



Distributed energy resources (DER)

Installer test tool user guide

Installer test tool user guide

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Synergy Installer Portal

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Refer to Synergy's website for the current version of this document.

Contact us

If you have any feedback on this document, please let us know at der-support@synergy.net.au

Acknowledgement of Country
 Synergy acknowledges the Traditional Owners of the Land on which we operate and their continuing connection to the land, water and community. We pay our respects to all Aboriginal and Torres Strait Islander communities, their cultures and to Elders past, present and emerging.

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Introduction

Welcome to Synergy's Installer test tool user guide. This user guide is designed to assist you in navigating and using the installer test tool with ease. It includes step-by-step instructions to manage your login credentials, perform installation and testing procedures, and troubleshoot problems.

About Synergy's installer test tool

Synergy's installer test tool provides the ability for installers to verify asset connection and compliance to CSIP-AUS standards.

Abbreviations and definitions

Here's a few key terms you might see throughout this user guide.

Term	Explanation
Active control	Refers to the real-time management and adjustment of DER operations to optimize performance and maintain grid stability.
Aggregate	Refers to the combined capacity or output of multiple small-scale energy resources managed together as a single entity.
Asset	A device that is installed on-site that either consumes or produces electricity.
BESS	Battery Energy Storage System.
Controls	Systems or mechanisms that manage and regulate the operation of distributed energy resources. These include software and hardware components that optimize energy production, storage, and distribution to ensure reliable performance.
CSIP-Aus	Common Smart Inverter Profile – Australia. CSIP-Aus (as defined within document SA HB 218:2023) is a communications standard used nationally for remote management of DER.
DefaultDERControl	A predefined set of control parameters and settings applied to a distributed energy resource when no specific control commands are active.
DER	Distributed energy resources. Controllable assets that consume or generate electrical energy.
DERCapabilities	The specific functions and performance characteristics that a distributed energy resource can provide.
DERSettings	Configurations and parameters that define the operational and performance characteristics of distributed energy resources.
Electric Contractor's License (ECL)	An ECL is a regulatory requirement/permit for any individual or business that wishes to carry on a business as an electrical contractor.
genConnectStatus	A status indicator that reflects the connections state of a generator within a distributed energy system.
Interconnection handbook	Synergy Utility Interconnection Handbook.

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Term	Explanation
Installer test tool	A software application used to test and verify the installation of systems or Assets.
Integration test	A test provides objective and consistent verification of DER systems that will need to meet the CSIP Australia certification requirements.
Meter number	A meter number is the physical number found on your electricity meter
MFA	Multi-factor authentication (MFA) is a security mechanism that requires users to provide two or more verification methods to gain access to a system, application, or account.
MMR	Maximum ramp rate. Refers to the maximum rate at which the power output of a generator can increase or decrease over a specified period.
NMI	National Meter Identifier. A unique number used to identify the electricity connection at a property.
OEM	Original equipment manufacturer.
OperationalModeStatus	An indicator that specifies the current operational state of distributed energy resource. This status can include modes such as off, operational, test or maintenance.
OpModTargetW	Specifies the target power output for a generator within a DER system under operational mode settings.
Post rate	Refers to the rate at which data or information is updated or transmitted after an event or at regular intervals.
Privacy policy	A statement that explains how a company collects, uses, and protects user data.
reCAPTCHA	A security measure used to ensure that a user is human and not a bot.
Registration	The process of creating a new account by providing necessary information and verifying email
RRN	Retail reference number – A number that is referenced when applying to Western Power for technical and connection approval of the system being installed
rtgMaxW	Specifies the rated maximum power output for a generator within a Distributed Energy Resource (DER) system.
Salesforce Authenticator	A mobile app that enhances the security of your Salesforce login process by adding a layer of multi-factor authentication (MFA)
setMaxW	Specifies the maximum allowable power output for a generator within a DER system.
Spam folder	A folder in an email account where unwanted or suspicious emails are stored
SWIS	South West Interconnected System
Technology provider	An organisation that has built and is operating a Utility Client to allow for remote device management through Synergy's Utility Server. The OEM may act as the Technology Provider themselves or have a third party operate as the Technology Provider.
Terms of service	The rules and regulations that users must agree to in order to use a service.
User details	Information related to a user's account, such as name, email, and contact number

Term	Explanation
User interface	The visual part of a software application that users interact with.
Utility client	An IEEE 2030.5 utility client that has implemented the required capabilities and functions set as defined in SA HB 218.
Utility server	A 2030.5 utility server that has implemented the required capabilities and functions set as defined in the SA HB 218.

Supporting documentation

Document	Description	Audience
Installer handbook	This document outlines the roles and responsibilities of retailers and installers in the installation of DER in the SWIS network, including the before site, on-site and post site installation requirements and the steps relevant parties must take to ensure commissioning compliance of active and passive DER systems.	Installers
Supported solutions list	Synergy maintained list of supported utility clients and hardware solutions that meet the requirements of Synergy's <i>Utility interconnection handbook</i> .	Installers/customers
Western Power Basic EG Guidelines	Western Power guideline providing users of basic embedded generation (EG) connections, information about their obligations for connection to, and interfacing with Western Power's low voltage (LV) distribution network.	Installers
Western Power Technical Rules	Western Power document containing technical requirements that must be met by Western Power and all users of the South West Interconnected Network.	Installers

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Getting started

Welcome to Synergy's installer test tool training guide. This section is designed to provide you with the essential knowledge of how to get started on your journey to effectively access our installer test tool.

Accessing the tool

Access to the tool requires completion of Synergy's installer test tool training module. Once completed, a link to the tool will be sent via email.

If you have issues accessing the link, please call support for further assistance.

User interface overview

Logging into the installer test tool

The login screen allows you to register, securely access your account or reset your password.

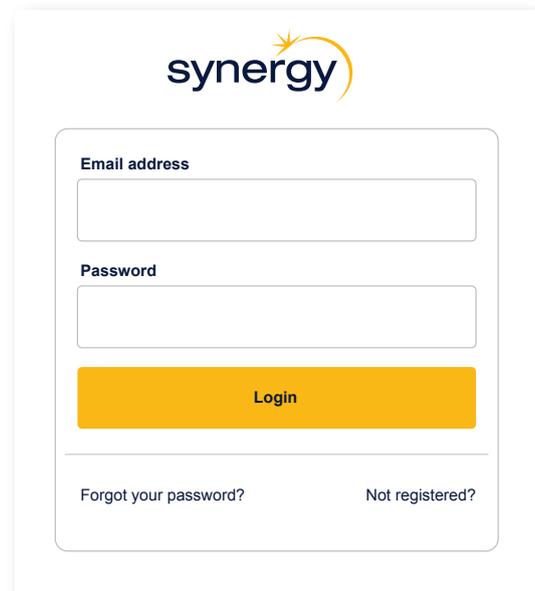
Steps to login

1. Open the installer test tool login page through your web browser.
2. In the 'Email address' field, enter the email address associated with your account.
3. In the 'Password' field, enter your account password.
4. Click 'Login' to access your account.

Additional options

- **Forgot your password?:** If you have forgotten your password, click the 'Forgot your password' link to reset it.
- **Not registered?:** If you do not have an account, click the 'Not registered?' link to create a new account.

If you encounter issues, check for error messages or prompts that may guide you to correct the input.

A screenshot of the Synergy login page. At the top center is the Synergy logo. Below it is a white rectangular form with a thin border. Inside the form, there are two input fields: the first is labeled "Email address" and the second is labeled "Password". Below these fields is a prominent yellow button with the text "Login" in white. At the bottom of the form, there are two links: "Forgot your password?" on the left and "Not registered?" on the right.

Forgot your password?

Overview

The 'Forgot your password?' screen allows you to reset your password if you have forgotten it.

Trigger a rest password link

1. Open the installer test tool login page.
2. Click the 'Forgot your password?' link.
3. In the 'Email address' field, enter the email address associated with your account.
4. Click 'Reset' to receive link to reset your password at your email address.

Additional option

- Cancel: If you do not wish to reset your password, click 'Cancel' to return to the previous page.

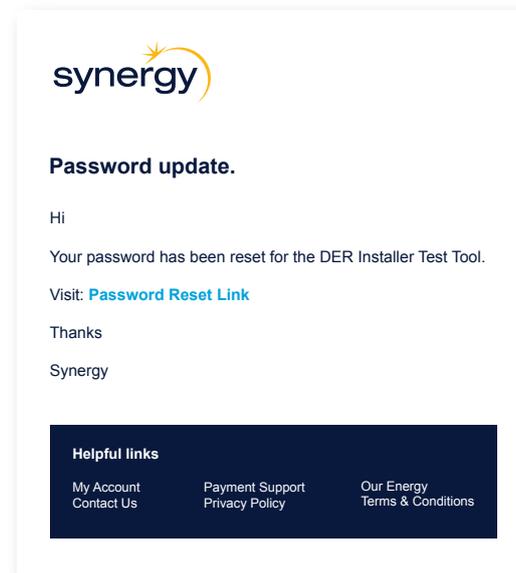
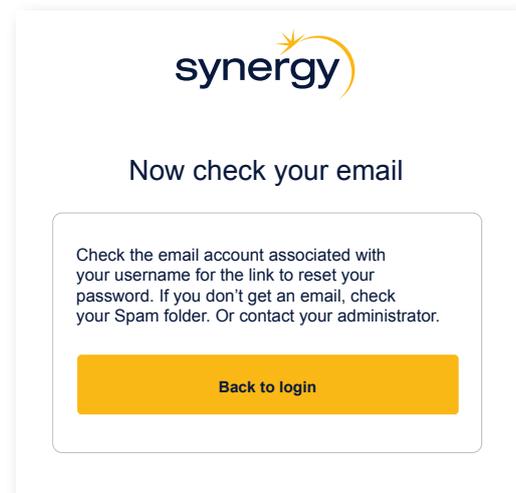
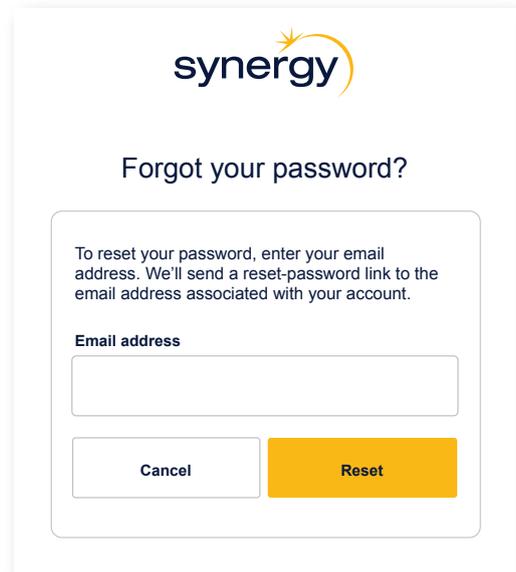
Check your email

Once you have triggered a password reset, you will see a confirmation message like this. You can click 'Back to login' to return to the login screen. Check your email.

Follow the below instructions to finish resetting your password.

1. Open the email account associated with your username.
2. Look for an email from Synergy containing the link to reset your password. If you don't see it in your inbox, check your spam or junk folder.
3. Click the link in the email and follow the instructions to reset your password.

Here is a sample email you will receive containing the reset password link.



Reset your password

Once you click the 'Password reset link', follow the below instructions.

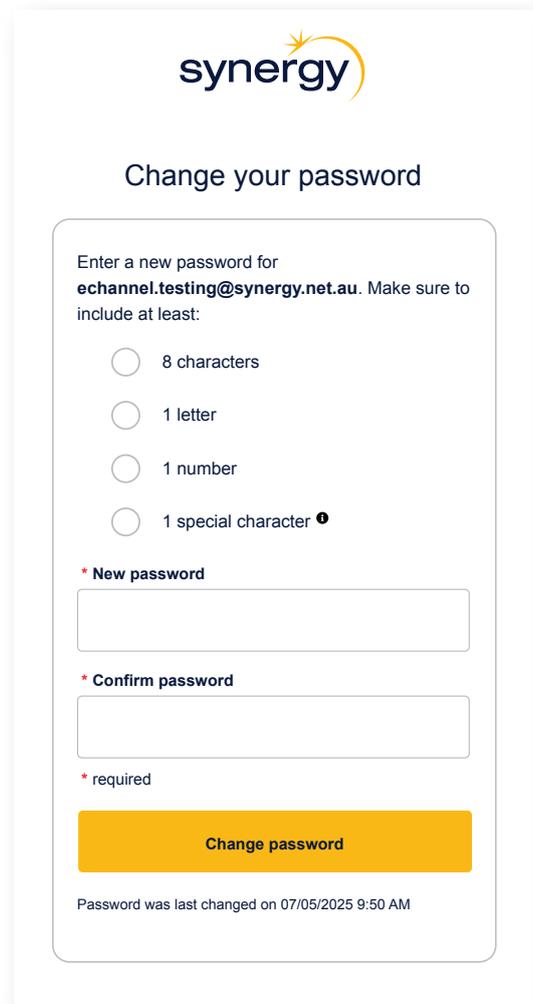
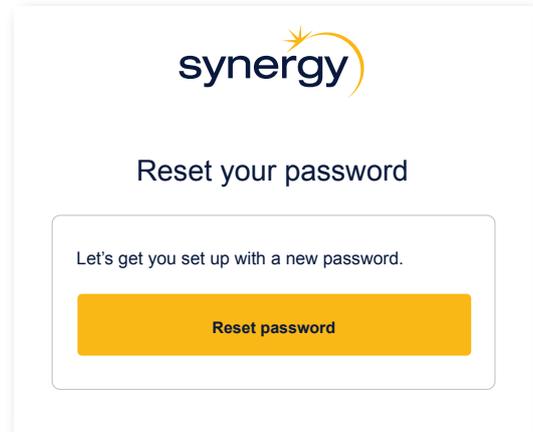
1. Click 'Reset password' to start the process.
2. Follow the instructions provided to complete the process.

Creat new password

1. In the 'New password' field, enter a new password that meets the following requirements:
 - At least 8 characters
 - Contains at least 1 letter
 - Contains at least 1 number
 - Contains at least 1 special character.
2. In the 'Confirm new password' field, re-enter the new password to confirm.
3. Once both fields are complete and meet the requirements, the 'Change password' button will enable. Click to finalise.

Things to note:

- Required fields: Fields marked with an asterisk (*) are required.
- Password change history: The note at the bottom indicates the last time the password was changed.
- If you encounter issues, check for error messages or prompts that may guide you to correct the input.



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Registering for the first time

Registration is a two-step process. First, you will need to verify your email address to make sure your account is secure. Once complete, you will receive an email with a link to complete your registration.

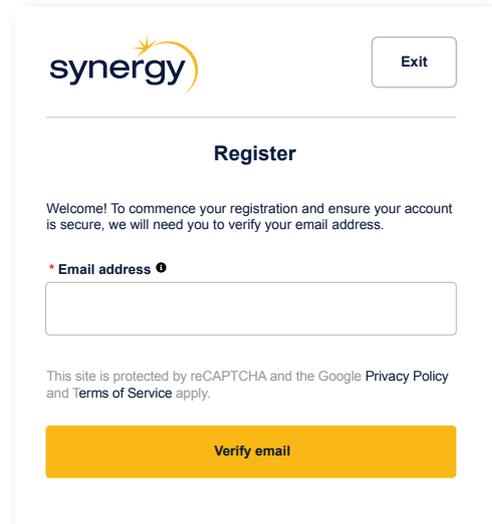
How to register

1. Open the registration page by clicking 'Not registered?' on the login page.
2. Enter your email in the 'Email address' field. Click 'Verify email' to send a verification email to the address you entered.
3. The site is protected by reCAPTCHA, follow the instructions provided to complete the verification challenge.
4. Review the Google Privacy Policy and Terms of Service to understand how your data will be used.
5. If you need to leave the registration process at any point, click 'Exit' at the top right corner of the screen.

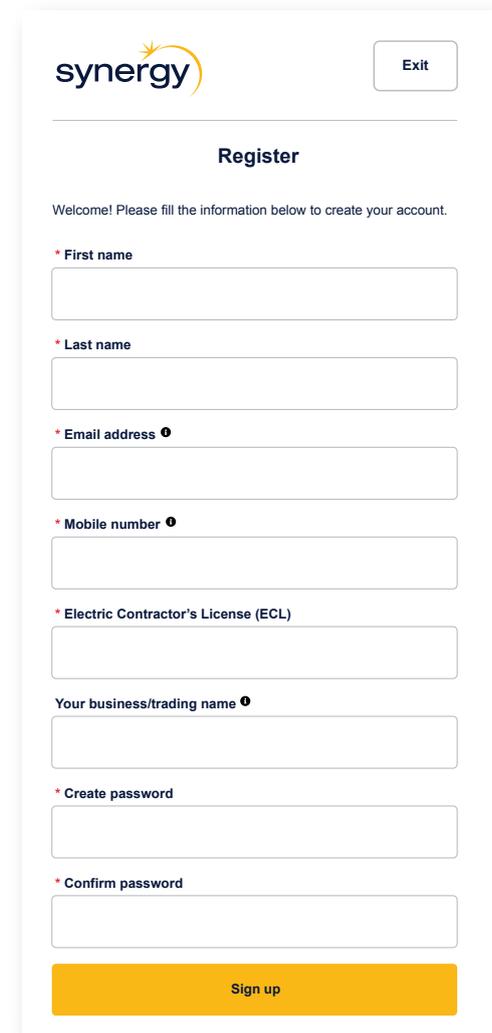
Complete your registration

Provide complete information in all relevant fields, ensuring all mandatory fields (marked with an asterisk *) are filled in. The email you provided for verification will be prepopulated.

1. In the 'First name' field, enter your first name.
2. In the 'Last name' field, enter your last name.
3. In the 'Mobile number' field, enter your mobile number. This will be used for account verification and communication.
4. In the 'Electric contractor's license (ECL) number' field, enter your ECL number.
5. In the 'Your business/trading name' field, enter your business or trading name (optional).
6. In the 'Create password' field, enter a password that meets the following requirements:
 - At least 8 Characters
 - 1 letter
 - 1 number
 - 1 special character.
7. In the 'Confirm password' field, reenter your password to confirm.



The screenshot shows the 'synergy' logo at the top left and an 'Exit' button at the top right. The main heading is 'Register'. Below it, a message reads: 'Welcome! To commence your registration and ensure your account is secure, we will need you to verify your email address.' There is a single text input field labeled '* Email address' with a required field icon. Below the field, a note states: 'This site is protected by reCAPTCHA and the Google Privacy Policy and Terms of Service apply.' At the bottom, there is a large yellow button labeled 'Verify email'.

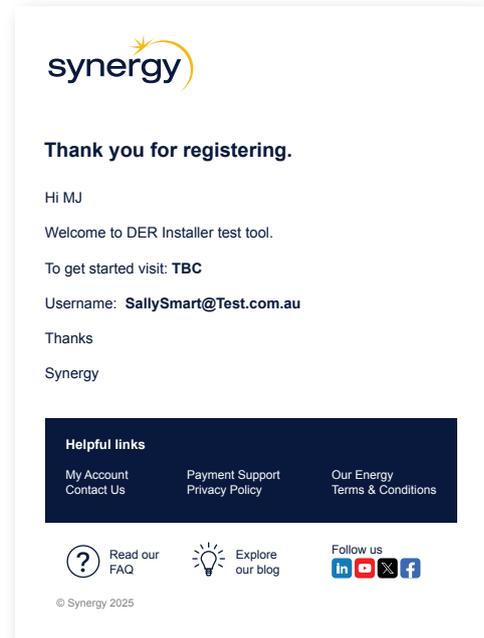


The screenshot shows the 'synergy' logo at the top left and an 'Exit' button at the top right. The main heading is 'Register'. Below it, a message reads: 'Welcome! Please fill the information below to create your account.' There are several text input fields, each with a required field icon: '* First name', '* Last name', '* Email address', '* Mobile number', '* Electric Contractor's License (ECL)', 'Your business/trading name', '* Create password', and '* Confirm password'. At the bottom, there is a large yellow button labeled 'Sign up'.

Complete sign up

1. Once all required fields are filled, click 'Sign up' to complete your registration.
2. You will receive a welcome email with the installer test tool link and your user details. If you encounter issues, check for error messages or prompts that may guide you to correct the input.

Here is a sample email you will receive containing the installer test tool link and your user details.



Adding multi-factor authentication

Overview

As part of the registration process, enabling additional multi-factor authentication (MFA) is a required step to ensure the security of your account.

MFA is a security feature that requires users to verify their identity using two or more methods before accessing their account. This adds an extra layer of protection against unauthorised access.

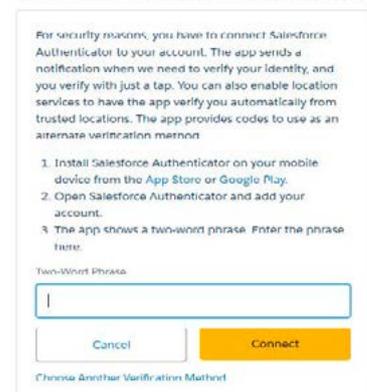
Connecting Salesforce Authenticator for MFA

Follow the below instructions to connect the Salesforce Authenticator app to your installer account.

1. Download and install the Salesforce Authenticator application
 - For Apple devices: Download the application from the Apple App Store.
 - For Android devices: Download the application from Google Play.
2. Open the Salesforce Authenticator application on your mobile device.
 - If this is your first time opening, you will be presented with an optional tour of its features.
3. In the Salesforce Authenticator application, tap 'Add an account' to generate a unique two-word passphrase.



Connect Salesforce Authenticator



4. In the Installer test tool, locate the 'Two-word phrase' field and enter the unique two-word passphrase generated by the Salesforce Authenticator application.
5. Click 'Connect' in the Installer test tool and in the Salesforce Authenticator application on your mobile device, you will see details about the account you are connecting.
6. To complete the account connection, tap 'Connect' in the Salesforce Authenticator application. You will receive an email verifying completion of MFA set-up.

Things to note:

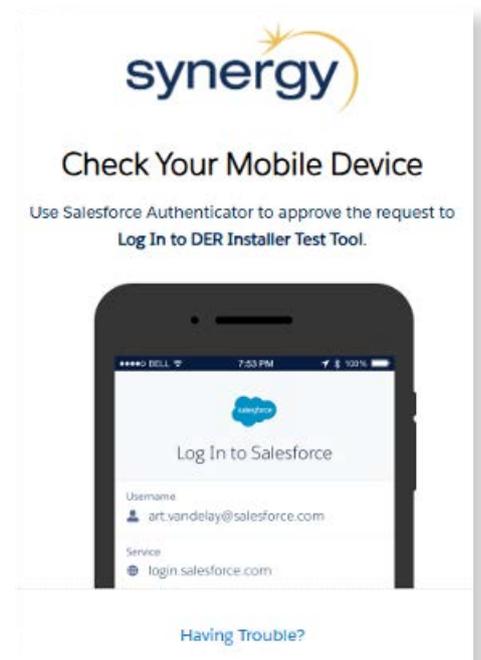
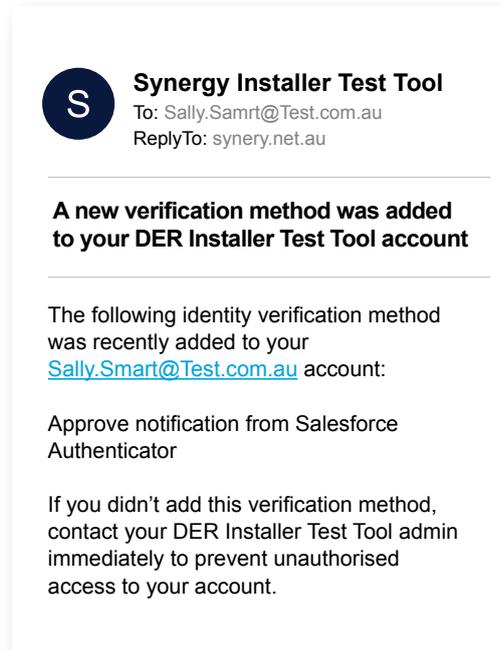
- To help keep your account secure, we send you an email notification whenever a new identity verification method is added your installer account.
- If you encounter issues, contact Salesforce customer support for assistance.

Here is a sample email you will receive notifying you a new verification method has been added to your installer account.

Verifying your identity with Salesforce Authenticator for MFA logins

Follow the below instructions to verify your identity using the Salesforce Authenticator app for MFA logins.

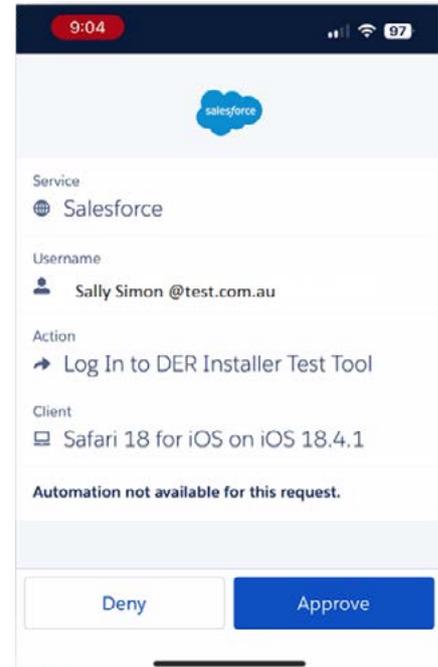
1. Before using the app for MFA logins, ensure you have successfully connected the Salesforce Authenticator app to your installer account.
2. Log in to the Installer test tool. The Salesforce Authenticator application will send a notification to your mobile device.
3. Open the Salesforce Authenticator application on your mobile device and review account activity details. The application will display details or your account activity including:
 - Your username
 - The service you are trying to access
 - Information about the device used for the activity (e.g., your computer)
 - If location services are enabled, your approximate location.



4. Approve or deny the request:

- If you recognise the details: Tap Approve on your mobile device. You will be logged in to Salesforce or granted access to the desired resource.
- If you do not recognise the details: Tap Deny

5. If you deny a login request, the Salesforce Authenticator application will ask you what to do about the unrecognised activity: To prevent unauthorised access and alert your admin of a potential security breach, tap Block Activity and Flag. This action also creates a log entry in Identity Verification History. To prevent access without flagging, tap Just Block Activity.



Prior to commencing in the installer test tool

Before commencing in the installer test tool, ensure the retailer has provided all required installation job details, including the NMI, meter number and RRN. These details are necessary to retrieve complete installation information, asset data, and test results.

Selecting retailer details & retrieving installation details

Overview

The 'Company and site details' screen is designed to collect information about the company you are working for and the site details which will be used to retrieve the Installation job details.

1. Select retailer company

- Locate the 'Retailer company' field.
- Click on the search icon or directly type in the name of your retailer company (e.g., 'TBC').
- Select the retailer from the dropdown list that appears.

2. Enter site details

- You need to fill in at least two out of the three fields provided to confirm site details:
 - **NMI (National meter identifier)** - Enter the NMI number in this field (e.g., '80010216102').
 - **RRN (Retailer reference number)** - Enter the RRN number here. (e.g., '000305629104').
 - **Meter number** - Enter the meter number here. (e.g., '24565893083').

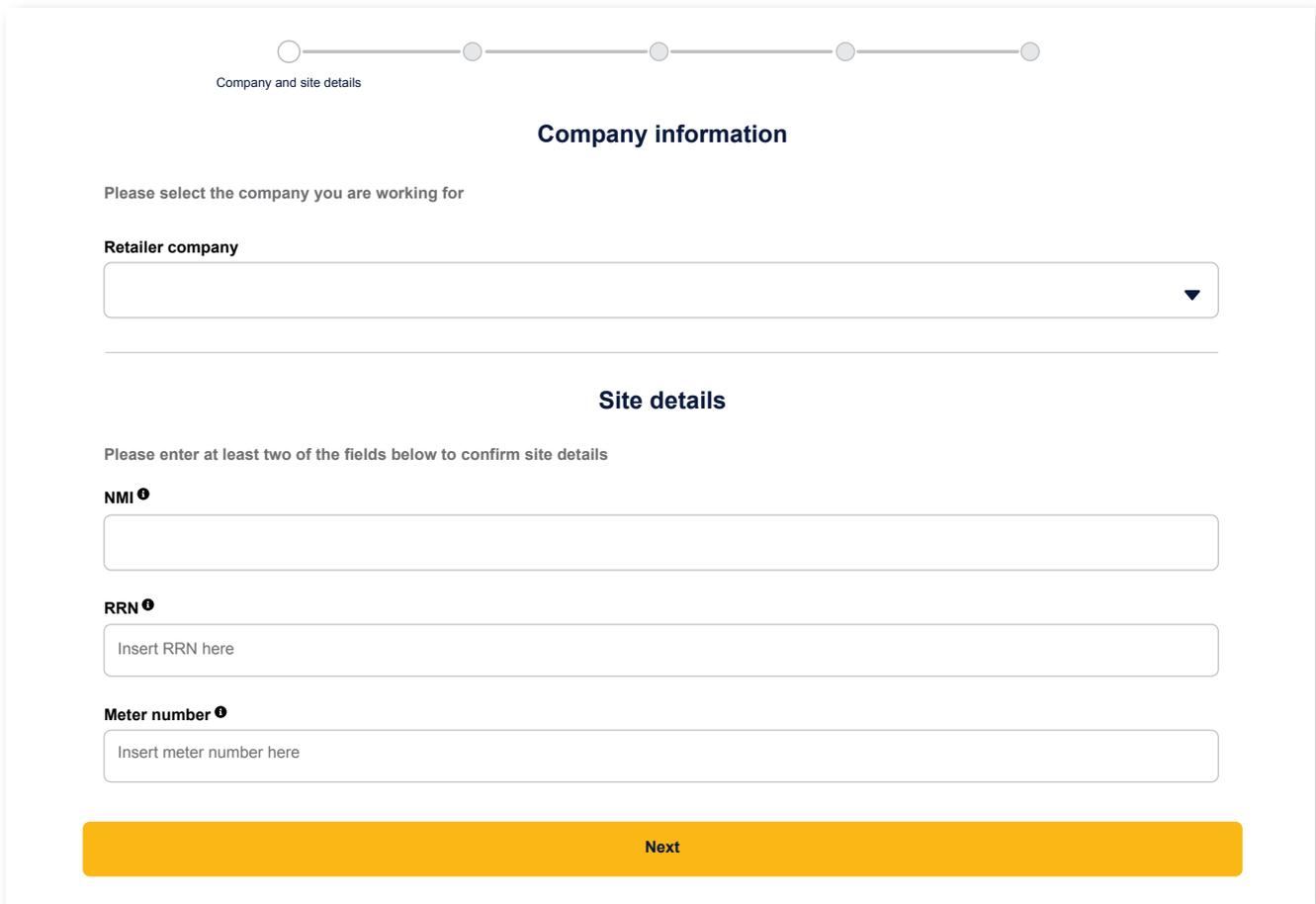
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3. Proceed to Next Step

Once you have filled in at least two fields, click 'Next' at the bottom of the screen to proceed.

Additional Information

- The top navigation bar includes a progress indicator showing that you are currently on step one ('Company and site details') out of an unspecified total number of steps.
- Click 'Logout' located at the top right corner if you wish to exit the portal.
- If you encounter any issues, check for any error messages or prompts that may guide you to correct the input.



The screenshot displays a progress indicator at the top with five circles, the first of which is filled and labeled 'Company and site details'. Below this, the form is titled 'Company information' and asks the user to 'Please select the company you are working for'. A dropdown menu for 'Retailer company' is shown. The form then transitions to 'Site details', asking the user to 'Please enter at least two of the fields below to confirm site details'. Three input fields are provided: 'NMI' (with a required field indicator), 'RRN' (with a required field indicator and placeholder text 'Insert RRN here'), and 'Meter number' (with a required field indicator and placeholder text 'Insert meter number here'). A large yellow 'Next' button is located at the bottom of the form.

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Installation Details

Overview

The 'Installation details' screen is part of the installation process and includes sections for 'Application details', 'Asset details' and integration test results. Each section provides specific information and actions you can take.

Sections

1. Installation details

- **Application details:** Confirms the application details are correct for the listed site.
- **NMI:** 8001021610
- **RRN:** 000305629104
- **Company name:** Sunrise Flooring

2. Asset details

- Provides information about assets at the location.
- **Note:** Only new assets installed on site as part of the commissioning should be added manually using the 'Add Asset' button.
- **Listed asset:** AC Powered (AK4773-2005).
- **Add asset button:** Click this button to add a new asset.
- **Edit existing asset:** Click on the 'Listed asset' and you will be directed to the asset information where changes can be made.

3. Integration Test Results

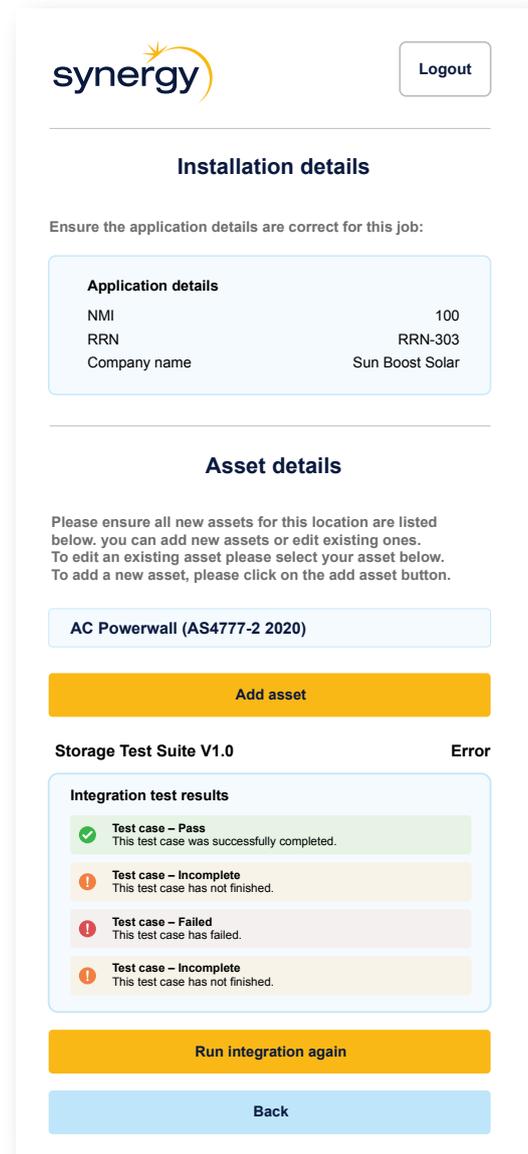
- Displays the results of various tests.
- **Test suite:** Display name and overall result.
- **Test case:** Display name, status, and result description
- **Run integration again button:** Click this button to rerun the fail integration tests suite.

Steps to use the screen

1. Review installation details: Ensure the details under 'Installation details' are correct.

2. Manage assets:

- **To add a new asset,** click on 'Add asset' and follow the prompts to enter the new asset details.
- **To edit an existing asset,** click on the 'Listed asset' and you will be directed to the asset information screen where changes can be made



synergy Logout

Installation details

Ensure the application details are correct for this job:

Application details	
NMI	100
RRN	RRN-303
Company name	Sun Boost Solar

Asset details

Please ensure all new assets for this location are listed below, you can add new assets or edit existing ones. To edit an existing asset please select your asset below. To add a new asset, please click on the add asset button.

AC Powerwall (AS4777-2 2020)

Add asset

Storage Test Suite V1.0 Error

Integration test results

- ✔ **Test case - Pass**
This test case was successfully completed.
- ! **Test case - Incomplete**
This test case has not finished.
- ! **Test case - Failed**
This test case has failed.
- ! **Test case - Incomplete**
This test case has not finished.

Run integration again

Back

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Add asset details

Overview

The form is used to enter and save details about assets in the Installer test tool. It includes fields for asset brand, series, model, serial number, and gateway device information.

Steps to add asset details

1. Accessing the form

- This screen can be accessed by clicking on the **Add asset** button in the Asset details section on the installation details screen (See previous section for further reference)

2. Filling out asset information

- Asset brand** - Click on the dropdown menu and select the brand of your asset from the available options.
- Asset series** - Click on the dropdown menu and select the series of your asset from the available options.
- Asset model** - Click on the dropdown menu and select the model of your asset from the available options.
- Asset serial number** - Click inside the text box and type in the serial number of your asset. Click inside the text box and type in the serial number of your asset

3. Installing a gateway device?

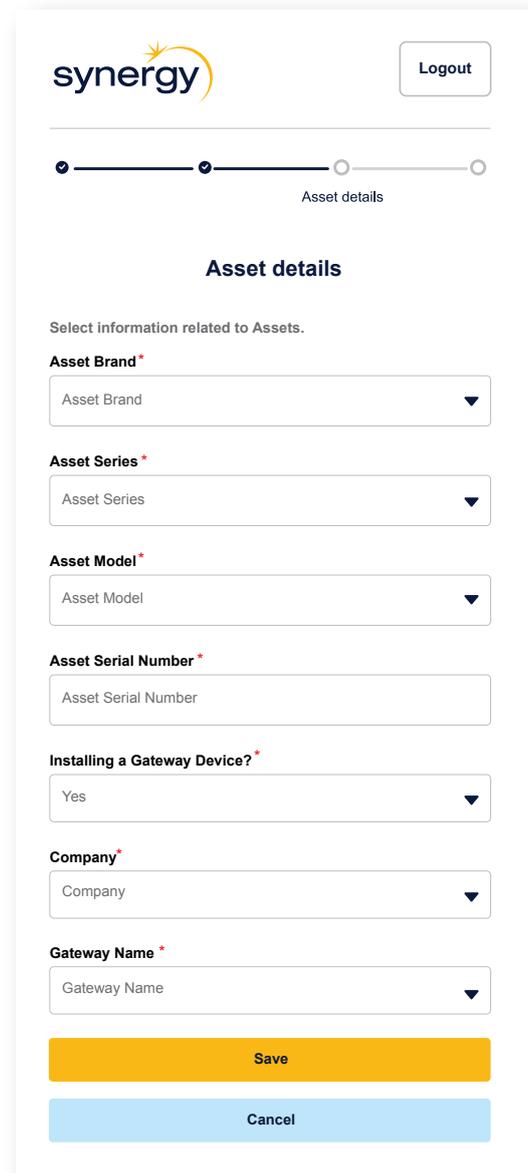
- Dropdown** - Click on the dropdown menu and select 'Yes' if you are installing a gateway device, or 'No' if you are not. If you select 'Yes' additional fields will appear.
- Gate manufacturer** - Click on the dropdown menu and select the manufacturer of the gateway device.
- Gateway name** - Click inside the text box and type in the name of the gateway device.

4. Save or cancelling your input

- Save** - Once all necessary information has been entered, click on 'Save' to save your input.
- Cancel** - If you wish to cancel without saving any changes, click 'Cancel'

Additional information

- Ensure all dropdown selections and text inputs are accurate before saving.
- If you encounter any issues, check for any error messages or prompts that may guide you to correct the input.



The screenshot shows the 'Asset details' form in the Synergy Installer Test Tool. At the top left is the Synergy logo, and at the top right is a 'Logout' button. Below the logo is a progress indicator for 'Asset details'. The form title is 'Asset details' and it prompts the user to 'Select information related to Assets.' The form contains the following fields:

- Asset Brand ***: A dropdown menu with 'Asset Brand' selected.
- Asset Series ***: A dropdown menu with 'Asset Series' selected.
- Asset Model ***: A dropdown menu with 'Asset Model' selected.
- Asset Serial Number ***: A text input field with 'Asset Serial Number' entered.
- Installing a Gateway Device? ***: A dropdown menu with 'Yes' selected.
- Company ***: A dropdown menu with 'Company' selected.
- Gateway Name ***: A dropdown menu with 'Gateway Name' selected.

At the bottom of the form are two buttons: a yellow 'Save' button and a light blue 'Cancel' button.

Uploading photo evidence

Overview

The 'Asset photo' screen is designed to help you upload photos of your assets, ensuring that key details like serial numbers are clearly visible. This guide will walk you through the steps to successfully upload your asset photos.

Steps to upload your photos

1. Accessing the form

- This is the next step following your 'Add asset details' screen

2. Capturing the asset photo

- Ensure the entire asset is captured in the photo.
- Highlight key details such as serial numbers
- Use a high-resolution camera and stabilise it to avoid blurry images.

3. Uploading the photo

- **Upload files:** Click 'Upload files' to browse your computer and select the photo(s) you want to upload.
- **Drag and drop:** Alternatively, you can drag and drop the photo(s) into the designated area on the screen.
- **Supported file types:** Ensure your photo is in JPG, JPEG, or PNG format.
- **File size:** The maximum file size allowed is 10 MB.

4. Navigating the form

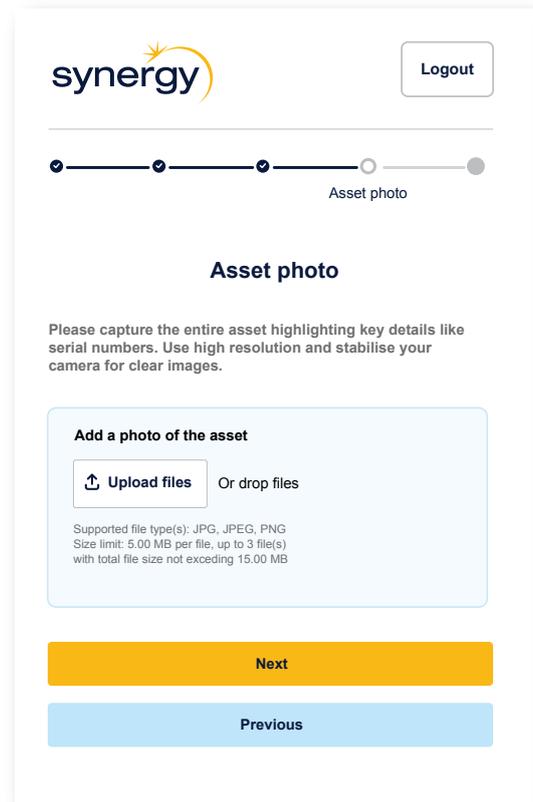
- **Next:** Once you have uploaded the photo(s), click 'Next' to proceed to the next step which will save your asset and return you to the Installation page
- **Previous:** If you need to go back to the previous step, click 'Previous'

5. Logging out

- If you need to log out of your account, click 'Logout' located in the top right corner of the screen.

Additional information

- Ensure that you have completed the registration and commissioning process on the technology provider portal before viewing the test results.
- If you encounter any issues during the registration or commissioning process, refer to the help resources available on the technology provider portal or contact support.



The screenshot shows the 'Asset photo' screen in the Synergy installer test tool. At the top left is the Synergy logo, and at the top right is a 'Logout' button. Below the logo is a progress bar with four steps, the fourth of which is active. The title 'Asset photo' is centered. Below the title is a text box that reads: 'Please capture the entire asset highlighting key details like serial numbers. Use high resolution and stabilise your camera for clear images.' Below this is a file upload area with 'Upload files' and 'Or drop files' options, and supported file type and size information. At the bottom are 'Next' and 'Previous' navigation buttons.

Installer test tool user guide

On saving your asset

Overview

The 'Asset Details' screen confirms that your asset details have been saved and provides instructions for the next steps, including registering and commissioning the asset via the OEM portal.

Next steps

1. Confirmation of saved details

- The screen confirms that your asset details have been successfully saved.

2. Next steps: Register and commission the asset

- Register and commission via technology provider portal:
 - Navigate to the technology provider portal to register and commission your asset.
 - Follow the instructions provided on the technology provider portal to complete the registration and commissioning process.

3. Viewing test results

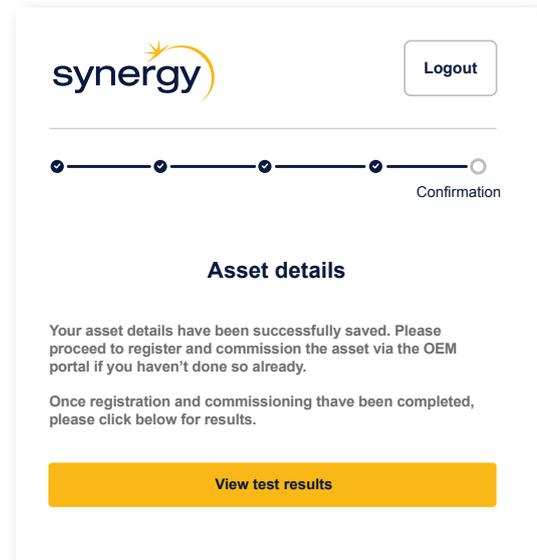
- Once the registration and commissioning are completed, return to this screen.
- Click on the 'View test results' button to view the results of the test conducted on your asset.

4. Logging out

- If you need to log out of your account, click 'Logout' located in the top right corner of the screen.

Additional information

- Ensure that you have completed the registration and commissioning process on the technology provider portal before viewing the test results.
- If you encounter any issues during the registration or commissioning process, refer to the help resources available on the technology provider portal or contact support.



Understanding the test results

Integration test results

Overview

The integration test results section is designed to display the results of integration tests for an installed asset. It provides a clear status of each test case and allows users to take specific actions based on the results. This guide will help you understand the different statuses and the messages associated with successful and failed outcomes.

Sections

1. Test suite overview

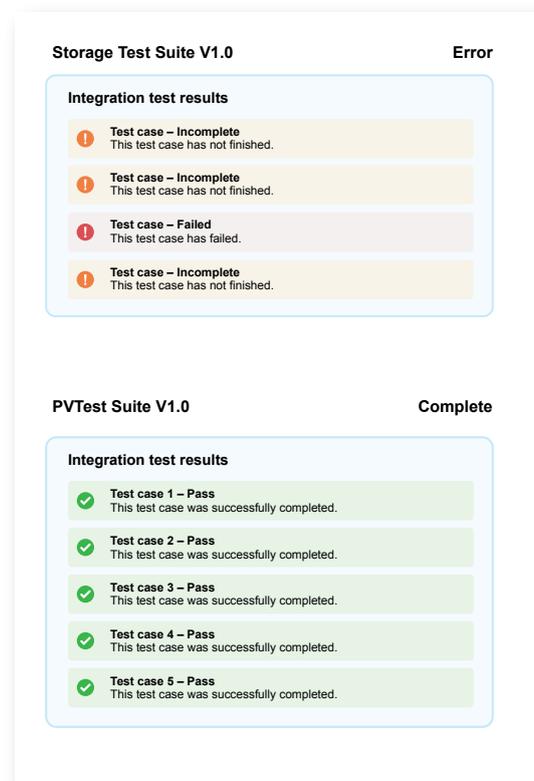
- **Test suite name:** The name of the test suite being executed
- **Overall status:** The current status of the test suite. The following statuses can be displayed:
 - Scheduled: The test suite is scheduled to run.
 - Running: The test suite is currently running.
 - Error: There was an error during the execution of the test suite
 - Done: The test suite completed successfully

2. Test cases

- Each test suite contains a series of test cases.
- For each test case, the following information is displayed:
 - **Name:** The name of the test case.
 - **Status:** The current status of the test case. The following statuses can be displayed:
 - **Running:** The test case is currently running.
 - **Error:** There was an error during the execution of the test case.
 - **Ok:** The test case completed successfully.
 - **Test description:** A brief description of what the test case is checking.

3. Messages and descriptions

The sections below outline the messages and descriptions of both successful and failed outcomes that will be seen in the integration test results.



The screenshot displays two test suite result panels. The top panel, titled 'Storage Test Suite V1.0', has an overall status of 'Error'. Its 'Integration test results' section contains four entries: three 'Test case - Incomplete' (This test case has not finished.) and one 'Test case - Failed' (This test case has failed.). The bottom panel, titled 'PVTest Suite V1.0', has an overall status of 'Complete'. Its 'Integration test results' section contains five entries, all 'Test case - Pass' (This test case was successfully completed.).

Installer test tool user guide

Instructions for use

1. Review test results

- Check the status of each test case in the 'Integration test results' section.
- Green indicates success, blue indicates a test in progress, and red indicates an error.

2. Handling errors

- If any test case shows an 'Error' status (red indicator), review the description for details. For example, 'The D/K device fails to acknowledge the configuration updates' suggests a specific issue that needs to be addressed.

Additional information

- Observe the status indicators next to each test case:
 - Green circle with a checkmark: Indicates the test case executed successfully.
 - Blue circle with an ellipsis: Indicates the test case is still in progress.
 - Red circle with an exclamation mark: Indicates an error in the test case.
- If the test results haven't updated, please try refreshing the page to ensure you're seeing the latest data

Successful test outcomes

Common success test message responses for all test cases:

Message	Description
Test case executed successfully	The test case was executed successfully.

Success test messages specific to a test case:

Test Case	Success message
BES-01	Test case executed successfully (read percentage tolerance: <value>).

Failed test outcomes

Common failure test messages for all test cases:

Message	Description
No test case got executed	Unhandled exception caused the test suite run to break and as a result no result entry was created for the entire execution cycle.
General error detected during test case execution	Unhandled exception caused during test case to break before test case logic is executed.
Error [%d]: %s while requesting %s	Error communicating with monitor or utility server web service. Error codes returned are from HTTP 400 or HTTP 500 series with detail on URL that returned the error.
Unable to delete independent node	Due to the device control error not handled in test, the independent node to which device is linked during the test cannot be deleted. Manual node deletion is required.

Success test messages specific to a test case:

Test case	Possible error messages
ALL-02S	Value, timestamp or ptm is not present. Any of the following data points is/are missing: %s. Meter data is not present.
ALL-03S	Reason for failure genConnectStatus <> 1. Gen connect status is not present.
ALL-04S	Reason for failure operationalModeStatus <> 2. Operational Mode is not present.
ALL-05S	Fail due to setMaxW <= rtgMaxW. Value for setMaxW: <value> Value for rtgMaxW: <value>. DERCapability and DERSettings data is required.
ALL-06S	The actual transmission intervals deviate significantly from the expected post rate:<value>, the time difference is:<value>. First: <first read timestamp> second: <second read timestamp>. Meter data is not present. The DER device fails to acknowledge the configuration updates.
ALL-07, ALL-10	Device isn't receptive and fails to receive or interpret the active control commands for de-energization, and it can't go below the tolerated value(%s) towards 0W of the initial generated value(%s) within specified timeframe. Last measured value: %s. Device didn't re-energise after the active control expired and it can't go above the tolerated value(%s) of the initial generated value(%s) within specified timeframe. Last measured value: %s.

Success test messages specific to a test case:

Test case	Possible error messages
ALL-08, ALL-11	<p>The DER device fails to receive or interpret the DefaultDERControl message with the new setGradW value.</p> <p>The DER device fails to receive or interpret the DefaultDERControl message, previous value of setGradW could not be restored.</p>
GEN-01, GEN-02, GEN-07, GEN-08	<p>The DER device does not receive and interpret the active control command. The control status value is not found. Check done after <value> seconds.</p> <p>Device isn't receptive and fails to receive or interpret the active control commands, and it doesn't reach OW within specified timeframe (INITIAL READ IS NULL).</p> <p>Device isn't receptive and fails to receive or interpret the active control commands, and it doesn't reach OW within specified timeframe.</p>
GEN-04, GEN-05, GEN-10, GEN-11	<p>The DER device does not receive and interpret the active control command. The control status value is not found. Check done after <value> seconds.</p> <p>Device isn't receptive and fails to receive or interpret the default control commands, and it doesn't reach OW within specified timeframe.</p>
PRCN-01	<p>The DER device is %s: %sW. That is less than %sW and less than %s(which is %s percent of ARP(%s)) [%s].</p> <p>The DER device is %s: %sW. That is greater than %sW and greater than %s(which is %s percent of ARP(%s)) [%s].</p>
PRCN-02	<p>Status of charge must be between %s%% and %s%%.</p>
PRCN-03	<p>Generation must be between %s%% and %s%%.</p>
LOA-01, LOA-02, LOA-05, LOA-06	<p>The DER device does not receive and interpret the active control command. The control status value is not found. Check done after <value> seconds.</p> <p>Device isn't receptive and fails to receive or interpret the active control commands, and it doesn't reach OW within specified timeframe.</p>
LOA-03, LOA-04, LOA-07, LOA-08	<p>The DER device does not receive and interpret the active control command. The control status value is not found. Check done after <value> seconds.</p> <p>Device isn't receptive and fails to receive or interpret the default control commands, and it doesn't reach OW within specified timeframe.</p>

Success test messages specific to a test case:

Test case	Possible error messages
BES-01	<p>The device reports that there are no active controls (while checking the monitor's <url> endpoint).</p> <p>No current active controls in operation (while checking the monitor's <url> endpoint).</p> <p>The device doesn't accurately interpret and respond to the OpModTargetW(%s) control signal, not achieving the target aggregate output within the specified tolerance (\pm%s%) (B).</p> <p>The device doesn't accurately interpret and respond to the OpModTargetW(%s) control signal, not achieving the target aggregate output within the specified tolerance (\pm%s%).</p>
BES-02	The EndDevice does not adjust power to produce and consume at the specified target values.
BES-03	<p>Value, timestamp or ptm is not present.</p> <p>Meter data stored energy MMR not present.</p> <p>Meter data is not present.</p>
BES-04	The DER device DerCapability::vppModesSupported or DerCapability::vppModesEnabled or both are missing.

Resubmitting a test

To re-run the integration tests for a particular test suite, follow these steps:

1. Locate the re-run button:

- Find the yellow button labeled 'Run integration again' at the bottom of the screen.

2. Initiate re-run:

- Click 'Run integration again'. This action will start another round of integration tests.

3. Wait for completion:

- Allow time for all test cases to complete their execution. The status indicators will update to reflect the current state of each test case.

4. Review results:

- Once the tests have completed, review the updated statuses to determine if any issues persist or if all tests have passed successfully.

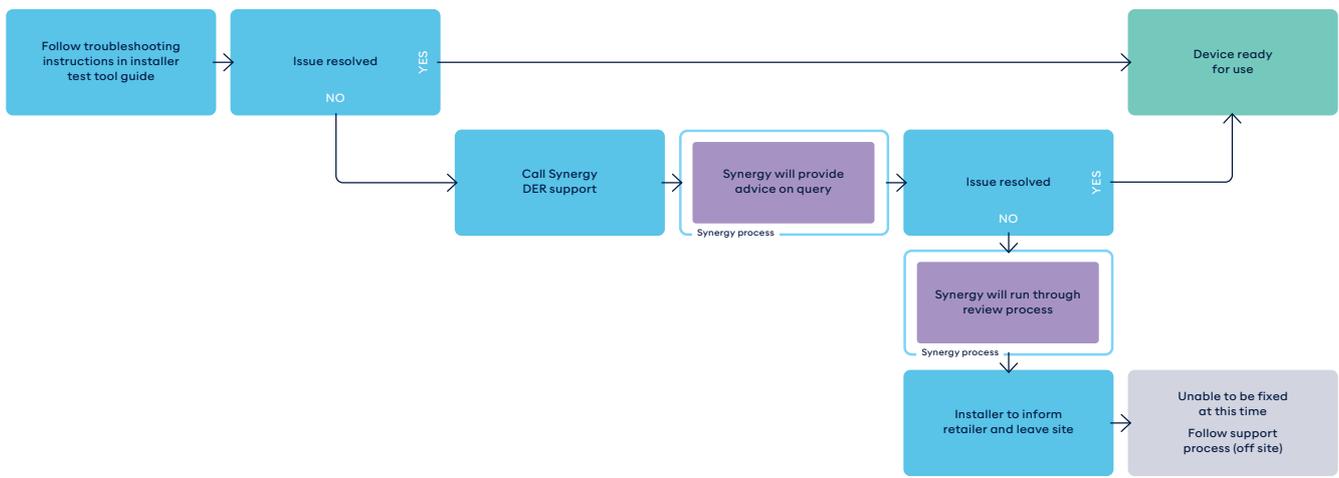
The screenshot displays two test suite result panels. The top panel, 'Storage Test Suite V1.0', is marked as 'Error' and shows four 'Integration test results' items, all with red exclamation mark icons and 'Test case - Incomplete' or 'Test case - Failed' statuses. The bottom panel, 'PVTest Suite V1.0', is marked as 'Complete' and shows five 'Integration test results' items, all with green checkmark icons and 'Test case - Pass' statuses.

Issues management

For further support

If our are on site commissioning, the following support process is followed:

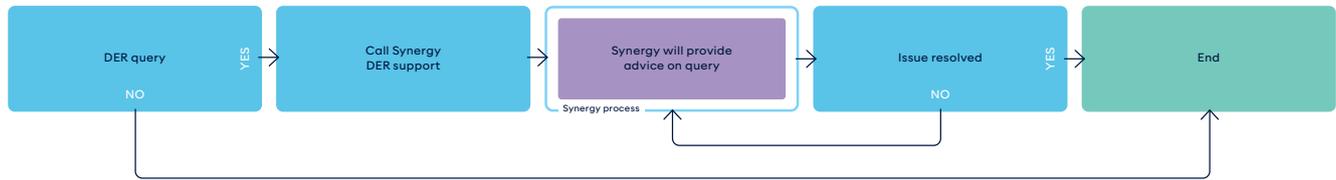
Support process (on site)



1. You can raise a query via Synergy DER Support by calling **08 6282 7983**.
2. Synergy will work with you to find a solution while you are still on site.
3. If the issue can be resolved, you can action the advice and complete commissioning.
4. If the issue cannot be resolved, Synergy will log the issue and you can leave site. Please inform the retailer that there was an issue in the commissioning process.

If you are off site/on-site but not commissioning, the following support process is followed:

Support process (off site)



1. You can raise a query through the following methods:

- Phone call - **08 6282 7983**.
- Email (der-support@synergy.net.au)
- Web form (synergy.net.au/global/der-general-industry-enquiry-form)

2. Synergy will review the query and communicate it's response.

3. You can determine whether the query is resolved and action advice.

Appendix A:

