Smart Grid Data Hub
User Manual for Reviewing Data Submissions
Revision Date: September 6, 2012

Overview
In your role as a reviewer, you will be determining data correctness in the submissions for the Smart Grid Data Hub (Data Hub) - projects funded under the Smart Grid Investment Grant (SGIG) and Smart Grid Demonstration Projects (SGDP).
This document will give you an overview of your process as a data reviewer. It will not cover how to submit data to the Data Hub.
As a reviewer, you should have been given a login ID and a password. If you do not have these system credentials, please contact your project administrator.

Overview of the Review Process
The general process for data submission follows the six steps outlined below:

1. Project teams collect and record data.
2. Project teams upload data to the Data Hub. As the data are uploaded, they are checked for basic form errors (like missing required data and letters in number-only fields). Data that do not pass the check are not accepted.
3. Once the data has passed the check and are received by the Data Hub, they move to "submitted" status and a reviewer is alerted. At this point, the reviewer completes another check to ensure that the data are reasonable. For example, if a project only has 10,000 households but the data show that 100,000 meters were installed, the reviewer would flag that as a potential error and ask for clarification.
4. If the data pass this check, the process continues at Step 5. If the reviewer has questions, the submission is returned to the project team for correction with a "Reviewed" status. The project team will update the data as appropriate and start the process again at Step 2.
5. Once the reviewer has accepted the data, they become available in the Data Hub reporting structure. In most cases the process stops here.
6. If the project team finds errors in the reported data, they contact the reviewer and ask to change the status of the data submission back to "Reviewed." Then the project team submits the corrected data and the process continues again at Step 2.

Categorizing the Status of a Submission
A submission will be in one of five possible states depending on where it is in the process:

- **Pending Submission:** A filing has been created for the submission record, but no data has been submitted. Additionally, each semi-annual reporting period all previously accepted impact baseline submission forms will be rolled back to the Pending Submission state. Impact baseline forms must be reviewed by the recipient project team and resubmitted for each semi-annual reporting period. If no updates are necessary, then the recipient may simply re-upload the impact baseline form.

- **Submitted:** Data have been submitted, have passed an automatic check for data type mismatch errors and missing required fields, and is ready to be reviewed.
- **Reviewed:** The reviewer has checked the data for internal consistency and has returned the data to the user for clarification or correction.
- **Partially Accepted**: The reviewer has checked the data for internal consistency, and decided to accept some of the data metrics for analysis. Other metrics in the submission are not ready for acceptance yet. The PAP10 Code column in the submission file is used to indicate data quality, and if the data is ready to accept for analysis. Note: This state only applies to impact_semiannually submissions.
- **Accepted** : The reviewer has validated all the data in the submission form for internal consistency and reviewer questions have been satisfactorily addressed by the project team. Once the submission enters the Accepted state, the data is written to the query portal and becomes available for analysis. Accepted data (that is not marked commercially valuable) is made available for display on the smartgrid.gov website.

Note: A recipient user may only submit data if the submission is in the "Pending Submission" or "Reviewed" state. The data may not be modified if they are classified as "Submitted" or "Accepted."

Only a reviewer may change the status of a data submission.

Initial Setup

When you first receive your system credentials, you must log into the system and change your password.

1. Open your browser.
2. Go to https://projects.smartgrid.gov/ . The login page will be displayed, as shown below.

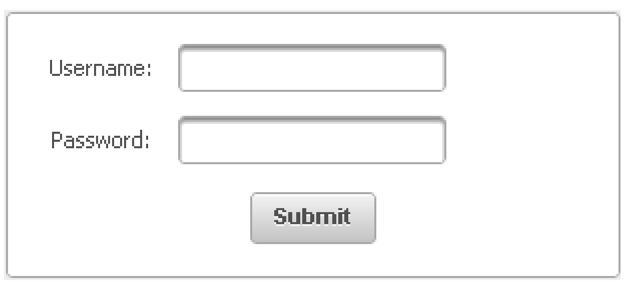

Figure 1. Log in screen.

3. Enter your credentials and click the "Submit" button. The screen will then refresh and display the user console.

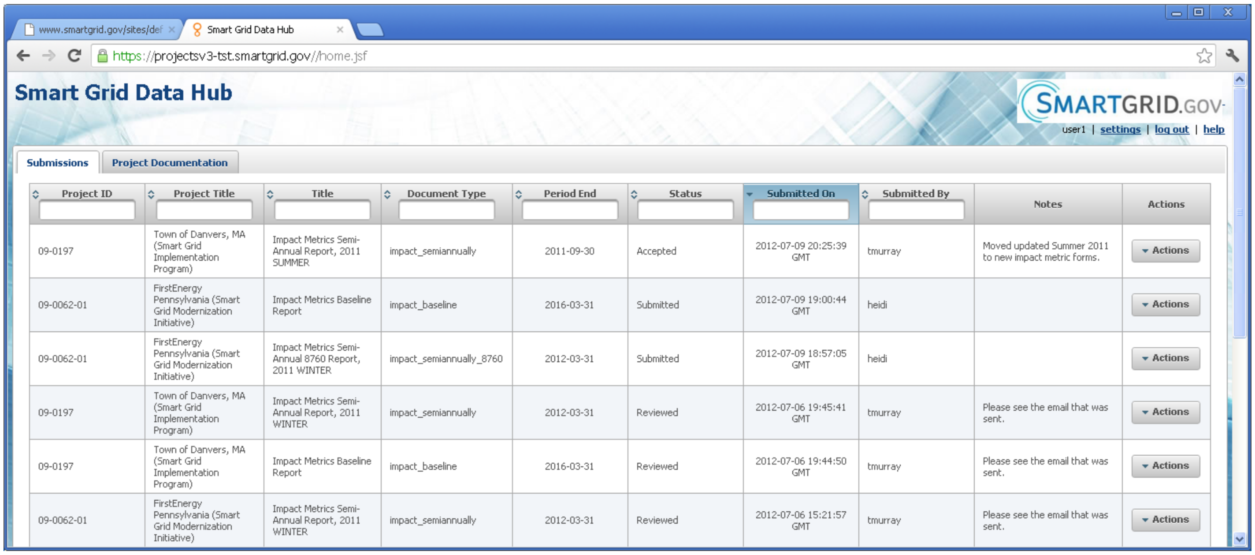

Figure 2: Reviewer console display.

4. Click the "Settings" link in the upper right corner underneath the Smartgrid.gov logo.
5. Enter your information and update the "Current Password", "New Password" and "Confirm Password" fields and click "Submit".

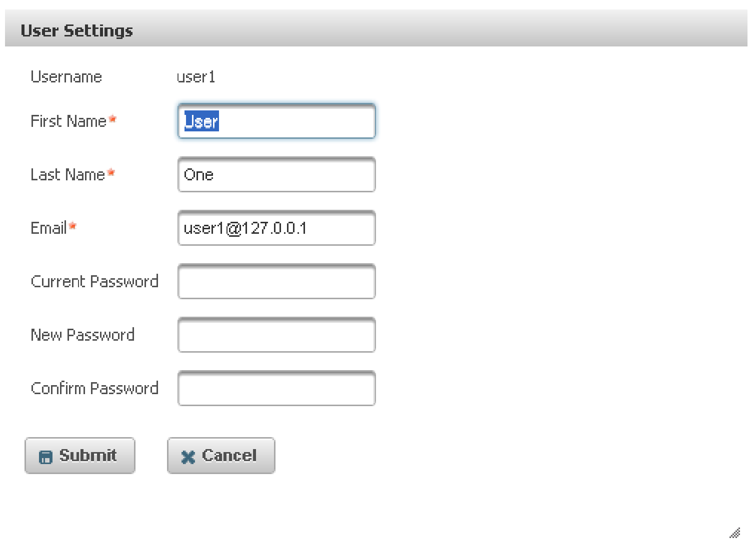

Figure 3: "User Settings" dialog box with sample information.

6. If the change was successful, you will see a "Settings Saved" message.
7. If there was an error, a message will be displayed. Correct the error and click "Submit" again.

When you have completed the password change, your initial setup is completed.

Reviewing Metrics and Benefits Data

The state transition diagram below shows the process flow for the review submitted metrics and benefits data.

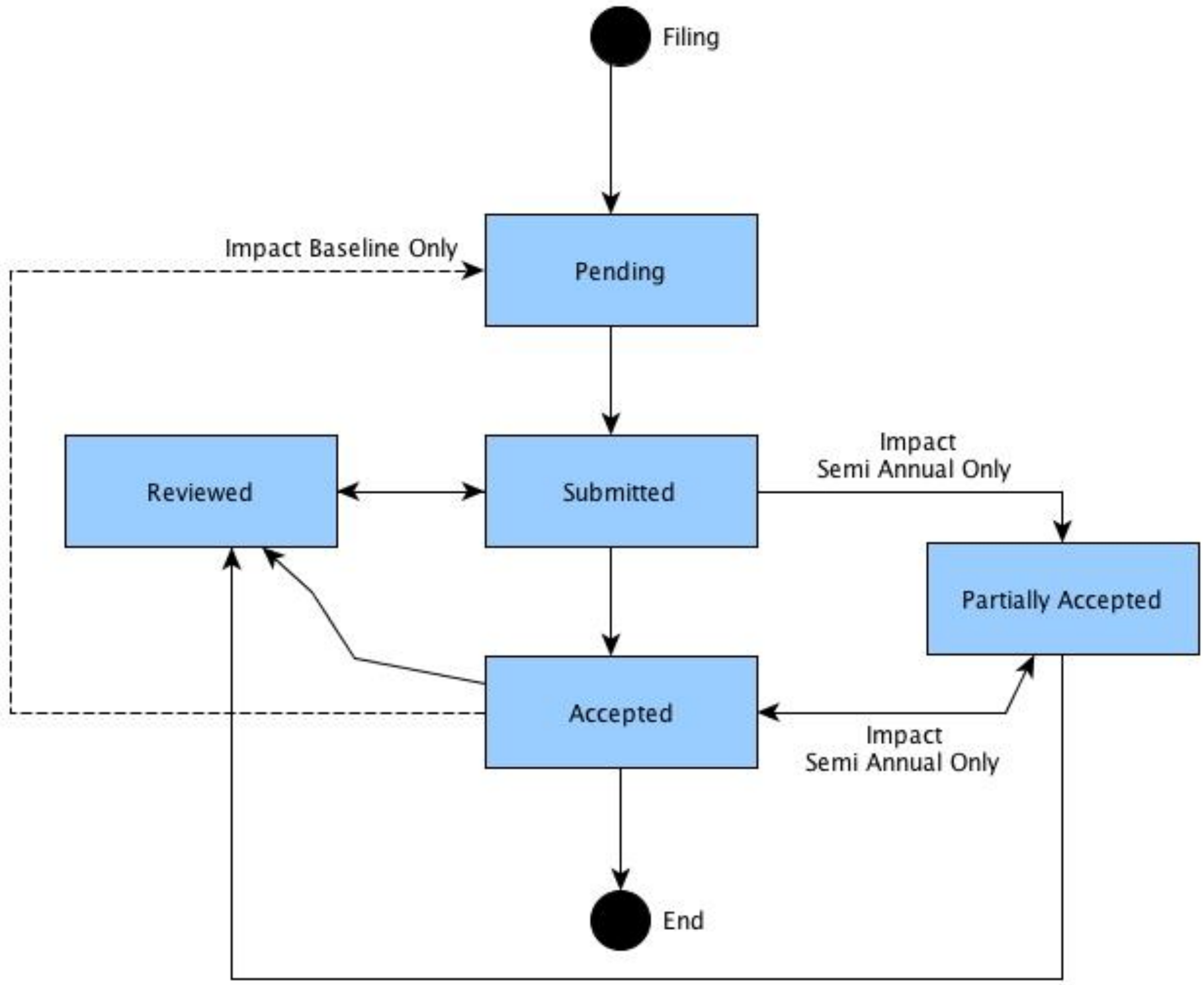

Figure 4: State transition diagram for data submission and review process.

Start State	Acceptable End States	Role	Form Types	Notes
Nothing	Pending	Admin	All	
Pending	Submitted	User, Reviewer, Admin	All	Requires a new submission
Submitted	Accepted, Reviewed	Reviewer, admin	All	
Submitted	Partially Accepted	Reviewer, admin	impact_semiannually	
Reviewed	Submitted	Reviewer, admin, user	All	Requires a new submission
Reviewed	Accepted	Reviewer, admin	All	
Accepted	Reviewed	Reviewer, admin	All	

Accepted	Accepted	Reviewer, admin	All	Requires a new submission
Accepted	Pending	Reviewer, admin	Impact_baseline	
Partially Accepted	Partially Accepted, Accepted, Reviewed	Reviewer, admin	impact_semiannually	

Table 1: Acceptable State Transitions

Projects that are part of the Smart Grid Investment Grant program or the Smart Grid Demonstration Project program are required to have their data submitted to the Smart Grid Data Hub at the end of each reporting period, and must contain the data specified by the Metrics and Benefits Reporting Plan (MBRP) for the project.

The reviewer will download a submission, verify that the data are reasonable and conform to the requirements of the MBRP, and then accept the submission or return it for further refinement. The process of validating the data is beyond the scope of this document. As a reviewer, you are a domain expert and should be able to identify data that are not consistent, are outside the expected range, or are not consistent with the MBRP requirements.

Accepting a submission will release the data into the reporting structure of the Data Hub. In addition, the submission will be "locked" and cannot be updated unless the reviewer changes the status and returns it to the project team that submitted it. Once a submission reaches the Accepted state, the data in the accepted submission automatically flows to the query portal and becomes available for analysis. Additionally, the accepted build metric data that is not marked “business sensitive” is mirrored to the smartgrid.gov for display on the website.

To return a submission for further refinement, set the status to "Reviewed." When a submission is in "Reviewed" status, the project team may submit corrected data. If a previously accepted submission is later marked as "Reviewed," the data are automatically removed from the query portal and smartgrid.gov website.

Reviewing Submission Data

Log In

1. Open your browser.
2. Go to https://projects.smartgrid.gov/ .
3. The "Login" page will be displayed.
4. Enter your credentials and click "Submit". The reviewer console will display the submission table. The default sorting of the submission records in the table is by “Submitted On” date, which is indicated by the blue shading of the column heading.

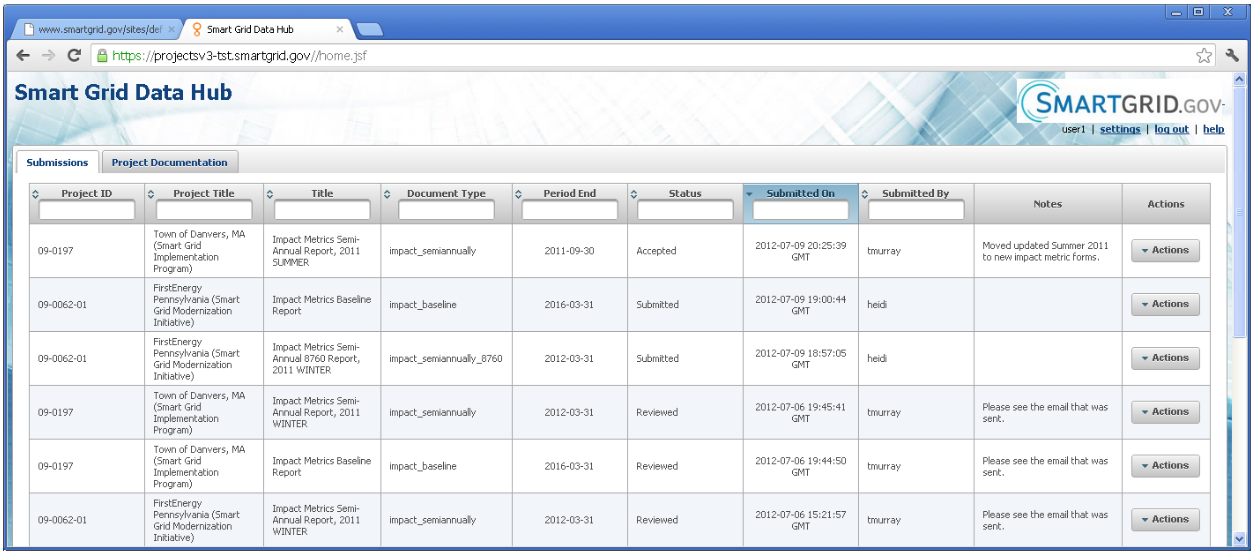

Figure 6: Reviewer console display and submissions table.

Locate the Submission to Review

The submission table can be sorted by column and filtered by a text entry. Clicking on the column titles will sort the table by that column in the direction of the arrow. An up arrow indicates ascending record order (oldest record at the top, newest record at the bottom), and a down arrow indicates descending order (newest record at the top, oldest record at the bottom). To locate new submissions that need to be worked on, filter the table by Status = "Submitted". Multiple columns can be filtered. For example, Figure 7 shows the submission table sorted by Submitted On date in descending order, and filtered for Status = "Submitted" and Project Title = "San". It is important to note that filter arguments are case sensitive, and filter as strings. For instance, when filtering Project Title = "San", the project title must start with "San" (again, case sensitive); not just contain the word "San" somewhere in the project title.

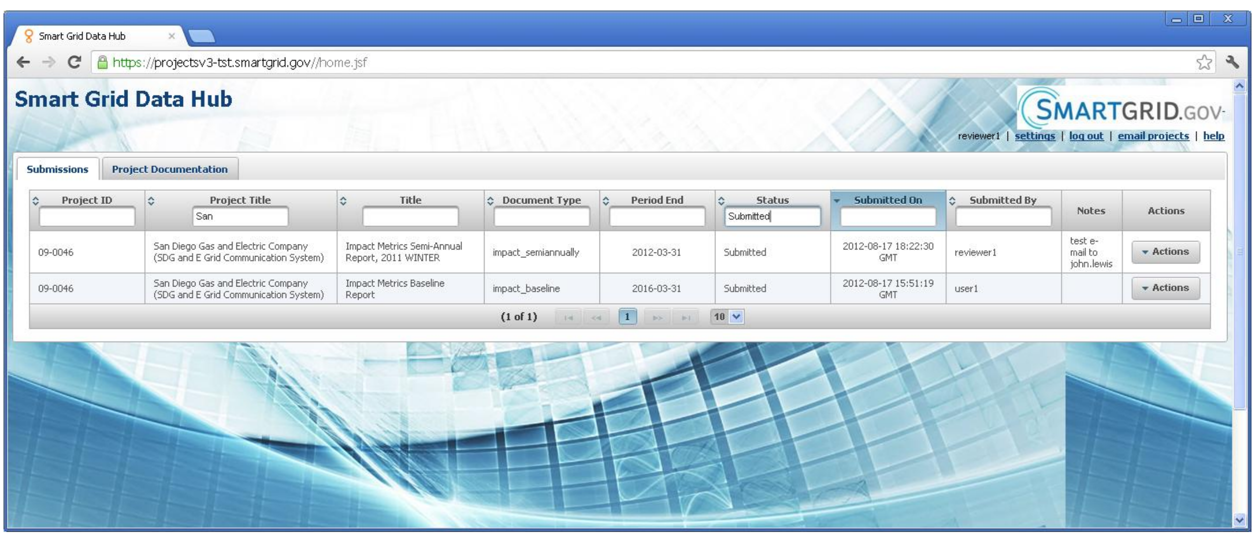

Figure 7: Reviewer console filtered and sorted to show submissions from project 09-0046 in the Submitted state and sorted by descending Submitted On date.

Review the Data Submission

Data is typically submitted as a PDF or Excel file. The PDF document will require Adobe Acrobat Reader (or a similar tool for your system). Adobe Acrobat Reader may be downloaded at http://get.adobe.com/reader/ . The Excel files require the Microsoft Excel application to be installed and running on your system.

Reviewing the Data Submission

To review the data submission, take the following steps:

1. Locate the submission record you need to work on as noted in the "Locate the Submission to Review" section above. Verify that it has the correct Project ID, Project Title, Title, Document Type, and Period End date.
2. Click on the Actions button for the submission you are working on, and select the "Download Data" action from the drop down menu that appears under the Actions button. The data submission will be downloaded to your computer.

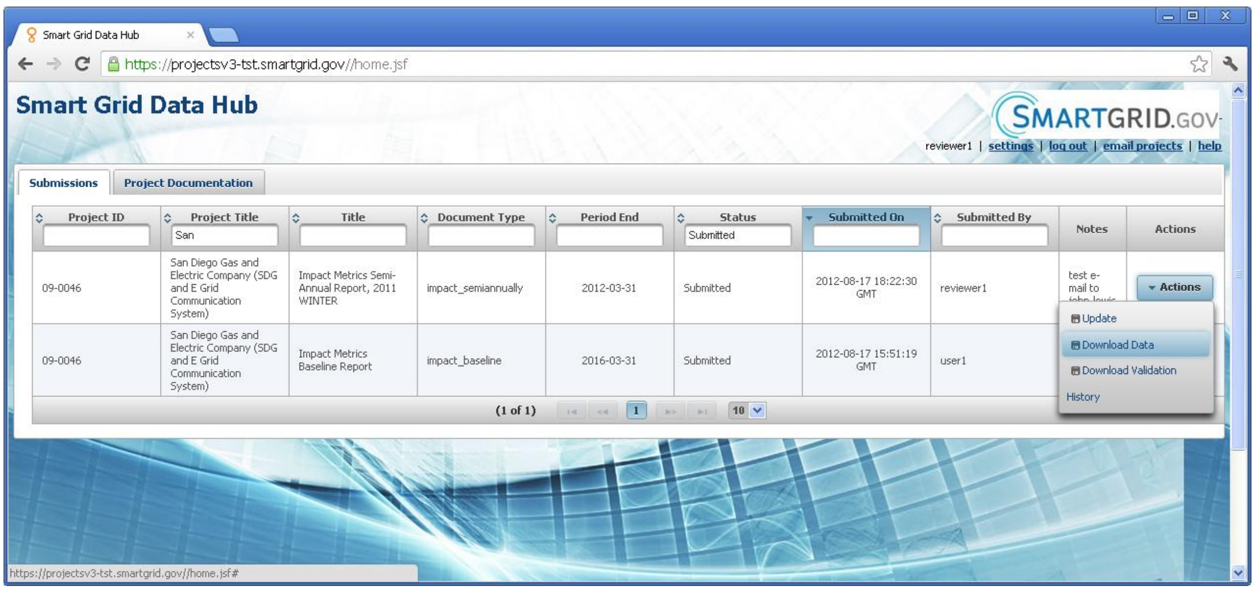

Figure 8: Reviewer console display with Download Data action indicated.

3. Open the downloaded submission file.
4. Review the data. Verify that the data seem correct and that all of the expected and required fields are completed. To facilitate review, you may print the downloaded PDF file and compare submitted data to other data (e.g., baseline values, project versus system values, and any previous submissions).
5. You can add notes directly to a PDF by right clicking near the area in the document where you want to make a note and select "Add Sticky Note" from the top of the pop-up menu. You cannot right-click in the editable fields. When finished typing, click the minimize icon in the top right corner (or press the Tab key and then the Enter key). Continue reviewing the document and add comments where needed.

6. When finished reviewing the data submission and the document requires changes, then upload the revised document. As shown below, click on the Actions button for the submission you are

working on, and select the Update action from the drop down menu that appears under the Actions button. (If no changes to the original submission are required, then you do not need to re-upload the submission document.)

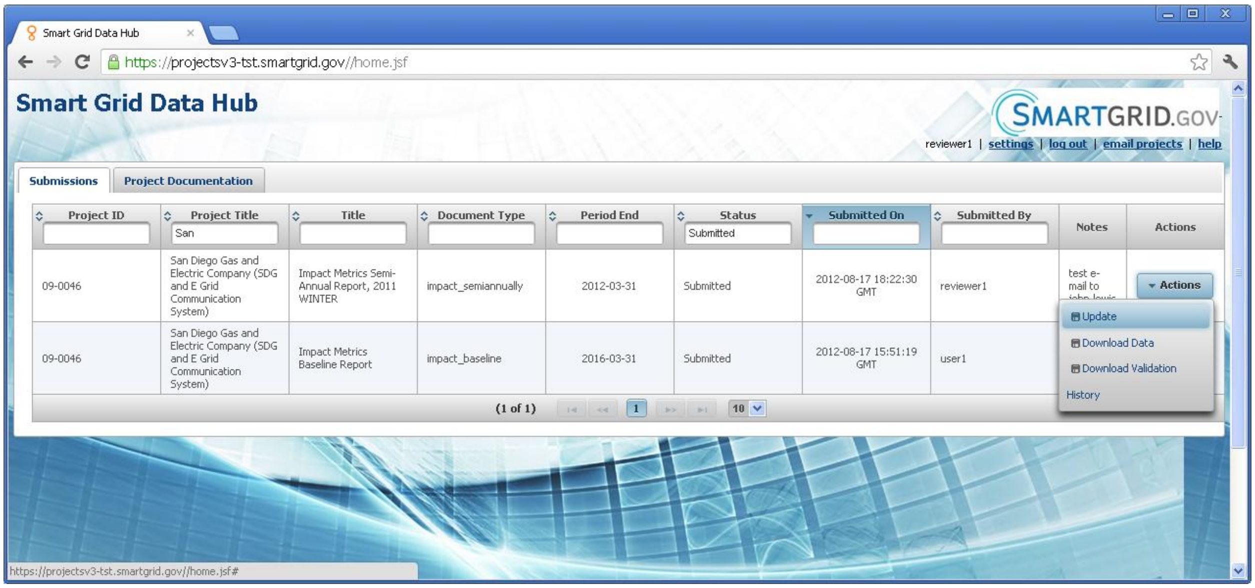

Figure 9: Reviewer console display with Update action indicated.

7. After the reviewer selects the Update action from the drop down menu, an Update Submission dialog box is presented.

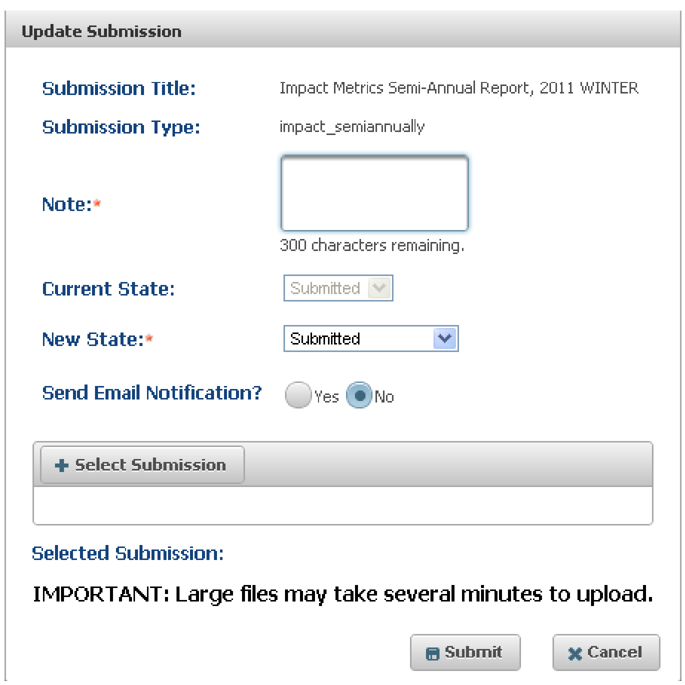

Figure 10: Update submission dialog box.

8. If the data submission appears to meet the requirements, accept the submission by:

   a. Entering a descriptive note in the Note field. (This is a required field and has a 300 character limit.)
   b. Select "Accepted" from the New State drop down menu.
   c. Select Yes or No for Send Email Notification field.
   d. Click on the Submit button to complete the Update action.
   e. If "Yes" is selected for Send Email notification, then an approval notification Email is sent to all recipient project members (but not reviewers) to inform them that the submission has been approved and no further action is required on their part for this submission.

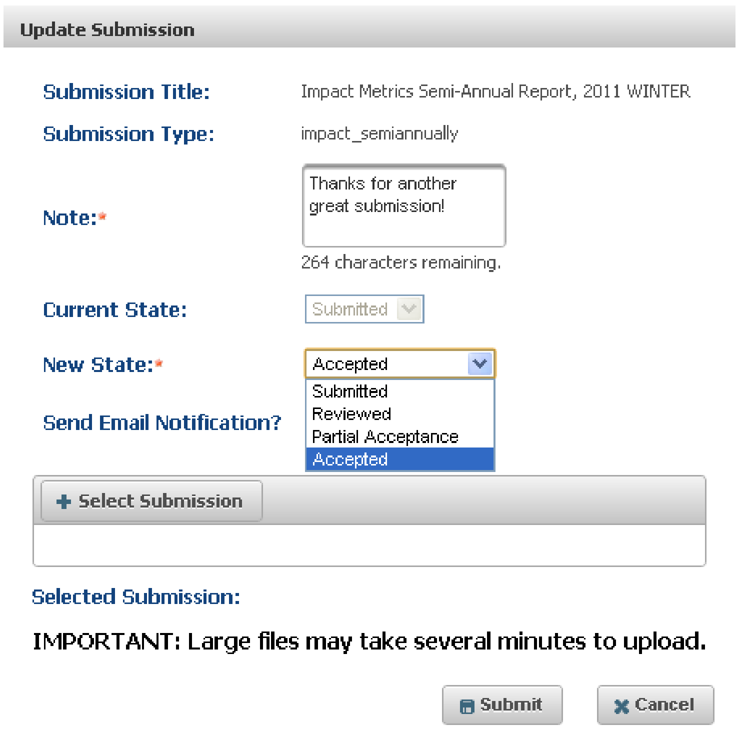

Figure 11: Update Submission dialog box with "Accepted" value selected from "New State" drop down menu.

9. If the submission does not appear to meet the requirements, return the submission to the project team by:
   a. Entering a reason for returning the submission in the Note box.
   b. Selecting the "Reviewed" value from the New State drop down menu.
   c. Selecting Yes or No for an Email notification. If Yes is selected, a notification email is sent to all recipient project members (but not reviewers) to inform them that there are additional changes required.
   d. If a revised file needs to be attached to the submission record (e.g. a PDF with "sticky note" comments), click on the select submissions

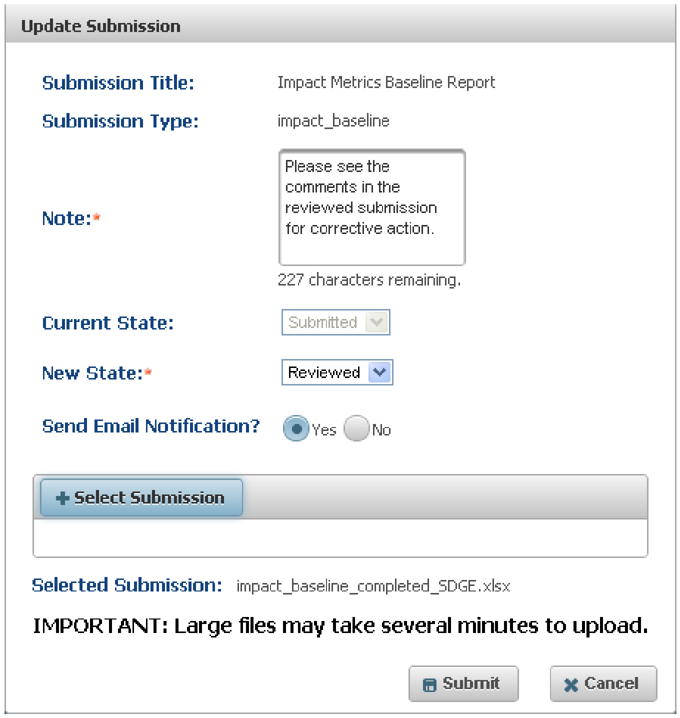

Figure 12: Update Submission dialog box configured to send an updated submission (impact_baseline_completed_SDGE.xlsx) to the Reviewed state and notify the project team by Email.

At this point, the submission review is complete and you may now either log out by clicking the "Log Out" link on the reviewer console or continue to review other documents.

Figure 9: Reviewer console display with “Log Out” link indicated.

Reviewing Corrections

Occasionally, a reviewer will return a submission to the project team for further clarification or correction. You may return a submission for any number of reasons related to data quality and reasonableness. Returned submissions have a state of "Reviewed." The project team will make corrections and resubmit the data. When this happens, the submission will again be in the "Submitted" state and available to the reviewer to re-review.

To locate previously reviewed submissions that have been corrected:

1. Log in as noted in the "Log In" section above.
2. Click on the "Status" column header and select Submitted from the pull down menu. The submissions will be filtered to show only those in the Submitted state.

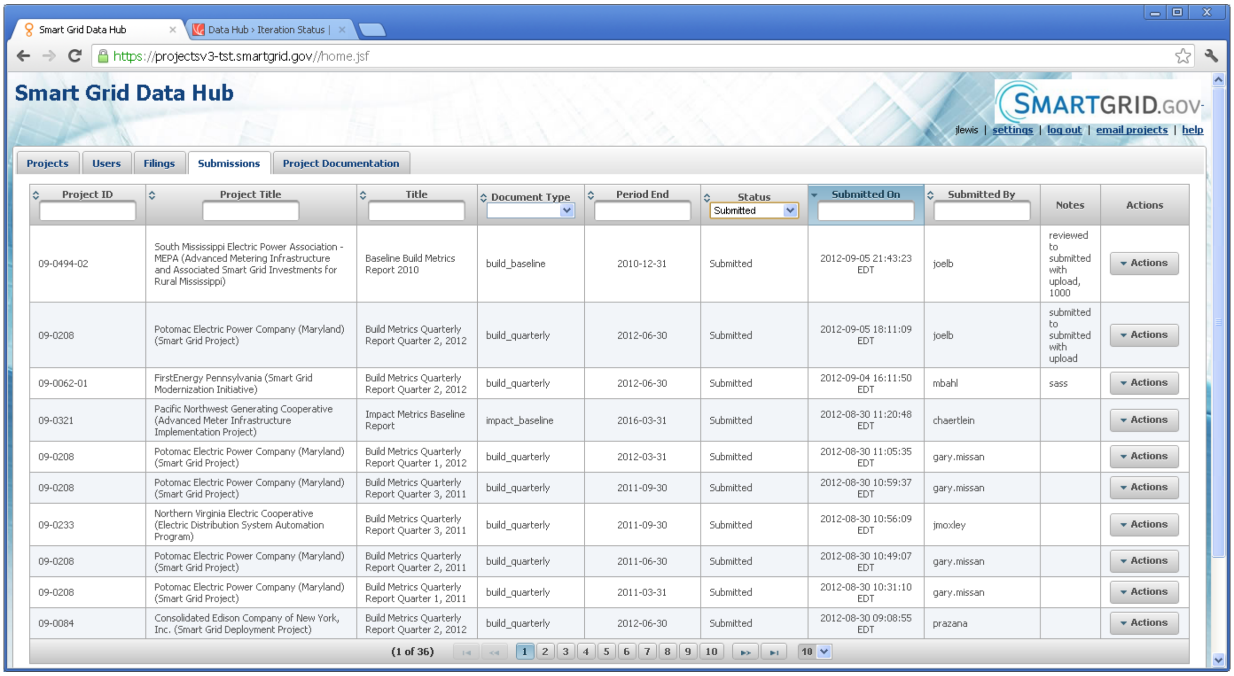

Figure 13: Reviewer console display with Status column filter set for Submitted and records sorted in descending order by Submitted On Date to show the most recent activity at the top of the table.

3. Locate the submission of interest by further filtering in the column headings if needed.
4. Click on the Actions button for the submission record of interest and select the History action from the drop down menu.

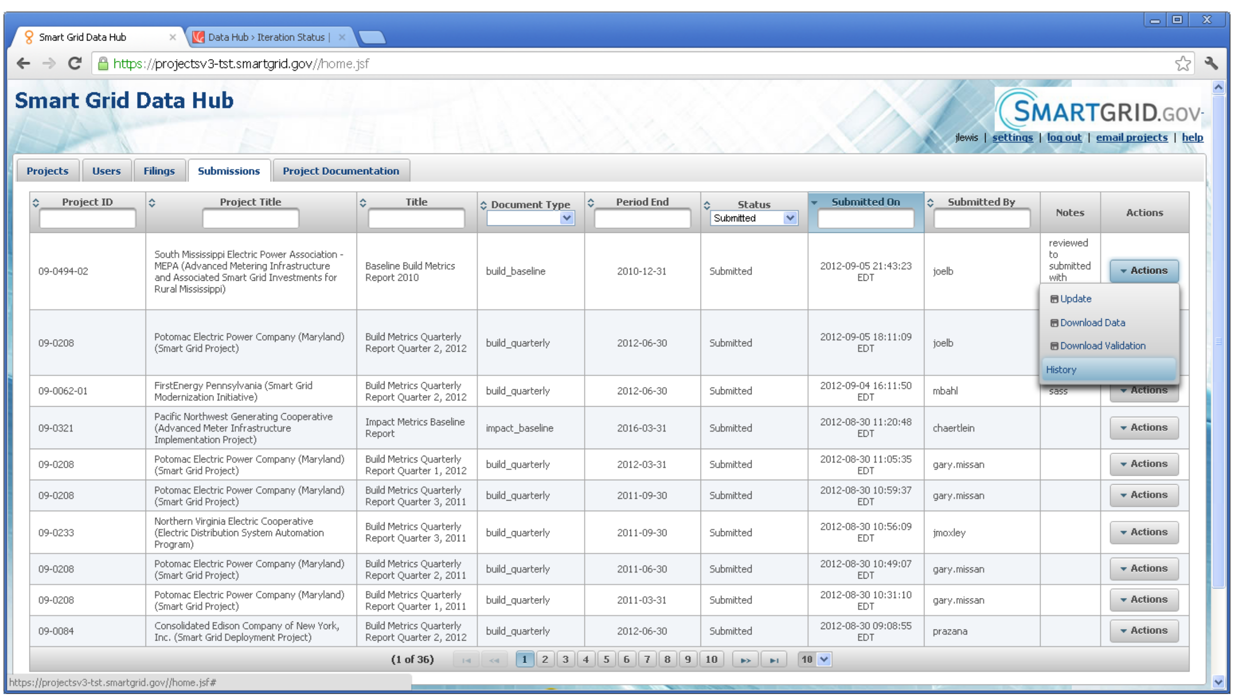

Figure 14: Selecting History action for the top record in the submission table.

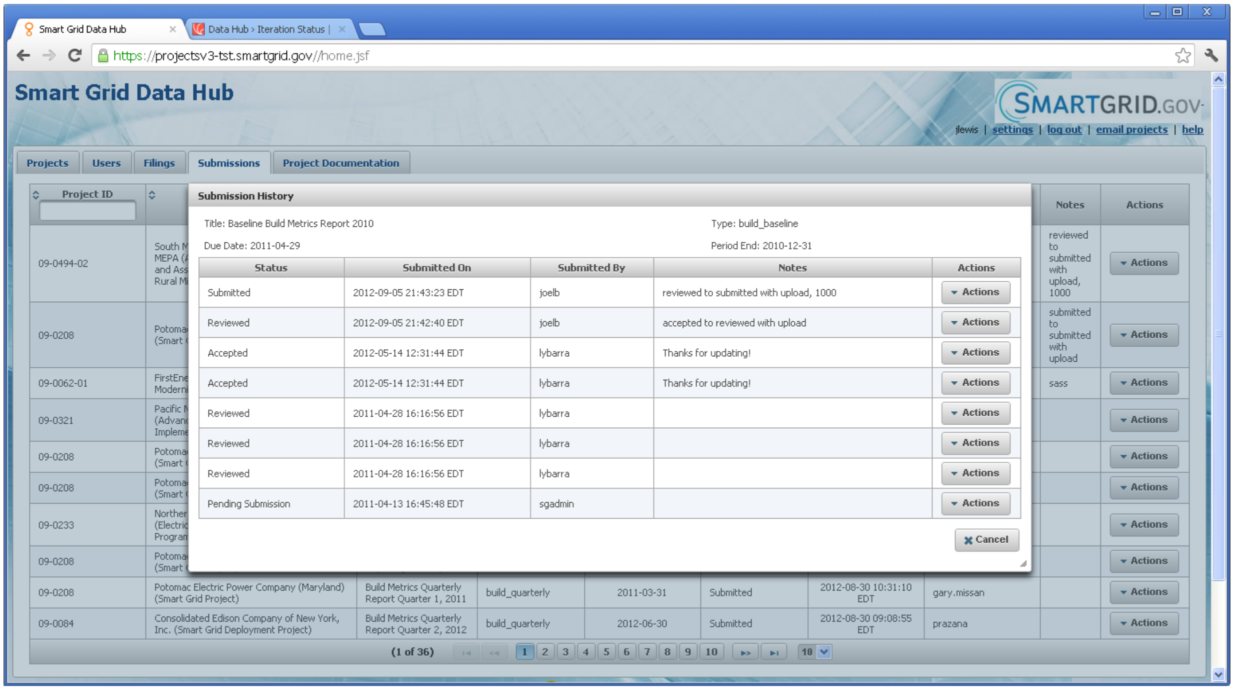

Figure 15: Submission History dialog box.

5. The submission history dialog box shows the history of the submission with information presented in descending order with the most recent activity at the top of the table.
6. The particular submission file associated with a history record can be downloaded and examined by clicking on the Actions button for the history record of interest and selecting the Download Data action for PDF or Excel submission or Download Validation action for XML submissions.

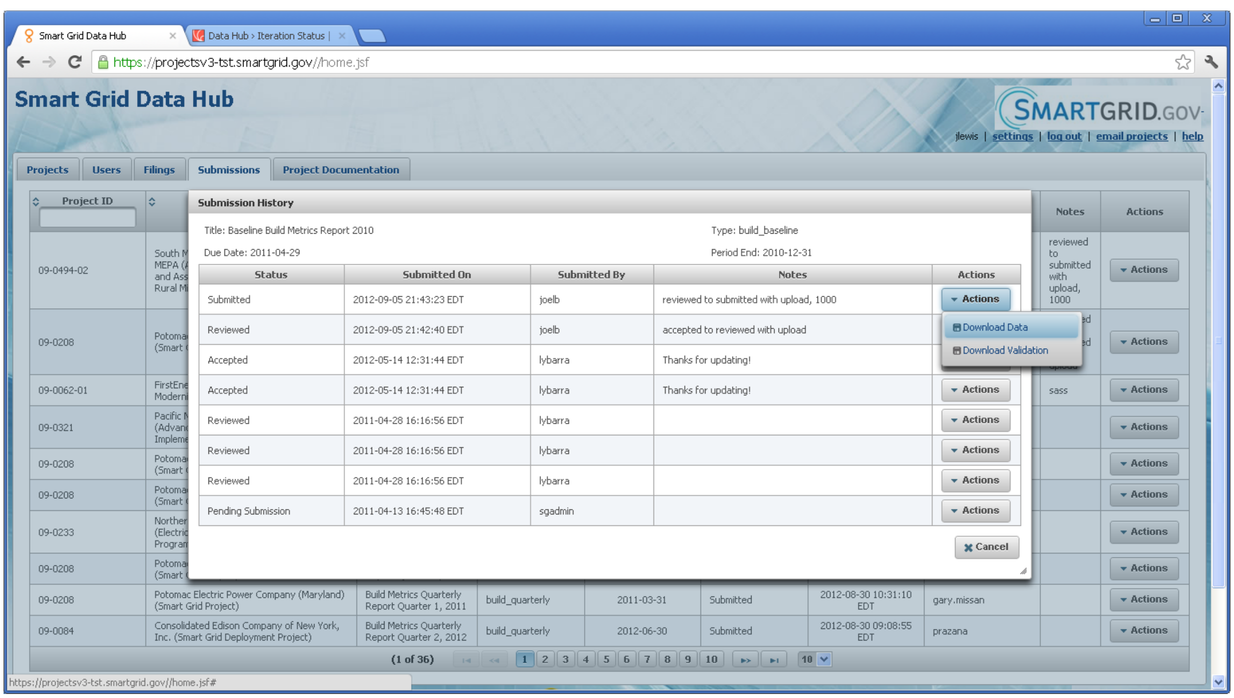

Figure 16: Using Download Data action to download a historical submission.

7. Review the data by:
    a. Reviewing the PDF or Excel file data:
        i. Click on the Actions button and select the Download Data action. This will download the submission file to your system.
        ii. Open the downloaded file locally on your system.
        iii. Complete the review process.
        iv. Click the Cancel button to exit out of the submission history dialog box.
        v. From the submission table, click on the Actions button and select the Update action from the drop down menu.
        vi. From the Update dialog box make the necessary changes as described above in the Review the Submission section.

    b. Reviewing the XML data:
        i. Click on the Actions button and select the Download Validation action. This will download the submission file to your system.
        ii. Open the downloaded file locally on your system.
        iii. Complete the review process.
        iv. Click the Cancel button to exit out of the submission history dialog box.
        v. From the submission table, click on the Actions button and select the Update action from the drop down menu.
        vi. From the Update dialog box make the necessary changes as described above in the Review the Submission section.