The Best Solution:

Ovation™ tie-back simulation generically models your plant using control system algorithms designed specifically for the power generation industry. Tie-back simulation models key processes with simplistic accuracy to allow for fundamental power plant operator training and familiarization with workstation functions and control system navigation.

A subset of the process inputs and outputs from the control system used in factory testing are connected to the Ovation tie-back logic. Scenario simulation models drive the associated I/O and the control system’s outputs to become the simulation model inputs and thereby closing the control loops. These inputs are fed to virtual controllers to create the tie-back simulation environment for training and control logic testing.

Simulation detail can vary depending upon the type and complexity of the systems that are modeled. Tie-back simulation can be used to verify analog controls and graphics, provide feedback on equipment such as motors, and simulate digital point feedback including on/off or open/closed status. Scenario tie-back typically includes the modulating and binary control loops as part of the standard simulation process.

Your Requirements:

• Basic operator training on specific plant processes
• Gain familiarity on standard operator and engineer functions
• Test and verify control system strategies

Benefits

• Presents cost-saving alternative to higher-fidelity simulation
• Provides real-time basic operator training prior to plant startup
• Includes existing DCS graphics and control logic
• Uses simulated software logic that interacts with your control strategies
• Employs models based on algorithms designed specifically for the power generation industry
• Verifies logic prior to downloading to the “live” control system

(Continued)
## Ovation Simulation Solutions

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<th>Function</th>
<th>Tie-back</th>
<th>High-fidelity</th>
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<td><strong>Models</strong></td>
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<tr>
<td>Built from Ovation control system algorithms developed specifically for the power generation industry</td>
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<td>X*</td>
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<tr>
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<td><strong>Functionality</strong></td>
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<tr>
<td>Procedure development and validation</td>
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<td>X</td>
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<td>Engineering test bed for normal and abnormal operations</td>
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<td>Full Instructor functionality with trainee evaluation tools</td>
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</table>

* High-fidelity simulation projects implemented by Emerson will use Ovation control system algorithms. Models provided by a third-party will use that vendor's modeling tools.

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