

Carlisle City Centre
Civic Centre
Carlisle
Cumbria
CA3 8QG

Julian Austin
Consultant Town Planner

Tel: 01926 439091
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17th April 2015

Dear Sir / Madam

**Carlisle City Council: Carlisle District Local Plan 2015 – 2030 Proposed Submission Consultation
SUBMISSION ON BEHALF OF NATIONAL GRID**

National Grid has appointed Amec Foster Wheeler to review and respond to development plan consultations on its behalf. We are instructed by our client to submit the following representation with regards to the current consultation on the above document.

National Grid owns and operates the high voltage electricity transmission system in England and Wales and operate the Scottish high voltage transmission system. National Grid also owns and operates the gas transmission system. In the UK, gas leaves the transmission system and enters the distribution networks at high pressure. It is then transported through a number of reducing pressure tiers until it is finally delivered to our customer. National Grid own four of the UK's gas distribution networks and transport gas to 11 million homes, schools and businesses through 81,000 miles of gas pipelines within North West, East of England, West Midlands and North London.

To help ensure the continued safe operation of existing sites and equipment and to facilitate future infrastructure investment, National Grid wishes to be involved in the preparation, alteration and review of plans and strategies which may affect our assets.

National Grid infrastructure within Carlisle City Council's administrative area

Electricity Transmission

National Grid has six high voltage overhead lines (listed below) within Carlisle City Council's administrative area. These form an essential part of the electricity transmission network in England and Wales.

Line Ref.	Description
ZX line	400 kV route from Harker substation in Carlisle to Hutton substation in South Lakeland
XB line	275 kV route from Harker substation in Carlisle to Stella West substation in Gateshead via Fourstones substation in Northumberland
ZV line	400 / 275 kV route from Harker substation in Carlisle to Strathaven substation in Scotland
T line	400 kV route from Harker substation in Carlisle to Dumfries and Galloway in Scotland
V line	400 kV route from Harker substation in Carlisle to Dumfries and Galloway in Scotland
AL line	132 kV route from Harker substation in Carlisle to Dumfries and Galloway in Scotland

The following substation is also located within the administrative area of Carlisle City Council.

Gables House
Kenilworth Road
Leamington Spa
Warwickshire CV32 6JX
United Kingdom
Tel +44 (0) 1926 439 000
amecfw.com

Amec Foster Wheeler Environment
& Infrastructure UK Limited
Registered office:
Booths Park, Chelford Road, Knutsford,
Cheshire WA16 8QZ
Registered in England.
No. 2190074



Harker 400kV, 275kV & 132kV substation

National Grid has provided information in relation to electricity transmission assets via the following internet link:

<http://www2.nationalgrid.com/uk/services/land-and-development/planning-authority/shape-files/>

Gas Transmission

National Grid has seven gas high pressure gas transmission pipelines within the administrative area of Carlisle City Council.

Pipeline	Feeder Detail
FM11	Longtown to Carlisle
FM11	Moffat to Longtown
FM12	Moffat to Longtown
FM12	Longtown to Allendale
FM11	Longtown to Carlisle
FM11	Carlisle to Grayrigg
FM15	Longtown to Plumpton Head

National Grid has provided information in relation to gas transmission assets via the following internet link:

<http://www2.nationalgrid.com/uk/services/land-and-development/planning-authority/shape-files/>

National Grid requests that any High Pressure Major Accident Hazard Pipelines (MAHP) are taken into account when site options are developed in more detail. These pipelines form an essential part of the national gas transmission system and National Grid's approach is always to seek to retain our existing transmission pipelines in situ.

Electricity and Gas Distribution

Northern Powergrid owns and operates the local electricity distribution network and Northern Gas Networks owns and operates the local gas distribution network in Carlisle City Council's administrative area.

Contact details can be found at www.energynetworks.org.uk.

SPECIFIC COMMENTS

Proposed Electricity Infrastructure - North West Coast Connections Project

The North West Coast Connection (NWCC) is a project to connect and export the electricity that will be generated by Moorside, a new 3.4 GW nuclear power station that will be built near Sellafield in West Cumbria and other new energy projects being built in the North West to National Grid's high voltage National Electricity Transmission Network.

There are existing Electricity North West Ltd (ENW) pylon lines which run around the west coast of Cumbria and Lancashire operating at 132 kV and below, however these lines cannot carry the amount of electricity a power station the size of Moorside will generate. To carry the amount of electricity required, National Grid is proposing to build a new high voltage connection from Moorside to our existing national electricity transmission network which is located over 50 kilometres from the site.

National Grid first consulted on this project in 2012. This consultation outlined a number of strategic options considered for developing our existing high-voltage transmission network to connect to Moorside. Following this consultation, National Grid announced the decision to take two strategic options forward, a double circuit connection that goes north and a double circuit connection that goes south.

This was followed by a further consultation in September 2014 outlining the following:

- Two prioritised groups of corridors – these are the corridors National Grid felt achieved the best balance in terms of technical social, economic, environmental and cost considerations. And;
- Alternative groups of corridors – these are the routes National Grid did not prioritise as they felt specific environmental and technical challenges made them less likely to be taken forward.

The consultation also indicated an emerging preference for one route corridor in the prioritised group of connections that can provide a complete corridor. National Grid felt that this route performed better when assessed technical, social, economic, environment and cost factors than the other combinations of routes identified in the prioritised groups.

The map in Appendix 1 shows all the routes within the prioritised group. The NWCC emerging preference feeds into the existing Harker Substation to the north, before bypassing the City of Carlisle to the western fringe and heading in a south-west direction towards Wigton.

Where possible National Grid have looked at the opportunity to follow the path of existing ENW 132kV pylon lines and replace them with our higher voltage equipment. However, this means the NWCC emerging preference has the potential to interact with various established and emerging land uses identified in the emerging Local Plan, to the western edge of Carlisle.

Harker Substation has been identified as a potential component of the NWCC emerging preference and could be the subject of future development and/or modification as a result of the NWCC Project. As such, National Grid considers it appropriate to draw the Council's attention to this in context of the proposed site allocations north of Carlisle City.

Following a review of the Carlisle District Local Plan (Proposed Submission Draft – February 2015), National Grid wishes to draw the Council's attention to a possible interaction between the NWCC emerging preference and sites identified for future development.

We note the Council's aspirations for 'Carlisle South' to be a broad location for future growth, and ultimately deliver a residential led, mixed use urban extension from 2025 onwards. Policy SP3 supports this notion and states that 'Carlisle South' should be developed in accordance with a Masterplan which would be approved as a Development Plan Document.

Whilst the parameters of the 'Carlisle South' urban extension have not yet been established, National Grid are aware of overhead lines in this area which are being considered as part of the NWCC emerging preference. National Grid are therefore keen to work with the Council, developers and stakeholders in the preparation of a Masterplan to ensure their assets are adequately protected and to secure the most appropriate design solutions for this area.

The Proposed Submission Draft Local Plan identifies the housing allocation U7 (Land at Newhouse Farm, south-east of Orton Road) as a site which is expected to deliver in the region of 509 residential units over the next 6-10 years. National Grid are aware that site U7 includes existing overhead lines to the western periphery, which currently form part of the NWCC emerging preference.

In considering the future development of this site, National Grid are in general support of the assessment principles associated with site U7 (outlined at Appendix 1, page 231 of the Proposed Submission Draft Local Plan), which require a Masterplan approach to guide development, and recognition that careful consideration should be had to the overall design and layout in context of the power lines to the western boundary.

National Grid are therefore keen to work proactively with Carlisle City Council and stakeholders to secure the most appropriate solutions for future development of this site in line with the proposed assessment principles.

Further information regarding the proposed scheme and the next steps can be found at <http://www.northwestcoastconnections.com/>.

National Grid look forward to working with Carlisle City Council in the future to deliver this major infrastructure project. If you have any questions in the meantime please do not hesitate to contact myself or National Grid's Land and Development team or the North West Coast Connections Project Team (all details below).

Further Advice

National Grid is happy to provide advice and guidance to the Council concerning our networks. If we can be of any assistance to you in providing informal comments in confidence during your policy development, please do not hesitate to contact us. In addition the following publications are available from the National Grid website or by contacting us at the address overleaf:

- National Grid's commitments when undertaking works in the UK - our stakeholder, community and amenity policy;
- Specification for Safe Working in the Vicinity of National Grid High Pressure Gas Pipelines and Associated Installations - Requirements for Third Parties; and
- A sense of place - design guidelines for development near high voltage overhead lines.
- T/SP/SSW22 – Specification for safe working in the vicinity of National Grid high pressure gas pipelines and associated installations – requirements for third parties.

<http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=33968>

Please remember to consult National Grid on any Development Plan Document (DPD) or site-specific proposals that could affect our infrastructure. We would be grateful if you could add our details shown below to your consultation database:

Julian Austin
Consultant Town Planner

n.grid@amecfw.com

Laura Kelly
Town Planner, National Grid

laura.kelly@nationalgrid.com

North West Coast
Connections

nationalgrid@northwestconnections.com

Amec Foster Wheeler E&I
UK
Gables House
Kenilworth Road
Leamington Spa
Warwickshire
CV32 6JX

National Grid House
Warwick Technology Park
Gallows Hill
Warwick
CV34 6DA

FREEPOST NG NWCC
0800 876 6990

I hope the above information is useful. If you require any further information please do not hesitate to contact me.

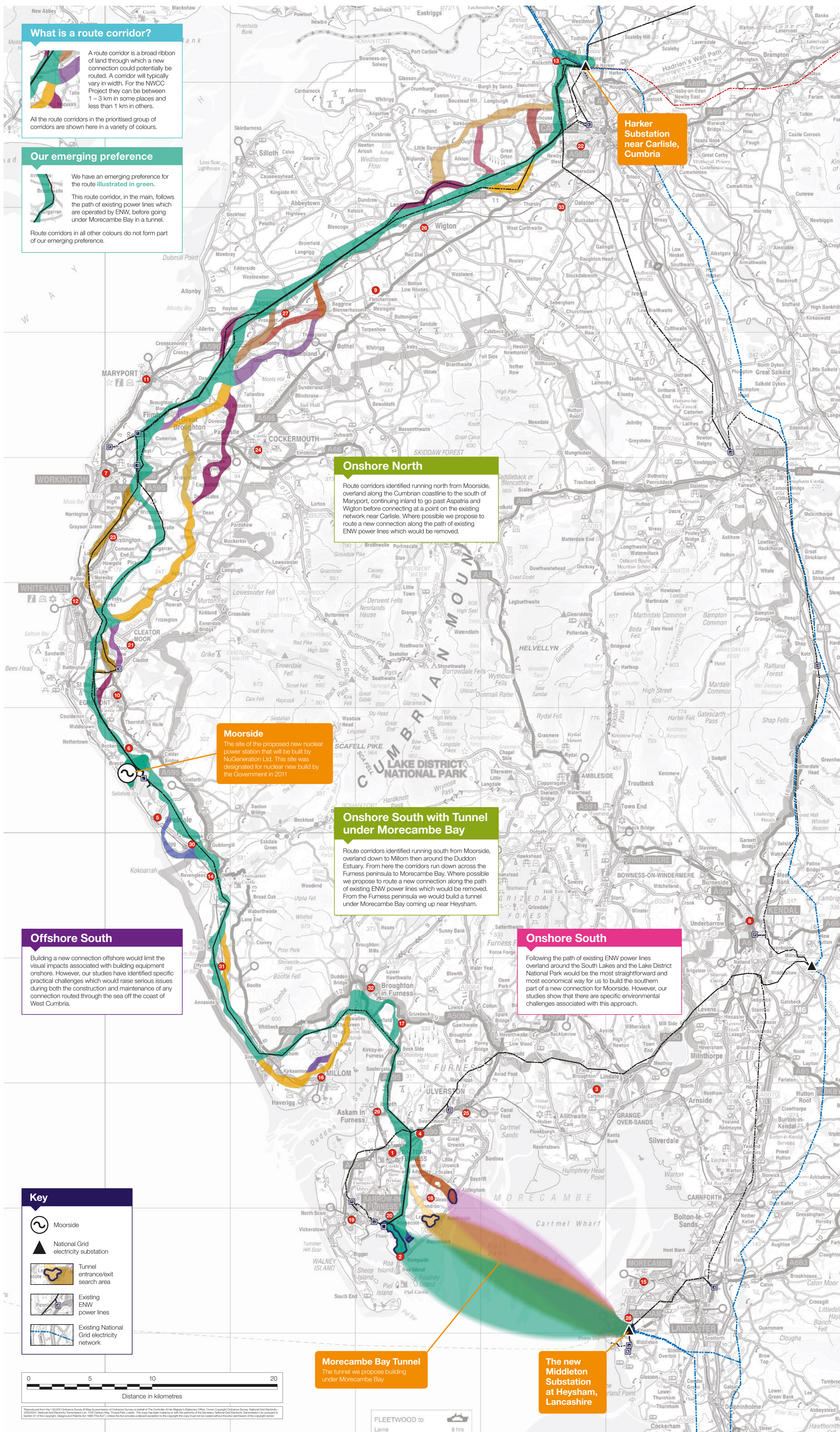
Yours sincerely

[via email]

Julian Austin
Consultant Town Planner

cc. Laura Kelly, National Grid

APPENDIX 1
Prioritised Route Corridor Including Preferred Route Alignment



What is a route corridor?

A route corridor is a broad ribbon of land through which a new connection could potentially be routed. A corridor will typically vary in width. For the NWCC Project they can be between 1–3 km in some places and less than 1 km in others.

All the route corridors in the prioritised group of corridors are shown here in a variety of colours.

Our emerging preference

We have an emerging preference for the route illustrated in green.

This route corridor, in the main, follows the path of existing power lines which are operated by ENW, before going under Morecambe Bay in a tunnel.

Route corridors in all other colours do not form part of our emerging preference.

Onshore North

Route corridors identified running north from Moorside, overlaid along the Cumbrian coastline to the south of Maryport, continuing inland to go past Aspatria and Wigton before connecting to a point on the existing network near Carlisle. Where possible we propose to route a new connection along the path of existing ENW power lines which would be removed.

Moorside

The site of the proposed new nuclear power station that will be built by NuGeneration Ltd. This site was designated for nuclear new build by the Government in 2011

Onshore South with Tunnel under Morecambe Bay

Route corridors identified running south from Moorside, overlaid down to Millom then around the Duddon Estuary. From here the corridors run down across the Furness peninsula to Morecambe Bay. Where possible we propose to route a new connection along the path of existing ENW power lines which would be removed. From the Furness peninsula we would build a tunnel under Morecambe Bay coming up near Heysham.

Offshore South

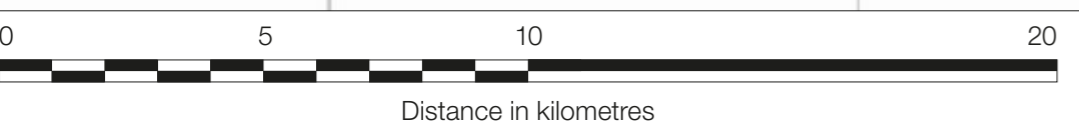
Building a new connection offshore would limit the visual impacts associated with building equipment onshore. However, our studies have identified specific practical challenges which would raise serious issues during both the construction and maintenance of any connection routed through the sea off the coast of West Cumbria.

Onshore South

Following the path of existing ENW power lines overlaid around the South Lakes and the Lake District National Park would be the most straightforward and most economical way for us to build the southern part of a new connection for Moorside. However, our studies show that there are specific environmental challenges associated with this approach.

Key

- Moorside
- National Grid electricity substation
- Tunnel entrance/exit search area
- Existing ENW power lines
- Existing National Grid electricity network



Our events

The numbered red dots show the location of our events, where members of the North West Coast Connections Project team will be on hand.

September

- 1 **Thurs 18 September, 1pm–8pm**
Dalton-in-Furness
Dalton Drill Hall, Nelson Street, Dalton-in-Furness, Cumbria LA13 8AF
- 2 **Fri 19 Sept, 1pm–8pm**
Rampside
Rampside Village Hall, Rampside, Barrow-in-Furness, Cumbria LA13 0PX
- 3 **Sat 20 Sept, 10am–3.30pm**
Cartmel
Cartmel Village Hall, Cartmel, Cumbria LA11 6GB
- 4 **Weds 24 Sept, 2.30pm–8pm**
Lindal-in-Furness
Bucleuch Hall, The Green, Lindal-in-Furness, Cumbria LA12 0LX
- 5 **Thurs 25 Sept, 1.30pm–8pm**
Seascale
Seascale Methodist Church Hall, Gosforth Road, Seascale, Cumbria CA20 1PU
- 6 **Fri 26 Sept, 1pm–8pm**
Beckermet
Beckermet Reading Room, Sellafeld Road, Beckermet, Cumbria CA21 2XN
- 7 **Sat 27 Sept, 10am–3.30pm**
Workington
Workington Bridge Church, Central Square, Workington, Cumbria CA14 3BG
- 8 **Tues 30 Sept, 1pm–8pm**
Kendal
Friends Meeting House, Stramontgate, Kendal, Cumbria LA9 4BH

October

- 9 **Weds 1 Oct, 1pm–8pm**
Fletcherstown
Allhallows Community Centre, Fletcherstown, Wigton, Cumbria CA7 1BS
- 10 **Thurs 2 Oct, 1pm–8pm**
Egremont
Egremont Market Hall, Market Street, Egremont, Whitehaven, Cumbria CA22 2DF
- 11 **Fri 3 Oct, 1pm–8pm**
Maryport
The Wave Centre, Irish Street, Maryport, Cumbria CA15 8AD
- 12 **Sat 4 Oct, 10am–3.30pm**
Whitehaven
St James' Community Centre, High Street, Whitehaven, Cumbria CA28 7PY
- 13 **Weds 8 Oct, 1pm–8pm**
Rockcliffe
Rockcliffe Community Centre, Rockcliffe, Carlisle, Cumbria CA6 4AA
- 14 **Thurs 9 Oct, 1pm–8pm**
Ravenglass
Muncaster Parish Hall, Main Street, Ravenglass, Cumbria CA18 1SQ
- 15 **Fri 10 Oct, 1pm–8pm**
Morecambe
The Platform, Station Buildings, Marine Road West, Morecambe, Lancashire LA4 4DB
- 16 **Sat 11 Oct, 10am–3.30pm**
Millom
Millom Network Centre, Salthouse Road, Millom, Cumbria LA18 5AB
- 17 **Weds 15 Oct, 1pm–8pm**
Grizebeck
The Community Hall at Grizebeck, Grizebeck, Kirkby-in-Furness, Cumbria LA17 7XH
- 18 **Thurs 16 Oct, 1pm–8pm**
Gleaston
Gleaston Village Hall, Main Street, Gleaston, Ulverston, Cumbria LA12 0QA
- 19 **Fri 17 Oct, 1pm–8pm**
Barrow-in-Furness
The Forum, Duke Street, Barrow-in-Furness, Cumbria LA14 1HH
- 20 **Sat 18 Oct, 10am–3.30pm**
Roosecote
Roose Community School, North Row, Barrow-in-Furness, Cumbria LA13 0HF
- 21 **Weds 22 Oct, 1pm–8pm**
Cleator Moor
Cleator Moor Civic Hall, Market Square, Cleator Moor, Cumbria CA25 5AR
- 22 **Thurs 23 Oct, 1pm–8pm**
Carlisle West
Morton Community Centre, Wigton Road, Carlisle, Cumbria CA2 6JP
- 23 **Fri 24 Oct, 1pm–8pm**
Distington
Distington Community Centre, Church Road, Distington, Workington, Cumbria CA14 5TE
- 24 **Sat 25 Oct, 10am–3.30pm**
Cockermouth
Cockermouth Town Hall, Market Street, Cockermouth, Cumbria CA13 9NP
- 25 **Tues 28 Oct, 1pm–8pm**
Ulverston
Ulverston Victoria High School, Springfield Road, Ulverston, Cumbria LA12 0EB
- 26 **Weds 29 Oct, 1.30pm–8pm**
Wigton
Wigton Market Hall, Church Street, Wigton, Cumbria CA7 9AA
- 27 **Thurs 30 Oct, 1pm–8pm**
Aspatria
Aspatria Rugby Club, Bower Park, Station Road, Aspatria, Cumbria CA7 2AJ
- 28 **Fri 31 Oct, 1pm–8pm**
Heysham
Heysham & Mossgate Community Centre, Townson Way, Heysham, Lancashire LA3 2AW

November

- 29 **Sat 1 Nov, 10am–3.30pm**
Askam-in-Furness
Askam Community Centre, Duke Street, Askam-in-Furness, Cumbria LA16 7AD
- 30 **Weds 5 Nov, 1.30pm–8pm**
Drigg
Drigg & Carleton Parish Hall, Drigg, Holmrook, Cumbria CA19 1XF
- 31 **Thurs 6 Nov, 1pm–8pm**
Boothe
Boothe Village Hall, Boothe Station, Cumbria LA19 5UY
- 32 **Fri 7 Nov, 1pm–8pm**
Broughton-in-Furness
Broughton Victory Hall, Station Road, Broughton-in-Furness, Cumbria LA20 6HN
- 33 **Sat 8 Nov, 10am–3.30pm**
Dalston
Victory Hall, The Green, Dalston, Cumbria CA5 7QB

All of these venues have disabled access, however some venues have limited car parking.

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