GADS Task Force
Events Subgroup Recommendation

September 2010

Scope

Purpose

The Event subgroup of the Generating Availability Data System Task Force (GADSTF) was tasked with determining how much, if any, of GADS event records should be considered mandatory based upon the reliability of the entire grid.

Activities

The basic task of the Events Subgroup was to determine if reporting the entire GADS data, or some portion thereof, should become mandatory for all generating units such that the reported data could be used by NERC and other appropriate entities for conducting studies relating to bulk power system reliability.

Early in the discussions of the Event subgroup, a poll of the participants led to a group consensus to move toward some degree of a mandatory effort. Mention was made that although GADS data has been voluntary since inception in 1982, about three-fourths (77%) of all participants in North America file GADS Event data today. Additionally, NERC requiring GADS to be mandatory would not fall under the NERC standards of compliance, but rather would fall in the arena of NERC Rules of Procedure Section 1600 for data requests. Hence, mandatory reporting of Events would not fall under financial penalties for registered generating entities, but would follow the same rules applicable to TADS (Transmission) and DADS (Demand Response).

Initially the discussions revolved around deciding what criteria should be utilized to determine what threshold of event reporting should be made mandatory. Several suggestions were made ranging from mVA ratings to various sizes of units by MW.

However, the group then shifted focus and returned to look at the activities (as shown in the box to the right) which they had agreed to address as a subgroup and decided that answering those questions would help lead to the group's final recommendation to the GADS Task Force.

Activities to Review

1) Has GADS event data been useful in the past?
2) Is it essential now?
3) Is it worth the time, cost, and effort to continue collecting the event data?
4) If there were no GADS, would it be missed?
5) How important is GADS event data to supporting and improving the bulk power system reliability?
6) What is the level of the event data that should or should not be considered mandatory to support the bulk power system

Discussion of Activities

Usefulness of GADS

GADS has been useful not only to the registered generation entities in the sub-group, but also to the planners and research participants in the sub-group. Usefulness of this data consisted of various facets from both a reliability standpoint and from a business perspective.

From a reliability standpoint, the reported data is useful by NERC and other appropriate entities in conducting studies relating to the bulk power system reliability. Planners use GADS Events data for long and short term planning. The data is used to trend units for like type, size and fuel. Calculations and model across the bulk power system need to have a consistent database, such as GADS Events, for their source of information.

From a business perspective, the data provides a justifiable means to replace equipment, provides data for vendor analysis on their equipment, helps in determining necessary areas of further development and research, provides defense for new units, and provides a reliable and consistent database from which to compile benchmarking data and analysis. Hence, the group determined that GADS has been useful in the past and will continue to be a worthwhile database in the future.

Collecting Event Data

First and foremost, having this event data required in one unified data format through the tool of GADS would allow for consistent reporting and standardization across all registered generation entities within NERC. In reporting GADS event data, data reporters must go through the steps of collecting, entering, and reporting the data.

In determining whether collecting event data is essential now or not, several theories were offered. Today the cause codes and amplification codes provide for details and description. However, more details could be helpful by possibly extending the allowed field length for descriptions. In order to obtain any of the statistics provided by GADS, such as Equivalent Forced Outage Rate (EFOR) for base-load generating units and Equivalent Demand Forced Outage Rate (EFORd) for peaking and cycling units, the events data is a necessary part and backup information. Hence, the group determined that collecting event data is essential.

If Events data is made mandatory, the Events Subgroup would recommend that NERC could try to have data collected only once and shared among interested parties (e.g. NERC could share with the ISO's). This would alleviate having to collect this same type of data in more than one way.

Is It Worth the Effort?

In the discussions by the Events Subgroup, the following quote was brought up with regard to this section, "If you cannot measure it, how can you improve"? Hence, collecting the Events data is one way of measuring the grid and generating units so that you can improve their overall performance. Moreover, there is something to be said for standardization and a means of consistent reporting of data.

In determining whether collecting event data is worth the time, cost, and effort to continue, the resounding answer across the utilities was a big "YES". Reporting Events data as prescribed by NERC GADS leads to unified reporting across the industry. Since it is the registered generating entities that would have to collect and enter the event data, it was decided to only let the registered generating entities have input on this question as they would be tasked with performing the work. There was agreement across the participants that this is the only way currently to be able to keep up with this type of data and to arrive at the key indicators used in utility generation measures. Making reporting of Events data mandatory would keep a consistent database across the grid and enhance reliability as efforts are made to improve the GADS measures.

Would GADS Be Missed?

If GADS was not required, either voluntary or mandatory, would it be missed? As the subgroup pondered this question, there was discussion on how data across the industry would no longer be concise or consistent. In fact, it was stated that the registered generating entities would have a "hodge-podge mess" of data across the industry. This would definitely not help or support a reliable grid. Benchmarking would be difficult, as what would a utility compare against? Having the consistent reporting which GADS offers would definitely be missed by all who use the database today.

Importance of GADS Event Data to Reliability

The next question addressed by the Events subgroup was how important GADS event data is to supporting and improving the bulk power system reliability. One utility mentioned that they use the data to determine how much installed reserve margin is necessary for load. Data is used in modeling of generating units. NERC data is the foundation for generation studies, and needs to be as thorough and robust as possible.

Planners utilize the events data for both long-term and short-term planning purposes. It is utilized to develop forced outage data to determine resources necessary, based upon historical events and catastrophes.

Data is utilized for trending to units of like type, size, and fuel. Models and calculations need to have the events data as their source of information.

Hence, the general consensus from generation operators and planners alike was that the events data is important and supportive to improving the bulk power system. This was just another supporting point for requesting that the data should be made mandatory.

Level of Mandatory Reporting Necessary

Based upon the answers to all of the other activities, the answer to the final question was an automatic fall-out response. The consensus was that the event data reporting should be considered mandatory to support the reliability of the bulk power system. Based on prior discussions, the question was posed to the Events subgroup whether the registered generating entities would support making the NERC GADS Events reporting mandatory to the same level as what unit levels are required by the NERC Registry. The answer led to the following recommendation by the Events subgroup.

Recommendation

The Events subgroup recommends that the NERC GADS Event data be mandatory with the same threshold level as indicated in the requirements of the NERC Registry for the Generator Owner/Operator:

- Individual generating unit > 20 MVA (gross nameplate rating) and is directly connected to the bulk power system, or;

- Generating plant/facility > 75 MVA (gross aggregate nameplate rating) or when the entity has responsibility for any facility consisting of one or more units that are connected to the bulk power system at a common bus with total generation above 75 MVA gross nameplate rating.

Moreover, the Events subgroup recommends that reporting is considered good utility practice, regardless of size.