MINISTRY OF OIL
PROJECTS
DEVELOPMENT

DHEYAA JAAFAR HAJAM AL-MUSAWI
MINISTRY COUNCILOR FOR ENERGY AFFAIRS
MINISTRY OF OIL
IRAQ
OVERVIEW

- The objective of this presentation is to provide a summary for the investment projects in Iraqi Pipelines, Oil and Gas Sector.
Iraq Jordan Export Pipeline (IJEP)
Executive Summary

- Iraq has begun an ambitious program to increase its crude oil production and export infrastructure.
- Iraq plans to increase its crude oil production from today’s 3.4 million barrels per day ("bpd") to approximately 7.0 million bpd by 2022.
- Fundamental to this increase, is an increase in Iraq’s existing export pipeline infrastructure, in particular access to alternative export routes.
- Basra, in the south of Iraq, is the main point of export, logistically constrained to approximately 5.0 million bpd;
- The Iraq Turkey Pipeline, to Ceyhan, is over 25 years old, with a design capacity of 1.6 million bpd and a current operational capacity of only 0.6 million bpd.
- Phase 1 of the MoO Export plan, is the installation of a new crude oil export pipeline, from Basra to the Port of Aqaba, in Jordan (the “Project”).
- The Project will constitute:
  - A 2.25 million bpd pipeline from Basra (PS1A) to Najaf (PS3A) ; and
  - A 1.0 million bpd pipeline from Nagaf (PS3A) to the Port of Aqaba, Jordan.
Project Overview

- **Main Pipelines:**
  - Crude Oil: 348 km of 56” (PS1A(Rumila) to PS3A (Najaf))
  - Crude Oil: 1145 km of 42”/40” (Najaf to Aqaba)

- **Main Pump Stations:**
  - Iraq: PS1A, PS2A, PS3A, PS5B, PS12A & PS13A
  - Jordan: PS14A, PS15A, PS16A

- **Block Valve Stations:**
  - Crude Oil: 9 Iraq + 18 Jordan = 27 (preliminary)
  - The structure is on Build Own Operate and Transfer basis (BOOT) for 25 years contact with an affiliate of Iraq MOO.
The Project: Basra to Aqaba Export scheme & the potential developers

The various partnership across the various sections of the pipeline will be part of the consortia but under the leadership of Mass and Harlow. Their shares will be adjusted to cater for the whole project (i.e. Basra to Aqaba).

For Nagaf – Jordan section:
- Mass will be responsible for leading the financing process for the Jordan section and Harlow for the Iraqi section. However, the financing will be considered for the whole project and the Project Company is the borrower.

For Basra-Nagaf section:
- The Consortium Raban, Harlow and AlDouh share and scope split agreed between the consortium partners.
- The scope and share % split already agreed and formally advised the Iraq Ministry of Oil MOO.
Iraq Turkey Export Pipeline (ITEP)
BACKGROUND

- The new Iraqi-Turkish system consists of 48” ND and 350 Km pipeline between new ITP1 tank farm up to metering station (MS) near the Iraqi Border.
- The new pipeline will run in parallel to the existing pipelines (40” & 46”) route, as much as possible.

DESIGN CAPACITY OF NEW PIPELINE

- It is proposed to design the pipeline system with 1.0 MMBPD of Kirkuk crude, with possibility of pumping Basrah crude in the near future, when the system from K3 at Haditha completed.
The proposed type of contract is build-own-operate and transfer (BOOT).

Contract duration is 20 years, and could vary depending on the economics of the project.

The fee will depend on capital and operating expenditures.

Experienced legal firm will prepare the necessary agreements between the government (moo) and the boot contractor.
# IMPLEMENTATION

<table>
<thead>
<tr>
<th>Description of Tasks</th>
<th>Estimated Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Announcement</td>
<td>20-Dec-17</td>
</tr>
<tr>
<td>Letter of interest</td>
<td>24-Jan-18</td>
</tr>
<tr>
<td>Invitation to Bidders for PQR</td>
<td>04-Feb-18</td>
</tr>
<tr>
<td>Closing date for the PQR</td>
<td>12-Mar-18</td>
</tr>
<tr>
<td>Announcement of qualified Bidders</td>
<td>17-Apr-18</td>
</tr>
<tr>
<td>Invitation to Bid</td>
<td>22-Apr-18</td>
</tr>
<tr>
<td>Closure date for Technical Bids</td>
<td>24-june_18</td>
</tr>
<tr>
<td>Technical Evaluation Results</td>
<td>20 Sep-18</td>
</tr>
<tr>
<td>Commercial Bid for technically passed Bidders</td>
<td>20 Oct-18</td>
</tr>
<tr>
<td>Complete Evaluation of Proposals and contract award</td>
<td>20 -Nov-18</td>
</tr>
<tr>
<td>Contract signature</td>
<td>23-Dec-18</td>
</tr>
</tbody>
</table>
INVESTMENT PROJECT IN OIL REFINING SECTOR
ANNOUNCED INVESTMENT PROJECTS

<table>
<thead>
<tr>
<th>Item</th>
<th>Project</th>
<th>Design Capacity KBPD</th>
<th>Location</th>
<th>closing date for information package</th>
<th>submission proposal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>New Refinery Haditha</td>
<td>70</td>
<td>Anbar</td>
<td>1/4/2018</td>
<td>15/5/2018</td>
</tr>
<tr>
<td>2</td>
<td>Qaiyarah Refinery</td>
<td>100</td>
<td>Qaiyarah</td>
<td>1/4/2018</td>
<td>15/5/2018</td>
</tr>
<tr>
<td>3</td>
<td>Diwaniyeh Refinery</td>
<td>70</td>
<td>Diwaniyeh</td>
<td>29/4/2018</td>
<td>14/6/2018</td>
</tr>
<tr>
<td>4</td>
<td>Kut refinery</td>
<td>100</td>
<td>Wasit</td>
<td>29/4/2018</td>
<td>14/6/2018</td>
</tr>
<tr>
<td>5</td>
<td>Nassriayah Refinery</td>
<td>150</td>
<td>Nassriayah</td>
<td>1/4/2018</td>
<td>15/5/2018</td>
</tr>
</tbody>
</table>

- This will be executed as BOOT or BOO investment to according the law of privet investment Crude oil refining No. 64 of 2007 & its amendments.
- The refinery products will be with specification (EURO-5).
<table>
<thead>
<tr>
<th>Item</th>
<th>Project</th>
<th>Design capacity KBPSD</th>
<th>Company Name</th>
<th>Investment type</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Kirkuk Refinery</td>
<td>70</td>
<td>Raniyah International</td>
<td>Boo</td>
<td>The MoO Singed the Investment Contract On 8/2/2018. Currently complete the procedures for getting the investment license &amp; the rent of the land contract.</td>
</tr>
<tr>
<td>2</td>
<td>Basrah / Al-Faw with ability for expanding and adding units for petrochemical industries</td>
<td>300</td>
<td>Powerchina &amp; Norinco</td>
<td>BOO</td>
<td>Preparing to singe the Investment contract</td>
</tr>
<tr>
<td>3</td>
<td>Basrah Refinery</td>
<td>150</td>
<td>Island energy</td>
<td>BOO</td>
<td>Preparing to singe the Investment contract</td>
</tr>
</tbody>
</table>
| 4    | Missan Refinery                                  | 150                    | Missan International Refinery Company | BOO             | - The MoO submit on 4/1/2018 commitment to provide the water required for the refinery  
  - The MIRC undertake to start the work (in the site) within one month                                                              |
# INVESTMENT PROJECTS IN IRAQ (Complementary Units)

<table>
<thead>
<tr>
<th>Item</th>
<th>Project</th>
<th>Design Capacity KBPD</th>
<th>Location</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LAB Project</td>
<td>75000 Ton/y</td>
<td>Basrah</td>
<td>Harlow Company submitted the proposal to invest in this project.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Currently we are waiting to receive the financial documents &amp; the EPC contractor.</td>
</tr>
<tr>
<td>2</td>
<td>Naphtha Hydrogenation &amp; Reforming unit</td>
<td>12 Th B/D</td>
<td>Kirkuk</td>
<td>MoO has been signed the investment contract.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>We ask the National Investment committee to provide the Investment license for the project.</td>
</tr>
<tr>
<td>3</td>
<td>Naphtha Hydrogenation &amp; Reforming unit</td>
<td>12 Th B/D</td>
<td>Simawah</td>
<td>MoO signed the investment contract with Khayrat al Abar company.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Currently we negotiate with the investor about agreed on the price discount.</td>
</tr>
<tr>
<td>4</td>
<td>Asphalt Oxidation Unit</td>
<td></td>
<td>Basrah</td>
<td>Under preparing the information package.</td>
</tr>
</tbody>
</table>

- This will be executed as BOOT or BOO investment to according the low of general investment no. 13 for 2006 and its amendment
INVESTMENT PROJECT IN GAS SECTOR
GAS PROJECTS IN IRAQ

- Halfaya Gas Processing Project in Missan Fields (300 MMCF/D)
- Garraf & Nasiriya Gas Processing Project in Nasiriya (200 MMCF/D)
- Artawi Gas Processing Project in Majnoon, West Qurna 2, Saba, Luhais & Tuba (300 MMCF/D)

Future Gas Processing Projects
INTERNATIONAL COMPANIES INVITED TO INVEST IN GAS PROJECTS

- The following companies have been invited to invest the gas in Basra and Nasiriya fields:
  - GE
  - SHELL
  - KOGAS
  - ORION
  - SIEMENS
  - PETROFAC
  - HONEY WELL UOP
  - NIGATA
  - CAMERON
  - EXTERN
  - TOYO ENGINEERING
  - ATC
  - ITALFLUID

- As for the gas Missan fields/ Halfaya project it is currently announced by Petrochina (Missan Field Contractor) as a part of its contact obligations and the closing date is on 9 April 2018.
INTERNATIONAL COMPANIES PARTICIPATED IN GAS PROJECTS

- The companies participated in the gas project in Garraf and Nasiriya fields:
  - BHGE
  - KOGAS
  - Applied Technology Corporation (ATC)
- The companies participated in the gas project in Basra fields (Artawi):
  - PETROFAC
  - HONEY WELL UOP
  - Applied Technology Corporation (ATC)
In order to ensure fair competition between the companies (the investment opportunities were announced on the website of the ministry) as a public invitation to investors.

For the purpose of selecting companies with the best technical and financial qualifications, the Ministry adopted a unique evaluation criteria approved by the Minister.

Requirements for improving the investment environment:

The projects in the oil sector, especially refinery projects are projects of a special nature because of the complexities in the structure of refineries, the number of units involved which reflected on the cost of these projects as the investment law in refineries No. 64 of 2007 and its amendments does not include any guarantees.

The Energy Committee of the Council of Ministers was approached to grant the Ministry the authority to contract with the Investor to purchase liquidated products at a specified rate (decided by the Ministry of Oil) for the repayment period of the loan (5-7) years after the commercial operation of the refinery.

Taking into account the geographical location of the refinery and the cost of transporting and exporting of its products.

Accelerate the procedure of granting the land to the investor.

The commitment of the Ministry of Water Resources to prepare the quantity of water required and from the nearest source to the project.
THANK YOU FOR YOUR ATTENTION