

## Cllr Dr Stuart Anderson

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**From:** Cllr Dr Stuart Anderson  
**Sent:** 22 January 2016 20:21  
**To:** Cllr Elizabeth Roberts  
**Cc:** Councillors Distribution Group; Geraint Edwards (ERF); Sasha Davies; Iwan Davies; Sian Harland  
**Subject:** FW: Tidal range technology: piloting fitness for 21st C purposes  
**Attachments:** EFFICIENCY & EFFECTIVENESS final version - Copy.pdf; Atkins Rolls SETS report review.docx; Email to Roger ref striated discharge etc 10..11.15.pdf; Abstract Format 2nd amended.doc; Enailf from Lydia about abstract 26.11.15.pdf; Prof Richard Willden Oxford 19.1.16.pdf

Dear Liz,

I'd be most grateful for consideration of the opportunity to table the following urgent resolution at Full Council next Thursday:

**'This Council supports the initiative of its member Cllr Stuart Anderson to lead a small group of hand-picked people, mostly with firsthand experience of the 1990 N Wales Coastal Flood Disaster, to talk to the UK Climate Change Commission about the importance, and value to UK taxpayers, of the Swansea Bay tidal lagoon scheme being treated by all relevant parties as a pilot scheme to equip for the future adaptation and mitigation needs of regions like North Wales, and others around the world with similar threats and opportunities..'**

The email chain below, plus first two attachments, should explain most of the reasoning.

However I would also point out the following:-

1. The urgency is that on Wednesday at the annual Coastal Futures conference in London (which in the past I've got Geraint Edwards and Cllr Ronnie Hughes to attend, I think to their benefit & that of Conwy CBC) I learnt that the UK Climate Commission Committee is currently assembling evidence for a vitally important advisory document to government, due for submission in the middle part of this year. Hence the email exchange with Daniel Johns (who at the conference had indicated willingness to meet).
2. Members may remember comments on BBC Wales News last week by David Cameron and others casting doubt on the Swansea Bay scheme's ability to deliver economic returns promised. But actually, the real worries of government advisers like Professor Roger Falconer (recently retired, but with whom I've been working for nearly 10 years) are more to do with the technology itself (3<sup>rd</sup> attachment). It's just that government finds it easier to translate such concerns into economic, rather than technical, language.
3. The present initiative has nothing to do with my position on the Board of North Wales Tidal Energy & Coastal Protection Ltd. except to encourage the Swansea Bay lagoon scheme to be as successful as possible as a pilot scheme testing out the best available generic technology. (On the one hand, if the Swansea Bay scheme stalls for any reason, it could set general progress back everywhere else too by at least 5 years. But on the other, to build it with the wrong technology could be even worse and set things even further back for us in North Wales, whichever company might be hoping to win the development lease from TCE.)
4. My visit to South Korea in later June is completely self-financed to give a talk as per abstract (4<sup>th</sup> attachment). Jim Jones is considering whether to organise something in terms of a regionally representative tourism visit around this. Of relevance is that last year the Japanese Tourism Board put Conwy as its No 1 UK destination. Also that the world's most recent tidal range scheme was completed in S Korea in 2011, and there's a potential market for other schemes there (see p. 13 of 2nd attachment)

5. If you follow the web-link at the bottom of the first attachment you'll see reference to a competition entry that Barry Griffiths and I are entering together on the basis of the website he's assembled following last year's 'Irish Sea 2050' conference. For those wanting to go into more detail, around 40 references are now directly accessible from this website.

In summary, the UK Climate Change Commission is supposed to serve as a sounding board to the UK government for appropriate responses. I feel that the delegation I've suggested would be uniquely well placed to advise it this way. Much is made by the UK Government about the essential need for, and benefits of, partnership working in flood risk management. So in this case we – as those who in 1900 were 'visited by the future' – would merely be asking it to follow its own advice in regard to bringing together DECC, The Crown Estate, Defra and the Welsh Government in properly thought-through partnership. If a meeting with the CCC is already under way it would then be much easier to get traction on the other key parties - that arguably being the whole point of a body like CCC!

Likewise, I will also be writing to David Jones MP and James Davies MP. But this resolution from Conwy CBC would be an enormous encouragement to them in terms of getting appropriate Ministers together.

Kind regards,

Stuart

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**From:** Philip Leigh [<mailto:p.leigh@chester.ac.uk>]  
**Sent:** 22 January 2016 13:22  
**To:** Cllr Dr Stuart Anderson  
**Subject:** RE: Tidal range technology: piloting fitness for 21st C purposes

Hi Stuart,

Many thanks for this and I can't help but agree with you after reading the email trail and considering your well-argued points. I would be interested to hear of any response you get back from Daniel. It is a generic issue and does make you question high level decision making and the thinking behind some policy setting processes and the skills and qualifications of those making them...

Best regards,

Phil

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**From:** Cllr Dr Stuart Anderson [<mailto:cllr.dr.stuart.anderson@conwy.gov.uk>]  
**Sent:** 22 January 2016 13:10  
**To:** Philip Leigh  
**Subject:** FW: Tidal range technology: piloting fitness for 21st C purposes

Hi Phil:

This FYI - no reply yet so I assume he'll be taking this to the Chair of the Committee.

Because human lives are at stake the question about expecting technological literacy should be taken just as seriously in the engineering context as in a medical one (q.v. attached response from Prof. Richard Willden at Oxford....)

Underneath all this there is a fundamental issue about the way the engineering profession expects to be treated by our civil service, which in an age of specialisation has become less and less scientifically and technologically literate.

Stuart

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**From:** Cllr Dr Stuart Anderson  
**Sent:** 22 January 2016 11:09  
**To:** 'Johns, Daniel (CCC)'  
**Cc:** Hugh Hunt; [mark.hazelton@thecrownestate.co.uk](mailto:mark.hazelton@thecrownestate.co.uk); Barry Griffiths; Geraint Edwards (ERF); Jim Jones  
**Subject:** RE: Tidal range technology: piloting fitness for 21st C purposes

Dear Daniel,

Thanks for this advice, although I think you may have misunderstood me somewhat.

As a doctor, rather than agnostic I am trained to be 'technologically literate' – in other words to be informed and discriminating enough to recognise the need to have new ideas and treatments tested objectively against the old. Otherwise I could be rightly taken to task by the patient for wilful ignorance.

**May I ask whether or not a parallel expectation of technological literacy applies to your Committee?**

If so, the core points we would like to have the opportunity to put to it are that:-

- 1. For best taxpayer value the Swansea Bay project should not be treated as an individual project but as a generic pilot scheme for tidal range.**
- 2. The problem with Swansea Bay as presently set out is that truly speaking there is no choice except adapted one-way machinery not purpose-designed necessarily to allow the best future opportunities either for coastal adaptation or for contributions to mitigation.**

Please understand that we would not be asking your Committee itself to be adopting the role that NICE takes over new medicines, but in view of the above points to be considering adding weight to the argument that DECC and Defra themselves should consider doing this.

For example, your Committee might usefully consider whether, as in the case of a choice of new vs. old medicines, human lives are potentially involved as this is about future disaster prevention and mitigation.

I will await your response to the question I have put in bold type, and what might or might not follow from the answer, but meanwhile also contact David Jones MP and James Davies MP about contacting DECC and Defra ministers.

Kind regards,

Stuart

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**From:** Johns, Daniel (CCC) [<mailto:daniel.johns@theccc.gsi.gov.uk>]  
**Sent:** 21 January 2016 17:31  
**To:** Cllr Dr Stuart Anderson  
**Cc:** Hugh Hunt; [mark.hazelton@thecrownestate.co.uk](mailto:mark.hazelton@thecrownestate.co.uk); Barry Griffiths; Geraint Edwards (ERF); Jim Jones  
**Subject:** RE: Tidal range technology: piloting fitness for 21st C purposes

Dear Stuart,

It was good to meet you yesterday and thank you for following up. But I'm afraid the committee doesn't get involved in the design choices for individual schemes and has no influence in this area. We try to take a technology agnostic approach, recommending what needs to be achieved (in both mitigation and adaptation terms) without being specific about how in engineering terms such outcomes might be achieved.

Let me know if I've misunderstood your suggestion but if not it might be better to seek a meeting with ministers in DECC and Defra.

Kind regards,

Daniel

**Daniel Johns | Head of Adaptation | Committee on Climate Change**  
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**From:** Cllr Dr Stuart Anderson [<mailto:cldr.dr.stuart.anderson@conwy.gov.uk>]  
**Sent:** 21 January 2016 16:32  
**To:** Johns, Daniel (CCC)  
**Cc:** Hugh Hunt; [mark.hazelton@thecrownestate.co.uk](mailto:mark.hazelton@thecrownestate.co.uk); Barry Griffiths; Geraint Edwards (ERF); Jim Jones  
**Subject:** Tidal range technology: piloting fitness for 21st C purposes

Dear Daniel,

It was good to hear you speak at Coastal Futures yesterday, and to have a brief chat on your way out.

This is to confirm that Dr Hugh Hunt [www.hughhunt.co.uk/](http://www.hughhunt.co.uk/) and I would be keen to present briefly to your Committee as soon as possible.

Hugh came with me on purpose yesterday to help get across generic points made in the first attachment. You'll see that Hugh's portfolio at Cambridge includes a broad spectrum of climate change issues, and he's keen to take on a public education role over tidal range. He won the 2015 Royal Academy of Engineering's Rooke Prize partly for his role in several recent Channel 4 documentary reconstructions of WW2 engineering exploits (Barnes Wallis' bouncing bomb & the Colditz Glider, etc. - relevant because of the Welsh-born engineer Iorlys Hughes' part prototyping the Mulberry Harbours at Conwy in 1941-53.

I've also copied in the following:-

1. Mark Hazelton from The Crown Estate, with whom Hugh and I discussed matters yesterday and who seems to have the relevant brief.

2. Barry Griffiths, the NRW approved Chief Flood Warden for the area affected in the Towyn floods, with whom the Energy Innovation Award 2016 competition entry has been made (accessible via the reference on the first attachment.)
3. Geraint Edwards, the engineer heading Conwy's Environment Roads and Facilities Dept and now on its Strategic Management Team. Like Barry and myself, Geraint experienced the Towyn Floods firsthand. He's since procured a number of Tidal Risk Assessments done by H R Wallingford, organised a County-wide partnership-based drainage review system, and was instrumental in the Colwyn Bay beach regeneration scheme - all things I imagine your Committee would most wants to hear direct, as there is an obvious bearing on appropriate choice of technology at Swansea Bay for pilot scheme usefulness.
4. Jim Jones, the recently appointed Director of North Wales Tourism), Jim is interested in organising a visit to South Korea to coincide with the New Energy Forum conference at end of June/beginning of July, which has relevant site visits and hosting more or less built-in. : <http://www.bitcongress.com/nef2016/>. I've attached my own abstract for this, and the relevance of South Korea to the world tidal range market is discussed on p. 14 of the 3<sup>rd</sup> attachment. Please see also the recommendation on p.16. The hope being to invite your Committee to help create a situation whereby both Rolls-Royce and Andritz/GE, as well as TLP Swansea Bay, might all want to send representation.

Meanwhile the emphasis is on the minimum quorum of people with relevant firsthand experience of direct interest to you and your committee, though in due course we should also invite Welsh Government observer representation..

I imagine we could do a useful pitch in about 20 minutes, perhaps then allowing 10 minutes for questions. But clearly we await guidance. There are both adaptation and mitigation aspects to cover, plus the idea of the S Korean visit, so for fuller discussion you might prefer to allow somewhat longer.

Kind regards,

Stuart

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