UCAIug Green Button Download My Data Test Sheet  
Revised: 3/27/2017 11:16 PM

# Overview

This document contains the test data sheet and procedures for performing the Green Button Download My Data certification tests for UCAIug.

## References

1. The Green Button Test Cases Spreadsheet: <http://osgug.ucaiug.org/sgsystems/OpenADE/Shared%20Documents/Testing%20and%20Certification/GreenButtonTestPlan/GreenButtonTestCases.xlsm>
2. The PICS for this testing: <http://osgug.ucaiug.org/sgsystems/OpenADE/Shared%20Documents/Testing%20and%20Certification/GreenButtonTestPlan/GreenButtonDownloadMyDataPICS.docx>
3. The latest version of this template: <http://osgug.ucaiug.org/sgsystems/OpenADE/Shared%20Documents/Testing%20and%20Certification/GreenButtonTestPlan/GreenButtonTestDataSheet.docx>
4. The policies and procedures for the UCAIug ITCA for Green Button: <http://osgug.ucaiug.org/sgsystems/OpenADE/Shared%20Documents/Testing%20and%20Certification/GreenButtonTestPlan/UCAIug%20GB%20ITCA%20Policies.docx>.
5. Application for testing: <http://osgug.ucaiug.org/sgsystems/OpenADE/Shared%20Documents/Testing%20and%20Certification/GreenButtonTestPlan/Green%20Button%20Application.doc>

# Tests

## Instructions

### General

Perform each test in sequence. For those tests that require log in and download my data, the repeated steps can be ignored and use the file that was retrieved in the prior test.

Each test has a section at the end as follows:

Passing Result:

<Contains a description of the expected passing results (indicated in details in the test steps with “verify” statements.>

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| --- |
| <enter any comments or notes here including pasted images> |

\_\_ COMPLIANT \_\_ NONCOMPLIANT Tester Initials: \_\_\_\_ Testee Initials: \_\_\_\_

Check either Compliant or Noncompliant by placing an X to the left of the test result. Place the initials of the Tester and testee in the corresponding spots when both agree with the interpretation of the result. Paste any notes or images in the one-celled table to record additional data or comments.

### No need to log in each time

The tests in this document are designed to be self-contained and not dependent on previous tests run. However, the Tester is encouraged to eliminate redundant log in and download procedures where possible to minimize test time.

If already logged in from a previous step, there is no need to log in again. Also, if the file needed has already been downloaded in a previous step, there is no need to download it again.

Those test procedures where this optimization is recommended if possible begin their test procedure with a note to this effect.

### Performing Login and Download by Tester or Testee

Depending on the choice of the testee and their implementation, the Tester may elect at the testee’s request to have the testee perform login and downloads while sharing a screen. This allows the testee to maintain the privacy of the login used in the test.

In this case, the downloaded file must be provided to the Tester by the testee via email or ftp.

### TimeStampConverterTool

The following is a small spreadsheet that can be used to convert timestamps in TR\_D144 as directed:



Double click on the icon above and it will open the spreadsheet.

## Identification

Fill out the following table (*italics* fields come from the test application):

|  |  |
| --- | --- |
| Date of Test: |  |
| *Product or system under test:* |  |
| *Company:* |  |
| *Function Blocks (FBs) to be Tested (minimum 1,2,4,5):* |  |
| *Test Lab:* |  |
| Company Representative (Testee): |  |
| Test Witness (Tester): |  |
| Starting Test URL: |  |
| Test Machine: |  |
| Test Browser: |  |

Summary of Results

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| Summary Result (COMPLIANT or NON-COMPLIANT):  \_\_\_\_\_\_\_\_\_ | |  |  | | --- | --- | | Failures | Section Link | |  | 2.4.1 | |  | 2.4.2 | |  | 2.4.3 | |  | 2.4.4 | |  | 2.4.5 | |  | 2.5.1 | |  | 2.5.2 | | |  |  | | --- | --- | | Failures | Section Link | |  | 2.21.1 | |  | 2.21.2 | |  | 2.21.3 | |  | 2.21.4 | |  | 2.21.5 | |  | 2.21.6 | |  | 2.21.7 | |  | 2.21.8 | |  | 2.21.9 | |  | 2.21.10 | |

[FB\_01] Common

Tests: [TR\_CERT001] Verify that data set contains link to certification status record.

Procedure:

1. Locate following atom Link in DMD file:  
     
   <link href=[https://cert.greenbuttonalliance.org/certificate/{GBA Assigned CertificateID}](https://cert.greenbuttonalliance.org/certificate/%7bGBA%20Assigned%20CertificateID%7d) rel=”related”/>
2. Verify contents of {GBA Assigned CertificateID} portion matches value shown on Green Button Download My Data Certificate application in the “Certification Identifier” box.

Passing Result:

”GBA Assigned CertificateID” portion of Atom link matches value shown in the “Certification Identifier” box on the Green Button Download My Data Certificate application.

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| <enter any comments or notes here including pasted images> |

\_\_ COMPLIANT \_\_ NONCOMPLIANT Tester Initials: \_\_\_\_ Testee Initials: \_\_\_\_

Tests: [TR\_CPYRT001] Verify the implementer has purchased the NAESB ESPI standard.

Procedure:

1. Obtain the current "NAESB Copyright Policy and Companies with Access to NAESB Standard at http://www.naesb.org/pdf2/copyright.pdf. Alternatively, review list of purchased standards provided by NAESB to UCAIug for this purpose. If using NAESB list, skip steps 2&3 and paste instead row from NAESB list into box below.

2. Locate implementer's name on the North American Energy Standards Board's (NAESB) "Companies with Access to NAESB Standards" report.

3. Verify the "Retail Version(s)" column of the report's "Standard Products" section contains evidence of implementer having purchased the NAESB ESPI 1.0 Standard [column includes the "2.0" version or "Final Action (ESPI): 2011 Retail API 8c/R10008" | "REQ.21 (ESPI"] or equivalent evidence of purchase.

Passing Result:

Implementer's purchase of NAESB ESPI Standard is witnessed and verified using the NAESB "Companies with Access to NAESB Standards" report by Tester.

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| <enter any comments or notes here including pasted images> |

\_\_ COMPLIANT \_\_ NONCOMPLIANT Tester Initials: \_\_\_\_ Testee Initials: \_\_\_\_

Tests: [TR\_D144] Verify by analysis that ESPI timestamps (based on espi:TimeType) in Green Button data files are based on UTC without timezone or DST offsets.

Procedure:

Note: if already logged in from a previous step, there is no need to log in again. Also, if the file needed has already been downloaded in a previous step, there is no need to download it again.

1. Log in the test account.

2. Download UsagePoints and save XML Instance

3. Log out.

4. The testee will indicate the time and reference of the first IntervalBlock. This may be the start of the first date selected in a range on the testee’s download page. Alternatively, the testee may know the expected start time reference for the first IntervalBlock in the file.

Time reference for first IntervalBlock enter here:

Passing Result:

All timestamps are based on UTC without timezone or DST offsets.

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| <enter any comments or notes here including pasted images> |

\_\_ COMPLIANT \_\_ NONCOMPLIANT Tester Initials: \_\_\_\_ Testee Initials: \_\_\_\_

Tests: [TR\_FDFTP001] Check UUIDs remain the same over time.

Procedure:

Note: if already logged in from a previous step, there is no need to log in again. This procedure does require a separate download of a data file.

1. Log in the test account.

2. Select at least one UsagePoint associated with the account.

3. Download UsagePoints and save XML Instance.

4. Log out.

5. Log into same account.

6. Select same UsagePoints that were selected in the first enquiry.

7. Download UsagePoints and save XML Instance.

8. Compare saved XML Instance files.

9. All UUIDs for the UsagePoints in the two XML Instance files should be the same (the id tag of the UsagePoint entry.

Passing Result:

All UsagePoint UUIDs remain the same over time.

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| <enter any comments or notes here including pasted images> |

\_\_ COMPLIANT \_\_ NONCOMPLIANT Tester Initials: \_\_\_\_ Testee Initials: \_\_\_\_

Tests: [TR\_FDFTP008] Check atom timestamps (based on atom:dateTimeType) are encoded as Universal Coordinated Time (UTC)

Procedure:

1. Using the previously downloaded file, the testee indicates the time at which the feed.updated timestamp was created (could be when it was downloaded)

Timestamp provided by testee enter here:

\_\_\_\_\_\_\_\_\_\_\_\_

2. Retrieve the timestamp from feed.updated enter here:

\_\_\_\_\_\_\_\_\_\_\_\_

3. Verify that the value of this timestamp is referenced to Zulu time (agrees with the time represented by the time given in 1)

4. Verify that timestamp in 2) ends in “Z” for Zulu

Passing Result:

All atom timestamps are based on UTC without timezone or DST offsets.

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| <enter any comments or notes here including pasted images> |

\_\_ COMPLIANT \_\_ NONCOMPLIANT Tester Initials: \_\_\_\_ Testee Initials: \_\_\_\_

Tests: [TR\_PROTO001] Verify implementation of HTTP

Procedure:

Note: if already logged in from a previous step, there is no need to log in again.

1. Log in the test account.

2. Navigate to web portal Green Button Download My Data screen.

3. Verify that screen is shown

4. Verify webpage URL utilizes HTTP Protocol – inspect browser for http:// or https://.

Passing Result:

Web portal interface utilizes HTTP Protocol.

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| <enter any comments or notes here including pasted images> |

\_\_ COMPLIANT \_\_ NONCOMPLIANT Tester Initials: \_\_\_\_ Testee Initials: \_\_\_\_

[FB\_02] Green Button Download My Data

Tests: [TR\_FDFTP002] Verify that schema validation and all automated test succeed

Procedure:

1. Go to URL for automated test using FF web browser <http://dmdvalidator.greenbuttonalliance.org>

2. Select the data content analysis FBs subset according to the PICS (note: only select the data content FBs that are also selected in the PICs – from among 1,4,5,6,7,8,9,10,11,12,15,16,17,27,28,29)

3. Check the box for download test results (under “4) Enable download of test results after test execution”)

4. Run the automated test by dropping the downloaded XML file on the designated place (under “5\_Drop File Here to Upload”)

5. Download results file

6. Insert the test report below by using insert/object/text from file and select downloaded test results and paste in the results paste area below.

Passing Result:

All tests successful

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| <enter any comments or notes here including pasted images> |

\_\_ COMPLIANT \_\_ NONCOMPLIANT Tester Initials: \_\_\_\_ Testee Initials: \_\_\_\_

Tests: [TR\_GB007] Export should not provide or use Personally Identifiable Information (PII)

Procedure:

Note: if already logged in from a previous step, there is no need to log in again. Also, if the file needed has already been downloaded in a previous step, there is no need to download it again.

1. Log into test account.

2. Download the Green Button file and accept the recommended file name

3. Verify that the filename has no PII

4. Inspect the file contents and verify that no PII is present -- look at atom titles and uris

5. If “<extension>” tags are present in the file, review their contents for PII

6. Ask the Testee to assert that the URIs contain no encoded account numbers or other PII (This document does not define how this requirement shall be tested but compliance with this requirement is mandatory. In the absence of specific testing requirements, the vendor shall confirm compliance via a self-declaration statement and/or attestation.)

Passing Result:

Verify that no non-standard tags appear in the data file.

Inspect the extension fields for illegitimate data.

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| <enter any comments or notes here including pasted images> |

\_\_ COMPLIANT \_\_ NONCOMPLIANT Tester Initials: \_\_\_\_ Testee Initials: \_\_\_\_

[FB\_04] Interval Metering

These tests are part of the automated suite of test procedures covered by [TR\_FDFTP002].

[FB\_05] Interval Electricity Metering

These tests are part of the automated suite of test procedures covered by [TR\_FDFTP002].

[FB\_06] Register Demand Electricity Metering

These tests are part of the automated suite of test procedures covered by [TR\_FDFTP002].

[FB\_07] Net Electricity Metering

These tests are part of the automated suite of test procedures covered by [TR\_FDFTP002].

[FB\_08] Forward and Reverse Electricity Metering

These tests are part of the automated suite of test procedures covered by [TR\_FDFTP002].

[FB\_09] Register Electricity Values for Dial Reading

These tests are part of the automated suite of test procedures covered by [TR\_FDFTP002].

[FB\_10] Interval Gas Metering

These tests are part of the automated suite of test procedures covered by [TR\_FDFTP002].

[FB\_11] Interval Water Metering

These tests are part of the automated suite of test procedures covered by [TR\_FDFTP002].

[FB\_12] Cost of Interval Data

These tests are part of the automated suite of test procedures covered by [TR\_FDFTP002].

[FB\_15] Usage Summary

These tests are part of the automated suite of test procedures covered by [TR\_FDFTP002].

[FB\_16] Usage Summary Cost Components

These tests are part of the automated suite of test procedures covered by [TR\_FDFTP002].

[FB\_17] Power Quality Summary

These tests are part of the automated suite of test procedures covered by [TR\_FDFTP002].

[FB\_27] Usage Summary with Demands and Previous Day Attributes

These tests are part of the automated suite of test procedures covered by [TR\_FDFTP002].

[FB\_28] Usage Summary Costs for Current Billing Period

These tests are part of the automated suite of test procedures covered by [TR\_FDFTP002].

[FB\_29] Interval Temperature Data

These tests are part of the automated suite of test procedures covered by [TR\_FDFTP002].

[FB\_30] Common User Experience

Tests: [TR\_GB009] Export should use a standard file naming process and allow customer to change the file name when saving

Procedure:

Note: if already logged in from a previous step, there is no need to log in again. Also, if the file needed has already been downloaded in a previous step, there is no need to download it again.

1. Begin the download data.

2. During the file "SaveAs" dialog, change the file name to "test.xml".

3. Verify that the file was saved as “test.xml”.

Passing Result:

Verify that the file saved is "Test.xml"

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| <enter any comments or notes here including pasted images> |

\_\_ COMPLIANT \_\_ NONCOMPLIANT Tester Initials: \_\_\_\_ Testee Initials: \_\_\_\_

Tests: [TR\_GB011] Customer shall access the information based on current login to access their consumption data

Procedure:

1. Log in the test account and verify that applicable information is accessible by Green Button Icon on access screen.

2. Access the download function through accessing the Green Button Icon

3. Verify that unique information about the logged in user is presented prior to download.

4. Use the key combination alt + print screen and paste image here (paste in the results paste area below) – Note if appropriate erase or otherwise cover up personal data with “Paint Program"):

Passing Result:

After login, the user is presented with Green Button Graphic.

Pressing the Green Button Graphic provides the download or dialog to retrieve Green Button Data file.

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| <enter any comments or notes here including pasted images> |

\_\_ COMPLIANT \_\_ NONCOMPLIANT Tester Initials: \_\_\_\_ Testee Initials: \_\_\_\_

Tests: [TR\_GB012] Export shall have a common filename convention

Procedure:

1. Begin the download data.

2. Inspect the file "SaveAs" for the default file name format.

3. Inspect the filename for these features:

1) Company name e.g. SDGE

2) Type of service e.g. Electric, Gas, or Water

3) Type of data e.g. Interval Data, Usage

4) Timeframe of the data being downloaded start time and end time.

Filename Example: SDGE\_Electric\_60\_Minute\_01-11-2012\_02-10-2013.XML

5) Paste the filename in the results paste area below.

Passing Result:

Verify that the file name provided meets the defined format.

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| <enter any comments or notes here including pasted images> |

\_\_ COMPLIANT \_\_ NONCOMPLIANT Tester Initials: \_\_\_\_ Testee Initials: \_\_\_\_

Tests: [TR\_GB013] Common Green Button icon graphics shall be displayed

Procedure:

1. Navigate to the Download My Data web page and verify that green button Download My Data is available

2. Verify that a Green Button Download My Data graphic is displayed on this page.

Passing Result:

Verify that page has Green Button "Download My Data" graphic

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| <enter any comments or notes here including pasted images> |

\_\_ COMPLIANT \_\_ NONCOMPLIANT Tester Initials: \_\_\_\_ Testee Initials: \_\_\_\_

Tests: [TR\_GB014] Customer should not be authenticated or authorized as part of the download process

Procedure:

1. Log out and verify that green button is not accessible

2. Log in the test account and verify that green button is accessible

3. Proceed to follow the instruction to download Green Button Data file

4. Verify that download does not require re-authentication

Passing Result:

No second log in is required to access Green Button Data

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| <enter any comments or notes here including pasted images> |

\_\_ COMPLIANT \_\_ NONCOMPLIANT Tester Initials: \_\_\_\_ Testee Initials: \_\_\_\_

Tests: [TR\_GB015] Customer shall only have access to usage data from points associated with their customer accounts.

Procedure:

This document does not define how this requirement shall be tested but compliance with this requirement is mandatory. In the absence of specific testing requirements, the vendor shall confirm compliance via a self-declaration statement and/or attestation.

Passing Result:

User should not be able to download data for Usage Point(s) before they became the owner, or for which they are not currently the owner

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| <enter any comments or notes here including pasted images> |

\_\_ COMPLIANT \_\_ NONCOMPLIANT Tester Initials: \_\_\_\_ Testee Initials: \_\_\_\_

Tests: [TR\_GB016] Customer shall be able to access at least 13 months of data, limited by usage data that has been collected by the data custodian and/or access rights

Procedure:

1. Use procedure from Test GB017 to attempt to download at least 13 months of data from a valid point where at least 13 months of data exist.

2. Verify that there are at least 13 months of data in the file by using the http://www.epochconverter.com/ and compare the start of the first and last IntervalBlock in the file and verify they therefore contain 13 months of data. – total duration in days = (last IntervalBlock start time + duration – first IntervalBlock.start) / 86400

Passing Result:

User should be able to retrieve at least 13 months if it has been acquired by the Data Custodian or the Testee asserts the system will support when that much data has been accumulated. This document does not define how this requirement shall be tested but compliance with this requirement is mandatory. In the absence of specific testing requirements, the vendor shall confirm compliance via a self-declaration statement and/or attestation.

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| <enter any comments or notes here including pasted images> |

\_\_ COMPLIANT \_\_ NONCOMPLIANT Tester Initials: \_\_\_\_ Testee Initials: \_\_\_\_

Tests: [TR\_GB017] Customers should be able to input \_from\_ and \_to\_ dates

Procedure:

1. Navigate to Green Button download selection page, and verify that "from" and "to" date input controls are present.

2. Download an arbitrary selection of dates that are less than 13 months total duration

3. Verify that the GBDMD file has only data from dates including the “from” and “to” dates (note the start and end of the included IntervalBlocks may not align precisely with the “from” and “to” dates due to billing period boundaries).

Passing Result:

The controls are present

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| <enter any comments or notes here including pasted images> |

\_\_ COMPLIANT \_\_ NONCOMPLIANT Tester Initials: \_\_\_\_ Testee Initials: \_\_\_\_

Tests: [TR\_GB018] If the full data range selected is not available, a message should be displayed that states that the data file does not cover the entire selected period.

Procedure:

1. Attempt to download a range of data larger than what exists.

2. Verify that a message is displayed stating the data is unavailable.

Passing Result:

A notice is displayed noting that the dataset does not contain all the requested intervals due to data availability.

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| <enter any comments or notes here including pasted images> |

\_\_ COMPLIANT \_\_ NONCOMPLIANT Tester Initials: \_\_\_\_ Testee Initials: \_\_\_\_

Tests: [TR\_GB019] Customer should be able to save export file to any location they can access from the local machine

Procedure:

After selecting the point and other inputs, verify that the save dialog allows the user to choose the save location.

Passing Result:

Verify save location includes desktop, download, and My Documents directory.

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| <enter any comments or notes here including pasted images> |

\_\_ COMPLIANT \_\_ NONCOMPLIANT Tester Initials: \_\_\_\_ Testee Initials: \_\_\_\_