1590 Energy Corporation selected ABB to upgrade the control system of their Bauang diesel power plant via a step-wise approach, minimizing operation disruption and at the same time, supporting risk-free site implementation in a tight shutdown schedule.

ABB was awarded a contract by 1590 Energy Corporation to upgrade the control system of their 215 megawatt (MW) Bauang diesel power plant, one of the largest medium speed bunker-fueled diesel power plant in the world. The plant is located 255 kilometers north of Manila at Bauang, La Union, Philippines.

The plant commenced operations in 1995 and was owned by different stakeholders, with First Gen Corporation as the main stake holder. Under a 15-year Build-Operate-Transfer, BOT, the generated electricity was sold to National Power Corporation, NPC. Currently it is operated by 1590 Energy Corporation where the facility provides the much needed merchant power supply to the regional Luzon grid, the largest network in the National Grid Corporation of Philippines, covering the key industrial and commercial region.

With ABB’s long standing evolution policy, ABB upgraded the plant in a stepwise approach, to ensure minimum disruption of operation at the plant. The site’s existing OIS 41 VMS (virtual memory system) consoles, in operation for nearly 15 years, is replaced by S+ Operations, Symphony Plus’s powerful and ergonomic Human Machine Interface (HMI). Designed to lead operators to greater awareness, faster response and better decisions, S+ Operations HMI was added on-line and in parallel to the existing consoles.

<table>
<thead>
<tr>
<th>Project name</th>
<th>Bauang Power Station DCS upgrade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>Manila, Philippines</td>
</tr>
<tr>
<td>Customer</td>
<td>1590 Energy Corporation</td>
</tr>
<tr>
<td>Completion</td>
<td>December 2013</td>
</tr>
</tbody>
</table>

**ABB solution**

- Supply of complete system design, engineering, project management, training, testing and supervision of installation and commissioning of Symphony™ Plus control system, with a step-wise migration approach
- Supply of ABB Automation Sentinel program to support system life cycle

**System benefits**

- Online S+ Operations HMI upgrade and in parallel to existing consoles minimize operator risk and operational and production losses
- Seamless stepwise upgradation approach protects customer’s investment from rip-and-replace method
- Training helps to close competency gap, allowing smoother operation transition
- Automation Sentinel allows active monitoring and control of system versions and software life cycle
thereby minimizing operator risk and loss of production.

The seamless stepwise approach allows the customer to enjoy the benefits of the latest automation technology, at the same time protecting their investment by avoiding a rip-and-replace method. By reusing the existing field proven plant control configuration, the customer is also able to protect its intellectual capital investment, at the same time supporting a risk-free implementation at site in a tight shutdown schedule.

ABB was responsible for the complete system design, engineering, project management, testing and supervision of installation and commissioning of the Symphony Plus control system. To ensure a smooth operation transition during the plant evolution process, ABB also provide training to the customers to close the competency gap. The customer had also subscribed to ABB’s Automation Sentinel, which is a program for supporting control system lifecycle, allowing them to actively monitor their control system versions and software lifecycle costs. Under this subscription, the customer has exclusive access to the latest software updates and patches of S+ Operations HMI and Composer for the next three years.

The upgrade of the complete control system completed in fourth quarter of 2013. Upon final completion, the customer enjoy a highly flexible and efficient control system with increased plant reliability and stability, contributing to an improvement in plant operation.

For more information, please contact:

**ABB Inc.**
Power Generation
Wickliffe, Ohio, USA
Phone: +1 440 585 30 87
Fax: +1 440 585 30 87
E-Mail: powergeneration@us.abb.com

[www.abb.com/powergeneration](http://www.abb.com/powergeneration)

**ABB S.p.A.**
Power Generation
Genova, Italy
Phone: +39 010 6073 512
E-Mail: powergeneration@it.abb.com

[www.abb.com/powergeneration](http://www.abb.com/powergeneration)

**ABB Pte. Ltd.**
Power Generation
Singapore
Phone: +65 6776 5711
Fax: +65 6776 5711
E-Mail: powergeneration@sg.abb.com

[www.abb.com/powergeneration](http://www.abb.com/powergeneration)