



Investment proposal: Production of window and facade glass products

Production of window and facade glass products

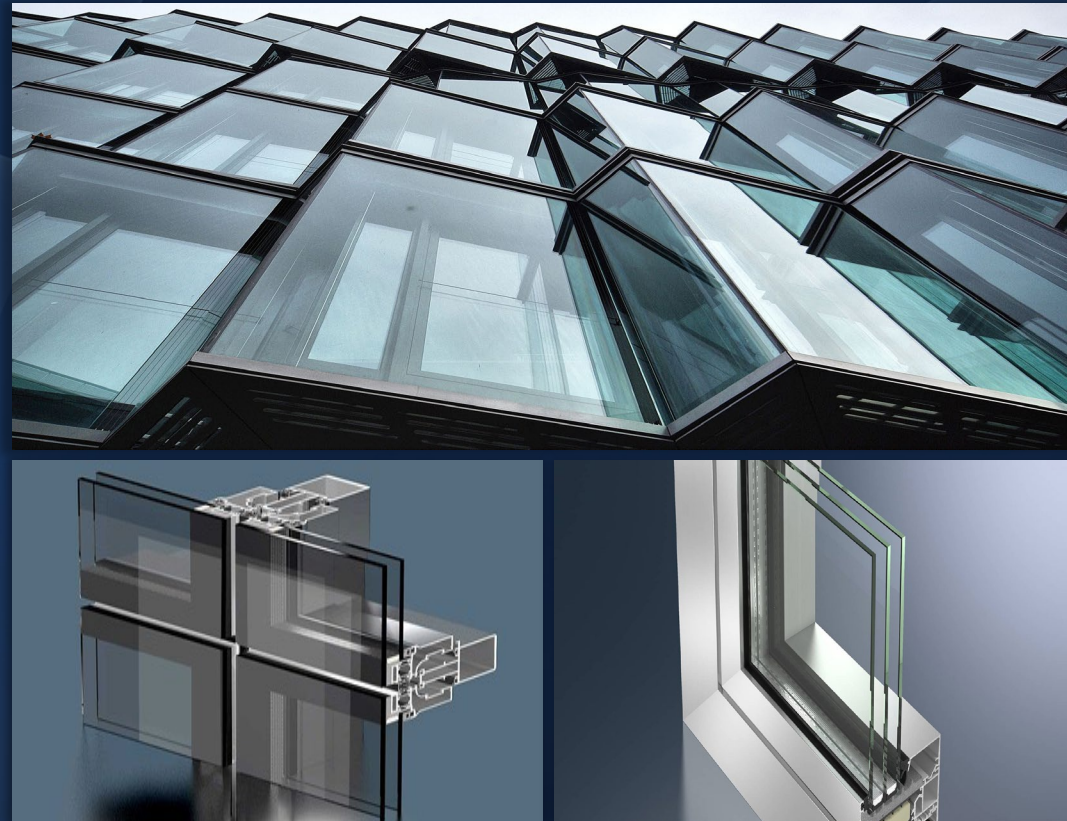
Economic impact:

- Reduces glass imports (import substitution).
- ~\$30m annual export potential.
- Boosts construction & automotive industries.
- Supports local suppliers & SMEs in raw materials & logistics.
- Promotes technology transfer and modern manufacturing practices.
- Significant tax contributions.

Social impact:

- Creates 250-270 direct jobs.
- Skilled workforce training.
- Supports modern & energy-efficient housing.
- Local community development.

Location of the project



Project description:

1. Establishment of a modern high-tech float glass plant in Uzbekistan.
2. Production of window, facade, laminated, and insulating glass for construction and automotive sectors.
3. Export-oriented strategy targeting CIS, Central Asia, and Middle East markets.
4. Implementation of energy-efficient, eco-friendly, and automated manufacturing technologies.
5. Creation of local employment, skills development, and R&D capabilities to support industrial growth.

Economic indicators:

-  **Financing:** 50 mln USD
-  **Area:** 10 hectares
-  **Revenue:** \$68,2 mln/year
-  **PP:** 5 years
-  **NPV:** ~ \$75 mln
-  **IRR:** ~20 %

Production indicators:

-  **Float glass (window glass):** 70,000 tons
-  **Tempered facade glass:** 24,000 tons/year
-  **Laminated safety glass:** 12,000 tons/year
-  **Insulating double-glazed units:** 8,000 tons/year
-  **Total capacity:** 114,000 tons/year

Window and facade glass products processing chain & product yield

Key production stages

1. Land acquisition & site development

- Allocation of ~10 hectares of land
- Site preparation, utilities connection (gas, power, water, road access)

2. Engineering, design & permits

- Architectural & engineering design of plant and infrastructure
- Environmental and safety permits
- Technology licensing and supplier selection

3. Construction & installation

- Civil works, buildings, storage & logistics centers
- Installation of float glass line, tempering, lamination, and IGU lines
- Utility systems: power substation, water treatment, gas pipelines

4. Testing & commissioning

- Trial production runs and quality certification
- Adjustment of production processes and staff training
- Compliance with international standards (ISO, CE, ASTM)

Product yield breakdown

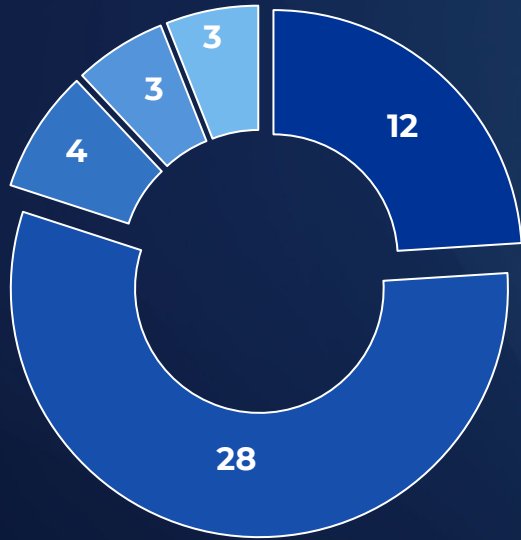
	Product segment	Share (%)	Annual volume (tons)	Example products
1	Float glass	61%	70 000 tons	Windows, interior partitions, mirrors
2	Tempered facade glass	21%	24 000 tons	High-rise building facades, curtain walls, skylights
3	Laminated safety glass	11%	12 000 tons	Safety glazing, automotive windshields, balconies
4	Insulating Glass Units (IGU)	7%	8 000 tons	Double-glazed windows, energy-efficient building panels)
	Total	100%	114 000 tons	



Project expenses

Initial Investment (CAPEX) (mln dollar)

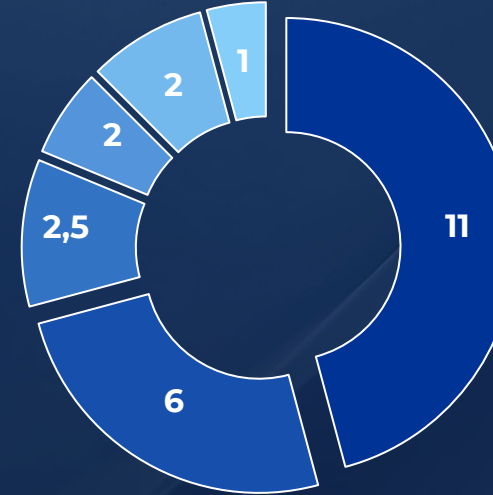
Total CAPEX: **\$50 mln**



- Civil works & infrastructure:
- Technology & production lines:
- Logistics & storage:
- IT & ERP systems:
- Contingency:

Operating Costs (OPEX) (mln dollar)

Total OPEX: **\$24 mln**



- Raw materials (silica sand, soda ash, limestone, additives):
- Energy (natural gas, electricity):
- Labor & salaries:
- Maintenance & spare parts:
- Logistics & distribution:
- Admin & other overheads:

This financial overview outlines a comprehensive cost structure and strong profitability of the proposed window and facade glass products manufacturing project. The breakdown includes both initial capital investment (CAPEX) and annual operating costs (OPEX), alongside projected revenue and profit estimates.

Product	Volume (tons/year)	Price(USD/t)	Revenue (\$)
Float glass	70 000	480	33,6
Tempered facade glass	24 000	650	15,6
Laminated safety glass	12 000	850	10,2
Insulating Glass Units (IGU)	8 000	1100	8,8
TOTAL	114 000 tons	-	68,2 mln (\$)

Annual EBITDA:

$$= \$68,2 \text{ mln} - \$24 \text{ mln} - 0,2 =$$

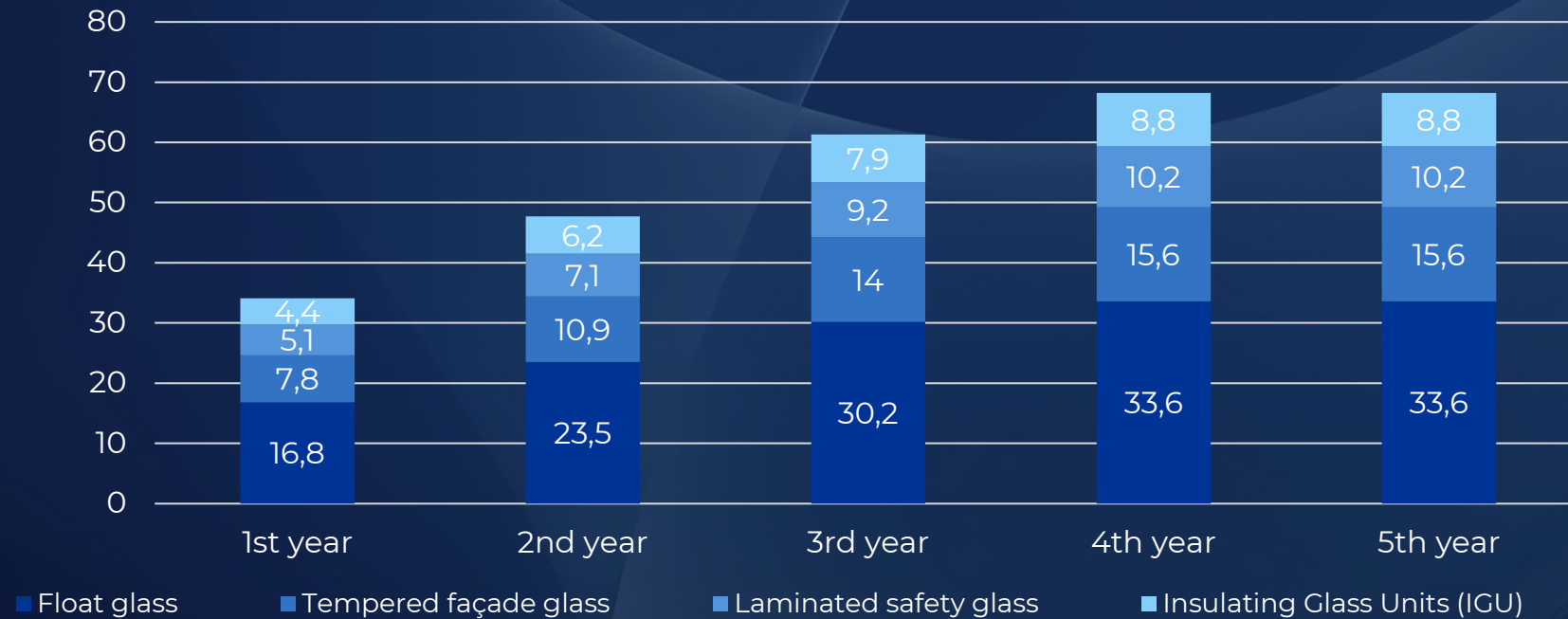
\$44 mln

The project's strong profitability forecast is underpinned by efficient operations and high market demand, positioning it as a highly attractive investment.

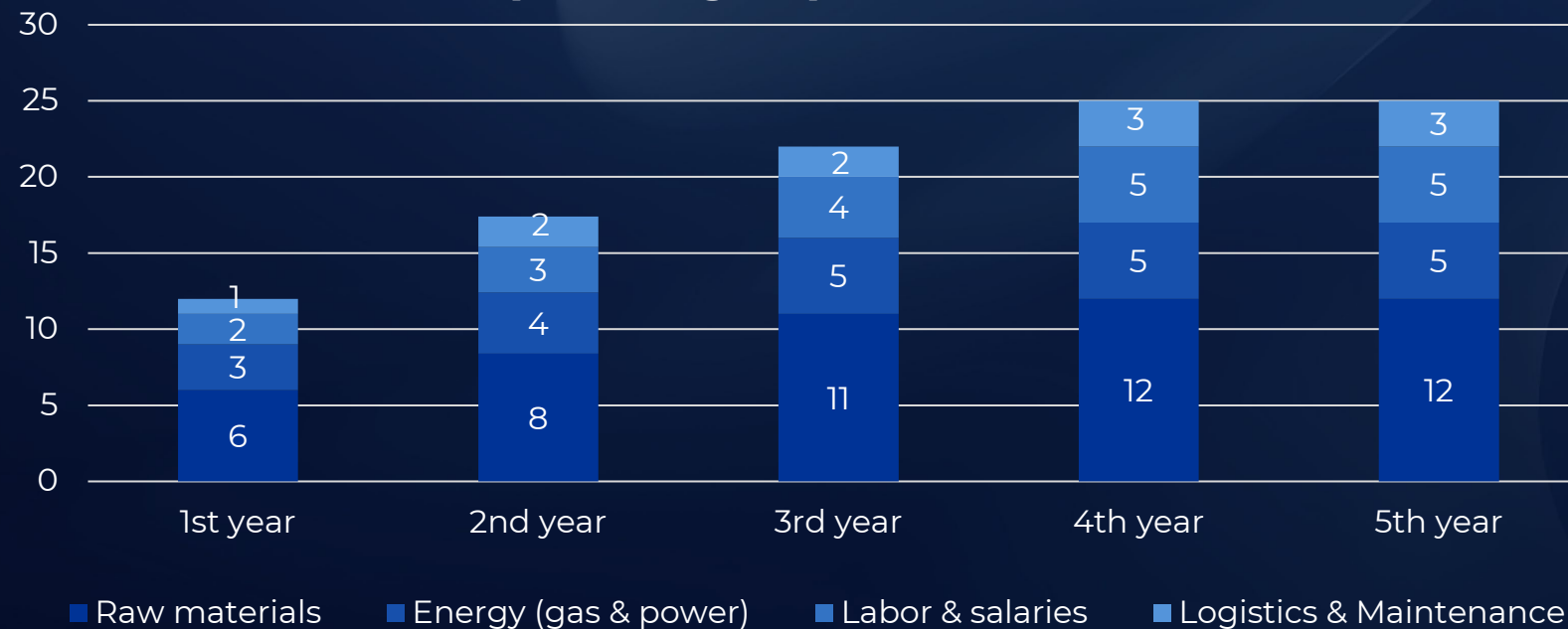
Financial indicators

(5-year projection)

Revenues (mln dollars)



Operating expenses (mln dollars)



Breakeven: Achieved in year 2

Total 5-year cash flow: \$181,1M

EBITDA growth: ~18,9% CAGR, reaching \$44,2M by Year 5.

NPV (10% discount rate):

NPV= **\$75 mln** (Highly favorable!)

IRR (Internal rate of return): **≈ 20%**

Payback period (PP):

= 5 years

Profitability index (PI):

$= (\text{NPV} + \text{CAPEX}) / \text{CAPEX} = (\$75 + \$50) / \$50 = 2,5$