

From: Martin Worsley [Redacted s.40]

Sent: 30 July 2021 11:18

To: Williams, Arwel (E&M - Landscapes, Nature & Forestry) [Redacted s.40]

Cc: Cate Barrow [Redacted s.40]; Rugg, Ian (E&M - Landscapes, Nature & Forestry) [Redacted s.40]; Darren Ingram [Redacted s.40]

Subject: Re: Welsh Government R&D on effects of solar PV sites on soil and land - Version 2

Hi Arwel,

Please see attached our amended quote. I have revised WP 1 deadline to 17th September as requested. I have expanded the virtual workshop proposal as you will see - Richard Sowden has volunteered to chair it, I think he would be a very good choice. We have restricted availability before 17th September due to holidays and have proposed Thursday 2nd September as the date for the workshop.

I have included time for developing and agreeing guidelines for reinstatement of BMV and non-BMV in WP 3.

Regards WP 2b - I will have some internal discussions over the next couple of weeks and see what, if anything, we can come up with.

Regards,

Martin

Quote not released-
commercially sensitive
information – S.43.

From: Arwel Williams [Redacted s.40]

Sent: 29 July 2021 15:10

To: Ian Rugg [Redacted s.40]; Martin Worsley [Redacted s.40]

Cc: Cate Barrow [Redacted s.40]; Darren Ingram [Redacted s.40]

Subject: RE: Welsh Government R&D on effects of solar PV sites on soil and land - Version 2

Thanks Ian,

Martin, I'm about most of the day tomorrow if you do need to discuss.

Regards

Arwel.

Arwel Wyn Williams

Cynghorydd Polisi Pridd a Defnydd Tir Amaethyddol / Agricultural Land Use & Soil Policy Advisor
Is-adran Tirweddau, Natur a Choedwigaeth / Landscapes, Nature and Forestry Division

Llywodraeth Cymru / Welsh Government
Ffôn / Tel: [Redacted s.40]
E-bost: [Redacted s.40]
Ar y We / Internet: www.llyw.cymru / www.gov.wales



From: Rugg, Ian (E&M - Landscapes, Nature & Forestry) [Redacted s.40]
Sent: 29 July 2021 14:45
To: Martin Worsley [Redacted s.40]
Cc: Cate Barrow [Redacted s.40]; Williams, Arwel (E&M - Landscapes, Nature & Forestry) [Redacted s.40]; Darren Ingram [Redacted s.40]
Subject: RE: Welsh Government R&D on effects of solar PV sites on soil and land - Version 2

Hi Martin

Thanks for the fast reply and information below. I've added replies in red below. Points 1-3 below are the critical ones and we need to get this contract agreed asap. It's probably best to include point 4 (see below) as an optional extra in the spec (at the moment) and develop the idea later. If un-costed at the moment it's OK but a guide price range would certainly help. This will avoid any delays progressing the main contract.

As I work part time, if you have any queries tomorrow / Monday best to deal with Arwel directly. It would be good if we can agree the cost by the end of this week ideally.

Many thanks

Ian

From: Martin Worsley [Redacted s.40]
Sent: 29 July 2021 11:41
To: Rugg, Ian (E&M - Landscapes, Nature & Forestry) [Redacted s.40]
Cc: Cate Barrow [Redacted s.40]; Williams, Arwel (E&M - Landscapes, Nature & Forestry) ; [Redacted s.40] Darren Ingram [Redacted s.40]
Subject: RE: Welsh Government R&D on effects of solar PV sites on soil and land - Version 2

Hi Ian,

- 1) We can make your 17th September deadline for WP1 – I will amend our revised quote accordingly. **Great, this is an important deadline for the work to be useful for appeal case schedules.**
- 2) I agree with you on the workshop – I would have thought representation from the solar industry – developers / operators – would be important? I'm happy to take

your suggestions and include them in our revised quote. A developer / operator would be good and possibly someone like Chris Stapleton or Rob Askew?

- 3) We can develop and include a guide list of conditions for successful restoration but this would involve an additional cost, which I will include in our amended quote. That's fine, look forward to seeing the amended quote.
- 4) WP2b sounds like a good idea. To give us an idea of the size of the work – do you know how many solar developments we would be looking at? Does Welsh Gov have a detailed database of the developments since 2007 or would you be able to pull this together from your Local Authorities? Presumably we would be looking to map and measure solar developments based on satellite imagery – for developments in recent years (last 3 – 4 years?) we made need access to the development plans as they may not have been built yet or may not be showing on the latest available imagery. I'm not aware of any previous work outside the 3 mentioned in the spec I sent to ADAS <https://www.statista.com/statistics/418830/number-of-solar-photovoltaic-installations-uk/>. <https://www.lancaster.ac.uk/spies/>. <https://iopscience.iop.org/article/10.1088/1748-9326/11/7/074016>. Arwel met BEIS recently and their rep was not aware of much work either. It doesn't mean it's not out there somewhere, I just don't know. I understand OS include solar farms in their products and produce change statistics which may be an opportunity. Ideally, any search should go back to the introduction of solar farms in the UK which I understand started in 2007. I'm not sure when the first solar site was installed in Wales though. I don't think missing the last few months of development would matter greatly, the key thing is identifying gross change (numbers, location, size and BMV status) over time. I'm not sure we currently have any handle on this / baseline numbers, areas etc.). I would see this exercise confined to Wales just because of potential work involved but may be worth considering how much extra work including England would be. I'm not sure how difficult it would be to access LDPs. Could you have a think about this and get back with some ideas and a guide price please? Because of the pressing need to agree the contract, it's probably best to include this as an optional extra in the spec at the moment and develop the idea later. If un-costed at the moment it's OK but a guide price range would certainly help. This will avoid any delays progressing the main contract.

Regards,

Martin

Martin Worsley BSc MSc MISoiSci
Soil Scientist

[ADAS](#) – providing ideas, specialist knowledge and solutions to secure our food and enhance the environment.

[Redacted s.40]



From: Ian.Rugg [Redacted s.40]

Sent: 28 July 2021 08:28

To: Martin Worsley [Redacted s.40]

Cc: Kirk Hill [Redacted s.40]; Cate Barrow [Redacted s.40]; Williams, Arwel (ESNR - ERA - Land, Nature & Forestry) [Redacted s.40]; Darren Ingram [Redacted s.40]

Subject: RE: Welsh Government R&D on effects of solar PV sites on soil and land - Version 2

Hi Martin

(ccs for information)

Many thanks for sending through. I have read and discussed with Arwel. I am happy with the content but have a few comments / queries:

- 1 Work Package 1 (delivery): We need WP1 complete (or in a very advanced draft) by, at the latest, 17th September. This is to tie in with forthcoming solar appeals and timing is critical. If this could be done, it would be much appreciated. Delivery dates for WP2 , WP3 and WP4 are fine.
- 2 Work Package 1 (point 4 - workshop): I would like to see one or two other external specialists included. This is currently quite heavily weighted to ADAS and the steering group. I like your idea of including a BSSS rep (possibly through their PPC?).
- 3 Work Package 2 (point 6: *A discussion of to what extent soil handling conditions, as part of the planning process, can mitigate or remove any threats to soil and land. Can BMV sites realistically be restored to BMV and what factors influence this?*). We recently had some comments back from Ben Standing (Browne Jacobsen). He suggested including a guide list of conditions we would expect for successful restoration for BMV and non BMV land. Arwel and I think this is very important and would like to see included. I appreciate that all sites are different but think some sort of 'pick and mix' condition list should be possible. I'm hoping this can be done within the guide price and grateful for your thoughts.
- 4 Work Package 2 b. (*The date first introduced to the UK, the number of sites to date and the approximate number of applications per country, plus information on the range of site sizes...*). Would it be possible for ADAS to also do some GIS analysis (for Wales) to show the locations, boundaries and size of solar PV sites from 2007 to date? This should also relate the sites to BMV status, so we have stats on the effect / loss relating to solar PV sites and BMV land. We can provide data layers for the ALC areas. I don't think any work like this has been done? I appreciate this is a significant task but would be grateful for your thoughts.

If you could get back by the end of this week it would really be appreciated then we can hopefully get the cost approved and start the work.

Thanks for your inputs to date, much appreciated. I am available most of today / tomorrow if you want to chat.

Ian

[Redacted s.40]

[Redacted s.40]

From: Martin Worsley [Redacted s.40]

Sent: 27 July 2021 10:01

To: Rugg, Ian (E&M - Landscapes, Nature & Forestry) [Redacted s.40]

Cc: Kirk Hill [Redacted s.40]; Cate Barrow; Williams, Arwel (E&M - Landscapes, Nature & Forestry) [Redacted s.40]; Darren Ingram [Redacted s.40]

Subject: RE: Welsh Government R&D on effects of solar PV sites on soil and land - Version 2

Hi Ian,

Pleased find attached our fee proposal for the review into the impacts of solar PV sites on soil and agricultural land quality.

Regards,

Martin

Martin Worsley BSc MSc MISOiSci

Soil Scientist

[ADAS](#) – *providing ideas, specialist knowledge and solutions to secure our food and enhance the environment.*

[Redacted s.40]

From: Kirk Hill

Sent: 29 June 2021 13:55

To: Martin Worsley [Redacted s.40]

Subject: FW: Welsh Government R&D on effects of solar PV sites on soil and land - Version 2

Martin,

Please see below and attached. I think this would be interesting for you to get your teeth into. First task is to review the spec and provide a quote. For info, Ruth and I have recently been involved in a case for WG where they were opposing a new solar farm on BMV and WG really want to set a precedent and future standard for the planning process in Wales.

Regards

Kirk Hill

[Redacted s.40]

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From: Ian.Rugg [Redacted s.40]

Sent: 29 June 2021 12:27

To: Kirk Hill [Redacted s.40]

Cc: Cate Barrow [Redacted s.40]; Williams, Arwel (ESNR - ERA - Land, Nature & Forestry) [Redacted s.40]

Subject: Welsh Government R&D on effects of solar PV sites on soil and land - Version 2

Hi Kirk

Welsh Government R&D on effects of solar PV sites on soil and land - Version 2

I have send a Version 2 of the contract spec for solar, following some comments from Julie Holloway in NE. The spec hasn't changed radically but Julie has:

- 1 Provided some information on the SPIES project <https://www.lancaster.ac.uk/spies/> and also a paper (Armstrong et al 2016) on impacts of solar on microclimates and soil carbon: <https://iopscience.iop.org/article/10.1088/1748-9326/11/7/074016>.
- 2 Asked for an assessment on number of solar cases by UK country, trends etc.
- 3 Asked for works like glasshouse removal and grubbing up of orchards to be considered in the discussion on similar activities to solar.

All of the above are important and definitely worth considering. I don't think any will alter the overall quote though, compared to Version 1.

Many thanks

Ian

[Redacted s.40]

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