EGYPTIAN NATURAL GAS HOLDING COMPANY “EGAS”

Data Quality Control and Assessment
Transparency/Accuracy

14th Joint Organizations Data Initiative JODI International Conference
20 – 21 October 2019
Egypt, Cairo
AGENDA

• Natural Gas Activity In Egypt

• Data Quality Control and Assessment

• Important Of Data Transparency and Accuracy
Organization Of Egyptian Petroleum Sector

Ministry of Petroleum

- Egyptian General Petroleum Corporation (EGPC)
- Egyptian Natural Gas Holding Company (EGAS)
- Egyptian Petrochemicals Holding Company (ECHEM)
- Ganoub El-Wadi Petroleum Holding Company (Ganope)
- Egyptian Mineral Resource Authority (E. M. R. A)
EGAS Partners 22 Companies, 12 Nationalities

- UAE
- USA
- UK
- Norway
- Egypt
- Canada
- Egypt
- Ireland
- France
- Netherlands
- Italy
- Malaysia
- UK
- ExxonMobil

Nationalities:
- UAE
- USA
- UK
- Norway
- Egypt
- Canada
- Ireland
- France
- Netherlands
- Italy
- Malaysia
- UK
EGYPTIAN NATURAL GAS INDUSTRY HISTORY

- Late 1960’s discovery of Natural Gas
- 1970 1st commercial product of Natural Gas (Abu-Madi)
- 1980 Start of Natural Gas distribution to end-users (Households)
- 1983 Establishment of Egypt Gas (1st LDC)
- Mid 80’s Start to developing Egyptian National Gas Grid NGG
- 1997 Establish Egyptian Natural Gas Company (Gasco) (Transmission System Operator TSO)
- 2015 1st Floating Storage Re-gasification Unit FSRU terminal “Hoegh” 500 MMSCFD & 2nd FSRU terminal “BW” 750 MMSCFD
- 2015 Discovery of Egypt’s giant discovery Zohr with added reserves about 21.5 TSCF
- 2017 in March started production from N/Alex and at the end of 2017 started production from Zohr and Atol fields
- 2018 production of Zohr field reached 2 BCFD
- 2018 Egypt stop importing natural gas at end of Sep. 2018
- Recently total natural gas production in Egypt reached about 6900 MMSCFD
GAS PRODUCTION 2018/2019


<table>
<thead>
<tr>
<th>Year</th>
<th>Condensate</th>
<th>LPG</th>
<th>Propane</th>
<th>C2/C3 Mix</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012/2013</td>
<td>31,78 MMBBL</td>
<td>1,22 MMton</td>
<td>561 Mton</td>
<td>1262 Mton</td>
</tr>
</tbody>
</table>

Sales Gas Production Contribution By Area for Year 2018/2019

- Mediterranean 58%
- Delta 20%
- Western Desert 20%
- Gulf of Suez, Sinai & E.Desert 2%
DOMESTIC GAS CONSUMPTION 2018/2019

Average consumption is about 5977 MMSCD
NATURAL GAS IN HOUSEHOLDS

<table>
<thead>
<tr>
<th>Year</th>
<th>Thousand Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>14/15</td>
<td>710</td>
</tr>
<tr>
<td>15/16</td>
<td>715</td>
</tr>
<tr>
<td>16/17</td>
<td>580</td>
</tr>
<tr>
<td>17/18</td>
<td>598</td>
</tr>
<tr>
<td>18/19</td>
<td>1230</td>
</tr>
</tbody>
</table>
In 2010, the United States Geological Survey (USGS) estimated that there could be up to an additional of undiscovered natural gas resources (223 TCF in Nile delta basin, and 122 TCF in Levant basin).

This will make Eastern Mediterranean as important natural gas hot spot for Europe zone in the coming future (new gas corridor).

Egypt as the cornerstone of Eastern Mediterranean regional gas markets: “EGYPT As GAS Hub”

The Eastern Mediterranean region has become a hotspot of international energy Markets following a series of large-scale gas discoveries in the offshore of Egypt, Cyprus, ..others
Egypt infrastructure facilities
Field Development Production Facilities
NGL Treatment Plants and Derivatives Production Plans for Gas and Liquid Domestic Use

Import Facilities:
- Pipelines
  - Arab Pipeline (bi Direction)
  - Cyprus “Future Gas Pipeline”
- LNG through 2 FSRUs

Export Facilities
- Arab Pipeline (bi Direction)
- ELNG, IDECO (2*3.6 MMT/y “BG”)
- Damietta (1*48 MMT/y “Seagas”)
DATA COLLECTION CONTROL AND ASSESSMENT

Collect data  Compare  Analyze  Justification / Corrections  Save
EGAS DATA REPORTING FLOW CHART

Date From
- JVs
- LDs
- CNGs
- Affiliate companies

EGAS Data/Information
- Exploration
- Operating
- Production
- Projects
- others

Planning
- Data collection
- Processing
- Analysis
- Quality Control/Validation
- Data Base
- KPI

Ministry of Petroleum
Others
IMPORTANT OF JODI

- Freely available database
- Global overview of historical and recent trends in the oil & gas market
- Provides country-level supply-demand data to assist in decision making to take the better choice
- Helps to forecast most likely source and destination LNG
THE IMPORTANCE OF DATA FOR DECISION MAKERS

• Data consistency and continual growth enables decision makers to take decisions that lead to create new business opportunities, generate more revenue, predict future trends, optimize current operational efforts, and produce actionable insights.

• Better analysis make decision makers to take a decisive quick decisions in less time.
THANK YOU

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OBJECTIVES OF MARKET REGULATION

- Encouraging new investments
- Diversification of supply sources
- Introducing competition
- Fair market play
- Quality of Services
- Consumer Protection
DATA COLLECTION
CONTROL AND ASSESSMENT

- Collect data in standard (format, units, etc.) with the proper sequence to save time and effort
- Compare collected data with previous approved data, “last month” database, etc. This to ensure accuracy and eliminate any possible contradictions
- Analyze and cross check data among other reports
- Compare data after processing with approved Plans & Targets
- Justifications/ Corrections will be requested from reporting entities if necessary
- Save processed / approved data to the Data Base