Proposed Definition of "Remedial Action Scheme"

Remedial Action Scheme (RAS)

A scheme designed to detect predetermined System conditions and automatically take corrective actions that may include, but are not limited to, curtailing or tripping generation or other sources, curtailing or tripping load, or reconfiguring a System(s). RAS accomplish one or more of the following objectives:

- Meet requirements identified in the NERC Reliability Standards;
- Maintain System stability;
- Maintain acceptable System voltages;
- Maintain acceptable power flows;
- Limit the impact of Cascading; or
- Address other Bulk Electric System (BES) reliability concerns.

These schemes are not Protection Systems; however, they may share components with Protection Systems.

The following do not individually constitute a RAS:

a. Out-of-step tripping and power swing blocking

b. Automatic underfrequency load shedding (UFLS) programs

c. Undervoltage Load Shedding Programs (UVLS Programs)

d. Autoreclosing schemes

e. Schemes applied on an Element for non-Fault conditions, such as, but not limited to, generator loss-of-field, transformer top-oil temperature, high voltage, or overload to protect the Element against damage by removing it from service

f. Controllers that switch or regulate series or shunt reactive devices, flexible alternating current transmission system (FACTS) devices, phase-shifting transformers, variable-frequency transformers, tap-changing transformers, or generation excitation, and that are located at and monitor quantities solely at the same station as the Element being switched or regulated

g. FACTS controllers that remotely switch static shunt reactive devices located at other stations to regulate the output of a single FACTS device

h. Schemes or controllers that remotely switch shunt reactors and shunt capacitors for voltage regulation that would otherwise be manually switched

i. Schemes that automatically de-energize a line for a non-Fault operation when one end of the line is open

j. Schemes that provide anti-islanding protection (e.g., protect load from effects of being isolated with generation that may not be capable of maintaining acceptable frequency and voltage)

k. Automatic sequences that proceed when manually initiated solely by an operator

l. Modulation of HVdc or FACTS via supplementary controls, such as angle damping or frequency damping applied to damp local or inter-area oscillations

m. Sub-synchronous resonance (SSR) protection schemes that directly detect sub-synchronous quantities (e.g., currents or torsional oscillations)

Existing NERC Glossary of Terms Definitions

Special Protection System (Remedial Action Scheme)

An automatic protection system designed to detect abnormal or predetermined system conditions, and take corrective actions other than and/or in addition to the isolation of faulted components to maintain system reliability. Such action may include changes in demand, generation (MW and Mvar), or system configuration to maintain system stability, acceptable voltage, or power flows. An SPS does not include (a) underfrequency or undervoltage load shedding or (b) fault conditions that must be isolated or (c) out-of-step relaying (not designed as an integral part of an SPS). Also called Remedial Action Scheme.

Remedial Action Scheme

See "Special Protection System"