

Appendix D

FDP Model Provisions



The Commonwealth

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Discovery and Development Model Provisions (Petroleum Act, Regulations and Petroleum Agreement)

The legal framework consists of the combination of the laws, regulations and contracts that govern operations and interactions in the petroleum sector. It is recommended practice that as far as practically possible, the requirements related to the FDP are enshrined in legislation (either the Petroleum Act or regulations) so that it is not a negotiable element of petroleum agreements thereby providing a robust regulatory framework to ensure the country's interests are protected.

The provisions cited below can be used as a guide for ensuring the key aspects related to FDPs as discussed in [Chapter 4](#) are adequately addressed in the legal framework.

Please note that terminology in countries' legal frameworks can differ as it reflects different systems for the award of petroleum rights (contracts, licenses or both), different institutional arrangements (e.g whether there is a National Oil Company or independent regulator) and different approving entities (regulator, minister). Within this document:

- 'Contract area' is used as the reference for the petroleum right
- 'Contractor' is used as the reference for the holder of petroleum rights (i.e. the company)
- the generic term 'regulator' is used to represent the government entity with responsibility for administering the petroleum sector. This could be the Ministry of Petroleum, Petroleum Commission, or the National Oil Company.

The following colour coding has been used to distinguish the types of provisions that are typically found in law (usually establishes requirements and principles), regulations (outlines specific details) and the petroleum agreement (generally refers to the legislation and operationalisation of requirements).

Blue: Provisions typically found in laws

Orange: Provisions typically covered in regulations

Green: Provisions typically covered in petroleum agreements

Black: Guidance notes which are intended to provide some context around the particular provision.

Notification of Discovery

1. (1) Where a discovery of petroleum is made in a contract area, the CONTRACTOR shall:
 - (a) immediately notify the REGULATOR of the discovery;
 - (b) within a period of seven, (7) days from the date of the discovery, furnish to the REGULATOR, in writing, the particulars of the discovery including if the discovery potentially extends beyond the boundaries of the contract area and any other particulars as the REGULATOR may require;
 - (c) promptly cause tests, and studies to be conducted to determine the commercial viability of such discovery; and
 - (d) notify the REGULATOR if it intends to conduct a drill-stem or production test at least twenty-four (24) hours prior to the proposed test, and the REGULATOR shall have the right to have a representative present during such test.
- (2) Not later than 270 days from the date of discovery, the contractor shall submit:
 - (a) copies of data from tests and studies conducted and its analysis and interpretation thereof,
 - (b) a report to the REGULATOR on the technical evaluation and assessment of the potential commercial viability of the discovery, and
 - (c) notification of whether or not, in the contractor's opinion, such discovery is a potential commercial discovery and requires appraisal.
- (3) Where a notice served under subsection 2(c) states that the discovery is not commercially viable, or if the CONTRACTOR fails to provide notification within two hundred and seventy (270) days from the date of discovery days, the REGULATOR may by notice in writing to the CONTRACTOR, require the CONTRACTOR to relinquish the area corresponding to such discovery and forfeit any rights relating to such discovery. Any such relinquishment before the end of the exploration period shall be carried out in accordance with {relinquishment section} of the Act.

An effective system for the award of petroleum rights will include clearly-defined relinquishment requirements such that at the end of the Exploration Period, all acreage where there are no discoveries will be returned to the State.

Appraisal

2. (1) Where the CONTRACTOR has notified the REGULATOR pursuant to Section 1(2) that a discovery requires appraisal, the CONTRACTOR shall within ninety (90) days of such notification, submit an appraisal programme to the REGULATOR for approval. The appraisal programme shall:
 - (a) identify the location of the appraisal area which shall not extend beyond the provision of a reasonable outer boundary of the discovery as determined after consultation with the REGULATOR;
 - (b) include a detailed work programme including but not limited to, seismic, drilling of wells, flow tests, assays and studies to be carried out, geological and reservoir engineering studies, laboratory work;
 - (c) associated budget for appraisal operations; and
 - (d) state the duration of the appraisal period, which shall not exceed two years unless otherwise agreed with the REGULATOR.
- (2) Approval of an appraisal programme shall not be unreasonably withheld, and the REGULATOR may stipulate conditions for approval.
- (3) The appraisal period shall commence on the date that the REGULATOR notifies the CONTRACTOR, in writing, of its approval and shall not exceed [two years]. *Appraisal period to be consistent with country's licensing regime.*
- (4) The CONTRACTOR shall not:
 - (a) commence appraisal operations until the appraisal programme is approved by the REGULATOR; or
 - (b) amend an appraisal programme without the prior written approval of the REGULATOR.
- (5) Not later than ninety (90) days from the date on which an appraisal programme is completed, the CONTRACTOR shall notify the REGULATOR in writing as to whether the discovery is a commercial discovery and deliver to the REGULATOR a full report of the appraisal programme setting forth all relevant technical and economic information, including, but not limited to, the following particulars:
 - (a) the characteristics, quantity and quality of the petroleum discovered including the chemical composition, physical properties, and estimates of crude oil and natural gas resources and recoverable reserves;
 - (b) the stratigraphical position and depth of the discovery;

- (c) the petrophysical properties of the petroleum reservoir formation;
- (d) the reservoir's productivity indices for the wells tested at various rates of flow;
- (e) the permeability and porosity of the reservoir formations;
- (f) an estimate of the production capacity of the petroleum reservoir;
- (g) an evaluation of the petroleum reservoir and adjoining areas;
- (h) an assessment of potential effects of the petroleum operations on the environment, social and other applicable areas;
- (i) any additional geological, geophysical and geochemical data and other relevant information relating to the petroleum reservoir;
- (j) economic analysis underpinning the determination of commerciality and supporting assumptions; and
- (k) any data or other information as requested by the REGULATOR.

The date of such notification shall be the date of the declaration of commercial discovery.

- (6) The Minister may in special cases, upon the recommendation of the REGULATOR, grant an extension of the appraisal period for a further period not exceeding two years and may stipulate conditions for the extension as prescribed.

Provided that the CONTRACTOR can establish, to the satisfaction of the REGULATOR, the existence of special circumstances that justify the extension of the appraisal period.

- (7) Where a notice served under subsection (5) states that the discovery is not of commercial interest, or if the CONTRACTOR fails to provide notification within ninety (90) days of completing the appraisal programme, the REGULATOR may by notice in writing to the contractor, require the CONTRACTOR to relinquish the area corresponding to such discovery and forfeit any rights relating to such discovery. Any such relinquishment before the end of the exploration period shall be carried out in accordance with *{relinquishment section}* of this Act.
- (8) The REGULATOR may at any time by notice in writing, require the CONTRACTOR to furnish the REGULATOR, within such period as may be specified in such notice, with such particulars on any matter so specified concerning a discovery or any appraisal of a discovery.

Field Development Plan

The approval of a Field Development Plan is a critical part of regulating the sector. The government should be fully informed of all matters related to the development of its resources (e.g. technical, financial/economic, health, safety, security, environmental and social) and the risks associated with the project to enable sound decision making. All future petroleum activities within the contract area should be consistent with the approved FDP and, as such, is one of the most important approval points for governments.

- (1) If a discovery is commercially viable, the CONTRACTOR shall submit a field development plan for approval to the Minister within one hundred and eighty (180) days of such notification, or as otherwise agreed, in the manner prescribed in regulations.
- (2) A field development plan shall contain at a minimum:
 - (a) a description and map of the area containing such discovery which the CONTRACTOR proposes to delineate as a field defined by reference to the UTM grid;
 - (b) a detailed report accompanied by supporting data and all analyses and interpretations thereof, which demonstrates that the area described in paragraph (a) above contains, alone or in conjunction with other areas, as the case may be, a commercial discovery;
 - (c) a comprehensive field description including a map history, the boundaries of the field, reservoir details, estimates of hydrocarbons in place, recoverable reserves and the maximum efficient rate of production;
 - (d) alternative concepts considered for the development of the field and details on the preferred development option including facilities and infrastructure, drilling programme, delivery points, export route, production profiles and any by-products recovered in processing such petroleum including the method for the use or disposal of associated gas;
 - (e) the applicant's proposals relating to the spacing, drilling and completion of wells and, the facilities required for the production of petroleum, including:
 - (i) the estimated number, size and production capacity of production platforms, if any;
 - (ii) the estimated number of production wells;
 - (iii) the particulars of production equipment and facilities, including piping and instrumentation drawings/engineering plans;

- (iv) the particulars of feasible alternatives for transportation of petroleum, including pipelines;
- (v) the particulars of installations required, including the type and specifications or size of those installations; and
- (vi) the particulars of other technical equipment required for the operations;
- (f) reservoir engineering methodology;
- (g) a description of technical solutions, including possible solutions for enhanced recovery;
- (h) where the development is planned in two or more phases, the CONTRACTOR shall provide information on the full development to the extent possible and measures to maximise recovery of petroleum;
- (i) the estimated production profiles for crude oil and natural gas from the petroleum reservoirs;
- (j) the cost estimates of capital and operating expenditures of the project;
- (k) the manner in which the development and production of the field is to be financed;
- (l) a project schedule including estimated date for the commencement of production;
- (m) an assessment of whether the development of and production from the field should be subject to unitisation in accordance with the provisions of this Act;
- (n) the arrangements made for the sale of petroleum and its by-products including transportation agreements;
- (o) an economic analysis to determine the commercial viability of the development and the underlying production profiles, capital costs, operating costs and pricing assumptions used;
- (p) the manner in which it is intended to prevent pollution, to deal with waste, to safeguard the natural resources and to minimise the effect of such operations in the contract area and on areas adjoining the contract area;
- (q) a health and safety plan including the safety measures to be adopted in the course of the development and production of petroleum and measures to deal with emergencies;

- (r) solutions for the efficient use of energy and the necessary measures to be taken for the protection of the environment including the prevention and minimisation of environmentally harmful discharges and emissions;
 - (s) a local content plan;
 - (t) a preliminary decommissioning plan;
 - (u) an assessment of how to coordinate petroleum operations with other holders of a petroleum contract, including the joint use of facilities subject to the Act and any other applicable law and regulations;
 - (v) an assessment of the potential for development of further petroleum resources within the exploration area to ensure the maximum long-term recovery of petroleum resources;
 - (w) management systems, including information on the planning, organization and implementation of the development;
 - (x) measurement and allocation equipment, systems and procedures including a description of fiscal metering systems and identification of delivery point(s);
 - (y) a petroleum marketing plan and where appropriate a gas infrastructure and marketing plan;
 - (z) a security plan; and
 - (aa) any additional information as requested by the REGULATOR.
- (3) The REGULATOR shall evaluate the field development plan submitted under subsection (1) and make recommendations to the Minister regarding the approval of the field development plan. The Minister shall provide the CONTRACTOR with his or her decision in writing within a reasonable time of receipt of all required data and information.
- (4) A field development plan shall become effective upon the written approval of the Minister.
- (5) Where a field development plan is not approved, the Minister shall by notice in writing state the grounds for its decision and the CONTRACTOR may modify and re-submit a field development plan within a timeframe stipulated by the Minister.
- (6) The Minister shall not approve a field development plan unless:
- (a) the plan shall ensure efficient, beneficial, and timely exploitation of the petroleum resources concerned;
 - (b) the plan takes into account best industry practice;

- (c) the CONTRACTOR has the technical and financial competence and experience to undertake safe and effective production operations;
- (d) the CONTRACTOR is able and willing to comply with the conditions on which a field development plan is approved;
- (e) there are demonstrable financial benefits to [COUNTRY] from the development of the petroleum resources; and
- (f) the REGULATOR has recommended approval.

Provisions usually found in Regulations

These are often procedural in nature. Please note that timings are only indicative and should be tailored to a country's particular circumstances.

- (1) Pursuant to the Act, a CONTRACTOR shall within one hundred and eighty (180) days of notification of a commercial discovery, submit a Field Development Plan to the REGULATOR which shall provide detailed information on the reserves, technical, operational, facilities, safety, commercial, local content and environmental components of the proposed development.
- (2) The Minister may in special cases, grant an extension for the submission of a Field Development Plan pursuant to sub-regulation (1) upon the recommendation of the REGULATOR.

Provided that the CONTRACTOR can establish, to the satisfaction of the REGULATOR, the existence of special circumstances that justify such an extension.

- (3) The REGULATOR shall, within two hundred and seventy (270) days of receiving a Field Development Plan in accordance with sub-regulation (1), make a recommendation to the Minister on whether to:
 - (a) approve the plan; or
 - (b) reject the plan; or
 - (c) approve the plan subject to specified conditions; or
 - (d) notify the applicant in writing that the REGULATOR is unable to make a decision without further assessment of the plan. Such notification shall include any further information that is required to make a decision and an estimated date by which a decision will be provided.
- (4) The REGULATOR shall, within fifteen (15) days of receiving a Field Development Plan from the CONTRACTOR under sub-regulation (1), notify the CONTRACTOR in writing if it intends to use independent specialist(s) to support its review of the Field Development Plan. The specialist(s) shall be selected on a competitive basis and the costs shall be borne by the CONTRACTOR and shall be an allowable expense for tax purposes.

- (5) The Minister shall as soon as practicable, but no later than thirty (30) days from receiving the REGULATOR's recommendation under sub-regulation (3), notify in writing the CONTRACTOR if the field development plan is:
- (a) approved as submitted
 - (b) conditionally approved with such terms and conditions provided.
 - (c) rejected and the grounds for the decision. The CONTRACTOR shall promptly revise the field development plan and re-submit to the Regulator.
- (6) The REGULATOR shall recommend the approval of a Field Development Plan only where the plan:
- (a) satisfactorily meets the requirements pursuant to section 2 of the Act;
 - (b) meets the technical standards that are required for the related works;
 - (c) demonstrates that there will be financial benefits to {insert country};
 - (d) demonstrates that the operations will be conducted in a manner that is:
 - (i) consistent with best international petroleum industry practice; and
 - (ii) compatible with optimum long-term recovery of the petroleum.

Provisions in Petroleum Agreements

Effective petroleum agreements, irrespective of whether they are PSCs or Tax and Royalty Concessions, will contain an article establishing a mechanism for ongoing meetings between the owners and the government, usually quarterly. This is often referred to as the Joint Management Committee (JMC), or Management Committee or Technical Management Committee. The JMC is often established no later than thirty (30) days from the Effective Date of the petroleum agreement. Membership is composed of representatives from the government and the owners. As part of its functions, the JMC should have oversight and ongoing review of petroleum operations and should have “technical meetings”. In so far as practical, the technical meetings should be leveraged to provide timely updates and information related to the development of the FDP. At critical milestones during the operator's project management process for the project (Appraise/Select etc.), progress and decisions should be reviewed at the JMC and/or Technical Sub-Committees.

- (1) If the CONTRACTOR notifies the REGULATOR that the Discovery is commercial, the CONTRACTOR shall
- (a) agree a schedule of reviews with the REGULATOR during the preparation of the Field Development Plan to ensure that the REGULATOR is informed of key milestones and decisions including, but not limited to, concept selection;

- (b) promptly prepare a Field Development Plan for review and endorsement by the JOINT MANAGEMENT COMMITTEE, and
 - (c) submit such endorsed Field Development Plan to the REGULATOR for approval by the Minister within one hundred and eighty (180) days of notification of Commercial Discovery, in accordance with the Act.
- (2) The REGULATOR shall, within fifteen (15) days of receiving a Field Development Plan from the Contractor, notify the CONTRACTOR if it intends to contract independent expert(s) to review the Field Development Plan. The expert(s):
 - (a) shall be selected through an international tender. A minimum of three (3) firms, agreed by the REGULATOR and CONTRACTOR, shall be invited to participate in the tender. The REGULATOR and the CONTRACTOR shall run the tender process and select the winning tender;
 - (b) shall within ninety (90) days of award of contract, submit an evaluation report of the FDP and its recommendations to the REGULATOR and the Contractor. The CONTRACTOR shall submit in a timely manner any information required by the expert to prepare such report.
 - (c) costs shall be borne by the CONTRACTOR and shall be an allowable expense for tax purposes.
- (3) If the CONTRACTOR and REGULATOR mutually agree, paragraph 2 may also apply, to key technical reports and studies delivered under paragraph 1(a) to enable efficient preparation of the Field Development Plan.
- (4) Pursuant to Regulation, the REGULATOR shall within two hundred and seventy (270) days of receiving a Field Development Plan, make a recommendation to the Minister of its approval or rejection and any conditions attached thereto.
- (5) Pursuant to Regulation, the Minister shall as soon as practicable, but no later than thirty [30] days from receiving the REGULATOR's recommendation under paragraph 4, notify in writing the CONTRACTOR whether the Field Development Production Plan is:
 - (a) approved as submitted. The CONTRACTOR shall, as soon as practicable, commence Development and Production Operations in accordance with the approved Field Development Plan and shall revise the approved Work Programme and Budget accordingly.
 - (b) conditionally approved with such terms and conditions provided.
 - (c) rejected and the grounds for the decision. The CONTRACTOR shall promptly revise the Field Development Plan and submit to the JMC for

review and endorsement, after which the revised Plan shall be submitted to the REGULATOR.

- (6) If the JMC are unable to agree upon a revised Field Development Plan at the meeting referred to in clause 5(c), any member may refer the matter for determination by a Sole Expert contemplated in clause XX.

The determination by a Sole Expert shall be final and the Field Development Plan shall be deemed to have been adopted and approved as determined, except that the CONTRACTOR may, within sixty (60) days of receipt of such determination, notify the REGULATOR that the Discovery is no longer considered to be commercial. If the CONTRACTOR so notifies the REGULATOR, the provisions of paragraph XX (related to non-commercial discoveries) shall apply. The CONTRACTOR shall, as soon as is practicable, commence Development and Production Operations in accordance with the approved Field Development Plan and shall revise the annual Work Programme and Budget accordingly.

- (7) Any deviation from, or alteration to, an approved Field Development Plan requires the prior written approval of the Minister. Approval shall be sought in accordance with the Act.

VARIATION TO AN APPROVED FDP

Provisions usually found in Petroleum Act

- (1) Any deviation from, or alteration to, an approved field development plan requires the prior written approval of the Minister.
- (2) The CONTRACTOR shall promptly notify the Minister in writing of any material change or anticipated material change in an approved field development plan.
- (3) The Minister may, upon recommendation by the REGULATOR, require a revised field development plan to be submitted if there is an anticipated material change to the approved field development plan.
- (4) The Minister may, upon the recommendation of the REGULATOR, approve a request to revise a field development plan, such approval not to be unreasonably withheld.

Provisions usually found in Regulations

- (1) an application for a revision to the approved Field Development Plan shall include:
 - (a) a full description of the change(s) for which a revision of the field development plan is being sought;

- (b) a detailed description of how the proposed changes are likely to effect the technical development of the field, production and recovery of reserves;
 - (c) detailed forecasts of the impact of the changes on the revenue to government compared to the existing development plan;
 - (d) how the changes will affect the financing and funding of the development of the field.
 - (e) an economic analysis of the impact of the change(s) compared to the existing development plan;
 - (f) any other impact the proposed variation of alteration will have and is likely to have on the development of the field including decommissioning funding; and
 - (g) any such other matters as may be reasonably required by the REGULATOR.
- (7) The REGULATOR shall evaluate the application for variation or alteration as soon as practicable and may request further information from the applicant to facilitate the adequate evaluation of the application.
- (8) At the end of the evaluation, the REGULATOR shall submit its recommendations to the Minister on whether or not the proposed variation or alteration should be approved and shall include, in its recommendations:
- (a) the reasons for the recommendation;
 - (b) the terms of the recommended decision;
 - (c) if it recommends acceptance of the variation subject to a condition, the condition and the reasons for making the acceptance subject to a condition.
- (9) The variation shall take effect on the date the Minister communicates his or her approval to the applicant unless it is otherwise stated in the decision and the plan as varied shall replace the existing plan from that date.