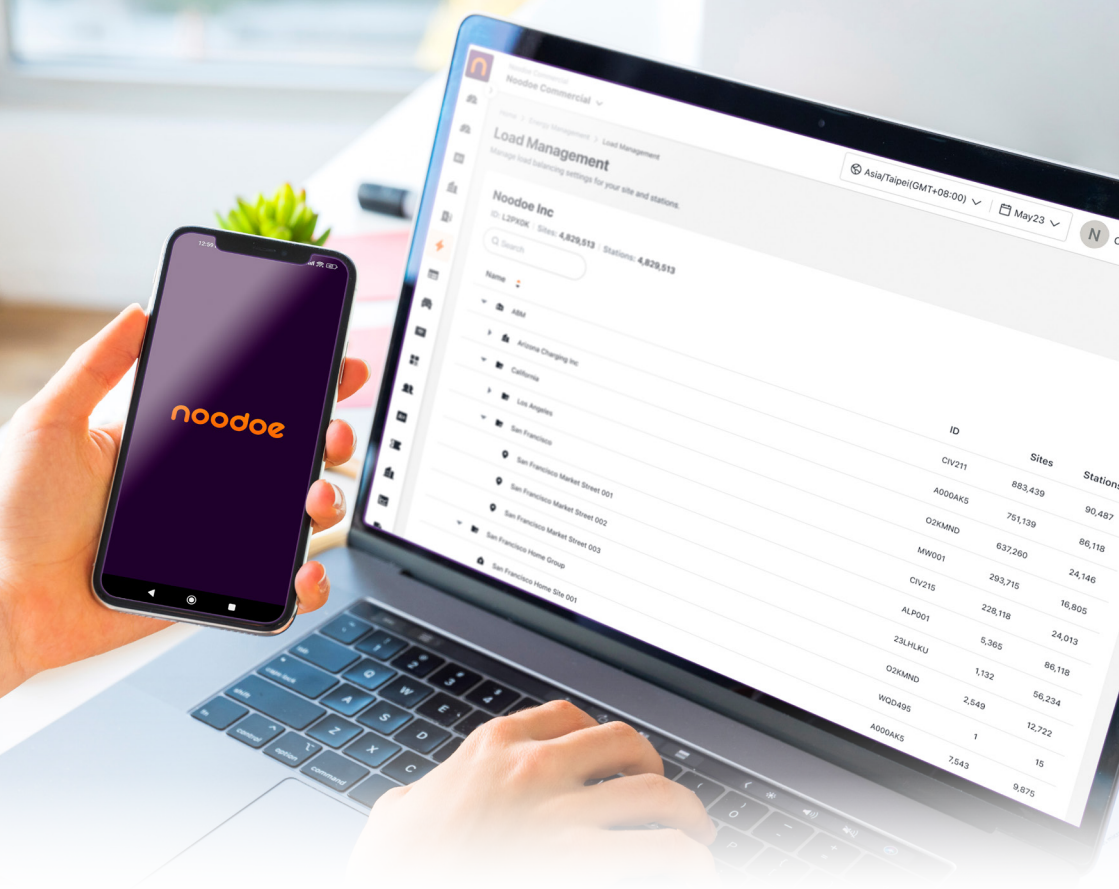


noodoe EV OS
Load Management

User Manual

techsupport@noodoe.com

Version 1.2

CONTENTS

About Load Management

Load Management optimizes the distribution of power among EV charging stations at a site. Our advanced power management algorithms ensure the safety and smooth operation of stations by efficiently managing the available power supply. Note that Load Management can only be enabled at the site level.

1. Key Terms

At its core, Load Management relies on various components within a charging site to monitor, balance, and manage the site's power supply. It is crucial to understand the key terms defined below and how they interact with each other.

1.1 Site

A site is a location that hosts all the power panels, breakers, stations, and other components. It serves as the foundation for electrical management and determines the maximum electrical capacity.

1.2 Power Panel

A power panel is an electrical distribution board with multiple outputs, designed to distribute electric power. It is a key component in our Load Management system, serving as a hub that distributes the site's total electrical capacity to individual breakers and stations.

1.3 Breaker

A circuit breaker automatically cuts off electricity to prevent overloads or short circuits. Each charging station must be connected to a breaker for safe operation.

> **Note:** The capacity of a breaker must be higher than the maximum output of the station(s) it supports. The exact value depends on the region. For instance, in the US, the buffer value is 25%.

1.4 Power Connection

A power connection carries current from the power source to the station. Site owners can specify the phase of the connection to manage power distribution across stations and circuits.

> **Note:** In the US, phase connections are displayed as A, B, and C.

1.5 Load Group

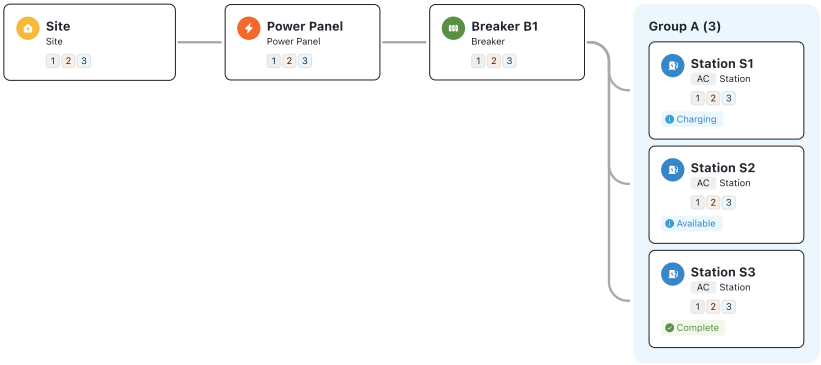
Load groups are groupings of stations that simplify station management and maximize the number of stations supported by the available output, enabling sites to accommodate more stations without significantly increasing overall site capacity.

> **Note:** A load group must consist of a minimum of 2 stations.

1.5.1 Breaker-Level Load Group

A Breaker-Level load group consists of at least two stations connected to the same breaker. The capacity of a breaker must accommodate the output of the stations it supports.

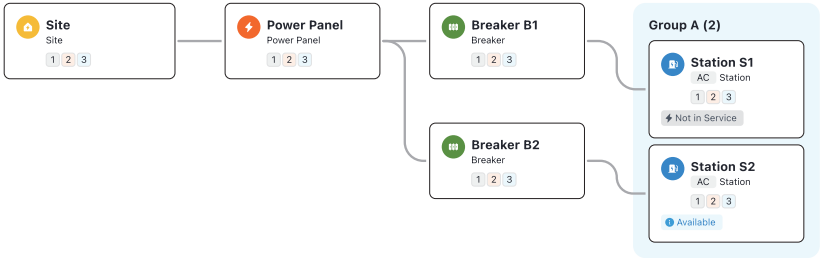
Depending on the system's algorithm (Traditional or Max Capacity), the capacity may vary. Please refer to **Section 2.3** for detailed calculations.



1.5.2 Panel-Level Load Group

A Panel-Level load group consists of at least two stations, each with a standalone breaker, connected to the same power panel.

> **Note:** The phase configuration between stations must be identical to form a panel-level load group.



1.6 Load Output

For each load group and individual station, users can define a Load Output value. The value is between the minimum output and the maximum output.

1.7 Real-time Output

This represents the real-time output of a station or group of stations. In Load Management, the real-time output is continuously monitored to ensure it remains within the specified Load Output. In Load Management, the real-time output is continuously monitored to ensure it remains within the specified Load Output.

1.8 Other Component

Other components include devices such as lighting, escalators, automatic doors, or any other electrical equipment that shares the same power source as the EV stations.

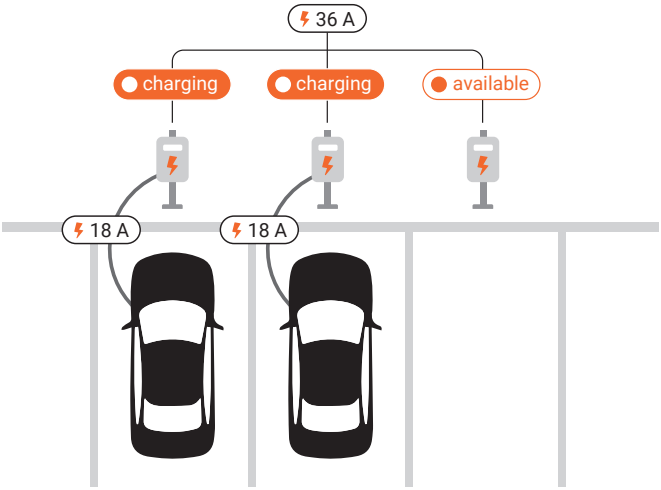
2. How Load Management Works

Load Management optimizes power distribution at charging sites by continuously monitoring each station's status to ensure the current stays within a specified range.

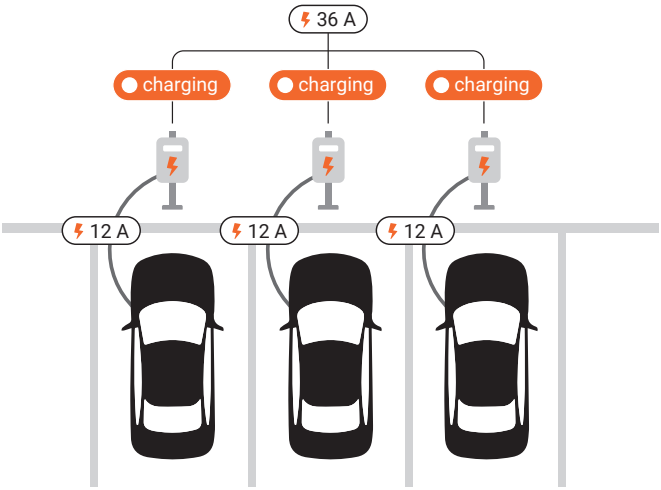
Consider a charging site with 3 stations and a total site capacity of **36 A**, each with a minimum output of 7 A and a maximum output of 32 A.

When only two stations are occupied, each station provides a maximum charge of 18 A.

> **Note:** A site may include stations with varying output capacities. Load Management ensures the even distribution of current, regardless of the stations' outputs.



As more vehicles arrive, the software evenly distributes the available current for maximum efficiency. When a third vehicle is plugged in, the current is evenly distributed to 12 A per vehicle.



2.1 Minimum / Maximum Output

The maximum output of a station is determined by the station model, as specified in the EV OS database. The minimum output value, on the other hand, is pre-defined in EV OS, considering local regulations. See the chart below for detailed information.

Minimum Output	USA	International
AC Station	7 A	8 A
DC Station	1 A	2 A

2.2 How Offline Stations Affect Load Management

If a station goes offline due to internet issues or other unforeseen reasons, EV OS assumes it is operating at its rated (maximum) output as a safety measure. Until the station is restored, it will continue to occupy this rated current.

2.2.1 Balanced Distribution

The following section explains how the system manages offline stations when the site has sufficient capacity.

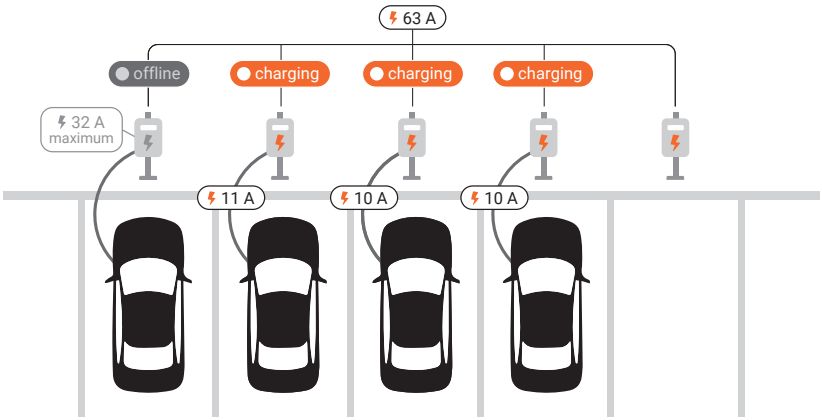
Consider a charging site with five stations and a total capacity of 63 A. Each station has a minimum output of 7 A and a maximum output of 32 A.

If one station goes offline, the following occurs:

1. The system reserves 32 A for the offline station, leaving 31 A to be shared among the remaining three stations. (63 A site limit – 32A reserved for offline station = 31 A available.)

2. The available output will first be distributed evenly across the remaining vehicles. (31 A / 3 = 10 A each with 1 A surplus)

3. Any surplus amperage will then be allocated sequentially among the vehicles. (The first station receives 11 A)



2.2.2 Revert to Minimum Output

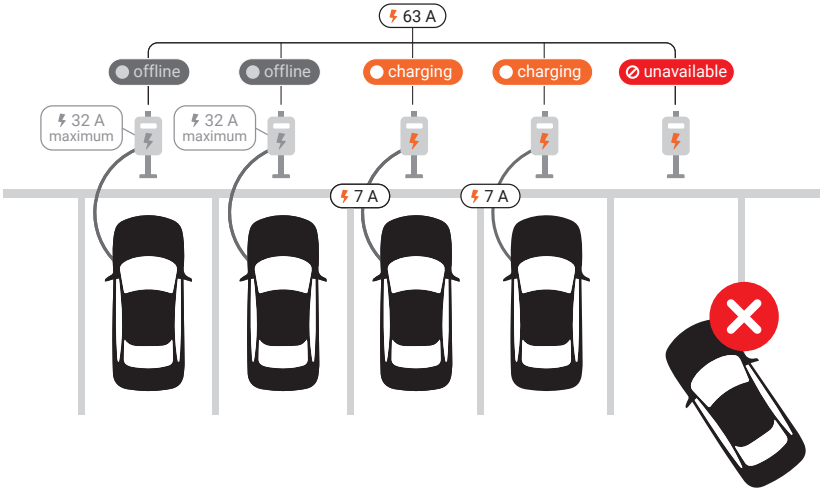
The following scenario explains how the system manages offline stations when their total capacity exceeds the site's capacity.

Assuming four cars are charging, with a fifth car incoming. If two stations go offline under the same site configuration, the following occurs:

1. The system attempts to reserve 64 A from offline stations but is constrained by the site capacity of 63 A.

2. The system then lowers the current supply to the occupied online stations, using the minimum output, which is 7 A in this case.

3. The fifth vehicle cannot be charged because the site's capacity has been fully allocated.



2.2.3 Offline Behavior

Offline Behavior is a station-based feature available only on selected stations. By default, when a station goes offline, it operates at its minimum output.

If two stations go offline under the same site configuration, the following occurs:

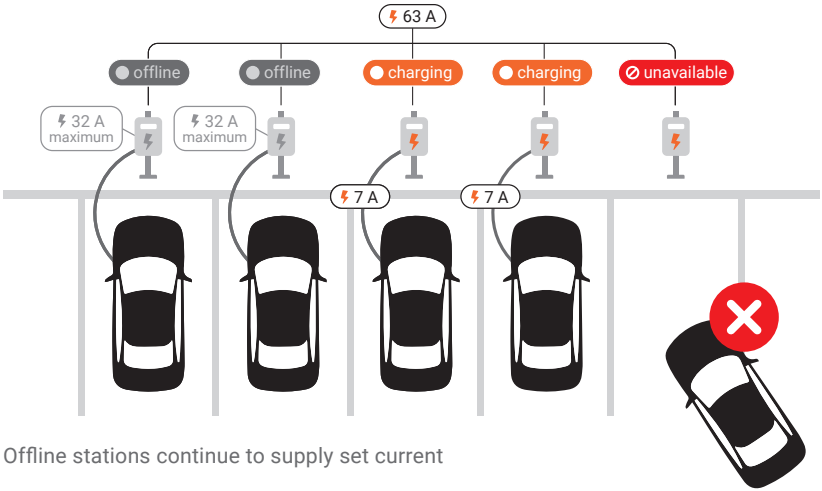
1. Offline Operation: When stations first go offline, they continue to supply the set current.

2. Default to Minimum Output: After a period of time, the offline stations default to their minimum output, as they can no longer receive requests from the system. This behavior allows a site to manage more stations even if some are offline.

3. Load Distribution: The remaining vehicles charging via online stations receive an evenly distributed output. In this example, with a site output of 63 A and two offline stations, the distribution is calculated as (63 A – 7 A * 2) / 3. The first station receives 17 A while the remaining stations receive 16 A.

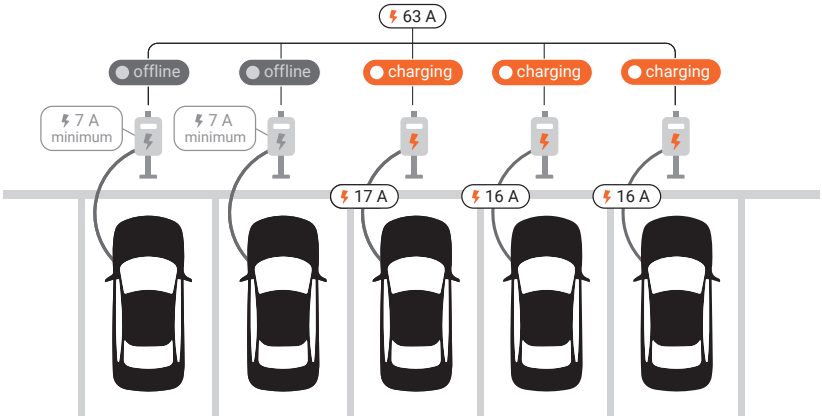
> **Note:** To verify compatibility and enable this feature, please contact our support team.

Initial Offline State



Offline stations continue to supply set current

Delayed Offline Response



Offline stations default to minimum output

2.3 Algorithms

EV OS Load Management offers two algorithms, each designed to ensure the safe and efficient operation of your EV charging site. Each algorithm calculates the minimum current output differently, tailored to various operational needs.

To ensure reliable operation and prevent overload, EV OS requires that your site, power panels, or breakers have a capacity greater than the minimum current specified during setup.

In the US, this requirement is 25% higher, but the exact value depends on the region. This design provides a safety margin to accommodate load variations and maintain stable performance.

When your site includes other components, regardless of the algorithm used, the system automatically assumes that these components are operating at full output. The output is first allocated to these components and then distributed among the stations.

Understanding the differences between the algorithms will help you determine the best option for your site.

> **Note:** The Traditional Algorithm is applied by default. Contact us if you need to change the algorithm.

2.3.1 Traditional Algorithm

The Traditional Algorithm is designed to enhance the safety and stability of your charging site. It prevents system overload by reserving the maximum output for one station if it goes offline unexpectedly.

How It Works:

1. **Minimum Required Output Calculation:**

   The algorithm calculates the minimum required output by considering the maximum capacity of a station and the combined minimum output of the remaining stations in a load group and individual stations within a site.

2. **Load Distribution:**

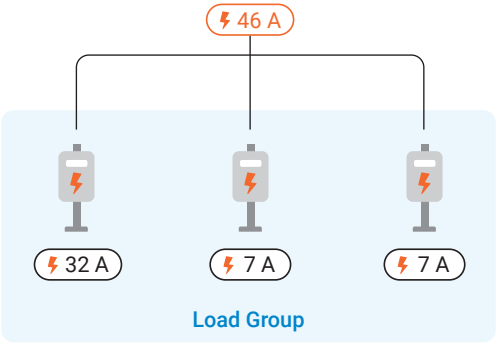
   The system evenly distributes the power among active stations.

3. **Continuous Monitoring:**

   The system continuously monitors the output to ensure it stays within safe limits and adjusts as needed to avoid overloads.

Scenario 1

Consider a charging site with three stations, each capable of delivering a minimum output of 7 A and a maximum output of 32 A. Using the Traditional Algorithm, the minimum output requirement for this site is calculated as 46 A (32 A reserved + 7 A each for the other two stations).



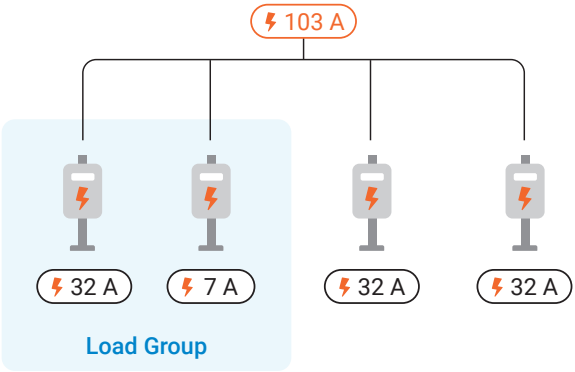
One station max output: 32 A
Remaining stations min output: 7 A each

Scenario 2

Consider a charging site with 4 stations, each with a minimum output of 7 A and a maximum output of 32 A. Two are individual stations, and the other two form a load group.

Based on the Traditional Algorithm, the minimum output requirement for this site is calculated as follows:

- Load Group: 32 A (maximum output) + 7 A (minimum output) = 39 A
- Individual Stations: 32 A * 2 = 64 A
- Total minimum output requirement: 39 A + 64 A = **103 A**



Load Group: One station max output: 32 A
Remaining station min output: 7 A

Individual stations: 32 A each

2.3.2 Max Capacity Algorithm

The Max Capacity Algorithm is designed to ensure that the charging site can always accommodate the maximum load capacity of at least one station. It requires less total output compared to Traditional Algorithm for the same number of stations.

How It Works:

1. **Minimum Required Output Calculation:**

   The algorithm compares the combined minimum current of all stations to the maximum capacity of a single station.

   - If the combined minimum is lower, it sets the load group minimum to the single station's maximum capacity.

   - If the combined minimum is higher, it sets the load group minimum to the sum of all station's minimum requirements.

2. **Continuous Monitoring:**

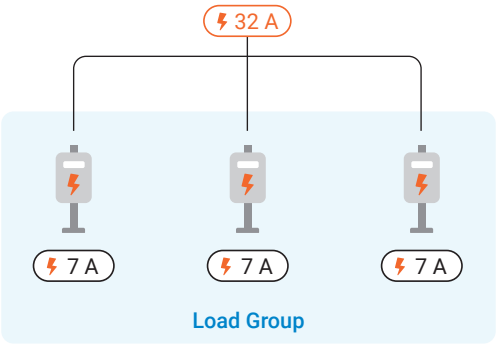
   The system continuously monitors the output to ensure it stays within safe limits and adjusts as needed to avoid overloads.

Scenario 1

Consider a charging site with three stations, each with a minimum output of 7 A and a maximum output of 32 A.

The total minimum output of the three stations would be 3 x 7 A = 21 A, which is less than the maximum output of one station.

Therefore, to ensure that one station can function at full capacity, the algorithm sets the site minimum output to 32 A.



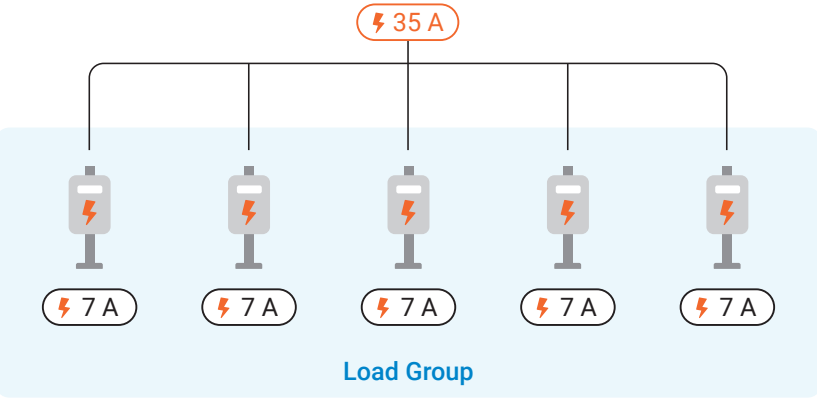
7 A (minimum) x 3 = 21 A < 32 A (maximum)

Scenario 2

Consider a charging site with five stations, each with a minimum output of 7 A and a maximum output of 32 A.

The total minimum output of the five stations is 5 x 7 A = 35 A, which is more than the 32 A maximum output of a single station.

Therefore, to ensure all stations can function, or at least one station can operate at its full capacity, the algorithm sets the site minimum output to 35 A.



7 A (minimum) x 5 = 35 A > 32 A (maximum)

Scenario 3

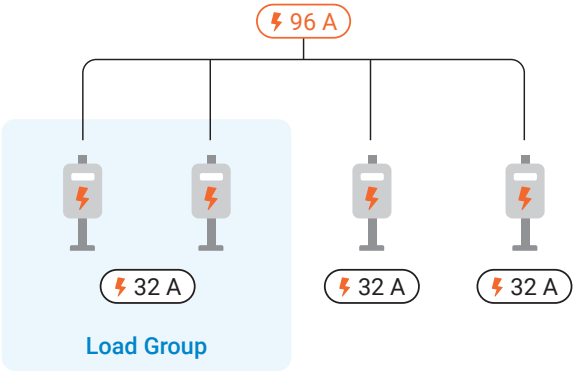
Consider a charging site with 4 stations, each with a minimum output of 7 A and a maximum output of 32 A. Two are individual stations, and the other two form a load group.

Based on the Max Capacity Algorithm, the minimum output requirement for this site is calculated as the sum of the following:

Load Group: 32 A

Individual Stations: 32 A * 2 = 64 A

Therefore, the total minimum output requirement for this site is 32 A + 64 A = **96 A**



Load Group: One station max output: 32 A
Individual stations: 32 A each

2.4 Limitations

- AC and DC stations cannot share the same power panel due to differing electrical requirements.

- Load Management and Demand Response cannot operate simultaneously. Ensure Demand Response is disabled to activate Load Management.

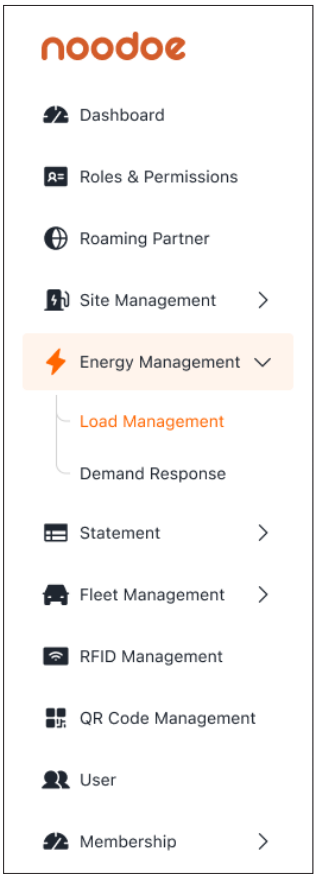
- Multi-phase balancing is supported only when stations are connected to the same set of phases. Please ensure that the stations in a load group share the same set of phases.

3. Setting Up EV OS Load Management for Your Charging Site

From the side panel, go to Energy Management and select **Load Management**.

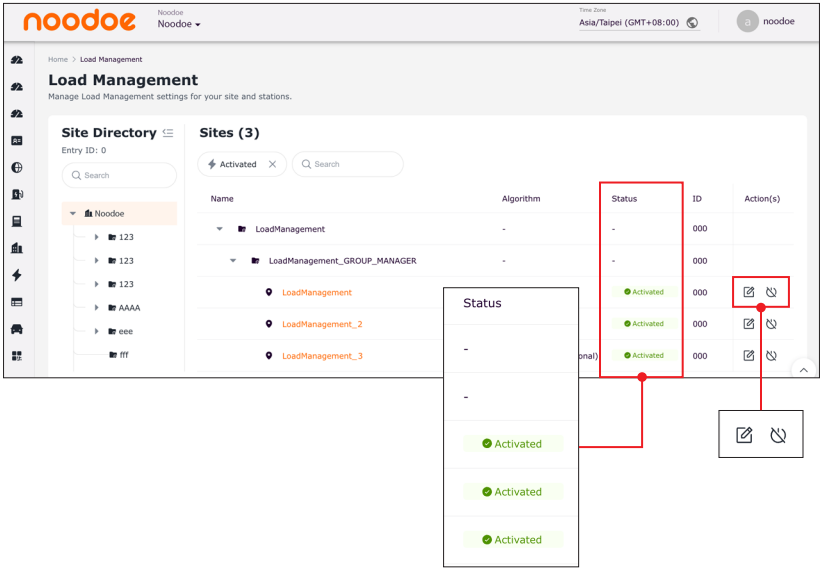
Once Load Management is enabled, assign at least one charging station to the site to initiate the setup.

> **Note:** Refrain from using EV charging stations until the Load Management site building is complete.



3.1 Load Management Configuration

After assigning stations, select a site to configure Load Management. To edit the algorithm type, click the **Edit** button in the Actions column. To disable Load Management, click the **Disable** button.



Status Overview

Statuses	Description
Not Configured	This is the initial status when the power connection and capacity have not yet been set.
Activated	Once the power connection is set, Load Management will be activated.
Disabled	When the user disables Load Management, all Load Management settings will be cleared, and the status will be set to Disabled.

3.2 Load Management Permissions

The permissions for Load Management are divided into: **Build and Setup**, **View**, **Edit**, and **Settings**. Users with different permission levels will only see the tabs that they're given access to. See the chart below for a detailed description of each permission.

If you are missing access, reach out to Noodoe tech support.

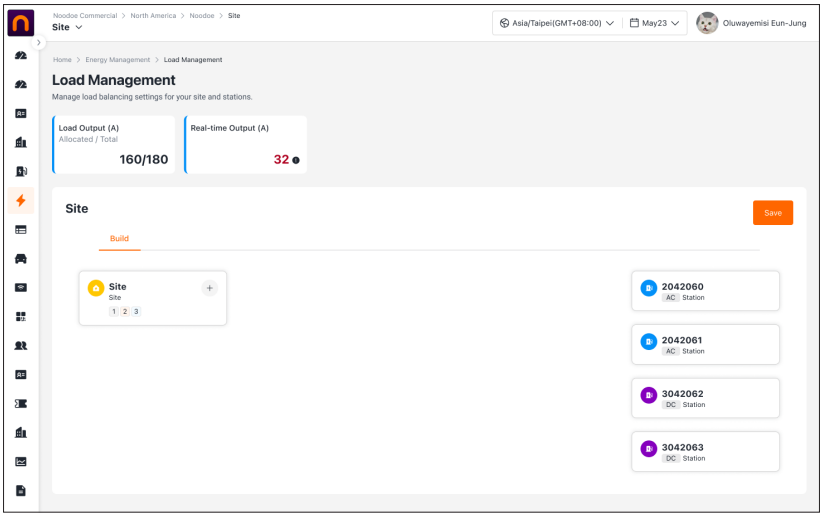
Permissions	Description
View	• Users can access the View tab to view Load Management settings and information about sites, power panels, breakers, load groups, stations, and other components. • Users can only view Load Management settings in sites under their management.
Edit	• Users can access the Edit tab to edit existing Load Management settings for sites, power panels, breakers, load groups, stations, and other components. • Users can only edit Load Management settings in sites under their management.
Bulid and Setup	• Users can access the Build and Setup tabs to build wire connections and configure the load capacity of a site and its components. • Users can only build and set up Load Management settings in sites under their management.
Settings	• Users can set or inherit the algorithm from the CPO. Please note that updating the algorithm settings will require resetting the Build and Setup configurations.

3.2 Build

The **Build** tab allows users to set up the wire and station distribution in accordance with their site. All changes to the site must be updated to ensure the proper functioning of the Load Management system.

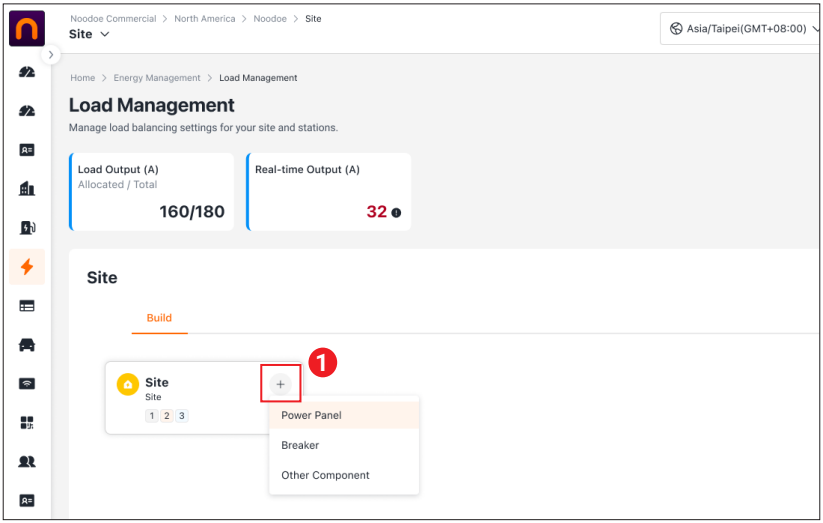
3.2.1 Site

A site contains power panels, breakers, stations, and other components. To complete a site setup, all stations must be assigned to a breaker.



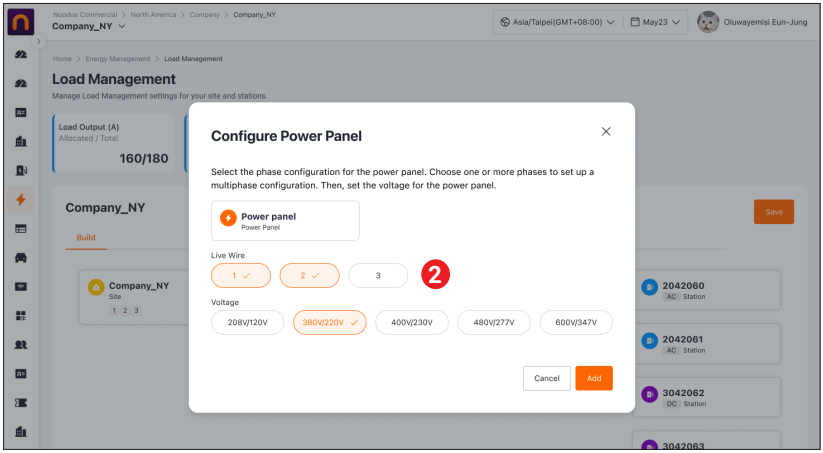
3.2.2 Manage Power Panel

1. To add a power panel, click the **+ button** on site and select **Power Panel**.

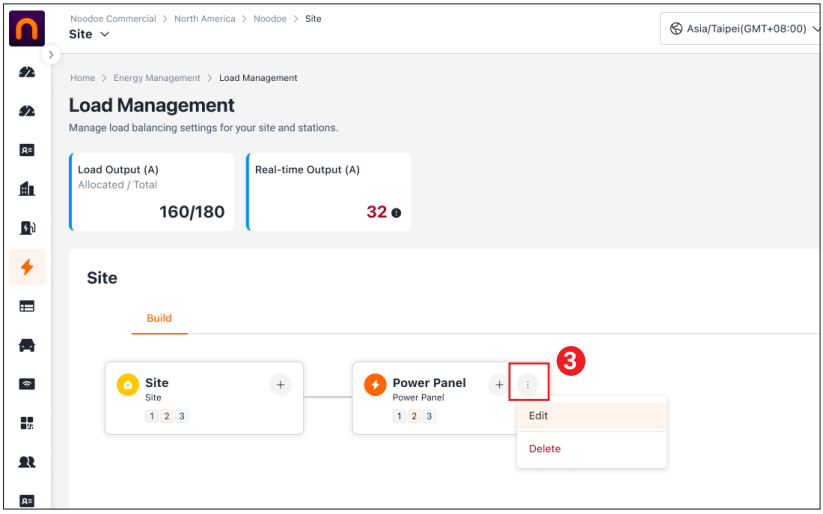


2. Define the phase connection for the power panel by selecting the phases: 1, 2, 3, or any combination.

> **Note:** In the US, phase connections are displayed as A, B, and C.

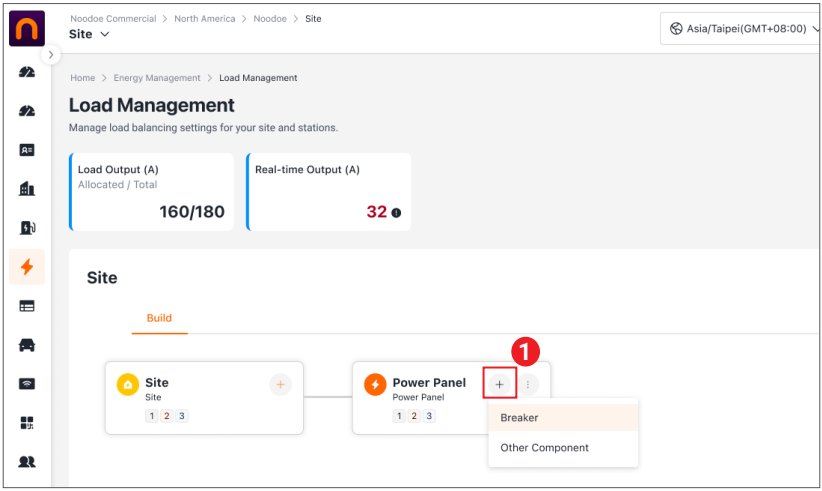


3. To edit the phase connection or delete the power panel, click the **three-dot menu button**.



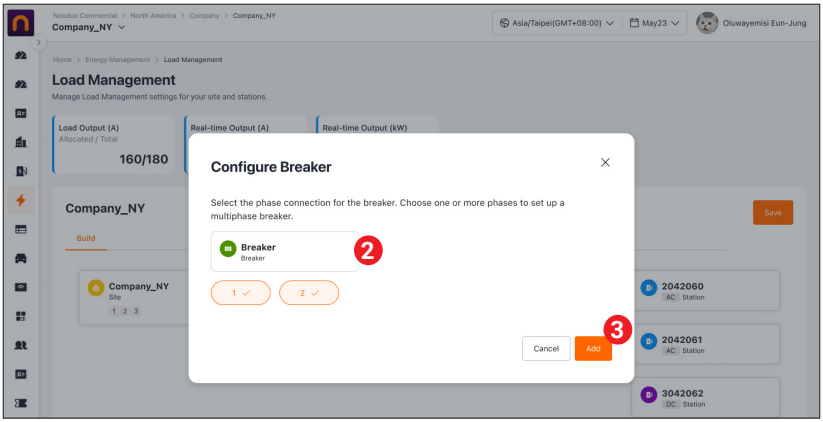
3.2.3 Manage Breaker

1. To add a breaker, click the **+ button** on site or Power Panel and select breaker.

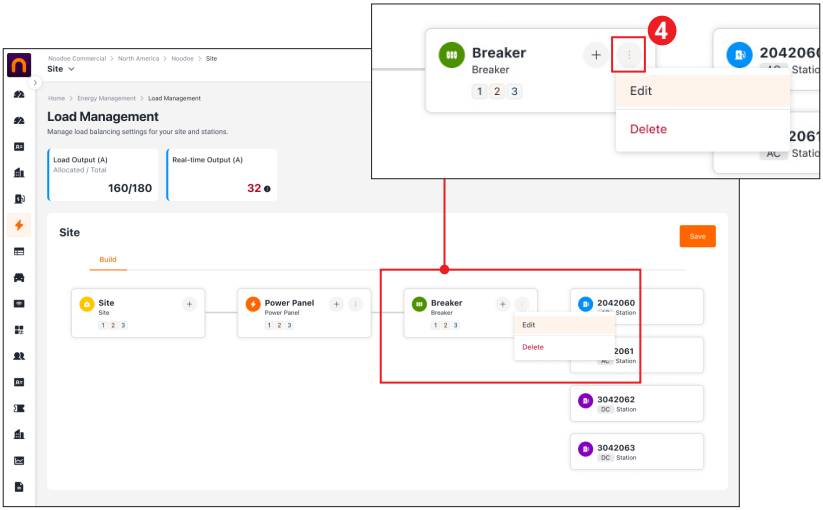


2. Define the phase connection by selecting the phases: 1, 2, 3, or any combination.

3. Then, click **Add** to add a breaker.



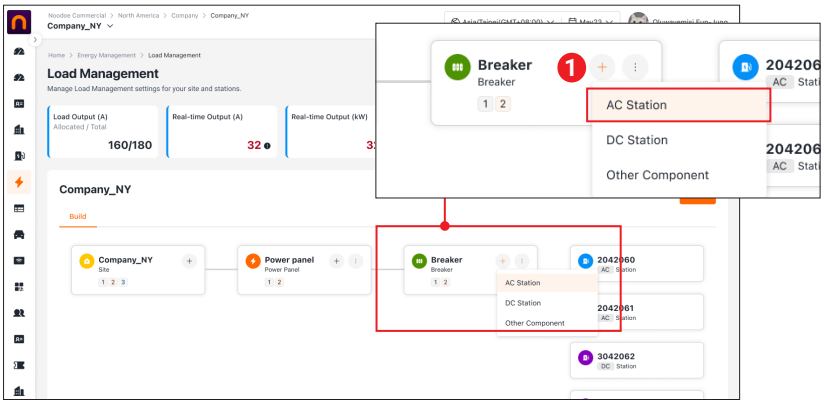
4. To edit or delete the breaker, click the **three-dot Menu button**.



3.2.4 Manage Station

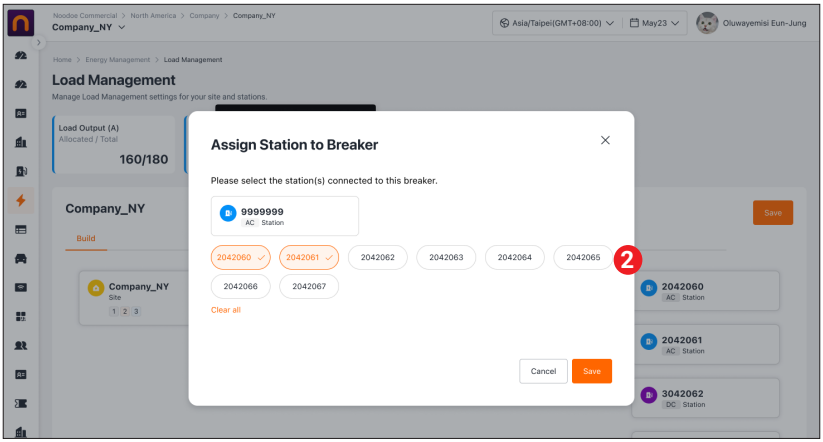
A station can be only added via a breaker.

1. To add a station, click the **+ button** and select **Station**. The phase connection settings will be inherited from the breaker.

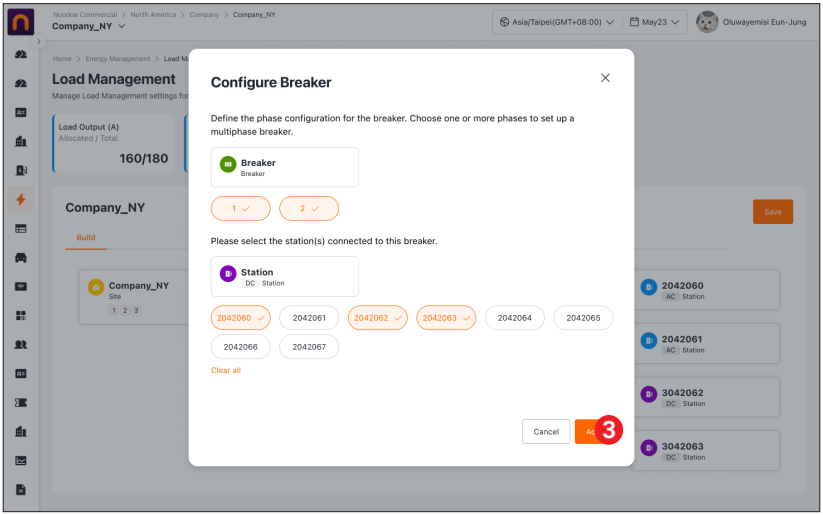


2. Select the stations to add to the breaker, Then, click **Add** to allocate them to breaker.

> **Note:** AC and DC stations cannot share the same power panel due to different electrical requirements.



3. To manage the station(s) connected to the breaker, click the three-dot menu button next to the breaker and select Edit. Then, select the station(s) to remove them. Click **Save** to confirm or **Cancel** to exit.

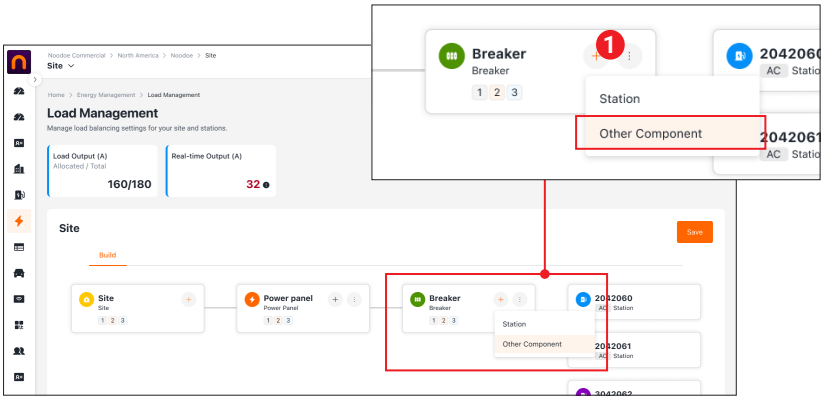


3.2.5 Manage Other Component

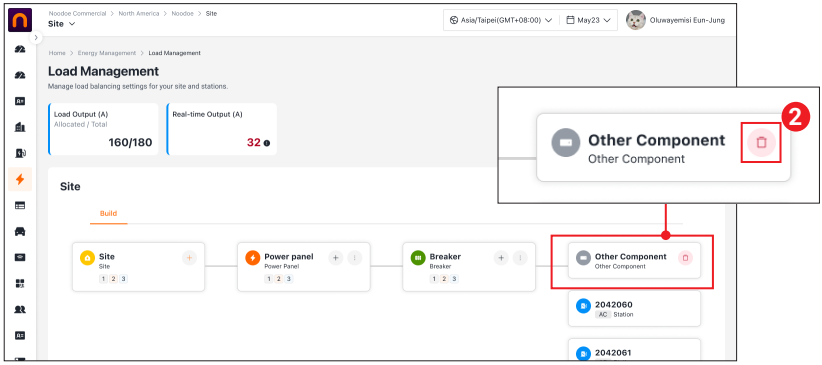
Other components, such as lighting, escalators, automatic doors, or any other electrical equipment that uses the same power source as the EV stations, can be added via site, power panel, or breaker.

1. To add other components, click the **+ button** and select **Other Component**. The phase connection settings will be inherited from the selected site, power panel, or breaker.

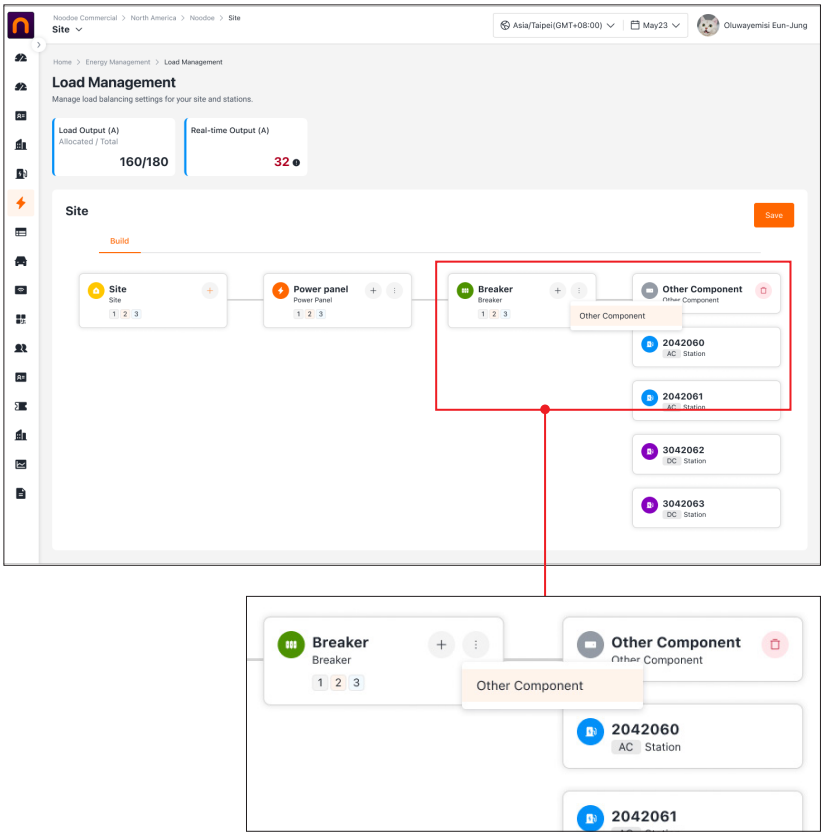
> **Note:** The system reserves intake for other components before balancing the load across stations.



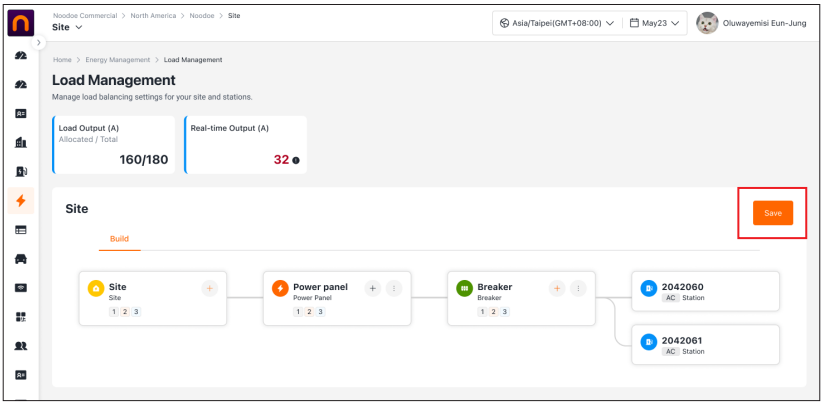
2. To delete other component, click the **trash can button.**



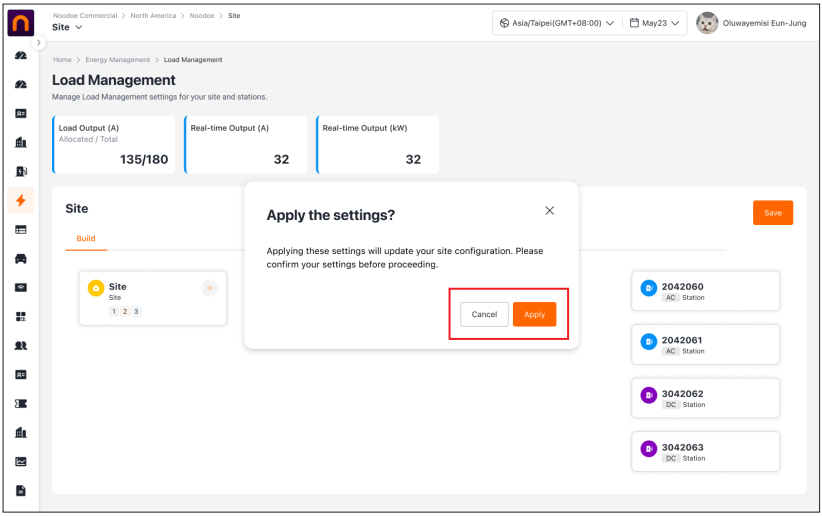
> **Note:** A breaker can be associated with multiple stations or multiple other components but not with both at the same time.



3.2.6 Completing Site Build



Once you've completed building your site, click **Save**. An Apply dialog will appear. Click **Apply** to proceed to the Setup process or **Cancel** to continue building your site.



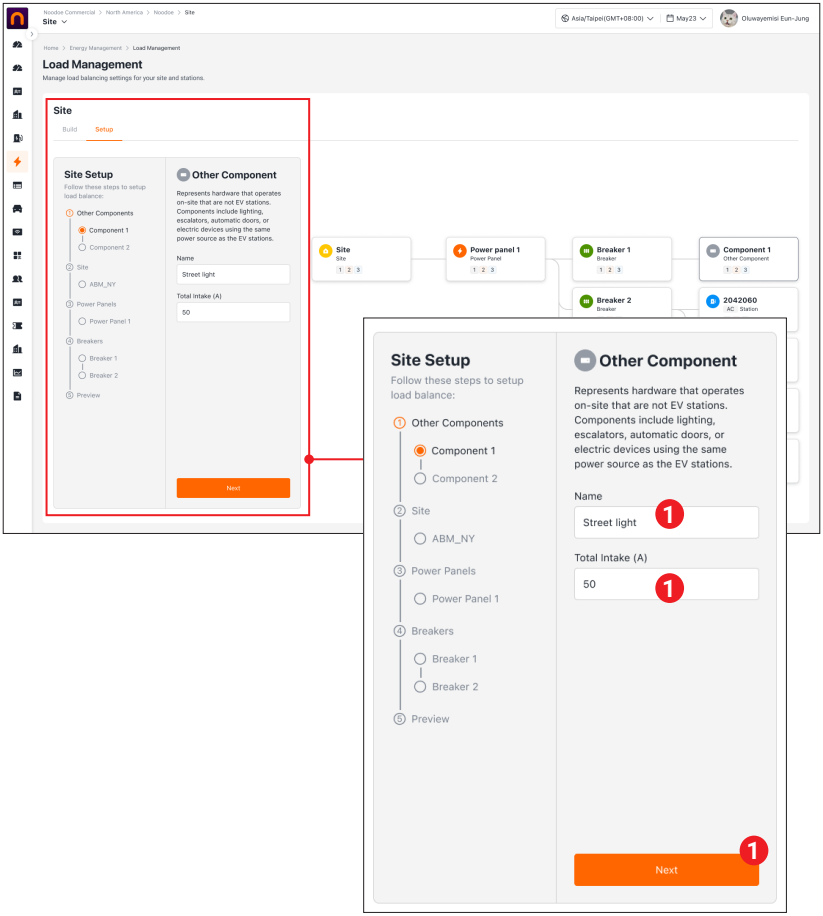
3.3 Setup

The **Setup** tab enables users to define the maximum current capacity of site components and to change their names and descriptions.

| **Note:** Site Build must be completed before the Setup tab becomes available.

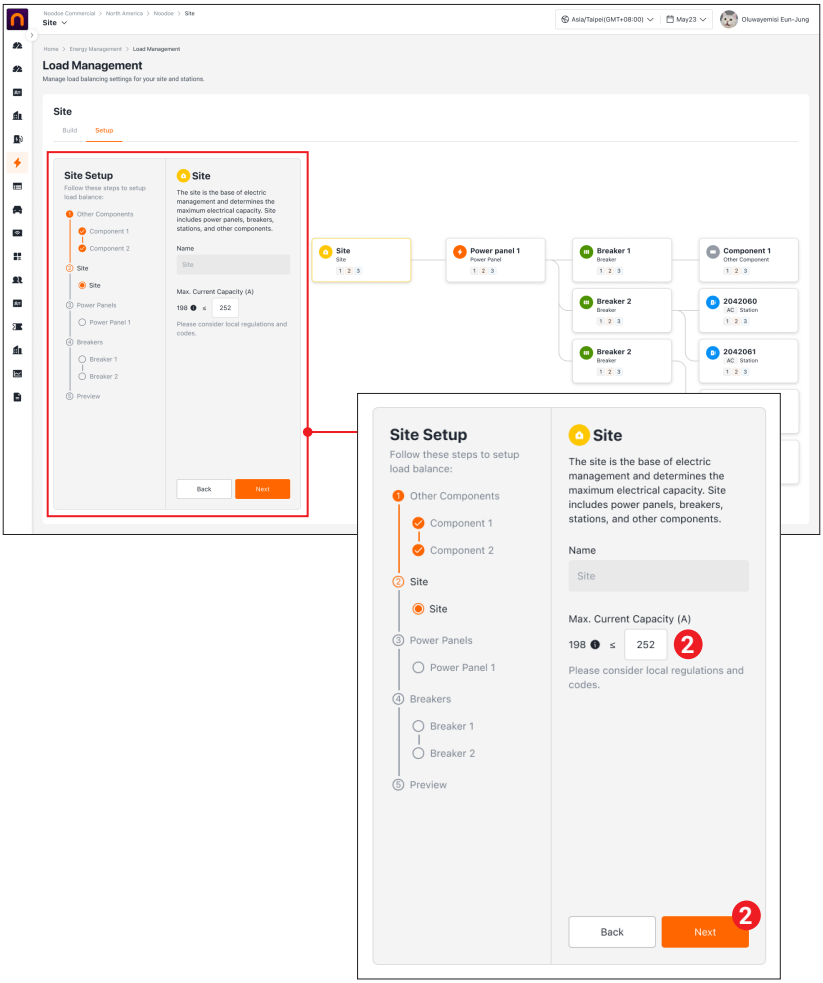
To complete setup:

1. Set the name and total intake of all other component(s) (if applicable), then click **Next**.



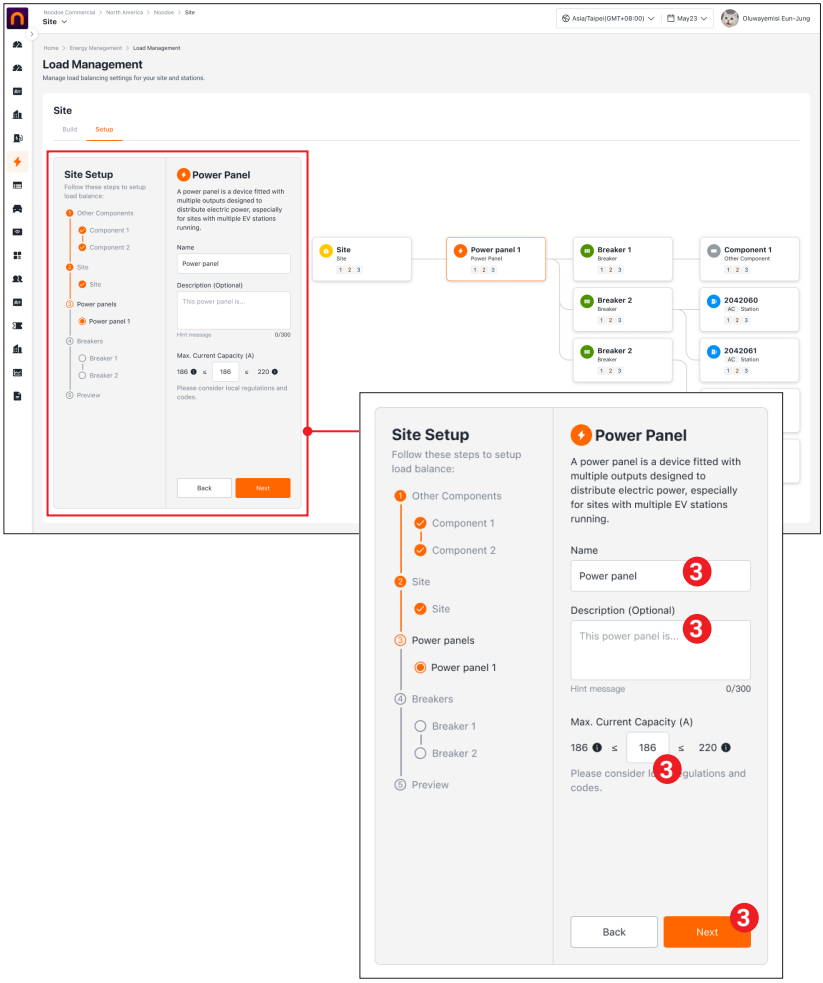
2. Set the maximum current capacity of the site and click **Next**. To revise previous settings, click **Back**.

> **Note:** The minimum current capacity of the site varies based on the configured algorithm. For detailed information on the calculation, refer to **Section 2.3**.



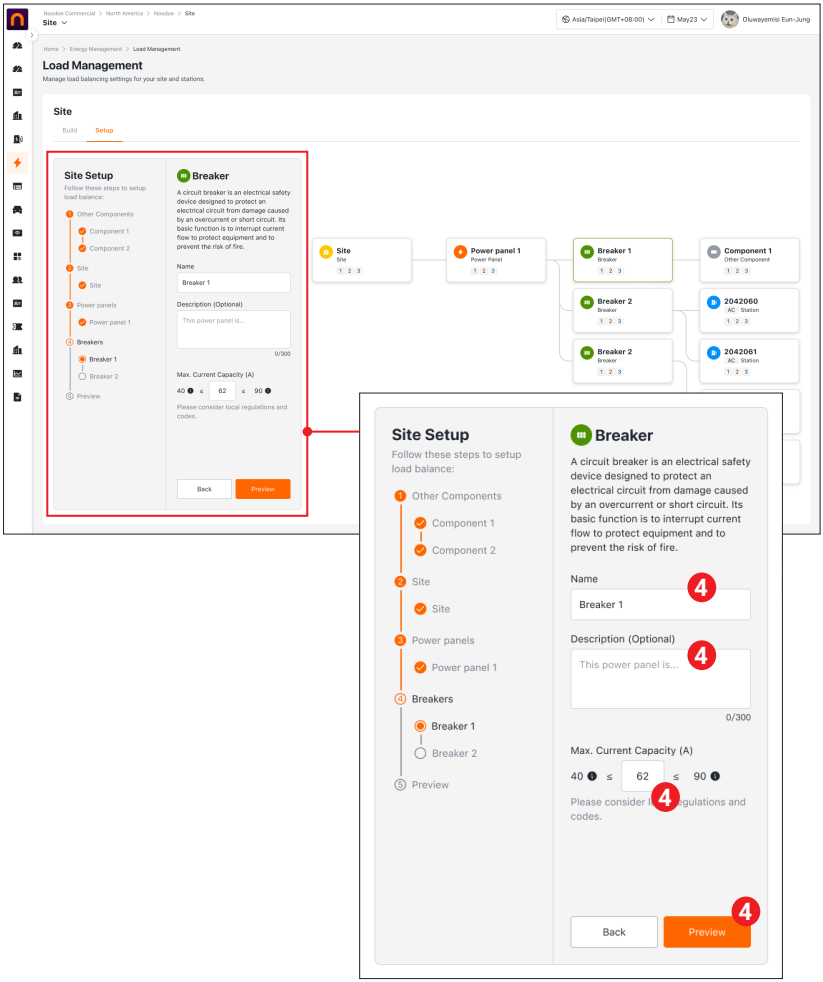
3. Set the name, description (optional), and maximum current capacity of each power panel, then click **Next**. To revise previous settings, click **Back**.

> **Note:** The minimum current capacity of the power panel varies based on the configured algorithm. For detailed information on the calculation, refer to **Section 2.3**.



4. Set the name, description (optional), and maximum current capacity of all available breakers, then click **Preview**. To revise previous settings, click **Back**.

> **Note:** The minimum current capacity of the breaker varies based on the configured algorithm. For detailed information on the calculation, refer to **Section 2.3**.

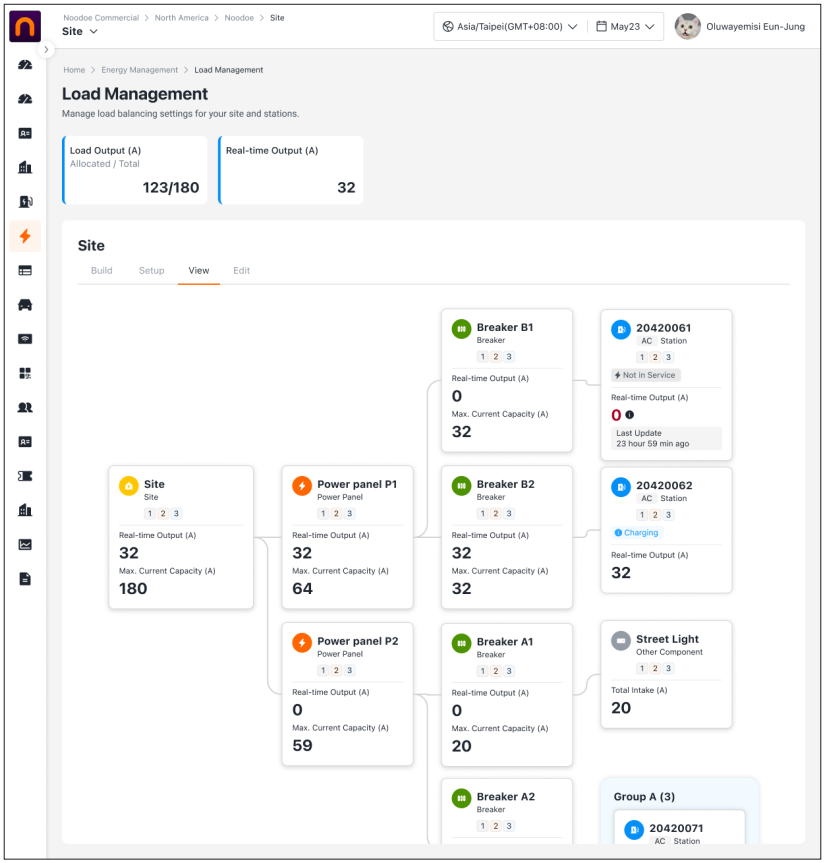


5. Once all components have been configured, a Preview screen will appear. Review the details for each component on this page. Click **Apply** to complete the setup or click **Edit** to revise previous settings.

3.4 View

The **View** tab provides an overview of all components on a site. Real-time output and total load output are shown at the top of the page, giving users a clear view of the statuses.

> **Note:** Both site Build and Setup must be completed before the View tab becomes available.



3.4.1 Site

Navigate to the View tab in Load Management and select site to view its information. The following details are presented:

Basic Information

- Name
- Component Type
- Address

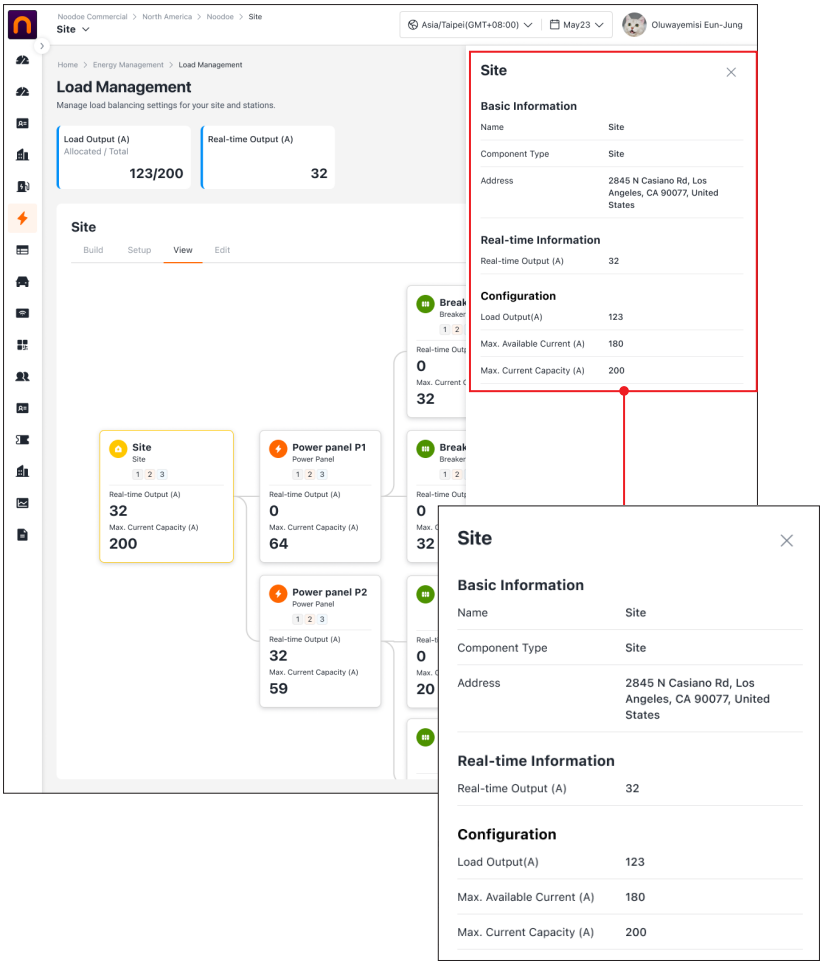
Real-time Information

- Real-time Output

Configuration

- Load Output
- Max. Available Current
- Max. Current Capacity

Max. Current Capacity refers to the total amount of current a site can handle. Max. Available Current is the remaining current after accounting for the intake reserved for other components.


Noodoe Commercial > North America > Noodoe > Site
Site
Asia/Taipei(GMT+08:00)
May23
Oluwayemisi Eun-Jung
Home > Energy Management > Load Management
Load Management
Manage load balancing settings for your site and stations.
Load Output (A)
Allocated / Total
123/200
Real-time Output (A)
32
Site
Build
Setup
View
Edit
Site
Site
Real-time Output (A)
32
Max. Current Capacity (A)
200
Power panel P1
Power Panel
Real-time Output (A)
0
Max. Current Capacity (A)
64
Power panel P2
Power Panel
Real-time Output (A)
32
Max. Current Capacity (A)
59
Site
Basic Information
Name
Site
Component Type
Site
Address
2845 N Casiano Rd, Los Angeles, CA 90077, United States
Real-time Information
Real-time Output (A)
32
Configuration
Load Output(A)
123
Max. Available Current (A)
180
Max. Current Capacity (A)
200

3.4.2 Power Panel

Navigate to the View tab in Load Management and select power panel to view its information. The following details are presented:

Basic Information

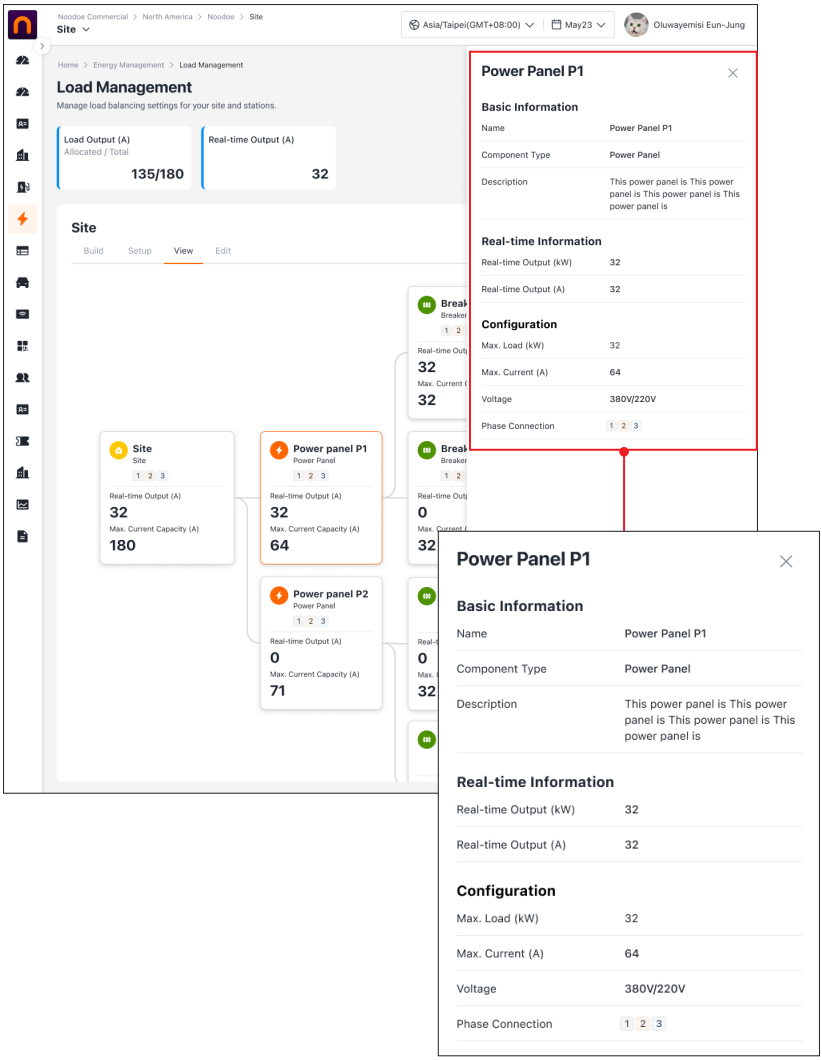
- Name
- Component Type
- Description

Real-time Information

- Real-time Output

Configuration

- Max. Current Capacity
- Phase Connection


Noodoe Commercial > North America > Noodoe > Site
Site
Asia/Taipei(GMT+08:00)
May23
Oluwayemisi Eun-Jung
Home > Energy Management > Load Management
Load Management
Manage load balancing settings for your site and stations.
Load Output (A)
Allocated / Total
135/180
Real-time Output (A)
32
Site
Build
Setup
View
Edit
Site
Site
Real-time Output (A)
32
Max. Current Capacity (A)
180
Power panel P1
Power Panel
Real-time Output (A)
32
Max. Current Capacity (A)
64
Power panel P2
Power Panel
Real-time Output (A)
0
Max. Current Capacity (A)
71
Power Panel P1
Basic Information
Name
Power Panel P1
Component Type
Power Panel
Description
This power panel is This power panel is This power panel is
Real-time Information
Real-time Output (kW)
32
Real-time Output (A)
32
Configuration
Max. Load (kW)
32
Max. Current (A)
64
Voltage
380V/220V
Phase Connection
1 2 3

3.4.3 Breaker

Navigate to the View tab in Load Management and select breaker to view its information. The following details are presented:

Basic Information

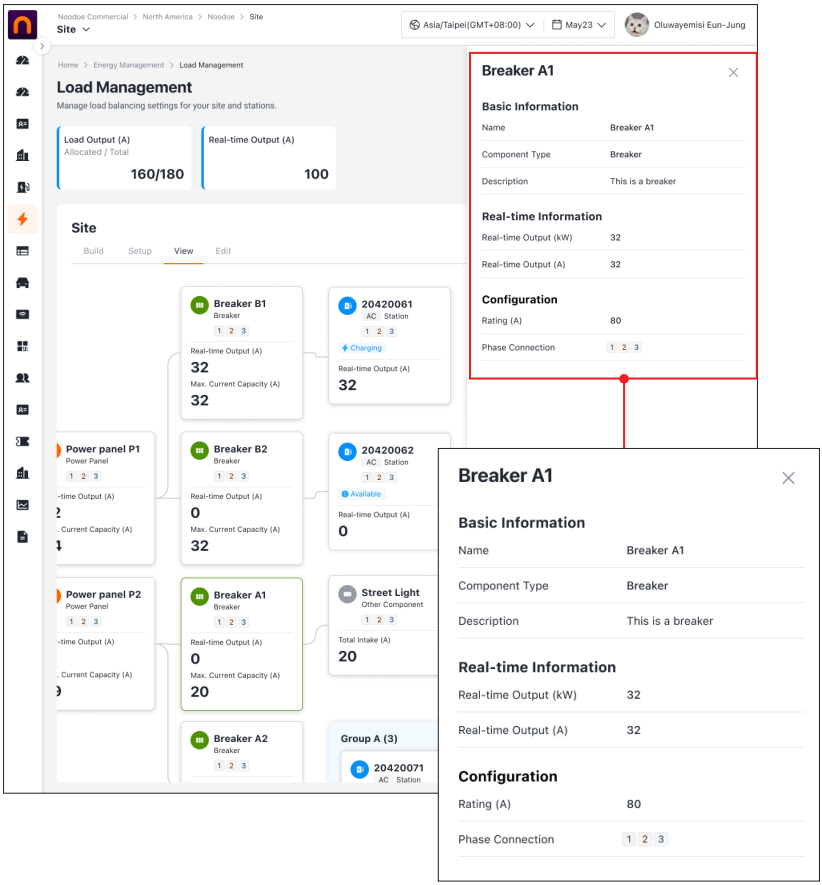
- Name
- Component Type
- Description

Real-time Information

- Real-time Output

Configuration

- Max. Current Capacity
- Phase Connection


Noodoe Commercial > North America > Noodoe > Site
Site
Asia/Taipei(GMT+08:00)
May23
Oluwayemisi Eun-Jung
Home > Energy Management > Load Management
Load Management
Manage load balancing settings for your site and stations.
Load Output (A)
Allocated / Total
160/180
Real-time Output (A)
100
Site
Build
Setup
View
Edit
Breaker B1
Breaker
Real-time Output (A)
32
Max. Current Capacity (A)
32
20420061
AC Station
Charging
Real-time Output (A)
32
Power panel P1
Power Panel
Breaker B2
Breaker
Real-time Output (A)
0
Max. Current Capacity (A)
32
20420062
AC Station
Available
Real-time Output (A)
0
Power panel P2
Power Panel
Breaker A1
Breaker
Real-time Output (A)
0
Max. Current Capacity (A)
20
Street Light
Other Component
Total Intake (A)
20
Breaker A2
Breaker
Group A (3)
20420071
AC Station
Breaker A1
Basic Information
Name
Breaker A1
Component Type
Breaker
Description
This is a breaker
Real-time Information
Real-time Output (kW)
32
Real-time Output (A)
32
Configuration
Rating (A)
80
Phase Connection
1 2 3

3.4.4 Individual Station

Navigate to the View tab in Load Management and select Station to view its information. The following details are presented:

Basic Information

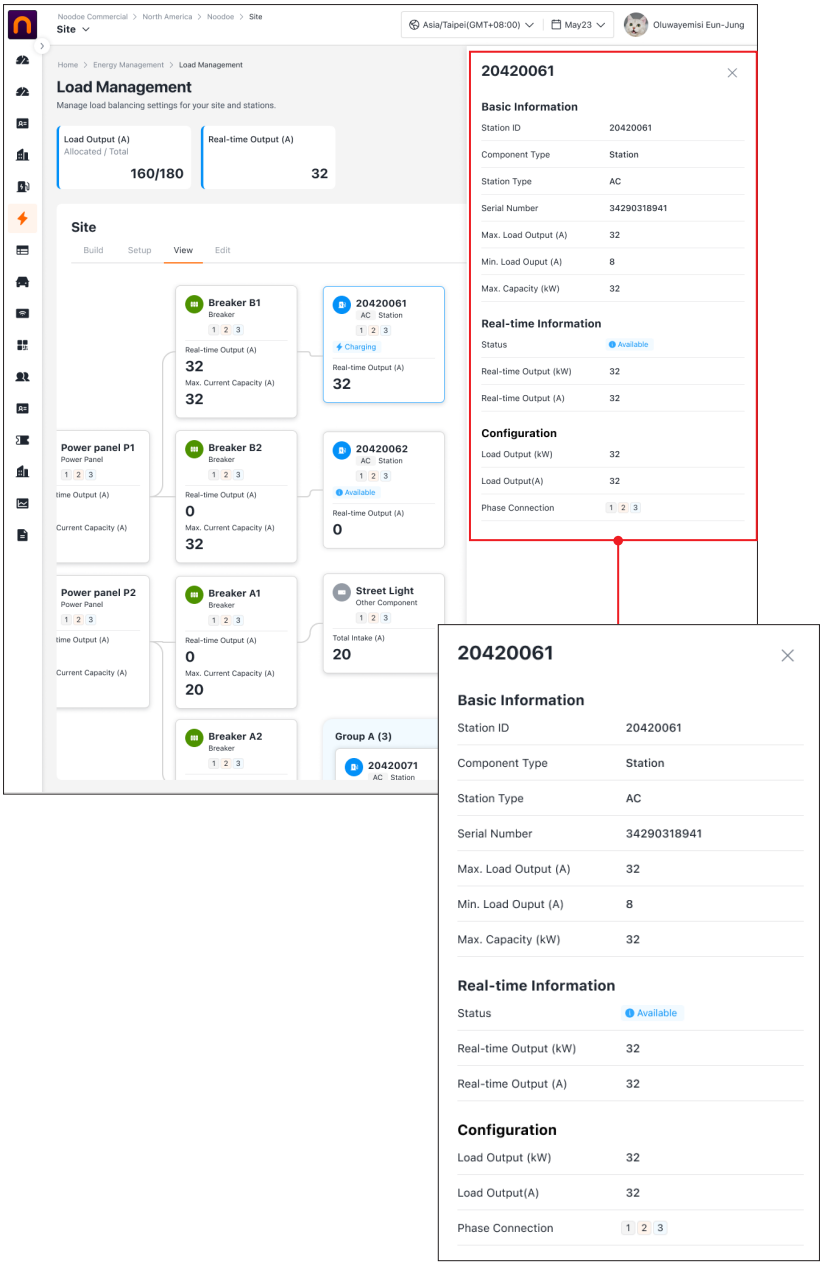
- Station ID
- Component Type
- Station Type
- Serial Number
- Max. Load Output
- Min. Load Output

Real-time Information

- Status
- Real-time Output

Configuration

- Load Output
- Phase Connection



20420061

Basic Information

Station ID	20420061
Component Type	Station
Station Type	AC
Serial Number	34290318941
Max. Load Output (A)	32
Min. Load Ouput (A)	8
Max. Capacity (kW)	32

Real-time Information

Status	Available
Real-time Output (kW)	32
Real-time Output (A)	32

Configuration

Load Output (kW)	32
Load Output(A)	32
Phase Connection	1 2 3

3.4.5 Load Group

Navigate to the View tab in Load Management and select load group to view its information. The following details are presented:

Basic Information

- Name
- Component Type

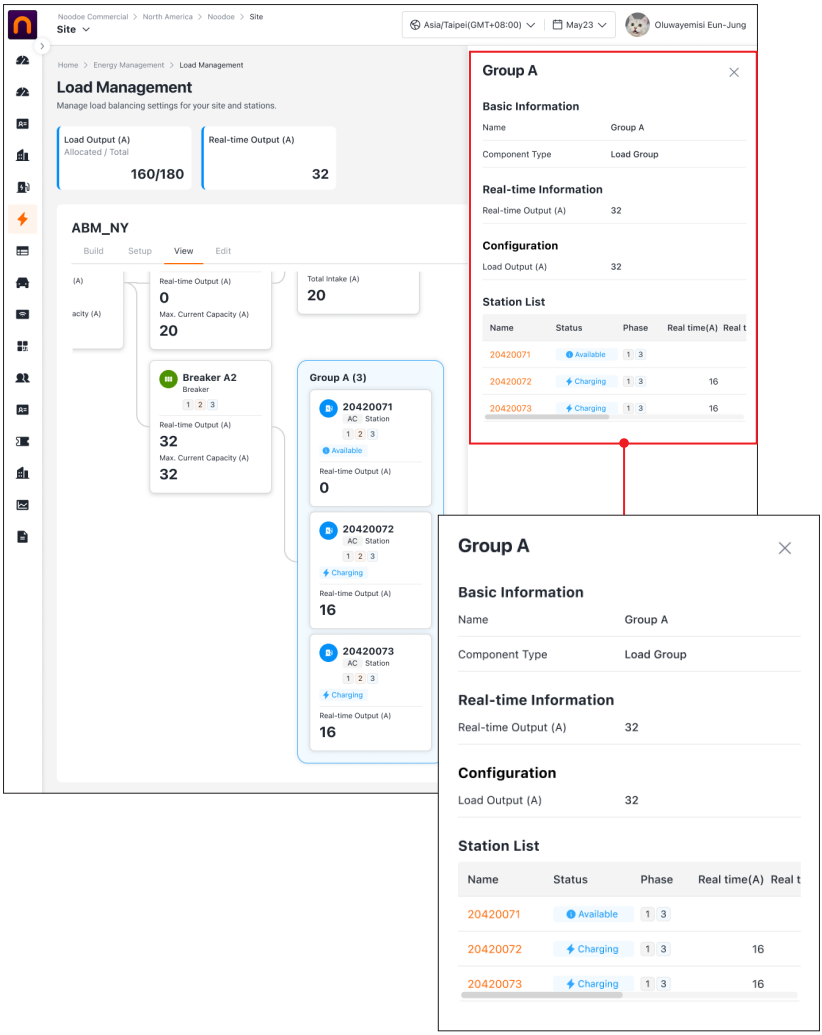
Real-time Information

- Real-time Output

Configuration

- Load Output

Station List



Group A
Basic Information
Name
Group A
Component Type
Load Group
Real-time Information
Real-time Output (A)
32
Configuration
Load Output (A)
32
Station List
Name
Status
Phase
Real time(A)
Real t
20420071
Available
1 3
20420072
Charging
1 3
16
20420073
Charging
1 3
16

3.4.6 Station in a Load Group

Navigate to the View tab in Load Management and select a station in a load group to view its information. The following details are presented:

Basic Information

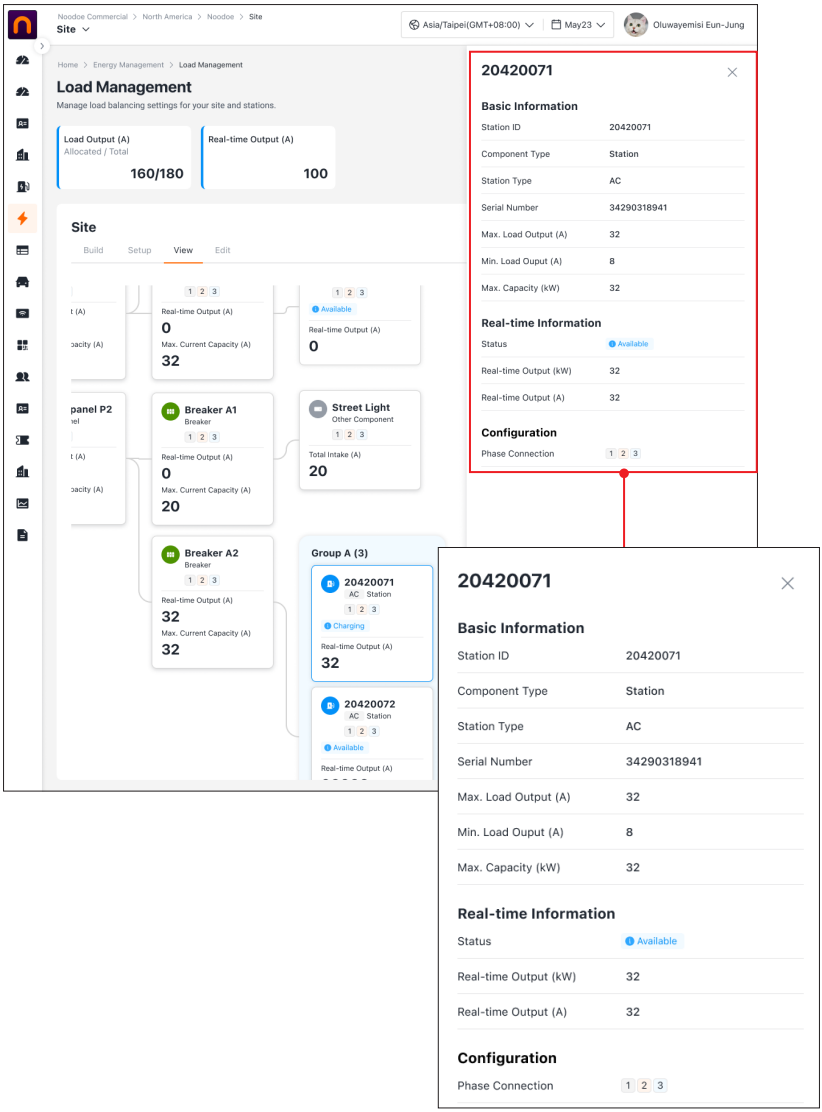
- Station ID
- Component Type
- Station Type
- Serial Number
- Max. Load Output
- Min. Load Output

Real-time Information

- Status
- Real-time Output

Configuration

- Phase Connection


Noodoe Commercial > North America > Noodoe > Site
Site
Asia/Taipei(GMT+08:00)
May23
Oluwayemisi Eun-Jung
Home > Energy Management > Load Management
Load Management
Manage load balancing settings for your site and stations.
Load Output (A)
Allocated / Total
160/180
Real-time Output (A)
100
Site
Build
Setup
View
Edit
Real-time Output (A)
0
Max. Current Capacity (A)
32
Available
Real-time Output (A)
0
panel P2
Breaker A1
Breaker
Real-time Output (A)
0
Max. Current Capacity (A)
20
Street Light
Other Component
Total Intake (A)
20
Breaker A2
Breaker
Real-time Output (A)
32
Max. Current Capacity (A)
32
Group A (3)
20420071
AC Station
Charging
Real-time Output (A)
32
20420072
AC Station
Available
Real-time Output (A)
20420071
Basic Information
Station ID
20420071
Component Type
Station
Station Type
AC
Serial Number
34290318941
Max. Load Output (A)
32
Min. Load Ouput (A)
8
Max. Capacity (kW)
32
Real-time Information
Status
Available
Real-time Output (kW)
32
Real-time Output (A)
32
Configuration
Phase Connection
1 2 3

3.4.7 Power Connection

Navigate to the View tab in Load Management and select **Power Connection** to view its information. The following details are presented:

Basic Information

- Component Type

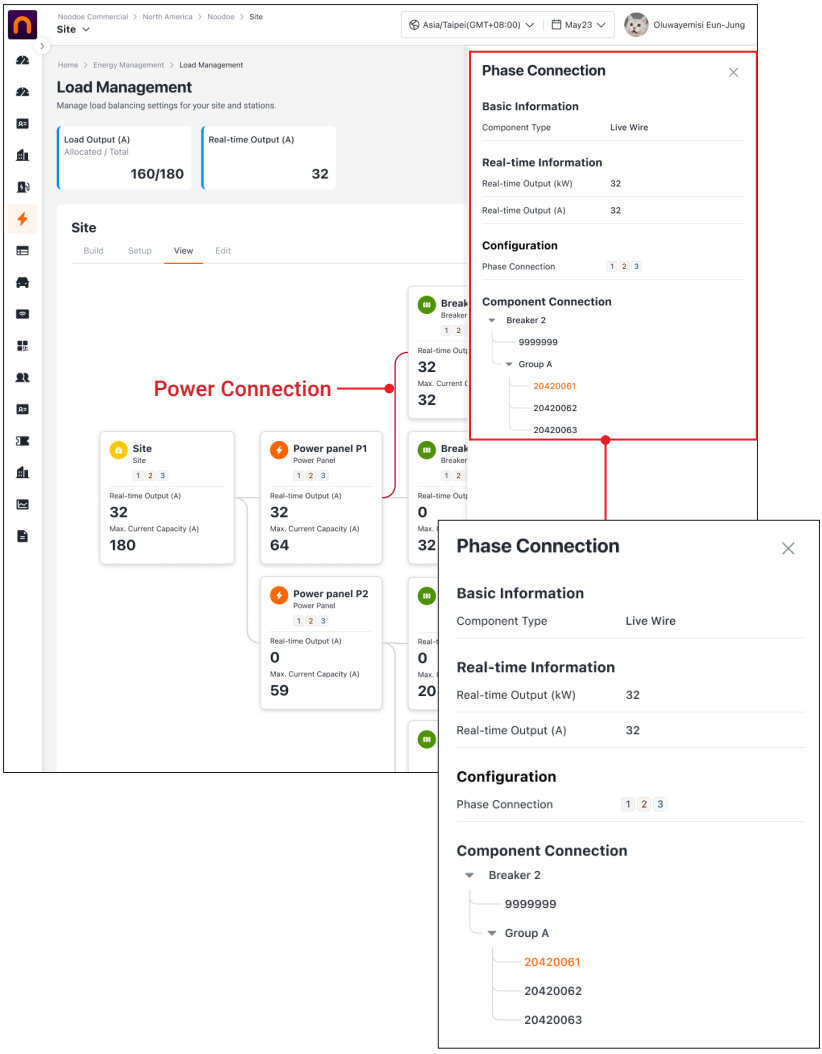
Real-time Information

- Real-time Output

Configuration

- Phase Connection

Component Connection


Noodoe Commercial > North America > Noodoe > Site
Site
Asia/Taipei(GMT+08:00)
May23
Oluwayemisi Eun-Jung
Home > Energy Management > Load Management
Load Management
Manage load balancing settings for your site and stations.
Load Output (A)
Allocated / Total
160/180
Real-time Output (A)
32
Site
Build
Setup
View
Edit
Power Connection
Site
Site
Real-time Output (A)
32
Max. Current Capacity (A)
180
Power panel P1
Power Panel
Real-time Output (A)
32
Max. Current Capacity (A)
64
Power panel P2
Power Panel
Real-time Output (A)
0
Max. Current Capacity (A)
59
Phase Connection
Basic Information
Component Type
Live Wire
Real-time Information
Real-time Output (kW)
32
Real-time Output (A)
32
Configuration
Phase Connection
1 2 3
Component Connection
Breaker 2
9999999
Group A
20420061
20420062
20420063
Phase Connection
Basic Information
Component Type
Live Wire
Real-time Information
Real-time Output (kW)
32
Real-time Output (A)
32
Configuration
Phase Connection
1 2 3
Component Connection
Breaker 2
9999999
Group A
20420061
20420062
20420063

3.4.7 Other Components

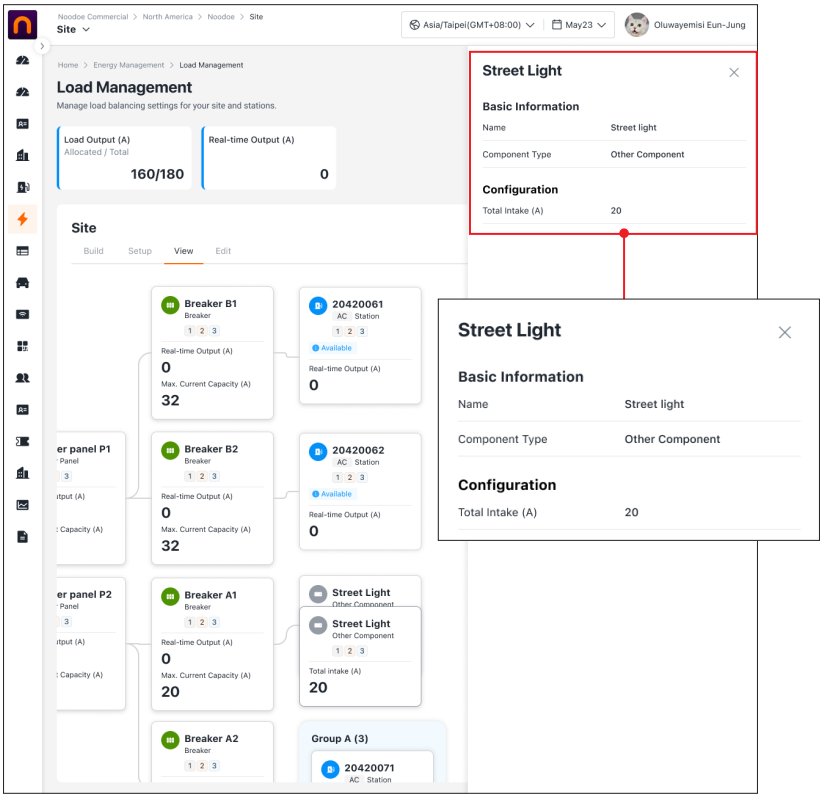
Navigate to the View tab in Load Management and select other component to view its information. The following details are presented:

Basic Information

- Name
- Component Type

Configuration

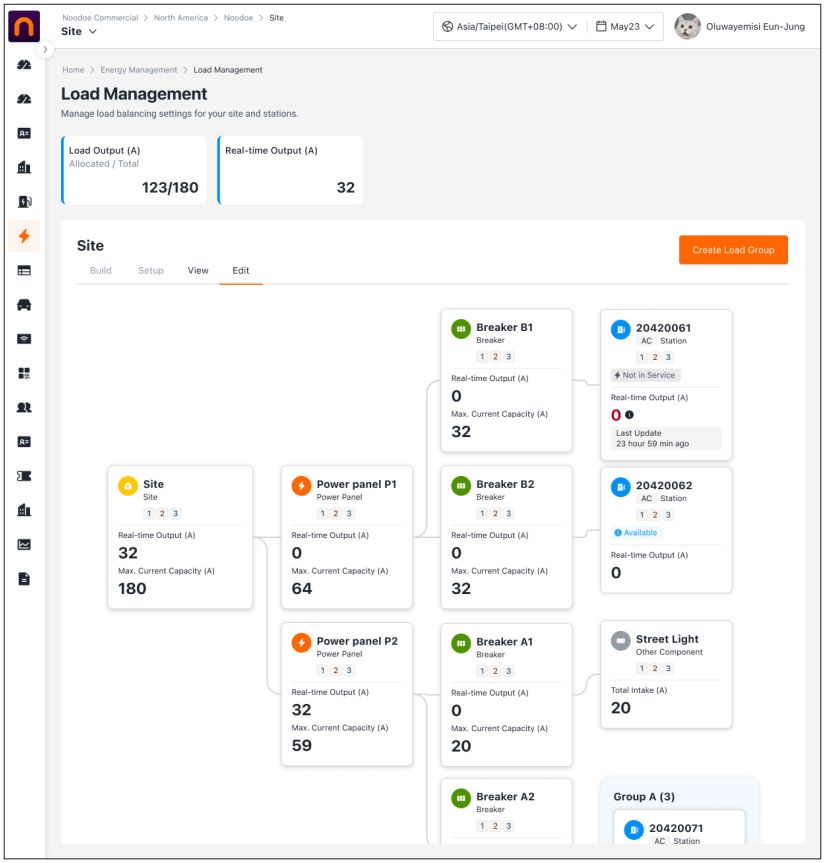
- Total Intake



3.5 Edit

The **Edit** tab allows users to modify the information for each component and manage load groups. To access the Edit tab, ensure that you have already configured the Build and Setup tabs for your site.

Navigate to the Edit tab in Load Management, and select either site, power panel, breaker, station, load group, or other component to begin editing.



3.5.1 Site

Select the **Site** to open the edit panel. The following information is displayed:

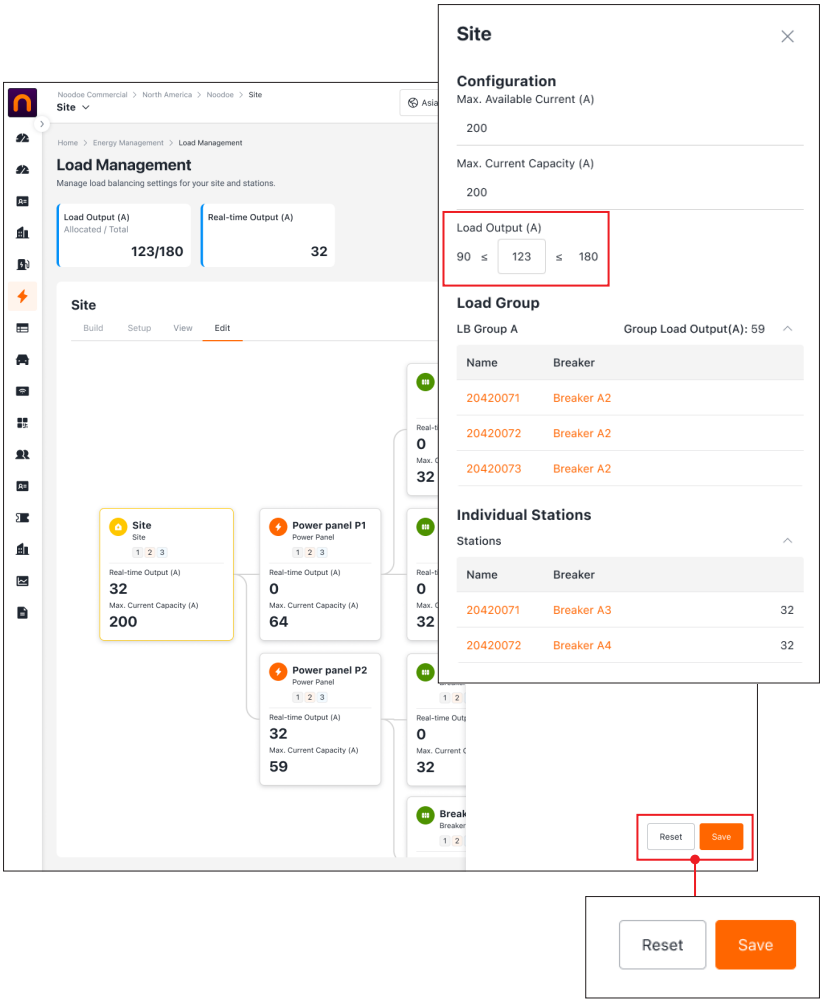
Configuration

- Max. Available Current
- Max. Current Capacity
- Load Output

Load Group

Individual Stations

Configure the load output amount and click **Save** to apply the changes or click **Reset** to clear any entries.


Site
Configuration
Max. Available Current (A)
200
Max. Current Capacity (A)
200
Load Output (A)
90 ≤ 123 ≤ 180
Load Group
LB Group A
Group Load Output(A): 59
Name
Breaker
20420071
Breaker A2
20420072
Breaker A2
20420073
Breaker A2
Individual Stations
Stations
Name
Breaker
20420071
Breaker A3
32
20420072
Breaker A4
32
Noodoe Commercial > North America > Noodoe > Site
Site
Home > Energy Management > Load Management
Load Management
Manage load balancing settings for your site and stations.
Load Output (A)
Allocated / Total
123/180
Real-time Output (A)
32
Site
Build
Setup
View
Edit
Site
Site
Real-time Output (A)
32
Max. Current Capacity (A)
200
Power panel P1
Power Panel
Real-time Output (A)
0
Max. Current Capacity (A)
64
Power panel P2
Power Panel
Real-time Output (A)
32
Max. Current Capacity (A)
59
Reset
Save
Reset
Save

3.5.2 Power Panel

Select a **Power Panel** to open the edit panel. The following information is displayed:

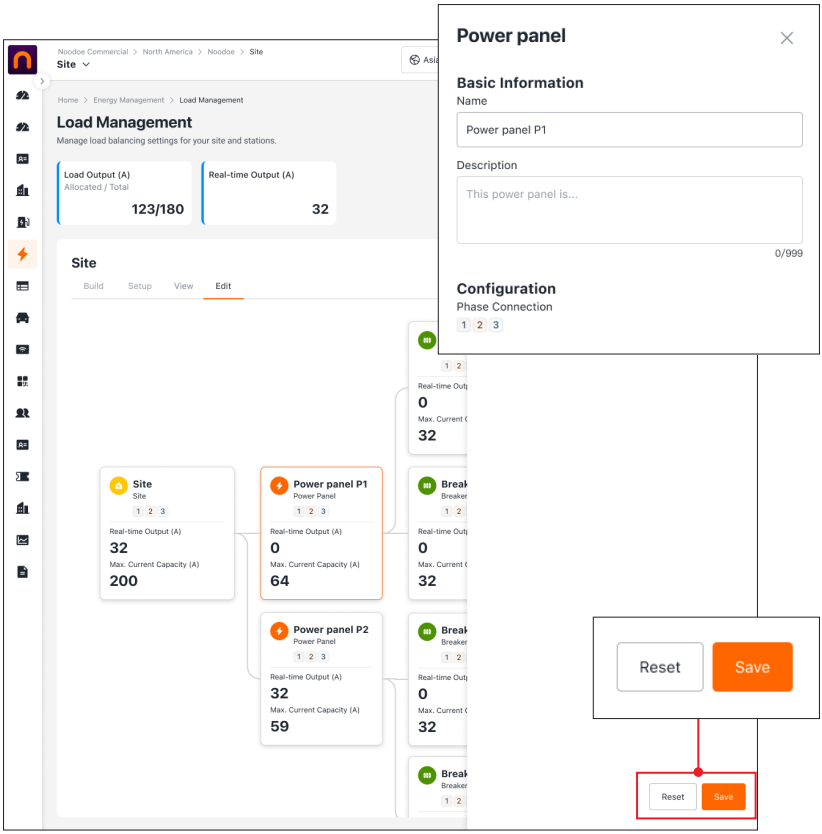
Basic Information

- Name
- Description

Configuration

- Phase Connection

Modify the name and the description of the power panel, then click **Save** to apply the changes or click **Reset** to clear any entries.


Power panel
Basic Information
Name
Power panel P1
Description
This power panel is...
0/999
Configuration
Phase Connection
1 2 3
Noodoe Commercial > North America > Noodoe > Site
Site
Home > Energy Management > Load Management
Load Management
Manage load balancing settings for your site and stations.
Load Output (A)
Allocated / Total
123/180
Real-time Output (A)
32
Site
Build
Setup
View
Edit
Site
Site
1 2 3
Real-time Output (A)
32
Max. Current Capacity (A)
200
Power panel P1
Power Panel
1 2 3
Real-time Output (A)
0
Max. Current Capacity (A)
64
Power panel P2
Power Panel
1 2 3
Real-time Output (A)
32
Max. Current Capacity (A)
59
Real-time Output (A)
0
Max. Current Capacity (A)
32
Reset
Save
Reset
Save

3.5.3 Breaker

Select a **Breaker** to open the edit panel. The following information is displayed:

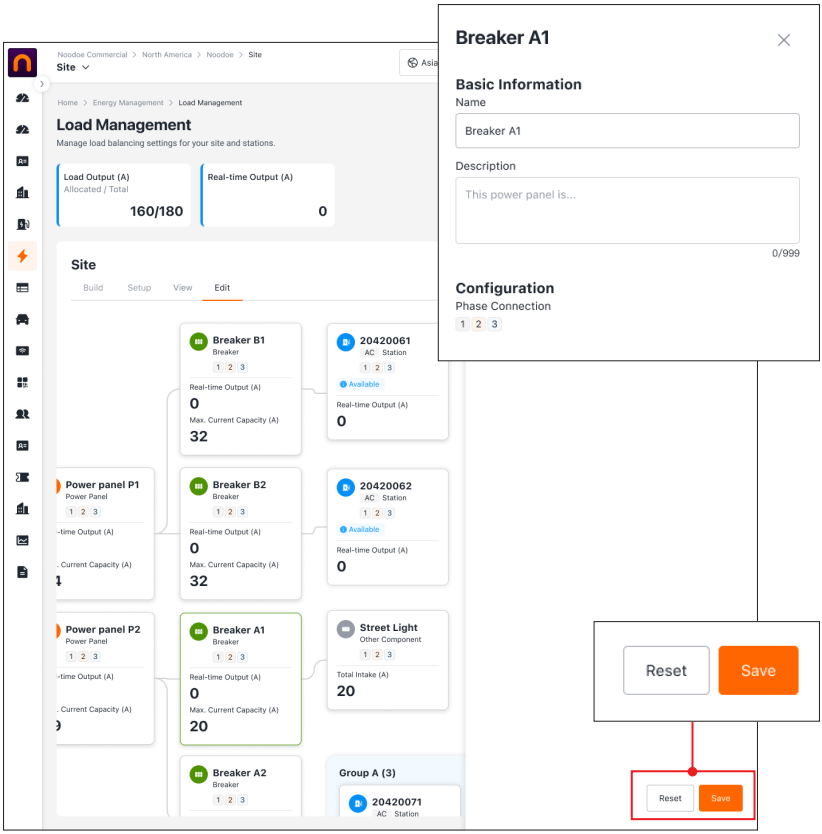
Basic Information

- Name
- Description

Configuration

- Phase Connection

Modify the name and the description of the breaker, then click **Save** to apply the changes or click **Reset** to clear any entries.


Breaker A1
Basic Information
Name
Breaker A1
Description
This power panel is...
0/999
Configuration
Phase Connection
1 2 3
Noodoe Commercial > North America > Noodoe > Site
Site
Home > Energy Management > Load Management
Load Management
Manage load balancing settings for your site and stations.
Load Output (A)
Allocated / Total
160/180
Real-time Output (A)
0
Site
Build
Setup
View
Edit
Breaker B1
Breaker
Real-time Output (A)
0
Max. Current Capacity (A)
32
20420061
AC Station
Available
Real-time Output (A)
0
Power panel P1
Power Panel
Breaker B2
Breaker
Real-time Output (A)
0
Max. Current Capacity (A)
32
20420062
AC Station
Available
Real-time Output (A)
0
Power panel P2
Power Panel
Breaker A1
Breaker
Real-time Output (A)
0
Max. Current Capacity (A)
20
Street Light
Other Component
Total Intake (A)
20
Breaker A2
Breaker
Group A (3)
20420071
AC Station
Reset
Save
Reset
Save

3.5.4 Station

Select a **Station** to open the edit panel. The following information is displayed:

Basic Information

- Min. Load Output
- Max. Load Output

Configuration

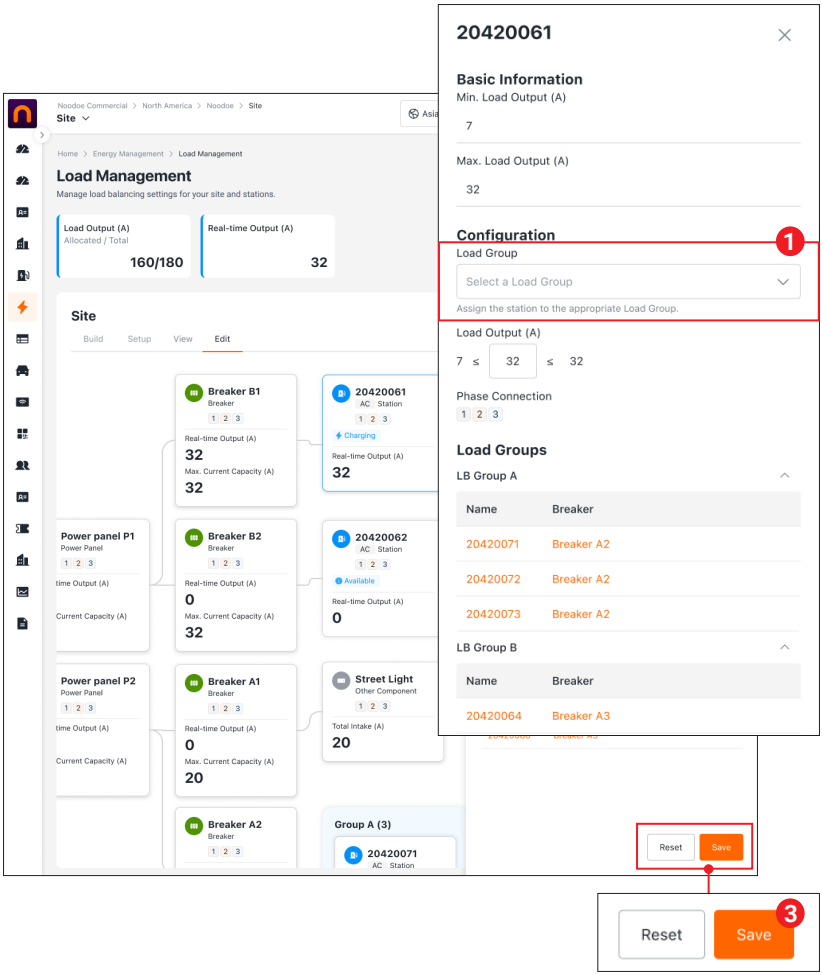
- Load Group
- Load Output
- Phase Connection

Load Groups

3.5.4.1 Add a Station to a Load Group

1. Click the drop menu for load group.
2. Select a **Load Group** to add the station to.
3. Click **Save** to apply the changes or click **Reset** to clear any entries.

> **Note:** Configuring load output and moving a station to load group cannot be done simultaneously.



3.5.5 Load Group

Select a **Load Group** to open the edit panel. The following information is displayed:

Basic Information

- Name

Configuration

- Load Output

Station List

> **Note:** The output of a load group is set to its minimum value by default to ensure sufficient output for all load groups at a site. To increase the output value, complete the Load Management setup.

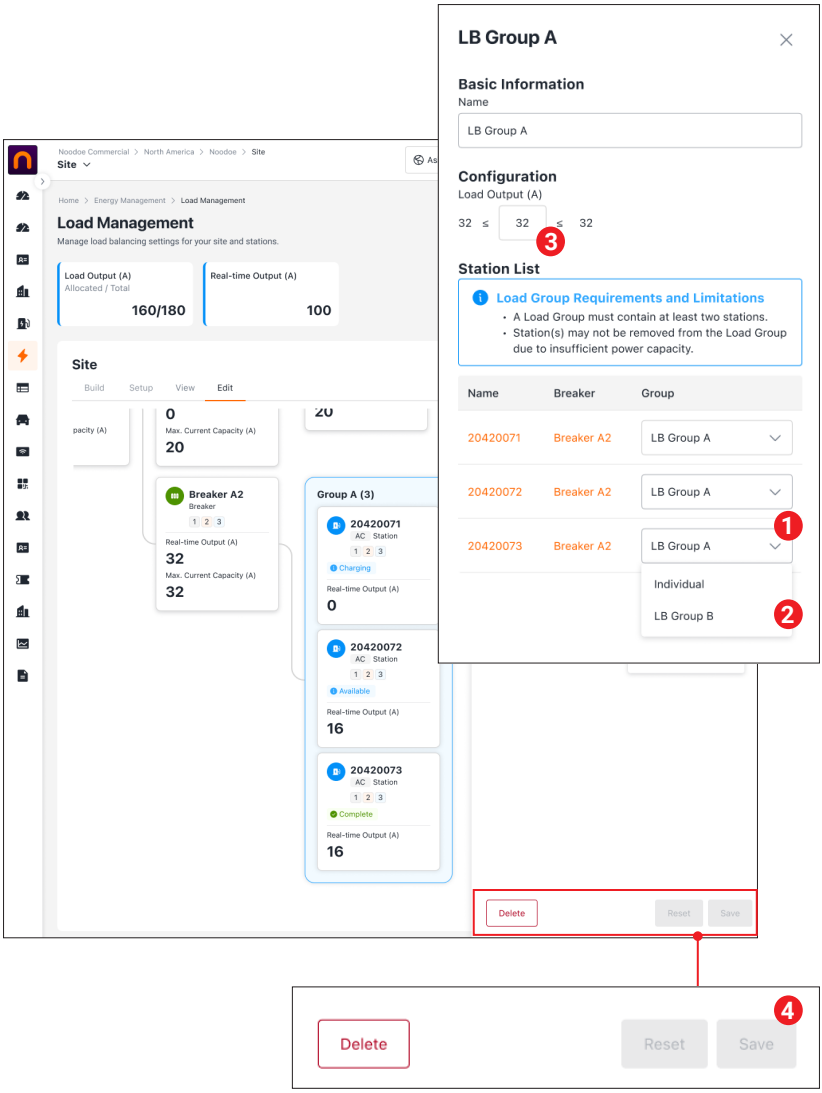
3.5.5.1 Move Stations Out of a Load Group

1. Click the drop-down menu from the station List under the Group column.
2. Select **Individual** or another **Load Group**.
3. Ensure there is sufficient power capacity. Configure the load output amount if needed.
4. Click **Save** to apply the changes or click **Reset** to clear any entries.

> **Note:** A load group must contain a minimum of two stations. To move a station out from a 2-station load group, the load group must be deleted.

3.5.5.2 Delete a Load Group

1. Select a **Load Group** in the Edit tab.
2. Click **Delete** to delete the load group.


LB Group A
Basic Information
Name
LB Group A
Configuration
Load Output (A)
32 ≤ 32 ≤ 32
3
Station List
Load Group Requirements and Limitations
• A Load Group must contain at least two stations.
• Station(s) may not be removed from the Load Group due to insufficient power capacity.
Name
Breaker
Group
20420071
Breaker A2
LB Group A
20420072
Breaker A2
LB Group A
20420073
Breaker A2
LB Group A
1
Individual
LB Group B
2
Noodoe Commercial > North America > Noodoe > Site
Site
Home > Energy Management > Load Management
Load Management
Manage load balancing settings for your site and stations.
Load Output (A)
Allocated / Total
160/180
Real-time Output (A)
100
Site
Build
Setup
View
Edit
Max. Current Capacity (A)
20
Breaker A2
Breaker
Real-time Output (A)
32
Max. Current Capacity (A)
32
Group A (3)
20420071
AC Station
Charging
Real-time Output (A)
0
20420072
AC Station
Available
Real-time Output (A)
16
20420073
AC Station
Complete
Real-time Output (A)
16
Delete
Reset
Save
Delete
Reset
Save
4

3.5.6 Stations Inside a Load Group

Select a **Station** inside a **Load Group** to open the edit panel. The following information is displayed:

Basic Information

- Min. Load Output
- Max. Load Output

Configuration

- Load Group
- Phase Connection

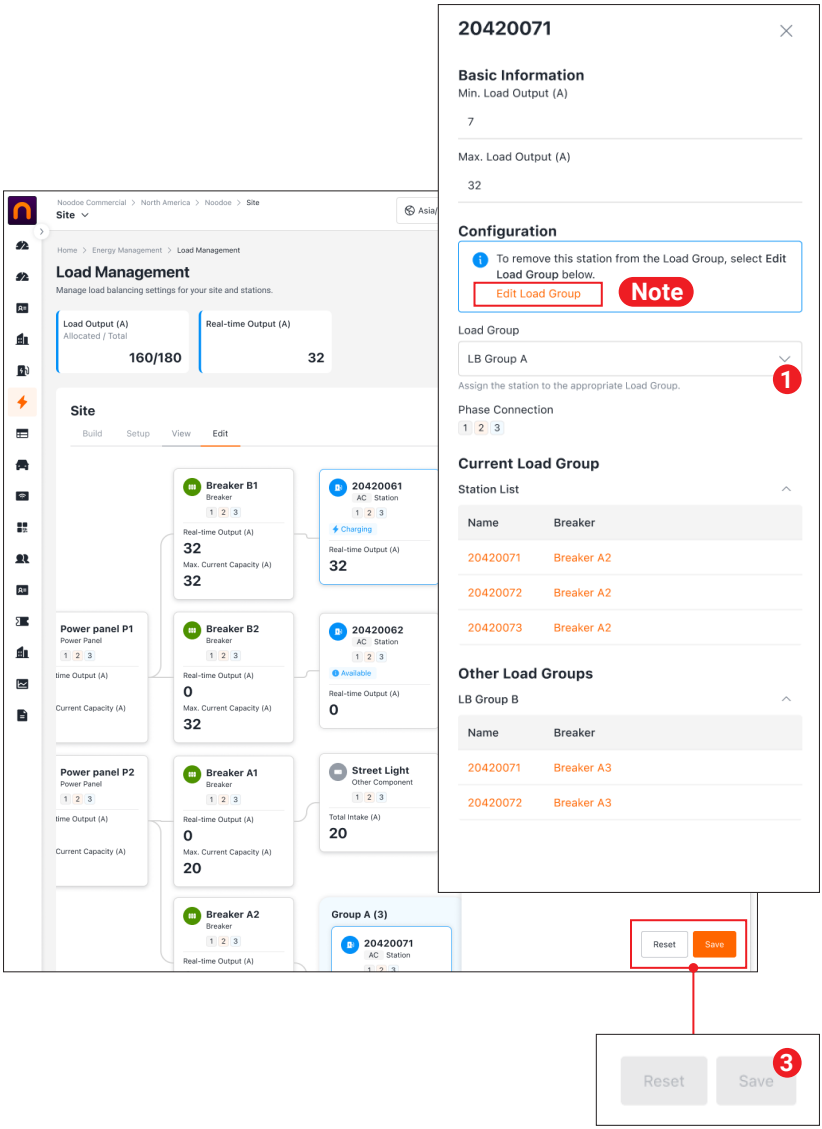
Current Load Group

Other Load Group

3.5.6.1 Move Stations to Another Load Group

1. Click the drop-down menu for load group
2. Select a new load group.
3. Click **Save** to apply the changes or click **Reset** to clear any entries.

> **Note:** Removing stations and configuring load output cannot be done from this view. Click **Edit Load Group** to perform these actions.


20420071
Basic Information
Min. Load Output (A)
7
Max. Load Output (A)
32
Configuration
To remove this station from the Load Group, select Edit Load Group below.
Edit Load Group
Note
Load Group
LB Group A
1
Assign the station to the appropriate Load Group.
Phase Connection
1 2 3
Current Load Group
Station List
Name
Breaker
20420071
Breaker A2
20420072
Breaker A2
20420073
Breaker A2
Other Load Groups
LB Group B
Name
Breaker
20420071
Breaker A3
20420072
Breaker A3
Load Management
Manage load balancing settings for your site and stations.
Load Output (A)
Allocated / Total
160/180
Real-time Output (A)
32
Site
Build
Setup
View
Edit
Breaker B1
Breaker
Real-time Output (A)
32
Max. Current Capacity (A)
32
20420061
AC Station
Charging
Real-time Output (A)
32
Power panel P1
Power Panel
Breaker B2
Breaker
Real-time Output (A)
0
Max. Current Capacity (A)
32
20420062
AC Station
Available
Real-time Output (A)
0
Power panel P2
Power Panel
Breaker A1
Breaker
Real-time Output (A)
0
Max. Current Capacity (A)
20
Street Light
Other Component
Total Intake (A)
20
Breaker A2
Breaker
Real-time Output (A)
Group A (3)
20420071
AC Station
Reset
Save
Reset
Save
3

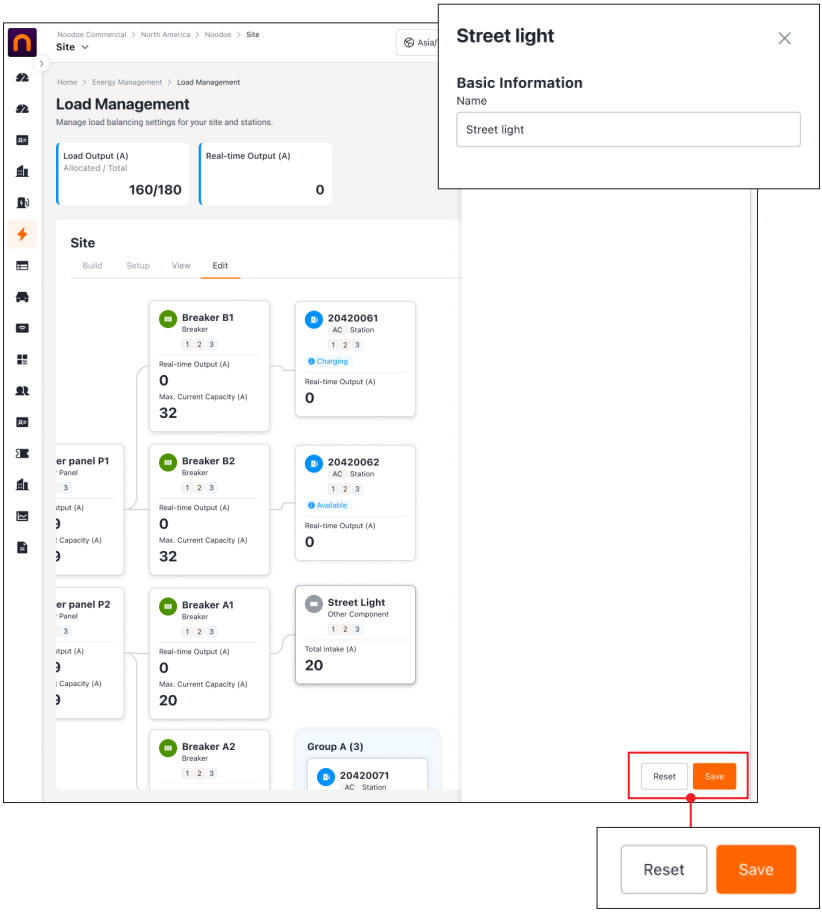
3.5.7 Other Component

Select **Other Component** to open the edit panel. The following information is displayed:

Basic Information

- Name

Modify the name of other component, then click **Save** to apply the changes or click Reset to clear any entries.

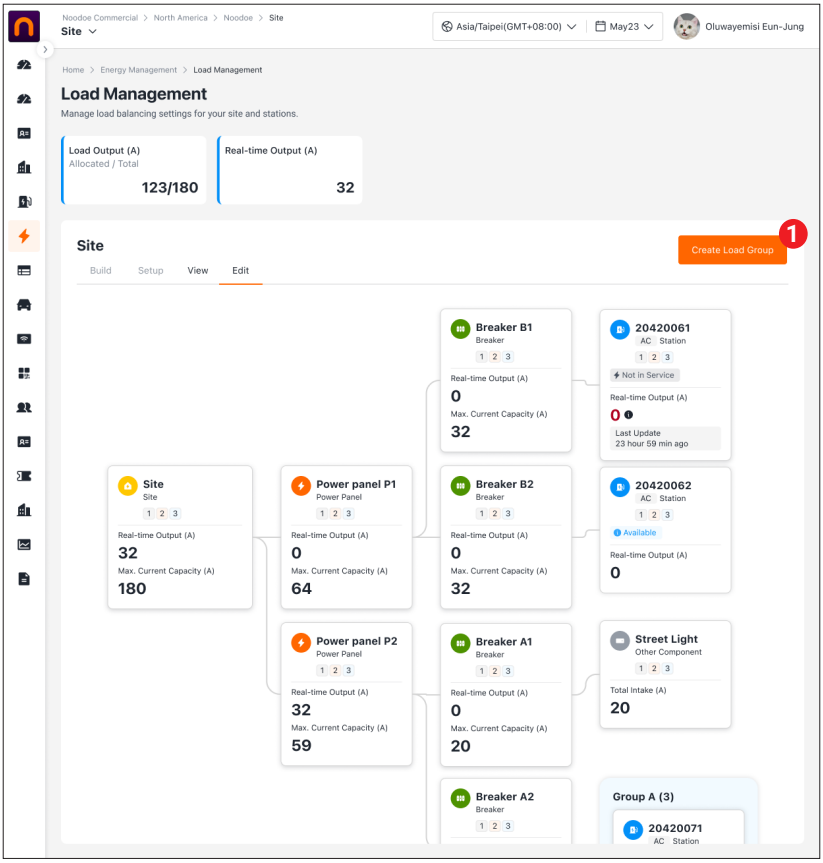


3.5.8 Create Load Group

The Create load group feature allows you to organize multiple stations into a load group, optimizing power distribution and management.

When creating a new load group, the stations can be selected from both individual stations and stations in other load groups. Follow the steps below to create a load group:

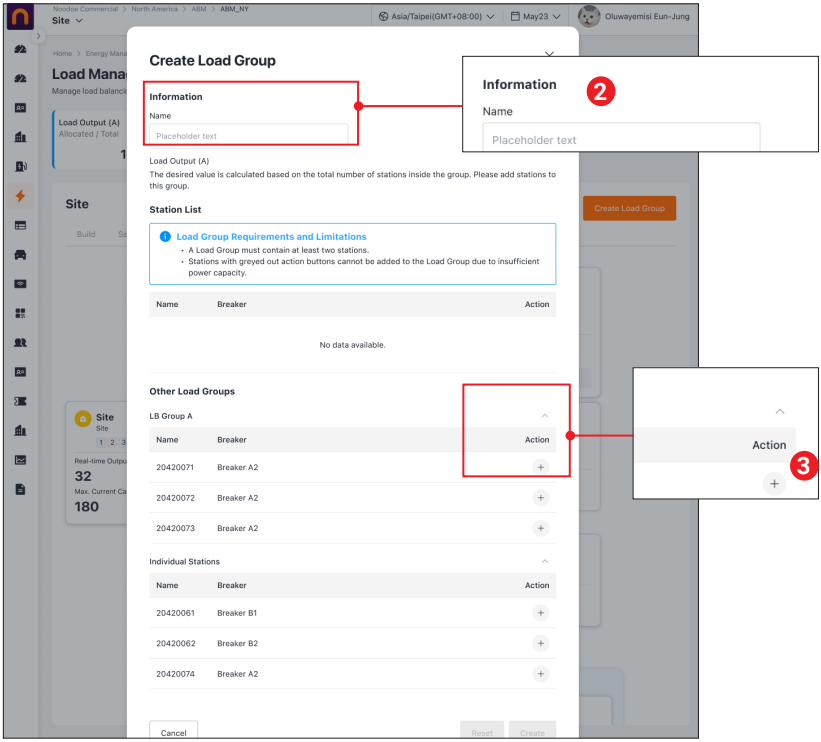
1. On the Load Management page, click **Create Load Group.**



2. Enter a name for the load group.

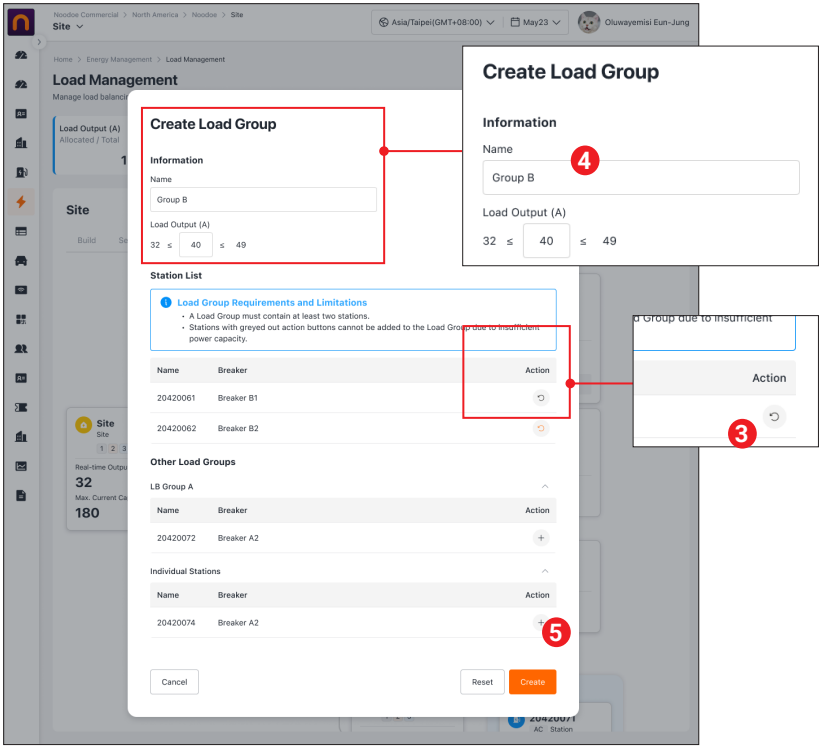
3. Select stations from other load groups or individual stations by clicking the **Add button**.

   Stations selected for the load group will appear in the Station List. Click the **Undo button** to revert your selection.



4. Configure the load output of the load group.

5. Click **Create** to create the load group or **Reset** to reconfigure your load group.

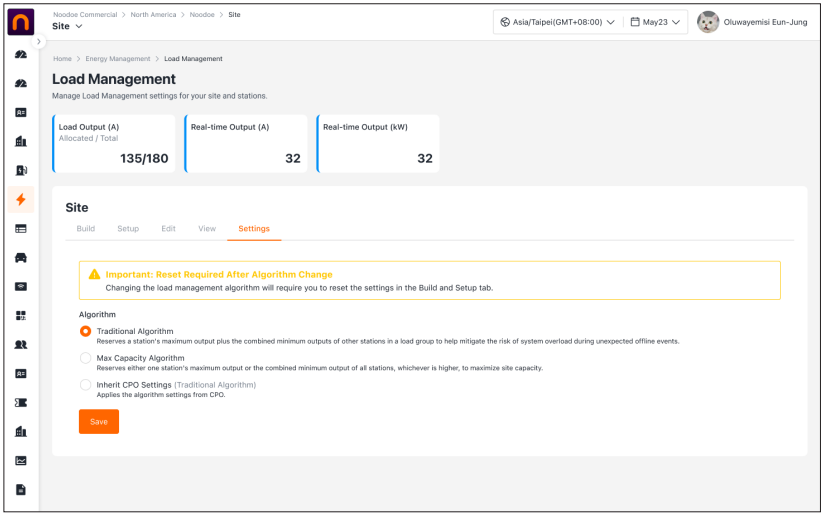


> **Note:** Stations cannot join a new load group if their original breaker or power panel has insufficient capacity.

3.6 Settings

Select an algorithm or inherit from the CPO (available only for sites associated with a CPO).

> **Note:** Build and Setup settings will reset upon algorithm update.



Need Help?

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Please visit our Help Center if you have any questions or need assistance.

https://help.noodoe.com/hc/en-us