Typical Key terms of a Production Enhancement Contract (PEC)

№	Contract parameter	Terms
1.	**Summary**	Production enhancement contract (PEC) is a long-term risk-service contract for mature/depleted fields' development, which assumes transfer of field management from E&P company to PEC contractor, while preserving title to the license, reserves and production in full by E&P company. PEC contractor will be given access to fields' existing wells, surface infrastructure and field personnel with the purpose of extending the economic life of the fields through increasing its production level, and optimization of production costs by means of PEC contractor's investment. Under PEC, the PEC Contractor has significant commitments backed by guarantees, to certain minimum production increase above a pre-agreed baseline and investment obligations. PEC contractor reimburses its investment only through incremental production, and through optimization of the field operations. Therefore, E&P company's and PEC contractor's objectives are fully aligned under PEC – increase production and reserves, while transforming the operations to be more efficient and sustainable.
2.	**Subject**	Provision of services by PEC contractor to E&P company in regards to investment to further develop and optimize the fields and fixed assets within fields, in order to ensure the delivery of contractually defined levels of Baseline and Incremental Production, in exchange of consideration by E&P company to PEC contractor.
3.	**Parties**	E&P company (titleholder of petroleum agreements or owner of the fields/licenses), on one hand, and PEC contractor (qualified operator and expert in production enhancement, operations optimization and decarbonization), on the other hand.
4.	**Duration**	15+ years from the Execution Date (with possibility of extension for a fixed period, based on mutual agreement).
5.	**Effectiveness and Handover**	All obligations of the Parties shall come into effect on the Execution Date (date of PEC signing by both Parties), save for the obligations which come into effect only at the Handover Date (the date on which PEC contractor assumes control, risk and responsibility for all the operational activities within PEC fields). Usually, there is a 6 months transitory period between Execution Date and Handover Date, in order to give PEC contractor and E&P company time to prepare for the smooth transition of all operations and personnel within fields under the operational control of PEC contractor.

6.	**Titles to the license, reserves and production**	Remains with E&P company throughout the duration of PEC.
7.	**Title to fixed assets**	Ownership over fixed assets that existed prior to Handover (PEC effective) Date (e.g. wells, surface infrastructure) remains with E&P company, and PEC contractor will have the right to use such assets for providing PEC services. Capital repairs needed to bring such fixed assets to international standards or replacement of improper fixed assets existing at Handover Date are financed by E&P company. All fixed assets created/purchased by PEC contractor over the duration of PEC to enhance production or optimize costs, will be transferred to E&P company at PEC termination.
8.	**Employees**	E&P company's field operations employees will be transferred to become PEC contractor's employees during PEC duration or (if not possible), they will be seconded to PEC contractor through service agreement. Upon PEC termination, transferred employees are transferred back to positions previously held at E&P company.
9.	**Investments**	All investments into the field development are proposed, carried out and financed by PEC contractor.
10.	**Key responsibilities of the Parties**	**E&P company:** (i) Pays PEC contractor monthly for the services rendered (delivered volumes of hydrocarbons); (ii) Provides PEC contractor access to all fields' surface and subsurface assets, within the licenses limits, in order to conduct E&P activities under PEC; (iii) Maintains valid licenses (including prolongation, extension etc.), and liaise with authorities for all issues related to keeping the licenses in order; (iv) Organizes and pay for land allocation and permitting (e.g. for drilling, workover, fracking operations); (v) Assumes payment of royalties/taxes on production and reserves and of license fees; (vi) Brings surface infrastructure assets existing at the time of fields Handover to industry conformity level, or reimburse PEC contractor for doing so (if the surface infrastructure assets were tagged as not conform during the pre-handover audit) (vii) Participates in the joint management committee meetings (or provide proxy voting), and refrain from unreasonably withholding approval of important managerial decisions. **PEC contractor:**

		(i) Operates fields, including all wells and surface infrastructure, in a safe and sustainable way, with a purpose of increasing production and reserves and reducing the environmental footprint of the operations in accordance with international best practises (ii) Plans, executes, supervises and is accountable for all surface and subsurface operations at its own risk and expense; PEC contractor can execute all operations in-house, or can subcontract all/any part of a certain job scope, remaining accountable for the performance of operations by its subcontractors; (iii) Delivers commercial volumes of hydrocarbons to E&P company's delivery points on a daily basis; (iv) Delivers pre-determined Baseline Production on a monthly basis; (v) Ensures best efforts to deliver the Incremental Production Guarantee on annual basis; (vi) Invests into fields development a minimum amount of spend obligations over the period of time (e.g. 5 years) with an annual schedule; (vii) Provides all agreed information to E&P company, and facilitate in all ways possible for E&P company to maintain license obligations; (viii) Reports on any new discovery within the license's limits or nearby, in case such discovery became evident as a result of activities within PEC; (ix) Brings key decisions, pre-determined in PEC, for the approval of joint management committee (e.g. AWP&B, updates to field development plans).
11.	**Baseline and Incremental production**	Baseline Production shall mean the pre-determined volumes of commercial hydrocarbons that could be delivered monthly during PEC duration from the fields, assuming no further action in the fields (just reservoir decline and OpEx maintenance), and t no investment (CaPex) to increase production (no surface facilities upgrade, workovers, artificial lift upgrade new wells…). Incremental Production shall mean all volumes of hydrocarbons in excess of Baseline Production, delivered to E&P company.
12.	**Scope of Work by PEC contractor**	Planning and execution of operations aimed at maintenance of Baseline Production and achievement of Incremental Production at own risk and at own cost. **Operations to achieve Baseline Production (non-exhaustive list of operations):** (i) repairs and maintenance which qualify as OpEx according to IFRS; (ii) de-watering through nitrogen coil-tubing operations and other blow downs techniques;

(iii) light acid treatments to remove scale depositions.

(iv) Flow insurance: H_2S scavengers, Surfactants and dissolvent, Paraffin inhibitors, scale inhibitors, corrosion inhibitors, emulsifiers…

Operations to achieve Incremental Production or optimize operations (non-exhaustive list of operations):

(i) capital repairs which qualify as CapEx according to IFRS;

(ii) new wells drilling;

(iii) idle well recovery;

(iv) Acquire and interpret seismic survey

(v) geophysical researches of the well (GRW) for the purpose of evaluation of well condition such as well logging, coring…;

(vi) build reservoir model and studies to produce or update Field Development Plan;

(vii) Purchase existing data (such as seismic, logs, cores…) to update reservoir models

(viii) Conduct pressure and/or flow measurement during build-up and pressure drawdowns to determine reservoir pressure and/or deliverability

(ix) perform of well workovers for completion changes to install PCP, ESP, SRP, LRP, Gas lift, velocity and capillary string, dual completion , water shut off, sand control..

(x) perform stimulations(including but not limited to performance of hydraulic fracturing, perforation, re-perforation using newer technologies, reservoir acidization, other new stimulation technologies…;

(xi) wells deepening, casing, testing of productive horizons;

(xii) Install new flow lines to increase production

(xiii) Instal or upgrade oil and/or gas treatment unit to increase production or optimize operations

(xiv) Secondary and third recovery programs: Water flooding, Polymer injection, Bio-surfactant Enzyme injection, CO_2 injection..

(xv) installation of a custody metering unit for hydrocarbons produced;

(xvi) total or partial construction or reconstruction of pressure compressor stations (PCS) or small-scale PCS (MPCS).

13.	**Compensation mechanism**	There are only two sources of compensation payable to PEC contractor by E&P company: 1) **Service Fee** – Monthly based on the volumes of hydrocarbons of each type (baseline or incremental) delivered to the delivery points and respective tariffs per boe. Service Fee is the only compensation to PEC contractor for its services within PEC scope, and covers its CaPex, OpEx, profit share, and all other expenses. 2) **Additional expenditures to be reimbursed (AETBR)** – expenditures in relation to items and activities outside of PEC scope of work (e.g. investment in bringing roads, bridges and surface infrastructure to conformity level as audited by third party pre-takeover, total or partial construction and reconstruction of facilities in order to comply with the requirements of the authorities, replacement of old pipelines) which E&P company assigns to PEC contractor for convenience, and reimbursed by E&P company to PEC contractor on a documented cost basis plus reasonable G&A margin.
14.	**Tariffs**	Tariffs are payable to PEC contractor for the volumes of delivered commercial hydrocarbons of each type. Baseline Production tariff per boe usually established based on the current yearly OpEx of E&P company for the respective fields adjusted by yearly inflation and is pre-determined for each of the PEC years. Therefore, PEC contractor is incentivized to invest in operations optimization and efficiencies to reduce the OpEx below E&P company's level. Incremental Production tariff per boe shall assume for full cycle cost of PEC contractor's investment plus its profit share and can be either fixed (with only some indexation mechanisms enclosed) or tied to the market price. Therefore, Incremental Production is where PEC contractor is getting its returns on investment from, hence there is natural incentive to grow production under PEC.
15.	**Mechanism for making key decisions**	Operational control (planning and execution of day-to-day operations) is responsibility of PEC contractor. Joint Management Committee (JMC), consisting of representatives of both E&P company and PEC contractor, is established in order to ensure overall guidance and control over key aspects of providing services under PEC (e.g. approval of Annual Work Program and Budget or AWP&B, updates to field development plans, services reimbursed separately). Meetings of JMC are conducted periodically (e.g. quarterly) or based on urgent need.
16.	**Liability and Guarantees**	Each Party shall be liable for the direct losses to the other Party for non-performance or improper performance of its obligations under PEC, in accordance with applicable law. Pre-takeover environmental liabilities, audited by third party, remain with E&P company, while PEC contractor is liable for Post-takeover environmental liabilities.

		Guarantees to be put in places by both parties to ensure their obligations
17.	**Material breach**	**By PEC contractor:** (i) Baseline Production is not delivered by PEC contractor; (ii) Incremental Production Guarantee is not delivered by PEC contractor,; (iii) Minimum spend obligation is not fulfilled by PEC contractor. **By E&P company:** (i) Repetitive or continuous delay of payment for services rendered by PEC contractor; (ii) Repetitive or continuous inability to maintain its obligations, which result in PEC contractor's inability to maintain its operations within the fields or to deliver the hydrocarbon (e.g. termination of the production licenses by E&P company, denial in access to the fields by E&P company / local communities / authorities, closure od delivery points without alternatives…).
18.	**Termination**	**PEC can be terminated for following reasons:** (i) Expiry of PEC duration (initial or extended). (ii) Material breach by any of the Parties. Compensation to be paid by the Party in breach. (iii) At the initiative of one of the Parties. Compensation to be paid by the initiating Party. (iv) Mutual agreement. No compensation to be paid by any Party. (v) Force-majeure. No compensation to be paid by any Party.
19.	**Annexes**	**Annexes to PEC will mainly cover:** (i) Fields description, Fixed assets inventory; (ii) Accounting procedures; (iii) Guidelines for development plan, feasibility studies, AWP&B; (iv) Hydrocarbons' delivery conditions; (v) Baseline Production, MWO; (vi) HSSE, Procurement requirements;

		(vii) NDA format; (viii) List of employees, Handover plan.