

**Editor-in-Chief**

Junior Isles

**Managing Editor**

Bruno deBiasi

**Engineering Editor**

Harry Jaeger

**Field Editor**

Michael Asquino

**News Editor**

Margaret Cornett

**Marketing Director**

James Janson

**Publisher**

Victor deBiasi

**Subscriptions**

Peggy Walker  
 Facsimile +1 203 254 3431  
 orders@gasturbineworld.com

**Executive Office**

Gas Turbine World  
 654 Hillside Road  
 Fairfield, CT 06824, USA  
 Telephone +1 203 259 1812

**Website**

www.gasturbineworld.com

**Advertising Sales**

**US & Canada – James Janson**  
 Telephone +1 203 226 0003  
 Facsimile +1 203 226 0061  
 publications.grp@snet.net

**Europe – Peter Gilmore**

Telephone +44 (0)207 834 5559  
 pgilmores@aol.com

**Japan – Victor deBiasi**

Telephone +1 203 259 1812  
 Facsimile +1 203 254 3431  
 vdebiasi@gasturbineworld.com

© 2016 Pequot Publishing, Inc. All rights reserved. Reproduction without written permission strictly prohibited.

**Postmaster**, please send Form 3579 to PO Box 447, Southport, CT 06890



**On the Cover** Shin-Sendai Power Station. The first two M701F5 turbines have completed over 7000 hours of operation.

**3 Project development and industry news**

Iran cooperates with foreign investors to boost capacity, Ener-Core integrates 2MW Power Oxidizer with KG2 gas turbine, First time implementation of Digital Power Plant Solutions in Iraq, Eggborough plans to replace coal with gas.

**12 Reliability benchmarking and analytics**

GTW speaks with SPS's Sal Della Villa about its new real-time business intelligence platform, the ORAP Analytics Portal.

**16 Advanced 50Hz gas turbine milestones**

Mitsubishi Hitachi Power Systems has recently achieved two important milestones in the development of its heavy-duty gas turbines for the 50Hz market. The first two M701J units are now in commercial operation, while a new upgraded M701F has been introduced and commissioned.

**22 Digitalization delivers smarter GT service**

Digitalization has become the latest buzzword in the industry. GTW takes a look at the "digital revolution" to see just what it can mean to owners and operators of gas turbine-based power generating assets.

**26 What is supercritical CO<sub>2</sub> good for?**

Supercritical CO<sub>2</sub> as a working fluid in a compact turbomachine is a remarkable enabler of efficiency, but a significant amount of "junk science" is being peddled around. Bechtel's John Gülen separates seriously worthy projects from the proverbial snake oil.

**36 Recip compressors for fuel gas boosting**

Reciprocating fuel gas compressors are said to offer better performance, efficiency, reliability, flexibility and payback than integrally geared centrifugal and screw compressor designs.

**Intelligent portal for RAM metrics**

Exploring the ins and outs of SPS' new analytics portal, page 12

**50Hz developments get heavy**

MHPS marks serious progress in advanced GTs for the 50Hz market, page 16

**Getting smart about servicing**

The digital revolution can make a real difference in the GT servicing world, page 22

**Recip compressors on top**

How reciprocating compressors stack up against the competition, page 36

