions and add a safety margin for reliable operation of power generation systems. Ionbond’s Tribobond™ and Ionbond™ CVD coatings extend longevity of mechanical components, reduce friction, protect against corrosion, reduce the negative impact of contact fatigue phenomena and protect against hydrogen embrittlement and permeation.

Application areas

**Oil and gas:** Cope with the challenging environmental conditions and add a safety margin for the reliable operation of equipment and components for downhole and on- and offshore oil production.

**Steam & Gas Turbines:** Improve the resistance to cavitation and erosion of leading edge as well as oxidation resistance due to advanced aluminizing and add fretting protection of blade roots.

**Wind Power:** Reduce negative impact of contact fatigue phenomena, boost reliability of wind turbines operation and extend maintenance intervals.

**Energy Storage Systems:** Increase longevity of mechanical components (seals, vanes, impellers, pistons), minimize friction losses during energy conversion, improve storage efficiency and protect against hydrogen embrittlement and permeation.

Can we help you?

Dr. Val Lieberman, Global Segment Manager Industrial Components, will be glad to support you.