

Schedule 4

Schedule of Works

1.0 Objectives

- 1) The purpose of this Schedule is to serve as more detailed terms of reference for the contract, which add further clarification and definition to the services described in both the ITT and Eunomia's related proposal;

2.0 Scope of REPD Maintenance and Updates

- 2) Eunomia will maintain the Renewable Energy Planning Database (REPD) to monitor the status of all renewable electricity developments that are of a generation capacity of 1 MegaWatt electrical (MWe) or greater;
- 3) Whilst developments under 1MWe will be removed from the current version of the REPD, an 'archive' version of the database will be provided to DECC for publication,
- 4) Renewable heat generation infrastructure is excluded from the scope of the REPD, aside from instances whereby such infrastructure generates combined heat and power (CHP). In such instances, the electrical output of these plant only will be included in the REPD;
- 5) Maintenance of the REPD will include:
 - a. All new lodged and/or validated planning applications which were published by planning authorities or bodies during the previous calendar month, and which have an application date within the last month;
 - b. All lodged and/or validated planning applications identified which were published by planning authorities or bodies during the previous calendar month, but which have an 'application' date within the previous three months. This is to ensure full and complete capture of every relevant planning application where the planning authority or body has not kept their planning portal immediately up-to-date and publishes applications 'retrospectively'. As the appeal and consultation windows fall well within this three month period, Eunomia is confident that all historic applications will be

- captured using this approach.¹ This three month period will be reviewed annually, based on information gathered in respect of the KPI;
- c. Updates to all current planning applications (i.e. those which have not yet been granted consent) that have changed planning status. Including those which are under appeal or being judicially reviewed;
 - d. Updates to developments that have been granted planning consent and are progressing towards construction;
 - e. Updates to developments that are under construction and progressing towards operation; and
 - f. Updates to developments during their operational life, to determine whether they might be either be decommissioned or retrofit/repowered (sometimes to a higher output capacity, for example, more efficient wind turbines placed at the same site).
- 6) One exception to the focus solely on developments which have been through the planning process is the tracking of biomass co-firing and conversion projects, which have not required planning consent. These projects could add significant capacity to the UK's renewable fleet (and also have a significant impact on the Levy Control Framework - LCF). The progress of these projects will be tracked via use of market intelligence (as set out in Section 7.0) only;
- 7) The data to be captured and maintained within the REPD is detailed within each heading column (or 'field') in a separate Excel spreadsheet provided to DECC, which also forms part of this Schedule. Eunomia has adapted the previous version of the REPD to include a range of new fields to add further value to DECC's analysis of the renewable electricity development pipeline. The spreadsheet will be maintained as follows:
- a. All columns will be completed as 'standard' for all applications *newly* identified by Eunomia from the November 2014 version of the REPD onwards;²
 - b. For historic entries in the database, i.e. those prior to Eunomia commencing work on the contract in October 2014:
 - i. For those which *already have* planning consent, no new fields will be completed; and
 - ii. For those which *do not have* planning consent, only specific new fields relating to progress through the planning process will be completed
- 8) Any potential future requests by DECC for new columns of information for each application (whether new or historic) may be considered by Eunomia to be outside the scope of the core fees for the REPD service;
- 9) It is often reported by the media that construction has commenced on projects, when in reality, this is not the case. This is because developers sometimes commence minimal civil engineering tasks in advance of bonafide construction solely

¹ The approach and three month time period is based on our understanding of the interactions between validation and determination periods, taking into consideration the potential for appeal

² Eunomia could investigate the feasibility of extending this to all existing entries within the database, but this would be outside of scope of core budget

to keep a planning consent 'live'. Consequently, instead of simply reporting that the project is under construction, which would have an impact on DECC's view of the pipeline and LCF, where there is any doubt (based on our expertise), we will aim to determine, via both direct contact and external market intelligence, whether, for example, financial close has been reached, and/or all relevant permitting conditions have been met. If this is not the case, the project will not be deemed to be 'under construction' within the REPD. The objective of this exercise is to provide as accurate representation of the status of each project as possible. Any publically available or non-commercially confidential market intelligence in this regard will be reported in the 'comments' column;

- 10) Eunomia will also maintain and supply to DECC a parallel 'Members Only' version of the REPD. This will include the following additional information that is not within the published version of the REPD:
- a. 'Scoping' applications lodged with local authorities (and other planning authorities including Infrastructure Planning Commission, Scottish Government, and the Department for Environment in Northern Ireland);
 - b. Likely grid connection dates. These will be drawn from both National Grid's Transmission Entry Register (TEC) and from data provided via direct contact with DNOs. As this data might be regarded as commercially sensitive by some DNOs, however, it is anticipated that completion of this field in the database will not be comprehensive;
 - c. Classification of each development in terms of how it *would* fall under the Renewable Obligation (RO) and Small-scale Feed-in Tariff (FiT):³
 - i. For the RO, each development will be placed into the applicable technology 'band', such that DECC can quickly determine the number of Renewable Obligation Certificates (ROCs) for which each plant is eligible for each MWh of electricity generated;⁴
 - ii. For the FiT, the applicable generation tariff (based on technology and scale) for each development will be recorded;
 - d. Whether a project has been granted a Contract for Difference (CfD) or not. This will be based on publicly available information only, as Eunomia understands that confidentiality constraints preclude DECC sharing such information with Eunomia ahead of general release. Should this situation change, Eunomia would be comfortable completing this field in advance of such points in time.

³ This analysis is theoretical in the sense that it is currently often not know (even by the developer) whether a project will seek support under either the RO or FiT scheme

⁴ It should be acknowledged, however, that this will not provide any certainty whether the respective developer will seek support under the RO (rather than via a CfD or small-scale FiT)

3.0 Key Performance Indicators for REPD

11)

[Redacted text block]

12)

[Redacted text block]

[REDACTED]

4.0 REPD Maintenance Schedule

- 13) This Section sets out, at high-level, the REPD maintenance schedule which will enable Eunomia to deliver upon the KPIs described in Section 3.0. Eunomia will comply with the Key Performance Indicators (KPIs) set out above. In the case that Eunomia fails to do so, DECC will be entitled to reduce payments to Eunomia under condition 11(4) of DECC's Standard Terms of contract (DPF31) by a proportionate amount reflecting the failure in question. This is without prejudice to the exercise by DECC of other rights including termination for breach of contract under condition 20 where DECC reasonably considers that the failure amounts to a material breach of contract as provided for by that clause."
- 14) All developments which **have not yet been granted planning consent** will be tracked and monitored on a continuous basis [REDACTED] *each month* with respective updates made in the REPD. This includes developments that are being appealed, judicially reviewed or at planning enquiry;
- 15) During the month subsequent to the month during which a development is granted consent, if no credible market intelligence is available, direct contact (usually by telephone) will be made with each development to determine the likely development and construction timeframe;⁵
- 16) The intervals between each *subsequent* phase of direct contact made in respect of developments which **have already been granted planning consent** are summarised in Table 4-1. These intervals vary according to the technology and capacity of the development and have been set based upon Eunomia's 'expert opinion' in respect of each technology type and scale;
- 17) It is important to note that the values within Table 4-1 are '**default' intervals**. Ideally, for each project we will have 'development-specific' information (gained via direct contact with the developer), upon which bespoke direct contact intervals will be based. For example, if, from a conversation with developer, it is known that a 25MW onshore wind project has just entered a 3 month construction period, then we will check that project again during the next month to monitor its progress towards operation (rather than waiting a further 3 months, as is the default interval);
- 18) It is important to note that during these intervals, we will continue to use external sources of market intelligence to monitor the progress of developments and update the REPD accordingly;
- 19) Both direct contact and market intelligence will be used to also update the changing ownership of developments;
- 20) In addition to the information presented in Table 4-1:

⁵ If Eunomia has not been able to gather any information on the project, i.e. via external market intelligence or direct telephone contact, during the first month following the month of consent, then it will attempt to do so for a further two months before the intervals revert to the defaults set out in Table 4-1

- a. Facilities which have consent for a greater level of capacity than the level that is already operational will be monitored on a quarterly basis to determine any increases in capacity; and
 - b. Facilities which are entering the last five years of their 'design life' will be monitored on an annual basis.
- 21) In some cases, information relating to specific fields within the REPD, for example, a postcode, might not be readily available during the first month a new planning application has been identified. In such cases, Eunomia will follow-up in subsequent months to complete all such fields;
- 22) The methodology set out above is such that it is not appropriate for Eunomia to commit to a minimum number of updates to the REPD each month. For projects which have not yet been granted planning consent, this number will be driven by the number of updates which are automatically picked up by UiPath (rather than the number of calls made to planning authorities or bodies). For projects, which have been granted planning consent, this number will be driven by the 'rules' based approach defined above and in Table 4-1. This approach will ensure that Eunomia is not incentivised to 'down tools' as soon as a minimum number of updates have been made each month;
- 23) Whilst the Maintenance Schedule will be kept under constant review, driven by monitoring performance against the KPIs, as described in 3.0 and within the QR, it will also be formally reviewed on each anniversary of the Contract signature date;
- 24) It may also be necessary to revisit the maintenance schedule in response to Government policy or as the market develops. For example, the gap between granting of planning consent and moving into construction of for solar PV developments may lengthen in response to lower FiT tariffs (and the closure of the RO), such that it becomes more sensible to track projects less or more frequently than previously;
- 25) Furthermore, should any *new* renewable energy generation technologies emerge during the course of the contract, it may be necessary for Eunomia to develop similar default check timings (to those set out in Table 4-1) in agreement from DECC.

Table 4-1: Default Schedule of Direct Contact for New and Existing REPD Entries

Category	Sub-Category	Year 1	Year 2	Year 3	Year 4	Year 5
New	Initial	1	1	1	1	1
	Follow-up	1	1	1	1	1
	Final	1	1	1	1	1
Existing	Initial	1	1	1	1	1
	Follow-up	1	1	1	1	1
	Final	1	1	1	1	1
New	Initial	1	1	1	1	1
	Follow-up	1	1	1	1	1
	Final	1	1	1	1	1
Existing	Initial	1	1	1	1	1
	Follow-up	1	1	1	1	1
	Final	1	1	1	1	1
New	Initial	1	1	1	1	1
	Follow-up	1	1	1	1	1
	Final	1	1	1	1	1
Existing	Initial	1	1	1	1	1
	Follow-up	1	1	1	1	1
	Final	1	1	1	1	1

[REDACTED]								
	[REDACTED]							
	[REDACTED]							
[REDACTED]								
	[REDACTED]							
	[REDACTED]							
	[REDACTED]							
[REDACTED]								
	[REDACTED]							
	[REDACTED]							
	[REDACTED]							

[REDACTED]

5.0 Timing of REPD Outputs

5.1 Monthly Outputs

- 26) Eunomia will supply to DECC, by the close-of-play on the 10th of every month (or next working day if 10th falls on a weekend or bank holiday) an updated version of the Renewable Energy Planning Database (REPD);
 - a. All changes to the REPD from the previous month will be identified through the use of a colour coding system;
 - b. The number and nature of updates will be also be provided within a table in the monthly report (see below).
- 27) Eunomia will also supply by the close-of-play on the 10th of every month (or next working day if 10th falls on a weekend or bank holiday) a report on various aspects of development within the REPD during the preceding month;
- 28) A draft version of the monthly report has been submitted to DECC for review and comment separate to this Schedule. The format of the report has been agreed with DECC as part of the contract mobilisation process, but is flexible should amendments be required in future month.

5.2 Quarterly and Annual Reports

- 29) Quarterly reports will be submitted to DECC in April, July and October (in January, the quarterly report is replaced by the annual report – see below). These will be in addition to the usual a monthly report, and submitted again on the 20th of the aforementioned months (or next working day if 20th falls on a weekend or bank holiday);
- 30) The quarterly report will be similar in scope to the monthly report, but with data reviewed and analysed on a quarterly basis. In addition to the content of the monthly report, the quarterly report will also include:
 - a. Identification and analysis of emerging and/or existing trends, for example, in terms of refusals of consent for a particular technology;
 - b. Analysis of developments on a regional basis by technology.
- 31) It is anticipated that the exact scope of the quarterly report will be agreed with DECC following submission of the first monthly report in November 2014, such that service has become established and both parties can take a more informed view of the outputs that the new REPD can be used to produce;
- 32) Quarterly meetings will take place within 10 working days of submission of Quarterly/Annual reports;
- 33) In January each year, an annual report will be submitted. This will include all of the information from the quarterly report, but with the analysis undertaken for the full preceding calendar year. Again, it is anticipated that exact scope of the annual report will be agreed with DECC following submission of the first monthly report in November 2014;
- 34) As mentioned in Section 3.0, reporting against KPIs will be undertaken separately, as will any forecasting of deployment, as described in Sections 6.1 and 6.2.

5.3 RESTATS Data

- 35) Eunomia will work closely with DECC's RESTATS contractor to ensure that DECC receives up to date data about the deployment pipeline. In particular Eunomia will meet the following timetable:
- 36) One quarterly meeting a year (likely to be April) will include a joint meeting with DECC's Statisticians and its RESTATS contractor.

6.0 Projecting Future Deployment

6.1 Projecting Short-term Deployment

- 37) To inform immediate concerns relating to the impacts upon the LCF of technologies which can be deployed quickly (namely solar PV), Eunomia will project the likely related capacity for the forthcoming quarterly period;
- 38) This analysis will be based upon the application of 'likelihoods' to all solar PV developments which either have not yet received planning consent, or have been consented but not yet reached construction. These likelihoods will be driven by several factors including:
 - a. Analysis of historic attrition rates for previous solar PV planning applications;
 - b. Analysis of historic attrition rates for previous solar PV projects which did not progress further than being granted planning consent;
 - c. Capacity of development;
 - d. Credibility of the developer, i.e. have they previously successfully developed solar PV projects and/or are they an organisation with significant resources;
 - e. Planning status (for those developments not already consented), i.e. a lower likelihood will be assigned to those, for example, for which only a scoping study has been submitted, or which are under appeal.
- 39) A development and construction 'timeframe' will also be applied to each development, dependent upon their current phase of development and capacity.
- 40) It is anticipated that the exact nature of these assumptions will be agreed with DECC following submission of the first monthly REPD report (as detailed in Section 5.1) in November 2014.
- 41) All assumptions will be fully transparent in the short-term deployment report, and the model will be designed such that all assumptions can be amended for future versions;
- 42) The first short-term deployment report will be submitted to DECC in the month of January 2015 (alongside the first annual report), and then quarterly thereafter.

6.2 Projecting Long-term Deployment

- 43) Eunomia will also develop a longer-term forecast model, which will estimate the level of renewable electricity generation capacity (by technology) that will become operational out to 2020. This will again be based on the likelihood of each individual

facility reaching financial close and subsequent operation. Further to the modelling of short-term deployment described in Section 6.1, these likelihoods will be driven by a range of factors (which will vary across technologies) including:

- a. Analysis of historic attrition rates for previous planning applications;
 - b. Analysis of historic attrition rates for previous projects which did not progress further than being granted planning consent;
 - c. Capacity of development;
 - d. Credibility of the developer, i.e. have they previously successfully developed projects and/or are they an organisation with significant resources;
 - e. Analysis of whether feedstock contracts are in place, which, as described in Section 2.0, is critical for biomass, EfW incineration, ACT and AD developments;
 - f. Technical/financial risk associated with the technology, for example, project finance can be far more easily attracted to a consented wind farm than to a consented ACT plant;
 - g. Planning status (for those developments not already consented), i.e. a lower likelihood will be assigned to those, for example, for which only a scoping study has been submitted, or which are under appeal;
 - h. Forecast changes in levels of support from incentive mechanisms (RO, CfDs, small-scale FiTs);
 - i. Wider policy drivers, i.e. outcomes of ongoing 2030 EU Climate Change Target negotiations, which are likely to drive UK policy mechanisms post-2020, and thus influence infrastructure development over the next six years.
- 44) Again, a development and construction 'timeframe' will also be applied to each development, dependent upon their current phase of development and capacity;
- 45) It is anticipated that the exact nature of these assumptions will be agreed with DECC following submission of the first monthly REPD report (as detailed in Section 5.1) in November 2014.
- 46) All assumptions will be fully transparent in the long-term deployment report, and the model will be designed such that all assumptions can be amended for future versions;
- 47) The first long-term deployment report will be submitted to DECC in the month of January 2015 (alongside the first annual report), and then bi-annually thereafter.

7.0 External Sources of Data and Market Intelligence

- 48) To inform the maintenance of the REPD and to assist forecasting of both short-term and long-term deployment, Eunomia will use a range of external data sources including:
- a. The media sources summarised in Table 7-1. These represent a mix of free and paid subscription sets of information, which will be drawn down via an RSS feed and/or into a dedicated email account (for newsletters). This list will

