

NERC

NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

Transmission Availability Data System Reporting Training

November 2021

RELIABILITY | RESILIENCE | SECURITY



- Learning Objectives
 - Background
 - Data Entry Demo
 - Checklist Completion
 - In Service State / TADS Reportable
 - Outage Types: Automatic vs Operational and Momentary vs Sustained
 - Cause Codes: Initiating (ICC) and Sustained (SCC)
 - Fault Types
 - Outage Modes
 - Outage ID and Event ID Codes
 - Examples to cause code / Test your knowledge

- All NERC registered Transmission Owners (TOs) who own the following Bulk Electric System elements:
 - AC Circuits (Overhead and Underground)
 - Transformers* with ≥ 100 kV secondary voltage
 - AC/DC Back-to-Back Converters
 - DC Circuits (Overhead and Underground)

*Generator Step-up Transformers are excluded from TADS reporting

- Basic Company Information (Forms 1.x)
- Inventory Information (Forms 2.x and 3.x)
- Event Information (Form 5)
- Automatic Outage Information (Forms 4.x)
- Non-Automatic Outage Information (Forms 6.x)
- Data due 45 calendar days after end of each quarter



Regional Entity (RE) Contacts

NERC	tads@nerc.net
MRO	Jake Bernhagen
NPCC	Rafael Sahiholamal
RF	John Idzior
SERC	Nick DePompei
Texas RE	tads@texasre.org
WECC	support@wecc.org

- TADS [Website](#)
- The menu provides useful information such as
 - TADS News,
 - Regional contacts,
 - TADS Data Reporting Instructions (DRI),
 - Related Links, and
 - Dashboards

- Management
- Business Plan and Budget
- Legal and Regulatory
- Key Players
- Careers
- ERO Enterprise Effectiveness Survey
- Strategic Documents
- Rules of Procedure (ROP)
- Section 1600 Data Requests
- Demand Response Availability Data System (DADS)
- Generating Availability Data System (GADS)
- Geomagnetic Disturbance Data (GMD)
- Transmission Availability Data System (TADS)
- Protection System Misoperations (MIDAS)
- Electricity Supply & Demand (ES&D)
- Bulk Electric System Definition, Notifications, and Exception Process Project
- Committees
 - Reliability and Security Technical Committee (RSTC)
- Webinars

Home > Program Areas & Departments > Event Analysis, Reliability Assessment, and Performance Analysis > Transmission Availability Data System (TADS)

Transmission Availability Data System (TADS)

On October 23, 2007, the NERC Board of Trustees (Board) approved the collection of the Phase I TADS data, beginning in calendar year 2008. On October 29, 2008, the Board approved the collection of Phase II TADS Non-Automatic Outage Data, beginning in 2010. TAD collects transmission outage data in a common format for:

1. Bulk Electric System AC Circuits (Overhead and Underground)
2. Transmission Transformers (No Generator Step-up Units)
3. Bulk Electric System AC/DC Back-to-Back Converters
4. Bulk Electric System DC Circuits

TADS efforts began in 2006 with the formation of the TADS Task Force under the NERC Planning Committee. This task force designed TADS and the associated processes for collecting TADS data. On June 30, 2009, the task force issued its first reports for data collected in 2008. On July 1, 2009, the task force was retired and replaced with the TADS Working Group. This change recognized the ongoing design and oversight of TADS that is more appropriately assigned to a working group than a task force. NERC uses the information to develop transmission metrics that analyze outage frequency, duration, causes, and many other factors related to transmission outages.

In 2020, the TADS Working Group became the TADS User Group (TADSUG). The TADSUG performs the same functions as the TADSWG. However, it no longer reports into the NERC Committee structure. Instead, it reports to the NERC Performance Analysis Department.

While TADS is not intended to provide determinative performance measures, it is used to quantify certain performance aspects. In addition to collecting simple transmission equipment availability, TADS will collect detailed information about individual outage events that, when analyzed at the regional and NERC level, will provide data that may be used to improve reliability.

All TADS-related material is available for download from the [TADS User Group](#).

For more information, please contact tads@nerc.net

Dashboards

- [Element Inventory Dashboard](#)
- [Events and Outages by Event Type Dashboard](#)

TADS News

Effective August 26, 2020 the TADS Reporting Workbook has been updated. The TADS Reporting Workbook no longer contains the following items:

- Defunct Regions FRCC and SPP
- Multi Owner Common Structure Flag
- Planned Outages

Data Submission

Deadlines for Data Submission into WebTADS are:

Reporting Deadline*	Period of Operation to Report
February 15	Any updates for the prior year
May 15	Quarter 1: January 1 - March 31
August 15	Quarter 2: April 1 - June 30
November 15	Quarter 3: July 1 - September 30
February 15	Quarter 4: October 1 - December 31

*When a deadline falls on a weekend or holiday, reporting will be extended through the following business day.

Program Contacts

NERC	HRO	NPCC	RF
SERC	Texas RE	WECC	

TADS Data Reporting Instructions (DRI)



Type	Title	Date
webTADS Application Updates (7)		
Key TADS Documents (2)		

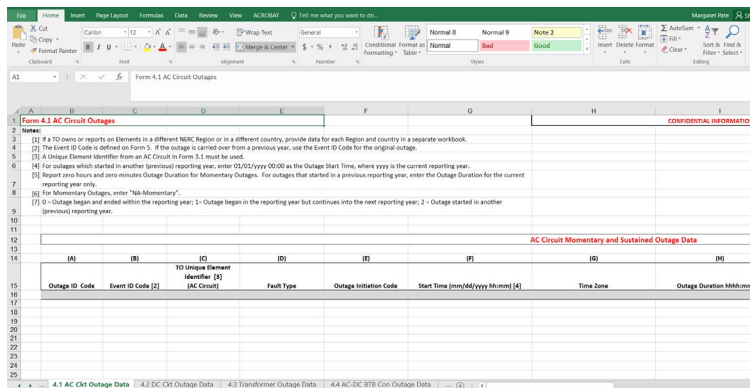
Related Links

[OATI - How to set up an account](#)

[OATI TADS NERC Portal Login](#)

- Always check the NERC website for the most recent versions!!
- TADS DRI
- TADS Bulk Upload Workbook

TADS Data Reporting Instructions (DRI)		
Type	Title	Date
webTADS Application Updates (6)		
Key TADS Documents (2)		
	2020 TADS DRI	1/1/2020
	TADS Reporting Workbook	8/26/2020



The screenshot shows the 'Form 4.1 AC Circuit Outages' spreadsheet. It includes a header section with instructions and a data table with the following columns:

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
Outage ID Code	Event ID Code [2]	10 Unique Element Identifier [3]	Fault Type	Outage Initiation Code	Start Time (mm/dd/yyyy hh:mm) [4]	Time Zone	Outage Duration hh:mm:ss	

Related Links
OATI - How to set up an account
Transmission Availability Data System Working Group (TADSWG)
Training
Data Quality Control Process
TADS Phase II Final Report
TADS Section 1600 Data Request Planned Outages

- Chair: John Idzior (RF) Vice Chair: Nick DePompei (SERC)
- Group Purpose: Implement a uniform approach to reporting and measuring transmission availability, performance, and other related reliability data. To meet this purpose, the TADSUG makes recommendations on four key subjects:
 1. The type of transmission availability data that TOs report to NERC;
 2. A single process for collecting such data that avoids duplication of effort;
 3. Transmission availability and performance metrics that are calculated from the reported data; and
 4. Guidelines for release of data and metrics.
- Contact tads@nerc.net to be added to the TADSWG mailing list (there is no obligation if you monitor)



Questions and Answers

TADS@NERC.NET