



RWE



RWE in Wales

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RWE owns and / or operates around 3 gigawatts (GW) of onshore and offshore wind, hydro and gas energy generation in Wales across 12 sites. The company is Wales' largest power producer and biggest renewables generator, directly employing around 300 people (plus many more indirectly) at our dedicated offices in Baglan, Dolgarrog, and Port of Mostyn as well as onsite at our power stations.

£3bn

£3 billion invested in projects in Wales over the last ten years.

Over the last decade, together with partners, RWE has invested over £3 billion to deliver projects in Wales. Our major investments include three onshore wind farms totalling 186 megawatt (MW); our 2.2 GW gas-fired Pembroke Power

Station; the first commercial scale offshore wind project in the UK (North Hoyle); and the 576 MW Gwynt y Môr offshore wind farm, which has since created more than 100 long-term, skilled jobs at the Port of Mostyn.

Operational Projects



Onshore – RWE operates three onshore wind farms with a capacity of 186 MW and has previously been instrumental in the development, construction and operation of many more of Wales' onshore wind farm fleet.



Hydro – RWE has a long and proud history of generating hydro power in Wales, with plants that have been in operation over 100 years. Five projects produce over 45 MW of sustainable green power.



Gas – Pembroke Power Station is a combined-cycle gas turbine (CCGT) station which began commercial operation in September 2012. The station has a net capacity of over 2 GW, enough to power around 4 million homes. The plant is one of the largest and most efficient of its kind in Europe. Its flexible technology means that Pembroke is able to respond quickly to the market to provide highly flexible and reliable power to meet the country's requirements.



Offshore – RWE owns or operates three offshore wind farms including Gwynt y Môr, a 160 turbine, 576 MW offshore wind farm, located 13 km off the coast of North Wales in Liverpool Bay. It is capable of generating enough clean energy for up to 400,000 average UK households each year.

Through our existing and developing projects, RWE and its partners have made major investments in Welsh renewable infrastructure and the local supply chain. During the construction of Gwynt y Môr, £660 million was spent with companies based in the UK, with over £90 million being spent within Wales.

Development Projects



Onshore wind in Wales

Our major investments in Wales include around £250m building onshore wind projects at Clocaenog Forest, Mynydd y Gwair and Brechfa West. We are also currently working on a pipeline of very early stage development proposals, which could deliver over 600 MW additional onshore wind capacity across Wales. Further onshore wind opportunities are being explored across Wales but many of these, particularly in Mid Wales, are dependant on a viable grid transmission solution to unlock the potential.

The Welsh Government has set a target that all new energy projects should have an element of local ownership and that, by 2030, 1 GW of energy capacity in Wales will be locally owned. To this end, RWE is developing innovative and locally informed strategies to ensure its onshore wind farm projects are aligned with Welsh Government's ambitions. Alwen Forest Wind Farm is a 32-45 MW project in Denbighshire and Conwy, being developed on forestry land (Dwr Cymru Welsh Water / Natural Resources Wales). RWE has committed to working with Community Energy Wales to deliver a shared ownership opportunity to enable local people and groups to invest in the project. This will ensure that a greater proportion of economic benefit is retained within Wales. In addition, Pen March Wind Farm is a 30 MW project straddling the boundary of Caerphilly and Merthyr Tydfil County Borough Councils. RWE and Caerphilly County Borough Council have recently signed a Memorandum of Understanding (MoU) to work together to deliver local benefits in line with the council's and Welsh Government's aspirations.



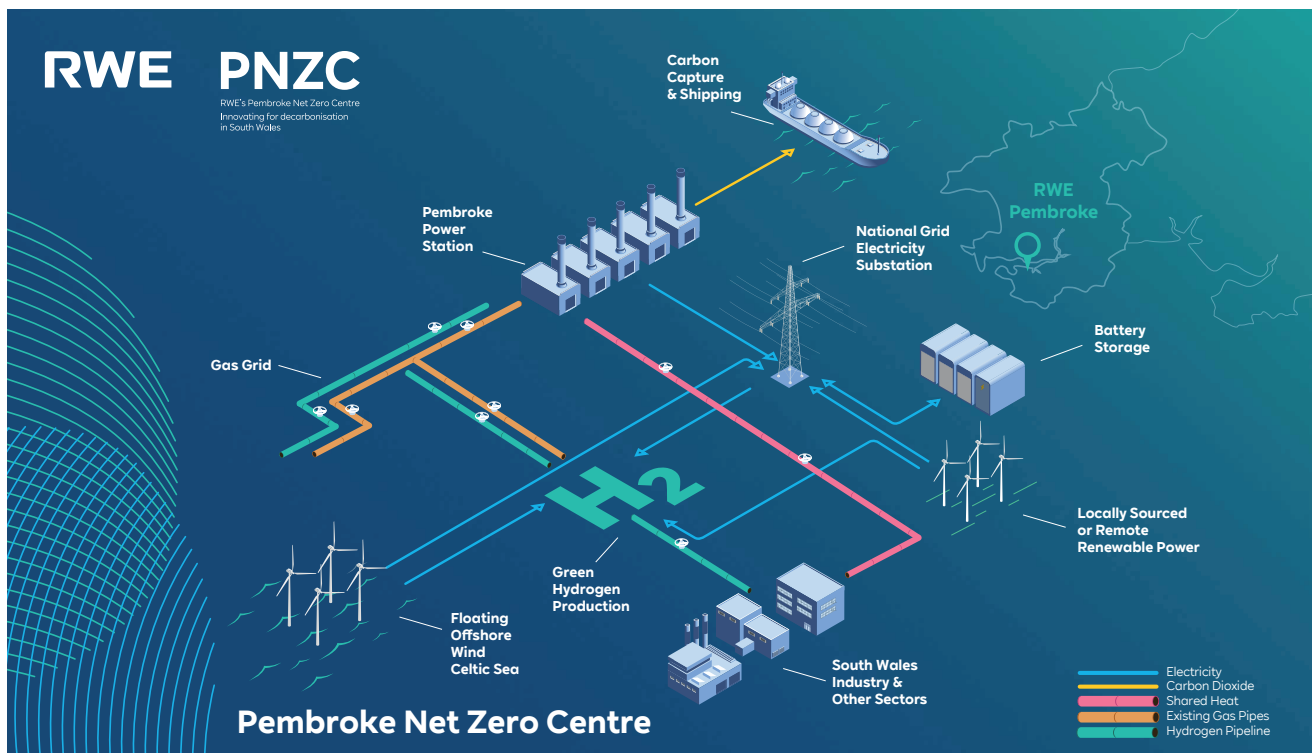
One of the 33 onshore sites in the UK is Brechfa Forest West. This wind farm has been producing green electricity since 2018 – for up to 39,000 UK homes. To learn more, scan the QR code and watch the film.



Hydrogen in Wales

RWE is developing green hydrogen projects across Europe, including an initial 110 MW electrolyser at Pembroke, which it is hoped will be operational in 2026. This project has potential to grow in scale by 200-300 MWs in the late 2020s, and ultimately to GW-scale in the 2030s, powered by floating offshore wind in the Celtic Sea and linked to a proposed 100% hydrogen pipeline connecting Pembroke to industrial clusters.

Beyond this RWE is working with industrial partners on other development opportunities in Wales, and is happy to speak with anyone interested in green hydrogen supply and/or working with RWE on green hydrogen projects.



Pembroke Net Zero Centre (PNZC)

RWE's Pembroke site is transforming into a decarbonisation hub under the title of PNZC, linking-up new innovative technologies in support of a low carbon future, including hydrogen production, carbon capture and storage (CCS) and floating offshore wind.

PNZC will develop and implement three distinct pillars:

- 1) Decarbonisation of Pembroke Power Station, including CCS and initial hydrogen feasibility studies;
- 2) Green hydrogen production, including feasibility studies for an initial 100-300 MW 'pathfinder' electrolyser on the Pembroke site whilst also looking at GW-scale opportunities in the longer-term;
- 3) Floating offshore wind in the Celtic Sea.

Based at the existing Pembroke Power Station site, the initiative draws on a dedicated team of experts, from technicians, planners and engineers across RWE's UK and international businesses. They will look to deploy state-of-the-art technologies to help decarbonise South Wales and support Wales and the UK to reach net zero.

PNZC will help unlock the route to net zero in South Wales and support the future of existing industries, businesses and jobs. Early analysis by Cardiff Business School indicates that PNZC could support up to around 1,500-2,200 Welsh jobs per annum during construction and boost regional Gross Value Added (GVA) by up to £70-100m p.a. During operation, by 2040 per annum PNZC could support c. 270-340 Welsh jobs and add £28-35m GVA to the regional economy. This is in addition to the 270 Welsh jobs and £28m GVA supported by the existing Pembroke Power Station.



Offshore wind in Wales

Awel y Môr is an extension project being developed by RWE to the west of the existing Gwynt y Môr Offshore Wind Farm. It is located approximately 10.5 km off the Welsh coast in the Irish Sea, with a maximum area of 88 km².

The project is currently in its development phase; a Development Consent Order application has been submitted to and accepted by the UK Planning Inspectorate, with the formal examination to run until March 2023. A separate application for a marine license has also been accepted by Natural Resources Wales, with this process to run in parallel. It is currently too early to confirm the final details of the wind farm, such as the size or number of turbines. The precise design will be determined through detailed technical studies closer to the time of construction. The project presents a huge opportunity for Wales as it strives to reach its target of producing 70% of its electricity consumption from renewable energy sources by 2030.

Offshore wind is one of the UK's biggest growth industries and Awel y Môr will help ensure North Wales receives further investment in this area, bringing significant jobs and supply chain opportunities to the local economy.



Gwynt y Môr is Wales' largest offshore wind farm. With more than 160 wind turbines, it can supply the equivalent of a third of Welsh households with green electricity. To learn more, scan the QR code and watch the film.





Floating wind in the Celtic Sea

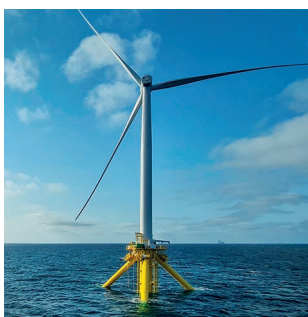
There is vast potential for floating offshore wind within the Celtic Sea off the coast of South Wales. This area offers good wind resource and has strong political support from Wales and South West England. The deployment of floating wind in deeper waters will be needed to achieve UK Government decarbonisation targets.

Preliminary analysis (ITAP for ORE Catapult, 2020) suggests that potential wind resource from the Celtic Sea could exceed 100 GW. However, given the physical and environmental constraints, the most realistic development scenario is 10-15 GW by 2050.

RWE is well placed to develop, build and operate floating wind projects in the Celtic Sea. We are actively involved in three floating wind demonstration projects around the world, gathering knowledge on best technologies, site condition tolerances and environmental factors that support developments in the Celtic Sea. We are already engaging with Welsh supply chain companies to understand how we can work together to maximise the economic investment opportunities for businesses and communities in Wales.



We wish to build on our investments, and successes already demonstrated in North Wales by bringing our floating wind ambitions to South Wales and South West England. By doing so, we will invest in South Wales ports and supply chain, skills and workforce, to make floating wind in the Celtic Sea a sustainable, long-term reality.



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RWE is actively involved in 3 floating wind demonstration projects around the world.



RWE Community Funding in Wales

Over the years, millions of pounds have been contributed to neighbouring communities from funds associated with our renewable energy sites in Wales. In July 2021, RWE passed the milestone of '£10m in 10 years'.

With the addition of new projects RWE's annual community funding in Wales alone amounts to over £2.4m. How this funding is allocated is decided by local people in their communities. Over the last ten years, RWE's Community Benefit Funds have had significant and positive impacts on the lives of local people, enabling local improvements from new play areas and village hall roofs; to essential services that support those most in need. They are provided directly to local groups to help enhance and improve the services they provide, with projects spanning education and training, sustainability, health and wellbeing support, community facilities and much more.

£2.4m

More than £2.4 million annually is provided to communities.



Investing in Wales

Our position in Wales is set to grow further – Awel y Môr (the Gwynt y Môr extension) is scheduled to be the largest single renewable energy investment in Wales within the next decade. We are also developing a further pipeline of approximately 600 MW of innovative onshore wind, solar PV and battery storage projects across Wales.

With this pipeline we hope to maintain our position as one of the largest investors in Wales, employing and training a skilled workforce directly across a variety of technologies, as well as many more indirectly across their respective supply chains.

RWE is also proud to be the champion for the supply chain cluster in North Wales and the North West of England called The Offshore Energy Alliance, which is directly linked to commitments made in the Offshore Wind Sector Deal. The cluster 'flies the flag' for local businesses, raising awareness of upcoming opportunities in a range of low carbon energy sectors in a timely way, with the aim of increasing local participation and content. In addition, we support skills and diversity initiatives in the region including an apprenticeship scheme and involvement in a new engineering centre at Coleg Llandrillo, where we are piloting a national apprenticeship training hub for our projects around the UK.



Would you like the latest information about The Offshore Energy Alliance? Then quickly scan the QR code and network on LinkedIn.




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Cyllido Cymunedol RWE yng Nghymru 

Dros y blynyddoedd, mae miliynau o bunnoedd wedi'u cyfrannu i gymunedau cyfagos o Gronfeydd sy'n gysylltiedig â'n sofrïoedd ynni adnewyddadwy yng Nghymru. Ym mis Gorffennaf 2021, pasiodd RWE y garreg filltir o £1.0m mewn 10 mlynedd;

Gyda phrosiectau newydd yn cael eu hychwanegu, mae cyllido cymunedol blynyddol RWE yng Nghymru yn unig yn dod i dros £2.4m. Pobol leol yn eu cymunedau sy'n penderfynu sut y caiff Cronfeydd Budd Cymunedol RWE wedi cael effeithiau sylweddol a chadarnhaol ar fywydau pobl leol, gan ailuogi gwellaethau lleol, a ardaloedd chwarae newydd a thoeau neuaddau pentrefi! Wasanaethau hanfodol sy'n cefnogi'r rhai mwyaf anghenus. Cânt eu darparu'n uniongyrchol i grwpiau lleol i helpu i wella a chyfoethogi'r gwasanaethau a ddarperir ganddynt, gyda phrosiectau yn rhychwantu addysg a hyfforddiant, cynnal gallu, cymorth iechyd a lles, cyfleusterau cymunedol a llawer mwy.

RWE
Darperir mwy na £2.4 miliwn y flwyddyn i gymunedau.

Buddsoddi yng Nghymru 

Mae ein sefyllfa yng Nghymru ar fin tyfu ymhellach – mae disgwyli! Awel y Môr (estyniad Gwnt y Môr) fod y buddsoddiad unigol mwyaf mewn ynni adnewyddadwy yng Nghymru o fewn y degawd nesaf. Rydym hefyd yn datblygu gwerth tua 600 MW o brosiectau arloesol ynni gwnt ar y tir, ffotofoltaig solar a storio batris ledled Cymru.

Gyda'r prosiectau ar y gwellill hyn, rydym yn gobethio cynnal ein sofrïe fel un o fuddsoddiwyr mwyaf Cymru, gan gyffogi a hyfforddi gweithlu medrus yn uniongyrchol ar draws amrywiaeth o dechnolegau, yn ogystal â llawer mwy yn auniongyrchol ar draws eu cadwyni cyflenwi priodol.


Mae RWE hefyd yn falch o fod yn hyrwyddwr ar gyfer y cwestiwr cadwyn gyflenwi yng Ngogledd Cymru a Gogledd Orllewin Lloegr o'r enw The Offshore Energy Alliance, sydd â chysylltiad union-gyrchol ag ymrwymïadau a wnaed yn y Fargen Sector Gwnt ar y Môr. Mae'r cwestiwr yn chwifor faner ar gyfer busnesau lleol, gan godi ymrwybuddiaeth o gyfrïoedd sydd ar dod mewn amrywiaeth o sectorau ynni carbon isel mewn modd amserol, gyda'r nod o gyfrannu i'r targedau a chyhoeddiad ynni. Yn ogystal, rydym yn cefnogi mentrau sgiliau ac amrywiaeth yn y rhanbarth gan gynnwys cynllun prentisiaeth, ac ymwneud â chanoflannu beiranneg newydd yng Ngholeg Llandrillo, lle rydym yn treialu hwb hyfforddi prentisiaeth genedlaethol ar gyfer ein prosiectau ledled y DU.

Hoffech chi gael y wybodaeth ddiweddarar am The Offshore Energy Alliance? Yna sganwch y cod QR yn gyflym a rhydwedhithwch ar LinkedIn.



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Gwnt arnofol yn y Môr Celtaidd 

Mae potensial enfawr ar gyfer gwnt alltraeth sy'n arnofol o fewn y Môr Celtaidd oddi ar arfordir De Cymru. Mae'r ardal hon yn cynnig adnoddau gwnt da ac mae ganddi gefnogaeth weidydol gref o Gymru a De-orllewin Lloegr. Bydd angen defnyddio gwnt arnofol mewn dyfroedd dyfnach er mwyn cyrraedd targedau datgarboneddio Llywodraeth y DU.

Mae dadansoddiad rhagarweiniol (ITAP for ORE Cetaid, 2020) yn awgrymu y gallai adnodd gwnt posibl o'r Môr Celtaidd fod yn fwy na 100 GW. Fodd bynnag, o ystyried y cyfyngiadau ffisegol ac amgylcheddol, y senario datblygu mwyaf realistig yw 10-15 GW erbyn 2050.



Mae RWE mewn sefyllfa dda i ddatblygu, adeiladu a gweithredu prosiectau gwnt arnofol yn y Môr Celtaidd. Rydym yn cymryd rhan weithredol mewn tri phrosiect arddangos gwnt arnofol ledled y byd, gan gasglu gwlybodau am y technolegau gorau, goddefannau cyflwr amgylcheddol sy'n cefnogi sofrïoedd a ffactorau datblygiadau yn y Môr Celtaidd. Rydym eisoes yn ymgysylltu â chwmciau cadwyn gyflenwi Cymru i ddeall sut y gallwn gydweithio i wneud y mwyaf o'r cyfrïoedd buddsoddi economaidd i fusnesau a chymunedau yng Nghymru.

Dymunwn adeiladu ar ein buddsoddiadau o'r llwyddiantuau a ddangoswyd eisoes yng Ngogledd Cymru drwy ddedd â'n huchelgeisiau gwnt arnofol i Dde Cymru a De-orllewin Lloegr. Drwy wneud hynny, byddwn yn buddsoddi ym mhortladdoedd De Cymru a'r gadwyn gyflenwi, sgiliau a gweithlu, i wneud gwnt arnofol yn y Môr Celtaidd yn realiti cynaliadwy, hirdymor.



Mae RWE yn cymryd mewn 3 phrosiect arddangos gwnt arnofol ledled y byd.



RWE yng Nghymru

Mae RWE yn berchen ar a/neu'n gweithredu tua 3 gigawatt (GW) o ynni gwynt, hydrol a rwy ar y tir ac ar y môr yng Nghymru a draws 12 safle. Y cwmni yw cynhyrchydd pŵer mwyaf Cymru a chynhyrchydd ynni adnewyddadwy mwyaf, gan gyflogi tua 300 o bobl yn uniongyrchol (a llawer mwy yn anuniongyrchol) yn ein swyddfeydd pwrpasol ym Maglan, Dolgarrwg, a Phorthladd Mostyn yn ogystal ag ar y safle yn ein gorsafydd pŵer.



E3 biliwn wedi!

Nghymru. Mae ein buddsoddiadau mawr yn cynnwys tair fferm wynt ar y tir yn Cynhyrchu Cyfanswm o 1.86 megawatt (MW): ein Gorsaf Bŵer 2.2 GW wedi!
 tnanio â nwy ym Mhenfro: y prosiect gwynt ar y môr ar raddfa fasnachol gyntaf y DU (North Hoya); a fferm wynt alltraeth 576 MW Gwynt y Môr, sydd bellach wedi creu mwy na 100 o swyddi crefftus, hirdymor ym Mhorthladd Mostyn.

Prosiectau Gweithredol



Ar y tir - mae RWE yn gweithredu tair fferm wynt ar y tir gyda chynhwysedd o 1.86 MW, ac mae wedi bod yn allweddol yn y gorfennol wrth ddatblygu, adeiladu a gweithredu llawer mwy o ffylod ffermydd gwynt ar y tir Cymru.



Hydro - Mae gan RWE hanes hir a balch o gynhyrchu ynni dŵr yng Nghymru, gyda gweithfeydd sydd wedi bod yn gweithredu dros 100 mlynedd. Mae pum prosiect yn cynhyrchu dros 45 MW o ynni gwyrd d cynaliadwy.



Nwy - Mae Gorsaf Bŵer Penfro yn orsaf tyrbîn nwy cylch cyfun (CCGT) a ddechreuodd weithredu'n fasnachol ym mis Medi 2012. Mae gan yr orsaf gynhwysedd net o dros 2 GW, digon i bweru tua 4 millwn o gartrefi. Mae'r orsaf yn un o'r mwyaf a mwyaf effeithlon o'i batn yn Ewrop. Mae ei thechnoleg hyblyg yn gohygu bod Penfro'n gallu ymateb yn gyflym i'r farchnad i ddarparu pŵer hynod hyblyg a dibynadwy i fodloni gofynion y wlad.

Prosiectau Datblygu



Gwynt ar y tir yng Nghymru

Mae ein buddsoddiadau mawr yng Nghymru yn cynnwys tua £250m ar brosiectau adeiladu gwynt ar y tir yng Nghoedwig Clocaeonog, Mynydd y Gwair a Gorllewin Brechfa. Rydym hefyd wrthi'n gweithio ar hyn o bryd ar gyfres o gynigion datblygu cyfnod cynnar iawn, a allai ddarparu dros 600 MW o gynhwysedd gwynt ar y tir ychwanegol ledled Cymru. Mae cyfleoedd gwynt ar y tir pellach yn cael eu harchwilio ledled Cymru ond mae llawer o'r rhain, yn enwedig yn y Canolbarth, yn dibynnu ar ddatrysiad trosglwyddo grid hyfyr i ddatgloi'r potensial.

Mae Llywodraeth Cymru wedi gosod targed y dylai pob prosiect ynni newydd gael elfen o berchnogaeth leol ac, erbyn 2030, y bydd 1 GW o gynhwysedd ynni yng Nghymru dan berchnogaeth leol. I'r perwyl hwn, mae RWE yn datblygu strategaethau arloesol sy'n seiliedig ar wybodaeth leol i sicrhau bod ei brosiectau ffermydd gwynt ar y tir yn cyd-fynd ag uchelgeisiau Llywodraeth Cymru. Mae Fferm Wynt Coedwig Alwen yn brosiect 32-45 MW yn Sir Ddinbych a Chonwy, sy'n cael ei ddatblygu ar dir coedwigageth (Dŵr Cymru/Cyfoeth Naturiol Cymru). Mae RWE wedi ymrwymo i weithio gydag Ynni Cymunedol Cymru i ddarparu cyfle cydberch-nogaeth i alluogi pobl a grwpiau lleol i fuddsoddi yn y prosiect. Bydd hyn yn sicrhau bod cyfran uwch o fudd economaidd yn cael ei chadw yng Nghymru. Yn ogystadt, mae Fferm Wynt Pen March yn brosiect 30 MW sy'n pontio ffiniau Cynghorau Bwrdeistref Siroi Caerffili a Morthyr Tudful. Yn ddiweddar, mae RWE a Chyngor Bwrdeistref Siroi Caerffili wedi llofnodi Memorandwm Cyd-ddeallwriaeth (MoU) i gydweithio i sicrhau buddion lleol yn unol â dyheadau'r cyngor a Llywodraeth Cymru.



Un o'r 33 safle ar y tir yn y DU yw Gorllewin Coedwig Brechfa. Mae'r fferm wynt hon wedi gyfer hyd at 39,000 o gartrefi yn y DU. I ddydsu mwy, sganwch y cod QR a gwyllwch y ffilm.



Hydrogen yng Nghymru



Mae RWE yn datblygu prosiectau hydrogen gwyrd ar draws Ewrop, gan gynnwys electrolwsydd 1.10 MW cychwynnol ym Mhenfro. Y gobath yw iddo fod yn weithredol yn 2026. Mae gan y prosiect hwn y potensial i dyfu mewn maint o 200-300 MW erbyn diwedd y 2020au, ac yn y pen draw i raddfa GW erbyn y 2030au, wedi'i bweru gan wynnt alltraeth sy'n arnofio yn y Môr Celtaidd ac yn gysylltiedig â phiblinell hydrogen 100% orfaethedig yn cysylltu Penfro â chlystyrau diwydiannol.

Y tu hwnt i hyn mae RWE yn gweithio gyda phartneriaid diwydi-annol ar gyfleoedd datblygu eraill yng Nghymru, ac yn hapus i storio ag unrhyw un sydd â diddordeb mewn cyflenwad hydrogen gwyrdd a/neu weithio gydag RWE ar brosiectau hydrogen gwyrdd.

yng Nghymru.

Drwy ein prosiectau presennol a'n prosiectau sy'n datblygu, mae RWE a'i bartneriaid wedi gwneud buddsoddiadau mawr yn seilwaith adnewyddadwy Cymru a'r gadwyn gyflenwi leol. Yn ystod y gwaith o adeiladu Gwynt y Môr, gwarfwyd £660 millwn gyda chwmnïau yn y DU, gyda dros £90 millwn yn cael ei wario

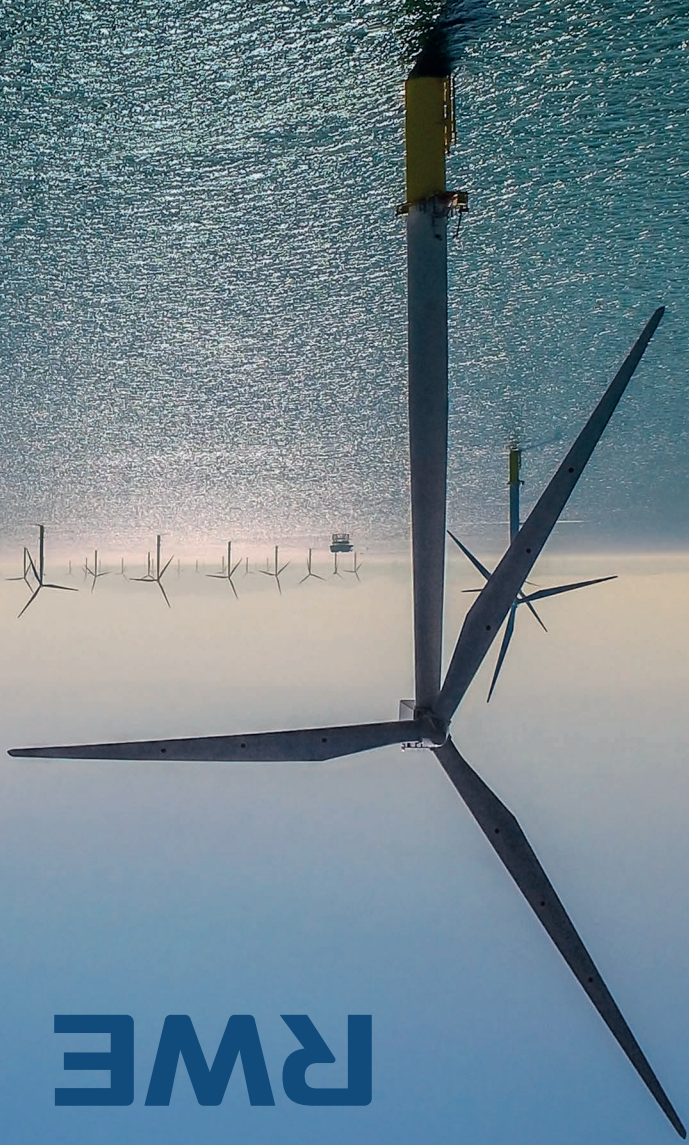
y DU bob bliwyddyn.

Mae RWE yn berchen ar neu'n gweithredu tair fferm wynt alltraeth gan gynnwys Gwynt y Môr, fferm wynt alltraeth 1.60 tyrbîn, 576 MW, sydd wedi'i lleoli 1.3 cilomedr oddi ar orfordir Gogledd Cymru ym Mae Lerpwl. Mae'n gallu cynhyrchu digon o ynni glân ar gyfer hyd at 400,000 o gartrefi cyfartalog yn



ar orfordir Gogledd Cymru ym Mae Lerpwl. Mae'n gallu cynhyrchu digon o ynni glân ar gyfer hyd at 400,000 o gartrefi cyfartalog yn

RWE yng Nghymru



RWE