

# **WIND DEVELOPMENTS IN UPLANDS** **society's gains versus losses**

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# Who are the John Muir Trust?

The Trust aims to protect and enhance wild land and ensure that wild places are valued by all sectors of society:

1. By owning and managing wild land
2. By raising awareness of its value
3. Through advocacy for better protection – Wild Land Campaign

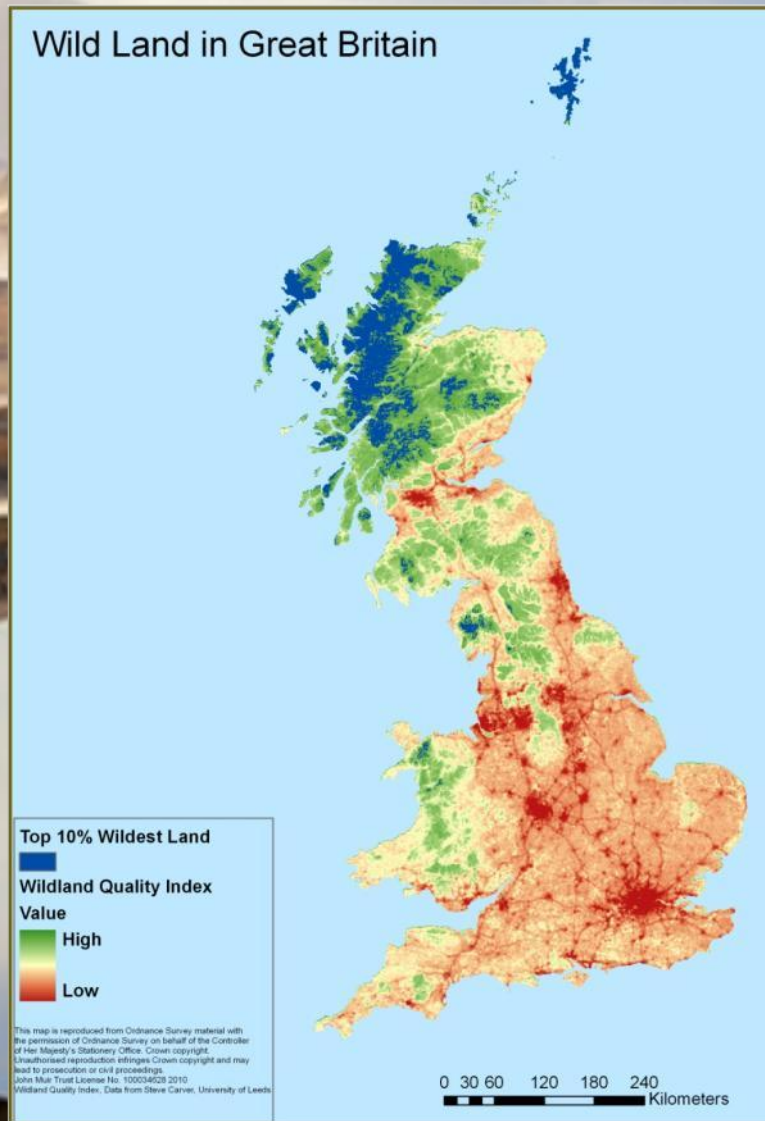
# Why listen to us?

- Coal face – Scotland, like Wales
- Led environmental orgs at Beaully Denny 400kV electricity transmission PL Inquiry
- Taken full part in (only) two major wind PLIs
- Huge number of lessons learned
- Landscape and visual – bottom of constraints list?

# Where is the wild land?

- Top 10% in UK (blue)
- How well protected is it?

(Wild Land Research Institute mapped for Trust)

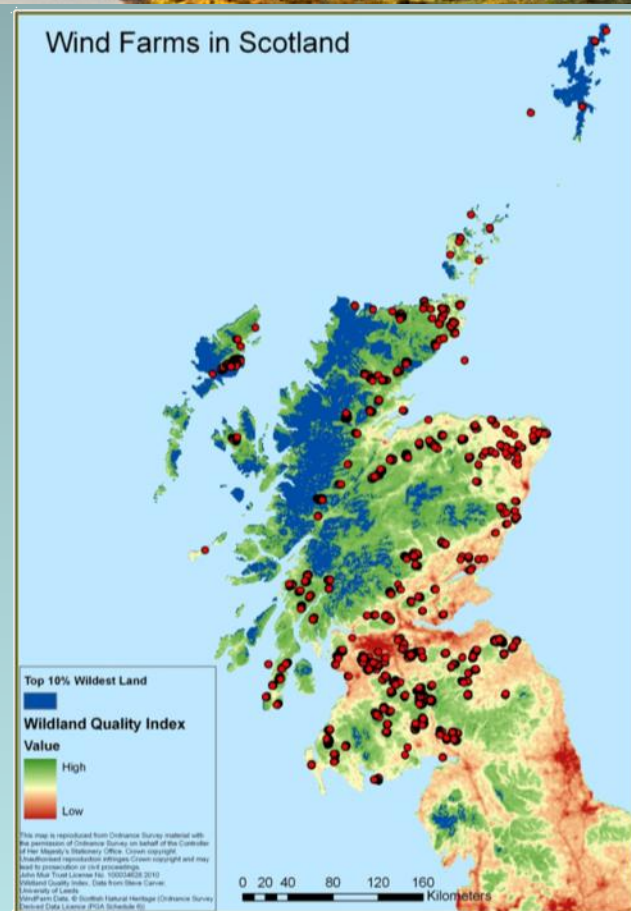


# Wild land faces major threats

## SNH Natural Heritage Indicator

“Visual influence of built development and land use change”

- the extent of Scotland unaffected by any form of visual influence declined from 41% in 2002 to 28% in 2009”



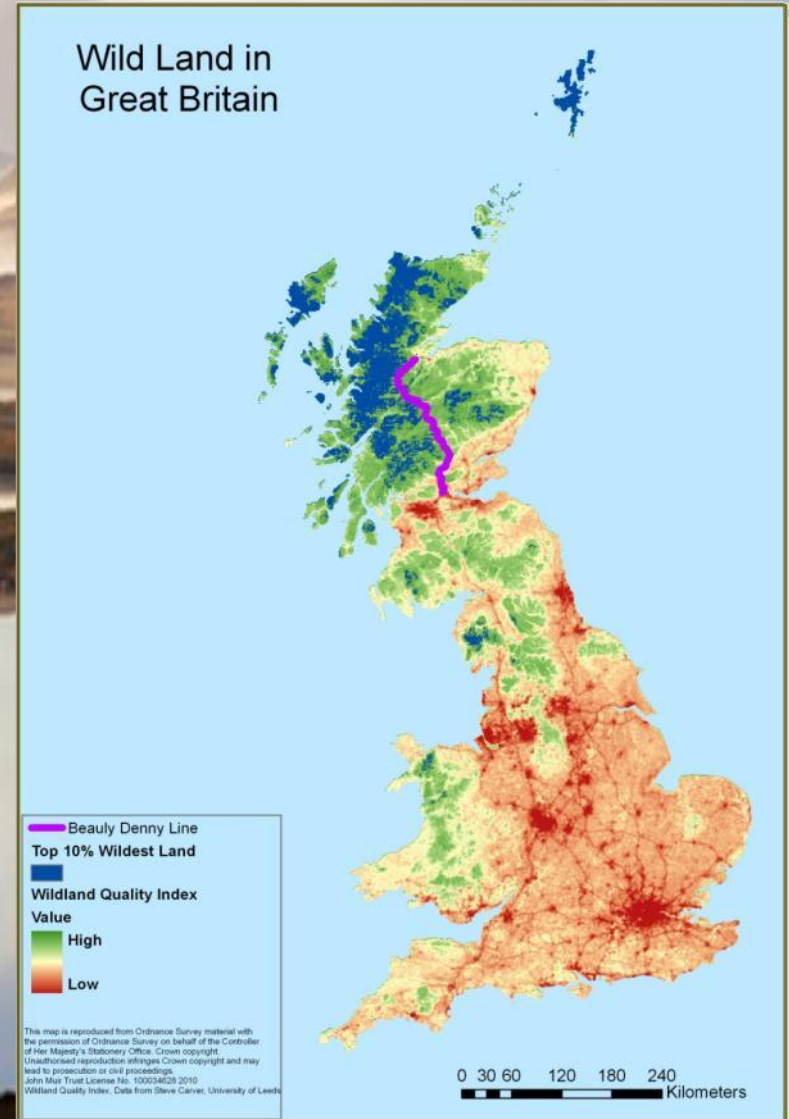
# Map gives tool for policy decisions

JOHN  
MUIR  
TRUST

FOR  
*wild* LAND &  
*wild* PLACES

E.g. Beaully Denny pylon route –

- Tomich – Dundreggan (Glen Moriston)
- Corrieyairack Pass
- Feagour– Dalwhinnie
- Drumochter Pass
- Tummel Bridge – past Schiehallion



# Beauly Denny – what is it?

- It's a 400kV transmission line
- 220kms long through spine of Highlands
- 600 pylons
- Some of pylons are 65m high
- About the height of the Scott Monument

# Corrieyairack Pass



Beaully Denny transmission line route





# Continued Threats



*current issues include wind farms, power lines, other energy infrastructure and bulldozed tracks*

*“as far as wind farms are concerned, strengthened electricity grid connections may in future years generate more interest in development in our remoter areas of wild land in the far north and west which have hitherto been less developed.”*

*(Scottish Government response to John Muir Trust petition, Feb 2011)*

***less than 1/3<sup>rd</sup> of best wild land area is protected for landscape***



Looking towards site of Muaitheabhal wind development  
(Eisgein, South Lewis)

# Looking towards site of Muaitheabhal wind development

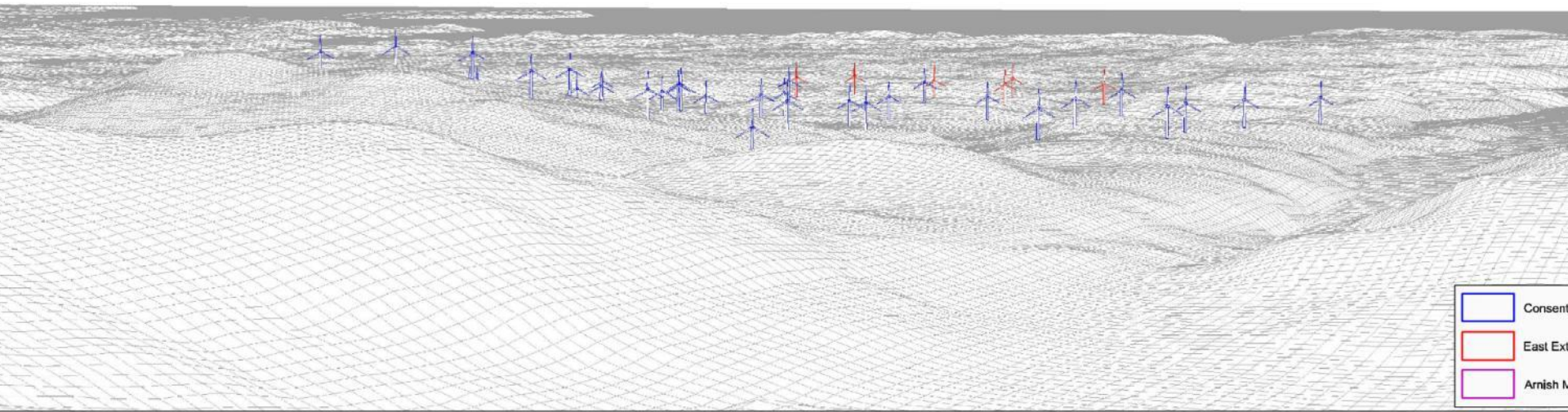


## Approved Muaitheabhal development (photomontage)

Public Local Inquiry into previous design, in National Scenic Area, found landscape and visual impacts unacceptable

Developer redesigned outside the NSA; no further public involvement

Is this the right development, in the right place?





**Photomontage of a small part of Shetland development (Viking) – currently applying for 127\*145metre high turbines**

# It has to happen, anyway..... doesn't it?

- For the good of the world, because of “climate change”
- The Trust has worked with experts in energy, transmission and economics
- The evidence does not support a lot of the claims
- Putting large-scale energy developments on e.g. deep peat or, often, where long-distance transmission is required is particularly perverse



Windy Standard Wind Farm from the Southern Upland Way (C Townsend)

## **Claim - “Wind turbines will generate on average 30% of their rated capacity over a year”**

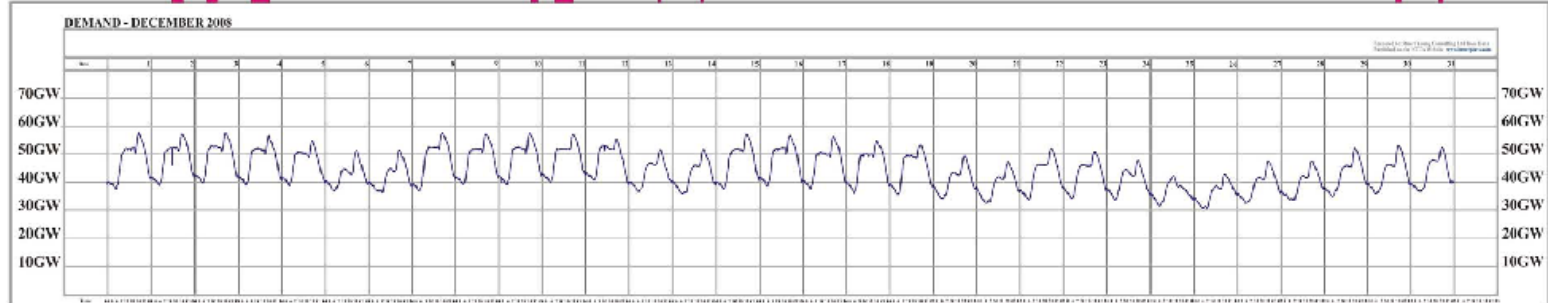
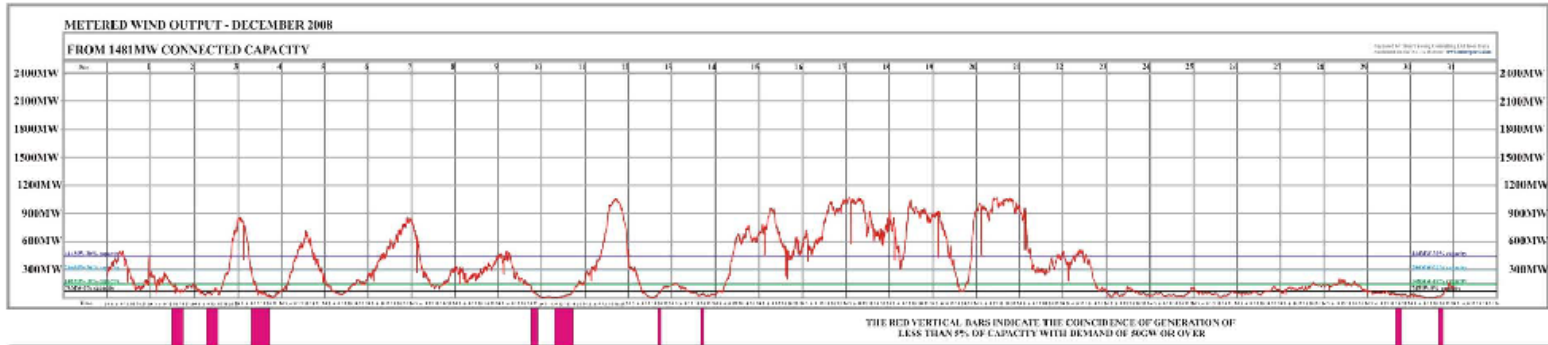
- In fact, over 26 months, the average output from wind was 24.08% of metered capacity

## **Claim - “The probability of very low wind output coinciding with peak electricity demand is slight.”**

- At each of the four highest peak demand points of 2010, wind output was extremely low, ranging from 2.51% - 5.51% of metered capacity

Source: *Analysis of UK Wind Power Generation, Stuart Young Consulting*





**SUMMARY**

**DURING DECEMBER 2008, FROM THE 1481MW CONNECTED WIND CAPACITY WHICH NATIONAL GRID CAN "SEE"**

OUTPUT WAS 30% OF CAPACITY OR MORE FOR 29.10 % OF THE TIME  
 OUTPUT WAS BETWEEN 20% AND 30% OF CAPACITY FOR 10.37 % OF THE TIME  
 OUTPUT WAS BETWEEN 10% AND 20% OF CAPACITY FOR 14.77 % OF THE TIME  
 OUTPUT WAS BETWEEN 5% AND 10% OF CAPACITY FOR 16.72 % OF THE TIME  
 OUTPUT WAS BETWEEN 2.5% AND 5% OF CAPACITY FOR 16.52 % OF THE TIME  
 OUTPUT WAS BETWEEN 1.25% AND 2.5% OF CAPACITY FOR 8.05 % OF THE TIME  
 OUTPUT WAS LESS THAN 1.25% OF CAPACITY FOR 4.46 % OF THE TIME

**THEREFORE,**

OUTPUT WAS 30% OF CAPACITY OR MORE FOR 29.10 % OF THE TIME  
 OUTPUT WAS LESS THAN 30% OF CAPACITY FOR 70.90 % OF THE TIME  
 OUTPUT WAS LESS THAN 20% OF CAPACITY FOR 60.53 % OF THE TIME  
 OUTPUT WAS LESS THAN 10% OF CAPACITY FOR 45.75 % OF THE TIME  
 OUTPUT WAS LESS THAN 5% OF CAPACITY FOR 29.03 % OF THE TIME  
 OUTPUT WAS LESS THAN 2.5% OF CAPACITY FOR 12.51 % OF THE TIME  
 OUTPUT WAS LESS THAN 1.25% OF CAPACITY FOR 4.46 % OF THE TIME

**NOVEMBER GENERATION**

MAXIMUM GENERATION WAS	1074MW	OR	72.52% OF CAPACITY
MINIMUM GENERATION WAS	2MW	OR	0.135% OF CAPACITY
AVERAGE GENERATION WAS	319MW	OR	21.54% OF CAPACITY

**COINCIDENCE OF LOW OUTPUT AND HIGH DEMAND**

OUTPUT FELL BELOW 5% OF CAPACITY WHILE DEMAND WAS IN EXCESS OF 50GW ON NINE SEPARATE OCCASIONS TOTTALLING THIRTY-SIX HOURS AND FORTY-FIVE MINUTES. GENERATION FELL TO SINGLE FIGURES FOR THIRTY-SEVEN FIVE MINUTE PERIODS WHILE DEMAND WAS 50GB OR OVER, AND FOR A TOTAL OF FIFTEEN HOURS AND FIFTY MINUTES IN THE MONTH

# Luxury development proposed at Loch Rannoch

## DALL HOUSE HOTEL DEVELOPMENT



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Job Title:  
**Dall House Hotel Development, Loch Rannoch,  
Perthshire**

Drawing Title:  
**BROCH RESTAURANT**

Drawing Status:	Scale(s):	
<b>Planning</b>	<b>NTS</b>	
Drawn by:	Checked by:	Date:
<b>SO</b>	<b>ES</b>	15 July 2009
Drawing Number:	Revisor:	
<b>414/PL/02/09/02</b>	<b>01</b>	



# UK Campaign



Image: BBC News Wales

## UK threats

### UK Landscape Group

- Cambrian Mountain Society
- Yorkshire Dales Society
- Campaign for National Parks
- Friends of the Lake District
- Campaign for the Protection of Rural Wales
- Outdoor Industries Association
- What about BMC?

*“There is a history, in the field of environmental protection, of acting decisively only when the resources in question are under extreme threat. Given the distinctiveness and rarity of Scotland’s wild land resource – in a western European, not purely a UK, context – we must surely avoid this trap and act before it is too late”.*

*(SNH response to the John Muir Trust’s petition to the Scottish Parliament, February 2011)*

[www.jmt.org/wild-land-action.asp](http://www.jmt.org/wild-land-action.asp)



*Image: Derwentwater, Lake District National Park*

*(M Turner)*