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# around the oil patch

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## Revolutionary in-pipe generator uses gas flow to power SCADA systems, more at remote locations

Getting power to a remote well or facility is a challenge, no matter what currently popular method you choose. Running power lines across the desert is very expensive; solar power is costly, unreliable and requires regular cleaning; internal combustion-powered generators require a reliable fuel supply and regular maintenance; wind power is not really available for singular installations.

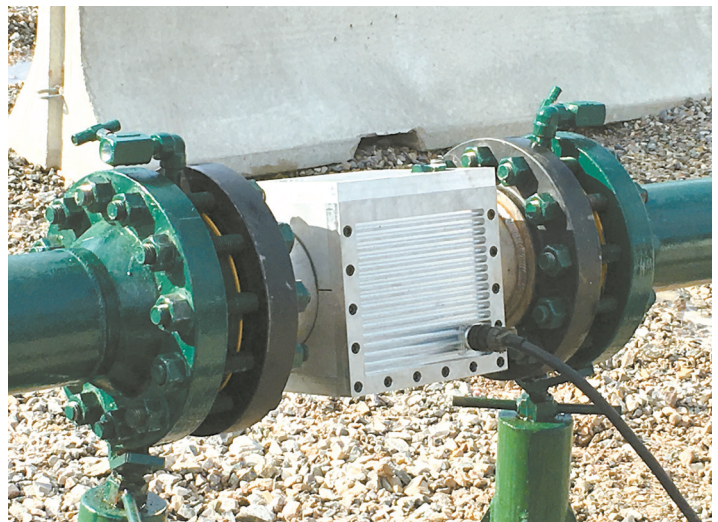
Now Lightning Master® has developed a system that solves all those issues—its patent-pending In-Pipe Turbine Generator (IPTG) for remote locations. The IPTG is an electric generator contained in a two-foot section of 6" stainless steel pipe. It harvests energy by using the natural flow of gas within the pipe to rotate a turbine and produce electric current in coils mounted around its exterior. The generator is designed to generate power 24 hours a day with an option for 12 or 24 volt output.

Manufactured of stainless steel, the IPTG is designed to meet Class 1, Division 1 standards. Measuring two feet long and weighing about 300 pounds, it currently uses 6" class 600 raised face slip-on flanges to attach to the pipeline, but it can be customized. In order to allow production to continue during installation, Lightning Master® recommends installing the IPTG in a bypass line rather than in the main transmission line. The IPTG is designed to last 6-18 months before inspection/replacement of the turbine and other internal parts.

The unit produces 24VDC at 250-300W, with generation starting at a flow rate of 3M cfm. At the lowest flow rate it generates about 100W. Several units can be installed in series for more power.

Here is a partial list of the IPTG's benefits:

- Un-attended operation
- Next to no maintenance
- Free electricity once online
- Can't be stolen
- Ideal for site lights and battery charging
- Zero emissions
- Units can be run in series for more power
- Much more efficient than solar at half cost
- Instant power at 250Watts
- Can be moved to another pipe if needed



**Remote energy generation without fuel costs, without running wires across the miles and with little maintenance? Yes, with Lightning Master's In-Pipe Turbine Generator. Call 800-749-6800 to put this power to work for you.**

- Can be inside the berm
- Can be monitored through existing SCADA system

Lightning Master® technicians from the new Permian Basin office will do at least your first installation. If you desire, they can train your field personnel to do future installations. The process takes about two hours under normal circumstances.

Right now you are reading about the future of clean, cost-effective, "Why Not?" energy generation. This solves so many of the remote generation issues—why didn't someone think of this before?

Lightning Master® has, and now you can benefit. Call them this week to learn more.

*For more information on this and other advanced alternatives to lightning protection and power generation solutions, contact the experts at Lightning Master at 800-749-6800 or email us at [solutions@lightningmaster.com](mailto:solutions@lightningmaster.com)*