

\$650 billion in water infrastructure upgrades are needed to replace aging pipelines and to satisfy new demand over the next 20 years.

SOURCE: EPA

Harvesting renewable, low-cost electricity from gravity-fed water pipes

Lucid Energy is a provider of renewable energy systems that enable industrial, municipal and agricultural facilities to produce clean, reliable, low-cost electricity from their gravity-fed water pipelines and effluent streams. The company's patented LucidPipe™ Power System is an in-pipe turbine generator that captures energy from fast-moving water inside of large pipelines without affecting operations.

Unlike other renewable energy systems, LucidPipe has no environmental impact or issues of intermittent power production. This keeps permitting and installation costs low and project returns high. In fact, the system can be installed in a day and energy generation can begin in less than a week.

PARTNER OPPORTUNITIES

Lucid Energy is seeking leaders from the water and energy sectors to work with us to bring this innovative new product to market. We are looking for engineering and construction companies and project developers to collaborate with us in the race to deliver smart energy and water solutions around the world.

THE LUCIDPIPE™ POWER SYSTEM

The LucidPipe™ Power System is a water-to-wire energy recovery solution targeted for use by owners and operators of large, gravity-fed pipelines. LucidPipe recovers otherwise untapped energy in the form of excess head pressure, converting the energy to clean, renewable power. The LucidPipe offers a powerful solution in the energy and

water markets, two critical segments of infrastructure poised for continued growth.

Water flows through LucidPipe's lift-based turbine, generating power as the turbine spins. The hydrodynamic turbine has been designed and field-tested to maximize power generation without disrupting the flow of water. As velocities increase, power production increases. Due to the lift-based design of LucidPipe, the system produces power across a very wide range of velocities.

LucidPipe can be installed anywhere upstream of a pressure-transient zone in a gravity-fed pipeline. This provides several advantages for project siting:

- Flexibility to be located anywhere in the pipeline where power is desired (to power remote devices, etc.)

- Ability to harvest head pressure along the pipe, thus incrementally reducing pressure throughout
- Operation across a wide range of flow conditions without the need for pumps to create back-pressure and velocity adjustments
- No need for bypasses

LUCIDPIPE™ TARGET PROJECTS:

- Industrial effluent lines at chemical plants, pulp and paper plants, thermo-electric plants, manufacturing facilities, data centers
- Municipal water transmission and distribution
- Waste water treatment plants
- Irrigation and agriculture water districts

LUCID ENERGY PARTNER PROGRAM

The Lucid Energy Partner Program is an opportunity for architectural, engineering and construction (AEC) firms, energy performance contractors, energy services companies (ESCO), smart water grid firms and organizations involved in the water works industries to become authorized LucidPipe integrators. The Lucid Energy Partner Program gives partner firms a new platform that brings together the tools and resources to specify and deploy LucidPipe systems to clients that own and operate wastewater effluent streams, open loop cooling systems and gravity-fed pipelines. Active training and ample resources ensure that Lucid Energy Partners are able to identify and develop LucidPipe projects.

PARTNER PROGRAM BUSINESS MODELS

Lucid Energy Partner Program members identify pipeline projects or prospective sites with pipeline operations that are well suited for deployment of LucidPipe. The primary role of Lucid Energy Partner companies is to provide value-added engineering and construction services to their clients, helping them obtain, install and get the most from their LucidPipe systems. Renewable energy incentives and other benefits accrue to the Partner companies that participate with Lucid Energy in this exciting opportunity.

PARTNER PROGRAM BENEFITS

Participation in the Lucid Energy Partner Program will provide participants with the following benefits:

- Sales materials and resources to support field sales activities
- Training modules for sales and engineering staff
- Leads on pipeline projects where LucidPipe could be deployed
- Early participants will receive consideration for participating in a pilot installation in their market

The Lucid Energy Partner Program provides a compelling opportunity to get in on the vast potential market for this exciting new form of renewable energy. If you have water or energy infrastructure experience, we invite you to consider if and how you can help us accelerate market penetration and help customers profit from the tremendous potential of in-pipe hydropower to produce clean, renewable energy.

To see our product and learn more, visit www.lucidenergy.com.

