From a reactive to a proactive approach with IFS Maintenance™

Since installing IFS Maintenance™ in 1992, Oslo Energi Produksjon A/S has changed from a reactive to a proactive approach to maintaining the equipment at its 15 hydro power stations scattered around the southwestern portion of Norway. This new mode of operation allows the utility to predict, with a large degree of accuracy, exactly which parts will need to be replaced on any of its machines at any given time. As a result, Oslo Energi Produksjon now stocks much less inventory, and its generators remain up and running, producing electricity, around the clock.

Predicting when equipment was likely to break down was largely guesswork before the introduction of IFS Maintenance. Even though these predictions were made by experienced mechanics and technicians, Oslo Energi still found itself carrying large stockpiles of spare parts inventory and routinely taking equipment out of service for repairs.

The problem

Deregulation nearly turned Oslo Energi's operations upside down. The advent of competition in its previously protected market meant the utility had to cut its operating costs so it could in turn lower the price of its power. "Low prices are now the customers' primary reason for buying power from a particular supplier," says Stein O. Engen, executive officer of Oslo Energi's Aurland Power Plants. Competition also forced Oslo Energi to abandon a century-old practice of completely shutting down its plants in the summer to prepare its equipment for the heavy demands of the winter heating season. Those plants had to run year-round so Oslo Energi could take advantage of opportunities for selling power on the open market. "That meant we had to take planning more seriously," Engen says. "We now must have our systems available at least 90 percent of the time."

The solution

Oslo Energi officials visited at least five other Norwegian utilities that had recently installed computerized maintenance management systems. "Those companies had all installed these systems and put their equipment data into them, but none of them had really found a way to use that data in their operations," Engen says. Then, the Oslo Energi officials heard of the success some Swedish utilities were having with a system from a company called IFS, which at the time was just introducing its maintenance software to the Norwegian market. Upon contacting IFS, the Oslo Energi officials were impressed. "They brought in people who knew the utility business," Engen says. "We were talking the same language. They knew what we were doing, and they were able to help us reach our goals."

Implementation

Oslo Energi's use of the IFS Maintenance suite started with installation of the Work Order, Equipment Monitoring, Preventive Maintenance and Inventory modules. Engen says the system immediately provided

a better overall view of the plant's operations by providing documented evidence of when things were breaking down. That evidence was used to create a preventive maintenance program, which in turn has made it easy to predict exactly which spare parts need to be purchased at any given time. As a result, Oslo Energi now stocks much less inventory.

When inventory does come in, it is tagged for tracking by IFS/Inventory. This program records the time and day each part comes in, as well as when it is used, in order to ensure that the utility always has the parts it needs on hand. "We are very pleased with this system," says Engen, adding making Oslo Energi the first Norwegian utility to use IFS Maintenance—a move that seemed like a gamble at the time—has paid large returns. In fact, the IFS software has worked so well for Oslo Energi that its parent company, Oslo Energi Holding A/S, recently signed a contract to make IFS Financials the standard accounting system for all of its subsidiaries throughout Scandinavia.

Meanwhile, Engen says the Oslo Energi Produksjon group is planning to further improve its maintenance program by installing IFS/Scheduling and IFS/Document Management. He expects those additions to enhance the utility's preventive maintenance program by keeping better track of who is responsible for performing all maintenance tasks and making it easier to share the information needed to perform proper maintenance on all equipment.

The document management module will allow Oslo Energi Produksjon to create electronic files of all of its important documents—such as maintenance manuals and engineering drawings associated with its equipment—that can be easily updated when necessary. This electronic document system also will facilitate sharing of important information that doesn't necessarily exist in published manuals. "We have a couple of mechanics and electricians nearing retirement age," Engen explains. "Obviously, they know a lot about our plants. We want to use this system to store as much of their 40 years of experience as we can. We don't want to lose all of that valuable information."

Advantages for the company

- Better overall maintenance planning.
- Equipment availability exceeds 90 percent.
- Significantly lower labor costs associated with equipment repairs.
- Large reductions in spare parts inventory.
- More accurate predictions of when equipment needs repairs.
- Improved ability to know when specific parts need to be purchased.
- Less paperwork involved in purchasing parts.
- Better tracking of spare parts inventory.

Advantages for the employee

- Easy-to-use interfaces providing data on which jobs have to be performed.
- Up-to-date records on availability of parts needed to complete jobs.
- Online history of previous work performed on equipment.
- Easier access to work instructions and procedures for repairing equipment.

Facts about IFS Maintenance at Oslo Energi

Software

IFS/Work Order™, IFS/Equipment Monitoring™
IFS/Preventive Maintenance™, IFS/Inventory™

Additional modules scheduled for implementation:

IFS/Scheduling™, IFS/Document Management™
IFS Financials™

Hardware

Compaq Server running Windows NT

Workstations

Windows-based PCs

En3206-1 Production: CMC, June 2002.