



## ICCP Handbook

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# ICCP Handbook

- Background
- Language in Question
- Next Steps?

# Background

- In April 2019, ROS directed NDSWG to review language in the ERCOT Nodal ICCP Communication Handbook been referenced in binding documents. The expectation was that some language of the handbook to be moved out of the handbook into a binding document.
- In May 2019, NDSWG reported to ROS that the handbook should stay as it is. ROS said no, and tasked NDSWG with identifying the binding and non-binding items and then determine the appropriate repository.
- In October 2019, NDSWG decided to schedule a separate meeting to get TSPs and QSEs to discuss the language.

# Language in Question

- Operating Guide

## 7.2 ERCOT ICCP Interface

- (1) The Inter-Control Center Communication Protocol (ICCP) over the ERCOT Wide Area Network (WAN) provides the Real-Time telemetry data from Market Participant computers, computer networks, or other devices. Market Participants providing the data using an ICCP link must coordinate installation according to Protocol Section 23, Form K: Wide Area Network (WAN) Agreement. The ERCOT Nodal ICCP Communication Handbook provides additional details and shall be used in conjunction with the Protocols and Operating Guides to facilitate the communication needs of ERCOT and Market Participants to effectively manage system and market requirements. Updates to the ERCOT Nodal ICCP Communication Handbook shall be approved by the Technical Advisory Committee (TAC).

- ICCP Handbook

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# Language in Question, Con't

- Operating Guide

## 7.2.1 Quality Codes

- (1) Status and analog telemetry data provided to ERCOT shall have the associated quality codes and associated attributes found in the ERCOT Nodal ICCP Communication Handbook. ICCP quality codes to be provided to ERCOT by the Market Participant and to the Market Participants by ERCOT shall follow the standards set in the ERCOT Nodal ICCP Communication Handbook.

- ICCP Handbook

### – Section 4

#### Data Quality

ERCOT recognizes the following categories of ICCP data quality:

- Validity
- Current Source
- Normal Value

*Validity* is the attribute that SCADA systems treat as a point's quality code. The *Validity* attribute values provided in ICCP are VALID, NOT\_VALID, HELD, and SUSPECT. Each SCADA system vendor must translate between these attribute values and some meaningful equivalent SCADA quality code. This section on data quality includes an extensive definition of the kind of translation

<sup>10</sup> This naming convention for Data Sets is a recommendation only. Some implementations create Data Set names internally so that the user has no control over their form. For those systems where the user can assign Data Set names, the convention specified here is the preferred form.

# Language in Question, Con't

- Operating Guide

- 7.3 **Telemetry**

- (1) Qualified Scheduling Entities (QSEs) and Transmission Service Providers (TSPs) required to supply Real-Time telemetry data to ERCOT shall use an Inter-Control Center Communications Protocol (ICCP) interface through the ERCOT Wide Area Network (WAN). TSPs and QSEs shall also receive signals from ERCOT over the ICCP interface.
    - (2) Each QSE and/or TSP shall continuously provide to ERCOT the telemetry data quantities that they are responsible for in the format described in the ERCOT Nodal ICCP Communication Handbook. The frequency of updates, means of communication to ERCOT, and data format for each point provided by each Entity shall follow the specifications in the **ERCOT ICCP Nodal Communication Handbook**. At the frequency specified, each update cycle shall provide current operating data for all points being monitored. Design accuracy and availability of data points delivered to ERCOT shall satisfy the requirements of the Protocols and the Telemetry Standards. |
    - (3) QSEs, Resources and TSPs are required to provide power operation data to ERCOT according to the Protocols and the **ERCOT ICCP Nodal Communication Handbook**.
    - (4) The nomenclature format of data (i.e. structure of the ICCP Object Name) shall follow the standards in the **ERCOT Nodal ICCP Communication Handbook**.

- ICCP Handbook

- Section 5
  - Section 6



# Language in Question, Con't

- Operating Guide

*7.3.1 Data from ERCOT to QSEs*

- (1) ERCOT shall provide all required data and issue instructions over the ERCOT WAN to QSEs in accordance with the Protocols and the **ERCOT Nodal ICCP Communication Handbook**
- (2) ERCOT shall follow data requirements and standards described in the **ERCOT Nodal ICCP Communication Handbook**

- ICCP Handbook

- Section 4

# Language in Question, Con't

- Operating Guide

## *7.3.2 Data from ERCOT to TSP*

(1) ERCOT shall provide operational data over the ERCOT WAN to the TSP in accordance with the Protocols and the **ERCOT Nodal ICCP Communication Handbook**.

- ICCP Handbook
  - Section 4



# Language in Question, Con't

- Operating Guide

### *7.3.3 Data from WAN Participants to ERCOT*

- (1) Each WAN Participant shall provide telemetered measurements over the ERCOT WAN on modeled Transmission Elements as required by the Protocols and the ERCOT Nodal ICCP Communication Handbook.
- (2) WAN Participants shall provide Real-Time monitoring of power system quantities to ERCOT as defined in the Protocols and the ERCOT Nodal ICCP Communications Handbook. ERCOT shall work with WAN Participants to determine the required data using the methodology presented in the Protocols. Transmission Element status and analog measurements that the TSPs and QSEs define in the Network Operations Model shall, at a minimum, be provided to ERCOT. Ultimately, it is the responsibility of the TSPs and QSEs to provide all data requested by ERCOT.

- ICCP Handbook

- Section 5
- Section 6

## Next Steps?

- Review identified ICCP handbook sections to be moved?
- NDSWG members (TSPs and QSEs) reviews the language and reconvene next NDSWG meeting to discuss the language?
- NDSWG schedules a meeting with members (TSPs, QSEs and ERCOT staff) to review the ICCP handbook?



# QUESTIONS?