

Emails between Welsh Government and Pennant Walters

Note: The full text and attachments are provided, but personal details have been replaced with text in square brackets.

Sent: Wednesday, February 16, 2022 5:14 PM

Subject: Pant y Wal

Importance: High

Good afternoon [name]

I hope you're well: I am not sure if you remember speaking to us a while ago about renewables in Wales?

I wondered if you were able to give me any information about the turbine in the Pant y Wal development that has failed? It would be useful to be able to brief Ministers on the issue, given the policy support in Wales for renewable energy.

Thanks very much,

[official]

Y Gyfarwyddiaeth Newid Hinsawdd, Ynni a Chynllunio / Climate Change, Energy and Planning Directorate

Llywodraeth Cymru / Welsh Government

Sent: 16 February 2022 17:22

Good Afternoon [official]

Yes I am well but things are a bit hectic given the situation. I have just written (by way of an update) to Huw Irranca-Davies and the Heads of Planning at Bridgend CBC and RCT to enable them to update members. Basically these emails contain the information below:

Nordex (a German company) is the manufacturer of the turbine and the provider of ongoing operations and maintenance services under a 15 year contract. From the data available via the remote monitoring systems Nordex assures us that this is a one off incident related to a discrete electrical event. Nordex is satisfied that the PantyWal site can continue to operate.

Nordex has installed more than 8,000 turbines around the world for a total 32,000MW. The PantyWal site contains 21 turbines (totalling 52.5MW) of its N90 model which is the same model as PantyWal Extension (8 turbines) and Mynydd Bwllfa (11 turbines) in South Wales. Nordex reports there has been no failure of this type seen before. This model of turbine is also installed at several other UK sites both rural and industrial.

Nordex specialist investigation teams are currently attending site. In addition, Nordex is carrying out a full inspection of every turbine on site. This in addition to the ongoing maintenance provided by the permanent team of 7 Nordex technicians based at the PantyWal site. The timeframe for the conclusion of the Nordex analysis is not yet clear but we commit to keeping the local authorities and the public informed.

As further information on the forensic analysis is provided to us we will update you.

[official] – if you need more let me know but there is little I can give you at this point.

Best Regards

[name]

Pennant Walters Ltd

Sent: 18 February 2022 15:37

Subject: RE: Pant y Wal

Hi [name]

I just wanted to check in with you on the turbine collapse. We've had a number of questions from elected members and the press, so an update on progress would be really helpful. I've asked a couple of questions below that would be very helpful in responding accurately.

Do you have a timescale yet for the results of Nordex's investigation?

Also, I have been digging into the regulatory regime and beyond SafetyOn, can find little on the UK regime. I'm assuming that the HSE is the principal body concerned but any light you can shed would be helpful. Are HSE involved in the investigation, or will that depend on initial findings?

Plus we have some questions about transparency, so it would be handy to understand whether there will be any public statement on this at any stage?

Thanks very much,
[official]

Sent: 18 February 2022 15:38

Subject: RE: Pant y Wal

Hi [official],

Rather than write a long rambling email – why don't you give me a buzz now.

[mobile number]

I have to leave at 4:00 today

Best regards

[name]

Note: no note of the call is held but the information discussed formed the basis for the letters Minister issued on the topic.

Sent: 18 February 2022 18:12

Subject: Update on turbine issue - question on regulation

Hi [name],

Thank you for the update earlier. I would be really grateful if you could ask your technical director to describe the regulatory regime for turbine manufacture, installation and maintenance. I know about the wind turbine safety rules, which appear to me to be more about how to safeguard staff whilst building and operating wind farms. It's also as far as I can see best practice and advisory rather than compulsory.

Are there any UK or international standards? Is there any statutory minimum about the level of assurance or quality of maintenance? And is there any organisation that checks up on standards?

I mentioned that we are looking to respond to elected members on a number of questions on the Pant y Wal case. I'd be grateful if you could look over the text below for any factual inaccuracies or premature mentions? As I said, my deadline is noon Tue, so something by late Mon or early Tue would be great.

A single wind turbine has collapsed at the Pant-y-Wal wind development. We have been in regular contact with the operator, Pennant Walters, to seek assurances that public safety is being prioritised, particularly in relation to maintenance and the condition of the turbines on site. The wind farm has ongoing proactive maintenance. A permanent team of 7 technicians from Nordex, the manufacturer of the turbine and the contractor responsible for ongoing maintenance, is based at the Pant-y-Wal site.

Nordex specialist investigation teams were immediately deployed to the site and started a forensic investigation into the incident. The timeframe for the conclusion of the investigation has been hampered by the exceptionally stormy weather, but is likely to take some weeks.

Regulation of the maintenance and monitoring of wind turbines is a reserved issue . Developers have a strong focus on both the specification and maintenance of turbines to withstand extreme weather conditions and to ensure they are safe.

Incidents of this kind are extremely rare. 1200 turbines of this model have been in operation in the UK for over 10 years. We understand this is the first failure and appears to be an isolated event.

We understand the operator and the turbine manufacturer are committed to identifying the root cause of this collapse and ensuring it does not happen again. I would encourage both the manufacture and operator to publicly report on the outcome of the investigation and any action needed.

Thanks again,
[official]

Sent: 21 February 2022 08:36

Subject: RE: Update on turbine issue - question on regulation

Hi [official],

I will come back to you on the text of your release by COP Monday. In the meantime here is something on the certification process. I am in a meeting with Nordex's MD for most of the morning. If he has anything to add to what we provide here I will forward it.

The standards used for wind turbine design are the IEC (International Electrotechnical Commission) standards IEC 61400 which were incorporated into the European and British Standards as BS EN 61400. Part 1 specifies essential design requirements to ensure the structural integrity of wind turbines. Its purpose is to provide an appropriate level of protection against damage from all hazards during the planned lifetime.

Turbine suppliers typically will use independent technical bodies to verify that the design and manufacture conforms to the above standards. The approval and certification process for a new wind turbine design is long and typically takes a number years. The graphic below (from DNV) may be useful. There is also a site specific design assessment undertaken early on in the procurement process.

https://issuu.com/dnvgi/docs/21f338803250456089661e389787b95f?fr=xKAE9_zU1NQ

The certifying bodies for onshore and offshore wind turbines are those you see referenced on the attached certificate for the Nordex N90 namely

DEWI-OCC

Based in Cuxhaven, Germany

DEWI-OCC is the certification body for on- and offshore wind turbines and their components, accredited by the DAP (Deutsches Akkreditierungssystem Prüfwesen). In the field of wind energy DEW-OCC carries out certifications as well as expertise for investors (due diligence) and for government authorities, type approvals, examinations, periodic inspections, risk- and damage analyses

TUV-Nord

TÜVs (German abbreviation: Technischer Überwachungsverein, English: Technical Inspection Association) are German organizations that **work to validate the safety of products and services of all kinds** to protect humans, material assets and the environment against hazards.

The above certifications are Type Certification that confirms that the particular turbine model conforms with the design standard. At Pant y Wal Nordex also provided independent certification by TUV SUD Industrie Service GmbH. This was in the form of a Statement of Compliance (attached), confirming suitability for the particular site conditions.

As part of the installation on site and ongoing operations there are a number of statutory inspections. These comprise, as examples, independent certification of lifting devices, anchor points, beams used for lifting, fire systems, pressure vessels and rescue devices. Turbines are serviced twice per year and continuously monitored via Condition Monitoring System comprising various temperature, vibration and acceleration monitors.

Best Regards
[name]



2.2.1-b_N90H-6-R70
MT-IEC1.pdf

Attachment:

Sent: 21 February 2022 08:54

Subject: RE: Update on turbine issue - question on regulation

[name], sorry but I am also being asked about [this case](#): looks like a different model and fault, but useful to know the Nordex view on that?

Thanks
[official]

Sent: 21 February 2022 09:07

Subject: RE: Update on turbine issue - question on regulation

Thanks [name]: really appreciate this.

While you have the Nordex MD there, it would be useful to know why Nordex have taken a different approach in this instance, compared to the Germany collapse where they took the development offline.

Thanks again,
[official]

Sent: 21 February 2022 15:16

Subject: PantyWal Turbine

Hello [official],

Below I have modified the words you sent over on Friday. I wanted to make it clear that we are the owner of PyW and not the operator. Nordex provides the operations and maintenance service at PyW. I can confirm that we will make the final investigative reports available to the public and representative bodies (on the website etc) when we receive them.

I am waiting on information from Nordex on the failure of the N149/4.0-4.5MW model but it is unrelated. That is a relatively new model and had just been put into production (about 6 months). Nordex appear to have identified a batch fault in the manufacture of the hybrid steel-concrete tower for these first N149's. This is why the other turbines of this type were taken out of service. The tower manufacturer (it is sub-contracted) disputes this hence we may get limited information.

My suggested changes are in red.

*A single wind turbine has collapsed at the Pant-y-Wal wind development. We have been in regular contact with the **owner**, Pennant Walters, to seek assurances that public safety is being prioritised, particularly in relation to maintenance and the condition of the turbines on site. The wind farm has ongoing proactive **maintenance provided via a 15 year contract with the manufacturer Nordex gmbh** . A permanent team of 7 technicians from Nordex, are based **at the sub-station on the Pant-y-Wal site**. **Out of business hours the turbines are continuously monitored remotely**.*

*Nordex specialist investigation teams were immediately deployed to the site and **have** started a forensic investigation into the incident. The timeframe for the conclusion of the investigation has been hampered by the exceptionally stormy weather, but is likely to take some weeks.*

Regulation of the maintenance and monitoring of wind turbines is a reserved issue . Developers have a strong focus on both the specification and maintenance of turbines to withstand extreme weather conditions and to ensure they are safe.

Incidents of this kind are extremely rare. More than 1,200 turbines of this model have been in operation globally for over 10 years. We understand this is the first failure of this type and appears to be an isolated event.

*We understand the **owner** and the turbine manufacturer are committed to identifying the root cause of this collapse and ensuring it does not happen again. I would encourage both the manufacture and **owner** to publicly report on the outcome of the investigation and any action needed.*

Please get in touch if you need more from me.

Best Regards
[name]

Sent: 21 February 2022 15:43
Subject: RE: PantyWal Turbine

Hi [name],

Thanks very much for looking at this: very much appreciated. Apologies for getting my terminology wrong and will ensure we reflect this in our text going forward.

Thanks,
[official]

Sent: Tuesday, March 15, 2022 4:27 PM
Subject: Turbine investigation

Hi [name],

I'm just checking in to see how the investigation is going. We are getting questions about the timescale and likelihood of publication of the findings. It would be really helpful to have an update when you can provide it.

Thanks,
[official]

[Title]

Y Gyfarwyddiaeth Newid Hinsawdd, Ynni a Chynllunio / Climate Change, Energy and Planning Directorate
Llywodraeth Cymru / Welsh Government

Sent: 15 March 2022 16:42

Subject: RE: Turbine investigation

Hi [official],

We are expecting the Root Cause Analysis tomorrow. When I have it I will share it or precis it if it the usual German garble.

Best regards
[name]

Sent: 17 March 2022 14:05

Subject: RCA

Hi [official],

We have just learned that Nordex's loss adjuster would like to see the RCA before it is released to us. In truth I don't how long that will take but they are suggesting we'll have it by the end of tomorrow. I reckon early next week myself.

Best regards
[name]

Sent: 17 March 2022 14:09

Subject: RE: RCA

That's useful to know: thanks for the update.

Thanks very much,
[official]

Sent: 22 March 2022 15:48

Subject: FW: RCA

Hi [official],

We now do not expect to see RCA until next week.

Best regards
[name]

Sent: 23 March 2022 12:34

Subject: RE: RCA

Hi [name],

That's disappointing, but thanks for keeping me in the loop.

Thanks
[official]