MEMBER NEWS

On-Site Generation Can Speed Hydrogen’s Growth as Auto Fuel

By Robert Gray
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While proponents and skeptics continue to debate hydrogen’s future role as an automotive fuel, technology advances and changing consumer attitudes may settle the argument sooner than either side expects, says Robert L. Gray, president and chief executive officer of HyRadix Inc.

“Progress in three key areas – demand, accessibility and affordability – is helping to hasten the day when hydrogen will play a larger role in the nation’s automotive fuel picture,” Gray says. “Soaring prices for petroleum-based fuels are creating rapidly growing interest in and demand for more fuel efficient engines such as fuel cells, which is driving the demand for alternative energy sources such as hydrogen. And, new hydrogen generation technology that improves both accessibility and affordability of hydrogen is available today.”

The technology Gray references is HyRadix’s proprietary catalytic reforming technology that makes on-site generation practical for users of hydrogen in industrial and consumer manufacturing processes and for transportation applications. HyRadix is currently the leading manufacturer of proven, commercialized industrial on-site reforming systems that cost-effectively meet customers’ hydrogen requirements of less than 300 normal cubic meters per hour and are in use at customer sites across the globe. HyRadix’s first quarter 2006 industrial installations included an oils hydrogenation plant and a metals heat treating facility, both located in Asia.

In the hydrogen fuels arena, HyRadix recently installed a commercial on-site hydrogen fuel generator at SunLine Transit Agency in Thousand Palms, California, following a successful two year test of a prototype unit at the site. SunLine provides public transit for a 1000 square mile area of Southern California with a 100 percent alternate fuel fleet. SunLine plans to increase its hydrogen bus fleet over the next few years, and the HyRadix system provides ample capacity to accommodate that growth.

“Our hydrogen generation systems often reduce hydrogen costs by up to 50% compared to conventional truck delivery, which marks a major step toward making on-site production of hydrogen cost-competitive with other automotive fuels,” Gray says. “And hydrogen costs will continue to come down as acceptance of on-site production goes up.”

HyRadix systems generate hydrogen using natural gas or LPG as a feedstock. The company continues to look at alternative energy solutions and has partnered with IFP of France, a leader in process development, to extend its technology to liquid feed stocks. A prototype unit using ethanol is expected later this year.

“On-site generation of hydrogen is available now,” Gray says. “The commercial availability of on-site hydrogen production is an important part of the overall energy strategy to reduce dependence on foreign energy sources.”