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

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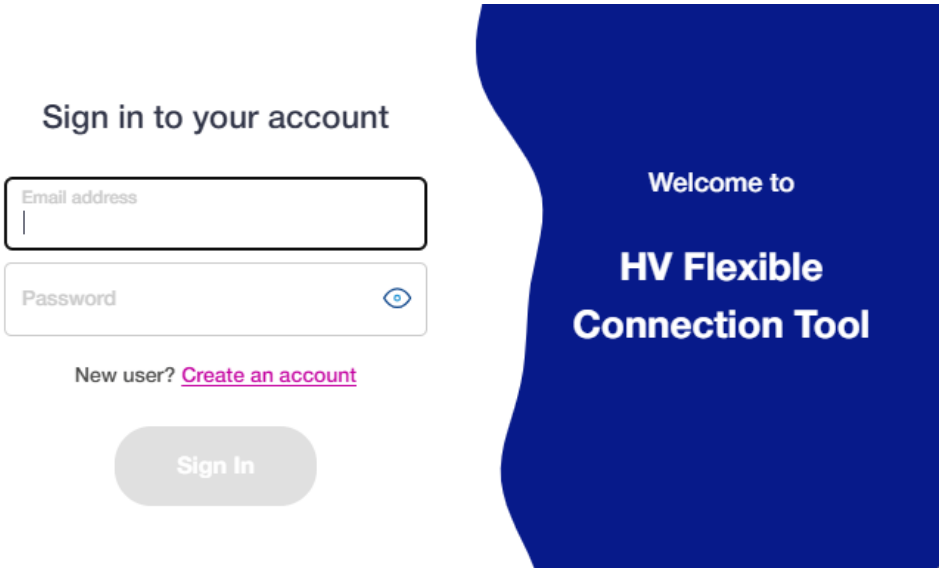
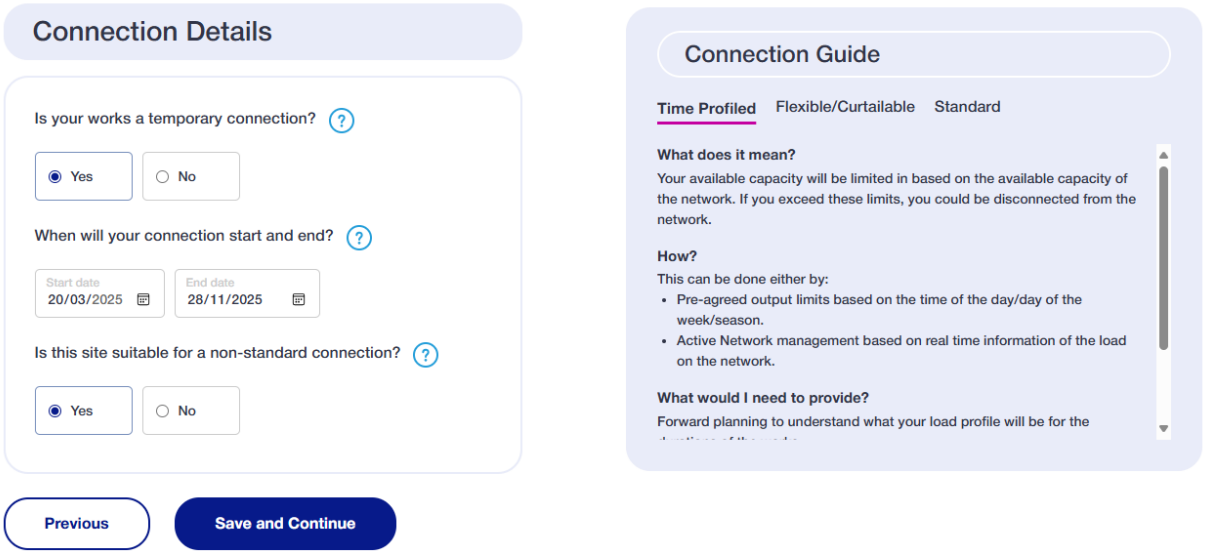
Site Detail Collection



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.



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.

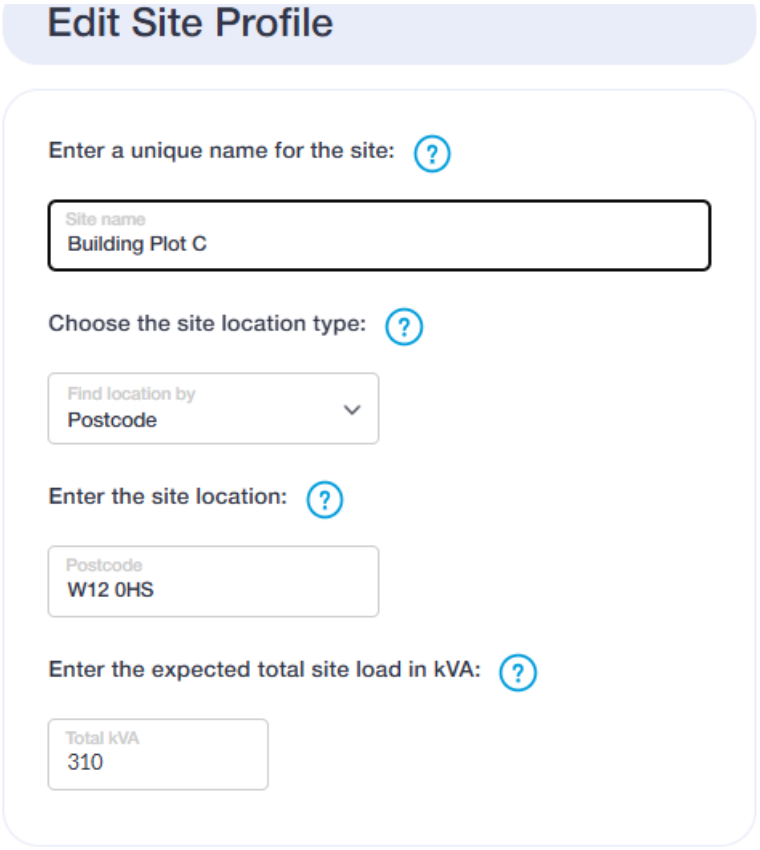
On the right side of the screen, a Connection Guide is available to help users choose the right connection type. It includes tabs such as "Time Profiled", "Flexible/Curtailable", and "Standard", each providing explanations, requirements, and implications of different connection types.

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

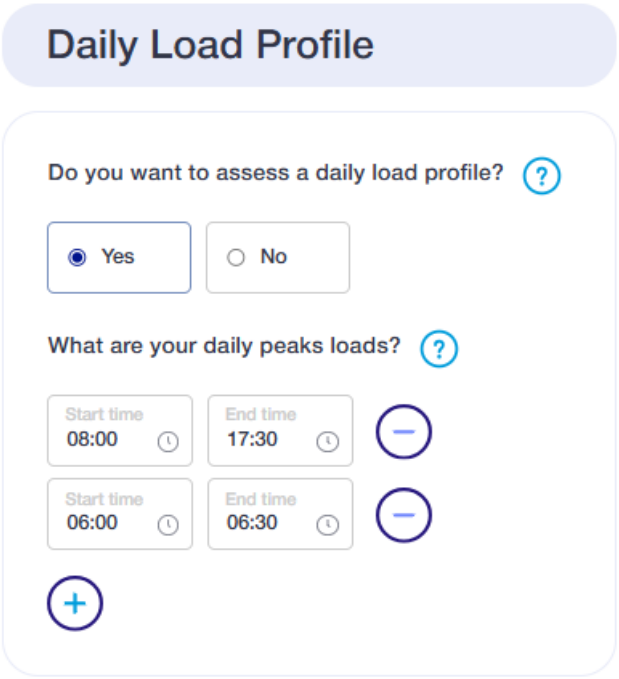
This creates two connection assessment journeys following the input from the customer.



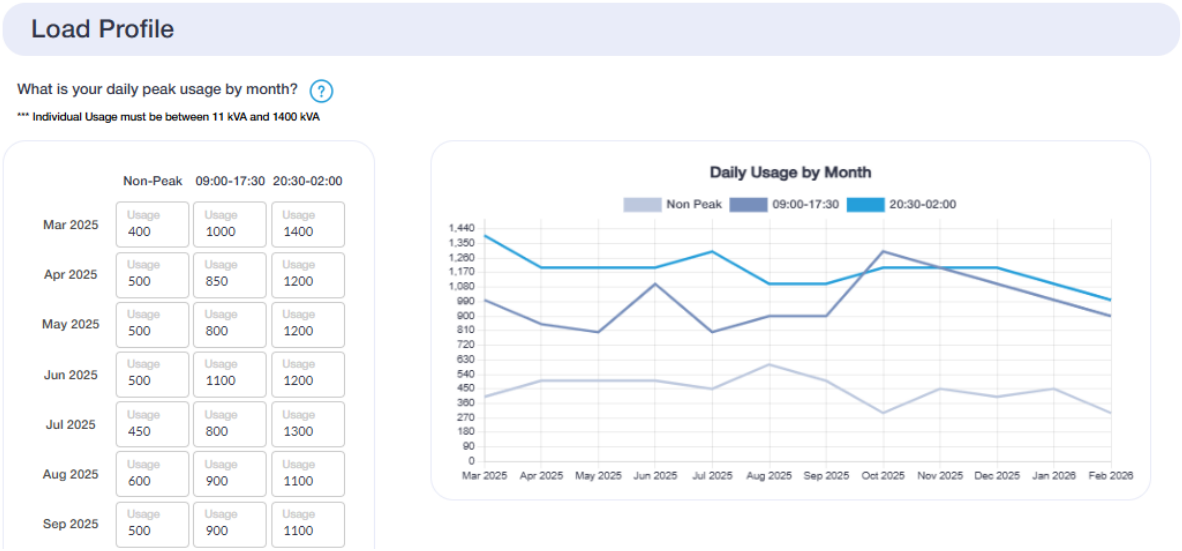
The first journey will result in either a standard connection offer, typical of other VisNet connection tools, or a prompt to provide more information if the customer would like to be assessed for a non-standard connection based on the information provided. In either case, the user will provide the expected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

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.



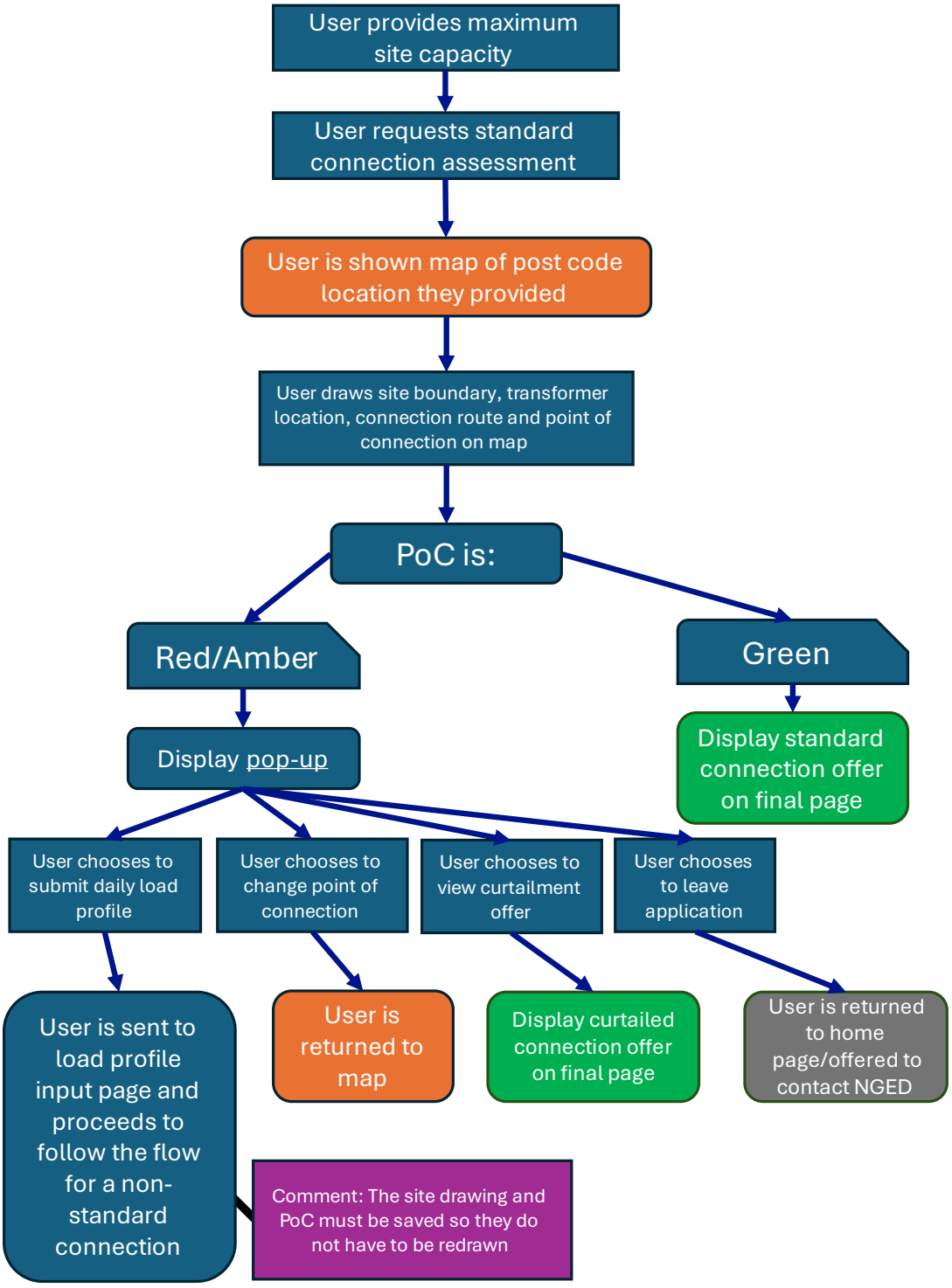
The user will input their times of peak loads. All hours of the day do not need to be accounted for, only the times of peak demand.



The user will then be asked to provide their peak loads during those periods and a value for the demand outside of these peaks. Then the user will be shown the map screen to choose their point of connection (PoC). The network will be coloured based on the RAG status applied by [Reference RAG status Technical Specification].

The following user journey flow charts will result in a connection offer on the final page of the tool. The final page is displayed when the flow reaches a green end point.

First Assessment Journey: Only Maximum Site Demand Provided

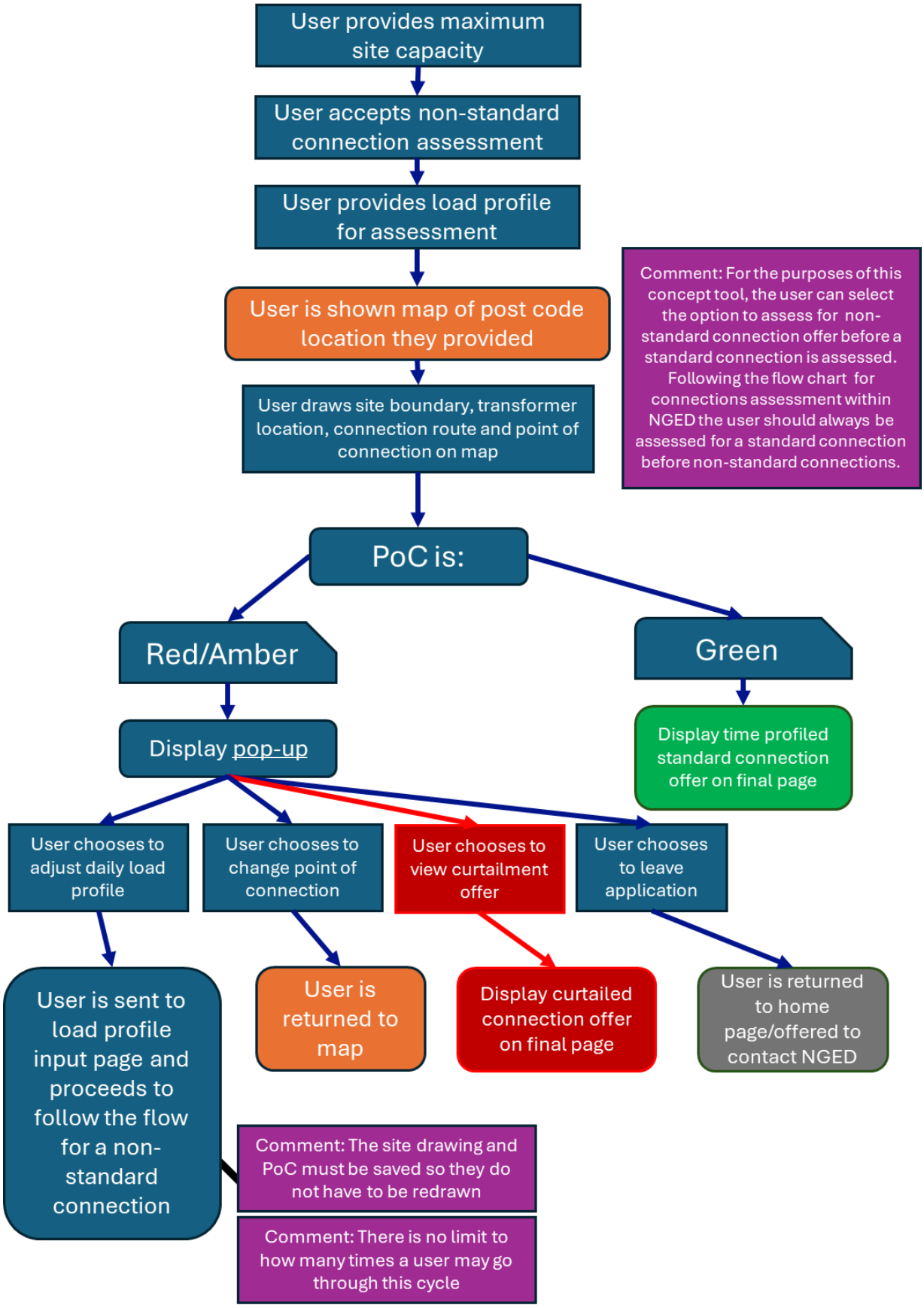


The grey box takes the user back to the front page of the tool.

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.

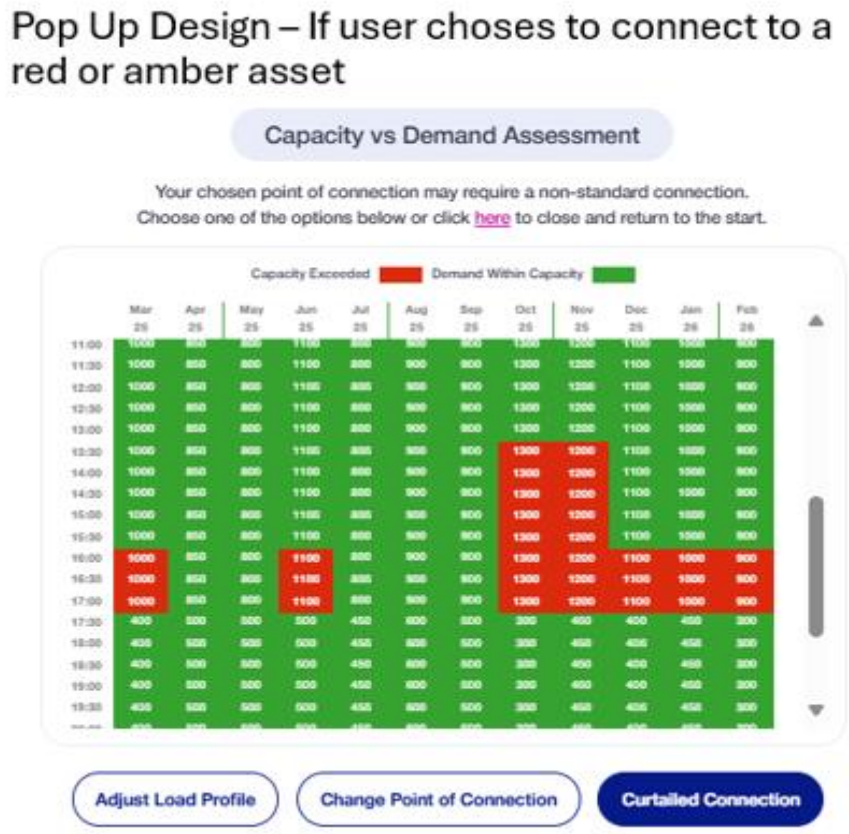
The blue box takes the user to the daily load profile page.

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.

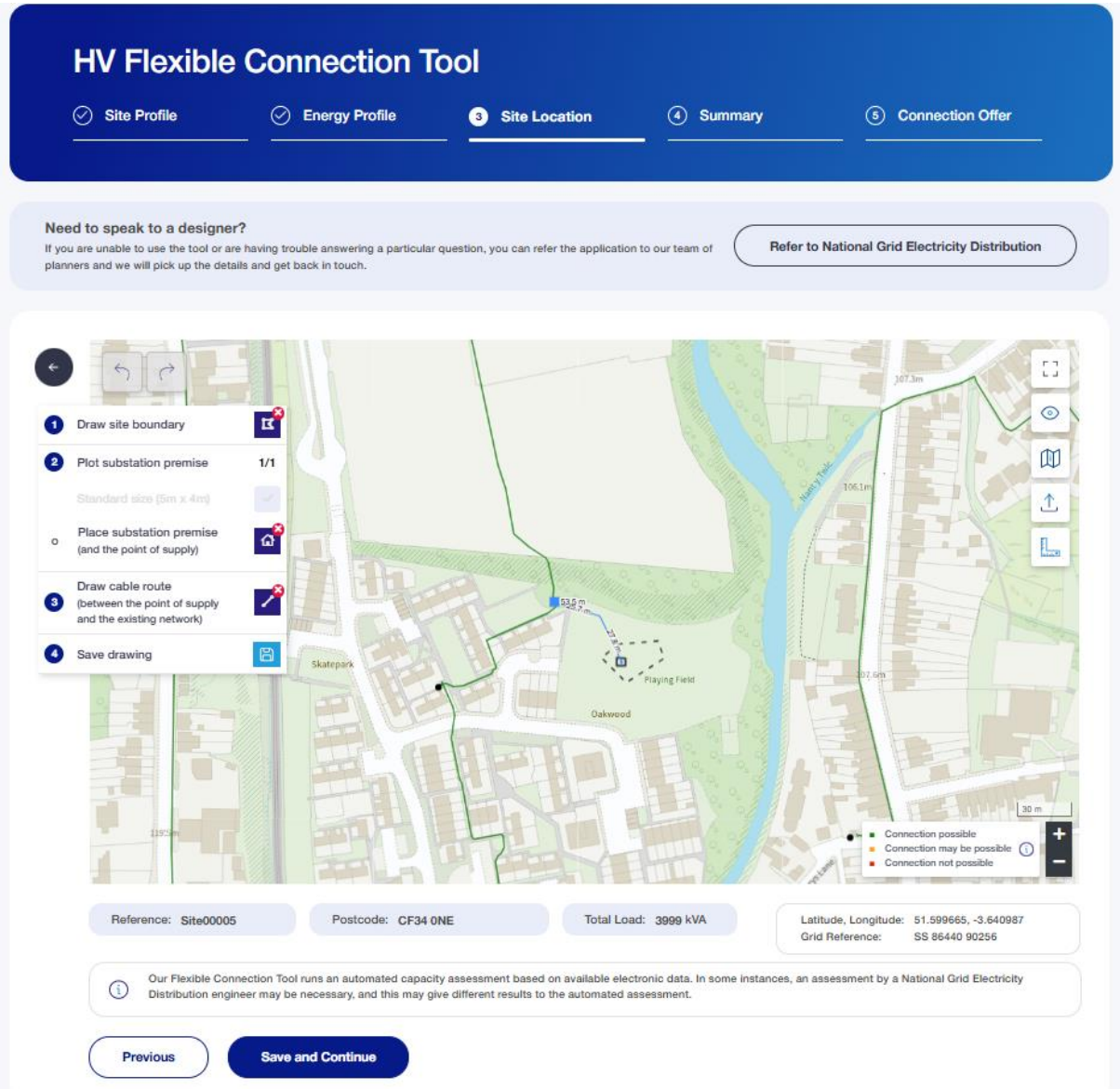


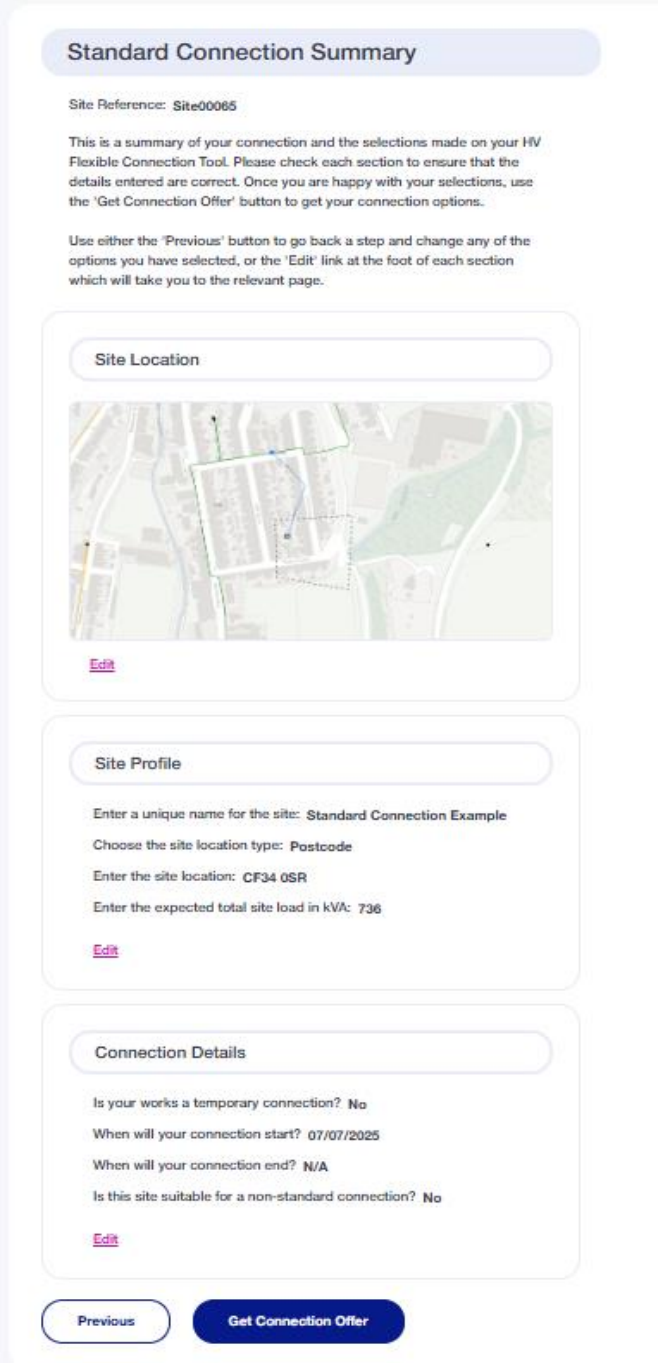
The “Adjust Load Profile” takes the user to the load profile page

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.

All Asset Green – Standard 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

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?

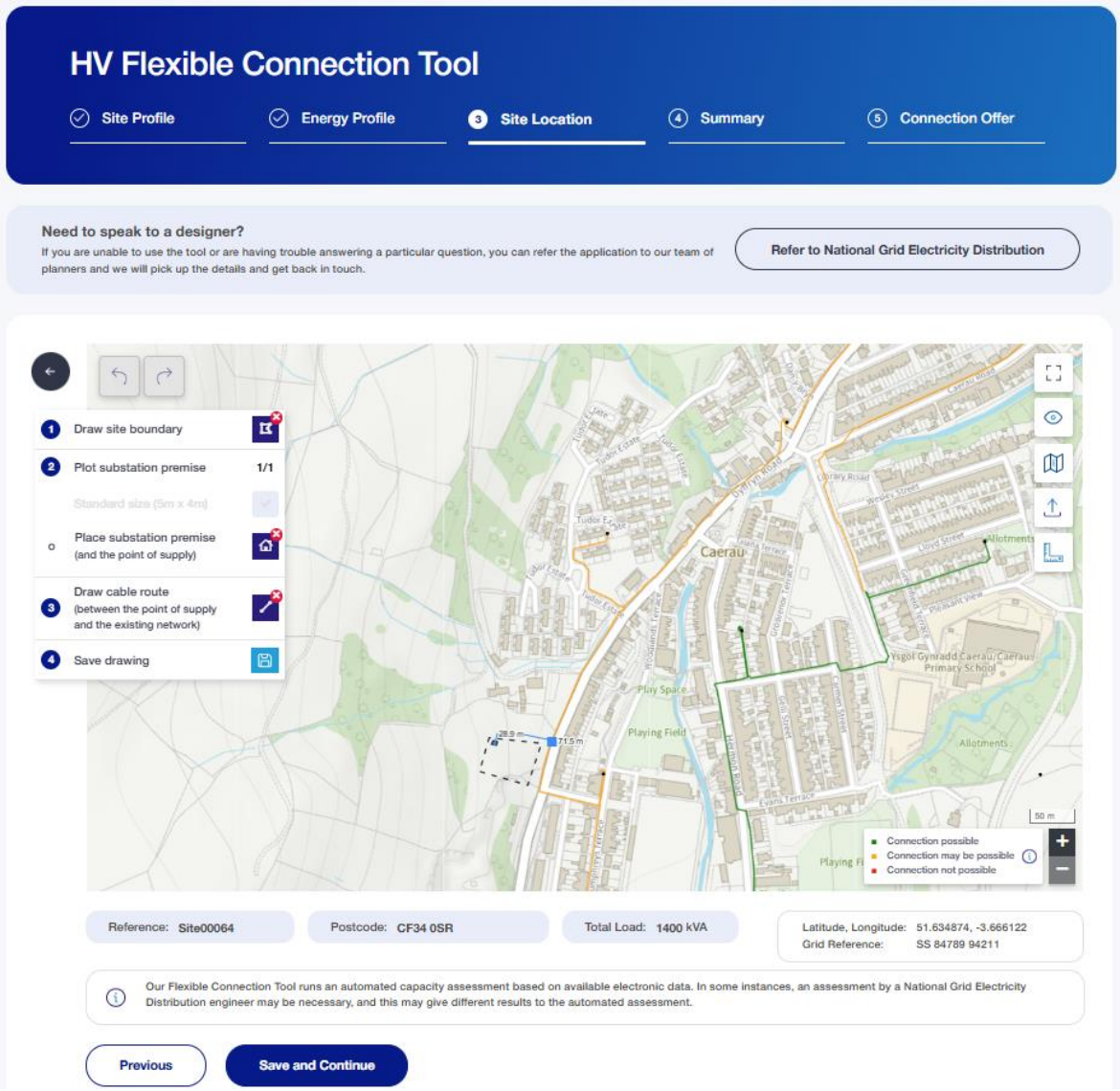
	Non-Peak	09:00-17:30	20:30-02:00
Mar 2025	400	1000	1400
Apr 2025	500	850	1200
May 2025	500	800	1200
Jun 2025	500	1100	1200
Jul 2025	450	800	1300
Aug 2025	600	900	1100
Sep 2025	500	900	1100
Oct 2025	300	1300	1200
Nov 2025	450	1200	1200
Dec 2025	400	1100	1200
Jan 2026	450	1000	1100
Feb 2026	300	900	1000

Edit

Previous | Get Connection Offer

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

Curtailable Connection Offer Page



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.