

## MTU Onsite Energy selected to provide CHP solution to Horseshoe Casino Baltimore

March 19, 2014



- Environmentally friendly Series 4000 CHP
- Combined heat, power and cooling solution to supply Maryland's second-largest casino

*Baltimore, MD, March 19, 2014.* Later this year, the new Horseshoe Casino Baltimore, slated to become Maryland's second largest casino, will open its doors. A significant portion of the \$442 million development's energy, heat and cooling needs will be provided by a combined heat, power and cooling (CHP) trigeneration system. The Rolls-Royce Power Systems company MTU Onsite Energy, a leading producer of diesel- and gas-fueled power generation systems, will provide Horseshoe Baltimore with the Series 4000 CHP system along with a complementary diesel-powered Series 1600 emergency backup generator set. The end-to-end power solution marks the company's first combined sale of a diesel generator and gas-powered Series 4000 CHP in the U.S.

The equipment is being sourced and installed by Curtis Engine & Equipment, MTU Onsite Energy's local Baltimore-area dealer.

“An increasing number of U.S. states are now treating CHP solutions comparably to conventional renewable energy technologies,” said Romesh Trisal, senior manager-gaseous systems, MTU Onsite Energy. “Being chosen as a primary power provider to Horseshoe Baltimore signifies recognition of MTU Onsite Energy as a major provider the renewable energy solutions.”

Combined heating, power and cooling trigeneration systems produce useful electricity, heat and cooling from a single energy source – in this case, an MTU Onsite Energy Series 4000 engine, optimized for natural gas use. The system uses captured heat from the engine's jacket water and exhaust systems that would normally be wasted, more than doubling the overall energy efficiency of a building or facility. The continuous electricity and climate control demands of the two-story Horseshoe Baltimore casino will be met by MTU Onsite Energy's Series 4000 CHP system with its output of 1,149 kilowatts of electricity (kWe) and 4,137,000 Btu's of heat per hour.

“In addition to cost-savings, our combined heat, power and cooling system will help Horseshoe Casino Baltimore deliver on its commitment to environmental sustainability and energy conservation by reducing CO2 emissions by up to 50 percent,” said Trisal. By utilizing the heat

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that is naturally occurring from the production of electricity, very little energy is wasted. This process delivers considerable environmental benefits when compared to purchased electricity, traditional refrigeration and onsite-generated heat, including a reduced carbon footprint and greenhouse gas emissions. For emergency backup power, Horseshoe Casino Baltimore selected a diesel-powered MTU Onsite Energy Series 1600 backup generator set, which is rated at 450 kWe and mounted outdoors in a sound-attenuated, weatherproof enclosure.

Once opened, the Horseshoe Casino Baltimore will be the second largest casino in Maryland with a 122,000-square-foot gaming floor, which will house 100 table games, 2,500 slot machines and a 25-table World Series of Poker room. The casino will also feature a Baltimore Marketplace featuring several of Charm City's most popular eateries as well as multiple restaurants led by celebrity chefs.

As we learned more about the needs of Horseshoe Casino Baltimore, it became clear that the MTU Onsite Energy Series 4000 CHP and backup diesel generator were the system components that would best satisfy their needs," said Gary Farmer, power systems engineer at Curtis Engine & Equipment, Inc. "Our customers require flexibility, reliability and efficiency and we often recommend MTU Onsite Energy products to meet those requirements. The designer, B&R Construction Services, made clear how the system was to operate under various scenarios and that it must be fully integrated with the overall facility operations." The design of the CHP plant will allow the owner to realize operational cost savings that will offset capital costs and result in a payback period of just a few years.

Enterprise Electric, of Baltimore, MD, the facility's electrical contractor, had worked with Curtis Engine on many previous projects and was familiar with Curtis Engine's abilities and commitment to quality. The combination of a new client and new technology was a key reason Enterprise insisted on using a trusted and valued team member. Curtis Engine's experience with gas engines and CHP plant design and operation made them the logical choice for equipment and service supplier at the Horseshoe Casino.

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