

Urgent Look Into Renewable Energy Required

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With reference to my recent email dated 19th August 2025, I received a number of replies from members of Senedd and Government which raised a number of points on the renewables.

Having researched their points I would like to respond with the following for you to note during your public meeting in the Autumn term, as referenced by Lukas Santos - Deputy Clerk.

Homes Supplied

(All) the energy figures are based on Ofgem figures for (Median) energy consumption. This is regardless if they are from BEIS or DESNZ.

The **median** home energy is split to 80% gas and 20% electric.

Therefore when any wind or solar farm claims the number of homes it supplies the claims are, by their very nature, deceiving the public.

So when, for example, a developer claims they supply 10,000 homes what they really should state to be transparent is:-

We can supply on average 2,000 homes with all their energy or 10,000 homes with 20% of their energy. At times we can supply no energy and then the only viable backup is gas power.

In addition, when our supply exceeds demand, such as solar did earlier this year, the public have to pay the constraint payments for the facility to switch off. Each increase in solar or wind capacity will now substantially increase these constraint payments as peak production passes demand amounts much more frequently. In addition to that, the intermittent nature of wind/solar add about £12 per MWh to the cost of gas supply and there are huge extra costs in establishing the new grid and distribution system alongside the existing grid.

Load Factors

The developers are also using inflated Load factor figures, Close to offshore to boost output. The issue with load Factor is after the first year there is a **capacity Decrease**, as shown by professor Gordon Hughes Edinburgh university, so it is not realistic to think that the load factor presented by the developers will continue year after year as, after around 12 years, the turbines output will be considerably less.

The idea the turbines will have a 35-year lifespan is ridiculous as most of the parts will have had to of been replaced through maintenance because of inefficiencies. These are facts established by examination of actual wind projects accounts.

Ref <https://energyeducation.se/wind-power-economics-rhetoric-and-reality/>



[Wind Power Economics - Rhetoric and Reality - Energy Education](https://energyeducation.se/wind-power-economics-rhetoric-and-reality/)

The following is the text accompanying the talk given by Professor Gordon Hughes, School of Economics, University of Edinburgh on 4 November 2020 to launch his two new reports for REF on: Wind Power Costs in the United Kingdom and The Performance of Wind Power in Denmark For a recording of the event, please click here. The reality of what will happen to the costs of key renewable energy and ...

energyeducation.se

To claim a 35 year life in the face of the facts is nothing short of deception.

Output

The output is related to what they can produce (**on-site**) but this is because typically the energy production such as nuclear was sited and feed straight into the grid with minimal loss. However Solar and Wind are still required to give their on-site output ratings even though they are sited in such remote areas? There will be a

substantial Transmission losses, (up to) as high as 17%, which should be taken into account.

Curtailment

Throughout this summer, around midday, large numbers of Solar farms have been told to switch off to balance out the grid. Then when demand is higher, towards the end of the day, the light is lost. Making them pointless as this is when they are needed most.

Please can you answer this question:-

If they are being put into curtailment now, in the middle of the day, why would we need to build more of them? They're already overproducing and being told to turn off?

The curtailment is being passed onto the bill payer and we now have the highest price for electricity in the world.

There is no viable way of storing the energy as battery storage, for 9 days of electricity, would cost 3 trillion investment every 10 years.

Turbine grid consumption (no wind days)

Not the amount of power (parasitic load) they draw during operation, But the electric they draw from the grid on (**no wind days**) to keep them serviced and viable.

Vestas Wind turbine type Average self-consumption Table:-

V112 – 3.3/3.45 MW approx. 48,000 kWh / a

V117 – 3.3/3.45 MW approx. 48,000 kWh / a

V126 – 3.3/3.45/3.6 MW approx. 48,000 kWh / a

V136 – 3.45/3.6/4.0/4.2 MW approx. 48,000 kWh / a

V150 – 4.0/4.2 MW approx. 48,000 kWh / a

V150 – 5.6 MW approx. 55,000 kWh / a

V162 – 5.6 MW approx. 55,000 kWh / a

So one 13 Wind turbine development with the Vestas V150 4.2MW turbines would use around 624,000 kWh a year (which needs to be shown to the public and taken into account) With no wind days across the country, as we have seen this summer, means substantial amounts of electric is drawn from the grid.

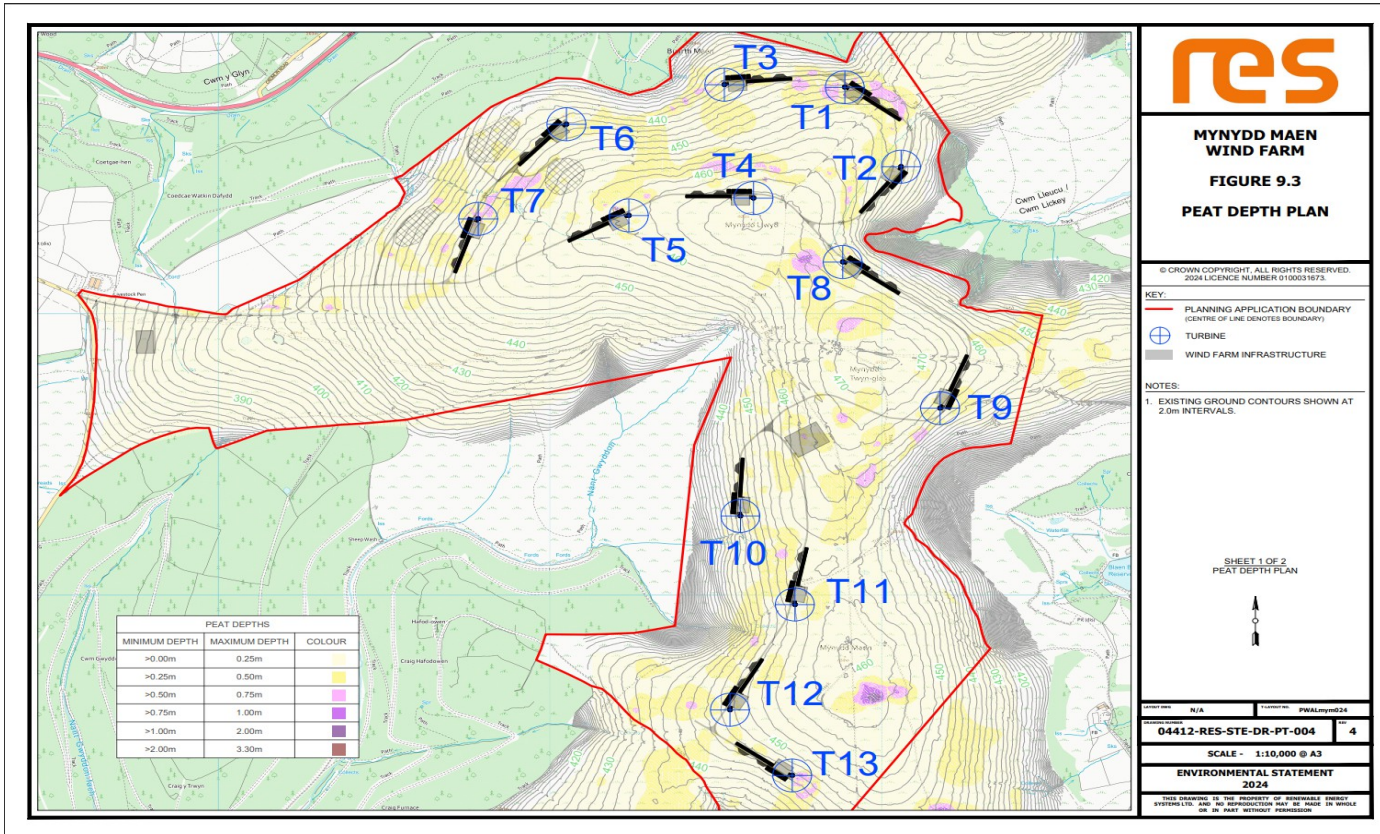
These developments are pointless and deceptive. The public and businesses are suffering as a result. This needs to stop now.

A proper debate needs to take place and accept the reality of what's happening rather than avoiding it.

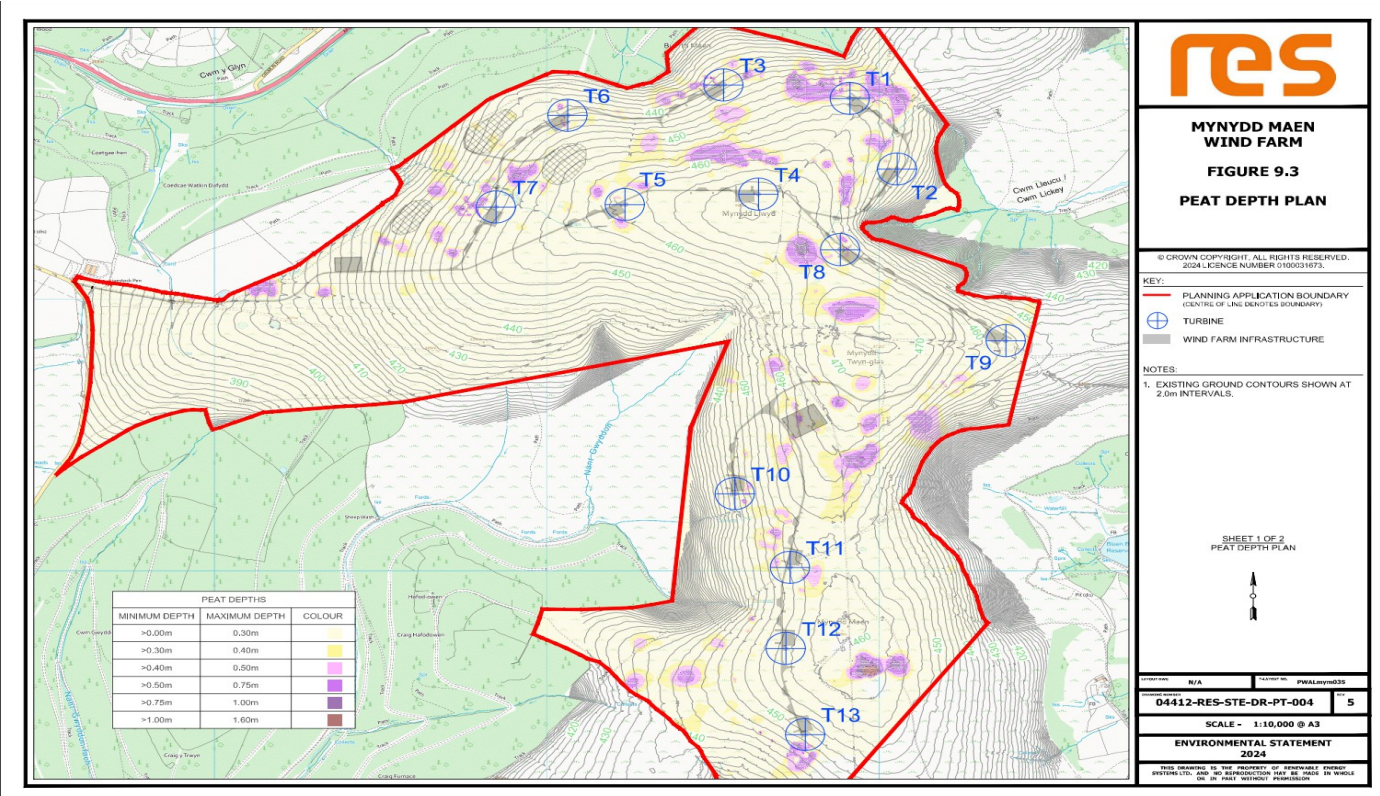
Peat Depths inaccurate

I have added this next section to reference the inaccurate peat reports and reliance on desktop studies. I have used the developments near me as example but all developments need to be looked at for inaccuracies:-

Picture 1 Below Peat depth by RES (Before) I made a South Wales Argus article in August 2024 mentioning concern for the large volumes of deep peat across Mynydd Maen. (note purple areas = deeper peat)



Picture 2 Below Peat Depth by RES (After) I made a South Wales Argus article in August 2024 and submitted in the PEDW. The developer has decided to show more Peat but this is still not accurate. In reality most of the map should be purple. As the mountain area has on Average around 0.5m of peat. (or around 500 years worth)



Cenin Solar Farm

Solar Farm has fake peat depths in their documents (Note an extract from the Cenin Cil Lonydd Solar Farm Phase 1 peat probing report below)

Picture 3 Below Fake peat depth report the developer lies and says it was manually carried out

3 PEAT PROBING

3.1 Methodology

- 3.1.1 The peat depth survey was undertaken on the 4th March 2025 at a density of 100 m x 100 m across all areas of the Assessment Site totalling 72 locations.
- 3.1.2 **Probed depths were obtained by manual insertion of a metal probe to refusal depth, at a recorded maximum depth of 0.50 m below ground level (bgl).** Records of the visible ground conditions, probe depth, probe resistance, and observations of soil residue on the probe when removed have been made.
- 3.1.3 A Peat Depth Survey Location plan is included within Appendix A as Figure 1.

3.2 Results

- 3.2.1 Tabulated results including peat depth (if present), peat base composition and general location remarks are presented in the Table below. Photograph references are included within Appendix B.
- 3.2.2 Peat Contour Results are presented within Appendix C as Figure 2.

(Note an extract from the Cenin Cil Lonydd Solar Farm Phase 1 peat probing report) mentions The NRW say 'no peat as such' after only relying on the Peatlands of Wales Mapping. (Meaning no one has been to the site and properly checked)

2.4 Superficial Geology

- 2.4.1 Based on BGS mapping (1:50,000-scale) no superficial deposits or Made Ground soils are indicated to be present across the Assessment Site.

2.5 Soils

- 2.5.1 According to the National Soils Map³, the area of the Assessment Site proposed for solar array use, is generally indicated to comprise freely draining acid loamy soils over rock. The cable route is indicated to comprise freely draining acid loamy soils over rock in the centre, leading to very acidic loamy upland soils with a wet peaty surface across the east and far west of the route.
- 2.5.2 **The Welsh Government Predictive Agricultural Land Classification (ALC) Map⁴ (V2) shows the Assessment Site as mainly Grade 4 (not best) surrounded by Non-Agricultural to the south and north.**
- 2.5.3 **A review of National Resources Wales (NRW) Peatlands of Wales⁵ mapping indicates no peat as such mapped on the Assessment Site.**

Then in a letter released by PEDW 21st May 2025, after some objections from the public referencing the peat, there appears to be some back tracking... (See screenshot below from letter)

As no reference to peat was made in any of the initial submissions from the applicant (and there is no BMV agricultural land on site), Welsh Government Land Quality Advice Service (LQAS) was not consulted, and Natural Resources Wales (NRW) did not consider peat. However, in response to the request for further information set out in the letter dated 17 February 2025 the applicant submitted a Phase 1 Peat Probing Report (dated 13 March 2025). It identifies the presence of pockets of peat across the site, at various depths, up to a maximum depth of 0.5 meters.

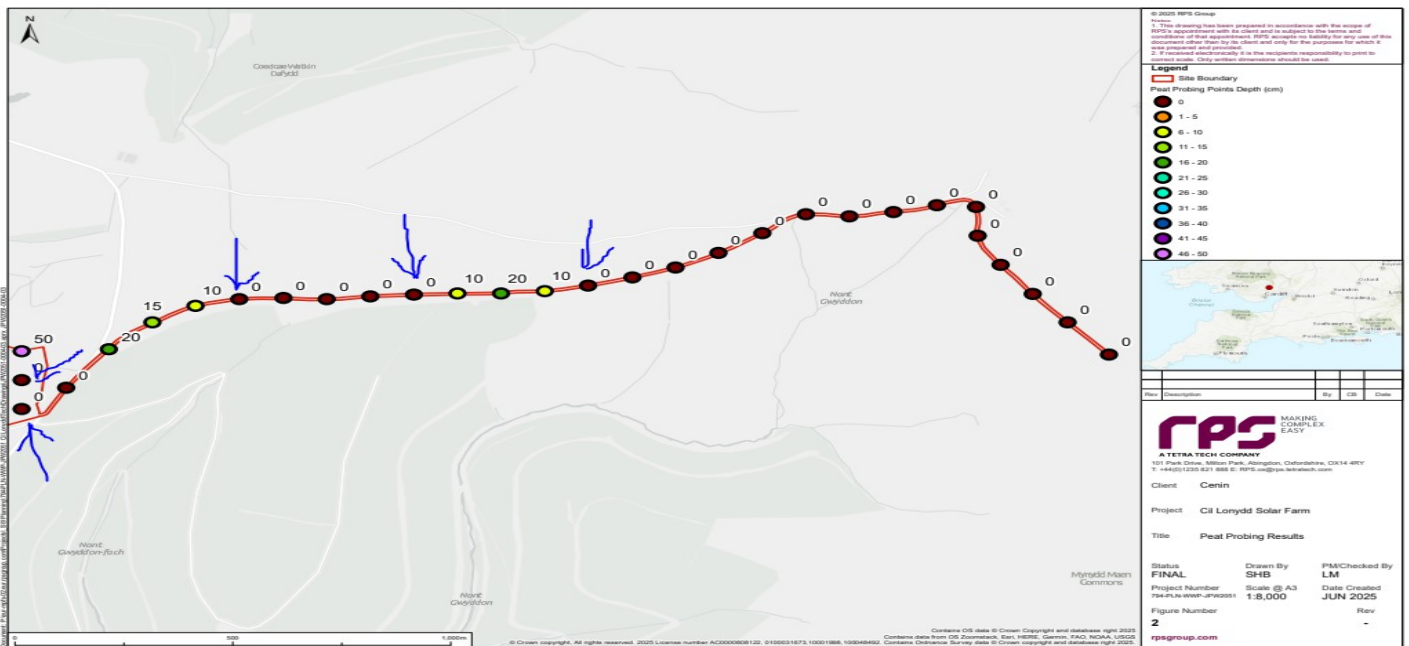
More recently in newly uploaded document to the PEDW website, the Cenin developer has added some new peat depth maps which show different depths to the first set and references using desktop studies (which have shown inaccuracies).

Reference to desktop studies:- **2025-06-25 - Annex B Request for Further Information**

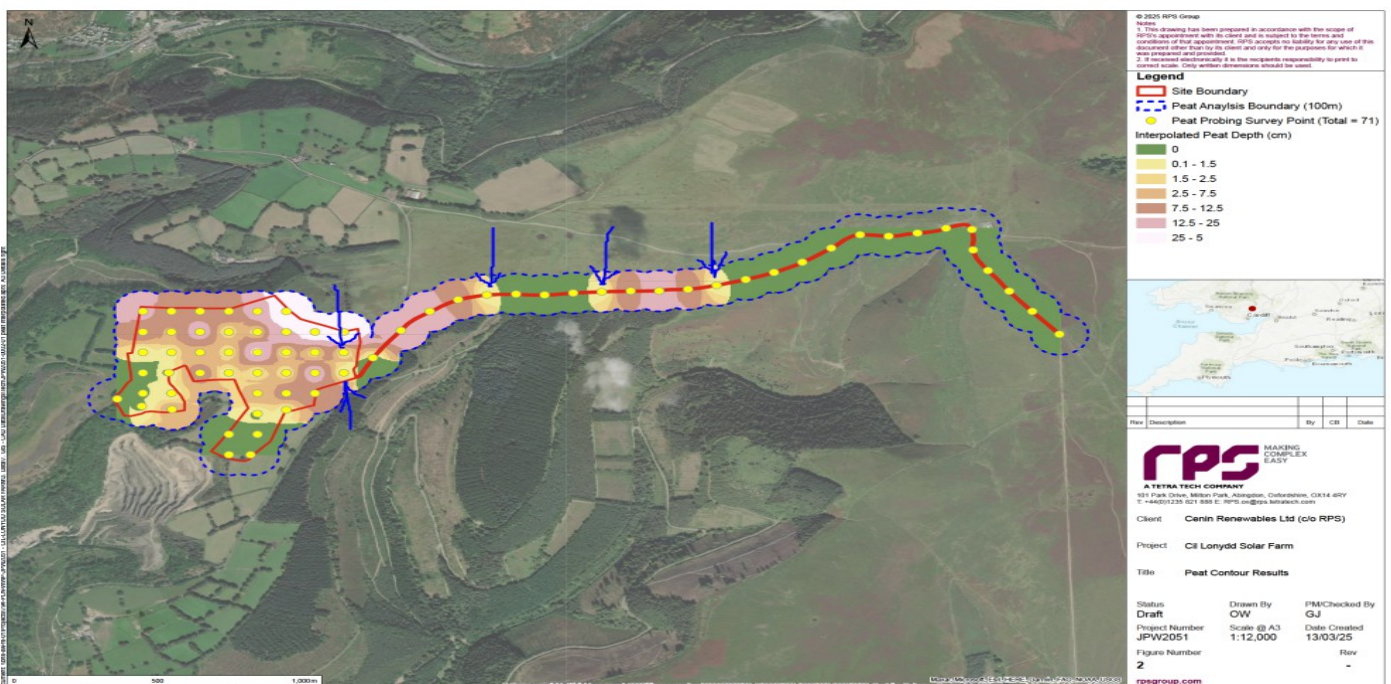
Annex B – Request for Further Information

Information Request	The condition, extent and significance of the peat resource within the site.
Applicant Response	A report has been provided as part of this request for further information ' 2025-06-25 - Response on Peat Resources and their Management '. Section 3 of the report provides the baseline desktop and survey data to identify the condition and extent of peat resources and any habitats it supports. Section 4 considers the application of the step-wise approach and the significance of the peat resources within the Site.

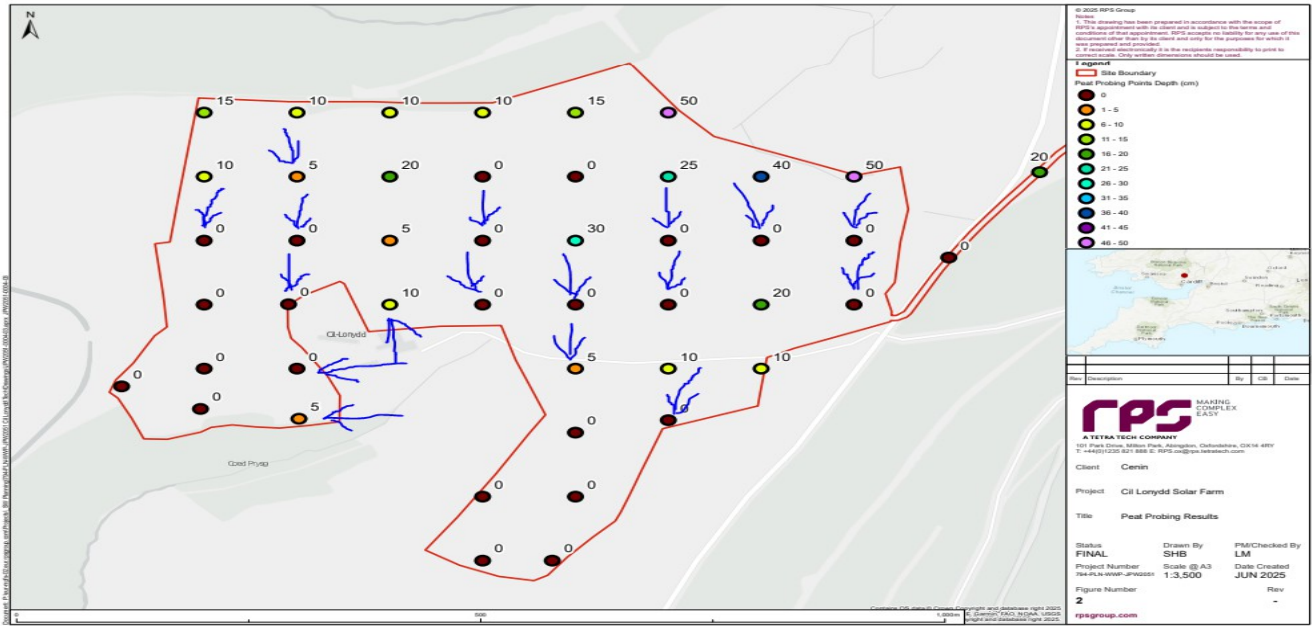
The June 2025 Peat probing Map shows different results to their original map with (no peat) at points marked with blue arrows (see below)



Peat Depth Map March 2025 Shows Peat in areas marked with blue arrows shows deeper (see below)



Site Peat Depth June 2025 Areas Marked in Blue Arrows Have depths Changed (see Below)



Site Plan March 2025 Areas Marked with blue arrows That Have been altered, This original map showed peat deeper (see Below)



I have visited some of the areas on the maps and found Peat in areas claimed not to have any. The map above, which shows green along much of the intended cable route (developers indication of no peat), but actually contains deep peat. Starting at the right on the map which is near the proposed RES Substation I have made a video, here's the link:- <https://www.youtube.com/watch?v=k-gx5gb7mqA> if you can't click links you can search **Proposed Solar Farm Peat Depth Report Inaccurate - on YouTube**

Readings obtained:- Starting at a Peat Bog 1-0.4m, 2- 0.5m, 3- 0.425m, 4- 0.5m, 5- 0.4m, 6- 0.475m 7- peat already exposed picture, 8- peat already exposed picture, (on the Solar site 9- 0.5m, 10- 0.5m 11- 0.6m 12- 0.4m 13- 0.5m) the developer is only admitting to peat at Fringes of the site (and refers to it as a marshy area) I have been to a number of points including the middle of that marshy area and found Peat.

Here is a Video Link for the RES development substation area (Grey box near T10 on the RES maps above)

Pylons 3 and 4 along from Gas station. Video Link:- <https://www.youtube.com/watch?v=FD5JWYiyGHo>
If you can't click links you can search **Deep Peat At Proposed Substation Site On Mynydd Maen May 2025 - on YouTube**

Readings obtained:- Starting at a peat bog, Then 1- 0.5m 2- 0.55m 3- 0.45m 4- 0.575m 5- 0.475m 6- 0.45m

The above maps show discrepancies. So now we have 2 sets of fake peat depth maps. They cannot be trusted. There are no coordinates to reference the areas shown.

This is corrupting the process. With the reliance of desktop studies and incorrect information, the true depths of peat throughout Wales is currently ignored.

The full information is concealed from the public. With no indication of curtailment and subsidies on energy bills? There is no reference to the Ofgem energy Median figures by the developers yet the homes supplied is their major public selling point (it needs to be part of the PEDW planning process to reveal the true figures) with all wind developers using the onshore load factor without inflation and all Renewables revealing true full calculations including predicted transmission losses and turbine consumption.

I ask if you can look into the points raised, The Renewables have shown to be too costly to the public and our country and causing unnecessary destruction to the countryside

Thank you

sincerely Matt Davies