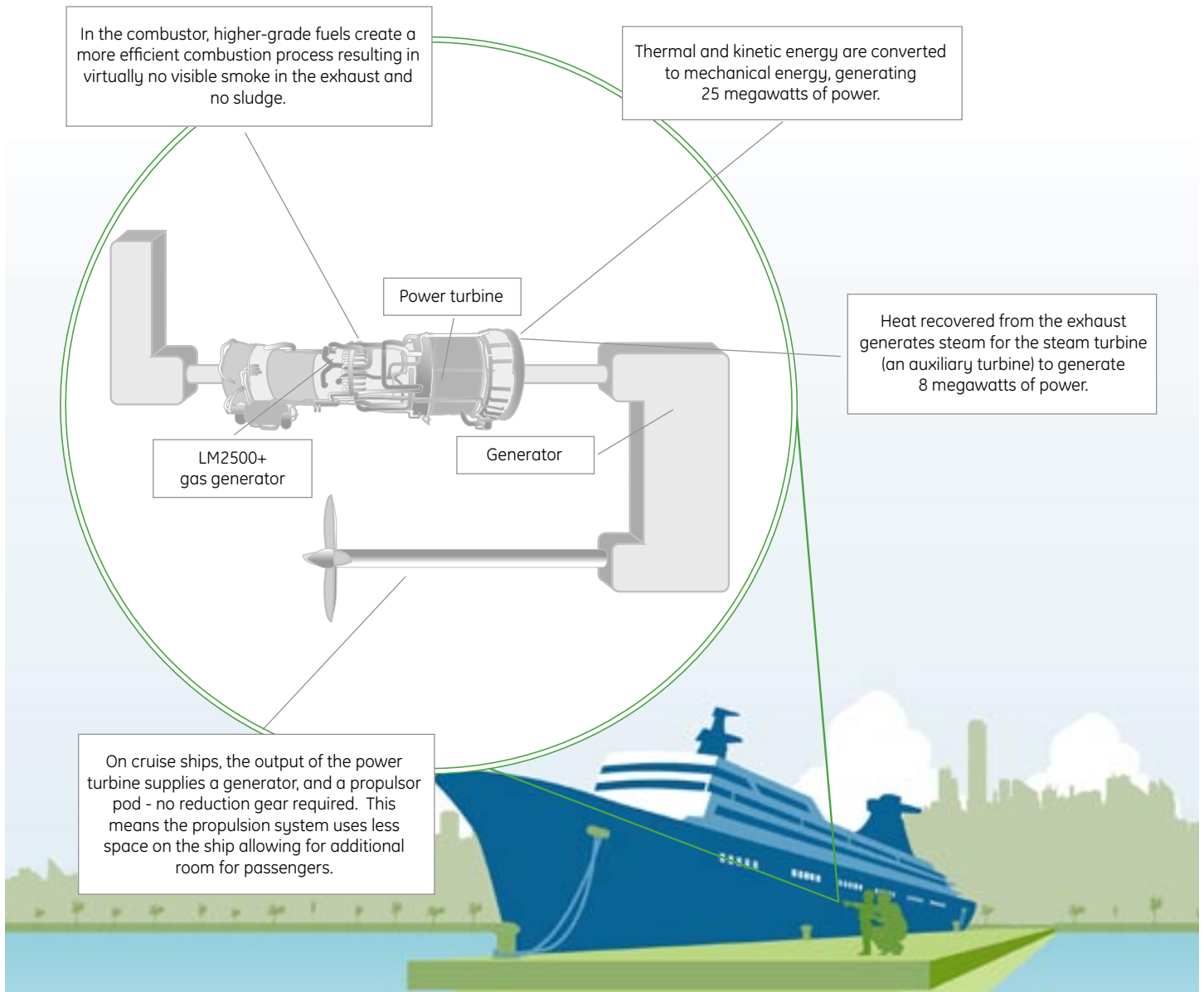


# LM2500+ marine engine

Keeping cruise ships clean and quiet.

With the LM2500+ marine gas turbines powering cruise ships, GE brings ecomagination to the high seas and helps reduce environmental impact to ports around the world. Thanks to the highly efficient combustion process and the quality of fuel used in the LM2500+, these marine engines help preserve the natural beauty of the places they visit.



# LM2500+ marine engine

Keeping cruise ships clean and quiet.

## More information about the LM2500+ marine engine

As an aero derivative engine, the same high tech materials and designs that help make GE aircraft engines some of the most advanced in the world, also enhance power for cruise ships. With the use of lightweight materials and the inherent power density of aero gas turbines, the LM2500+ weighs up to 74 percent less than a comparable diesel engine and occupies roughly one third of the space.

Noise and particulate emissions are also greatly reduced compared to diesel engines. Nitrogen oxide, sulfur dioxide, and particulates are reduced from 60-90 percent while perceptible noise is roughly one fifth.

On a typical trans-Atlantic cruise, a ship powered by LM2500+ gas turbines would operate far more cleanly than a comparable ship powered by diesel engines – reducing particular matter emissions by 4,200 pounds (62 percent less), nitrogen oxides by nearly 169,000 pounds (67 percent less), and sulfur dioxide by 259,000 pounds (93 percent less).

If a typical cruise ship, powered by diesel engines, were to make a single trip around the world, it would produce the following:

- 380 tons of nitrogen oxide
- 9 tons of particulate matter
- 370 tons of sulfur dioxide

If a comparable ship powered by LM2500+ gas turbines made that same trip, it would produce the following:

- one third of the nitrogen oxide
- less than one half of the particulate matter
- one fifteenth of the sulfur dioxide

In some of the more pristine ports around the world, the production of sludge and smoke is severely regulated. These same ports welcome LM2500+ powered ships as they are virtually sludge- and smoke-free. A typical diesel-powered cruise ship emits visible smoke and produces over 500 tons of sludge per year making the LM2500+ a clear choice indeed.

While we think this engine is pretty special, other international agencies agree as well. The United States Coast Guard, Lloyds Register and Lloyd's List have all recognized LM2500+ cruise ship operators with environmental excellence awards for their contributions in moving toward a cleaner world.

