



ASSET DEVELOPMENT DIVISION

JANUARY 2022



Following the Letter RAE 21.12.2021, based on Ref. 5, "Budget Increase Analysis"- General Notes, **Note 5**, the justification for the requested change of budget, is based on the following reasons for each Project(Budget Rev. for West Macedonia has already been submitted):

#### **1. HIGH PRESSURE PIPELINE TO PATRA:**

COST IMPACT FACTORS	IMPACT FACTORS ANALYSIS	EXTRA COST(€)
Design Finalization and Maturing	• Expected contingencies due to maturity of Project	2.5M (3% Budget Increase)
Escalation of raw material prices/logistics - Steel pipes & LLIs (hot bends, valves)/logistic cost	Initial budget <b>22M</b> →Revised budget <b>28M</b>	6M (7% Budget Increase)
Additional requirements for <b>100 % H<sub>2</sub></b> compatibility (materials & construction)	<ul> <li>New material requirements</li> <li>Increased safety factors incorporated in aspects of the design</li> <li>More strict Construction requirements</li> </ul>	<b>4.5M</b> (5.29% Budget Increase)
2. TOTAL INCREASE COST		13M (15.29% Total Budget Increase)



#### 2. PIPELINE NEA MESIMVRIA – EVZONON / GEVGELIJA AND M STATION

COST IMPACT FACTORS	IMPACT FACTORS ANALYSIS	EXTRA COST(€)
Small Length Increase due to rerouting ~4Km	• 17€/inch.m	2M (4% Budget Increase)
Escalation of raw material prices/logistics - Steel pipes & LLIs (hot bends, valves)/logistic cost	<ul> <li>Initial budget 21M→Revised budget 30M</li> </ul>	9M (17,5% Budget increase)
Additional requirements for <b>100 % H<sub>2</sub></b> compatibility (materials & construction)	<ul> <li>New material requirements</li> <li>Increased safety factors incorporated in aspects of the design</li> <li>More strict Construction requirements</li> </ul>	4.5M (8,8% Budget Increase)
2. TOTAL INCREASE COST		15.5M (30,3% Total Budget Increase)

#### **3. COMPRESSOR STATION AMPELIA**

COST IMPACT FACTORS	IMPACT FACTORS ANALYSIS	EXTRA COST(€)
Technical Support during Implementation	<ul> <li>Technical Support services</li> <li>Technical Services for handling 10% Hydrogen blended with Natural gas (NG)</li> </ul>	<b>3M</b> (4% Budget Increase)
General Contingencies - Additional requirements for <b>10</b> % H2 compatibility (materials & construction)	<ul> <li>New material requirements</li> <li>Increased safety factors incorporated in aspects of the design</li> <li>More strict Construction requirements</li> </ul>	5M (8% Budget Increase)
3. TOTAL INCREASE COST		8M (12% Total Budget Increase)



#### 4. BOOSTER COMPRESSOR NEA MESSIMVRIA

COST IMPACT FACTORS	IMPACT FACTORS ANALYSIS	EXTRA COST (€)
Design Finalization and Maturing	• Relocation of Station(update of Basic Design); land acquisition, extra piping to interconnection point, valves etc.	0,9M (3% Budget Increase)
Escalation of raw material prices/logistics	<ul> <li>Initial Budget 18M – Current</li> <li>Budget 21M</li> </ul>	<b>3M</b> (10% Budget Increase)
Additional requirements for <b>10 % H<sub>2</sub></b> compatibility	<ul> <li>Compressor station components</li> <li>Increase wall thickness</li> <li>Additional valves requirements</li> <li>Valves to be electrically operated</li> </ul>	<b>3M</b> (10% Budget Increase)
4.TOTAL INCRE	ASE COST	6,9M (23% Total Budget Increase)



### **5. TRACK LOADING PILOT (first Station)**

COST IMPACT FACTORS	IMPACT FACTORS ANALYSIS	EXTRA COST (€)
Construction contingencies and related infrastructures	Access Roads Almyra's Port Upgrade	<ul> <li>0,2M (3,08% Budget Increase)</li> <li>0,8M (12,3% BudgetIncrease)</li> </ul>
5.TOTAL INCREASE COST		1,0M (15,38%Total Budget Increase)





#### 6. MR STATIONS

M/R STATIONS	COST IMPACT ANALYSIS	EXTRA COST(€)
M/R KAVALA	<ul> <li>Escalation of raw material prices/logistics - Steel pipes &amp; LLIs (hot bends, valves)/logistic cost.</li> </ul>	<b>0,3M€</b> (2,2% Budget Increase)
M/R PORIA	<ul> <li>Escalation of raw material prices/logistics - Steel pipes &amp; LLIs (hot bends, valves)/logistic cost;</li> <li>Additional requirements for 100 % H<sub>2</sub> compatibility (materials &amp; construction).</li> </ul>	<b>0,2M€ (</b> 1,13% Budget Increase <b>)</b>
M/R LIVADIA	• Escalation of raw material prices/logistics - Steel pipes & LLIs (hot bends, valves)/logistic cost.	<b>0,3M€</b> (1,8 Budget Increase)
M/R DRIMOS	New M/R Station to TYPD 2022-2031.	<b>2,8M€</b> (15,8% Budget Increase)
M/R KORINTHOS	<ul> <li>Escalation of raw material prices/logistics - Steel pipes &amp; LLIs (hot bends, valves)/logistic cost.</li> </ul>	<b>0,2M€ 9</b> (1,13% Budget Increase)
M/R ARGOS	• Escalation of raw material prices/logistics - Steel pipes & LLIs (hot bends, valves)/logistic cost.	<b>0,1€</b> (0,56% Budget Increase)
M/R TRIPOLIS	<ul> <li>Escalation of raw material prices/logistics - Steel pipes &amp; LLIs (hot bends, valves)/logistic cost.</li> </ul>	<b>0,3€</b> (1,7% Budget Increase)
	6. TOTAL INCREASE COST	4,3M (24,4% Total Budget Increase)



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