

Reducing gas and coal plant emissions

A global analysis of power plants found that CO₂ emissions from the world's fleet of coal and gas facilities can be reduced by 10% - the equivalent of removing 95% of cars off US roads.



“The technology to make coal and gas more efficient is available now – countries and companies alike should be taking advantage of this to lower their carbon output,” said Deb Frodl, global executive director, Ecomagination, GE. “These actions should be taken as a complement to continued investment in renewable energy sources as we all strive to find carbon reductions across the energy mix.”

GE used a proprietary set of data for each coal and gas-fired plant in the world to uncover potential opportunities to improve plants’ heat rate and lower carbon emissions. The analysis comes as countries around the world are looking for climate saving solutions that will help them transition to a lower carbon energy future.

Potential for coal plant upgrades

- Coal power plants could be made approximately 4% more efficient with 2,5% in efficiencies coming from turbine and boiler upgrades, and 1,5% coming from software improvements.
- The analysis also found that applying all potential upgrades to coal power plants can remove 900m metric tons of CO₂ (11% of total coal power emissions) – more than the annual CO₂ output of the United Kingdom and France combined.
- China (296MT) and India (143MT) are two countries with big opportunities in the coal power sector.

Potential for gas power plant upgrades

- Similarly, gas-fired power plants could be made approximately 3,3% more efficient with 1,8% coming from hardware upgrades and 1,5% coming from software improvements. These savings could reduce global gas power emissions by 203 metric tons or 8,8%.
- Russia (45MT) and the US (34) are two countries with big opportunities in the gas power sector.

Paul McElhinney, president & CEO, GE Power Services, says “Globally, carbon emissions from coal and gas-fired electricity generation can be reduced by 10% annually, and GE’s software and hardware upgrade solutions can help make this a reality with moderate investments in the installed base.”

According to the International Energy Agency (IEA), approximately 41% of global electricity generation comes from coal-fired power plants and 22% comes from gas-fired power plants. The IEA estimates that both fuels will see increased use over the next decade. For markets with significant energy needs and coal reliance, like China and India, upgrades to power plants can help provide cleaner energy options and help countries make progress towards their climate goals. With natural gas playing an increasingly important role in many markets around the world, there is also great opportunity to ensure that it too is being utilized as efficiently as possible.

Source: allAfrica

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