

From: [Jenny Keal](#)
To: [NDE](#)
Subject: NDF consultation response
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Attachments: [grid collapse Telegraph.docx](#)
[Welsh Government NDF response.pdf](#)

Welsh Government's National Development Framework Consultation

This is my personal response to your proposals for the future of Wales. Policies 10 to 14 - Wind & Solar Priority Areas

Jennifer Keal, [REDACTED]
[REDACTED]

October 2019

1. Erosion of Local Democracy: The proposal to reserve planning consent for renewable energy developments over 10 MW to the Welsh Government, removing local democracy from the planning process, is an unacceptable erosion of our human rights. It is in direct contravention of the provisions of the Wellbeing of Future Generations Act which states that community involvement in local planning is an essential part of well-being. Feelings of disempowerment in local communities will erode confidence in all forms of authority. Communities in England have the power to veto renewable energy projects in the Localism Act 2018. Why do residents in Wales not have equal rights with their English neighbours?

2. Trashing of the Powys LDP In 2018 the Powys Local Development plan went through an exhaustive and expensive public inquiry and the search areas for wind and solar developments was drastically reduced from the original draft LDP. The process identified that all of the areas suitable for wind energy developments had already been used and the remainder were constrained as they are designated sensitive environments by SSSI's, SAC, or SPA's etc. Solar search areas were drastically reduced by similar constraints. The arbitrary Priority Areas identified in the NDF proposals takes no account of any of the constraints contained in your own Renewable Energy Toolkit. Far reaching decisions made by the Welsh Government on renewable energy will be made without any local knowledge or acknowledgement of community concerns and no opportunity for local authorities to consult with those most affected by these massive environmental changes.

3. Tourism under threat It is already established that tourism is worth billions to the Welsh economy. In Mid Wales the service sector is the biggest employer of young people keeping farming families together and allowing people to remain where their roots are. There is no recent government research into the effect of large renewable energy projects on tourism in Wales but local tourism businesses in Powys have confirmed that the main reason that people visit Mid Wales is for the unspoilt nature of the locality and the peace and tranquillity of our landscapes. Anecdotal research by tourism providers confirms that visitors do not want to see large solar arrays or wind turbines on every hill. The scale of the RE development in the NDF does not take into account the potential effect on tourism.

4. Damage to the Local Economy One of the false claims when promoting the development of more wind and solar installations is "employment opportunities". This claim is totally false. During the construction phase some local people may be employed as security guards, labourers or drivers of machinery but even this is doubtful as during the construction of the single turbine at Hendy Wind Farm I personally discovered that all of the security staff came from long distances,

all the heavy plant was operated by the Contractor's staff, a company from North Wales, and the concrete for the base was delivered from places as far away as Huddersfield. The only local labour needed was undertaken by the owners of the land on which the turbine currently stands idle. There are no permanent, skilled jobs for local people once the turbines are installed. All the maintenance jobs are carried out by specialist teams from other areas. No one locally benefits from permanent employment. The community benefit schemes are not compulsory and token gestures of playgrounds or paltry sums offered to communities are derisory. Therefore the local economy does not benefit from renewable energy installations, quite the reverse, the detrimental effect on tourism, and consequent loss of jobs will damage the local economy.

5. Lack of National Grid Capacity Having consulted thoroughly with a number of local, retired, senior grid/electrical engineers I have a good understanding of how the National Grid operates. This does not appear to be the case for the people who have produced the documents laying out the policies the NDF. It is well known and accepted that in Powys that there is little or no capacity on the local grid infrastructure for more electricity generation. An example is the Bryn Blaen Wind Farm near Llangurig. This installation was completed 20 months ago and so far has not produced any electricity for the grid. This is due to the local grid infrastructure not being robust enough.

I have it on good authority from an officer in the Powys planning department that the Western Power Distribution has no plans to upgrade the grid infrastructure in south Powys. I understand that the Welsh government does not concern itself with grid infrastructure as upgrading it would be a commercial decision made by the company that owns the National Grid. How can this be reconciled with the NDF which proposes a massive increase in electricity generation from renewable energy in an area where there is no grid capacity? As I understand it the nearest grid connection which would be robust enough to take increased power generation from South Powys would be Newport, Gwent. The consequent connecting power lines over that distance would constitute an expense that would not be economic or environmentally sound.

6. Environmental/Ecological damage The perception that building wind and solar installations does not cause environmental or ecological damage to the landscape is entirely false. Having witnessed at first hand the destruction and damage to the ecology at Llandegley Hendy Wind Farm during the construction of the first of seven turbines last winter I was deeply disturbed by the lack of concern on the part of National Resource Wales about the concrete slurry clearly seen leeching into the source of the river Edw during the construction of the base of turbine 5. Alarmed residents alerted NRW that there was concrete spilling into the watercourses from the construction site but no response was received to telephone calls or emails. This is just one example of environmental damage, there were others such as removal of hedges and felling of trees to make an entrance for which no planning permission had been sought or environmental survey undertaken. There is clearly not enough scrutiny to ensure the protection of sensitive landscapes once construction begins. How is it possible to protect the environment when thousands of tons of concrete are poured into the ground, trees felled and hedges ripped out? Having visited several other operating wind farms there is no feeling of nature co-existing with the structures. The ground looks sterile and impoverished where the hard standings for the cranes were, massive wide tracks where no grass or wild flowers can grow, the trees have been removed and the wildlife gone. It is soul less and empty and hollow, like life has been sucked away. Birds are endangered if they venture near the blades and the noise drowns out the birdsong. These are personal observations from several places in Mid

Wales and until there is thorough research into the long term environmental and ecological effect of industrial wind and solar projects on the land, the people and the wildlife, all future developments should be suspended.

7. Removal of RE Infrastructure There is very little in the NDF RE policy about the removal of RE infrastructure. Removal of “above the ground” components can undoubtedly be achieved but it is clearly impossible to remove the enormous concrete and steel bases of wind turbines. Where there is “re-powering” of an existing site, as has happened at Llandinam, near Newtown, there is an ecological disaster in the making. It is inconceivable that existing bases can be used for new turbines and therefore the inevitable outcome is a hillside riddled with massive lumps of concrete and steel, which will eventually become a source of pollution to the water table.

In addition it is currently very difficult and expensive to recycle redundant fibre glass wind turbine blades, and there are few recycling facilities in the UK. Solar Panels contain many toxic chemicals some of which are not currently recycled. How can this be reconciled with the Well Being of Future Generations aim of protecting the environment for our descendants.

8. TAN8 and Cumulative Impact The arbitrary outlines of the Priority Areas in the (*totally inadequate*) maps do not address the issues of cumulative impact. There is no acknowledgement of existing wind and solar installations, nor is there any reference to existing TAN8 areas. How can communities assess the impact of the proposals in the NDF without this information? Does the NDF remove TAN8 from legislation or is it in addition to TAN8?

9. Grid Stability and Intermittent Power Supply Although the National Grid maintain that they can accommodate intermittent electrical input there are limits. Prominent retired grid engineers agree that there is an urgent need to limit the amount of new, “zero inertia” generation plant, such as wind and solar to maintain grid security. There is even a suggestion that some existing low or nil inertia plant may need to be disconnected to make the grid system secure. (See attached article from the Telegraph dated 18 August 2019.) There are suggestions that large scale batteries can provide back-up but they can only provide a short term supply which would not be sufficient on a cold, still winter night with no wind or solar power available. Pumped hydro has been useful to cover for wind/solar intermittency but there is limited scope to expand hydro to a meaningful level of back up.

When formulating an over-arching policy such as that contained in the NDF for the “decarbonisation” of Wales it would be negligent of the Welsh Government to ignore the limitations of integrating more uncontrollable renewable energy into a grid system already under strain. There appears to be no dialogue with people who know how the grid works.

10. Conclusion

- * The National Development Framework renewable energy policies are inconsistent with the Well Being of Future Generations Act.
- * The methodology of designating the Priority Areas for wind and solar energy is flawed and ignores the recommendations in the Welsh Governments own “Toolkit Guidance” for protection of the environment, ecology and biodiversity.
- * The centralising of planning control to the Welsh government removes local authority control and community engagement.
- * The NDF ignores the importance of tourism to rural communities and the local economy.
- * There is no acknowledgement of the limitation on how much intermittent electricity the National Grid can accommodate or understanding of engineering realities.

* There is already a genuine feeling of resentment that the views and needs of rural communities are being dismissed by the Welsh Government which the NDF will only serve to increase.

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Policies 10 to 14

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1. **Erosion of Local Democracy:** The proposal to reserve planning consent for renewable energy developments over 10 MW to the Welsh Government, removing local democracy from the planning process, is an unacceptable erosion of our human rights. It is in direct contravention of the provisions of the Wellbeing of Future Generations Act which states that community involvement in local planning is an essential part of well-being. Feelings of disempowerment in local communities will erode confidence in all forms of authority. Communities in England have the power to veto renewable energy projects in the Localism Act 2018. Why do residents in Wales not have equal rights with their English neighbours?
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10. **Conclusion**
- * The National Development Framework renewable energy policies are inconsistent with the Well Being of Future Generations Act.
 - * The methodology of designating the Priority Areas for wind and solar energy is flawed and ignores the recommendations in the Welsh Governments own “Toolkit Guidance” for protection of the environment, ecology and biodiversity.
 - * The centralising of planning control to the Welsh government removes local authority control and community engagement.
 - * The NDF ignores the importance of tourism to rural communities and the local economy.
 - * There is no acknowledgement of the limitation on how much intermittent electricity the National Grid can accommodate or understanding of engineering realities.
 - * There is already a genuine feeling of resentment that the views and needs of rural communities are being dismissed by the Welsh Government which the NDF will only serve to increase.

18 August ·

Edward Malnick, Sunday Political Editor - 18 August 2019 • 6:00am

Ministers should impose limits on the construction of new wind and solar farms to help avoid a nationwide blackout, according to a former director of National Grid. Colin Gibson, who was power network director of Britain's electricity system, claimed that some existing turbines and solar panels may have to be disconnected, and new developments restricted, to "secure" the system after major power cuts earlier this month.

In an analysis co-written by Dr Capell Aris, a former grid engineer, Mr Gibson states that the system failure revealed several "serious problems" with the operation of the national electricity network, which require an "immediate, independent, expert review".

Their intervention comes amid a government inquiry into the outage, which occurred after the Little Barford gas-fired power station in Cambridgeshire and a major wind farm off the Yorkshire coast both temporarily stopped producing electricity. According to the Financial Times, a provisional report by National Grid suggested that the wind farm may have tripped offline seconds before the Little Barford power station.

The blackout affected a million people in London and the South East, the Midlands, the South West, Yorkshire, the North East, Cornwall and Wales.

National Grid, the firm that operates the country's power network, has insisted that unpredictable wind power generation was not to blame.

But, in an analysis of public data on the electricity running through the grid on the day of the outage, Mr Gibson and Dr Aris claim that the failures of the two plants resulted in a loss of frequency – a measure of energy intensity – five times greater than historic slumps. Mr Gibson was power network director at National Grid from 1993 to 1997.

The significant loss of frequency was down to a fall in system "inertia" - the energy provided by conventional generators that effectively acts as a shock absorber to prevent sudden frequency changes, the analysis states. Renewable plants, such as wind and solar farms, which generate power intermittently, do not provide inertia, and wind generation alone now accounts for 17 per cent of the UK's electricity.

"To avoid an immediate repeat of this incident, which could be much worse (the event on Friday the 9th was close to nationwide black system), it will be necessary to manage system inertia," Mr Gibson and Dr Aris state.

They call for limits on specific types of generation, such as wind and solar, for any given day, based on predictions of system inertia on each day.

"For the longer term there are various actions which should be considered that will recover lost system inertia ... It is necessary with immediate effect to limit the amount of new, zero inertia generation plant, such as wind and solar and even new interconnectors, that is connected to the grid. This consideration should include roof-top solar."

They add: "Disconnection of some low or nil system inertia plant may be required in the short term to render the system adequately secure."

A National Grid spokesman said: "There is no evidence at this stage that the power cut is related to wind or other renewables.

"The UK has statistically one of the most reliable energy networks not only in Europe, but anywhere in the world. This was a rare and unusual event, an incident such as Friday has happened only 3 times in 30 years, and Friday was the first time since 2008." <https://www.telegraph.co.uk/.../former-national-grid-directo.../>