

# Delivering Exploration and Appraisal Work Programmes

Stewardship Expectation 2

# 1. Expectation

The OGA expects licensees to plan and deliver work programme activity in the initial licence term in a robust and effective manner.

This means licensees will:

- 1.1 Plan their activities, including well operations, in accordance with the milestones and obligations set out in their licences.
- 1.2 Deliver their work programmes, or relinquishment, on a timely basis.
- 1.3 Engage with the OGA in an appropriate and timely fashion at key stages.

# 2. Reason for the Expectation

- 2.1 In order to create a more sustainable UKCS, the pace and intensity of exploration and appraisal activities need to increase from current low levels. In addition, steps should be taken to avoid the significant slippage that can occur on planned exploration and appraisal drilling activities;
- 2.2 The 'innovate' production licence<sup>1</sup> provides licensees the opportunity to design their own Work Programme at the bid stage as well as the timescale for delivering these work commitments;
- 2.3 Under the obligations of the MER UK Strategy<sup>2</sup>, "The licensee of an offshore licence must plan, fund and undertake exploration activities, including seismic and drilling activity, of a type and in a manner which is..... optimal for maximising the value of economically recoverable petroleum that can be recovered under the licence..." (MER UK Strategy, paragraph 10);
- 2.4 This expectation supports the MER UK Strategy, in particular the Central Obligation (paragraphs 7, 10 and 11) and paragraphs 12, 27, 28;
- 2.5 This document also includes a reminder of some associated licence and other statutory obligations, and links to some supporting published OGA guidance (see Figure 1). Such reminders and links are included for assistance only and are *not* exhaustive; it is the licensee's responsibility to ensure that it is familiar with and complies with the obligations incumbent on it.

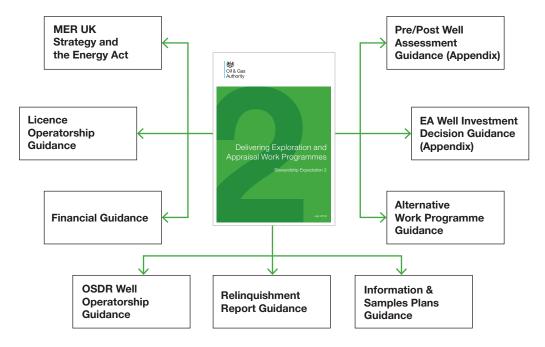


Figure 1: Some further guidance referred to in this Expectation

# 3. Delivering the Expectation

3.1 The main elements of the Expectation, and their timing relative to the licence schedule, are shown in Figure 2, and summarised in paragraphs A.1 to C.11 below. The Appendix includes some of the key information that licensees are expected to provide in support of certain of those elements, in particular in relation to work programmes (paragraphs C.1 to C.11).

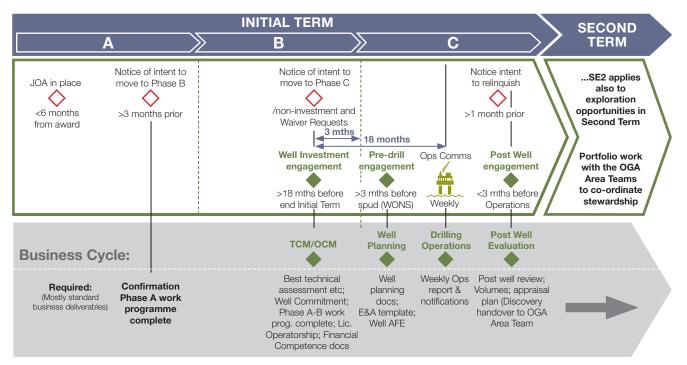


Figure 2: Engagements and notifications required, relative to the structure of a typical 'Innovate' Production Licence

## A: Commercial activity

- A.1 Licensees should comply with Stewardship Expectation SE7³ to ensure sufficient planning is undertaken and resources (including time) are allocated to any commercial activities that support, or take place in, the licence initial term including, but not limited to, putting in place any necessary joint operating agreement and negotiating any farm-outs/divestments.
- A.2 Licensees are reminded that transfers of licence interests (and other licence events) will require an information and samples plan to be agreed with the OGA<sup>4</sup>.

# **B:** Licence management

B.1 Paragraphs B.2 to B.7 (below) include a reminder of some of the key licence provisions relevant to delivery of the work programme.

# **Initial Term phase transitions**

- B.2 The licence requires licensees to inform the OGA at least three months before the end of each phase of the Initial Term of their intent to continue into the next phase (or into the second term) or allow the licence to determine.
- B.3 For licences transitioning into Phase B, licensees are expected to:
  - i) Confirm the Phase A work programme has been completed.
  - ii) Provide confirmation of the Phase B work programme and details of timing.

- B.4 For licences transitioning into Phase C, licensees are expected to:
  - i) Have completed a well investment engagement with the OGA.
  - ii) Appoint, and have approved by the OGA, a licence operator (submitted via the Energy Portal<sup>5</sup>).
  - iii) Commit in writing to drill the well.
  - iv) Demonstrate the financial capability to complete the work programme (see Financial Guidance).
  - v) Appoint a well operator to conduct the planning or execution of well operations in line with the OSD Guidance issued from time to time (regulation 5 of the Offshore Petroleum Licensing (Offshore Safety Directive) Regulations 2015); NB: licence operatorship and OSD well operatorship are different and both need to be in place to drill a well.
- B.5 Where a licensee wishes to advance early into Phase C, it is expected to have completed a well investment engagement with the OGA.

#### Relinquishment

- B.6 Where a licensee wishes to allow the licence to determine on, or relinquish the licence before, the expiry date (either the end of the current phase or end of the term, as applicable), it should:
  - i) Have completed its well investment engagement with the OGA.
  - ii) Confirm the work programme has been completed or, exceptionally, if not, seek to transfer any outstanding work commitments<sup>6</sup>.
  - iii) Submit an application to relinquish (in PEARS<sup>7</sup> via the Energy Portal<sup>5</sup>).
  - iv) Submit a relinquishment report (to Relinquishment.reports@ogauthority.co.uk) within three months after relinquishment or licence determination/expiry (see Guidelines for Licence Relinquishment Reports<sup>8</sup>).
- B.7 Licensees are reminded of the requirement to provide an information and samples plan to the OGA before relinquishment, in line with the ISP Guidance<sup>4</sup>. This is a legal obligation under the provisions of the Energy Act 2016<sup>9</sup>.

### C: Work Programmes

#### Well investment decisions

- C.1 Licensees are expected to inform the OGA of well investment decisions at least 18 months prior to the planned spud date (or the applicable licence deadline). Licensees are reminded to:
  - i) Inform the OGA of 'Exploration and Appraisal Well Pre-investment Meetings' at least 14 days in advance (or as soon as reasonably practicable).
  - ii) Provide written documentation, including (where applicable) meeting minutes and presentations, via meetings@ogauthority.co.uk and in accordance with the Meetings Statutory Notice<sup>10</sup>
- C.2 Where a licence is held by a single company, and hence there will be no joint venture meetings in scope of the Meetings Statutory Notice, the OGA nonetheless expects to be provided with the same information as it would be entitled to receive under the Meetings Statutory Notice.
- C.3 At the point of well investment, licensees should provide the best technical assessment of their target opportunities. This evaluation should be undertaken even if it is the licensee's intention to inform the OGA that it does not intend to drill a discretionary well (i.e. not invest), or intends to seek a 'waiver' of a contingent well. Further information is provided in the Appendix.
- C.4 Where a firm well commitment has been submitted as part of the licence application, then the OGA considers that the well investment decision has already been taken.
- C.5 Firm work programme commitments are expected to be fulfilled, however the OGA recognises that, in exceptional circumstances only, licensees may wish to propose an alternative work programme in accordance with the OGA's Guidance on the management of offshore licence work programme commitments<sup>6</sup>.

#### **Pre-drill assessments**

C.6 Pre-drill assessments are expected to be provided to the OGA at least three months prior to the planned well spud date, including a copy of the operator's well proposal documentation, setting out in full the supporting technical work, rationale and objectives for the well, well design, high-level costings, data acquisition programme and key decision points. Further information is provided in the Appendix.

#### **Well Operations**

- C.7 During well operations, licensees are expected to send the OGA copies of weekly well operations/drilling reports and, on specific request, daily well operations/drilling reports and to provide the OGA with any specific additional information requested. Further information is provided in the Appendix.
- C.8 The licensee is expected to reach agreement with the OGA on whether the well commitments (licence work obligations) have been met.
- C.9 Notifications should continue to be made in WONS<sup>11</sup> as provided for in the OGA's Well Operations Notification System (WONS) Operator Extended Guidance<sup>12</sup>. Other communications with the OGA on well operations (including those in paragraphs C.6 and C.7) should be sent to Offshore.Well.Operations@ogauthority.co.uk.

#### **Post-Well Evaluations**

- C.10 Licensees are expected to provide post-well evaluations to the OGA on a routine basis, as well results become available. In addition, the OGA should be provided with:
  - i) Within one month of finishing drilling operations, an initial evaluation of well results in the form of a data pack, including CPI and geological interpretation of results.
  - ii) Within six months of finishing drilling operations, a full post-well review, including a standard set of end of well reports and in the case of a discovery, a volumetric assessment of resources. Further information is provided in the Appendix.
  - iii) In the case of a potentially commercial discovery, within 12 months of finishing drilling operations, a written appraisal plan.

## Suspended E&A well

C.11 Licensees are expected to comply with the OGA's Guidance for Applications for Suspension of Inactive Wells<sup>13</sup> in their assessment and treatment of suspended E&A wells.

# 4. Demonstrating delivery

4.1 The OGA currently engages with licensees and operators on a number of levels and in a number of ways, and information obtained from those engagements will help inform the OGA of the extent to which a licensee or operator may be delivering this Expectation. These include, for example:

#### **Annual Stewardship Survey**

4.1.1 The OGA's Annual UKCS Stewardship Survey collects a range of data from licensees and operators for each production licence in the UKCS. The OGA may request additional information or reports. The OGA generally uses its powers under section 34 of the Energy Act 2016 to obtain such survey data and additional information.

## **Performance Benchmarking**

4.1.2 The OGA may produce benchmarking data on a variety of metrics derived from the Stewardship Survey data and other information provided to it. These data will generally be presented to industry in aggregated form and used in Tier Reviews with companies to improve performance.

#### **Tier Reviews**

- 4.1.3 The OGA will request an operator's participation in Tier Reviews in accordance with the OGA's Stewardship Review Guidance<sup>14</sup>. That guidance provides further detail on the Tier review structure, prioritisation, planning, execution and follow-up. The OGA will set the agenda for the Tier Review to focus on issues it considers present the greatest stewardship impact, and based on data received in the Annual UKCS Stewardship Survey, benchmarking and delivery against this Expectation.
- 4.2 Additionally, in the normal course of business, the OGA monitors compliance with licensees' legal obligations, such as to notify the OGA of meetings and to provide Information and Samples Plans, and compliance with license obligations for example giving timely notifications prior to license events.
- 4.3 Following the submission of a pre-drill assessment, the OGA may request an engagement in the form of a clarification meeting or discussion with the licensee.
- 4.4 The extent to which a licensee meets this Expectation or any part of it may be considered in any subsequent OGA decision-making, including requests for licence term extension or work programme modification.
- 4.5 Licensees/operators are reminded of their legal obligations, whether under statute, the licence or otherwise. Delivering on this Expectation is not a substitute for those obligations.

# 5. References

- 1 The Petroleum and Offshore Gas Storage and Unloading Licensing (Amendment) Regulations 2017
- 2 The Maximising Economic Recovery Strategy for the UK
- 3 SE7: Commercial Alignment and Delivery
- 4 Guidance on Information and Samples Plans
- 5 Energy Portal an OGA website that acts as a single sign-on gateway to a collection of software applications that allows the UK oil and gas industry to apply for and receive consent or direction electronically on a wide range of activities
- 6 Guidance on the Management of Offshore Licence Work Programme Commitments
- 7 PEARS the OGA's Petroleum e-business assignments and relinquishment consent system, accessed via the Energy Portal
- 8 Guidelines for Licence Relinquishment Reports
- 9 Energy Act 2016
- 10 Statutory Notice: Meetings
- 11 The OGA's well operations notification system, accessed via the Energy Portal
- 12 Well Operations Notification System (WONS) Operator Extended Guidance
- 13 Guidance for Applications for Suspension of Inactive wells
- 14 OGA Stewardship Review Guidance

# **Appendix**

# **Expected content for reviews and assessments**

#### Exploration and appraisal well investment decisions

The evaluation should normally include, but not be limited to the following elements, and should be at an appropriate level of detail, expanding on key areas, and reducing less material aspects. Please be aware that if the investment assessment leads to licence relinquishment, the OGA may request further information, which may include but not be limited to a prospect inventory update using a supplied template, and to be supported by reference material either in reports or suitable presentations.

- Overview: Licence history and status, summary of opportunities and their previous assessments, bid work programme rationale and results, key technical issues, risks and uncertainties, key conclusions and recommendations, proposed forward plan with schedule and deadlines.
- **Regional setting:** Stratigraphic overview, play summaries, analogue fields and discoveries, post-well analyses, play statistics (success rates and field-size distributions). Key issues reservoir, source seal.
- **Data:** Seismic acquisitions and processing available versus those licensed. Well data available versus used. Licence work programme bid versus executed.
- Seismic interpretation: Seismic picks, well ties, mapping, fault interpretation, overburden issues, velocity-depth relationships and depth conversion, reflectivity seismic attributes, full-stack amplitude interpretation, resolution, forward modelling (2D, wedge, synthetic, AVO-synthetic, fluid substitution, single-interface AVO), gathers, angle-stacks, projections, AVO interpretation, structural conformance, SAAM assessment where available. Seismic inversion, rock physics, comparison with above reflectivity assessment. Alternative causes of any interpreted fluid effects. Non-seismic geophysical datasets.
- **Geological interpretation:** Top reservoir map construction, trap definition top/side/bottom seals, spill points, potential leak points and fault juxtaposition issues, offset wells, correlation (litho-, bio-, chemoetc.), fluid contacts, pressure profiles and pressure mapping, assumed contact relationship to spill points and degree of fill. Understanding of the petroleum system impact of source and migration on degree of fill. Offset DST results, reservoir facies, depositional environment, sand-body geometry, diagenesis, petrophysical interpretation, rock and fluid properties.
- Chance-of-success and volumetric assessment: Reference the standard OGA E&A template (pre-drill assessment), describe its content and any associated issues.
- Conceptual exploration, appraisal and development scenarios: Describe and give rationale for
  exploration and appraisal programme, development concept, off-take route, schedule and costs estimates.
  Include any off-take constraints e.g. ullage and cessation-of-production. Describe fixed and variable
  operating cost assumptions and decommissioning. Describe the level of cost-estimation and associated
  contingency and uncertainty ranges. Discuss market rates including basis for rig hire and spread rates.
- **Cashflow inputs:** Production and cost schedules; reference the OGA Standard Economic Template (SET) and describe its content and any associated issues.
- **Conclusions and recommendations:** Key conclusions and recommendations and proposed forward plan with schedule and deadlines.

#### **Pre-drill assessments**

Generally, the OGA's requirements will be satisfied by simply providing copies of the licensee's well proposal and basis of design documents. Contents should include the following items:

- Summary/reminder of well investment evaluation (project approval) including risk and resource assessment.
- Confirmation that licence commitments are being met including total depth (TD) criteria.
- Selection of bottom hole location(s).
- High level well design and cost estimates.
- Copy of the AFE, and approval status within the joint venture partners.
- Overview of the financial and commercial position including JOA if not already established at the well investment stage
- · Geological prognosis
- Drilling hazards including site survey and pore pressure prediction
- Rationale for data gathering programmes
- Rationale for key operational decision-making (e.g. decision trees)
- · Confirmation of material to be submitted to WONS
- A communication plan to cover communications with the OGA on well operations

#### **Well operations reports**

Send the OGA copies of weekly well operations/drilling reports (and on specific request, daily well operations/drilling reports), plus the following information as applicable:

- Notification of spud
- Notification on reaching top reservoir
- Notification on reaching TD and, where relevant, reach agreement with the OGA that well commitments have been met.
- Initial draft analysis of the reservoir and its hydrocarbon content.
- Draft log interpretation (CPI) as soon as available.
- Notification of any major deviations from the well plan.

#### Post-well evaluations

Generally, the OGA's requirements will be satisfied by simply providing copies of the licensee's internal post-well documents. Contents should include the following items:

- Standard set of end of well reports (composite log and completion report).
- Updated mapping (target structure and play/regional maps).
- Petrophysical evaluation of the well.
- Full account of:
  - Failure mechanisms, with reference material including maps, sections etc. (failure case only), or
  - Discovered volume assessment, including volumetric input and output parameters and reference material including maps, sections etc. (success case).
- Any discovered volumes including volumetric input and output parameters.
- Fluid and sample analyses.
- Comparison of pre-drill and post-well assessment.
- Populated OGA E&A template for all other leads and prospects on the licence.
- Well costs and drilling performance.
- Other general learnings for industry.
- Initial assessment of commerciality (success case).
- Forward plan for further appraisal and development, including conceptual plans and inputs to cashflow calculations (success case).

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