

TAFF ELY WIND FARM

Repowering project north of Bridgend



PUBLIC EXHIBITION DETAILS

Hendreforgan Primary School, Gilfach
Goch, Rhondda Cynon Taf, CF39 8UH.

Friday 07 October, 2011:

5.30pm – 8pm

Saturday 08 October 2011:

10am – 3pm.

FIND OUT MORE

Visit www.npower-renewables.com/taffely
for more information on Taff Ely Wind Farm.

Wind turbine images used in this publication are of the operating Taff Ely Wind Farm

WELCOME

Taff Ely was one of the first wind farms to be constructed in the UK and has stood alongside the M4 motorway north of Bridgend as a symbol of Wales' ongoing commitment to renewable energy.

Built in 1993, and operated in Wales by RWE npower renewables since 1998, the wind farm consists of 20 wind turbines, typically generating an equivalent amount of electricity to meet the needs of over 4,250 homes every year. To date, the wind farm has also enabled the delivery of a community benefits package worth more than £32,000 for local community projects.

However, today's modern wind turbines have moved on significantly from those currently installed at the older, first generation of wind farms such as Taff Ely. They are now much more efficient, reliable and designed to be quieter at higher wind speeds.

We therefore propose to 'repower' Taff Ely

Wind Farm – a process by which we will seek planning permission to redesign the existing wind farm using modern, taller and more efficient turbines and generators. Our studies suggest we can significantly reduce the number of turbines on site, while potentially more than doubling the amount of renewable energy capacity.

In addition, we plan to review upwards the value of the current Community Benefits Package, enabling significantly more important local community projects to be supported each year.

So far, we have conducted extensive environmental studies to help us understand the implications of replacing the turbines on

site and have engaged with the local planning authority Rhondda Cynon Taf County Borough Council in this process.

We would now like to share our current proposals with you, the local communities, and invite you to join us at our public exhibitions on Friday 7th and Saturday 8th October, 2011, at Hendreforgan Primary School (see details above).

This will be your opportunity to find out more about the proposals, why we're suggesting them and what that will mean for you.

Following this, and having considered feedback from our public engagement, we will submit a planning application to Rhondda Cynon Taf County Borough Council.

Taff Ely already has lifetime planning permission to operate and we will continue to generate renewable electricity from Taff Ely until such time as we are able to upgrade the wind farm with new wind turbines.

TAFF ELY WIND FARM – A PROVEN, WINDY SITE

Taff Ely has operated under our control for 13 years and during this time we have experienced consistent renewable energy generation from the effective wind speeds to be found at the site.

Since RWE NRL took control of the site, Taff Ely has exported over 259,000 megawatt hours (MWhs) of wind powered electricity to the local grid, which equates to more than 55,000 times the electricity used by the average household.



WHO WE ARE

RWE npower renewables is one of the UK's leading renewable energy developers and operators, committed to developing and operating wind farms and hydro plant to produce sustainable electricity.

In Wales, we operate six hydroelectric power projects, two offshore wind farms and seven onshore wind farms, and are a major employer with four renewables office bases in South, Mid and North Wales.

WHAT'S THE PLAN FOR TAFF ELY?

Taff Ely Wind Farm currently consists of 20 Nordtank wind turbines, each with a maximum output of 450 (kW). The wind farm has a combined maximum output of 9 megawatts (MW).

We propose to replace the existing turbines with new, more efficient turbines. Studies suggest that Taff Ely could accommodate up to 10 modern turbines, each with the larger generating capacity of up to 2MW.

Subject to gaining approval, prior to repowering, all the existing turbines, anemometry mast and decommissioned infrastructure would be recycled or re-used where appropriate.

We propose to be able to potentially provide a

new dedicated access point to the repowered wind farm, while re-using the existing internal tracks wherever possible.

The existing substation and compound would be re-used subject to some minor extension.

The grid route and connection point to the repowered wind farm is proposed to remain unchanged.

The repowered wind farm has been designed with an operational life of 25 years which mirrors the likely length of planning consent if granted. At the end of this period the turbines will be decommissioned and removed from the site. The internal access tracks will then either be reinstated or remain for agricultural use.

WHAT IS 'REPOWERING'

Also known as replanting, repowering is the process we go through to replace older first-generation wind turbines with modern, more efficient wind turbines.

The process is carried out within a timeframe that allows us to replace an older wind farm, by the time it comes to end of its typical 20-25 year lifespan.

To repower a site, we need to receive planning permission from the local authority in exactly the same way as we would for a brand new site, and will be submitting a planning application to Rhondda Cynon Taf County Borough Council at some point in the future.

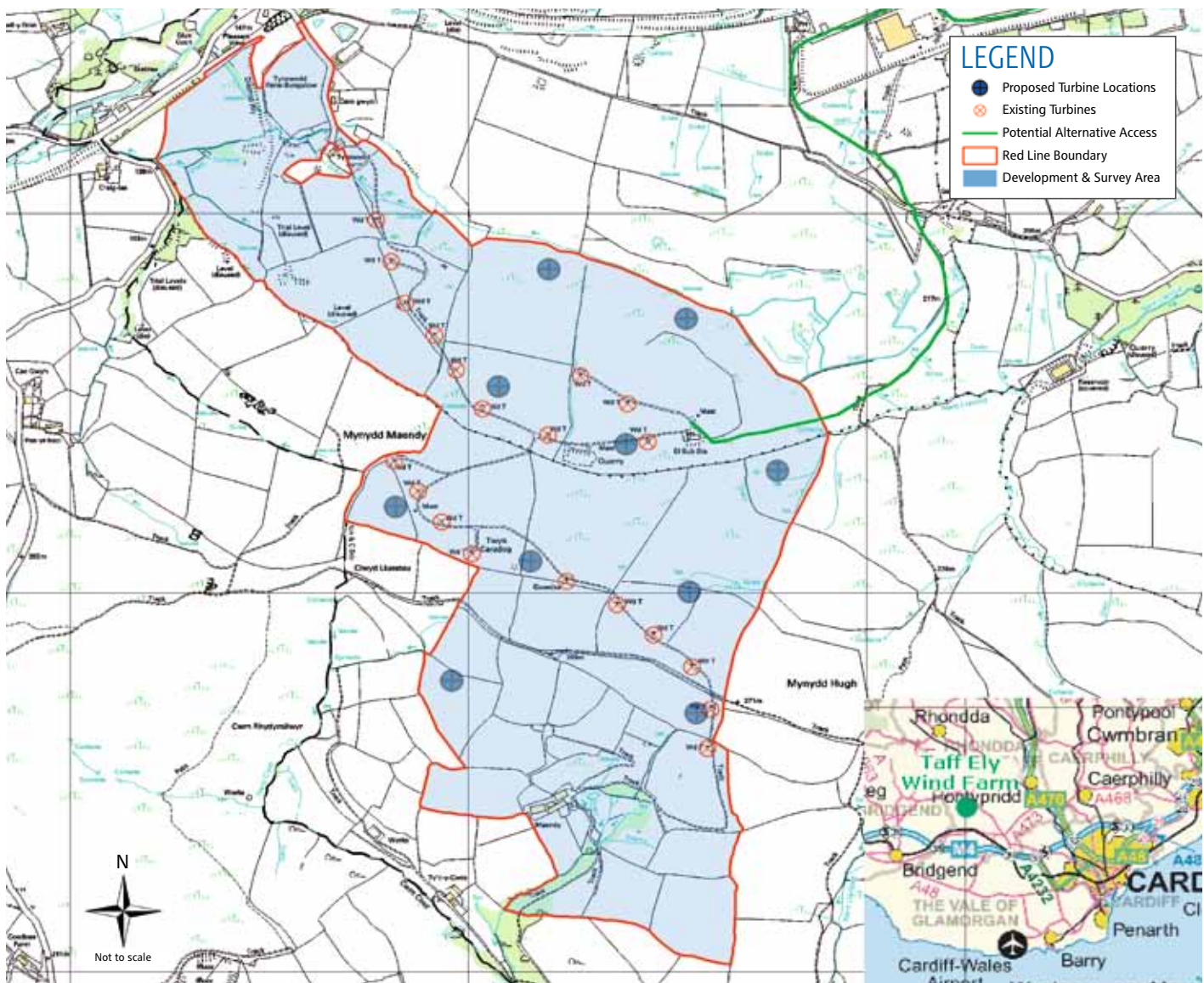


TAFF ELY WIND FARM – PROJECT DETAILS

On this page, you can see the main components of the proposed repowered wind farm, together with maps showing the current proposed location of turbines.

At a glance – how our proposals change the existing site.

Statistic	Proposed site	Existing site	Likely difference
Number of wind turbines	10	20	50% reduction in turbines
Height to tip	Up to a maximum 110 metres	53.5 metres	105% increase in height to tip
Installed capacity of the wind farm	20MW	9MW	122% increase in potential energy generation capacity
Number of met masts on site	Temporary met mast - 2 Permanent - 1	1	No change
Minimum distance from nearest property	600 metres	300 metres	At least double the existing distance
Capable of providing the equivalent energy	Up to 10,000 homes ¹	4,250	Significant increase
Area covered by the total Potential Development Area Boundary	175 hectares	175 hectares	No change



Taff Ely – site layout. Mapping purchased from emapsite™. Reproduced from Ordnance Survey digital map data © Crown copyright 2010. All rights reserved. Licence number 0100031673.



CONTACT US

If you have any questions about the proposals, then members of the project team would be pleased to meet you at the public exhibitions. However, if you are unable to attend, please don't hesitate to contact the team.

Email

taffely@rwe.com

Telephone

01793 474212

Post

RWE npower renewables, Taff Ely Wind Farm repowering project, Unit 22, Baglan Bay Innovation Centre, Central Avenue, Baglan Energy Park, Port Talbot, South Wales, SA12 7AX

Web

For more details on RWE npower renewables: www.npower-renewables.com/taffely

FOOTNOTES

¹ Energy predicted to be generated by the proposal has been calculated using an assumed capacity factor of 26%, (supported by operational data from the existing Taff Ely scheme and other wind farm sites in Wales), and is based on an installed capacity of 20MW. The energy capture predicted and hence derived homes equivalent figures may change as further site specific information is gathered.

Equivalent homes supplied is based on an annual electricity consumption per home of 4700 kWh. This figure is supported by recent domestic electricity consumption data available from The Digest of UK Energy Statistics and household estimates and projections from the UK Statistics Authority.

COMMUNITY BENEFITS

Taff Ely already delivers a Community Benefits Package within the local area, and has so far invested £2,500 per year – that's in excess of £32,000 over the lifetime of the project to date.

Among those projects that have already benefitted from the Taff Ely Community Benefits Package are:

- £1455 to fund production of an educational DVD warning of the dangers of drugs and alcohol abuse – with Rhondda Cynon Taf (RCT) charity, FADS
- £600 to support provision of the South Wales Air Ambulance, and provision of emergency air cover for those who face life-threatening illness or injuries, especially in rural areas of Wales
- £300 each to fund equipment at two local after school club - Brynna Babes and Buzy Bees afterschool clubs, providing a vital service for local parents, to enabling them to continue working and providing for their family.

If we are granted planning consent, we're committed to continuing our investment in the local area. We will review the way the fund is delivered and the value of investment, in line with the increased project size, and to work more closely with the local communities involved.

As part of this process, we will engage with local communities about the priorities and best ways for delivering this new package.

If you live or work near to the site please take this opportunity to come and find out more about what we can offer, and tell us what you would like to see us supporting in your community.

Please see our website for more information, and forward your thoughts, ideas and suggestions by email to: community.investment@rwe.com

If you would like this newsletter in larger print please contact us on:
01793 474173

FFERM WYNT TAF ELÁI

Prosiect ailberu i'r gogledd o Ben-y-bont ar Ogwr



MANYLION YR ARDDANGOSFEYDD CYHOEDDUS

Ysgol Gynradd Hendreforgan, Gilfach Goch, Rhondda Cynon Taf, CF39 8UH.

Nos Wener 07 Hydref 2011:

5.30yh – 8yh

Dydd Sadwrn 08 Hydref 2011:

10yb – 3yh.

HOFFECH CHI WYBOD RHAGOR

wch i www.npower-renewables.com/taffely i gael rhagor o wybodaeth am Fferm Wynt Taf Elái.

Lluniau o dyrbinau gwynt Fferm Wynt bresennol Taf Elái a geir yn y daflen hon

CROESO

Roedd Fferm Wynt Taf Elái yn un o ffermydd gwynt cyntaf y Deyrnas Unedig ac mae i'w gweld ger traffordd yr M4 i'r gogledd o Ben-y-bont ar Ogwr, yn symbol o ymrwymiad parhaus Cymru i ynni adnewyddadwy.

Codwyd y fferm wynt ym 1993 a bu RWE npower renewables yn ei rhedeg ers 1998. Mae'n cynnwys 20 o dyrbinau gwynt ac fel arfer mae'n cynhyrchu digon o drydan bob blwyddyn i ddiwallu anghenion dros 4,250 o gartrefi. Hyd yma, diolch i'r fferm wynt, mae prosiectau cymunedol lleol wedi elwa ar becyn manteision cymunedol gwerth dros £32,000.

Fodd bynnag, mae tyrbinau gwynt modern dipyn yn fwy soffistigedig na'r rhai a geir yn y genhedlaeth gyntaf o ffermydd gwynt fel Taf Elái. Erbyn hyn, maent yn fwy effeithlon a dibynadwy ac maent yn gweithio'n dawelach mewn gwynt cyflymach.

Felly, rydym yn bwriadu 'ailberu' Fferm

Wynt Taf Elái – proses fydd yn cynnwys ceisio caniatâd cynllunio i ailddylunio'r fferm wynt bresennol gan ddefnyddio tyrbinau modern, talach a mwy effeithlon a generaduron modern hefyd. Mae ein hastudiaethau'n awgrymu bod modd cynhyrchu mwy na dwbl yr ynni adnewyddadwy gan ddefnyddio tipyn yn llai o dyrbinau ar y safle.

Yn ogystal, bwriadwn gynyddu gwerth y Pecyn Manteision Cymunedol, fel y gallwn gefnogi tipyn rhagor o brosiectau cymunedol pwysig yn yr ardal bob blwyddyn.

Hyd yma, rydym wedi cynnal astudiaethau amgylcheddol helaeth i'n helpu i ddeall goblygiadau gosod tyrbinau newydd yn lle'r

hen rai ac rydym wedi bod yn trafod gyda'r awdurdod cynllunio lleol, Cyngor Bwrdeistref Sirol Rhondda Cynon Taf.

Yn awr, hoffem rannu ein cynlluniau presennol gyda chi, y cymunedau lleol, a'ch gwahodd i ymuno â ni mewn arddangosfeydd cyhoeddus ar ddydd Gwener 7fed a dydd Sadwrn 8fed Hydref 2011 yn Ysgol Gynradd Hendreforgan (manylion i'w gweld uchod).

Bydd hwn yn gyfle i chi ddysgu mwy am y cynlluniau, pam yr ydym yn eu hawgrymu a beth y byddant yn ei olygu i chi.

Ar ôl hynny, ac ar ôl ystyried ymateb y cyhoedd, byddwn yn cyflwyno cais cynllunio i Gyngor Bwrdeistref Sirol Rhondda Cynon Taf.

Mae gan Fferm Wynt Taf Elái ganiatâd cynllunio i weithredu am oes a byddwn yn dal i gynhyrchu trydan adnewyddadwy no hyd nes y gallwn uwchraddio'r fferm wynt trwy osod tyrbinau gwynt newydd.

FFERM WYNT TAF ELÁI – SAFLE GWYNTOG, DA

Rydym ni wedi bod yn rheoli Fferm Wynt Taf Elái ers 13 blynedd. Yn ystod y cyfnod hwnnw, mae wedi bod yn cynhyrchu ynni adnewyddadwy yn gyson gyda chyflymder y gwynt yn effeithiol ar y safle.

Ers i RWE NRL ddechrau rheoli'r safle, mae Taf Elái wedi anfon dros 259,000 awr megawat (MWhs) o drydan gwynt i'r grid lleol. Mae hynny dros 55,000 gwaith yn fwy o drydan nag y mae'r cartref cyffredin yn ei ddefnyddio.



PWY YDYM NI

Mae RWE npower renewables yn un o'r prif ddatblygwyr a gweithredwyr ynni adnewyddadwy yn y Deyrnas Unedig. Mae'n ymroi i ddatblygu a gweithredu ffermydd gwynt a safleoedd trydan dŵr er mwyn cynhyrchu trydan cynaliadwy.

Yng Nghymru, mae gennym chwe phrosiect pŵer trydan dŵr, dwy fferm wynt yn y môr a saith fferm wynt ar y tir. Rydym yn gyflogwr o bwys ac mae gennym bedair swyddfa trydan adnewyddadwy yn Ne Cymru, Canolbarth Cymru a Gogledd Cymru.

BETH YW'R CYNLLUN AR GYFER TAF ELÁI?

Ar hyn o bryd, ceir 20 o dyrbinau gwynt Nordtank, pob un yn gallu cynhyrchu hyd at 450 kilowat (kW) yn Fferm Wynt Taf Elái. Gall y fferm wynt gyfan gynhyrchu uchafswm o 9 megawat (MW).

Rydym yn bwriadu rhoi tyrbinau newydd, mwy effeithlon, yn lle'r tyrbinau presennol. Mae astudiaethau'n awgrymu y gallai Taf Elái gynnwys hyd at 10 tyrbin modern, pob un ohonynt yn gallu cynhyrchu hyd at 2MW, sy'n fwy na'r hen dyrbinau.

Ar yr amod y cawn ganiatâd, bydd yr holl dyrbinau presennol, y mast anemometri a'r isadeiledd a ddatgomisynir yn cael eu hailgylchu neu eu hailddefnyddio os oes modd, cyn yr ailbweru.

Rydym yn gobeithio y gallwn ddarparu pwynt mynediad pwrpasol newydd i'r fferm wynt ar ei newydd wedd, gan aildefnyddio'r lonydd mewnol presennol hyd y bo modd.

Bydd yr is-orsaf a'r compownd presennol yn cael eu hailddefnyddio gyda pheth gwaith ymestyn.

Bwrriedir cadw llwybr y grid a'r man cysylltu â'r fferm wynt ar ei newydd wedd fel ag y maent ar hyn o bryd.

Dyluniwyd y fferm wynt wedi'i hailbweru i gael oes weithredol o 25 mlynedd, sef hyd tebygol y caniatâd cynllunio os rhoddir ef. Ar ddiwedd y cyfnod hwn, caiff y tyrbinau eu tynnu i lawr a'u symud o'r safle. Bydd y lonydd mewnol naill ai'n cael eu dileu neu'n cael eu cadw ar gyfer defnydd amaethyddol.

BETH YW 'AILBWERU'?

Gelwir 'ailbweru' yn 'ailblannu' weithiau. Dyma'r broses rydym yn mynd trwyddi i osod tyrbinau gwynt modern, mwy effeithlon, yn lle tyrbinau hŷn y genhedlaeth gyntaf.

Cynhelir y broses y tu mewn i amserlen sy'n golygu y gallwn ailbweru fferm wynt hŷn erbyn iddi gyrraedd diwedd ei hoes weithredol o tua 20-25 mlynedd fel rheol.

Er mwyn ailbweru safle, mae'n rhaid i ni gael caniatâd cynllunio gan yr awdurdod lleol yn yr un ffordd yn union â phe bai'n safle newydd sbon. Byddwn yn anfon cais cynllunio at Gyngor Bwrdeistref Sirol Rhondda Cynon Taf rhywbryd yn y dyfodol.

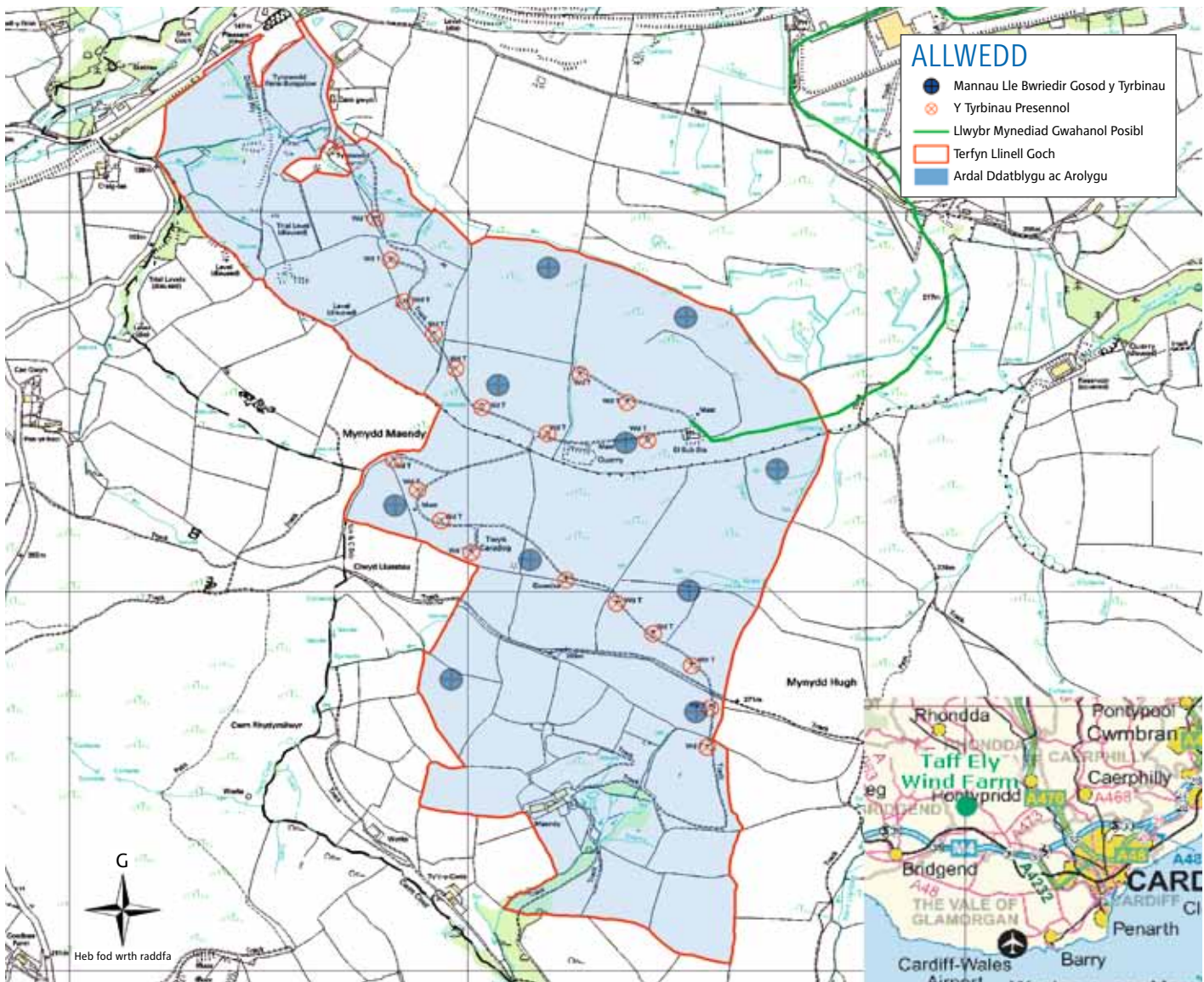


FFERM WYNT TAF ELÁI – MANYLION Y PROSIECT

Ar y dudalen hon, fe welwch chi brif elfennau'r fferm wynt arfaethedig wedi'i hailbweru, a mapiau'n dangos lleoliad arfaethedig y tyrbinau ar hyn o bryd.

Cipolwg –
sut mae ein cynlluniau ni yn newid y safle presennol

Ystadegyn	Safle arfaethedig	Safle presennol	Gwahaniaeth tebygol
Nifer y tyrbinau gwynt	10	20	50% yn llai o dyrbinau
Uchder i flaen y llafn	Hyd at 110 metr	53.5 metr	Cynnydd o 105% yn yr uchder
Faint o drydan y gall y fferm wynt ei gynhyrchu	20MW	9MW	Cynnydd o 122% yn y gallu potensial i gynhyrchu trydany
Nifer y mastiau met ar y safle	Mastiau met dros dro – 2 Parhaol – 1	1	Dim newid
Pellter lleiaf o'r tŷ agosaf	600 metr	300 metr	O leiaf ddwbl y pellter presennol
Gallu cynhyrchu ynni sy'n cyfateb i anghenion	Hyd at 10,000 o gartrefi ¹	4,250	Cynnydd arwyddocaol
Cyfanswm yr ardal sy'n dod o fewn Terfyn yr Ardal Ddatblygu Bosibl	175 hectar	175 hectar	Dim newid



Taf Elái - gosodiad y safle. Prynwyd y map gan emapsite™. Atgynhyrwyd o ddata mapio digidol yr Arolwg Ordnans © Hawlfraint y Goron 2010. Cedwir pob hawl. Rhif trwydded 0100031673



MANTEISION CYMUNEDOL

Mae Fferm Wynt Taf Elái eisoes yn darparu Pecyn Manteision Cymunedol ar gyfer yr ardal. Hyd yma, mae wedi buddsoddi £2,500 y flwyddyn – sef dros £32,000 dros oes y prosiect hyd yma.

Ymhlith y prosiectau sydd eisoes wedi elwa o Becyn Manteision Cymunedol Taf Elái mae:

- £1455 i ariannu gwaith cynhyrchu DVD addysgol yn rhybuddio am beryglon camddefnyddio cyffuriau ac alcohol – gydag elusen FADS yn Rhondda Cynon Taf (RCT).
- £600 i gefnogi gwaith Ambiwylans Awyr De Cymru, a chynnig gwasanaeth awyr brys i bobl sydd ag afiechydon neu anafiadau sy'n bygwth eu bywyd, yn enwedig mewn rhannau gwledig o Gymru.
- £300 yr un i dalu am offer mewn dau glwb ar ôl ysgol – Brynna Babes a Buzy Bees – sy'n cynnig gwasanaeth hanfodol i rieni'r ardal, gan olygu eu bod yn gallu dal ati i weithio a darparu ar gyfer y teulu.

Os cawn ganiatâd cynllunio, byddwn yn ymroi i barhau â'n buddsoddiad yn yr ardal. Byddwn yn adolygu'r ffordd y caiff y gronfa ei dosbarthu a gwerth y buddsoddiad, yn unol â'r cynnydd ym maint y prosiect, a byddwn yn cydweithio'n agosach â'r cymunedau lleol.

Fel rhan o'r broses, byddwn yn trafod y blaenoriaethau a'r ffyrdd gorau o gyflwyno'r pecyn newydd gyda'r cymunedau lleol.

Os ydych yn byw neu'n gweithio ger y safle, hoffem i chi fanteisio ar y cyfle i ddod i ddsygu mwy am yr hyn sydd gennym i'w gynnig, ac i ddweud wrthym beth yr hoffech chi ein gweld ni'n ei gefnogi yn eich cymuned.

Mae rhagor o wybodaeth ar ein gwefan a gallwch anfon eich barn, eich syniadau a'ch awgrymiadau at: community.investment@rwe.com

CYSYLLTU Â NI

Os oes gennych ryw gwestiwn am y cynllun, byddai'n bleser gan aelodau o dîm y prosiect gyfarfod â chi yn un o'r arddangosfeydd cyhoeddus. Fodd bynnag, os na allwch ddod, mae croeso i chi gysylltu â'r tîm.

E-bost

taffely@rwe.com

Ffôn

01793 474212

Trwy'r post

RWE npower renewables,
Prosiect ailberu Fferm Wynt Taf Elái,
Uned 22, Baglan Bay Innovation Centre,
Central Avenue, Baglan Energy Park,
Port Talbot, De Cymru, SA12 7AX.

Gwefan

Cewch ragor o fanylion am RWE npower renewables yn:
www.npower-renewables.com/taffely

TROEDNODIADAU

¹ Cyfrifwyd yr ynni y disgwylir i'r cynllun ei gynhyrchu gan ddefnyddio ffactor capasiti tybiedig o 26%, (sy'n cyfateb i ddata gweithredol o gynllun presennol Taf Elái a safleoedd ffermydd gwynt eraill yng Nghymru), ac fe'i seilir ar y gallu i gynhyrchu 20MW. Gall y ffigurau disgwyliedig ar gyfer cipio ynni ac felly'r ffigurau ar gyfer nifer y cartrefi y gellir eu cyflenwi newid wrth ni gasglu rhagor o wybodaeth benodol i'r safle.

Wrth gyfrif nifer y cartrefi y gellir eu cyflenwi, tybir bod pob cartref yn defnyddio 4700 kWh o drydan y flwyddyn. Mae'r ffigur hwn yn cyfateb i'r data diweddar am swm y trydan a ddefnyddir mewn cartrefi yn y Digest of UK Energy Statistics ac amcangyfrifon ac amcanestyniadau gan Awdurdod Ystadegau'r DU.

Os hoffech gael y
cylchlythyr hwn mewn
print bras mae croeso
i chi gysylltu â ni:
01793 474173