



Peak Reliability		
 PEAKRELIABILITY	Reliability Coordinator Data Request and Specifications for Data Provision	Version 14.0
		IRO-010-2 Guidance Document and Attachment A

Table of Contents

- I. Purpose..... 2***
- II. Introduction 2***
- III. Peak Roles and Responsibilities..... 2***
- IV. Applicability and Obligations 3***
- V. Questions and Comments 6***
- VI. Data Request and Specifications for Data Provision Spreadsheet..... 6***
- VII. Guidance for Specific Sections of the RC Data Request and Specifications Spreadsheet (Attachment A) 6***
 - A. Section 1 - Real-Time Network Measurement Data Guidance..... Error! Bookmark not defined.***
 - B. Section 2- Real-Time Balancing Authority Data Guidance 8***
 - C. Section 3 - Forecast Data Guidance 9***
 - D. Section 4 - Documentation and Procedures Guidance 10***
 - E. Section 5 - Scheduled and Unscheduled Outage Guidance..... 11***
 - F. Section 6 - Power System Modeling Information Guidance 12***
 - G. Section 7 - Other Operational Information Guidance 13***
- VIII. Review and Approval..... 14***
- IX. Version History 14***

Peak Reliability		
 PEAKRELIABILITY	Reliability Coordinator Data Request and Specifications for Data Provision	Version 14.0
		IRO-010-2 Guidance Document and Attachment A

I. Purpose

Provide guidance to applicable functional entities on expectations for provision of required data to Peak Reliability (Peak) in order for Peak, as a registered Reliability Coordinator (RC), to perform its Operational Planning Analyses, Real-time monitoring, and Real-time Assessments.

II. Introduction

While this document provides guidance for data provision, the Data Request and Specifications for Data Provision Spreadsheet (Attachment A) is the documented specification for the data necessary for Peak to perform its Operational Planning Analyses, Real-time monitoring, and Real-time Assessments.¹

The data requested within Attachment A includes, but is not limited to, non-BES and external network data, notification of current Protection System and Special Protection System status or degradation that impacts System reliability, real-time facility data, schedule type data, facility outage information and electronic modeling data.² The periodicity for providing data and the deadline by which the Responsible Party is to provide the indicated data are specified in Attachment A.³

Additional guidance provided within this document includes process expectations for mutually agreeable:

- Format
- Process for resolving data conflicts
- Security Protocol


III. Peak Roles and Responsibilities

The Compliance department retains ownership and maintenance responsibilities for this document as well as the Data Request and Specifications for Data Provision Spreadsheet (Attachment A). An assigned Compliance Specialist has primary responsibility for the Compliance team and the Manager of Compliance serves as backup.

¹ NERC Reliability Standard IRO-010-2 Requirement 1 and 1.1

² NERC Reliability Standard IRO-010-2 Requirement 1.2

³ NERC Reliability Standard IRO-010-2 Requirement 1.3 and 1.4

Peak Reliability		
 PEAKRELIABILITY	Reliability Coordinator Data Request and Specifications for Data Provision	Version 14.0
		IRO-010-2 Guidance Document and Attachment A

Peak Subject Matter Experts (SME) are responsible to notify and collaborate with the Compliance team whenever:

- Revisions to Attachment A are required
- Issues arise regarding format, data conflicts or security protocol

The Compliance department will collaborate with SME(s) to correspond with entities, document, and approve any issues related to mutually agreeable format, data conflict resolution and security protocols.

Document Maintenance

This Compliance department distributes this document and the associated Attachment A to applicable entities via email and by posting on the peakrc.com website. (peakrc.com > what we do > IRO-010 (Data Request)). Both documents will be reviewed at least annually but revisions will occur whenever required.

Guidance document clean and redline versions will be posted whenever changes occur. Minor changes will be noted by dot version changes. (i.e. correcting a spelling error would change the version from 12.2 to 12.3) Major changes will be noted by whole number version changes. (i.e. A new item would change the version from 12.2 to 13.0)

Revisions to Attachment A will be captured in the guidance document version history.


The Compliance department will provide the appropriate level of outreach when required by following the Compliance Impact Stakeholder Engagement Plan.

IV. Applicability and Obligations

Peak's Reliability Coordinator Data Request and Specification for Data Provision is applicable to the following entities (Responsible Parties):

- Balancing Authorities
- Transmission Operators
- Generator Operators

Although Responsible Parties are ultimately responsible for ensuring Peak receives the data requested in Attachment A, they can delegate data provision to another NERC Registered Functional Entity. This arrangement is permissible provided the decision is mutual, i.e. both entities agree, and is documented and supplied to Peak via the data.request@peakrc.com email. Agreement can be documented via email or other supporting documentation. Such data submission arrangements do not absolve the Responsible Party listed in Attachment A of its obligations noted within the Attachment.

Peak Reliability		
 PEAKRELIABILITY	Reliability Coordinator Data Request and Specifications for Data Provision	Version 14.0
		IRO-010-2 Guidance Document and Attachment A

Each applicable entity that is required to provide data to Peak shall appoint at least one contact who is responsible for working with the RC in order to provide the requested data in the specified format. If applicable, contacts for each section are preferred. Entities should notify Peak of their contact name(s), email address(es) and phone number(s) via the data.request@peakrc.com email.

Each applicable entity shall satisfy the obligations of the documented specifications within Attachment A by using⁴:

- A mutually agreeable format⁵
- A mutually agreeable process for resolving data conflicts⁶
- A mutually agreeable security protocol⁷

A. Format and Security Protocols⁸

The specified formats and security protocols below have been previously recognized as mutually agreeable. The appointed contact person(s) shall notify Peak via the data.request@peakrc.com email of any instances where the specified formats or security protocols are not agreeable to the entity.

The formats for the data to be delivered to Peak are as follows:

Inter Control Center Protocol Data (ICCP)

- Real time Analog and Status point data as detailed in Attachment A.
- The data provider must include data quality along with the data. This data quality shall follow the ICCP Data Quality Standards as described in the IEC ICCP User's Guide (870-6-505).
- If real-time ICCP data transfer is unavailable for any reason, the responsible entity will provide critical real-time system data via phone to the RC real-time desk. Data or data points that are considered critical may change based on current system conditions. It is expected that the RC and Responsible Parties will communicate and coordinate on which data is needed at a particular time as well as a periodicity for providing updates until the normal data communication methods are back in place.


⁴ NERC Reliability Standard IRO-010-2 Requirement 3

⁵ NERC Reliability Standard IRO-010-2 Requirement 3.1

⁶ NERC Reliability Standard IRO-010-2 Requirement 3.2

⁷ NERC Reliability Standard IRO-010-2 Requirement 3.3

⁸ NERC Reliability Standard IRO-010-2 Requirement 3.1 and 3.3

Peak Reliability		
 PEAKRELIABILITY	Reliability Coordinator Data Request and Specifications for Data Provision	Version 14.0
		IRO-010-2 Guidance Document and Attachment A

Electric Industry Data Exchange (EIDE)

- Schedule type data as identified in Attachment A to be delivered electronically on a daily basis as designated in Attachment A, by EIDE protocol over https.
- If your entity is unable to perform EIDE over https, then the EIDE-formatted files can be delivered to a Peak Reliability Secure File Transport Protocol (SFTP) site. Peak Reliability’s EMS technical staff will work with each entity’s technical staff on either implementation.

RC Coordinated Outage System (COS)

- COS is the primary mechanism for required outage submittals. This central outage system has a Web frontend for easy data entry. Submissions can be automated via a Web Services API by working directly with the system vendor. COS Users Manuals are supplied by Peak RC.
- Scheduled and unscheduled outages are to be submitted in accordance with the Peak Reliability Outage Coordination Process.
- If COS is unavailable, the responsible entity shall send outage information to the following email addresses: rc.outages@peakrc.com and ops.engineering@peakrc.com.

Topology Update Process for the West-wide System Model (WSM)

- The WSM topology updates will be provided through the RC Model Update Process. Model update details are in Attachment A below and are required no less than 30 days prior to the actual change in the network (additions, deletions or changes in energized equipment).


Other data formats and submittal processes include the use of email, upload to Peak’s secure website www.peakrc.org, RMT messages and phone calls to Peak’s Reliability Coordinator System Operators (RCSO).

B. Process for Resolving Data Conflicts⁹

Data conflicts shall be resolved collaboratively whenever possible Peak SME(s) will collaborate with the Compliance department and entities to reach resolution of any known data conflict.

Entities should notify Peak via the data.request@peakcom email immediately upon becoming aware of a data conflict. Peak will collaborate with the entity to resolve the

⁹ NERC Reliability Standard IRO-010-2 Requirement 3.2

Peak Reliability		
 PEAKRELIABILITY	Reliability Coordinator Data Request and Specifications for Data Provision	Version 14.0
		IRO-010-2 Guidance Document and Attachment A

conflict in a mutually agreeable manner that maintains Peak’s ability to perform its Operational Planning Analyses, Real-time monitoring and Real-time Assessments.

V. Questions and Comments

Peak Reliability will work with each entity to address compliance questions, requests for clarification or to address issues related to the technical nature of the data. All data specification inquiries should be sent to the data.request@peakrc.com email, legal inquiries can be sent to the legal@peakrc.com email, and compliance inquiries can be sent to the peakcompliance@peakrc.com email.

VI. Data Request and Specifications for Data Provision Spreadsheet

The *Data Request and Specification for Data Provision Spreadsheet* (Attachment A) contains the specific data Peak requires from each Responsible Party and contains columns which denote the:

- Request Number (Req #) – Used for document coordination and communication purposes
- Responsible Party – Applicable entity responsible for ensuring its data is being provided to Peak.
- Data Request Effective Date – Date by which specified data is to begin being provided to Peak¹⁰ (If a request number has been retired, it will be documented by the word “retired”)
- Data Item – Specific data being requested
- Data Transfer Method – Method by which data is provided to Peak RC
- Data Update Frequency – Periodicity for providing the specified data


VII. Guidance for Specific Sections of the RC Data Request and Specifications Spreadsheet (Attachment A)

A. Section 1 - Real-Time Network Measurement Data Guidance

1. Request 1.2 - 1.4

- a) This request is intended to provide adequate data for Peak to properly monitor all BES Facilities, and other non-BES Facilities that may have an

¹⁰ NERC Reliability Standard IRO-010-2 Requirement 1.4

Peak Reliability		
 PEAKRELIABILITY	Reliability Coordinator Data Request and Specifications for Data Provision	Version 14.0
		IRO-010-2 Guidance Document and Attachment A

impact to the BES. Peak's state estimator accuracy is negatively impacted if the necessary sub-100 kV systems are not in the West-wide System Model (WSM) with appropriate measurement availability.

- b) Measurement data that should be provided to Peak includes:
 - (1) Data associated with Facilities or equipment which are included in the Bulk Electric System (BES) definition, and
 - (2) Measurement data for non-BES Facilities/equipment that impact the BES, including but not limited to parallel sub-100 kV systems, as determined by the Transmission Operator (TOP) or by Peak as being necessary to support the accuracy of Operational Planning Analyses, Real-time monitoring and Real-time assessments or to determine SOL exceedance(s) on BES Facilities.

2. Request 1.11


- a) Peak's real-time measurement/ICCP request requires data to be made available which already exists within the TOP's or Balancing Authorities (BA) SCADA system. This is not a request for the TOP or BA to install additional measurement devices in the field.
- b) A RAS in service status may or may not be available via ICCP. If there are Real-time changes to the availability and indication is available via a Responsible Parties EMS, that value should be provided to Peak. If ICCP data is not available for RAS in-service status, other documentation or other information must be provided to be sure that Peak understands how the RAS is operated.
 - (1) An example of a RAS associated analog arming value is X MW of generation is armed to be dropped, or Y MW of load is armed to be dropped.

3. Request 1.12

- a) This is not a request for under-voltage or under-frequency load shedding information.

4. Dynamic Ratings

- a) Peak has functionality in the Energy Management System (EMS) to receive dynamic ratings in the following ways:
 - (1) Provide Peak with the equipment rating as an analog point via Real-time ICCP

Peak Reliability		
 PEAKRELIABILITY	Reliability Coordinator Data Request and Specifications for Data Provision	Version 14.0
		IRO-010-2 Guidance Document and Attachment A

- (2) Provide Peak with ambient temperature tables and associated limits, along with actual temperature via Real0time ICCP, and
- (3) Provide Peak with unique topology-based limitations, such as when one breaker on a breaker and a half scheme is open, resulting in a limitation due to a lower rating on the remaining closed breaker.
- b) Dynamic Facility Ratings help ensure that Peak has the most accurate Facility Ratings in our situational awareness tools, thus reducing incorrect application results and unnecessary phone calls to entity operators.

B. Section 2- Real-Time Balancing Authority Data Guidance

1. Request 2.1

- a) Peak uses NERC’s definition for Net Energy for Load for BAA Load: Net Balancing Authority Area generation, plus energy received from other Balancing Authority Areas, less energy delivered to Balancing Authority Areas through interchange. It includes BAA losses but excludes energy required for storage at energy storage facilities.

2. Request 2.2 – 2.3

- a) Interchange used for Area Control Error (ACE) calculation

3. Request 2.4

- a) ACE used for NERC reporting requirements

4. Request 2.8


- a) BA Contingency Reserve Obligation as defined in the NERC Glossary of Terms or, if the BA is part of a Reserve Sharing Group (RSG), the BA’s allocated obligation as defined by the RSG.

5. Request 2.10

- a) The Most Severe Single Contingency (MSSC) value that is provided to Peak must be a Real-time value that captures the actual output of the generator that is the MSSC at any given moment. If MSSC calculations are being done based on other application results, such as Real-time contingency analysis, it is acceptable to provide the update at the frequency of the calculation. This is not a request for a Reserve Sharing Groups (RSG) MSSC.

6. Request 2.14

- a) This is not the anticipated energy on the tag, rather a real-time calculation of MWs associated with the dynamic schedule.

Peak Reliability		
 PEAKRELIABILITY	Reliability Coordinator Data Request and Specifications for Data Provision	Version 14.0
		IRO-010-2 Guidance Document and Attachment A

7. Request 2.15

- a) This is a real-time calculation of MWs associated with each pseudo tie used in ACE calculation. This is not an alternate method for inclusion in congestion management procedures pursuant to INT-004-3.1.
- b) Dynamic schedules and pseudo ties are important for implementation in the Enhanced Curtailment Calculator, as well as for general awareness of MW flows associated with the dynamic transfers.

8. Request 2.16

- a) This is a single value – summation of all wind generation currently online. This value should represent wind generation at the BES level.

9. Request 2.17

- a) This is a single value – summation of all solar generation currently online. This value should represent solar generation at the BES level.


C. [Section 3 - Forecast Data Guidance](#)

1. Request 3.3 and 3.4

- a) Examples of load forecast submission: On Monday, a BA shall submit the hourly load forecast for Monday, Tuesday, Wednesday, Thursday and Friday. On Tuesday, a BA shall submit the hourly load forecast for Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday and Monday.
- b) Peak validates forecasted load by comparing it to the actual load value provided via ICCP. BAs should be proactive and perform the same validation to ensure that Peak is receiving consistent and accurate load forecast data.

2. Request 3.5 – 3.12


- a) NERC BES Definition of Generator inclusion: Generating resource(s) with gross individual nameplate rating greater than 20 MVA or gross plant/facility aggregate nameplate rating greater than 75 MVA including the generator terminals through the high-side of the step-up transformer(s) connected at a voltage of 100 kV or above.
- b) Unit Commitment: Flag to indicate whether a generator is expected to be online or offline during the forecast interval specified by the start / stop times. Indicator of Unit Commitment (1=Committed/Online, and a 0=Offline). If the unit is in an outage the value shall be zero.

Peak Reliability		
 PEAKRELIABILITY	Reliability Coordinator Data Request and Specifications for Data Provision	Version 14.0
		IRO-010-2 Guidance Document and Attachment A

- c) **Unit Dispatch MW:** The average MW value corresponding to the expected output of the generator during the forecast interval specified by the start / stop times. This value can represent a unit, a plant (set of units), a share of a jointly owned unit (JOU), or a set of plants aggregated (such as small units). Aggregations of units or plants should only be used when the fuel type is the same and when electrically connected in the same geographic region. Specific unit data is preferred over aggregations whenever possible. Positive values shall be submitted when units are generating, whereas negative values shall be submitted for consumption of power (such as motoring units, pumped storage, etc.) Forecasts for jointly owned units (JOUs) shall be submitted for each owner's JOU share, and the total plant forecast output shall be submitted by the plant operator. If the unit is in an outage the forecast shall be zero.
- d) **Operational Maximum MW:** The MW value corresponding to the maximum operating limit of the generator that is sustainable for the forecast interval, e.g. lowest of Generator, Turbine, Fuel, Temperature, or Environmental Limits. If the unit is in an outage the forecast shall be zero. Only non-negative numbers should be submitted for values. PMax numbers for JOUs shall be submitted by the BA. The JOU owner that does not operate the plant shall submit a value that reflects the JOU share of capacity that could be called on for the forecast interval. The JOU plant operator BA shall submit a value that reflects the operational capacity of the unit.
- e) **Operational Minimum MW:** The MW value corresponding to the minimum operating limit of the generator, e.g., lowest limit to meet equipment or environmental constraints during the forecast interval specified by the start / stop times. Negative numbers can be submitted for values of generation that consumes power, but typically this value will be positive.

D. [Section 4 - Documentation and Procedures Guidance](#)

1. If email is used, email all operational documents that do not require RC review or approval to RCRequestedDocuments@peakrc.com.
2. If email is used, email TOP Restoration Plans, Emergency Operations Plans and GMD Operating Procedures to RCTOPPlans@peakrc.com.


Peak Reliability		
 PEAKRELIABILITY	Reliability Coordinator Data Request and Specifications for Data Provision	Version 14.0
		IRO-010-2 Guidance Document and Attachment A

3. All documentation/procedures can be uploaded to peakrc.org in the applicable sections.

E. Section 5 - Scheduled and Unscheduled Outage Guidance

1. Definitions:

- a) Outage Coordination Process as either a Planned, Opportunity, Informational or Operational Transmission Outage.
- b) Unscheduled or unplanned Outage: An unscheduled or unplanned outage is an outage type listed in the Outage Coordination Process as either an Urgent, Forced Emergency or Forced Automatic Outage. These types of outages may also include Operational Transmission Outages.
- c) Balancing Authority Operating Plans: NERC Standard TOP-002-4 R7 requires each Balancing Authority to provide its Operating Plan for next-day operations identified in TOP-002-4 R4 to its Reliability Coordinator. Given the four requirements TOP-002-4 R4 needs to address, those same requirements are being fulfilled in this data request by items, 3.5 and 3.7 (R4.1), 2.2 and 2.3 (R4.2), 3.3 (R4.3), and 2.8 and 5.15. (R4.4).
- d) Telemetry and Control Equipment: Peak is requesting data necessary to facilitate Real-time Assessments and Operational Planning Analyses. Equipment in this category includes but is not limited to ICCP, SCADA and RTUs. When reporting this type of equipment to Peak, consideration should be given to the affect the equipment has on the ability to perform assessment or analysis.
 - (1) For example, has the equipment caused or does the equipment include one of the items below:
 - (a) Loss of operator ability to remotely monitor or control BES elements
 - (b) Loss of communications from multiple SCADA Remote Terminal Units (RTUs)
 - (c) Unavailability of ICCP links, which reduces BES visibility
 - (d) Loss of the ability to remotely monitor and control generating units via AGC
 - (e) Unacceptable state estimator or real time contingency analysis solutions

Peak Reliability		
 PEAKRELIABILITY	Reliability Coordinator Data Request and Specifications for Data Provision	Version 14.0
		IRO-010-2 Guidance Document and Attachment A

(2) Outages do not need to be reported where redundant or backup equipment remains in service and is not jeopardized by the work being performed. Isolated, individual RTU outages are not required to be reported, however the RC accepts the use of ICCP quality codes as a means of reporting if desired. If the entity does not possess the ability to provide ICCP quality codes, an RMT message will suffice.

2. Request 5.1

a) Outages on Facilities/equipment identified in the In-Scope Outage Categories section of the Peak Reliability Outage Coordination Process.

3. Request 5.2

a) Derates should be submitted to COS per the instructions of the COS manual and in accordance with the Short-Range Submittal Timeline specified in the Peak Reliability Outage Coordination Process.

4. Request 5.3

a) Derates shall be submitted to COS per the instruction of the COS manual.


5. Request 5.15

a) Each Balancing Authority shall have an Operating Plan(s) for the next-day that addresses several items, one of which is its Capacity and energy reserve requirements, including deliverability capability. Any deliverability constraints that may be identified that affect either the amount or location of Capacity or reserves should be provided. Peak intentions are for constraints identified by next day studies not real-time operations. Typically this is a transmission constraint or system limitation provided to the Balancing Authority by one of its Transmission Operators that results in a requirement that either reserves or capacity be procured in specific locations in order to ensure energy is deliverable upon a single contingency.

F. Section 6 - Power System Modeling Information Guidance


1. General

a) At a minimum, Peak requires modeling data associated with Facilities or equipment which are included in the Bulk Electric System (BES) definition, and data for non-BES Facilities/equipment that impact the BES, including but not limited to parallel sub-100 kV systems, as determined by the TOP or by Peak as being necessary to support the accuracy of Real-Time Assessments or to determine SOL exceedance

Peak Reliability		
 PEAKRELIABILITY	Reliability Coordinator Data Request and Specifications for Data Provision	Version 14.0
		IRO-010-2 Guidance Document and Attachment A

on BES Facilities. Not having this information in the WSM leads to potential inaccuracies in advanced Real-time applications such as state estimation, contingency analysis, and voltage stability.

2. Modeling data and information shall be sent to Peak via secure FTP or using the email address WSM.Model.Updates@peakrc.com.
3. RAS and non-RAS data and information shall be sent to Peak via secure FTP or using the email address ras.data@peakrc.com.
4. **Request 6.10**
 - a) Data should be provided in accordance with the Peak Reliability SOL Methodology and per the RC Instructions on peakrc.com.
5. **Request 6.16**
 - a) Dynamic schedules and pseudo ties are important for implementation in the Enhanced Curtailment Calculator, as well as for general awareness of MW flows associated with the dynamic transfers. A list of dynamic schedules and pseudo ties for each BA must be provided along with appropriate descriptions and purposes for the dynamic transfers.
6. **Request 6.17**
 - a) Data that should be provided to includes 1) Data associated with Facilities or equipment which are included in the Bulk Electric System (BES) definition, and 2) Measurement data for non-BES Facilities/equipment that impact the BES, including but not limited to parallel sub-100-kV systems, as determined by the TOP or by Peak as being necessary to support the accuracy of Real-time Assessments or to determine SOL exceedance on BES Facilities. This request is intended to provide adequate data for Peak to properly monitor all BES Facilities, and other Facilities that may have an impact to the BES. Peak's state estimator accuracy is negatively impacted if the necessary sub-100-kV systems are not in the West-wide System Model with appropriate measurement availability.
 - b) Examples of applicable switching devices include those associated with:
 - (1) Transmission lines
 - (2) Transformers
 - (3) Series Compensation
 - (4) Station bus switches including auxiliary buses and bus tie switches

Peak Reliability		
 PEAKRELIABILITY	Reliability Coordinator Data Request and Specifications for Data Provision	Version 14.0
		IRO-010-2 Guidance Document and Attachment A

c) Examples of non-applicable devices include:

(1) Shunt devices


G. Section 7 - Other Operational Information Guidance

1. Request 7.4

a) Emergency or BES Emergency as defined in the NERC Glossary of Terms.

2. Request 7.5

a) Current Protection System status functionality is affected when normal fault clearing zones or Contingency definitions are impacted. For additional responsibilities, refer to Peak's Outage Coordination Process.

Peak Reliability		
 PEAKRELIABILITY	Reliability Coordinator Data Request and Specifications for Data Provision	Version 14.0
		IRO-010-2 Guidance Document and Attachment A

VIII. Review and Approval


I have reviewed and approve this Reliability Coordinator Data Request and Specifications for Data Provision document and associated Attachment A.

Approved: _____ Date: _____
 Scott Downey, Director of Compliance

IX. Version History

Rev.	Date	Action	By	Change Tracking
1.0	05/30/2008	Issued for Implementation	Mark Maher	Original WECC RC Data Request
2.0	02/04/2009	Revised and Reissued	Eric Whitley	Changed contact information. Added additional real-time measurements, forecast data, clarified outage derates.
3.0	03/30/2009	Revised and Reissued	Eric Whitley	Fixed spelling, added effective date. Added additional real-time measurements, modeling data, outage data.
4.0	05/19/2009	Revised and Reissued	Eric Whitley	Added real-time RAS data and RAS documentation, other real-time data, path outages, modeling data.
5.0	09/15/2010	Revised and Reissued	Brett Wangen	Changed contact information. Added clarification documentation and real-time data. Added additional outage data, added path outages via EIDE, added SOL data.
6.0	8/20/2011	Revised and Reissued	Brett Wangen	Reformatted, new template. Added submission deadlines for forecast and outage data. Added modeling data.
7.0	12/31/2012	Revised and Reissued	Brett Wangen	Added requirement numbers, updated multiple standards, added notification of RTCA failure, updated contact information.
8.0	02/13/2014	Revised and Reissued	Brett Wangen	Rebranded document to Peak Reliability.
9.0	12/31/2014	Revised and Reissued	Brett Wangen	Divided data request into sections and renumbered accordingly. Added several

Peak Reliability

	Reliability Coordinator Data Request and Specifications for Data Provision	Version 14.0
		IRO-010-2 Guidance Document and Attachment A

10.0	10/02/2015	Revised and Reissued	Jason Ausmus	clarifying/explanatory notes throughout the request. Updated planned outage requirements. Added multiple real-time data items, documentation items, modeling data items and other operational items. New document template, added versioning. Updated and expanded forecast data requirements, modeling requirements, real-time data requirements.
10.1	01/05/2016	Revised and Reissued	Jason Ausmus	Changed the Data Request Effective Date for Req # 2.9.1 from Jan 15, 2016 to TBD.
10.2	01/06/2016	Revised and Reissued	Jason Ausmus	Changed the Data Request Effective Date for Req # 3.3.1 from Jan 15, 2016 to TBD.
11.0	12/12/2016	Revised and Reissued	Scott Downey	Updated outage data section and others to account for new Outage Coordination Process and changes related to new IRO/TOP standards taking effect on April 1, 2017.
12.0	04/01/2017*	Revised and Reissued	Scott Downey	Removed requests that were retired on April 1, 2017. *Version 12.0 never effective.
12.1	03/23//2017*	Revised and Reissued	Scott Downey	Revised requests 5.10, 5.11, and 6.14. Deleted request 5.12 (from v12). Revised and provided definitions for clarity and guidance. *Version 12.1 never effective.
12.2	03/23/2017	Revised and Reissued	Scott Downey	Added request 1.14 to capture TOP-provided stability limitations, revised request 6.12 and several Data Transfer Methods to provide additional clarity. Removed non-applicable entities from Applicability. Performed general housekeeping throughout.
13.0	08/14/2017	Revised and Reissued	Scott Downey	Created Guidance Document and Attachment A, request 2.5 added instantaneous or one minute average language, request 2.21 added "Actual", request 3.1 updated to BA Net Scheduled Interchange, request 3.2 added "Requirement" to Contingency Reserve, added "Reserve Requirement" to Total Spinning,



Reliability Coordinator Data Request and Specifications for Data Provision

Version 14.0

IRO-010-2 Guidance Document and Attachment A

13.1	12/08/2017	Revised and Reissued	Scott Downey	<p>added "Contingency Reserve Requirement" to Total, requests 5.7, 5.8, and 5.9 revised language, request 5.11 added ICCP to Data Transfer Method, request 5.15 added to Section 5, request 6.8.1 added, request 6.10 updated Data Transfer Method, request 6.18 and 6.19 updated Data Update Frequency.</p> <p>Revised Attachment A Request: 1.12 Data Item - to capture current Protection System Status, 4.1 Responsible Party - to include Balancing Authority as required by NERC Reliability Standard EOP-011-1, and 6.8 to reflect Request retirement.</p>
14.0	8/20/2017	Revised and Reissued	Scott Downey	<p>Revised Guidance document to add clarifying information for Request 1.12.</p> <p>Minor formatting throughout Guidance document and Attachment A.</p> <p>Moved "current Protection System status" from Attachment A Request 1.12 to Request 7.5. (While 7.5 is a new Request number, the effective date reflects the original Request 1.12 date of 12/8/2017). Updated Guidance document for Requests 1.12 and 7.5 respectively.</p> <p>Revised Attachment A Request 6.10 to reflect moving guidance from Attachment A into guidance document and specifying 'email' as Data Transfer Method.</p>