

Net Zero Neighbourhoods – Logic model and Data Specification

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This document will refer to two key resources:

1. The visual programme logic model - accessible in [Miro through this link](#) or in PDF format [appended to the bottom of this document](#)
2. The tabular programme logic model and associated data items - accessible through the Excel spreadsheet (NZN Logic Model.xlsx) appended to the Grant Funding Agreement. The tabs are detailed as follows:
 - a. Tab 1 - Key Definitions: Defines commonly used terms you'll find through the logic model.
 - b. Tab 2 - M&E Framework: The tabular form of the logic model including recommended reporting and measurement methodologies for each data item.
 - c. Tab 3 - Social Value & Engagement Outputs: This tab sets out indicators for monitoring citizen engagement activities, and reporting social value delivered by projects. Reporting for citizen engagement is relatively light, as most of the insights gained will be qualitative. The industry standard TOMs framework has been used to measure social value.

The NZN Logic model

Background:

The WMCA Net Zero Neighbourhoods team commissioned EQUANS to produce a programme-level logic model, to show a theory of change for hyper-local Net Zero and regeneration projects.

The WMCA team recognises the impact that a detailed and functional logic model provide, and its support in solving some of the problems in delivery of traditional, grant funded retrofit programmes by:

- 1) Improved reporting of the outcomes generated from decarbonisation projects, in a way that is more holistic and captures the co-benefits delivered through interventions.
- 2) Connecting project outputs to wider outcomes which is a powerful tool for citizen engagement and supports effective co-design; allowing citizens to make a more informed decision on the activities delivered in their neighbourhoods.

Additionally, as the Net Zero Neighbourhood approach has a broad scope that touches on all aspects of place-based decarbonisation, we required a method to accurately monitor progress for a great range of project outputs, while addressing the problems set out above. This iteration of the logic model and data specification is our first step in designing a truly fit-for-purpose framework to monitor the outputs of Net Zero Neighbourhood projects and evaluate their success in delivering outcomes for residents, councils, and the region.

Purpose of the logic model:

The logic model aims to connect project outputs, the interventions delivered in neighbourhoods, to high-level outcomes. For projects with a strong idea of interventions to be delivered, the logic model provides a framework to monitor the outcomes of this delivery. Conversely, for projects that want to achieve certain outcomes, it can be used to identify key outputs or interventions that can help deliver these.

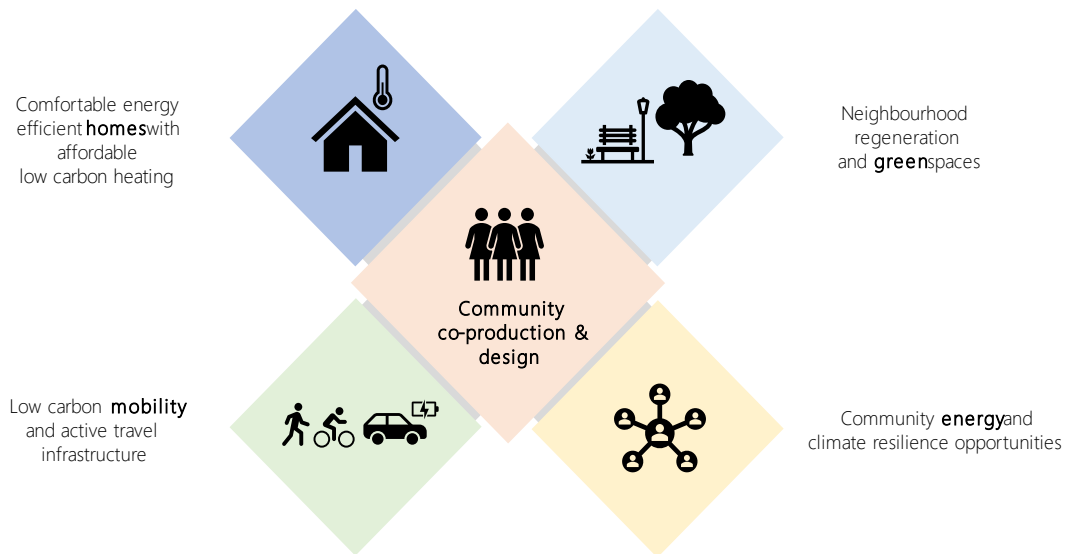
Structure:

The logic model focuses on 4 key **pillars** underpinning the Net Zero Neighbourhood approach:

1. Comfortable energy efficient buildings with affordable low carbon heating
2. Neighbourhood regeneration and green spaces

3. Low carbon mobility and active travel infrastructure

4. Local energy



Each pillar is comprised of a number of **impacts**, high-level changes we wish to see in the region, based on the Inclusive Growth framework and our existing Net Zero strategies. Examples of these impacts include:

I.01 - Carbon emissions decoupled from economic growth and reduced to net zero by 2041

I.02 - Designing out homelessness and reducing fuel poverty in the West Midlands through prevention by design

I.03 - The electricity grid is able to manage demand, generation, current and future constraints

For each impact, there are a number of indicators that measure progress against these impacts. There are two types of indicators in the logic model: **intermediate outcomes (IN)** and **immediate outcomes (IM)**. Intermediate outcomes are higher-level, to be recorded and monitored at WMCA level, while immediate outcomes are measurable and recorded at project level.

Feeding into these indicators are a range of **outputs** which are the project activities which may be delivered in each neighbourhood.

Outputs for the logic model have been identified through collaboration of WMCA SMART Hub team, subject matter experts, and thorough consolidation of the existing NZN plans for the region.

The graphic below lays out the structure of the logic model, with an example taken from the Miro board.

For this example, the pillar which was chosen as a hypothetical project outcome is: **Comfortable energy efficient buildings with affordable low carbon heating**. Using this pillar we have worked down the chain from a high level, through an **impact, intermediate and immediate outcomes**, and finally reaching a **project output**. The project output suggests suitable activities to deliver the chosen outcome, what impacts that will deliver, and which outcomes to measure to evaluate how successful the output has been in delivering the impact.

Logic Model Structure	Example
Pillar	Comfortable energy efficient buildings with affordable low carbon heating
Impact	I.01 - Carbon emissions decoupled from economic growth and reduced to net zero
Intermediate Outcome	IN.03 - Operational building emissions are reduced to minimum levels.
Immediate Outcome	IM.14 - Individual building emissions are reduced to minimum levels.
Output	IM.08 - Buildings are thermally efficient.
	O.03 - Appropriate retrofit measures are identified and installed.

The NZN Logic Model User guide:

This logic model is not intended to be prescriptive, as it is unreasonable to deliver against every output in each neighbourhood. However, for impacts the project will focus on, the logic model gives recommended metrics to standardise reporting between projects in order to support the investment case being developed through the wider LNZA programme.

This logic model is a programme and project asset to be used by different teams in their preferred way, however, as it is a complex asset and potentially overwhelming at first glance, we have included two recommended use methodologies below as examples.

For projects interested in delivering specific key outcomes, use both the Miro board and the Excel spreadsheet to follow journey 1 (outcomes focused), and similarly for projects with a clear idea of the interventions to be delivered, using the Miro board and Excel spreadsheet follow journey 2 (output focused).

Journey 1 – Outcomes focused (top down)	Example
<ol style="list-style-type: none"> 1. Starting on the Miro board, identify the key outcomes you are hoping to achieve through the project, corresponding to the four pillars. 2. Identify what impacts the project aims to deliver. 3. Work down the chain, using priority intermediate and immediate outcomes, to identify project outputs. 4. Use the appropriate project outputs to inform key activities to be delivered in the neighbourhood. 5. Moving to the Excel spreadsheet, take the reference number on each indicator and output to locate the recommended methodology for monitoring against each element. This includes recommended units, data titles, and recording frequency, amongst others. <p>Note that for immediate outcomes and outputs, the project team are the responsible party for recording and monitoring progress, whereas intermediate outcomes and impacts are recorded at a regional level, with the WMCA being the responsible party.</p>	<ol style="list-style-type: none"> 1. Select a pillar, for instance, <i>Neighbourhood regeneration and green spaces</i>. 2. From the <i>Neighbourhood regeneration and green spaces</i> pillar (grey box) identify what impacts (yellow boxes) we hope to deliver through the project. For example, Impact 04 - Avoidable differences in health outcomes are reduced so that everyone can live longer, healthier, and happier lives. 3. From this impact, note all the intermediate (blue boxes) and immediate outcomes (red boxes), that contribute to delivering the impact. In this instance the list is: <ol style="list-style-type: none"> a. <i>IN.07 - Preventable deaths associated with respiratory disease are reduced in the region.</i> b. <i>IN.04 - Outdoor air quality is at healthy levels for human occupation.</i> c. <i>IM.28 - Proportion of green spaces, trees and biodiversity increases.</i> d. <i>IN.02 - Preventable deaths associated with climate and temperature are reduced in the region.</i> e. <i>IN.15 - Natural infrastructure offers effective shading and urban cooling.</i> f. <i>IN.10 - Reduction in demand on mental health services.</i> g. <i>IM.10 - Residents report improved levels of wellbeing.</i>

	<ul style="list-style-type: none"> h. <i>IN.01 - Preventable deaths associated with cardiovascular disease are reduced in the region.</i> i. <i>IM.01 - Residents report improved levels of general health.</i> j. <i>IM.23 - Residents are more physically active.</i> k. <i>IM.29 - Residents access green spaces.</i> l. <i>IM.30 - Residents have reasonable access to green spaces.</i> m. <i>IM.31 - Residents feel safe and comfortable in green spaces.</i> <p>4. Identify appropriate project output(s), deriving from the outcomes. In this instance we will select: Output O.19 - Natural infrastructure measures installed.</p> <p>5. Moving to the spreadsheet, filter the '#' column (column A), for the identified references, (<i>IN.07, IN.04, IM.28, etc.</i>) Look across each row for recommended reporting methodologies.</p>
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Journey 2 Outputs focused (Bottom up)	Example
<ol style="list-style-type: none"> 1. With an idea of what project activities are to be delivered in the neighbourhood, identify which outputs most closely align to those activities. Take a note of the references of each output to refer to later. 2. For each output, trace up the logic chain through the immediate and intermediate outcomes, again taking note of the references. 3. Moving further up the chain, identify what outcomes will be achieved by the project output. 4. Moving to the excel spreadsheet, take the reference number on each output, immediate and intermediate outcome to find the recommended methodology for monitoring against each element. This includes recommended units, data titles, and recording frequency, among others. <p>Note that for immediate outcomes and outputs, the project team are the responsible party for recording and monitoring progress, whereas intermediate outcomes and impacts are recorded at a regional level, with the WMCA being the responsible party</p>	<ol style="list-style-type: none"> 1. Select a project output, for example, Output O.18 – Active travel infrastructure installed. 2. From this output, follow up the chain, identifying immediate outcomes (red boxes) and intermediate outcomes (blue boxes), noting the reference numbers for later. In this instance these are: <ul style="list-style-type: none"> a. <i>IM.26 - Active travel routes are safe for residents</i> b. <i>IN.18 - Infrastructure in place to support active travel for short journeys</i> c. <i>IM.25 - Residents employ active travel methods where possible</i> d. <i>IM.23 - Residents are more physically active</i> e. <i>IN.14 - Reduction in the overall number of vehicles on roads.</i> f. <i>IM.10 - Residents report improved levels of wellbeing.</i> g. <i>IN.04 - Outdoor air quality is at healthy levels for human occupation</i> h. <i>IN.08 - Emissions from transport are reduced to minimum levels.</i>

	<ul style="list-style-type: none"> i. <i>IN.07 - Preventable deaths associated with respiratory disease are reduced in the region.</i> j. <i>IN.10 - Reduction in demand on mental health services.</i> k. <i>IN.01 - Preventable deaths associated with cardiovascular disease are reduced in the region.</i> <p>3. Identify impacts, evidenced by the list of outcomes, that the project output will contribute towards. In this instance:</p> <ul style="list-style-type: none"> a. <i>I.01 - Carbon emissions decoupled from economic growth and reduced to net 0 by 2041</i> b. <i>I.04 - Avoidable differences in health outcomes are reduced so that everyone can live longer, healthier and happier lives</i> <p>4. Moving to the spreadsheet, filter the ‘#’ column (column A), for the identified references, (IM.26, IN.18, IM.25, etc.) Look across each row for recommended reporting methodologies.</p>
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The NZN Data Specification

Integration of the NZN Logic model with the Data Specification

The data specification sets out the minimum level of reporting required from the project team to the WMCA. It covers key activities, common to every project and deemed necessary for both successful delivery of the project and achieving the wider aims of the LNZA programme.

Items on the data specification are directly from the Logic model spreadsheet and as such, have recommended monitoring methodology attached. For these core data items, we ask that the methodology is followed as laid out on the spreadsheet. For additional items beyond the data specification, the WMCA prefers projects to follow the suggested reporting methodology. However, this will not be mandated as to not be too prescriptive.

NZN Data Specification and required project outrun data

This section details outrun data from the neighbourhood required from the Net Zero Neighbourhood project to support work packages under the parent Local Net Zero Accelerator programme. The data-led approach will allow us to make more informed decisions around the retrofit measures installed in homes and build the evidence base for outcomes-seeking finance.

The below table, an excerpt from the spreadsheet, details the required data items required from the project. For full details on suggested reporting methodology for each indicator, please refer to the Logic model spreadsheet

Despite there being many data points in the table, a large number only require baseline data. As there is limited scope for delivery of interventions, reporting against project outputs may be minimal. Where project outputs are delivered, the logic model gives recommended reporting methodologies. As such, the resource load for reporting against these indicators and outputs is relatively low. Additionally, many of the data points listed below may be beyond the scope of the projects at this stage. For example, IM.32 - Natural infrastructure maximises carbon sequestration, requires the delivery of natural infrastructure before this indicator can be measured. In this instance, data against this indicator will not be required, if no activity in this area is delivered. A complete monitoring and evaluation reporting guide will be confirmed with each LA, on submission and agreement of their project plan, at the first monthly meeting.

Table 1: Required project outrun data or the NZN Data Specification

Reference #	Result
IM.01	Residents report improved levels of general health
IM.02	Indoor air pollutants are minimised.
IM.03	Building users aren't reliant on technologies and behaviours that negatively impact indoor air quality.
IM.04	Buildings do not have unmanaged levels of damp and mould.
IM.05	Building humidity levels are managed.
IM.06	Buildings are well ventilated with ventilation mechanisms appropriate for the structure and its use.
IM.07	Indoor temperature does not consistently or frequently drop below for 15C
IM.08	Buildings are thermally efficient.
IM.09	Buildings have efficient and effective temperature control systems in place
IM.10	Residents report improved levels of wellbeing.
IM.11	Building users are able to use the building comfortably
IM.12	Building users use energy efficiently while concurrently meeting their usage needs.
IM.13	Building users aren't reliant on energy inefficient technologies.
IM.14	Individual building emissions are reduced to minimum levels.
IM.15	Temperature control systems are low carbon.
IM.16	Energy used by buildings is low carbon.
IM.17	The building is connected to low carbon energy.
IM.18	The building generates its own energy.
IM.19	The cost of energy is affordable for residents.
IM.20	Building users' income/ revenue is sufficient to cover the cost of energy
IM.21	All households are classified as EPC C and above
IM.22	It is possible for residents to get to where they need to go when they need in a reasonable time using public transport

IM.23	Residents are more physically active
IM.24	Residents use public transport where possible
IM.25	Residents employ active travel methods where possible
IM.26	Active travel routes are safe for residents
IM.27	Amenities are within a reasonable distance to support active travel methods
IM.28	Proportion of green spaces, trees and biodiversity increases.
IM.29	Residents access green spaces
IM.30	Residents have reasonable access to green spaces
IM.31	Residents feel safe and comfortable in green spaces
IM.32	Natural infrastructure maximises carbon sequestration.
IM.33	Appropriate and sustainable systems are in place to support water storage and drainage
IM.34	More renewable energy is generated locally.
IM.35	Increase amount of flexibility connected to the grid.
O.01	Building users know how to minimise indoor air pollutants.
O.02	Building users know how to minimise indoor humidity.
O.03	Appropriate retrofit measures are identified and installed.
O.04	Building users are able to afford the cost of retrofit measures.
O.05	Building users are able to afford the cost of energy.
O.06	Building users know how to manage and maintain healthy indoor temperatures effectively.
O.07	Building users know how to use energy efficiently.
O.08	Building users are able to afford energy efficient technologies.
O.09	Building connected to a green power pool or offsite generation.
O.10	Local, renewable generation technology installed
O.11	Appropriate and itemised LCT technologies installed
O.12	Low/Non-Emitting vehicle infrastructure installed
O.13	Residents and business can afford owning and maintaining low/non-emitting vehicles
O.14	Residents can afford the cost of using public transport
O.15	Public transport infrastructure installed
O.16	Residents are aware of public transport routes, timetables and options
O.17	Residents can afford to purchase/ maintain active travel methods
O.18	Active travel infrastructure installed
O.19	Natural infrastructure measures installed
O.20	Residents are engaged and active in their community

O.21	SUDs measures installed
O.22	Building users are able to afford technologies that don't negatively impact indoor air quality.
E1	Number of local people engaged
E2	Proportion of engagements from local people via different media

Logic Model PDFs

The following pages shows the WMCA's NZN Logic model in PDF format.

Pillar

Impact

Intermediate Outcome

Immediate Outcome

Output

TBC Placeholder

Risk/ context

Neighbourhood regeneration and green spaces

Neighbourhood regeneration and green spaces

