

Ancillary Service Work Group Issue Paper AS-1

Issue -What arrangements should be made for Remedial Action Schemes associated with transmission systems in RTO West.

Background

Numerous (a dozen or more) Remedial Action Schemes (RAS) are used within the area encompassed by RTO West. These RAS schemes are used to support existing transfer ratings that would need to be reduced under some conditions if RAS were not in place. The schemes protect against unacceptable system conditions during contingencies by initiating rapid action (measured in small fractions of a second) to trip generation or load or to take other high-speed corrective action. Special high reliability RAS controllers monitor transmission system conditions and trigger remedial actions when needed. High-speed, high reliability equipment is used to transmit the signals from the RAS controller to the equipment activated by the RAS (generator- or load-tripping systems).

There are a variety of arrangements currently in place between those providing RAS resources (generators, loads, etc.) and the transmission owners that operate the RAS schemes, including short-term and long-term contracts and informal voluntary arrangements.

The RTO West Planning Work Group is recommending that transmission owners be obligated to maintain the transfer capabilities of their transmission systems at their current ratings. (This recommendation will be presented to the RRG the week of August 21.

Recommendation

1. Long Term (End State) – In the long term, providers of RAS resources (generation dropping, load dropping, etc.) should be compensated for providing such services. RAS services should be acquired through a competitive-process. Suppliers that offered to provide RAS resources would be required to bear the costs of putting into place and maintaining the necessary high speed/reliability communication and activation equipment. The cost of obtaining RAS resources sufficient to maintain path ratings would be charged to transmission users on an RTO, company, or path basis as appropriate.

There are two options for specifying which entity would be responsible for acquiring the necessary RAS resources from providers: the RTO or the PTO. The answer would depend on whether the RAS scheme was in place to meet system-wide needs (in which case, it would be most appropriate for the RTO to be responsible) or the RAS scheme was in place to maintain the transfer capability of a specific path (in which case the PTO might be the appropriate party). Under the RTO option the

RTO's cost of obtaining RAS resources would be charged to all RTO transmission users. Under the TO option the PTO's cost of obtaining RAS resources would be included in the revenue requirement associated with the path and thus is likely to be included in the appropriate company rate.

2. Transition period – RTO participants that currently provide RAS resources would (unless already committed to through contract) be required to continue to provide all existing RAS services for a period of 3 years from the date of RTO's initial operation, to provide for a transition to the long term approach discussed above.

During this transition period, the RTO (or PTO) would be required to develop the mechanisms to enable competitive provision of RAS resources; or if such competitive provision would not be feasible by the end of the transition period, the RTO (or PTO) would be required to put into place the mechanisms through which RAS resource providers would be compensated for costs (i.e. for actual costs, opportunity costs and loss-of-life/wear-and-tear costs, etc.) associated with providing the RAS services to the RTO and/or PTOs.

Discussion

It is assumed that ultimately (by the end of the transition period) a competitive supply of RAS resources will exist for each RAS scheme. Should this not be possible, then an alternate method would be required which would deal with the need to appropriately compensate the providers of RAS resources for their obligation to continue to provide the RAS resources to the RTO and/or PTOs. One possible approach would be to use some form of cost-based compensation as described above. Another possibility would be to use a benchmark of compensation paid to others who are providing similar response in other RAS schemes the RTO's region.

Prepared by
Barney Speckman
August 18, 2000