What is Up-Rating?

Up-rating is a service applied to circuit breakers on existing lines or transformer banks that are expected to carry more load during normal service conditions or during contingency events. It is used as an alternative to replacement of over-capacity equipment. Up-rating applies to many of the installed legacy and current production products supported by ABB. This includes oil, SF₆, and air-blast high voltage circuit breakers and GIS rated 15 kV and above.

Up-rating is of interest in the following situations:
- Congestion on existing lines
- Reducing bulk power transmission costs
- Option in lieu of re-conductoring
- Allowing for the use of Capital funds
- Economically and quickly increasing system capacity
- Increasing ratings for a fraction of the cost of replacement
- The desire to keep a piece of equipment with O&M familiarity and existence of spare parts inventory

Up-rates are fast becoming a solution for utilities and transmission owners under pressure to reduce O&M costs. ABB continues to provide turnkey up-rate services every year with an expectation of continued growth.

What problems does this solve?

This service saves a tremendous amount of capital funds associated with a traditional replacement (replacements range from 1.5 to 2 times the first cost of the equipment) in the short-term. Additionally, this allows a utility or transmission owner to boost the MW rating of critical lines, therefore alleviating costly congestion issues. Long-term, this service defers precious capital funds by eliminating the need for replacement of equipment, obsolescence of existing spare parts inventory and the purchasing of new spare parts inventories, and preservation of existing personnel expertise along with O&M templates and procedures. In the case of life-extending and up-rating of OCB’s (oil circuit breakers), the user can reduce the amount of SF₆ on the system and therefore reduce greenhouse emissions.

What makes ABB different with regards to this service?

ABB supports the majority of installed equipment in the world. This means that ABB has the OEM information and organizational structure to support these products well into the future. It allows the deferral of precious funds until the time when rate freezes are lifted and the utilities can re-coop their investments with rate-base increases. In the end, you retain reliable assets that were built to accommodate many more years of service.

While the competition focuses on selling expensive, new equipment, ABB High Voltage Service can provide you with spare parts, replacement parts, upgrade kits, reproducible OEM documentation, expert field services, assessments and consulting services.
What are the advantages of this service?
This service can dramatically reduce congestion costs, eliminate penalties, reduce O&M expenses and allow you to extract more profits through the use of existing and familiar assets. There are also no O&M changes required since the equipment will remain the same when considering the basic design and operation principles.

What are the deliverables for this service?
The deliverable with an up-rate is the quickest turnaround to increase system performance through the use of OEM parts and services. Up-rates are conducted in conjunction with life-extensions to provide an additional service life equal to or greater than the original design life. All ABB High Voltage Service work performed comes with a 12 month warranty.

How does this position me for future upgrades?
If an asset is a candidate for up-rating, ABB will offer the maximum rating structure possible to eliminate the need for future up-rates.

What Safety or Environmental concerns does this service address?
This service eliminates the need for modification of existing safety procedures. There are no environmental concerns regarding up-rate services.

Does this allow the product to meet or exceed the latest standards or codes?
This product will meet the standards that the original station was designed for. In some cases, an up-rate can allow a product to meet standards put into place after the equipment was originally placed into service.

Who benefits the most from up-rates?
If you answer yes to any of these questions, your fleet of oil circuit breakers, dead tank circuit breakers, or GIS is a prime candidate for up-rating:
- Do you have ABB legacy products on your system?
- Are there any lines that you would like to increase the MW capacity of?
- Do you have O&M budget constraints?
- Are you able to capitalize the up-rate of an existing asset?
- Is there interest in reducing the timeline to increase system capacity?
- Do you wish to preserve your existing personnel expertise?
- Do you value the spare parts inventory currently available to support your fleet of HV breakers?
- Are you concerned about the lack of intimate maintenance and troubleshooting expertise your company has on new equipment?
- Do you value the robustness and simplicity that the legacy designs offer you?

What are the available options for this service?
- Up-rating parts kits - OEM kits ensuring form, fit, & function, developed specific to each circuit breaker serial number
- Exchange components (rebuilt interrupters, bushings, or complete poles) which provide an expedited turn-around time on fleet projects
- Installation services (on-site) range from technical assistance to complete turnkey project execution
- ABB can also ship the circuit breakers to our remanufacturing facility where they will be torn-down and rebuilt in a facility free of environmental contaminants

What is the typical price tag for this service?
The price varies from product to product but typically ranges from 40% to 60% of the cost of replacement with new equipment.

How long does it take to deliver this service?
This service can typically be delivered in a fraction of the time required to solicit, procure, deliver, install, commission and energize new equipment.

Who do I contact for questions regarding this service?
Contact your regional marketing representative or by calling 724-696-1300.

How do I order this service?
Contact your local ABB representative to obtain a budgetary or firm up-rate quotation for your specific application. You will need the serial numbers of the equipment in question.

For more information please contact:

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