Constant connection
A well-functioning and reliable power supply was essential for IWB who required a constant uninterrupted supply

For Industrielle Werke Basel (IWB) it means quick access to strategic spare parts, and expertise, for all generations of ABB protection and control equipment, so to ensure uninterrupted supply IWB has entered into a service level agreement with ABB.

Project
IWB operates numerous substations at 145kV, 50kV and 12kV. ABB has 520 pieces of equipment installed across seven substations, including different models and different generations of device, providing protection and control over the company’s assets and ensuring reliable operation.

It’s IWB policy to make use of existing resources to maximize the efficiency of substation maintenance, and that policy prompted this project. The idea is to outsource support for secondary technology, and shift parts already in stock to the ABB spare parts pool so other customers might benefit.

Minor changes have constantly been made in the protection and control equipment in the various substations, since the delivery of secondary technology, making it necessary to draw up a spare parts concept before a binding offer could be prepared.

ABB solution
ABB created a spare parts concept for IWB that resulted in a service agreement between the companies, following a two-stage development. In an initial step ABB conducted an on-site audit over a period of three days. All ABB protection and control equipment in the substations was recorded at the level of devices and plug-in units, including the parts in stock.

As a second step ABB carried out an analysis with this information, consolidating all parts and determining the status of individual components in the ABB product life cycle. The analysis also established which firmware versions were to be harmonized and the extent to which available spare parts fitted the necessary stock.

Based on this analysis ABB was able to determine the need for spare parts for the installed equipment, down to the level of plug-in units. This brings the advantage that, for some pieces of equipment, only plug-in units need to be stocked as spares.

Finally IWB was presented with the concept which consisted, among other things, of a detailed overview of the equipment installed as well as a summary of all components and their status in the ABB product life cycle.

Suggestions were also provided on how to optimize the stock keeping process, as regards quantity, prices, and equipment types as well as necessary (strategic) spare parts and recommendations on firmware harmonization. ABB was able to give IWB a binding offer for a service level agreement on this basis.

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Delivering critical response, expertise and spare parts when you need it

Scope of delivery
The service level agreement mandates, amongst other things, a defined number of support hours plus two extension modules extending ABB’s commitment.

The module entitled “Guaranteed Intervention Time” requires that ABB’s Technical Support respond to a malfunction within three business days, at the latest, with an on-site service call, and bring with them any needed spare part. That spare part will already be loaded with the correct firmware, and the corresponding configuration files, prior to the service call. This approach minimizes downtime by ensuring that one malfunction results in only one service call.

The module entitled “ABB Spare Parts Pool” gives IWB access to the necessary spare parts, so, IWB does not have to make any additional investments as it incurs only the costs for the spare parts actually needed.

Advantages for customers
With the service agreement IWB can rely on its existing resources for current maintenance, and does not have to use extra personnel. In addition, it enjoys inexpensive, quick, and guaranteed access to spare parts and expertise on all generations of equipment – vitally important to IWB.

IWB and ABB have also agreed to meet annually to review possible adjustments to the maintenance services. At that meeting the two parties will discuss and plan any possible steps to be taken on the maintenance of the equipment installed. This approach allows, for example, an early discussion on further procedures and solutions for dealing with an obsolete product. IWB can conduct random checks to determine whether the agreed spare parts are available from the ABB spare parts pool in Baden, Switzerland.

Feedback from customers
During a routine check a malfunction was detected in a piece of 12kV control equipment in a substation. The outgoing cable was no longer connectible which greatly restricted the operation of the IWB grid. Following a call to the ABB Service Center in Baden, Switzerland, the equipment fault was described by the IWB technician on standby duty. After the fault was analyzed IWB arranged for an on-site service call for the following day, during which the defective component was immediately replaced. Afterwards, the outgoing cable was successfully put back into operation. IWB concurrently placed an order with ABB under the terms and conditions of the service agreement. From the perspective of IWB this first malfunction covered by the service agreement was remedied in a fast and efficient manner.

“Thanks to the service level agreement with ABB, we are assured of being able to receive support on spare parts as well as specialized service personnel any time a malfunction occurs. This assurance is essential because IWB has utilized many different generations of digital ABB protection in its medium-voltage and high-voltage network since 1994. This system involves a pool of spare parts for several companies instead of each company having to acquire the parts separately. We continue to consider this approach to be highly sustainable.”

Werner Seywald, Michael Tschachtli
IWB, Operation and Maintenance of Electricity Grid.

Contact your local service and sales support team to discuss your requirements further.

For further information visit:
www.abb.com/substationautomation