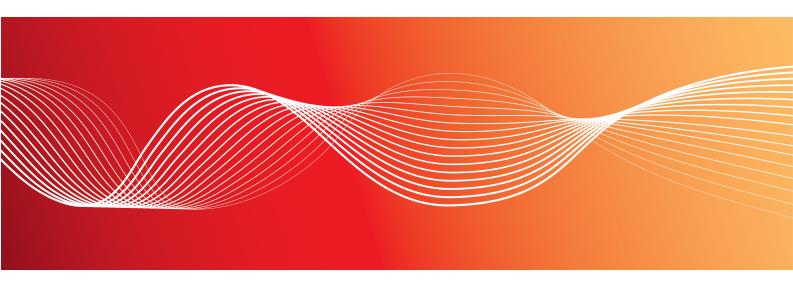
GUIDE TO GENERATOR ENERGY LIMITATION FRAMEWORK (GELF) DECLARATIONS

ENERGY ADEQUACY ASSESSMENT PROJECTION (EAAP)





Version: 2

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TUESDAY, 6 MAY 2014

Important Notice

AEMO has prepared this Guide to Generator Energy Limitation Framework (GELF) Declarations (Guide) to provide guidance on the use of the GELF Declarations web application under the National Gas or Electricity Rules (Rules), as at the date of publication.

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Documents made obsolete

The release of this document changes any version of the EAAP GELF Quarterly Submission User Interface Guide and earlier versions of Guide to Generator Energy Limitation Framework (GELF) Declarations.

Distribution

Available to the public.

Prepared by

AEMO Documentation

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Notes

Updated guide for the Energy Adequacy Assessment Projection (EAAP) phase 2.

Further information

For further information, please visit www.aemo.com.au or contact:

AEMO Information and Support Hub

Phone: 1300 AEMO 00 (1300 236 600) and follow the prompts.

Email: supporthub@aemo.com.au

Contents

1 About this guide	1
1.1 Purpose	1
1.2 Audience	1
1.3 How to use this guide	1
1.4 EAAP Resources	2
1.5 What's in this guide?	2
2 Overview	4
2.1 What are EAAP and GELF declarations?	
2.2 Who can submit GELF declarations?	5
2.3 User rights access	5
2.4 How do you use GELF Declarations?	6
2.5 System requirements	6
3 GELF Declarations and Data Management	7
3.1 GELF declaration submission guidelines	
3.1.1 EAAP report publication date	7
3.1.2 Submission start date	7
3.1.3 Submission deadline	7
3.1.4 Study period	8
3.2 Accessing GELF Declarations and Data Management	8
3.3 Understanding GELF declaration status	11
4 Station Declarations	12
4.1 Accessing the GELF Station Data Entry interface	
4.2 Understanding the GELF Station Data Entry interface	15
4.2.1 Station Information	16
4.2.2 Inflexible Outages	16
4.2.3 Capacity or Energy Constraints (MWHr)	17
4.3 Entering GELF station declarations	18
4.3.1 Entering inflexible outages	19
4.3.2 Copying inflexible outages	22
4.3.3 Entering capacity or energy constraints	24
4.3.4 Copying capacity or energy constraints	30
4.3.5 Indicating you are not affected by rainfall scenarios	
5 Reservoir Declarations	37

5.1 Accessing the GELF Reservoir Data Entry interface	37
5.2 Understanding the GELF Reservoir Data Entry interface	39
5.2.1 Reservoir information	40
5.3 Entering GELF reservoir declarations	42
5.3.1 Entering reservoir levels	42
5.3.2 Entering inflows by rainfall scenarios	44
5.3.3 Copying GELF reservoir declarations	45
6 Uploading and Downloading GELF Declarations	50
6.1 Downloading Station Declarations	50
6.2 Downloading Reservoir Declarations	51
6.3 Uploading Station Declarations	52
6.3.1 Preparing the .CSV file for upload	53
6.3.2 Uploading the Station .CSV file	53
6.4 Uploading Reservoir Declarations	55
6.4.1 Preparing the .CSV file for upload	55
6.4.2 Uploading the Reservoir .CSV file	56
6.5 CSV file upload errors	57
7 Needing Help	59
7.1 AEMO's Information and Support Hub	59
7.1.1 Contacting AEMO's Information and Support Hub	59
7.1.2 Information to provide AEMO	59
7.2 Feedback	60
8 References	61
8.1 Rules, law, and government bodies	61
8.2 AEMO's website	61
Q Index	63

Figures

Figure 1: Submission deadline date display	8
Figure 2: Accessing Help	9
Figure 3: GELF declarations and Data Management interface display	10
Figure 4: Error message display for non-registered EAAP participant	10
Figure 5: Error message display when GELF Declaration website is not accepting submissions	11
Figure 6: Selection of relevant Station	13
Figure 7: Station data entry interface	14
Figure 8: GELF Station Data Entry interface	15
Figure 9: Inflexible outages	19
Figure 10: Select a date for inflexible outages	20
Figure 11: Inflexible outages explanation	21
Figure 12: Copy previous quarter's inflexible outages	22
Figure 13: Previous quarter's inflexible outages are copied	23
Figure 14: Error message when there are no inflexible outages for the selected quarter	23
Figure 15: Capacity or Energy constraints	25
Figure 16: Select a date for Capacity or Energy constraints	26
Figure 17: Explanation for Capacity or Energy Constraints	27
Figure 18: 24 months data entry for capacity or energy constraints	28
Figure 19: Submit 24 months data for capacity or energy constraints	29
Figure 20: Copy previous quarter's capacity or energy constraints	31
Figure 21: Previous quarter's capacity or energy constraints are copied	31
Figure 22: Error message when there are no previous quarter's capacity or energy constraints	32
Figure 23: Copy past quarter's capacity or energy constraints	33

Figure 24: Past declaration capacity or energy constraints are copied	34
Figure 25: Error message when there is no past quarter's capacity or energy constraints	34
Figure 26: Indicate that the Station is not affected by Rainfall scenarios	36
Figure 27: Selection of relevant reservoir	37
Figure 28: Reservoir data entry interface	38
Figure 29: GELF Reservoir Data Entry interface	39
Figure 30: Initial Reservoir level entry	43
Figure 31: Max and Min Reservoir level entry	44
Figure 32: Inflows by Rainfall scenario data entry	45
Figure 33: Copy Previous Quarter's Reservoir levels	46
Figure 34: Previous Quarter's Reservoir levels are copied	47
Figure 35: Copy reservoir declarations from past quarter	48
Figure 36: Reservoir declarations from past quarter are copied	48
Figure 37: Error message when there is no Reservoir declarations from past quarter	49
Figure 38: Downloading Station declarations	51
Figure 39: Downloading Reservoir declarations	52
Figure 40: Preparing the Station file for upload	53
Figure 41: Uploading Station file	54
Figure 42: Browsing Station file to upload	54
Figure 43: Preparing the Reservoir file for upload	56
Figure 44: Uploading Reservoir file	56
Figure 45: Browsing Reservoir file to upload	57
ables	
Table 1: Station Information (static GELF parameters)	16
Table 2: Inflexible Outages (variable GELF parameters)	

Table 3: Capacity or Energy Constraints (MWHr) (variable GELF parameters)	17
Table 4: Reservoir Information (static GELF parameters)	40
Table 5: Percentage of Reservoir Levels (variable GELF parameters)	40
Table 6: Inflows by Rainfall Scenario (variable GELF parameters)	41
Table 7: Station declaration .CSV file errors	57
Table 8: Reservoir declaration, CSV file errors	58

Glossary

These abbreviations, symbols, and special terms assist the reader's understanding of the terms used in this document. For definitions of these terms, the reader should always refer to the applicable market Rules.

Α

AEMC

Australian Energy Market Commission

AEMO

Australian Energy Market Operator

AEST

Australian Eastern Standard Time

B

Base load

Generating units that typically run at all times throughout the year except during maintenance outages. Coal-fired generating units are a typical example of base load generating unit.

C

Category

Generating units modelled in the EAAP are categorised into Baseload, Intermediate or Peaking generation groups.

CSV

Comma-separated values; a file format for exchanging data.

E

EAAP

Energy Adequacy Assessment Projection

EAAP engine

Software used to conduct Monte Carlo simulations.

EAAP system

The EAAP engine and the GELF Declarations application in the energy market systems web portal.

EMMS

Wholesale Electricity Market Management System; software, hardware, network and related processes.

Energy market systems web portal

Single web portal interface to access AEMO's IT systems.

F

FTP

File transfer protocol

G

GELF

Generator Energy Limitation Framework

GELF declarations

GELF parameters submitted via the EMMS Web Portal by scheduled generators.

GELF parameters

Parameters of the Generator Energy Limitation Framework (GELF).

GELF reservoir

Water storages used in the EAAP models to represent hydro power schemes. A component of static GELF parameters, see "Static GELF parameters".

GELF station

A collection of physical generating units of the same related capacity. A component of static GELF parameters, see "Static GELF parameters".

GWh

Gigawatt hours

I_

Intermediate

Generating units that are not included in the baseload generation or peaking generation are generally included in this category.

M

MarketNet

AEMO's private network available to participants having a participant ID.

ML

Megalitre

ML/hr

Megalitres per hour

MT PASA

Medium-term Projected Assessment of System Adequacy

MW

Megawatt

MWHr

Megawatt hours

N

NEM

National Electricity Market

NER

National Electricity Rules

P

PA

Participant Administrator; manages participant organisations user access and security.

Participant ID

Registered participant identifier

PASA

Projected Assessment of System Adequacy

Peaking

Generating units that are relatively expensive to run and generally run only for a few hours per day when the demand is high.

Pre-production

Test and training environment, typically showing much less activity, if any.

Production

Live environment, actively reflecting the currently available data.

R

Rules

The National Electricity or Gas Rules.

Run period

The run period is the period of time between the declaration deadline and the beginning of the next quarter.

C

Static GELF parameters

Information listed at the top of each Station or Reservoir Data Entry interface. For example: power station name category classification scheme Static GELF parameters are entered by AEMO and are read-only. If there are any errors or discrepancies in your static GELF parameters, please send an e-mail with the correct information to: gelf@aemo.com.au.

Study period

The 24-month period after the GELF declaration submission deadline.

V

Variable GELF parameters

GELF declarations entered into the Station or Reservoir Data Entry interface grids. Variable GELF parameters are the GELF declarations entered by participants. For example: Station declarations: Inflexible Outages Inflexib

7

ZIP

The file compression format used for exchanging data with AEMO.

1 About this guide

1.1 Purpose

This guide explains the purpose of the Energy Adequacy Assessment Projection (EAAP) and provides assistance with quarterly Generator Energy Limitation Framework (GELF) declaration submissions in the energy market systems web portal.

Where there is a discrepancy between the information in this document and the Rules or EAAP Guidelines, the Rules and EAAP Guidelines take precedence.

1.2 Audience

This guide is intended for use by scheduled generators to assist with variable GELF declaration submissions.

1.3 How to use this guide

This guide is organised by the GELF declaration functions in the GELF Declaration web application. It describes the GELF Declarations and Data Management interface, the Station Declarations interface, the Reservoir Declarations interface and how to use them.

This guide does not include information about:

- EAAP Business related processes, see the EAAP Guidelines.
- Using other application in the energy market systems web portal.
- Registering for access to the Data Subscription Services.
- Providing other users with access to your participant data at AEMO.

For help with abbreviations and special terms used in this guide, see "Glossary" on page viii.

Text in this format, indicates a direct hyperlink with further details of the resource listed in the "References" section, see "References" on page 61.

1.4 EAAP Resources

The following resources take precedence over this guide.

- EAAP Guidelines: This guide provides comprehensive information about EAAP and the scenarios AEMO must study in preparing it,
 http://www.aemo.com.au/Electricity/Resources/Reports-and-Documents/~/media/Files/Other/electricityops/EAAP_Guidelines.ashx (Home > Electricity > Resources > Reports and Documents > Energy Adequacy Assessment Projection).
- "Energy Adequacy Assessment Projection (EAAP)": Web page providing further information about the EAAP study,
 http://www.aemo.com.au/Electricity/Resources/Reports-and-Documents/EAAP (Home > Electricity > Resources > Reports and Documents > Energy Adequacy Assessment Projection).
- "Request for Scheduled Generators to Submit Variable Generator Energy Limitation Framework (GELF) Parameters", http://www.aemo.com.au/Electricity/Resources/Reports-and-Documents/EAAP/Request-for-Scheduled-Generators-to-Submit-Variable-Generator-Energy-Limitation-Framework-Parameters (Home > Electricity > Resources > Reports and Documents > Energy Adequacy Assessment Projection (EAAP) > Request for Scheduled Generators to Submit Variable Generator Energy Limitation Framework (GELF) Parameters).

1.5 What's in this guide?

- Chapter 2 "Overview" explains EAAP and GELF Declarations, what they are for, who can use them and how to use them.
- Chapter3 "GELF Declarations and Data Management" explains the GELF Declarations submission guidelines, how to access GELF Declarations, and provides and understanding of the GELF Declarations and Data Management interface.
- Chapter 4 "Station Declarations" explains how to access the GELF Station Data Entry interface and enter inflexible outages and capacity or energy constraints for GELF Stations.
- Chapter 5 "Reservoir Declarations" explains how to access the GELF Reservoir Data Entry interface and enter rations for each reservoir levels and rainfall scenarios.
- Chapter 6 "Uploading and Downloading GELF Declarations" describes how to upload and download GELF declarations for station and reservoir declarations in CSV format.
- Chapter 7 "Needing Help"provides information to assist participants with IT related issues and provides guidance for requesting assistance from AEMO.

• Chapter 8 "References" is a resource section containing related information that may assist you and where to find it.

2 Overview

This section outlines EAAP and GELF definitions, and requirements for general system and user.

In this chapter:

2.1 What are EAAP and GELF declarations?	. 4
2.2 Who can submit GELF declarations?	. 5
2.3 User rights access	. 5
2.4 How do you use GELF Declarations?	. 6
2.5 System requirements	6

2.1 What are EAAP and GELF declarations?

The purpose of EAAP is to make available to market participants and other interested persons an analysis that quantifies the impact of energy constraints on energy availability, over a 24-month period under a range of scenarios.

All scheduled generators are required to submit information regarding the effect of water shortages on their production outputs to AEMO each quarter using the GELF Declarations web interface. AEMO uses the submitted GELF Declarations in the business scenarios to produce the EAAP report.

The GELF Declarations web interface is a data entry application in the energy market systems web portal used to submit GELF declarations. The submitted GELF declarations support the calculation of energy restricted business scenarios, for example:

- Water conditions such as normal rainfall and drought.
- Material restrictions on the supply of a significant fuel source.
- Other limits on a fuel source for a major form of generation.
- Any other scenario that AEMO reasonably considers has a material impact on the EAAP.

There are two types of GELF declarations:

- **Static GELF parameters:** This is the information listed at the top of each Station or Reservoir Data Entry interface. For example:
 - Power station name
 - Category
 - Classification

o Scheme

Static GELF parameters are entered by AEMO and are read-only. If there are any errors or discrepancies in your static GELF parameters, please send an e-mail with the correct information to: gelf@aemo.com.au.

- Variable GELF parameters: These are the GELF declarations entered by scheduled generators into the Station or Reservoir Data Entry interface grids. For example:
 - Inflexible Outages
 - Energy or capacity capability subject to GELF
 - Initial and monthly reservoir limits
 - Inflows by rainfall scenarios

For more details about submitting variable GELF parameters, see Request for Scheduled Generators to Submit Variable Generator Energy Limitation Framework (GELF) Parameters.

2.2 Who can submit GELF declarations?

Persons having access to the GELF Declarations web interface include registered market participants and AEMO.

2.3 User rights access

EAAP registered participants administrators can authorise their participant users to input information for their stations and reservoirs using the Administration interface in the energy market systems web portal.

Your organisation's participant administrator (PA) grants you permission to use the GELF Declarations web application. The entity required for access is:

• EMMS - Offers and Submissions- GELF Declarations

Where a participant user has user rights assigned by more than one participant, they interactively choose the participant they represent, using the **Set Participant** option.

For further information about user administration and the Set Participant option, see the Guide to User Rights Management.

2.4 How do you use GELF Declarations?

The GELF Declarations web interface is part of AEMO's market software solution. It is located in the energy market systems web portal. The interfaces contain the data entry grids where participants enter and submit their variable GELF declarations for each quarter.

2.5 System requirements

The GELF Declarations web application is accessed using a web browser and requires:

- Microsoft Internet Explorer version 7 or later, although the recommended version is Microsoft Internet Explorer 8.
- A monitor capable of 1024 x 768 screen resolution.
- · Access to MarketNet.
- The address of the website where the application is located on AEMO's network.
- A user ID and password provided by your company's PA.
- The GELF Declarations web application runs on both Windows and Unix-like operating systems.

For more details about MarketNet, see *Guide to Information Systems* on the "Information Systems" web page on AEMO's website.

3 GELF Declarations and Data Management

This section outlines how to access the GELF Declarations and Data Management.

For more information about EAAP and submitting GELF Declarations see Guide to GELF Declarations.

In this chapter:

3.1 GELF declaration submission guidelines	7
3.2 Accessing GELF Declarations and Data Management	8
3.3 Understanding GELF declaration status	11

3.1 GELF declaration submission guidelines

The GELF Declarations and Data Management web application is available four times per year. All scheduled generators are required to submit GELF declarations for each quarter anytime from the submission start date to the submission deadline.

Attempting to access the GELF Declarations application outside the submission start and end date results in an error, see 3.2 "Accessing GELF Declarations and Data Management" on next page.

The GELF declaration submission dates in this document are a guide only; the dates in the EAAP Guidelines take precedence over dates in this document.

3.1.1 EAAP report publication date

Results of the EAAP study are published quarterly at the end of March, June, September, and December each year.

3.1.2 Submission start date

As a guide, the submission start dates are 10 business days before the end of each quarter, usually in January, April, July, and October. The submission start date is when the EAAP GELF Declarations web interface becomes available.

3.1.3 Submission deadline

As a guide, the submission deadlines are the fifth business day in February, May, August and November. For the correct submission deadline date, see the EAAP Guidelines. The GELF Declarations and Data Management interface displays the submission deadline date when it becomes available during submission time.

Figure 1: Submission deadline date display

GELF Declarations and Data Management for June 2014 EAAP Report, due before Wednesday, 7 May 2014

NOTE:

MTPASA data will be used in the EAAP modelling, but GELF data will overlay MTPASA data when GELF data has been entered. Incomplete GELF data might not be used.

Please select the station or reservoir below to enter your GELF declarations for the quarter.

Station Id	Description	Status
BOC ORWF1	B oco Rock WF	Declaration not required
NSWDSP	NSWDSP	Declaration not required
NYNGAN	Nyngan solarfarm	Declaration entered on 19 March 2014 08:07
QLDDSP	QLDDSP	Declaration not required
SADSP	SADSP	Declaration not required
TARALGA	Taralga WF	Declaration not required
TASDSP	TASDSP	Declaration not required
VICDSP	VICDSP	Declaration not required

Disuse Data

3.1.4 Study period

The commencement of each 24-month study period is the first of April, July, October, and January each year.

3.2 Accessing GELF Declarations and Data Management

The GELF Declarations and Data Management web application is available four times a year, from the submission start date to the submission deadline of each quarter, for more details, see 3.1 "GELF declaration submission guidelines" on previous page.

To access the GELF Declarations and Data Management interface:

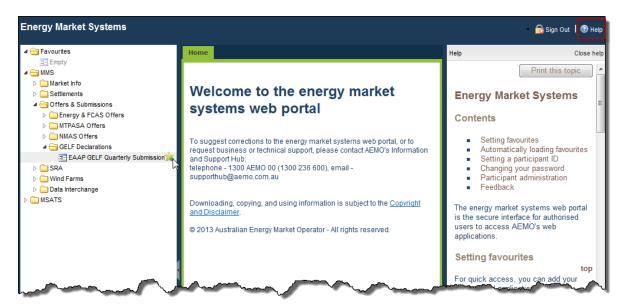
- 1. Using your web browser, access the energy market systems web portal:
 - Pre-Production: https://portal.preprod.nemnet.net.au
 - Production: https://portal.prod.nemnet.net.au

Note: the energy market systems web portal provides you with a clear indication of the environment you are working in by providing a different border colour around the home page. The production environment has a grey border and the pre-production environment has a green border.

- 2. Enter your User ID and Password provided to you by your company's PA and click **Sign in**.
- 3. The energy market systems home page displays, click the drop-down arrows next to **MMS**, then **Offers & Submissions**, and then **GELF Declarations**.
- 4. Click EAAP GELF Quarterly Submission.

For help setting GELF Declarations as a favourite and having it load automatically when you sign in, click **Help** in the top right corner from the Home tab.

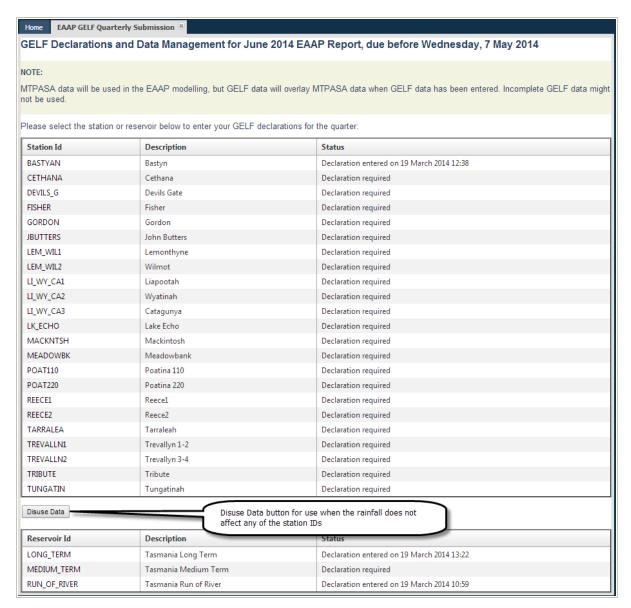
Figure 2: Accessing Help



- 5. The GELF Declarations and Data Management interface displays with:
 - The current EAAP quarter and declarations due date at the top of the interface.
 - A list of your **Station** and **Reservoir IDs**.
 - A **Description** of your station and reservoir IDs.
 - The **Status** for each of your station and reservoir IDs, see 3.3 "Understanding GELF declaration status" on page 11.
 - A **Disuse Data** button for use when rainfall does not affect any of your station IDs.
 Note that this button is different to the Disuse button for each Station ID. Clicking
 the button indicates to AEMO not to use any of the declared station data in the
 EAAP study.

Note: The GELF Declarations and Data Management screenshot below is an example only. The interface displayed to you has your personal **Station** or **Reservoir IDs**.

Figure 3: GELF declarations and Data Management interface display



If you are not a registered EAAP participant, an error similar to the example below displays.

Figure 4: Error message display for non-registered EAAP participant

Reference: 30/04/2014, ACENERGY, AEMO\HGOUW

Sorry, you are not a valid participant for GELF.

Please contact the Support Hub on 1300 236 600 if required. Send email to Support Hub

The message similar to the one below displays if the GELF Declaration application is not accepting submissions, see 3.1 "GELF declaration submission guidelines" on page 7.

Chapter 3 GELF Declarations and Data Management

Figure 5: Error message display when GELF Declaration website is not accepting submissions

Reference: 30/04/2014, ACENERGY, AEMO\HGOUW

GELF declaration submissions are closed. Please see the EAAP Guidelines available on AEMO's website for submission deadline dates.

Please contact the Support Hub on 1300 236 600 if required. Send email to Support Hub

3.3 Understanding GELF declaration status

Status	Meaning
Declaration not required	A GELF Declaration can be entered but is not required.
Declaration required	A GELF Declaration has not been entered and is required by the due date.
Declaration entered on "date & time" (NOT TO BE USED)	The GELF Declaration is withdrawn and not to be used.
GELF data entered	A GELF Declaration is entered.
	The date and time of the entry is displayed.

4 Station Declarations

This section outlines how to access, understand and submit GELF declarations for each station: - Inflexible Outages. - Capacity or Energy Constraints.

This section assumes you have accessed the GELF Declarations and Data Management screen, for help, see "GELF Declarations and Data Management" on page 6.

In this chapter:

4	1.1 Accessing the GELF Station Data Entry interface	12
4	1.2 Understanding the GELF Station Data Entry interface	15
2	1.3 Entering GELF station declarations	18

4.1 Accessing the GELF Station Data Entry interface

The **GELF Station Data Entry** interface is where you enter the inflexible outages and capacity or energy constraints for GELF Stations. This section describes how to access, understand and enter GELF station declarations for:

- Inflexible Outages
- Energy or capacity constraints

This section assumes you have accessed the **GELF Declarations and Data Management** interface. For help, see "Accessing GELF Declarations and Data Management" on page 8.

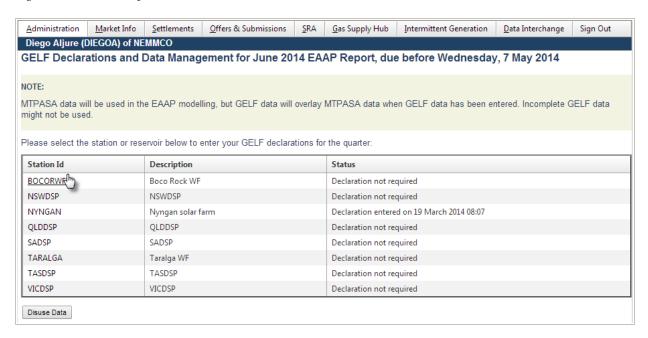
If you do not have stations listed on your GELF Declarations and Data Management interface this chapter is not relevant to you.

To submit GELF station declarations for the current quarter:

1. On the **GELF Declarations and Data Management** interface, click the relevant station in the **Station ID** column.

Note: The Station ID becomes active when you move your mouse over the ID.

Figure 6: Selection of relevant Station

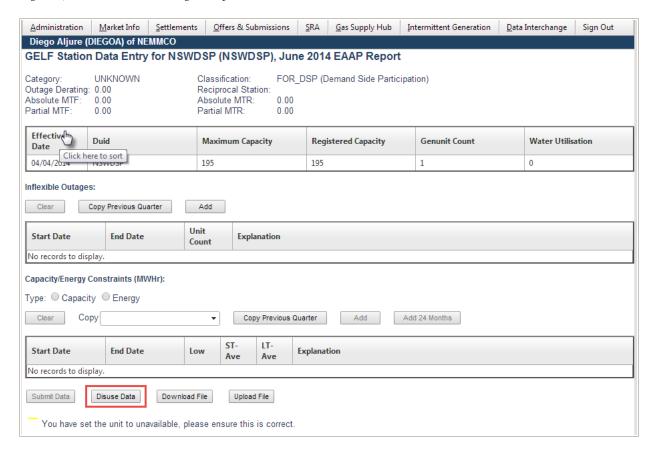


- 2. The **GELF Station Data Entry** interface displays the selected station details and data entry grids for:
 - Inflexible Outages
 - Capacity or Energy Constraints

Note: If there are no previous GELF declarations, **No records to display** appears under the **Start Date** of each grid.

- To sort by ascending or descending order, click any of the grid headings.
- If you are not affected by the rainfall scenarios you can use the **Disuse Data** button to indicate you are not affected. MT PASA data is used for scheduled generators using this option, see 4.3.5 "Indicating you are not affected by rainfall scenarios" on page 35.
- To return to the GELF Declarations and Data Management interface, follow the steps for "Accessing GELF Declarations and Data Management" on page 8.

Figure 7: Station data entry interface



4.2 Understanding the GELF Station Data Entry interface

This section provides guidelines for entering your GELF station declarations. Figure 8 below describes the colour-coded warnings and explanations that prompt you to review or update your entered data before submitting.

GELF Station Data Entry for NSWDSP (NSWDSP), June 2014 EAAP Report Message indicating the Category: UNK Outage Derating: 0.00 Absolute MTF: 0.00 Classification: Reciprocal Station: Absolute MTR: Partial MTF Partial MTR: **Effective Date** Maximum Capacity Registered Capacity Genunit Count Water Utilisation 04/04/2014 Inflexible Outages Clear Copy Previous Quarter Start Date **End Date** Unit Count Explanation 01/07/2014 30/09/2014 1 2 1/07/2014 30/09/2014 ⊞ Capacity/Energy Constraints (MWHr): Type:
Capacity Energy Add Add 24 Months Clear Copy Previous Quarter **End Date** Start Date LT-Ave 30/09/2014 01/07/2014 Submit Data Disuse Data Download File Upload File Message advising that capacity o energy constraint value is zero You have set the unit to unavailable, please ensure this is correct Explanation describing why the submission failed You have entered duplicate or overlapping inflexible outage dates (1/07/2014-30/09/2014), please revise them and retry your submission You have entered duplicate or overlapping inflexible outage dates (1/07/2014-30/09/2014), please revise them and retry your submission

Figure 8: GELF Station Data Entry interface

Notes:

- If a capacity or energy constraint is zero for any rainfall scenario, the fields are highlighted in yellow as a warning indicating the unit is unavailable for the given time frame. An incorrect value in this field has a significant impact on the accuracy of the EAAP study. The highlight is a warning only, participants can still submit the data.
- An error message indicating there are duplicate or overlapping entries entered for Inflexible Outages allowing participants to review the data and resubmit.
- For easier data entry, Inflexible Outages and Capacity or Energy Constraints values are pre-populated from the previous quarter. If no data available for the previous quarter, a message saying "No records to display" will be displayed.

The following sections provide explanations about each section and guidelines for entering your GELF declarations.

4.2.1 Station Information

If there are any errors or discrepancies in your static GELF parameters, please send an email with the correct information to: gelf@aemo.com.au.

Table 1: Station Information (static GELF parameters)

Component	Description
Category	The generation group the generating units belong to. All generating units modelled in the EAAP are categorised into base load, intermediate, intermittent or peaking generation groups. For more details about individual generation groups see "Glossary" on page viii.
Classification	Type of power station e.g. QLD Peak, QLD Base load, QLD Hydro, wind, solar, etc.
Outage Derating	The reduced generation capacity during a partial outage as a % of the maximum capacity.
Reciprocal Station	This field is populated when a single GELF station can function as a Generator or a Pump (load), e.g. pump storage hydro power stations. The two are linked in this field with their separate identifiers.
Absolute MTF	Absolute mean time between failures in days.
Absolute MTR	Absolute mean time to repair in days.
Partial MTF	Partial mean time between failures in days.
Partial MTR	Partial mean time to repair in days.
Effective Date	Calendar date on which this data becomes effective.
Duid	Dispatchable Unit.
Maximum Capacity	The maximum capacity of the GELF station. Typically the sum of the capacities of physical generating units constituting the GELF station (MW).
Registered Capacity	The normal capacity of the GELF station. Typically the sum of the capacities of physical generating units constituting the GELF station (MW).
Genunit Count	The Number of physical generating units within the GELF station.
Water Utilisation	Water utilisation efficiency in MWHr/GL.

4.2.2 Inflexible Outages

This section requires details of outages that cannot be rescheduled. The information is used in the EAAP system to indicate the outages that cannot be shifted to alternate periods.

Note: Overlapping or duplicate inflexible outages are not allowed.

Table 2: Inflexible Outages (variable GELF parameters)

Component	Description
Clear	Clear all variable fields.
Copy Previous Quarter	To make declaration entry easier, existing GELF declarations can be copied from the previous quarter. For help, see 4.3.2 "Copying inflexible outages" on page 22
Add	Enter further Inflexible Outage declarations. For help, see 4.3.1 "Entering inflexible outages" on page 19
Start Date	The calendar start date of the Inflexible Outage.
End Date	The calendar end date of the Inflexible Outage. Note: the end date must be after the start date.
Unit Count	The number of affected generating units at the power station. Enter a whole number only.
Explanation	Brief explanation of the cause of the inflexible outage on the affected units. Enter text only.

4.2.3 Capacity or Energy Constraints (MWHr)

This section covers the forecast generation capability under various rainfall scenarios taking into account reductions due to, for example:

- Limitations on a primary energy source, such as coal, gas, or availability/allocation of water for hydro power generation.
- Limitations on power station services, such as cooling water, high cooling water temperatures, boiler feed water, and so on.
- Environmental issues, such as emission limits or operations allowed only at specific times of the day or week.
- Other limitations such as the Carbon Pollution Reduction Scheme (CPRS).

Note: Duplicate dates of Capacity/Energy Constraints are not allowed.

Table 3: Capacity or Energy Constraints (MWHr) (variable GELF parameters)

Component	Description	
Туре	Select either capacity or energy constraints (you cannot select both).	
Clear	Clear the fields	
Copy	To make declaration entry easier, existing GELF declarations can be copied from provious quarters. For help, see "Copying constraint declarations from a past quarter" on page 32.	
Copy Previous Quarter	To make declaration entry easier, GELF station declarations can be copied from the previous or past quarter. For help, see "Copying constraint declarations from the pre-	

Component	Description	
	vious quarter" on page 30	
Add	Enter further constraint declarations, see 4.3.3 "Entering capacity or energy constraints" on page 24	
Add 24 Months	Add 24 months of declarations. For help, see "Entering 24 months of constraints" on page 28	
Start Date	The calendar start date of the constraint.	
End Date	The calendar end date of the constraint.	
	Note: The end date must be after the start date.	
Low	Low rainfall value in MWHr. Enter a whole number only.	
	Note: Zero value means that the unit is unavailable and will incur in colour-coded warning.	
ST-Ave	Short-term average rainfall value in MWHr. Enter a whole number only.	
	Note: Zero value means that the unit is unavailable and will incur in colour-coded warning.	
LT-Ave	Long-term average rainfall value in MWHr. Enter a whole number only.	
	Note: Zero value means that the unit is unavailable and will incur in colour-coded warning.	
Explanation	Brief explanation of the cause of the constraint.	
Submit Data	Submit your entered data. The button is inactive if there is no data entered.	
Disuse Data	Click this button to indicate to AEMO not to use any of the declared station data in the EAAP study.	
Download File	Downloaded a .CSV file with previous declarations and save them to upload at a later date. This provides an easy way to manipulate the data for reuse. For help, see 6.1 "Downloading Station Declarations" on page 50	
Upload File	Upload a prepared .CSV file with prepared declarations. The declarations are uploaded directly to the grid but they are not saved until you have clicked Submit Data. For help, see 6.3 "Uploading Station Declarations" on page 52	
Message area	Provides colour-coded warnings and messages to review the entered data and update or submit as required.	

4.3 Entering GELF station declarations

Inflexible Outage declarations are entered into the EAAP system to indicate which outages cannot be shifted during the run period to reduce unserved energy.

This section assumes you have accessed the **GELF Station Data Entry** interface. For help, see 4.1 "Accessing the GELF Station Data Entry interface" on page 12.

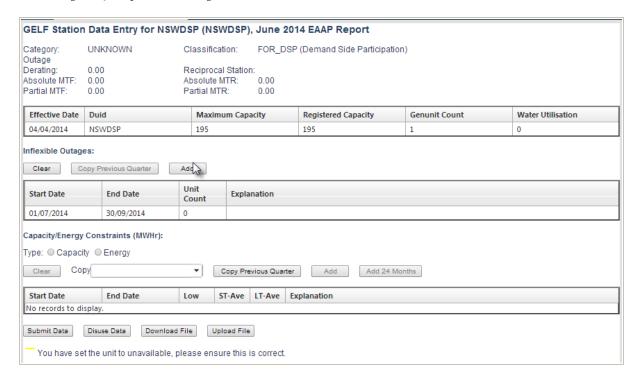
4.3.1 Entering inflexible outages

For help understanding the fields, see 4.2 "Understanding the GELF Station Data Entry interface" on page 15.

To enter inflexible outages:

 On the GELF Station Data Entry Screen, click Add to display a row in the Inflexible Outages grid.

Figure 9: Inflexible outages



- 2. Double-click the **Start Date** field in the new row.
- 3. Click the **Calendar icon** to display the calendar pop-up and then click the relevant date to select it.

Note: GELF declaration dates are entered as calendar dates.

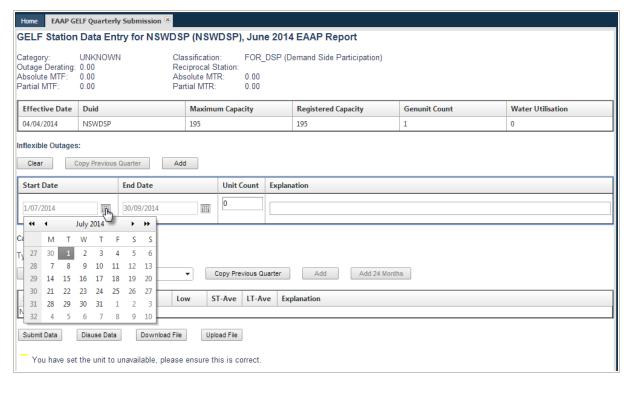


Figure 10: Select a date for inflexible outages

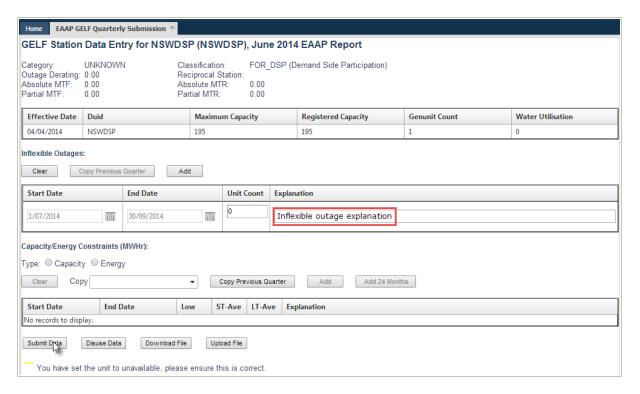
4. Do the same to enter an **End Date**. The end date must be after the start date.

Note: an error occurs if duplicate or overlapping outage dates are entered. To avoid duplicate dates, start and end dates for each row must be unique.

5. Click the **Unit Count** field and type the number of units as a whole number. Note: The number of units shall be less or equal than the Genunit Count.

6. Type a short **Explanation** for the inflexible outage.

Figure 11: Inflexible outages explanation



7. Next, do one of the following:

То	Do this
Submit your declarations	Click Submit Data
Enter further Inflexible Outage declarations	Click Add
Enter capacity or energy constraints	Click Add and follow the steps for "Entering capacity or energy constraints" on page 24
Clear your entered declarations	Click Clear Note: This action clears the declarations from the interface.
Change an existing entry	Click in the relevant field to make it active and enter the new declaration.
Reset the GELF declarations for the current study period and change the status to NOT TO BE USED	Click Disuse Data Use this option when you do not wish to submit any declarations. For example the generation capability of the GELF station is not affected by any of the rainfall scenarios.
Enter declarations for another station ID	Return to the GELF Declarations and Data Management interface and select the relevant StationID .
Upload or Download a GELF declarations file	For help, see "Uploading and Downloading GELF Declarations" on page 50.

4.3.2 Copying inflexible outages

To make declaration entry easier, existing GELF declarations can be copied from the previous quarter.

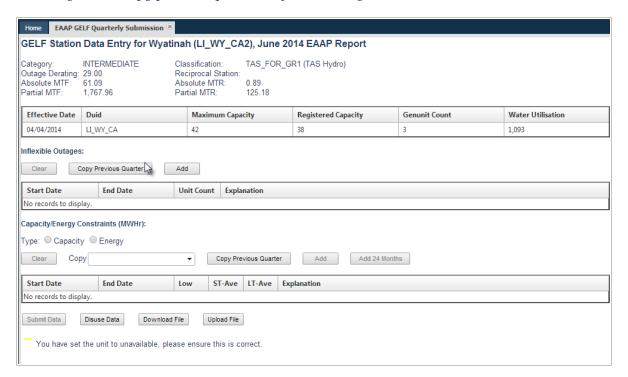
This section assumes you have accessed the **GELF Station Data Entry** interface. For help, see 4.1 "Accessing the GELF Station Data Entry interface" on page 12.

For help understanding the fields, see 4.2 "Understanding the GELF Station Data Entry interface" on page 15.

To copy declarations from the previous quarter:

1. On the GELF Station Data Entry interface, click Copy Previous Quarter above the Inflexible Outages grid.

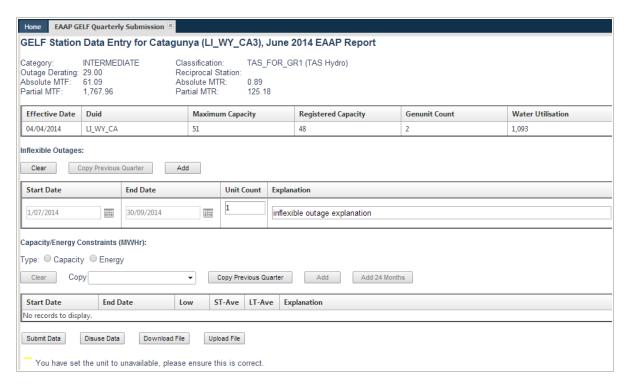
Figure 12: Copy previous quarter's inflexible outages



2. The previous quarter's declarations are copied to the **Inflexible Outage** grid.

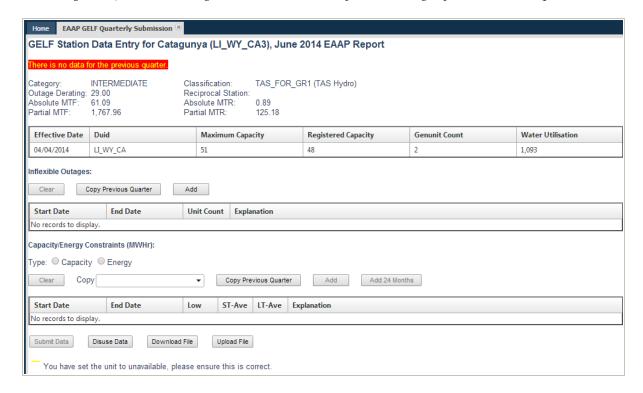
Note: only the valid declarations for the current quarter are copied

Figure 13: Previous quarter's inflexible outages are copied



Note: If there are no previous quarter declarations an error message is displayed at the top of the page and the **Submit Data** button is made inactive.

Figure 14: Error message when there are no inflexible outages for the selected quarter



3. Next, do one of the following:

То	Do this
Submit your declarations	Click Submit Data
Enter further Inflexible Outage declarations	Click Add
Enter capacity or energy constraints	Click Add and follow the steps for "Entering capacity or energy constraints" below
Clear your entered declarations	Click Clear This action will clear the declarations from the current interface.
Change an existing entry	Click in the relevant field to make it active and enter the new declaration.
Reset the GELF declarations for the current study period and change the status to NOT TO BE USED	Click Disuse Data This option can be used when you do not wish to submit any declarations. For example the generation capability of the GELF station is not affected by any of the rainfall scenarios.
Enter declarations for another station ID	Return to the GELF Declarations and Data Management interface and select the relevant StationID.
Upload or Download a GELF declarations file	For help, see "Uploading and Downloading GELF Declarations" on page 50.

4.3.3 Entering capacity or energy constraints

Capacity or energy constraint scenarios are entered into the EAAP system to indicate constraints due to your geographic location, access to fuel source or another similar reason.

This section assumes you have accessed the **GELF Station Data Entry** interface. For help, see 4.1 "Accessing the GELF Station Data Entry interface" on page 12.

Notes:

- For help understanding the fields, see 4.2 "Understanding the GELF Station Data Entry interface" on page 15.
- The constraints can be entered either individually or over a 24-month period, see "Entering individual constraints" below and see "Entering 24 months of constraints" on page 28.

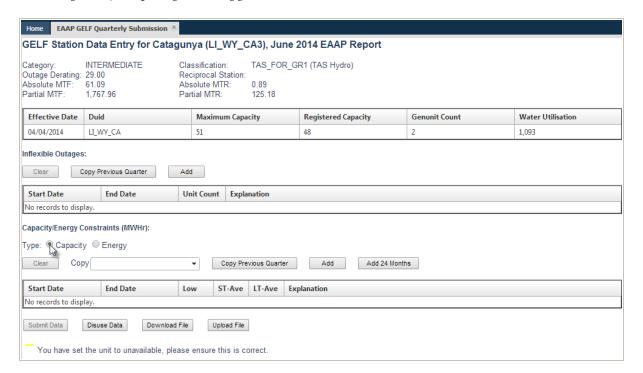
Entering individual constraints

To enter individual capacity or energy constraints:

 On the GELF Station Data Entry interface, select the constraint Type either Capacity or Energy.

Important Note: declarations are entered for one constraint type only. You cannot enter declarations for both constraint types over the quarter.

Figure 15: Capacity or Energy constraints



The **Clear**, **Add** and **Add 24 Months** buttons are inactive until a constraint type is chosen. The **Add 24 Months** button will remain inactive if there are previous entries.

- 2. Click **Add**, to display a new row on the **Constraints** grid.
- 3. Double-click the **Start Date** field in the new row.
- 4. Click the **Calendar icon** to display the calendar pop-up then click the relevant date to select it.

Note: GELF declaration dates are entered as calendar dates.

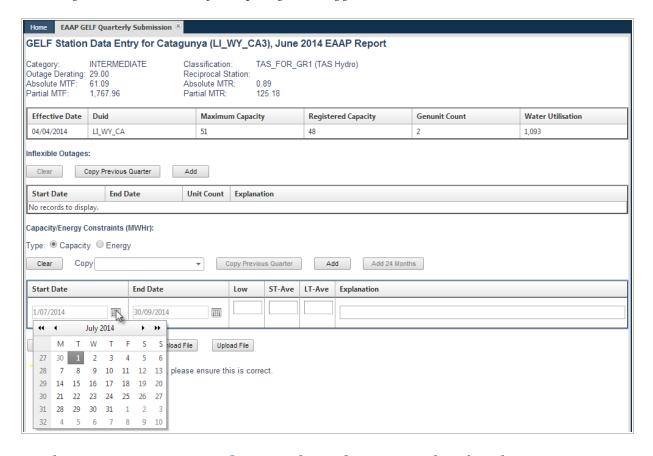
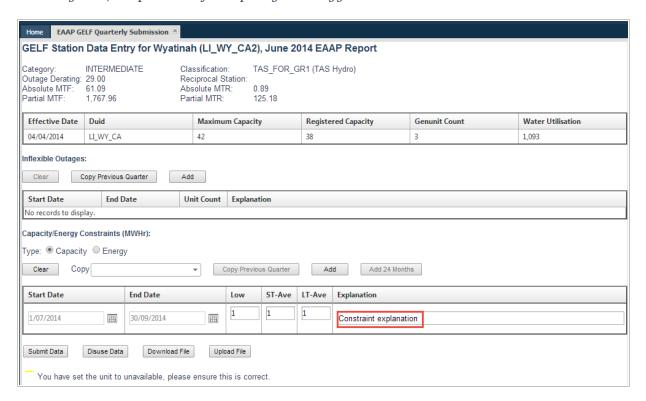


Figure 16: Select a date for Capacity or Energy constraints

- 5. Do the same to enter an **End Date**. The End Date must be after the Start Date. Duplicate dates of constraints are not allowed.
- 6. Type your **Low**, **ST-Ave** or **LT-Ave** MWHr constraint declarations.

7. Type a short **Explanation** for the constraint.

Figure 17: Explanation for Capacity or Energy Constraints



8. Next, do one of the following:

То	Do this
Submit your declarations	Click Submit Data
Enter further constraint declarations	Click Add and follow the steps for "Entering capacity or energy constraints" on page 24
Enter Inflexible Outage declarations	See "Entering inflexible outages" on page 19.
Clear your entered declarations	Click Clear . Note: This action will clear the declarations from the current interface.
Change an existing entry	Click in the relevant field to make it active and enter the new declaration.
Add 24 months of declarations	For help, see "Entering 24 months of constraints".
Reset the GELF declarations for the current study period and change the status to NOT TO BE USED	Click Disuse Data This option can be used when you do not wish to submit any declarations. For example the generation capability of the GELF station is not affected by any of the rainfall scenarios.
Enter declarations for another station ID	Return to the GELF Declarations and Data Management interface and select the relevant Station ID .
Upload or Download a GELF declarations file	For help, see "Uploading and Downloading GELF Declarations" on page 50.

Note: an error occurs if duplicate dates are entered. To avoid duplicate dates, Start and End Dates for each entry must be unique.

Entering 24 months of constraints

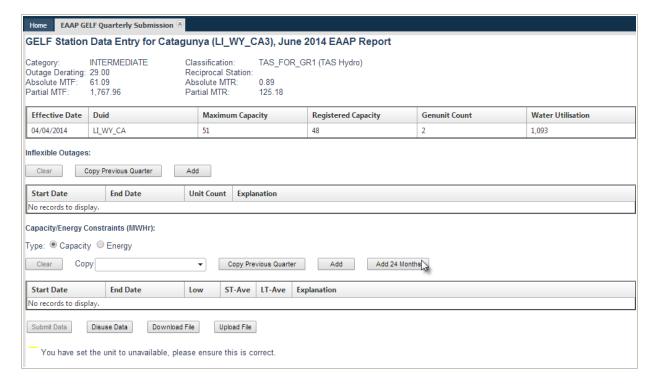
To make declaration entry easier, constraint declarations can be entered over a 24 month period.

This section assumes you have accessed the **GELF Station Data Entry** interface. For help, see 4.1 "Accessing the GELF Station Data Entry interface" on page 12.

To enter 24 months of constraint declarations:

- On the GELF Station Data Entry interface, select the constraint Type either Capacity or Energy.
- 2. Click Add 24 Months.

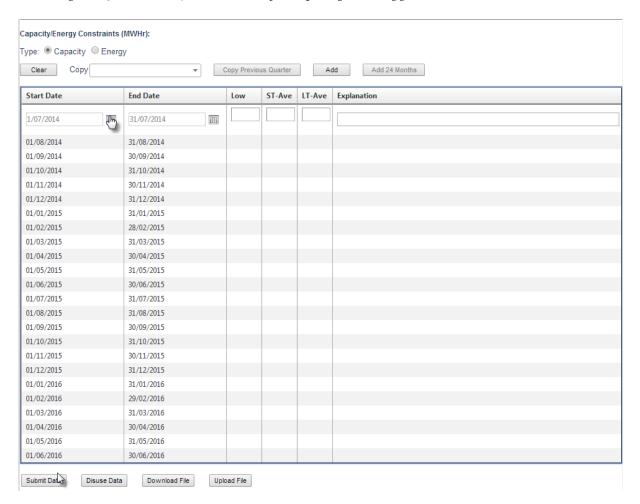
Figure 18: 24 months data entry for capacity or energy constraints



- 3. 24 months of declaration fields display. Type your **Low**, **ST-Ave** and **LT-Ave** rainfall scenarios (MWHr).
- If you do not need to enter constraint declarations for every field, you can leave the fields blank.

- To add 24 months of constraints there can be no individual constraint declarations already entered in the grid. Click Clear to remove any unwanted constraints from the grid.
- The Clear, Add and Add 24 Months buttons are inactive until a constraint type is chosen.

Figure 19: Submit 24 months data for capacity or energy constraints



4. Next, do one of the following:

То	Do this
Submit your declarations	Click Submit Data
Enter further constraint declarations	Click Add and follow the steps for "Entering capacity or energy constraints" on page 24.
Enter Inflexible Outage declarations	See "Entering inflexible outages" on page 19.
Clear your entered declarations	Click Clear Note: This action will clear the declarations from the current screen.

То	Do this
Change an existing entry	Click in the relevant field to make it active and enter the new declaration.
Reset the GELF declarations for the current study period and change the status to NOT TO BE USED	Click Disuse Data Important Note: This option can be used when you do not wish to submit any declarations. For example the generation capability of the GELF station is not affected by any of the rainfall scenarios.
Enter declarations for another station ID	Return to the GELF Declarations and Data Management interface, select the relevant station from the Station ID.
Upload or Download a GELF declarations file	See "Uploading and Downloading GELF Declarations" on page 50 .

4.3.4 Copying capacity or energy constraints

To make declaration entry easier, GELF station declarations can be copied from the previous or past quarter.

This section assumes you have accessed the **GELF Station Data Entry** interface. For help, see "Accessing the GELF Station Data Entry interface" on page 12.

Copying constraint declarations from the previous quarter

To copy constraint declarations from the previous quarter:

1. On the **GELF Station Data Entry** interface, click **Copy Previous Quarter** above the **Capacity/Energy Constraints** grid.

Home EAAP GELF Quarterly Submission GELF Station Data Entry for Wyatinah (LI_WY_CA2), June 2014 EAAP Report INTERMEDIATE Classification: TAS_FOR_GR1 (TAS Hydro) Outage Derating: 29.00 Absolute MTF: 61.09 Reciprocal Station: 0.89 Absolute MTR: Partial MTF: Partial MTR: Effective Date Duid Maximum Capacity Registered Capacity **Genunit Count** Water Utilisation 04/04/2014 LI_WY_CA 1.093 Inflexible Outages: Clear Copy Previous Quarter Add Start Date End Date Unit Count Explanation No records to display. Capacity/Energy Constraints (MWHr): Type:

Capacity

Energy Clear Copy ▼ Copy Previous Quarter Add Add 24 Months ST-Ave LT-Ave Explanation No records to display.

Figure 20: Copy previous quarter's capacity or energy constraints

The previous quarter's declarations are copied to the Capacity/Energy Constraints (MWHr) grid.

Note: Only valid declarations of the current quarter are copied.

Submit Data

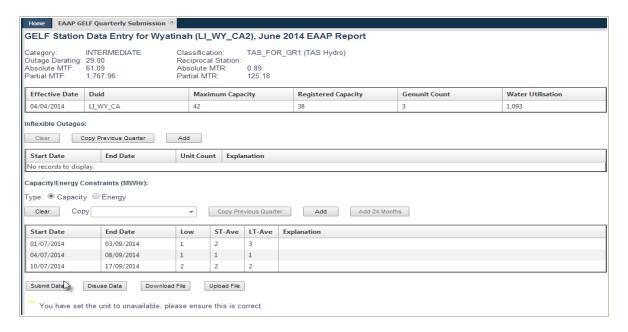
Disuse Data

Download File

Upload File

You have set the unit to unavailable, please ensure this is correct

Figure 21: Previous quarter's capacity or energy constraints are copied



If there are no previous quarter declarations an error message is displayed at the top of the page and the **Submit Data** button is inactive.

GELF Station Data Entry for Catagunya (LI_WY_CA3), June 2014 EAAP Report | INTERMEDIATE | Classification: TAS_FOR_GR1 (TAS Hydro) | 29.00 | Reciprocal Station: 61.09 | Absolute MTR: 0.89 | 1,767.96 | Partial MTR: 0.89 | 125.18 Category: INTERME
Outage Derating: 29.00
Absolute MTF: 61.09
Partial MTF: 1,767.96 Water Utilisation LI_WY_CA 04/04/2014 51 48 1.093 Clear Copy Previous Quarter Add Start Date End Date Unit Count Explanation No records to display. Type: Capacity Energy ▼ Copy Previous Quarter Add Add 24 Months Clear Copy Start Date End Date Low ST-Ave LT-Ave Explanation No records to display. Submit Data Disuse Data Download File Upload File You have set the unit to unavailable, please ensure this is correct

Figure 22: Error message when there are no previous quarter's capacity or energy constraints

3. Next, do one of the following:

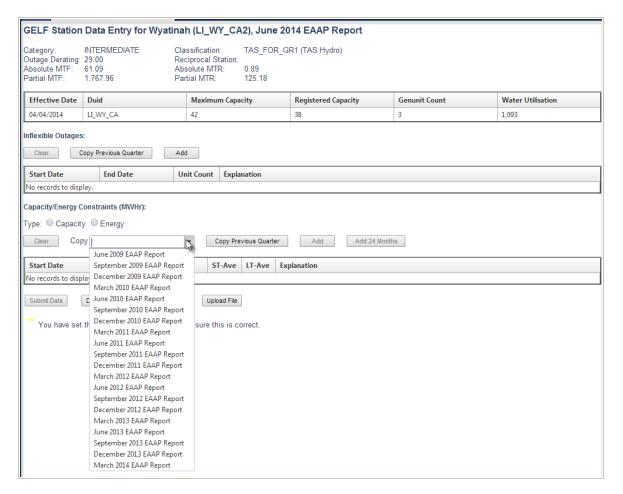
То	Do this
Submit your declarations	Click Submit Data
Enter further constraint declarations	Click Add and follow the steps for "Entering capacity or energy constraints" on page 24.
Enter Inflexible Outage declarations	See "Entering inflexible outages" on page 19.
Clear your entered declarations	Click Clear Note: This action will clear the declarations from the current screen.
Change an existing entry	Click in the relevant field to make it active and enter the new declaration.
Reset the GELF declarations for the current study period and change the status to NOT TO BE USED	Click Disuse Data Important Note: This option can be used when you do not wish to submit any declarations. For example the generation capability of the GELF station is not affected by any of the rainfall scenarios.
Enter declarations for another station ID	Return to the GELF Declarations and Data Management interface, select the relevant station from the Station ID.
Upload or Download a GELF declarations file	See "Uploading and Downloading GELF Declarations" on page 50 .

Copying constraint declarations from a past quarter

To copy constraint declarations from a past quarter:

1. Click the **Copy** drop-down arrow and select the relevant quarter from the list.

Figure 23: Copy past quarter's capacity or energy constraints



2. The past declaration data is copied to the **Capacity/Energy Constraints(MWHr)** grid.

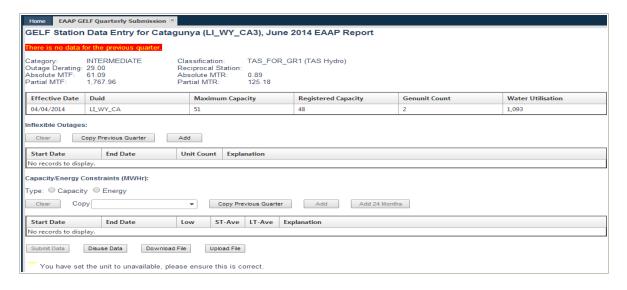
Note: Only valid declarations of the current quarter are copied.

Home EAAP GELF Quarterly Submission [™] GELF Station Data Entry for Wyatinah (LI_WY_CA2), June 2014 EAAP Report ATE Classification: TAS_FOR_GR1 (TAS Hydro)
Reciprocal Station:
Absolute MTR: 0.89
Partial MTR: 125.18 INTERMEDIATE Classification: Absolute MTF Partial MTF: Effective Date Duid Maximum Capacity Registered Capacity Genunit Count Water Utilisation Inflexible Outages: Clear Copy Previous Quarter Add Start Date End Date Unit Count Explanation No records to display. Capacity/Energy Constraints (MWHr): Type:
Capacity Energy Clear Copy Copy Previous Quarter Add Add 24 Months Start Date End Date Low ST-Ave LT-Ave Explanation 01/07/2014 03/09/2014 04/07/2014 08/09/2014 1 1 10/07/2014 17/09/2014 Submit Data Disuse Data Download File Upload File You have set the unit to unavailable, please ensure this is correct.

Figure 24: Past declaration capacity or energy constraints are copied

Note: if there are no existing declarations an error message is displayed at the top of the page.

Figure 25: Error message when there is no past quarter's capacity or energy constraints



3. Next, do one of the following:

То	Do this
Submit your declarations	Click Submit Data
Enter further Inflexible Outage declarations	Click Add
Enter capacity or energy constraints	See "Entering capacity or energy constraints" on page 24.
Clear your entered declarations	Click Clear

То	Do this
	Note: This action will clear the declarations from the current screen.
Change an existing entry	Click in the relevant field to make it active and enter the new declaration.
Reset the GELF declarations for the current study period and change the status to NOT TO BE USED	Click Disuse Data Important Note: This option can be used when you do not wish to submit any declarations. For example the generation capability of the GELF station is not affected by any of the rainfall scenarios.
Enter declarations for another station ID	Return to the GELF Declarations and Data Management interface, select the relevant station from the Station ID.
Upload or Download a GELF declarations file	See "Uploading and Downloading GELF Declarations" on page 50.

4.3.5 Indicating you are not affected by rainfall scenarios

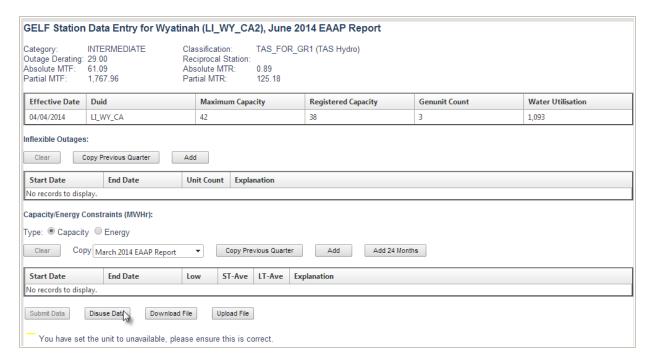
The **Disuse Data** button is used to indicate that you are not affected by rainfall scenarios. MT PASA data is used for scheduled generators using this option.

This section assumes you have accessed the **GELF Station Data Entry** interface. For help, see "Accessing the GELF Station Data Entry interface" on page 12.

To indicate you are not affected by the rainfall scenarios:

 On the GELF Station Data Entry interface, click Disuse Data without entering any declarations.

Figure 26: Indicate that the Station is not affected by Rainfall scenarios



5 Reservoir Declarations

This section describes how to access, understand and enter GELF reservoir declarations for each reservoir's:

- Levels
- · Inflows by Rainfall scenarios

This section assumes you have accessed the GELF Declarations and Data Management screen, for help, see "GELF Declarations and Data Management" on page 7.

If you do not have any reservoirs listed on your GELF Declarations and Data Management screen you can disregard this section.

In this chapter:

5.1 Accessing the GELF Reservoir Data Entry interface	37
5.2 Understanding the GELF Reservoir Data Entry interface	39
5.3 Entering GELF reservoir declarations	.42

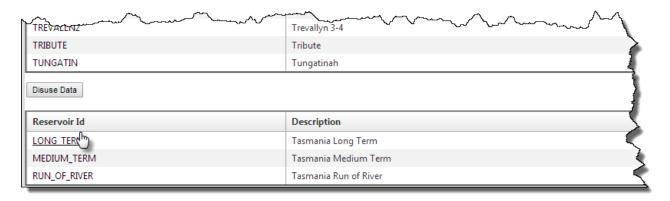
5.1 Accessing the GELF Reservoir Data Entry interface

To access GELF reservoir declarations for the current quarter:

1. On the **GELF Declarations and Data Management** interface, select the relevant reservoir from the Reservoir ID column.

Note: the **Reservoir Id** becomes active when you move your mouse over the name.

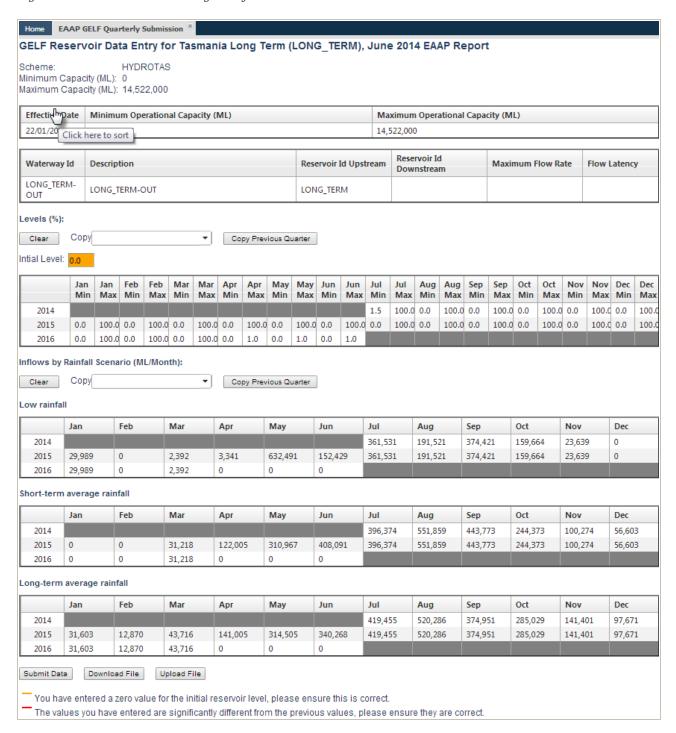
Figure 27: Selection of relevant reservoir



2. The **GELF Reservoir Data Entry** interface displays the reservoir details and entry grids for the current quarter.

- Click any of the reservoir grid headings to sort by ascending or descending order.
- To return to the GELF Declarations and Data Management interface, follow "Accessing GELF Declarations and Data Management" on page 8

Figure 28: Reservoir data entry interface



5.2 Understanding the GELF Reservoir Data Entry interface

This section provides guidelines for entering your GELF reservoir declarations. Figure 29 below describes the colour-coded warnings and explanations that prompt you to review or update your entered data before submitting.

| Column | C

Figure 29: GELF Reservoir Data Entry interface

Notes:

- If the "Initial Level" field is zero, the field is highlighted in orange as a warning to check the value is correct. The highlight is a warning only, participants can still submit the data.
- For easier data entry, the "Levels" and "Inflows by Rainfall Scenario" values are prepopulated from the previous quarter. Zero is entered if there is no data available for the previous quarter.
- If the "Inflows by Rainfall Scenario" values entered are significantly different from the previously entered values, the fields are highlighted in red as a warning to review the data and update if necessary. The highlight is a warning only, participants can still submit the data.
- If a full set of data is not available (ie. data does not cover the whole 24-month period, or one or more of the rainfall scenario are missing, etc.), an error message will appear on top of the page and an explanation of the error will appear at the bottom of the page.

For the "Inflows by Rainfall Scenario" values, the basis for calculating if they are significantly different uses the previously entered value. The initial values are pre-populated from your previous quarter's submission. If you change the initial pre-populated values, then the new values become the previously entered values, meaning the warning provided no longer relates to the previous quarter's submission but your previously entered value.

5.2.1 Reservoir information

If there are any errors or discrepancies in your static GELF parameters, please send an email with the correct information to: gelf@aemo.com.au.

Table 4: Reservoir Information (static GELF parameters)

Field	Description
Scheme	The power scheme the reservoir belongs to.
Minimum Capacity (ML)	Minimum Reservoir Storage (ML).
Maximum Capacity (ML)	Maximum Reservoir Storage (ML).
Effective Date	Calendar Date on which this data becomes effective.
Minimum Operational Capacity (ML)	Minimum Active Reservoir Storage (ML).
Maximum Operational Capacity (ML)	Maximum Active Reservoir Storage (ML).
Waterway ID	Identification of the waterways connecting the selected reservoir to other reservoirs.
Description	Description of each waterway.
Reservoir ID Upstream	Upstream reservoir ID of each waterway.
Reservoir ID Downstream	Downstream reservoir ID of each waterway.
Maximum Flow Rate	Maximum flow rate of each waterway (ML/Hr).
Flow Latency	Time taken for the water to flow through in hours.

Table 5: Percentage of Reservoir Levels (variable GELF parameters)

Field	Description
Clear	Clear all variable fields.
Сору	To make declaration entry easier, GELF reservoir declarations can be copied from past quarters. For help, see "Copying reservoir declarations from a past quarter" on page 47
Copy Previous Quarter	To make declaration entry easier, GELF reservoir declarations can be copied from the previous quarter. For help, see "Copying reservoir declarations from the previous

Field	Description
	quarter" on page 46
Initial Level	Active reservoir storage at the beginning of the study period entered as a % of the Maximum Operational Capacity. Enter a whole number between 0-100 or a decimal value to 1 decimal place without the % sign.
	Important Note: The initial level must be entered otherwise the data validation fails.
Year	The year of the levels being entered.
Month Min (e.g. Jan Min, Feb Min)	The minimum reservoir level that can be reached in each month of the study period for any of the rainfall scenarios; without violating long-term reservoir management policy. Enter a whole number between 0-100 or a decimal value to 1 decimal place without the % sign.
	Note: Full set of 24-month data must be entered otherwise the data validation fails.
Month Max (e.g. Jan Max, Feb Max)	The maximum reservoir level as a % of the maximum operational capacity that can be reached in each month of the study period for any of the rainfall scenarios; without violating long-term reservoir management policy. Enter a whole number between 0-100 or a decimal value to 1 decimal place without the % sign.
	Note: Full set of 24-month data must be entered otherwise the data validation fails.

Table 6: Inflows by Rainfall Scenario (variable GELF parameters)

Monthly inflows to reservoirs in megalitres during the study period.

Field	Description
Clear	Clear all variable fields.
Сору	To make declaration entry easier, GELF reservoir declarations can be copied from past quarters. For help, see "Copying reservoir declarations from a past quarter" on page 47.
	Note: Only declarations that are valid for the current quarter are copied.
Copy Previous Quarter	To make declaration entry easier, GELF reservoir declarations can be copied from the previous quarter. For help, see "Copying reservoir declarations from the previous quarter" on page 46
	Note: Only declarations that are valid for the current quarter are copied.
Long-term average rainfall grid	Inflows for long-term average rainfall for each month of the year. Enter a whole number only. Note: Full set of 24-month data for all rainfall scenarios must be entered
	otherwise the data validation fails.
Year (e.g. 2010, 2011)	The year of the rainfall scenario.

Field	Description
Month (e.g. Jan, Feb)	The month of the rainfall scenario.
Submit Data	Submit your entered data. The button is inactive if there is no data entered.
Download File	Downloaded a .CSV file with previous declarations and save them to upload at a later date. This provides an easy way to manipulate the data for reuse. For help, see 6.2 "Downloading Reservoir Declarations" on page 51
Upload File	Upload a prepared .CSV file with prepared declarations. The declarations are uploaded directly to the grid but they are not saved until you have clicked Submit Data. For help, see 6.4 "Uploading Reservoir Declarations" on page 55
Message area	Provides colour-coded warnings and messages to review the entered data and update or submit as required.

5.3 Entering GELF reservoir declarations

The **GELF Reservoir Data Entry** interface is where you enter the reservoir storage levels and Inflows by Rainfall Scenarios for the current study period.

This section assumes you have accessed the **GELF Reservoir Data Entry** interface. For help, see "Accessing the GELF Reservoir Data Entry interface" on page 37.

For help understanding the fields, see 5.2 "Understanding the GELF Reservoir Data Entry interface" on page 39

5.3.1 Entering reservoir levels

To enter reservoir levels:

1. On the **GELF Reservoir Data Entry** interface, click the **Initial Level** entry box and enter a percentage for the initial storage level.

Enter a whole number between 0-100 or a decimal value to 1 decimal place without the % sign.

Important Note: the initial level must be entered otherwise the data validation will fail.

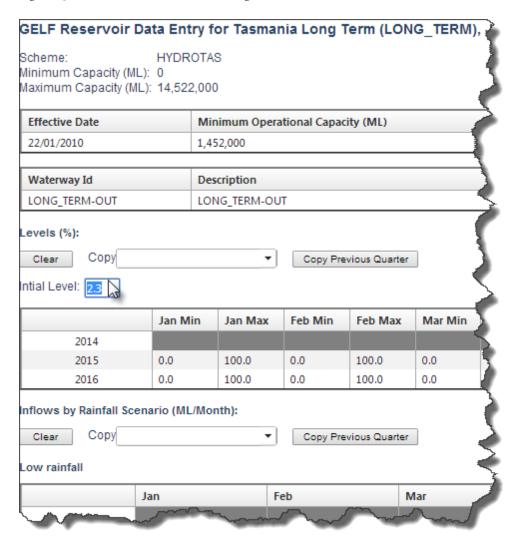


Figure 30: Initial Reservoir level entry

- 2. Double-click the **Levels** grid next to the relevant year and type the levels for each month. The values are entered as a whole number or a fraction. To move to the next place on the grid, press **Tab** on your keyboard.
 - **Min:** minimum active reservoir storage level as a % of the maximum operational capacity.
 - **Max:** maximum active reservoir storage level as a % of the maximum operational capacity.

Important Notes: Realistic Max and Min reservoir level for the last month of the study period must be entered to avoid undesirable and unrealistic reservoir levels at the end of the study period. Realistic Min reservoir level for the first month of the study period must be entered, giving the initial level and first month's inflow. Full set of 24-month data must be entered otherwise the data validation fails.

GELF Reservoir Data Entry for Tasmania Long Term (LONG TERM), June 2014 EAAP Report Minimum Capacity (ML): 0 Maximum Capacity (ML): 14,522,000 Effective Date Minimum Operational Capacity (ML) Maximum Operational Capa 14,522,000 22/01/2010 1,452,000 Waterway Id Description Reservoir Id Upstream Reservoir Id Downstre LONG_TERM-OUT LONG_TERM-OUT LONG TERM evels (%): Clear Copy ▼ Copy Previous Quarter ntial Level: 2.3 Max 100. 100.0 0.0 2014 100.0 0.0 100.0 2016 100.0 0.0 100.0 0.0 1.0 1.0 1.0 flows by Rainfall Scenario (ML/Month): Clear Copy ▼ Copy Previous Quarter

Figure 31: Max and Min Reservoir level entry

3. Next, do one of the following:

То	Do this
Submit your declarations	Click Submit Data
Enter inflows by Rainfall Scenarios	See "Entering inflows by rainfall scenarios" below
Clear your entered declarations	Click Clear Note: This action clears the declarations from the interface.
Change an existing entry	Click in the relevant field to make it active and enter the new declaration.
Enter declarations for another reservoir ID	Return to the GELF Declarations and Data Management interface and select the relevant Reservoir ID.
Upload or Download a GELF declarations file	For help, see "Uploading and Downloading GELF Declarations" on page 50.

5.3.2 Entering inflows by rainfall scenarios

This section assumes you have accessed the **GELF Reservoir Data Entry** interface. For help, see "Accessing the GELF Reservoir Data Entry interface" on page 37

For help understanding the fields, see 5.2 "Understanding the GELF Reservoir Data Entry interface" on page 39

To enter inflows by rainfall scenarios:

- 1. On the **GELF Reservoir Data Entry** interface, double-click the **Inflows by Rainfall Scenario** grid.
- 2. In the **Low**, **Medium** and **High** grids, type the rainfall scenarios in ML for each month of the relevant year. The values are entered as a whole number. Positive or negative numbers can be entered to represent inflows or water evaporation. To move to the next place on the grid, press Tab on your keyboard.

Important note: Full set of 24-month data for all rainfall scenarios must be entered otherwise the data validation fails.

flows by Rainfall Scenario (ML/Month): Clear Copy ▼ Copy Previous Quarter Apr May 2014 2015 2016 nort-term average rainfall Feb Apr May 2015 2016 ong-term average rainfal May Apr

Figure 32: Inflows by Rainfall scenario data entry

3. Next, do one of the following:

То	Do this
Submit your declarations	Click Submit Data
Clear your entered declarations	Click Clear Note: This action clears the declarations from the interface.
Change an existing entry	Click in the relevant field to make it active and enter the new declaration.
Enter declarations for another reservoir ID	Return to the GELF Declarations and Data Management interface and select the relevant Reservoir ID.
Upload or Download a GELF declarations file	For help, see "Uploading and Downloading GELF Declarations" on page 50.

5.3.3 Copying GELF reservoir declarations

To make declaration entry easier, GELF reservoir declarations can be copied from the previous or past quarter.

This section assumes you have accessed the **GELF Reservoir Data Entry** interface. For help, see "Accessing the GELF Reservoir Data Entry interface" on page 37.

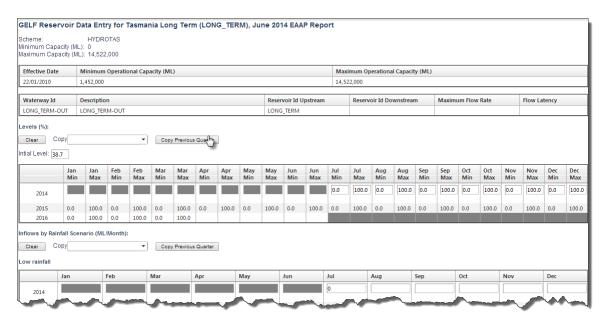
Copying reservoir declarations from the previous quarter

To copy reservoir declarations for the previous quarter:

1. To copy declarations from the previous quarter for reservoir levels or inflows, click **Copy Previous Quarter** above the relevant grid.

Note: Only the declarations that are valid for the current quarter are copied.

Figure 33: Copy Previous Quarter's Reservoir levels



2. The previous quarter's declarations are copied to the relevant grid.

GELF Reservoir Data Entry for Tasmania Long Term (LONG_TERM), June 2014 EAAP Report Scheme: HYDROTAS Minimum Capacity (ML): 0 Maximum Capacity (ML): 14,522,000 Effective Date Minimum Operational Capacity (ML) Maximum Operational Capacity (ML) 22/01/2010 1,452,000 Description Reservoir Id Upstream Reservoir Id Downstream Flow Latency Waterway Id Maximum Flow Rate LONG_TERM-OUT Clear Copy ▼ Copy Previous Quarter Intial Level: 38,7 Jun Min 0.0 100.0 0.0 100.0 0.0 100.0 0.0 100.0 0.0 100.0 0.0 2016 100.0 100.0 nflows by Rainfall Scenario (ML/Month): Clear Copy ▼ Copy Previous Quarter ow rainfall May Jun

Figure 34: Previous Quarter's Reservoir levels are copied

If there are no previous quarter declarations an error message is displayed at the top of the page.

3. Next, do one of the following:

То	Do this
Submit your declarations	Click Submit Data
Clear your entered declarations	Click Clear Note: This action clears the declarations from the interface.
Change an existing entry	Click in the relevant field to make it active and enter the new declaration.
Enter declarations for another reservoir ID	Return to the GELF Declarations and Data Management interface and select the relevant Reservoir ID.
Upload or Download a GELF declarations file	For help, see "Uploading and Downloading GELF Declarations" on page 50

Copying reservoir declarations from a past quarter

To copy reservoir declarations for a past quarter:

1. Click the **Copy** drop-down arrow and select the relevant quarter from the list.

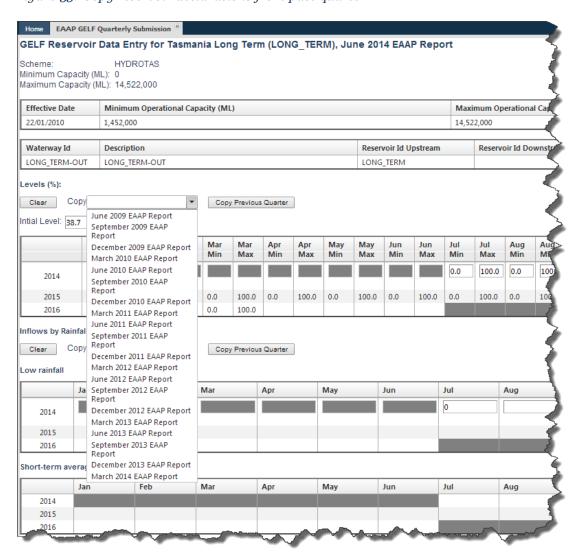
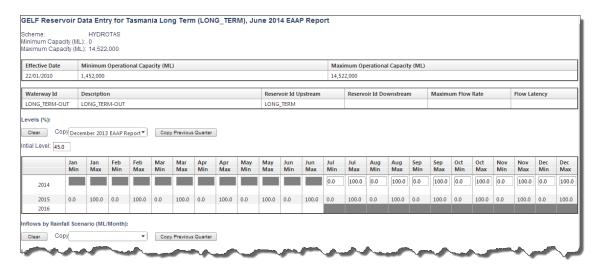


Figure 35: Copy reservoir declarations from past quarter

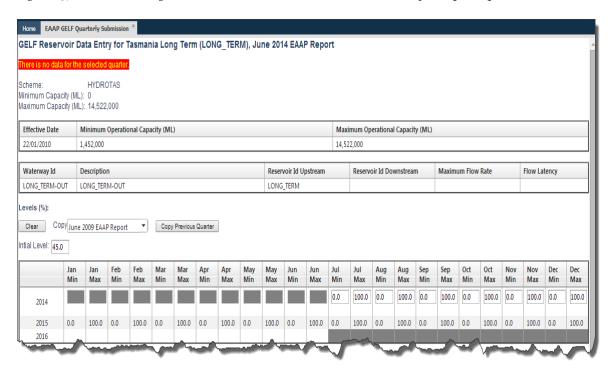
2. The selected quarter's declarations are copied to the relevant grid.

Figure 36: Reservoir declarations from past quarter are copied



If there are no declarations to copy an error message is displayed at the top of the page.

Figure 37: Error message when there is no Reservoir declarations from past quarter



3. Next, do one of the following:

То	Do this
Submit your declarations	Click Submit Data
Clear your entered declarations	Click Clear Note: This action clears the declarations from the interface.
Change an existing entry	Click in the relevant field to make it active and enter the new declaration.
Enter declarations for another reservoir ID	Return to the GELF Declarations and Data Management interface and select the relevant Reservoir ID.
Upload or Download a GELF declarations file	For help, see "Uploading and Downloading GELF Declarations" on page 50.

6 Uploading and Downloading GELF Declarations

This section describes how to use the **Download File** and **Upload File** buttons for station and reservoir declarations. GELF declarations are uploaded and downloaded in CSV format.

This section assumes that you have accessed the **GELF Reservoir** (see page 37) or **Station Data Entry** (see page 12) screens.

For help with the CSV format, see the Guide to AEMO CSV Data Format Standard.

In this chapter:

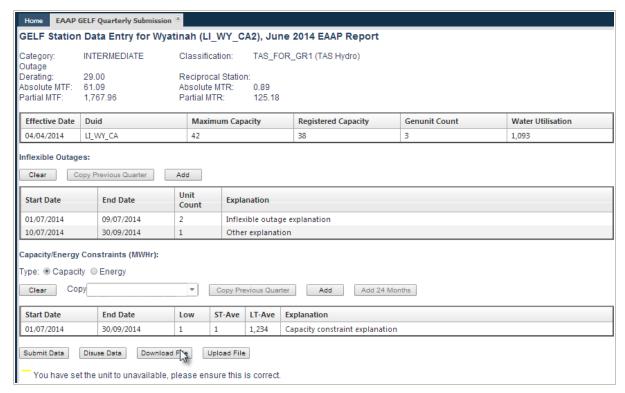
6.1 Downloading Station Declarations	50
6.2 Downloading Reservoir Declarations	51
6.3 Uploading Station Declarations	52
6.4 Uploading Reservoir Declarations	55
6.5 CSV file upload errors	57

6.1 Downloading Station Declarations

To download a file:

1. On the Station Data Entry interfaces, click Download File.

Figure 38: Downloading Station declarations



2. Note that the options may appear different depending on the Internet browser used.

A downloaded file can be saved and the declarations changed to upload at a later date. This provides an easy way to manipulate the data for reuse. It is important to maintain the format of the fields and the CSV format, see Guide to AEMO CSV Data Format Standard.

6.2 Downloading Reservoir Declarations

To download a file:

1. On the Reservoir Data Entry interfaces, click Download File.

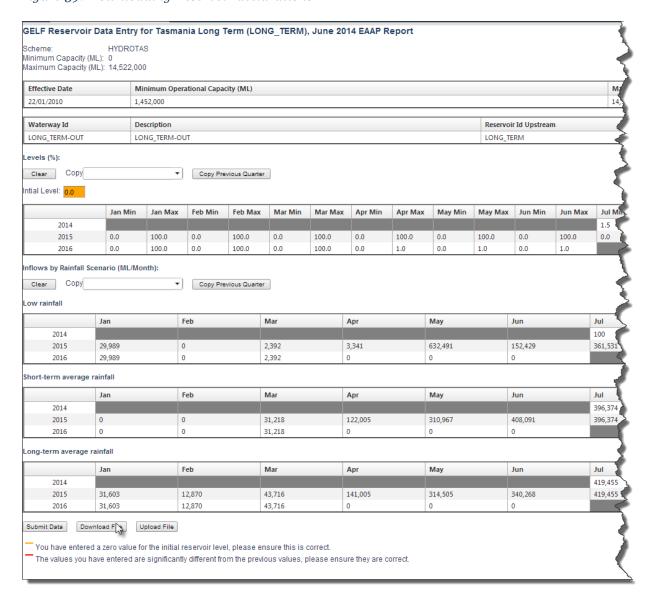


Figure 39: Downloading Reservoir declarations

2. Note that the options may appear different depending on the Internet browser used.

A downloaded file can be saved and the declarations changed to upload at a later date. This provides an easy way to manipulate the data for reuse. It is important to maintain the format of the fields and the CSV format, see Guide to AEMO CSV Data Format Standard.

6.3 Uploading Station Declarations

Uploading Station declarations is a two-part process:

- 1. Prepare the file for upload.
- 2. Upload the file.

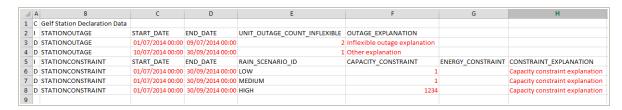
The structure and CSV format must remain the same. Examples are shown below with the variable GELF parameters that can be changed shown in red.

6.3.1 Preparing the .CSV file for upload

To prepare the file for upload:

- 1. Follow the instructions for downloading Station declarations, see page 50.
- 2. Save the file to your computer and make a copy of it.
- 3. Open the file and enter your new declarations by changing the variable Station parameters. For an explanation of the variable Station parameter fields, see "Understanding the GELF Station Data Entry interface" on page 15. The following are examples of downloaded and modified .CSV files.

Figure 40: Preparing the Station file for upload

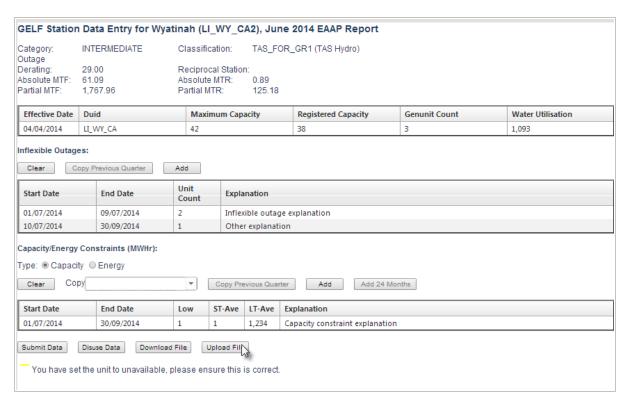


6.3.2 Uploading the Station .CSV file

To upload the file:

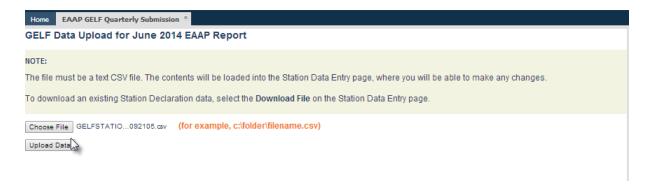
1. On the Station Data Entry interfaces, click Upload File.

Figure 41: Uploading Station file



- 2. Click **Choose File**to locate the CSV file on your computer. Note that the selection of file options may appear different depending on the Internet browser used.
- 3. Click Upload Data.

Figure 42: Browsing Station file to upload



4. The uploaded Station declarations appear in the Station Data Entry grid. If the format of your CSV file has errors they are reported on the interface, fix the error and retry your file upload. For help, see "CSV file upload errors" on page 57

Important Note: the declarations are uploaded directly to the grid but they are not saved until you have clicked **Submit Data**.

5. Next, do one of the following:

То	Do this
Submit your declarations	Click Submit Data.
Enter further declarations	Click Add or select a Constraint type.
Enter capacity or energy constraints	See "Entering capacity or energy constraints" on page 24
Clear your entered declarations	Click Clear
	Note : This action will clear the declarations from the current interface.
Change an existing entry	Click in the relevant field to make it active and enter the new declaration.
Reset the GELF declarations for the current study period and change the status to NOT TO BE USED	Click Disuse Data Important Note: This option can be used when you do not wish to submit any declarations. For example the generation capability of the GELF station is not affected by any of the rainfall scenarios.
Enter declarations for another station Id	Return to the GELF Declarations and Data Management interface and select the relevant StationId.
Upload or Download a file	See "Uploading and Downloading GELF Declarations" on page 50.

6.4 Uploading Reservoir Declarations

Uploading Reservoir declarations is a two-part process:

- 1. Prepare the file for upload.
- 2. Upload the file.

The structure and CSV format must remain the same. Examples are shown below with the variable Reservoir parameters that can be changed shown in red.

6.4.1 Preparing the .CSV file for upload

To prepare the file for upload:

- 1. Follow the instructions for downloading Reservoir declarations, see page 51.
- 2. Save the file to your computer and make a copy of it.
- 3. Open the file and enter your new declarations by changing the variable Reservoir parameters. For an explanation of the variable Reservoir parameter fields, see "Understanding the GELF Reservoir Data Entry interface" on page 39. The following are examples of downloaded and modified .CSV files.

C Gelf Reservoir Declaration Data 2 I RESERVOIR 3 D RESERVOIR 4 I RESERVOIRINFLOWS CALENDAR_YEAR RAIN_SCENARIO_ID INFLOW_JAN INFLOW_FEB INFLOW_MARCH INFLOW_APRIL INFLOW_MAY 5 D RESERVOIRINFLOWS 2014 LOW 6 D RESERVOIRINFLOWS 2014 MEDIUM 7 D RESERVOIRINFLOWS 8 D RESERVOIRINFLOWS 2015 LOW 3341 9 D RESERVOIRINFLOWS 2015 MEDIUM 31218 122005 310967 10 D RESERVOIRINFLOWS 2015 HIGH 31603 12870 43716 141005 314505 11 D RESERVOIRINFLOWS 2016 LOW 29989 2392 12 D RESERVOIRINFLOWS 2016 MEDIUM 13 D RESERVOIRINFLOWS 2016 HIGH 43716 14 I RESERVOIRLEVELS CALENDAR YEAR MIN LEVEL JAN MAX_LEVEL_JAN MIN_LEVEL_FEB MAX_LEVEL_FEB MIN_LEVEL_MARCH MAX_LEVEL_MARCH 15 D RESERVOIRLEVELS 2014 16 D RESERVOIRLEVELS 100 2015 100 17 D RESERVOIRLEVELS

Figure 43: Preparing the Reservoir file for upload

6.4.2 Uploading the Reservoir .CSV file

To upload the file:

1. On the Reservoir Data Entry interfaces, click Upload File.

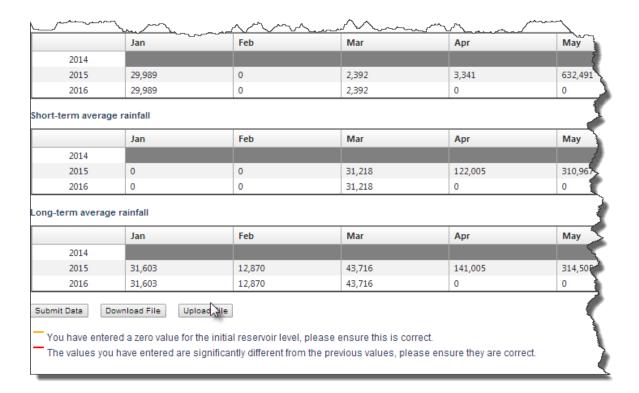


Figure 44: Uploading Reservoir file

- 2. Click **Choose File**to locate the CSV file on your computer. Note that the selection of file options may appear different depending on the Internet browser used.
- 3. Click Upload Data.

Figure 45: Browsing Reservoir file to upload



4. The uploaded Reservoir declarations appear in the Reservoir Data Entry grid. If the format of your CSV file has errors they are reported on the interface, fix the error and retry your file upload. For help, see "CSV file upload errors" on page 57

Important Note: the declarations are uploaded directly to the grid but they are not saved until you have clicked **Submit Data**.

5. Next, do one of the following:

То	Do this
Submit your declarations	Click Submit Data.
Clear your entered declarations	Click Clear Note: This action will clear the declarations from the current interface.
Change an existing entry	Click in the relevant field to make it active and enter the new declaration.
Enter declarations for another Reservoir Id	Return to the GELF Declarations and Data Management interface and select the relevant ReservoirId.
Upload or Download a file	See "Uploading and Downloading GELF Declarations" on page 50.

6.5 CSV file upload errors

The tables below describe some solutions to invalid file error messages when uploading .CSV files.

Table 7: Station declaration .CSV file errors

Error	Check for
Unable to upload file (cannot convert [J] to type [int])	Text in your GELF declarations numbers field.
Unable to upload file (cannot convert [11.8] to type [int])	A fraction where a whole number is required.

Error	Check for
Unable to upload file (cannot convert [2010-Jan-01 00:00:00] to type [DateTime])	Text in the Start Dates. Start Dates are numbers only.
Unable to upload file (cannot convert [2010-Mar-29 00:00:00] to type [DateTime]	Text in the End Dates. End Dates are numbers only.
Unable to upload file (only alphanumeric characters and space are allowed in outage's or constraints explanation)	Special characters in the explanation field. Examples of special characters are: ? & > :</td
Unable to upload file (must have either capacity constraint or energy constraint).	A constraint type is missing; either capacity or energy.

Table 8: Reservoir declaration .CSV file errors

Error	Check for
Unable to upload file (cannot convert [<] to type [double?]).	Special characters. Examples of special characters are: ? & > :</td
Unable to upload file (cannot convert [`] to type [int?]).	Special characters. Examples of special characters are: ? & > :</td
Initial Level error	A negative number.
Unable to upload file (initial Level should be between o and 100).	
Levels Unable to upload file (cannot convert [s] to type [double?]).	Text in your GELF declarations numbers field.
Rain Scenario Unable to upload file (cannot convert [h] to type [int?]).	Text in your GELF declarations numbers field.
Unable to upload file (cannot convert [52.9] to type [int?]).	A fraction where a whole number is required
Unable to upload file (cannot convert [1000000000] to type [int?]).	At least one inflow is out of range (inflow should be between - 99999999 and 99999999).

7 Needing Help

7.1 AEMO's Information and Support Hub

7.1.1 Contacting AEMO's Information and Support Hub

Assistance is requested through AEMO's Information and Support Hub using one of the following methods:

• Phone: 1300 AEMO 00 (1300 226 600) and follow the prompts.

For non-urgent issues, normal coverage is 8:00 AM to 6:00 PM on weekdays, Australian Eastern Standard Time (AEST).

- Email: supporthub@aemo.com.au
- The Customer Portal, http://helpdesk.preprod.nemnet.net.au/nemhelplite/ allows you to log your own requests for assistance. For access credentials, see your organisation's IT security contact or participant administrator.

Please note that AEMO recommends participants call AEMO's Information and Support Hub for all urgent issues, whether or not you have logged a call in the Customer Portal.

7.1.2 Information to provide AEMO

Please provide the following information when requesting assistance from AEMO:

- · Your name
- Organisation name
- Participant ID
- System or application name
- Environment: production or pre-production
- Problem description
- Screenshots

For AEMO software-related issues please also provide:

- Version of software
- Properties or log files
- Replication Manager support dump and instance name (if Data Interchange problem)

7.2 Feedback

To suggest improvements to this document, please contact the AEMO Information and Support Hub.

8 References

The resources listed in this section contain related information that may assist you.

• AEMO Information and Support Hub, phone: 1300 AEMO 00 (1300 236 600), and follow the prompts, email: supporthub@aemo.com.au.

8.1 Rules, law, and government bodies

- "Australian Energy Market Commission" (AEMC), electricity and gas rules http://www.aemc.gov.au/home.
- "Australian Energy Regulator (AER)", www.aer.gov.au.

8.2 AEMO's website

- *EAAP Guidelines*: This guide provides comprehensive information about EAAP and the scenarios AEMO must study in preparing it,

 http://www.aemo.com.au/Electricity/Resources/Reports-andDocuments/~/media/Files/Other/electricityops/EAAP_Guidelines.ashx (Home >
 Electricity > Resources > Reports and Documents > Energy Adequacy Assessment Projection).
- "Energy Adequacy Assessment Projection (EAAP)": Web page providing further information about the EAAP study,
 http://www.aemo.com.au/Electricity/Resources/Reports-and-Documents/EAAP (Home > Electricity > Resources > Reports and Documents > Energy Adequacy Assessment Projection).
- Guide to AEMO CSV Data Format Standard, http://www.aemo.com.au/About-the-Industry/Information-Systems/Using-Energy-Market-Information-Systems (Home > About the Industry > Information Systems > Using Energy Market Information Systems).
- Guide to Information Systems, http://aemo.com.au/About-the-Industry/Information-Systems Home > About the Industry > Information Systems).
- Guide to User Rights Management, http://www.aemo.com.au/About-the-Industry/Information-Systems/Using-Energy-Market-Information-Systems (Home > About the Industry > Information Systems).
- "Information Systems", IT systems information, related documents, and access forms: http://www.aemo.com.au/About-the-Industry/Information-Systems (Home > About the Industry > Information Systems).
- "IT Assistance", information to assist participants with IT related issues: http://www.aemo.com.au/About-the-Industry/Information-Systems/IT-Assistance (Home > About the Industry > Information Systems > IT Assistance).
- "Request for Scheduled Generators to Submit Variable Generator Energy Limitation Framework (GELF) Parameters",
 http://www.aemo.com.au/Electricity/Resources/Reports-and-Documents/EAAP/Request-for-Scheduled-Generators-to-Submit-Variable-Generator-

Guide to Generator Energy Limitation Framework (GELF) Declarations

- Energy-Limitation-Framework-Parameters (Home > Electricity > Resources > Reports and Documents > Energy Adequacy Assessment Projection (EAAP) > Request for Scheduled Generators to Submit Variable Generator Energy Limitation Framework (GELF) Parameters).
- "Using Energy Market Information Systems", IT systems documentation and software: http://www.aemo.com.au/About-the-Industry/Information-Systems/Using-Energy-Market-Information-Systems(Home > About the Industry > Information Systems > Using Energy Market Information Systems).

9 Index

Α		
Accessing the GELF Reservoir Data Entry interface 37		
С		
Copying capacity or energy constraints 30		
Copying constraint declarations from a past quarter 32		
Copying constraint declarations from the previous quarter 30		
Copying GELF reservoir declarations 45		
Copying reservoir declarations from a past quarter 47		
CSV file upload errors 57		
D		
Downloading GELF declarations 50-51		
E		
EAAP report publication date 7		
Entering GELF reservoir declarations 42		
Entering inflows by rainfall scenarios 44		
Entering reservoir levels 42		
F		
Feedback 60		
G		
GELF declaration status 11		
GELF Station Data Entry interface 12, 15		
I		
Indicating you are not affected by rainfall scenarios 35		
Information and Support Hub 59		

M

MarketNet 6

_
_
≺
•

Reservoir declaration .CSV file errors 58

Reservoir Declarations 37

S

Static GELF parameters 4

Station declaration .CSV file errors 57

Study period 8

Submission deadline 7

submission guidelines 7

Submission start date 7

System requirements 6

U

Understanding the GELF Reservoir Data Entry interface 39

Uploading GELF declarations 52, 55

User rights access 5

V

Variable GELF parameters 5