SHAPING THE NATURAL GAS MARKET OF CYPRUS

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1. Current Status
2. Gas Imports – Previous Attempts/Processes
3. Latest Developments
   1. LNG Supply Options Study
   2. CEF Synergy – “CYnergy” Project
   3. New LNG Project (LNG Procurement and Infrastructure Development)
   4. NG Pipeline Network
4. Way Forward
1. CURRENT STATUS

- Cyprus has an energy isolated market (no interconnected capacity)
- High Dependency on Liquid Fuels (Power Gen)
- 3 Main Conventional Power Stations Owned by EAC, Total 1478MW
- Dual fuel (LF & NG) generation capacity 830MW at VPS
- Increasing Renewable Penetration (Solar, Wind)
- NG Market Regulation under CERA
- Cyprus Law - Harmonised with EU Directive 2009/73/EC
- Derogations may apply due to Isolation & Emergent Market
- Possible monopolistic operation for early years
2. GAS IMPORTS – PREVIOUS ATTEMPTS/PROCESSES

• 3 Previous Attempts
• The first was for a Long Term LNG Supply & On-Shore Regas Terminal
• Following Leviathan And Aphrodite Discoveries, 2 additional Interim Gas Supply Processes for the period up to indigenous gas arrival
• The unsuccessful conclusion reasons of the processes were analysed, indicating the main issues that must be dealt with for the future
  – Duration
  – Quantities
  – High Demand in Flexibility
  – Prevailing market conditions at the time
3.1. DEFA’s LNG Supply Options Study

- Target: NG supply by 2020, due to environmental constraints relating to emission limits
- DEFA analysed and compared all options for LNG Supply
- Optimum way forward (accounting for cost, time, flexibility) is through floating storage and regas facilities
3.2. CEF Synergy – “CYnergy” Project

- Holistic Approach for NG Market development and penetration of use of NG to Energy and Transport sectors
- Total Proposal Cost ≈€7,5m – **CEF EU Co-financing** ≈€4,5m (60%)
- Implementation of CYnergy proposal is aligned with NG supply target date – by 2020
- All CYnergy resources are mobilised aiming for a new CEF Energy Proposal for PCI “CyprusGas2EU” and the timely completion of the project
3.3. New LNG Project (LNG Procurement and Infrastructure Development)

- 2 Separate processes
  - LNG Procurement, Public Tender to be announced by Q1 2018
  - Infrastructure Development, Public Tender to be announced by Q1-Q2 2018

- LNG Project infrastructure requirements will be included in the new CEF Energy Call proposal submission by MECIT, MTCW, DEFA, CPA aiming to secure a grant for the PCI CyprusGas2EU
3.3. New LNG Project
3.4. NG Pipeline Network

– DEFA appointed GNFe for Engineering Consultancy Services for the NG Pipeline Network Development in 2010

– Feasibility Study completed in 2012
  • Revised in 2016-2017
3.4. NG Pipeline Network

- Various Studies are included in the Feasibility Study
  - Gas Demand
  - Route Selection
  - Network Sizing
  - Preliminary EIA & Risk Assessment
  - Economic & Financial Analysis
3.4. NG Pipeline Network

- Phase A’ – Power Gen
- Route Selection
3.4. NG Pipeline Network

- Route: Selected trying to minimise impact and avoiding all environmental/social/other constraints
- Indicative example: follows highway passing through town planning zones (avoiding housing/touristic zones, etc.)
3.4. NG Pipeline Network – Preliminary Estimated Cost

– €10m. Grant EU Co-Financed under EEPR

<table>
<thead>
<tr>
<th>PROJECT</th>
<th>EPC COSTS (Euro)</th>
<th>OTHER CAPEX (Euro)</th>
<th>TOTAL (Euro)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VASILIKOS NG Pipeline (+ Buffer)</td>
<td>31,319,327</td>
<td>6,361,585</td>
<td>37,680,912</td>
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<td>MONI NG Pipeline</td>
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<td>23,729,229</td>
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<tr>
<td>TOTAL NETWORK INVESTMENT</td>
<td>60,809,914</td>
<td>12,343,525</td>
<td>73,153,439</td>
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</tbody>
</table>
4. WAY FORWARD

- LNG Procurement, Public Tender to be announced by Q1 2018
- Infrastructure Development, Public Tender to be announced by Q1-Q2 2018
- Open Season Process in early 2018, for the determination of demand by all users, committed quantities of NG and spatial allocation users
- FEED for the Pipeline Network (following completion of Open Season and generation expansion plan study of EAC)
Thank You!

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