# CLARIFICATION#2 AGAINST TENDER # PROC-SERVICES/CB/RMD-4699/2020: RESERVES EVALUATION STUDY-2020

**Following Clarifications have been made in the subject tender:-**

| S. No. | Bidder's query | OGDCL reply |
|---|---|---|
| 1 | Please confirm that either both Prospective Resources and Contingent Resources to be included as well as reserves? And for the Resources, is an Expected Monetary Value (EMV) to be included (risked for Prospective resources?) | As per PRMS-2018 Prospective Resources, Contingent Resources and Reserves are required. Economics is needed for 1P, 2P & 3P Reserves only. For this study OGDCL don't need EMV for prospective resources. |
| 2 | For the FMV, Net Present Value (NPV) at a discounted rate of 10% (or more or less) is used mostly which is in line with PRMS evaluation. Different economic sensitivities can be run for static costs and escalated costs. Kindly confirm the discounted rate required in this case. | For DCF/NPV/IRR/FMV etc (4 discount rates) 10%, 15%, 18%, 25% should be used at Btax & Atax levels. |
| 3 | It has been mentioned that Decline Curve Analysis (DCA) to produce reserves and production forecasts. Are there any static models (in PETREL for example) and dynamic models (in ECLIPSE?). If NGL's LPG's and Sulphur production are to be included, this is more difficult to achieve without models. Please confirm the model being used for this and the format in which the data would be available. | For most important fields models are available mostly in PETREL. But if DCA used in some cases then yields and ratios can be used for Condensate, NGL, LPG, and Sulphur. |
| | Pease clarify the format of seismic data that how the seismic would be presented to us and in what form. (Kingdom project, PETREL, original format, SEGY, or other) and also the same for well logs. | This study is a Reserves Evaluation Study, so the main evaluation emphasis start from time/depth structure maps and so on as mentioned in TOR. However, if consultant needs seismic data for further validation or review then it can be provided in SEGY and PETREL also. Logs will be provided in ELAN and in pdf format. |
| | On the Annex-A there is a number 4. that specifies Projects Details where fields are tied in to about 9 different plants. Would it be possible to have | **Projects Details:**<br><br>**Tando Alam Oil Complex (TOC) (South)_All Fields are 100% own** |

| a description of all the fields that are tied in to each plant? | | |
|---|---|---|
| | Tando Alam Oil Field | Sono oil Field |
| | Thora Oil Field | Lashari Center Oil Field |
| | Missan Oil Field | Palli Oil Field |
| | Moolan North | Thora Oil Field |
| | **KPD-TAY Project (South)** | **KPD (Kunnar Deep/Pasahki Deep) _100% own** |
| | Kunnar Deep Gas Condensate Field | Pasahki Deep Gas Condensate Field |
| | Kunnar West Gas Condensate Field | Moolan Gas Condensate Field |
| | Pasahki West Deep Gas Condensate Field | Thora Deep Gas Condensate Field |
| | **TAY (Tando Allahyar) _77.5% W.I** | |
| | Chandio Gas Condensate Field | Dars Gas Condensate Field |
| | Dars Deep Gas Condensate Field | Dars West Gas Condensate Field |
| | Kunnar South Gas Condensate Field | Pasakhi East Gas Condensate Field |
| | Shah-01 Gas Condensate Field | Tando Allah Yar Gas Condensate Field |

| | | | |
|---|---|---|---|
| | | Tando Allah Yar North Oil Field | Tando Allah Yar SW Gas Condensate Field |
| | | Unar Gas Condensate Field | |
| | | **Sinjhoro Project (South)_62.5% W.I** | |
| | | Baloach Gas Condensate Field | Chak 2 Gas Condensate Field |
| | | Chak 63 Oil Field | Chak 63 SE Gas Condensate Field |
| | | Chak 66 NE Gas Condensate Field | Chak 7A Gas Condensate Field |
| | | Hakeem Daho Gas Condensate Field | Lala Jamali Gas Condensate Field |
| | | Resham Gas Condensate Field | |
| | | **Bobi Oil Complex (South)_100% Own** | |
| | | Bobi Oil & Gas Field | Mithrao Gas Condensate Field |
| | | Chak 5 Dim South Gas Condensate Field | Dhamraki Gas Condensate Field |
| | | **Nashpa-Mela Project (North)_56.45% W.I** | |
| | | Nashpa Gas Condensate Field | Mela Oil Field |
| | | **Suleman-Mithri Project (South)_77.5% W.I** | |
| | | Suleman Gas Field | Mithri Gas Field |
| | | Aradin Gas Field | Chhabaro Gas Condensate Field (But tie- |

| | | |
|---|---|---|
| | | in with Sinjhoro Block) |
| | **Daru Complex (South) (Daru & Nim)** | |
| | Daru Gas Condensate Field- 100% Own | |
| | **NIM Block Fields_ (77.5% W.I)** | |
| | Chhuto Gas Condensate Field | Gopang Gas Condensate Field |
| | Jarwar Oil Field | Nim Gas Condensate Field |
| | Nim West Gas Field | Norai Jagir Gas Condensate Field |
| | Pakhro Gas Condensate Field | Saand Gas Condensate Field (Tie-in with KPD-TAY plant) |
| | Chhuto Gas Condensate Field | |
| | **UCH-I & UCH-II (Center)_100% Own (Two Contracts with Uch Power Limited)** | |
| | **GUDDU EL (Center)_57.76%** | |

| | Would it be possible to have a summary table from the previous report to provide an idea of the relative value of each property such that we can prioritize the higher value (major) properties and isolate the minor properties. | The selection of higher value properties for CPR is dependent upon the discussion with Consultant to which study will be awarded. However, as per previous study following table shows the Oil & Gas Fields covering about 80% of remaining reserves |
|---|---|---|

| Oil Case | Gas Case |
|---|---|
| Nashpa-Mela Project | Nashpa-Mela Project |
| Pasakhi/Pasakhi N | KPD-TAY Project |
| Kunnar Oil Field | Sinjhoro Project |
| Chanda | Dakhni Project (Dakhni, Soghri, Jand) |
| Rajian | Zin |
| Kal | Qadirpur |
| TOC | Uch |

|  |  |  | Thal Block (Thal West, Thal East, Bhambhra) |  |
|  |  |  | Suleman-Mithri Project |  |
|  |  |  | GUDDU Project |  |
|  |  |  | Jhal Magsi South |  |
|  | Number of files/ reservoirs to be looked at in total! | About 30 reservoirs are to be looked at in total. |  |  |
|  | Client to confirm no review/building of dynamic simulation model? | Yes existing models to be reviewed but building of new simulation models are not the part of this study. |  |  |
|  | Client to confirm production forecast required will be based on MBAl, DCA/performance based analysis? | Yes, production forecast required will be based on MBAl, DCA/performance based analysis. |  |  |
|  | Timing of conpression: will client provide existing surface facility diagram or compression data to give idea of what exists? | Yes, OGDCL will provide provide existing surface facility diagram. |  |  |
|  | Will consultant be provided MBAl models, if any exists? | Yes, Consultant be provided MBAl models, if any exists. |  |  |
|  | Client to confirm each field is to be treated as a stand-alone i.e. no surface networking required? | depends upon the development option of the new discoveries. |  |  |