

Road To Power HV Flexible Connection Tool Connections Offer Journey

Document scope

This specification details the connection assessment journey for the Road To Power HV Flexible Connection Tool Specification.

The results page of the tool will provide users with options to connect to NGED's HV network.

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Version History

Date	Version	Author(s)	Notes
28/02/2025	0.1	L. Guthrie	Wireframe creation of results page
01/04/2025	0.2	A. Irshad	Document updated to reflect tool user interface
04/04/2025	0.3	A. Irshad	Document updated for final review

Final Approval

Approval Type	Date	Version	EA Technology Issue Authority
Review	01/05/2025	1.0	Louise Guthrie

Site Detail Collection

Sign in to your account

Email address

Password

New user? [Create an account](#)

Sign In

Welcome to

HV Flexible Connection Tool

As part of the HV Flexible Connection Tool user journey, the first step involves accessing the tool through the Sign In page. On this screen, returning users are prompted to enter their registered email address and password in the respective input fields. Once both fields are filled, the "Sign In" button becomes active, enabling users to proceed into the tool. If either field is left empty, the button remains disabled to prevent incomplete login attempts. For new users, a "Create an account" link is provided just below the password field, redirecting the user to the registration page.

Connection Details

Is your works a temporary connection? ?

☒ Yes ☐ No

When will your connection start and end? ?

Start date: 20/03/2025

End date: 28/11/2025

Is this site suitable for a non-standard connection? ?

☒ Yes ☐ No

Previous **Save and Continue**

Connection Guide

Time Profiled Flexible/Curtailable Standard

What does it mean?
Your available capacity will be limited in based on the available capacity of the network. If you exceed these limits, you could be disconnected from the network.

How?
This can be done either by:

- Pre-agreed output limits based on the time of the day/day of the week/season.
- Active Network management based on real time information of the load on the network.

What would I need to provide?
Forward planning to understand what your load profile will be for the

After signing in or creating an account, the user continues to the Connection Details step in the HV Flexible Connection Tool. Here, the user is asked to provide additional information about the connection request. The user must first indicate whether the works involve a temporary connection by selecting either "Yes" or "No". If "Yes" is selected, the user must specify the start date and end date of the temporary connection. The user is also asked whether the site is suitable for a non-standard connection by selecting either "Yes" or "No". These inputs help determine the type and duration of the network connection being requested.

On the right side of the screen, a Connection Guide is available to help users choose the right connection type. It includes tabs such as "Time Profiled", "Flexible/Curtailable", and "Standard", each providing explanations, requirements, and implications of different connection types.

Baseline Assessment

For the Road to Power HV Flexible Connections assessment there are two main user input journeys:

- The user only provides their maximum site demand
- The user provides their variable site load demand

This creates two connection assessment journeys following the input from the customer.

Edit Site Profile

Enter a unique name for the site: ?

Site name

Building Plot C

Choose the site location type: ?

Find location by

Postcode

▼

Enter the site location: ?

Postcode

W12 0HS

Enter the expected total site load in kVA: ?

Total kVA

310

The first journey will result in either a standard connection offer, typical of other VisNet connection tools, or a prompt to provide more information if the customer would like to be assessed for a non-standard connection based on the information provided. In either case, the user will provide the expected total site load in kVA.

Is this site suitable for a non-standard connection? ?

☐ Yes

☒ No

If the user selects "No" here, the tool proceeds with a constant maximum capacity for the assessment and the user is taken to the map screen.

If the user selects "Yes" here, the tool will require the user to input the site's prospective daily load profile.

Daily Load Profile

Do you want to assess a daily load profile? ?

☒ Yes

☐ No

What are your daily peaks loads? ?

Start time

08:00

End time

17:30

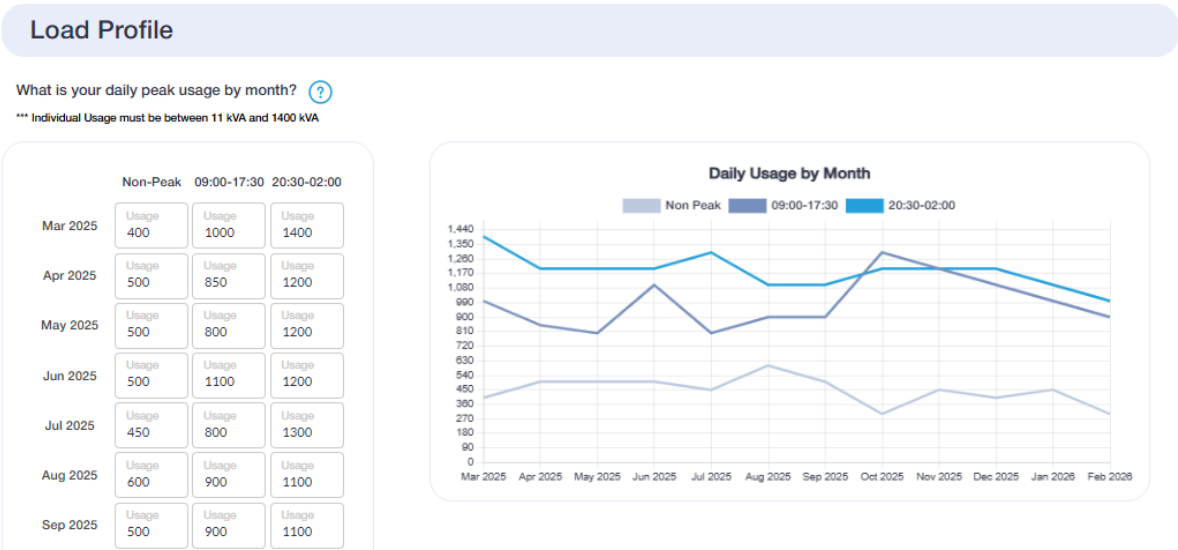
Start time

06:00

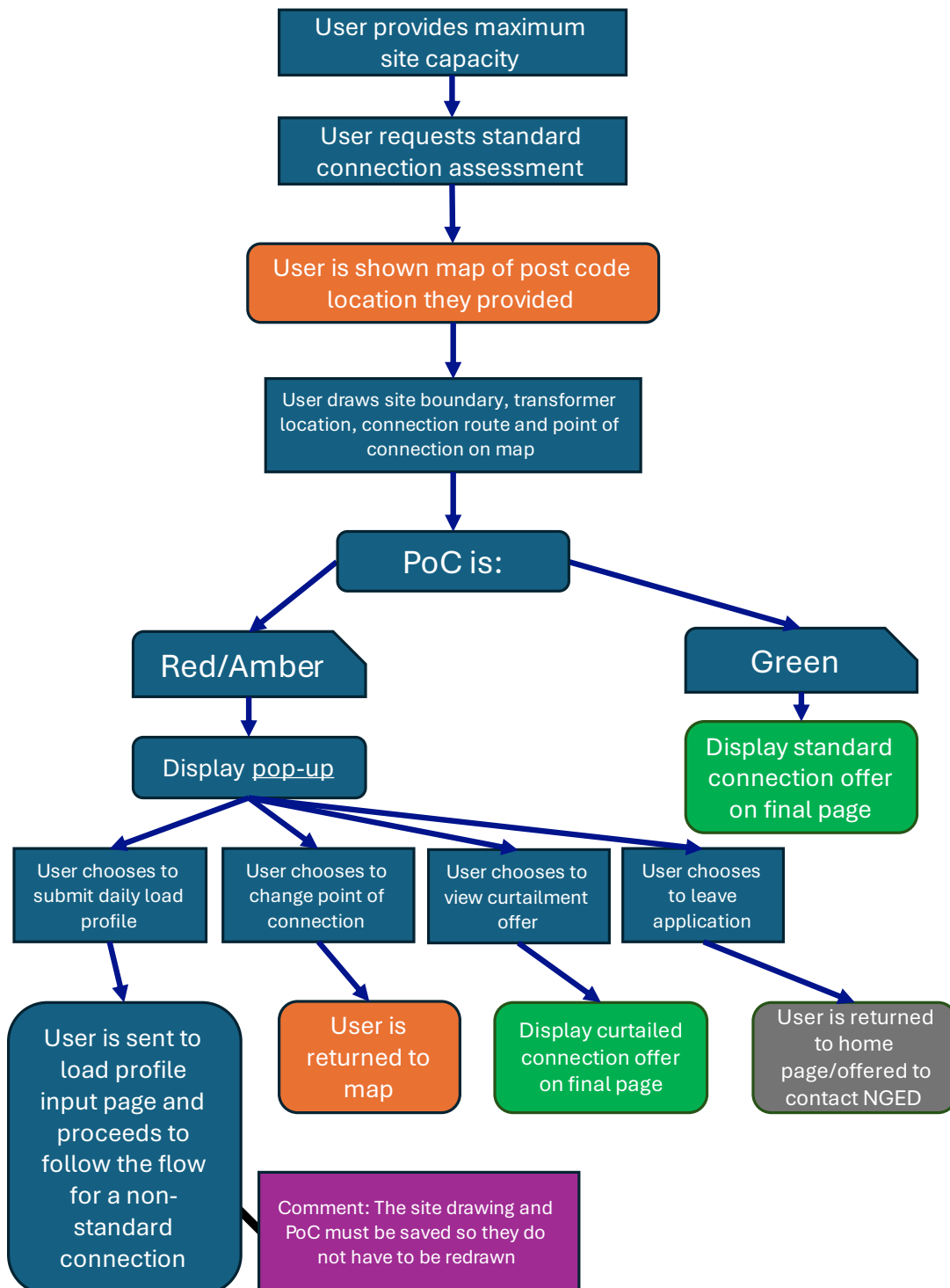
End time

06:30

The user will input their times of peak loads. All hours of the day do not need to be accounted for, only the times of peak demand.



First Assessment Journey: Only Maximum Site Demand Provided

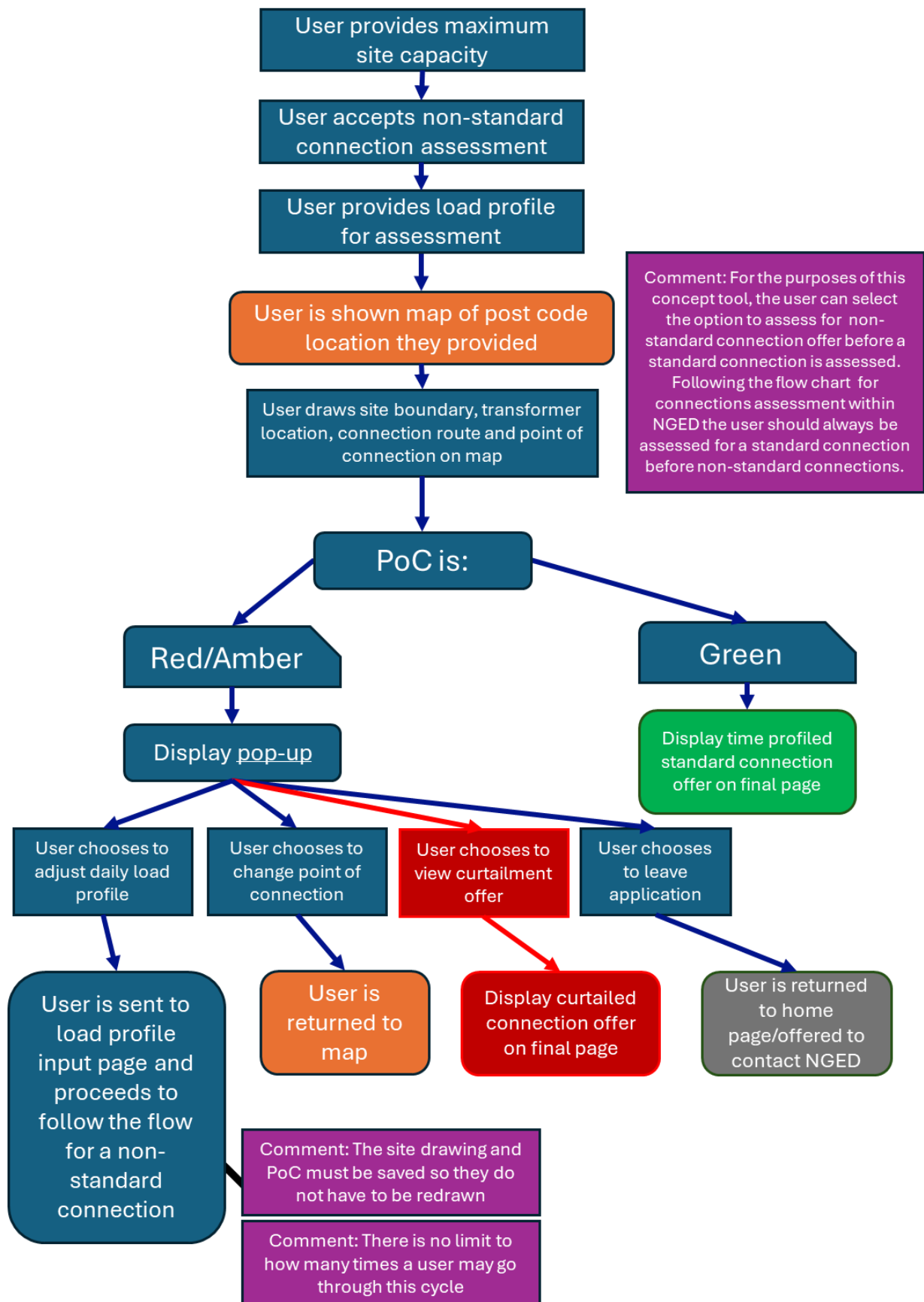


The grey box takes the user back to the front page of the tool.

The orange box takes the user back to the map.

The blue box takes the user to the daily load profile page.

Second Assessment Journey: Variable Demand Profile Provided



The grey box takes the user back to the front page of the tool.

The orange box takes the user back to the map.

The blue box takes the user to the daily load profile page.

The curtailment assessment journey is highlighted in red until the logic for curtailment offers with knowledge of the variable connected load is finalised. An NGED curtailed connection offer is presently assessed against the maximum capacity of the connection as it derives the periods a customer is likely to be curtailed throughout the year. It may not be assessed against a flexible demand profile within this tool.

The logic defining curtailment following this user journey is beyond the scope of this project. It is likely that this tool will be used to provide an indication as to the volume of the curtailment that may occur at the chosen site.

Display Pop-Up Action

The following is the preliminary design for the pop up that prompts the user.

Pop Up Design – If user choses to connect to a red or amber asset



The “Adjust Load Profile” takes the user to the load profile page

The “Change point of connection” takes the user back to the map.

The “Curtailed connection” saves the drawing and takes the user to the final page where they are provided an offer.

Site Profile

Energy Profile

Site Location

Summary

Connection Offer

Refer to National Grid Electricity Distribution



Save and Continue


Standard Connection Summary

Site Reference: **Site00065**

This is a summary of your connection and the selections made on your HV Flexible Connection Tool. Please check each section to ensure that the details entered are correct. Once you are happy with your selections, use the 'Get Connection Offer' button to get your connection options.

Use either the 'Previous' button to go back a step and change any of the options you have selected, or the 'Edit' link at the foot of each section which will take you to the relevant page.

Site Location



[Edit](#)

Site Profile

Enter a unique name for the site: **Standard Connection Example**

Choose the site location type: **Postcode**

Enter the site location: **CF34 0SR**

Enter the expected total site load in kVA: **736**

[Edit](#)

Connection Details

Is your works a temporary connection? **No**

When will your connection start? **07/07/2025**

When will your connection end? **N/A**

Is this site suitable for a non-standard connection? **No**

[Edit](#)

[Previous](#)

[Get Connection Offer](#)

*For proof of concept this will be the requested connection date or a date minimum 2 months out from connection request received.

For example: If customer proposed connection date is earlier than the viable possible connection date (as provided by NGED for time limits to connect HV customers) then the viable possible connection date of 2 months from connection request will be used.

Worked example:

Connection Request Received: 02/03/2025

Date of Connection Requested: 06/04/2025.

Date of Connection Offered: 03/05/2025

Within this proof-of-concept tool this will be a standard integer placeholder for each connection type. The costing of connections will be fully developed in the Beta phase of the project.

Time Profiled Standard Connection Summary Page


Flexible Connection Summary

Site Reference: Site00064

This is a summary of your connection and the selections made on your HV Flexible Connection Tool. Please check each section to ensure that the details entered are correct. Once you are happy with your selections, use the 'Get Connection Offer' button to get your connection options.

Use either the 'Previous' button to go back a step and change any of the options you have selected, or the 'Edit' link at the foot of each section which will take you to the relevant page.

Site Location



Edit

Site Profile

Enter a unique name for the site: Construction Site Example

Choose the site location type: Postcode

Enter the site location: CF34 0SR

Enter the expected total site load in kVA: 1400

Edit

Connection Details

Is your works a temporary connection? Yes

When will your connection start? 28/03/2025

When will your connection end? 19/02/2026

Is this site suitable for a non-standard connection? Yes

Edit

Previous

Get Connection Offer

Daily Load Profile

Do you want to assess a daily load profile? Yes

What are your daily peaks loads?

09:00 - 17:30

20:30 - 02:00

Edit

Load Profile

What is your load profile across each month?

	Non-Peak	09:00-17:30	20:30-02:00
Mar 2025	400	1000	1400
Apr 2025	500	850	1200
May 2025	500	800	1200
Jun 2025	500	1100	1200
Jul 2025	450	800	1300
Aug 2025	600	900	1100
Sep 2025	500	900	1100
Oct 2025	300	1300	1200
Nov 2025	450	1200	1200
Dec 2025	400	1100	1200
Jan 2026	450	1000	1100
Feb 2026	300	900	1000

Edit

The user will have already gone through the connections user journey to reach this option so this page will summarise their decisions.

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Curtailable Connection Offer Page

HV Flexible Connection Tool

✓ Site Profile
✓ Energy Profile
3 Site Location
4 Summary
5 Connection Offer

Need to speak to a designer?
 If you are unable to use the tool or are having trouble answering a particular question, you can refer the application to our team of planners and we will pick up the details and get back in touch.

[Refer to National Grid Electricity Distribution](#)

1 Draw site boundary
✕

2 Plot substation premise
1/1

Standard size (5m x 4m)

0 Place substation premise
(and the point of supply)
✕

3 Draw cable route
(between the point of supply and the existing network)
✕

4 Save drawing
✕

Reference: Site00064

Postcode: CF34 0SR

Total Load: 1400 kVA

Latitude, Longitude: 51.634874, -3.666122
Grid Reference: SS 84789 94211

Our Flexible Connection Tool runs an automated capacity assessment based on available electronic data. In some instances, an assessment by a National Grid Electricity Distribution engineer may be necessary, and this may give different results to the automated assessment.

Previous

Save and Continue

Based on the point of connection (PoC) as marked in the map, the user will be asked to change the PoC, adjust load profile, or proceed with curtailable connection offer.

* Based on the modelled network capacity and the supplied maximum customer demands, there is a likelihood that the connection will be curtailed within the [from tool assessment take the Hours of the Day/Months of the Year where the customer's load profile exceeds the capacity available]

Worked Example:

Based on the modelled network capacity and the supplied maximum customer demands, there is a likelihood that the connection will be curtailed during the hours of 17:00 to 19:00 during December and January.

**In this proof-of-concept tool, the LIFO stack will be a placeholder integer as this is not assessed with regards to the network location's LIFO stack.

Once user proceeds with curtailable connection, a summary page will appear where user can see the full details of their connection before the offer is made.