

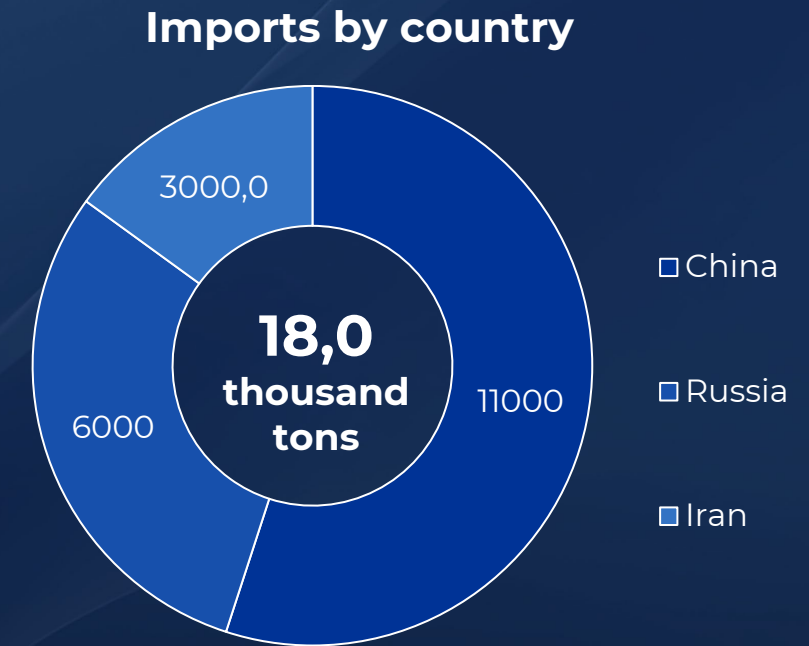
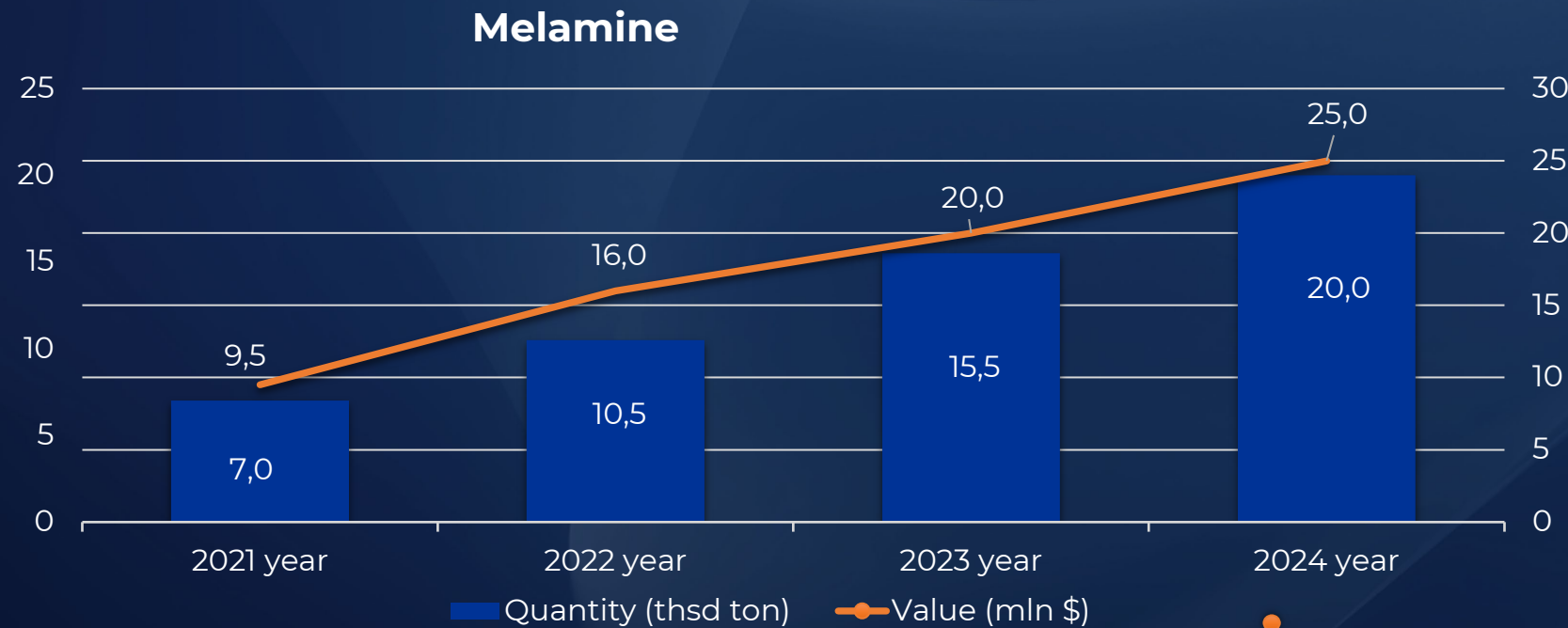


Ministry of Investments,  
Industry and Trade of the Republic  
of Uzbekistan

# **Investment proposal: Navoi Melamine Complex**



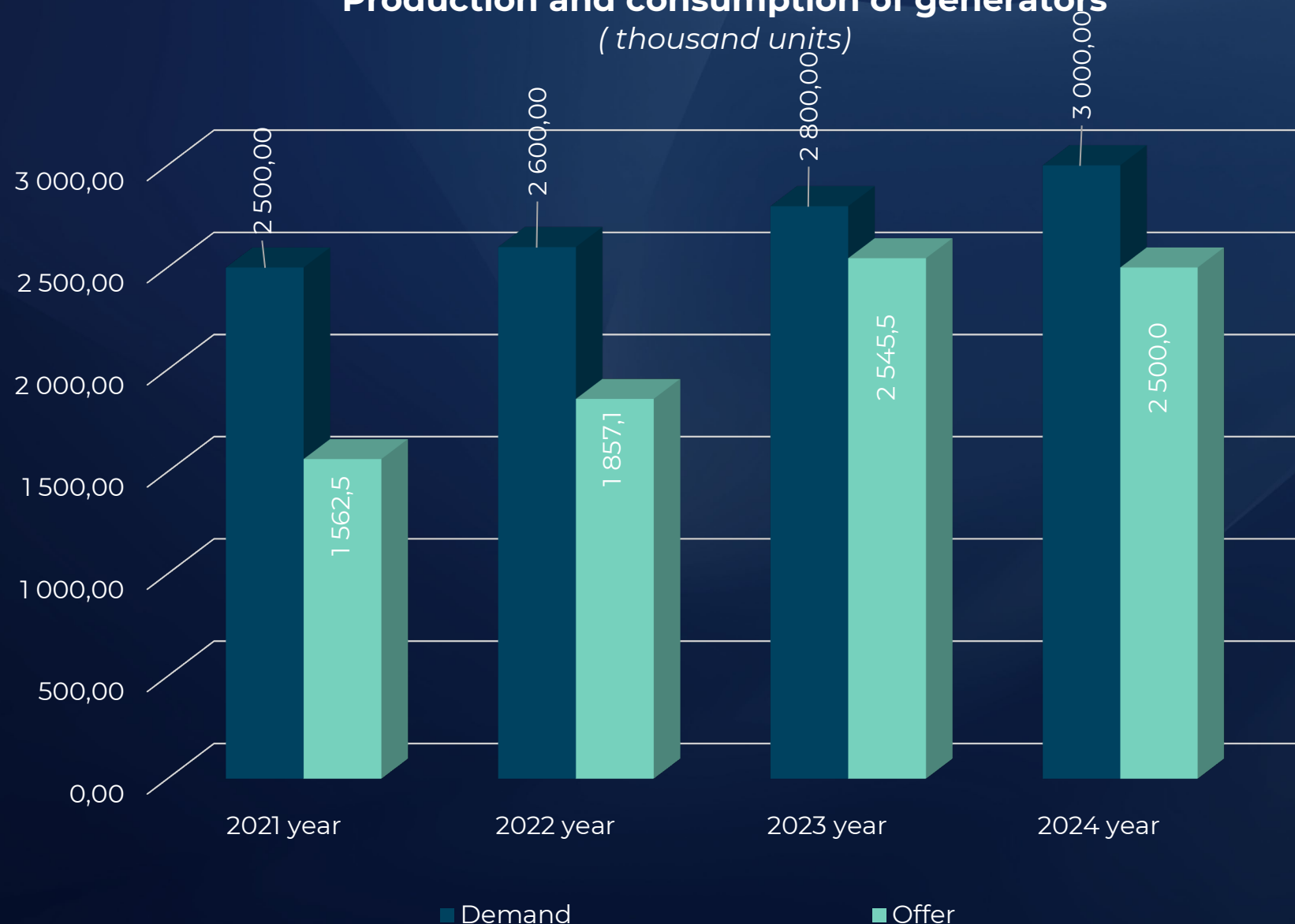
# Melamine Import Dynamics to Uzbekistan (2021-2024)



"Uzbekistan's construction and furniture industry is growing at a rate of more than 20% per year. As of 2024, the country will cover 100% of its annual melamine needs (about 20,000 tons) through imports. The lack of local production and high logistics costs (15-20% of the cost of production) make the project to build a Melamine plant in Navoi a **high-profit (High ROI) and guaranteed market business.**"

# Melamine market analysis

**Production and consumption of generators**  
( thousand units)



## Import trends

"Uzbekistan's construction and furniture industry is growing at a rate of more than 20% per year. As of 2024, the country will cover 100% of its annual melamine needs (about 20,000 tons) through imports. The lack of local production and high logistics costs (15-20% of the cost of production) make the project to build a Melamine plant in Navoi a high-profit (High ROI) and guaranteed market business."

Although prices fluctuate in the world, the main cost of melamine depends on Gas and Electricity. Gas is expensive in Europe. Coal is used in China (environmental taxes are increasing). In Uzbekistan: Gas and energy are relatively cheap and stable. This means that even if prices fall on the world market, the Navoi plant will remain profitable, but European plants will close at a loss .

# Melamine production

## Economic and social impact:

1. Sharp Growth Trend (CAGR) Import volume in the last 4 years increased almost 3 times (300%). Conclusion: The market satiety no, on the contrary opened Your 40,000-ton your factory to work until it falls (2-3 years), internal demand itself for 30,000 tons arrived to remain possible.
2. Currency out departureUzbekistan every year just "white for" powder "an average of 20-25 million dollars in foreign currency China, Russia and To Iran remove is sending. Benefit: Government local working issuer support import duties for increase or to you tax benefits to give guaranteed.
3. Price Playability (Volatility) Table attention give: prices in 2022 raised, then Problem: Uzbek furniture makers (consumers) world in the market for the price and to logistics dependent. On the way wagons caught if it remains, factories stop remains. Yours your solution: "Navoi" Melamine factory stable, unchanging the price and that's it of the day in itself delivery to give offer Logistics cost to "0" equal will be .

## Project description:

- The project is the only and first melamine production facility in the Central Asian region, and aims to transform Uzbekistan from an "importing" country into a regional "export hub". The plant will be located on the territory of Navoiyazot JSC (or directly adjacent to it) and will be integrated with existing raw materials and infrastructure.

## Objectives:

- **Import substitution click:** Uzbekistan furniture and construction industry \$25 million per year quality to import check to put;
- **Export Capacity:** Central In the Asian (Kazakhstan, Kyrgyzstan, Tajikistan) market the gap filling and China/Russia products logistic advantage on account of from the market squeeze release;
- **Value chain Extension:** Natural gas just raw material as not, maybe high additional valuable ready as product (Gas  $\rightarrow$  \$ Urea  $\rightarrow$  \$ Melamine) sell.

## Economic indicators:



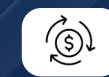
**Funding:** 100 million US dollars



**Area:** 4 hectares



**Revenue:** \$ 56,2 million/year



**Return on Investment (ROI):** 41,2%

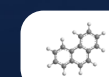


**NPV:** ~ \$ 54,2 million (5 years)



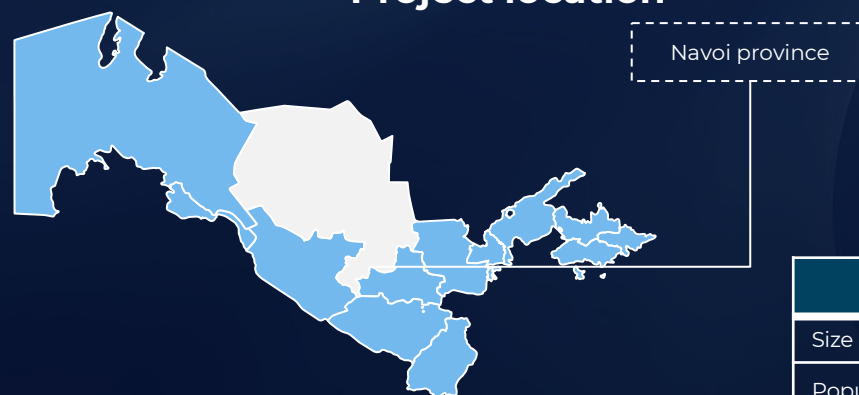
**IRR:** ~ 36 %

## Production indicators:



**Melamine:** 40 000 ton

## Project location



Navoi province	
Size	11 111 km <sup>2</sup>
Population	1.1 million





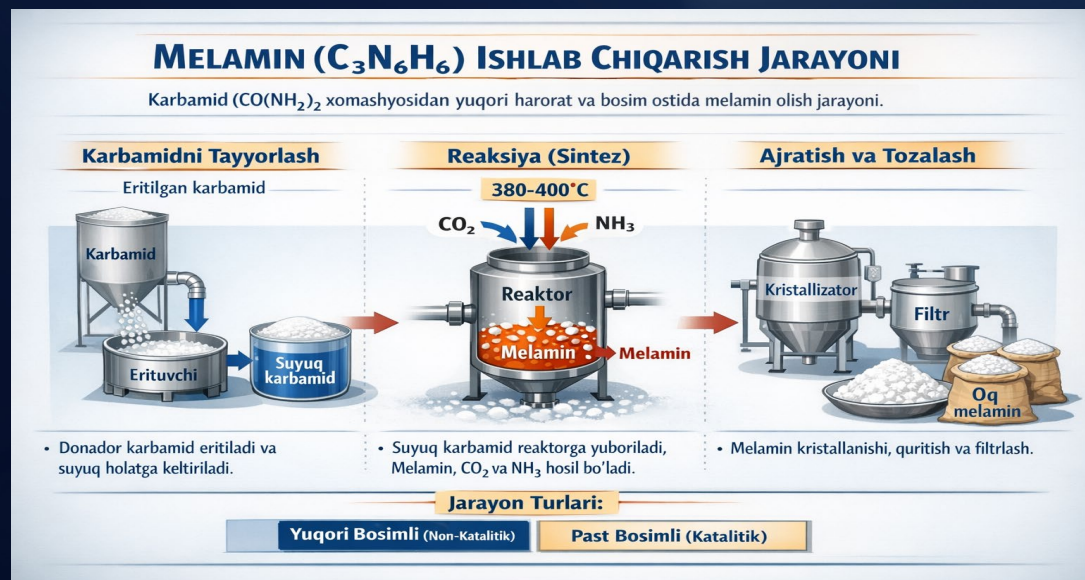
# Recycling chain and product profitability

## Main production stages

1. Urea melting and preparation.
2. Reactor (melamine synthesis).
3. Off-gases **NH3/CO2** what separation and again transform (integration).
4. Raw melamine solution/solvent in the environment cleaning.
5. Crystallization.
6. Filtration/centrifuge.
7. Drying.
8. Sorting, packaging, warehousing.
9. Laboratory QC/ISO systems.

## Technology and features

	Technology	Features
1		A common route in industry: production from urea; reaction equation above.
2		Integration: Returning NH3/CO2 streams from the melamine process to the urea/ammonia chain has a positive impact on the economy.



## TECHNOLOGY & CHARACTERISTICS

Common route in industry: production from urea:



## Integration Benefits

Recycling NH<sub>3</sub>/CO<sub>2</sub> streams from the melamine process into the urea/ammonia chain has a positive impact on the economy:



Cost reduction



Resource reuse



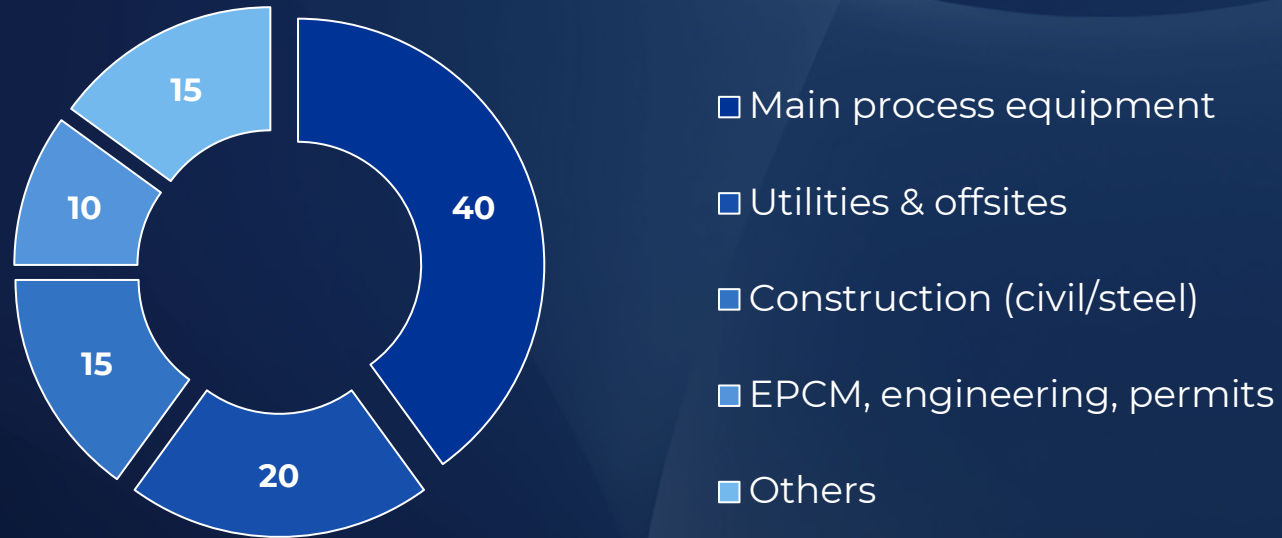
Environmental efficiency



## Project costs

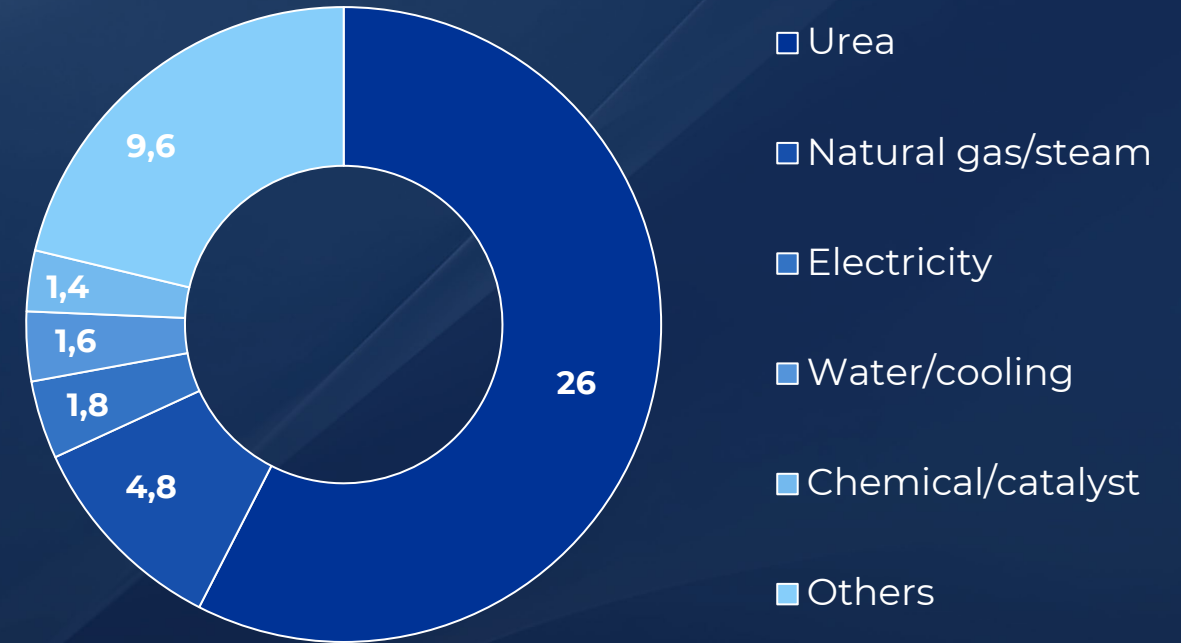
### Initial investment (CAPEX) (million dollars)

Total capital expenditure: **\$ 100,0 million**



### Operating expenses (OPEX) (million dollars)

Total OPEX: **\$ 46,8 million**



This financial review outlines the comprehensive cost structure and high profitability of the proposed generator manufacturing project. The breakdown includes initial capital investment (CAPEX) and annual operating expenses (OPEX), as well as projected revenue and profit projections.

Product	Capacity	Quantity (million US dollars)
Melamine	40 thousand ton	68.0
<b>TOTAL</b>		<b>68.0</b>

**Annual EBITDA:**  
**=\$68,0 mln-\$46,8mln=\$21,2 mln**

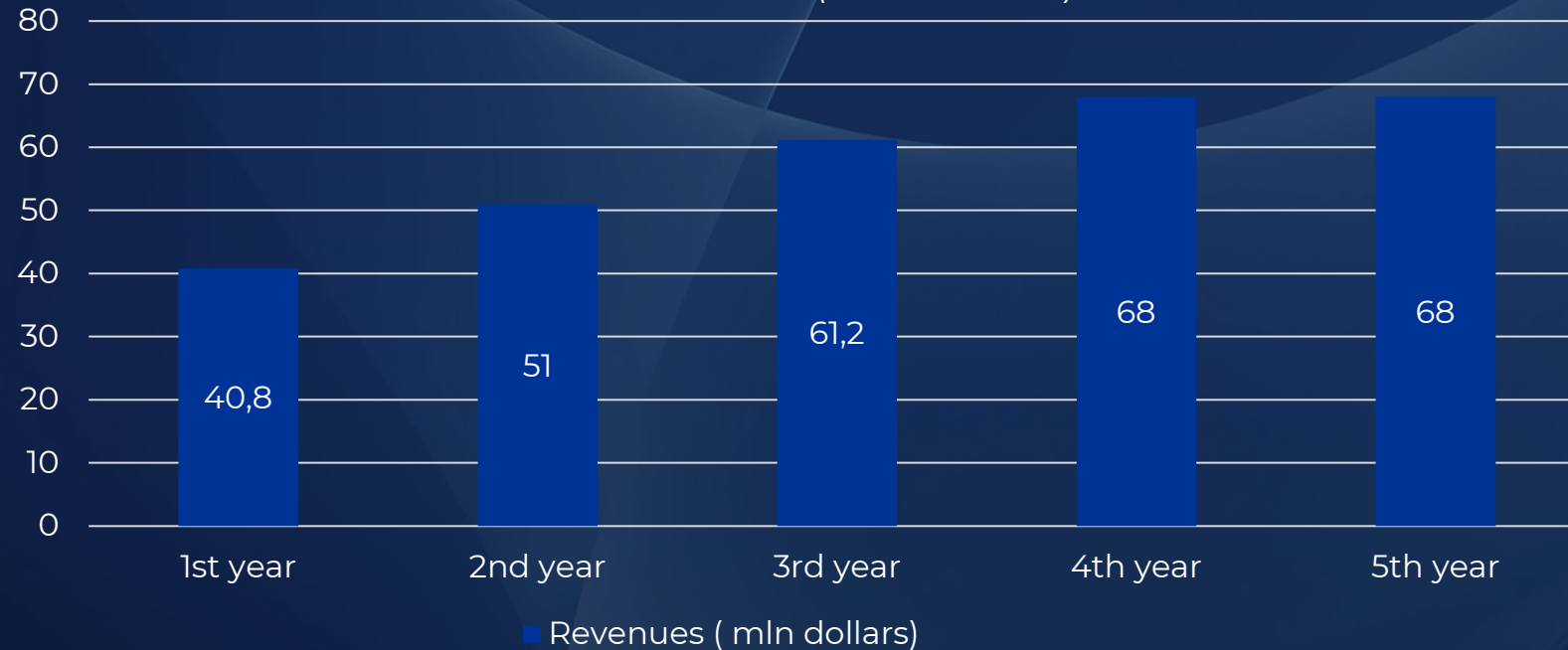
The project's high profitability forecast is supported by efficient operations and high market demand, making it a very attractive investment.



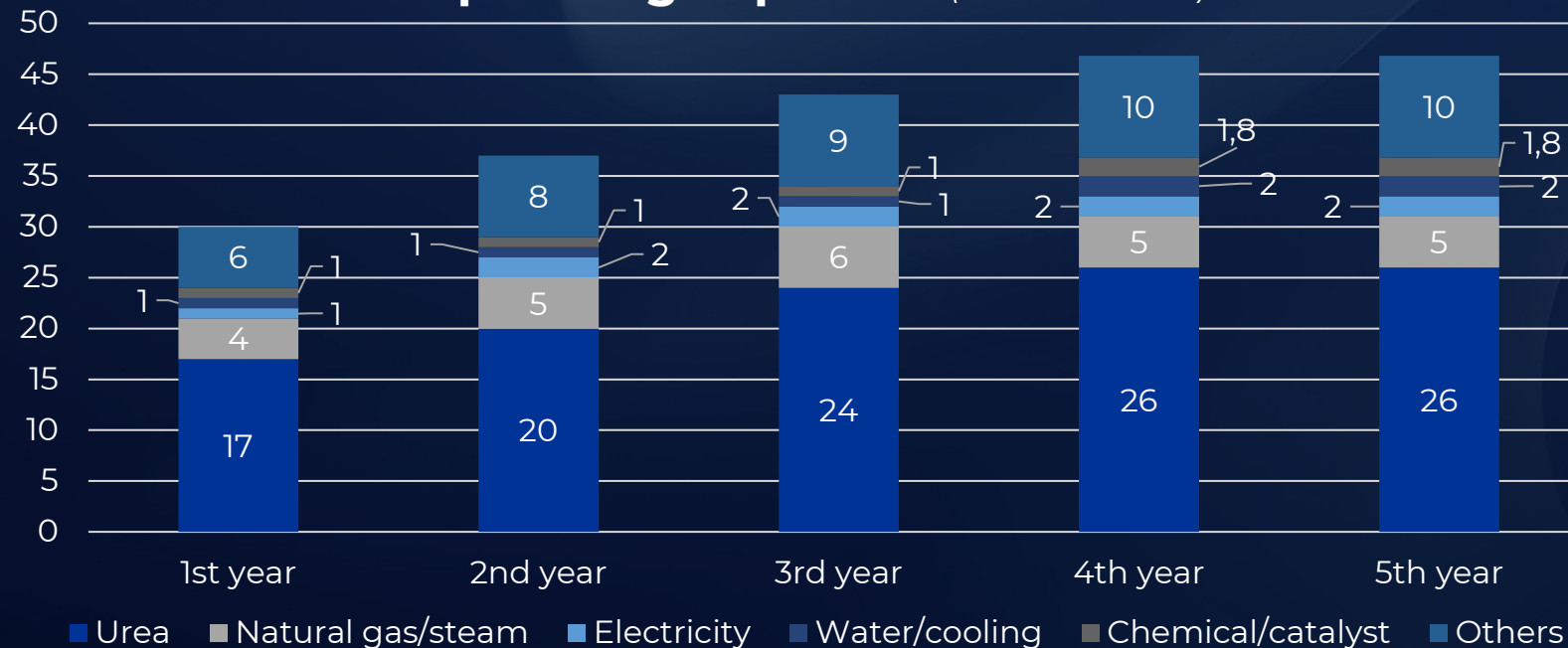
# Financial indicators

(5-year forecast)

## Revenues (million dollars)



## Operating expenses (million dollars)



### Total 5-year cash flow:

\$203,6 mln after full capital expenditure

**NPV (12%) NPV (with terminal value)**  
≈+\$47,4 mln

**NPV (without terminal value)**≈-\$54,0 mln;

**IRR (with terminal value) ≈ 22%;**

**Payback period (PP):** PP≈8.3 years  
(baseline scenario, undiscounted).

### Profitability Index (PI):

$PI = (NPV + CAPEX) / CAPEX = (47,4 + 100) / 100 \approx 1,47$

### Return on Investment (ROI):

Net profit ≈ \$9,5 million/year

EBITDA ≈ \$21,2 million/year