



# GREEN IS THE COLOR OF MONEY

Written by David Orłowski, CEO of Inpro/Seal Company and inventor of the bearing isolator.

**At Inpro/Seal, we view the “greening” of the process industries in general, and the maintenance function in particular, as one of the biggest challenges and profit opportunities currently facing our customers. Lean, efficient manufacturing operations are a vital part of the day-to-day concerns we face at Inpro on a daily basis.**

There are a number of ways to qualify as being “green” in the process industries:

You could buy and install a 1.5 megawatt wind turbine for about \$1.2 million. You could cover a football field with solar panels and hook it up to the grid. Or ..... you could install 1,000 non-contact bearing isolators in the place of 1,000 contacting face or lip seals in your rotating equipment. Bearing isolators are permanent bearing protection devices and consume very little, if any, electrical power to operate. They are extremely effective in their role of bearing isolation and last almost forever.

Contact seals each consume about 147 watts of electrical power while they are temporarily sealing the bearing enclosures of pumps and other rotating equipment. Thirty eight (38) million rubber lip seals are produced for industrial use each year for pumps, gearboxes, fans, paper machine rolls and other types of rotating equipment.

Most electric motors, even NEMA Premium motors, leave the factory without any effective bearing protection at all. When they are rewound after an all too early bearing failure, it is an energy intensive process. IEEE-841 motors are equally as efficient as the NEMA Premiums and last twice as long, because they are inherently bearing protected by means of non-contacting compound labyrinth bearing isolators.

Being “green” doesn’t necessarily cost a lot of “green”. For each megawatt saved by supplanting contact seals with bearing isolators, you can count on bringing \$680,000 to the bottom line of your operation. At least one Company in the bearing isolator business now offers

a three (3) year participation contract to supply isolators free of charge up front and then collect one-half of the net savings derived from their use in your plant. No net savings; no charge to you. It’s a no-brainer!

Each megawatt of electrical power conserved eliminates 2,000 pounds of carbon dioxide, a greenhouse gas, from being spewed into the environment. A ton here; a ton or two there of additional CO<sub>2</sub>, and pretty soon we’re talking about the possibility of real irreparable harm to the earth’s environment.

Being green may be easier and more economical than you once thought it to be. It isn’t all carbon trade-offs and hybrid cars. It could be energy conservation in the industrial-process plant or productivity in manufacturing. You may or may not agree with the group of scientists that are concerned with the man-made component and the acceleration of the amount of CO<sub>2</sub> in the environment. Maybe you are more inclined to align with the group that blames natural phenomena such as intensity of the sun or storms and flares on its surface for the 1 degree F increase in the earth’s average temperature over the last decade.

In any event, conservation of electrical energy, be it derived from coal or biomass, is a noble and profitable undertaking in industry, because net monetary savings drop unimpeded to the bottom line. A more profitable enterprise is a more secure and hospitable environment in which to do life’s labors.

**How “green” would you like to be?  
It’s your move.**