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File No.: VIS (2024-25)-PL147-123-162

Dated: 29.06.2024

# TECHNO-ECONOMIC VIABILITY STUDY REPORT

OF

## ALUMINIUM ROLLING PLANT

(33,600 MTPA)

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VALUERS & TECHNO ENGINEERING CONSULTANTS (P) LTD.

SETUP BY

**M/S MAA VINDHYVASINI FOILS LIMITED**

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- Techno Economic Viability Consultants (TEV)
- Agency for Specialized Account Monitoring (ASM)
- Project Techno-Financial Advisors
- Chartered Engineers
- Industry/ Trade Rehabilitation Consultants
- NPA Management
- Panel Valuer & Techno Economic Consultants for PSU Banks

REPORT PREPARED FOR

**SBI SME BRANCH, PARTAPUR - 250103**

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# TECHNO-ECONOMIC VIABILITY REPORT

## M/S MAA VINDHYVASINI FOILS LIMITED

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# TECHNO-ECONOMIC VIABILITY REPORT

## M/S MAA VINDHYVASINI FOILS LIMITED

### PART A

### REPORT SUMMARY

S. No.	PARTICULAR	DESCRIPTION
1.	Name of the Company:	M/s Maa Vindhyvasini Foils Limited
2.	Registered Address:	6/162 Rajnagar, Ghaziabad, Uttar Pradesh - 201001
3.	Project Name	Aluminium Rolling Plant
4.	Project Location:	Khasra No: 138, Village: Susanda, Prangana: Mangalore, Tehsil: Roorkee, Haridwar, Uttarakhand - 247665
5.	Project Type:	Aluminium Rolling Plant
6.	Project Industry:	Aluminium and Aluminium Products
7.	Product Type / Deliverables:	Aluminum Foil and Sheet
8.	Report Prepared for Organization:	State Bank of India (SBI), SME Branch, Paratpur, Meerut- 250103
9.	TEV Consultant Firm:	M/s. R.K Associates Valuers & Techno Engineering Consultants (P) Ltd.
10.	Report type:	Techno-Economic Viability Report
11.	Purpose of the Report:	To assess Technical & Economic Viability for the purpose of seeking external financial assistance to start a green field Project.
12.	Scope of the Report:	To assess, evaluate & comment on Technical, Economical & Commercial Viability of the Project as per data information provided by the client, independent Industry research and data/ information available on public domain.



13.	Date of Report:	29 <sup>th</sup> June, 2024												
14.	Documents referred for the Project:	<div><div>A. PROJECT INITIATION DOCUMENTS:<ol style="list-style-type: none"><li>1. Project Report</li><li>2. Financial Projections of the Project</li><li>3. Project proposed Schedule</li><li>4. Statutory Approval Details</li><li>5. Interior Layout Plan</li></ol></div><div>B. PROCUREMENT DOCUMENTS:<ol style="list-style-type: none"><li>1. List of Plant &amp; Machinery along with acquisition costs for the same</li><li>2. Process Flow Chart</li><li>3. Sanction/proposed map of the site</li><li>4. Sale deed of the Land</li></ol></div><div>C. STATUTORY APPROVALS, LICENCES &amp; NOCs<ol style="list-style-type: none"><li>a. In-Principle Project Approval from State/District Nodal Agency</li><li>b. NOC for Land conversion to Industrial/Non agriculture</li><li>c. Building and civil works Plan Sanction Approval</li><li>d. Consent to Establish</li></ol></div></div>												
15.	Means of Finance:	Equity & Debt (D/E Ratio 3.18)												
16.	Key Financial Indicators:	<table><tr><th>Key Indicators</th><th>Value</th></tr><tr><td>Average DSCR</td><td>3.52</td></tr><tr><td>Average EBITDA Margin</td><td>3.70%</td></tr><tr><td>Avg. PAT Margin</td><td>1.82%</td></tr><tr><td>NPV &amp; IRR</td><td>INR 72.84 Cr. &amp; 36.45%</td></tr><tr><td>Payback Period</td><td>4.20 years</td></tr></table>	Key Indicators	Value	Average DSCR	3.52	Average EBITDA Margin	3.70%	Avg. PAT Margin	1.82%	NPV & IRR	INR 72.84 Cr. & 36.45%	Payback Period	4.20 years
Key Indicators	Value													
Average DSCR	3.52													
Average EBITDA Margin	3.70%													
Avg. PAT Margin	1.82%													
NPV & IRR	INR 72.84 Cr. & 36.45%													
Payback Period	4.20 years													

**Note:** Above financial indicators are based on the financial projections of the proposed project provided by the firm and assessment and analysis of the same done by us.

*(Handwritten signature and circular stamp of R.K. Associates & Techno Engineering Consultants Pvt. Ltd.)*



**PART B**

**INTRODUCTION**

**1. ABOUT THE REPORT:**

This is a Techno-Economic Viability Study Report of the proposed Aluminium Rolling Plant (33,600 MTPA) at Khasra No: 138, Village: Susanda, Prangana: Mangalore, Tehsil: Roorkee, Haridwar, Uttarakhand - 247665, setup by M/s Maa Vindhyavasini Foils Ltd.

**2. EXECUTIVE SUMMARY:**

M/s Maa Vindhyavasini Foils Ltd was incorporated on 25<sup>th</sup> May 2022 under the Company's Act, 2013 as per information available in public domain to carry on the business of as manufacturers, importers, exporters, and dealers in sheet metal (ferrous and non-ferrous) and sheet metal articles of all kinds in particular.

The promoters of the company are Mr. Parag Gupta, Mr. Akul Gupta, Mrs. Sima Gupta, Mrs. Anu Agrawal and Mr. Krishnanshu Agrawal.

M/s Maa Vindhyavasini Foils Ltd has proposed to set up this Greenfield project at Roorkee in Uttarakhand, for aluminium foil and sheet production. The Aluminium Rolling Plant is proposed to be setup with total investment of INR 4,184.54 Lakhs, which is proposed to be funded through promoter's equity of INR 1,000.00 lakhs, unsecured promoter loan of INR 1,004.54 lakhs and bank loan of INR 2,180.00 lakhs.

As per information provided by the client, plant was proposed to be commissioned in two phases and phase 1 loan is already sanctioned by bank of INR 6.80 Crores for production capacity of 1400 MT per month. Company has decided to commission the plant with higher capacity of 2800 MT per month and has requested bank to sanction additional INR 15 Crores for increased capacity.

As per the sale deed shared by the client/company, the promoters have purchased 1.3545 hectares (13,545 sq. m.) of land at Khasra No: 138, Village: Susanda, Prangana: Mangalore, Tehsil: Roorkee, Haridwar, Uttarakhand - 247665. Change of land use (CLU) has been approved by Collector/ District Magistrate, Haridwar on 02<sup>nd</sup> January 2023, for setting up the proposed Aluminium Rolling Plant.

As per data/information provided to us, the company has obtained some Statutory Approvals/NOC's such as NOC for Land conversion to Industrial/Non agriculture, Single





window clearance, Sanctioned Map approval, Consent to Establish etc. from the respective authorities (*Refer the section Statutory Approval in the later part of the report*).

During the site visit, we found that most of the civil works has been completed (only PCC flooring work pending in production area & paint work pending in labour rooms) and few items of plant and machinery have arrived at site (*Kindly refer the site pictures captured during the survey attached in the later section of the report*).

The plant needs about 4,000 Kw of power at full capacity to meet process energy requirement. Currently, the company is in the process to apply for increase in power load connection. Company has planned to achieve the C.O.D by 31<sup>st</sup> March 2025 and installed capacity would be 33,600 MTPA.

At present, the company is in discussion with bank to fund the project through a term loan of INR 2,180 lakhs. In this regard State Bank of India (SBI), SME Branch, Paratpur, Meerut has appointed R.K. associates to assess the Techno-Economic Viability of the proposed Aluminium Rolling Plant for producing Aluminum Foil and Sheet at Khasra No: 138, Village: Susanda, Prangana: Mangalore, Tehsil: Roorkee, Haridwar, Uttarakhand - 247665. The company plans to achieve the financial closure by July 2024 (expected).

3. **PURPOSE OF THE REPORT:** To assess Project's Technical and Financial Feasibility for lender's requirement.
4. **SCOPE OF THE REPORT:** To only assess, evaluate & comment on Technical & Financial Feasibility of the proposed Aluminium Rolling Mill being set up by M/s Maa Vindhyvasini Foils Limited as per the information provided by the Company.

**NOTES:**

- *Project status is taken as per the Site inspection carried out by our survey team.*
- *Scrutiny about the company, background check, and credibility, credit worthiness of the company or its promoters is out-of-scope of this report.*
- *Any verification of the documents/ information from originals/ source is out-of-scope of this report.*
- *This report is only an opinion in respect to Technical and Financial Feasibility of the project as per the future Projections provided by the firm and independent analysis done by us and doesn't contains any recommendations including taking decision on the loan or any other financial exposure.*

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- *This is not an audit activity of any kind. We have relied upon the data/ information shared by the company in good faith.*
- *Any review of the existing business of the promoters is out of scope of this report.*
- *Detailed cost estimation or detailed cost vetting is out of scope of the project.*
- *This is not a Detailed Project Report or a detailed design or architecture document. Land and property details mentioned in the report is only for illustration purpose as per the information provided to us by the client. The same doesn't tantamount for taking any responsibility regarding its legality, ownership and conforming to statutory norms.*

## 5. METHODOLOGY/ MODEL ADOPTED:

- Data/ Information collection.
- Review of Data/ Information collected related to TEV study.
- Independent review & assessment of technology used and financial projections provided by the company.
- Projections of Revenue, P&L, Balance Sheet, Working Capital Schedule, Depreciation Schedule, Loan Schedule as per the inputs given by the company and assessed by us.
- Calculation of key financial indicators and ratio analysis including DSCR, NPV & IRR and payback period of the project.
- Report compilation and Final conclusion.

## 6. DATA/ INFORMATION RECEIVED FROM: All the data/Information has been received from Mr. Mukesh Kumar and the required details about him shown in the below table:

Particulars	Details
Name	Mr. Mukesh Kumar
Company	M/s Daksh Professional Consulting Private Limited
Email Address	<a href="mailto:singhmukeshca@gmail.com">singhmukeshca@gmail.com</a>
Contact No.	+91-9811269314

## 7. DOCUMENTS / DATA REFFERED:

- Financial Projections of the proposed project up to FY 2032.
- Information memorandum and description of the company (DPR)
- Promoter's Details.
- Proposed Total project cost & Production flow chart
- Sale deed of the land, List of Plant and Machinery along with their acquisition cost.
- Quotations and Purchase Orders provided by the client/company.



# TECHNO-ECONOMIC VIABILITY REPORT

## M/S MAA VINDHYVASINI FOILS LIMITED

- g. Approved Site/Layout Plan.
- h. Manpower proposal.
- i. Certificates of Statutory approvals/NOC's.





**PART C**

**COMPANY PROFILE**

**1. COMPANY OVERVIEW:**

As per information available in public domain, M/s Maa Vindhyavasini Foils Limited was incorporated on 25<sup>th</sup> May 2022 under the Companies Act, 2013 as an unlisted company limited by shares. The company is incorporated with the objective to carry on the business as manufacturers, importers, exporters, and dealers in sheet metal (ferrous and non-ferrous) and sheet metal articles of all kinds in particular. Below table shows the incorporation details of the company:

Incorporation Details of the Company	
Particular	Description
Company / LLP Name	M/s Maa Vindhyavasini Foils Limited
Date of Incorporation	25 <sup>th</sup> May 2022
CIN	U27203UP2022PLC164759
Company Category	Unlisted Company limited by Share
Company Subcategory	Non-govt. company
ROC	Uttarakhand
Registered Address	R-6/162 Raj Nagar, Ghaziabad, Ghaziabad, Uttar Pradesh
Authorized Capital	INR 15,00,000/-
Paid up Capital	INR 15,00,000/-

**Source:** Ministry of Corporate Affairs (MCA) website

The promoters of the company are Mrs. Anu Agarwal (DIN: 00140180), Mr. Akul Gupta (DIN: 06602520), Mrs. Sima Gupta (DIN: 00401511), Mr. Parag Gupta (DIN: 00401765) and Mr. Krishnanshu Agrawal (DIN: 10575416) who are also appointed as Directors of the company. As per the data/information provided by the client, current shareholding pattern is as below:

Name of Shareholder	No. of shares held	% of holding
Mr. Parag Gupta	25,000	16.67%
Mr. Akul Gupta	25,000	16.67%
Mrs. Sima Gupta	25,000	16.67%
Ms. Megha Gupta	25,000	16.67%
Others	50,000	33.33%

**Source:** Data/ Information provided by the company





## 2. KEY PROMOTER'S/DIRECTORS PROFILE:

Mr. Parag Gupta, Mr. Akul Gupta, Mrs. Sima Gupta, Mrs. Anu Agarwal and Mr. Krishnanshu Agarwal are the promoters and directors of M/s Maa Vindhyavasini Foils Limited.

(A) Directors/Promoters Details					
Name	DIN	Age	Address	Designation	Contact Details
Mr. Parag Gupta	00401765	57	Not available	Managing Director	<a href="mailto:guptaparag1966@gmail.com">guptaparag1966@gmail.com</a>
Mr. Akul Gupta	06602520	32	Not available	Director	Not available
Mrs. Sima Gupta	00401511	52	Not available	Director	Not available
Mrs. Anu Agarwal	00140180	52	Not available	Director	Not available
Mr. Krishnanshu Agarwal	10575416	22	Not available	Additional Director	Not available
(B) Education & Experience					
Mr. Parag Gupta	<ul style="list-style-type: none"> <li>Appointed As Director on 25<sup>th</sup> May 2022.</li> <li>As per data/information shared by the client, he is an entrepreneur with Commerce background.</li> <li>He is in aluminium foil /sheet industry from last 20 years and he has very vast knowledge of the industry and strong network. He initiated Megha Handles (Proprietorship Firm) in 1999, one of the most sought-after manufacturers and suppliers of the wide array of Aluminium Foil.</li> <li>In 2005 Mr. Gupta initiated Premium Polymers Ltd, one of the Prestigious, leading manufacturer and supplier of an extensive gamut of all types of Induction Sealing Wads/Aluminium Lids/Pharma Lids/Liners.</li> <li>Mr. Parag Gupta as also a Director in Glorious Mediscience (India) Private Limited and a designated partner in Shyla Laminates LLP</li> </ul>				
Mr. Akul Gupta	<ul style="list-style-type: none"> <li>Appointed as Director on 25<sup>th</sup> May 2022.</li> <li>As per data/information shared by the client, Mr. Akul Gupta is Mr. Akul Gupta has done MBA in international business A</li> <li>Young, dynamic professional and expert in Printing and Packaging Industry Management. His wide experience covers areas like handling large Green Field Projects, including Project Financing, multi vocational</li> </ul>				



## TECHNO-ECONOMIC VIABILITY REPORT

### M/S MAA VINDHYVASINI FOILS LIMITED

	<p>manufacturing plants, business process mapping, requirement study &amp; defining the various specifications for application implementation, organization building through effective technical, planning and man management skill.</p> <ul style="list-style-type: none"> <li>Mr. Akul Gupta is also a Director in Aps Advert International Private Limited.</li> </ul>
<b>Mrs. Sima Gupta</b>	<ul style="list-style-type: none"> <li>Appointed as Director on 25<sup>th</sup> May 2022.</li> <li>As per data/information shared by the client, Mrs. Sima Gupta is a graduate and currently looking after accounts &amp; finance of Megha Handles.</li> <li>She will look after finance part of the company.</li> <li>Mrs. Sima Gupta is also a Director in MV Foils Private Limited.</li> </ul>
<b>Mrs. Anu Agarwal</b>	<ul style="list-style-type: none"> <li>Appointed as Director on 25<sup>th</sup> May 2022.</li> <li>As per data/information shared by the client, Mrs Anu Agarwal is a graduate and will look after the HR part of the Company.</li> </ul>
<b>Mr. Krishnanshu Agarwal</b>	<ul style="list-style-type: none"> <li>Appointed as Additional Director on 1<sup>st</sup> April 2024.</li> <li>As per data/information shared by the client, Mr. Krishnanshu Agarwal is a BBA and will be assisting in day to day operations of the company.</li> </ul>

**Source:** Data/ Information provided by the company and extracted from MCA website.

Below tables shows the information of the companies with which each Director is associated to give a basic background detail of the promoters as found on public domain in general/ tertiary category research.

#### MR. PARAG GUPTA

S. No	Company Name	Designation	Original Date of Appointment	Date Of Appointment at Current Designation
1	Glorious Mediscience (India) Private Limited (CIN: U33111DL2013PTC260353)	Director	19 <sup>th</sup> November, 2013	19 <sup>th</sup> November, 2013
2	Maa Vindhyavasini Foils Limited (CIN: U27203UP2022PLC164759)	Director	25 <sup>th</sup> May, 2022	25 <sup>th</sup> May, 2022
3	Shyla Laminates LLP (LLPIN: ACB-2885)	Designated Partner	27 <sup>th</sup> June, 2023	27 <sup>th</sup> June, 2023

**Source:** Information extracted from MCA website & public domain

**MR. AKUL GUPTA**

S. No	Company Name	Designation	Original Date of Appointment	Date Of Appointment at Current Designation
1	Maa Vindhyavasini Foils Limited (CIN: U27203UP2022PLC164759)	Director	25 <sup>th</sup> May, 2022	25 <sup>th</sup> May, 2022
2	Aps Advert International Private Limited (CIN: U74900DL2013PTC255903)	Director	27 <sup>th</sup> June, 2013	27 <sup>th</sup> June, 2013

**Source:** Information extracted from MCA website & public domain.

**MRS. SIMA GUPTA**

S. No	Company Name	Designation	Original Date of Appointment	Date Of Appointment at Current Designation
1	Maa Vindhyavasini Foils Limited (CIN: U27203UP2022PLC164759)	Director	25 <sup>th</sup> May, 2022	25 <sup>th</sup> May, 2022
2	MV Foils Private Limited (CIN: U24202UP2023PTC186754)	Director	03 <sup>rd</sup> August, 2023	03 <sup>rd</sup> August, 2023

**Source:** Information extracted from MCA website & public domain.

**MRS. ANU AGARWAL**

S. No	Company Name	Designation	Original Date of Appointment	Date Of Appointment at Current Designation
1	Maa Vindhyavasini Foils Limited (CIN: U27203UP2022PLC164759)	Director	25 <sup>th</sup> May, 2022	25 <sup>th</sup> May, 2022

**Source:** Information extracted from MCA website & public domain.

**MRS. KRISHNANSHU AGRAWAL**

S. No	Company Name	Designation	Original Date of Appointment	Date Of Appointment at Current Designation
1	Maa Vindhyavasini Foils Limited (CIN: U27203UP2022PLC164759)	Additional Director	01 <sup>st</sup> April, 2024	01 <sup>st</sup> April, 2024

**Source:** Information extracted from MCA website & public domain.





**PART D**

**PROPOSED INFRASTRUCTURE DETAILS**

**1. PROPOSED LOCATION:**

The proposed Aluminium Rolling Mill will be set up by M/s Maa Vindhyavasini Foils Limited at Khasra No: 138, Village: Susanda, Prangana: Mangalore, Tehsil: Roorkee, Haridwar, Uttarakhand - 247665, which is spread over an area of 1.3545 hectares (13,545 sq. m.) as per the sale deed provided to us by the company.

The property is having the proximity to the civic amenities such as hospital is situated ~8 km away, market is situated ~8 km and railway station is situated ~20 km away from the proposed plant location.

Table: 1 is showing the details of the adjoining properties of the land for proposed Aluminium Rolling Mill and Table: 2 is showing the Connectivity Details of the Proposed Location.

Table: 1 Adjoining Property Details	
Location	Details
East	Land of Jagender Kumar
West	Chak Road 3mtr. wide
North	Road 24ft. wide
South	Land of Mr. Rattan and Manipal

Table: 2 Connectivity Details of the Proposed Location	
Connectivity	Details
Road	Delhi-Dehradun NH - ~5 km away
Rail	Roorkee Railway Station - ~20 km away
Airport	Jolly Grant Airport - Dehradun - ~87 km away

Source: Google Map.

**LOCATION MAP:**

- a) **Google Map Location:** The proposed Aluminium Rolling Mill will be set up at Khasra No: 138, Village: Susanda, Prangana: Mangalore, Tehsil: Roorkee, Haridwar, Uttarakhand - 247665 with GPS coordinates 29°43'27.4" North and 77°47'34.3" East as per the Google map attached below:





- b) **Google Map Layout:** Demarcation of the land with approximate measurement on the Google map is attached in the below picture:



## 2. LAYOUT PLAN:

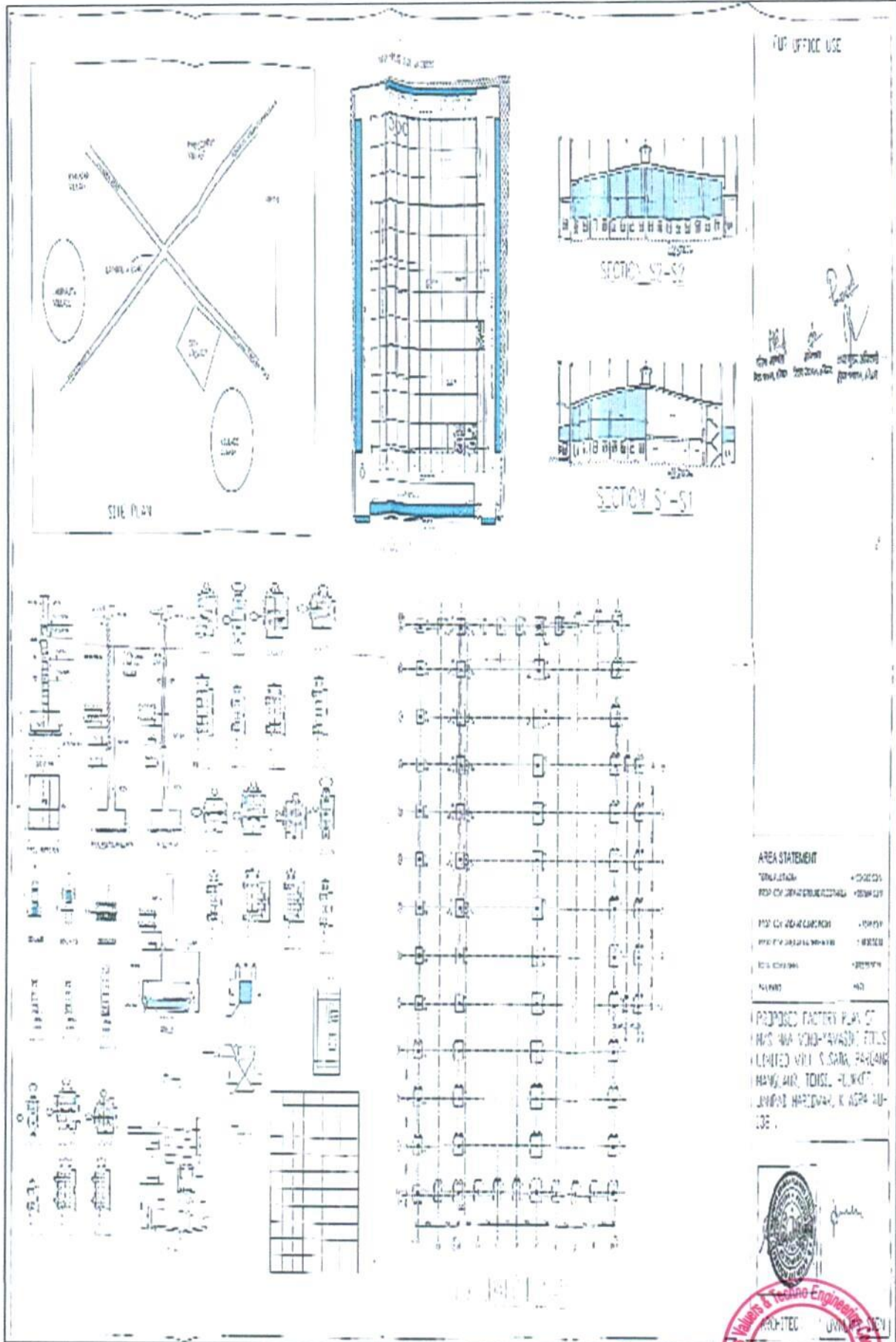
As per the data/information provided by the client/Company, the layout plan has been prepared by the architect Mr. Sanjeev Kumar which is approved by The District Magistrate, District Panchayat, Haridwar. For reference, approved layout plan has been attached below.

*[Handwritten signature]*  
*[Red circular stamp of R.K. Associates Valuers & Techno Engineering Consultants Pvt. Ltd.]*



# TECHNO-ECONOMIC VIABILITY REPORT

## M/S MAA VINDHYVASINI FOILS LIMITED



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*[Handwritten signatures and stamps]*

### AREA STATEMENT

TOTAL AREA	40000
AREA OF PROPOSED FACTORY	10000
AREA OF ROADWAY	10000
AREA OF OPEN SPACE	10000
AREA OF WATER BODY	10000
AREA OF OTHERS	10000

PROPOSED FACTORY PLAN OF  
 M/S MAA VINDHYVASINI FOILS  
 LIMITED WITH 10000 SQ. FT.  
 HANGING, AIR, TONNAGE, PLANT,  
 JOURNAL, HANGING, K. ASHA 20-  
 100.



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### 3. LAND DETAILS:

As per the sale deed executed on 03<sup>rd</sup> January 2023, Company has purchased 1.3545 hectares (13,545 sq. m.) of land at Khasra No: 138, Village: Susanda, Prangana: Mangalore, Tehsil: Roorkee, Haridwar, Uttarakhand - 247665. Change of land use (CLU) has been approved by Collector/ District Magistrate, Haridwar on 02<sup>nd</sup> January 2023, for setting up the proposed Aluminium Rolling Plant.

As per sale land deed, INR 2.13 Cr is the consideration for cost of land, however, company has provided us INR 1.40 Cr as cost. We recommend the bank to advice the client to clarify the differences.

As per valuation report provided by the client which is prepared by Mr. Gautam Akhauri (Ref: GA/SBI/10955/2024) on 21<sup>st</sup> March 2024, market value of land is INR 15.20 Crores as on 21<sup>st</sup> March 2024. Also, no further land would be required for capacity expansion.

### 4. SITE PICTURES: Site pictures were captured during the site survey on 26<sup>th</sup> June 2024, for reference few of the pictures are attached below:



*[Handwritten Signature]*





# TECHNO-ECONOMIC VIABILITY REPORT

## M/S MAA VINDHYVASINI FOILS LIMITED





# TECHNO-ECONOMIC VIABILITY REPORT

## M/S MAA VINDHYVASINI FOILS LIMITED



Handwritten signature: *SK*  
Circular stamp: **R.K. Associates & Techno Engineering Consultants Pvt. Ltd.**  
Star symbol





## 5. BUILDING & CIVIL WORKS:

According to the approved layout plan, the plant would be spreading over an area of 13,545 sq. mt. The Company has estimated the total civil works cost at INR 6 Crores comprising of 100000 sq. fts Production Shed. @ ₹ 600/- per sq. ft.

However, as a TEV consultant, the estimated Building & Civil works cost has been verified independently by us, which we found to be on the lower side as compared with assessment done by us, which is approx. INR 9 Cr. As shown in the below table:





# TECHNO-ECONOMIC VIABILITY REPORT

## M/S MAA VINDHYVASINI FOILS LIMITED

M/S MAA VINDHYVASINI FOILS LTD.													
Sr. No.	Floor	Height (in ft.)	Type of Structure	Built-up Area (in sq mtr)	Built-up area (in sq ft.)	Year of Construct ion	Total Economic al Life (In year)	Salvage value	Depreciati on Rate	Plinth Area Rate (INR per sq feet)	Gross Replacement value (INR)	Depreciated Replacement Cost (INR)	Fair Market Value (INR)
1	G.F. SHED	27 ft.	Tin Shed with Brick	8813	94858	2024	40	10%	0.0225	800	7,58,86,701	₹ 7,58,86,701	7,58,86,701
2	G.F. OFFICE	10 ft.	RCC Framed Structure with RCC Slab	390	4200	2024	65	10%	0.0138	1,200	50,39,830	₹ 50,39,830	50,39,830
3	Staff Qtr. G.F.	10 ft.		374	4029	2024	65	10%	0.0138	1,200	48,35,359	₹ 48,35,359	48,35,359
4	Staff Qtr. 1 <sup>st</sup>	10 ft.		374	4029	2024	65	10%	0.0138	1,200	48,35,359	₹ 48,35,359	48,35,359
Total				9952	107117						9,05,97,249	9,05,97,249	9,05,97,249
Remarks:													
1. All the details pertaining to the building area statement such as area, floor, etc has been taken from the documents provided to us.													
2. The Valuation is done by considering the depreciated replacement cost and while calculating D.R.C. 10% salvage value is considered.													

During the site visit, we found that most of the civil works has been completed (only PCC flooring work pending in production area & paint work pending in labour rooms) and few items of plant and machinery have arrived at site.

## 6. PLANT & MACHINERY/ EQUIPMENTS DETAILS:

The company's management has finalized the vendors of these equipment, and the final negotiation with these vendors is in process as per information provided by the client. Below table shows the details of major equipment, plant & machinery along with expected cost and suppliers as per quotation of the respective vendor's shared by the client:

Cost Estimation Of Major Equipment, Plant & Machinery				
S. No.	Equipment	Qty.	Amount	Expected Supplier
1.	Hydraulic Power Unit	1	82,60,000	Aanvi Enterprises S35-36, First Floor, Community Centre, Phase-1, Maya Puri, New Delhi-110064
2.	Transformer And Sarvo	5	83,78,000	Macro Powertech India Pvt Ltd- F-616/649, Upside Industrial Area, Phase -II, M.G Road Ghaziabad Email-Info@Macropowertech.In, +91-9810372550
3.	Double Girder EOT Crane & Gear Box	8	43,66,000	Mamta Engineering- E-37,38, Sec-17 Kavi Nagar Industrial Area Ghaziabad U.P Phone No-+91-8800705002
4.	Electral Planes & Motors	15	13,36,656	Ashu Sales Pvt Ltd- Out Side Delhi Gate G.T Road Ghaziabad U.P 201001 Email-Ashu.Aspl@Gmail.Com 0120-4376764, Mobile No-+91-9654719410
5.	Electral Planes & Motors	7	70,85,990	Ashu Sales Pvt Ltd- Out Side Delhi Gate G.T Road Ghaziabad U.P 201001 Email-Ashu.Aspl@Gmail.Com 0120-4376764, Mobile No-+91-9654719410



# TECHNO-ECONOMIC VIABILITY REPORT

## M/S MAA VINDHYVASINI FOILS LIMITED

6.	Foil Separator Machine	1	1,18,00,000	Sudha Machineries & Industries Pvt Ltd- Plot No-651,652 Village Moti Bhouan , Gandhinagar, Gujarat,
7.	Heavy Gauge Rewinder Machine	1	76,70,000	Gupta Enterprises-Shade No-6 Silver Estate Rakanpur Kalol Gandhinagar Gurajarat-382721 Contact No-8980932268
8.	Linear Position Transducer Housing	2	34,22,000	Samkrish Machine Tools
9.	Cooling Tower	1	11,80,000	North Street Cooling Tower Pvt Ltd
10.	Temposonic Sensors Assembly	4	4,55,069	Servocontrol- Survey No-683, Industrial Estate Udyambag Delgaum 590008 Contact No-+91-8312407501 Email-Sales@Servocontrolsindia.Com
11.	Machine Foundation-Iron Material	1	2,07,67,905	Anjni Steels0- Plot No-10 Loha Mandi Ghaziabad Up Email-Anjnisteeels@Gmail.Com Phone No-+91-9810459039
12.	Roll Chock	1	68,05,119	United Van Der Horst Limited- Midc, E 29/30, United Van Der Horst Ltd,Taloja, Navi Mumbai, Mumbai Suburban,Maharashtra, 410208
13.	Dc Driver And Automation Electrical Panel	1	81,42,000	Ragtron India- B-7 Mg Road Upside Industrial Area Masoori Ghaziabad U.P
14.	Acg System	1	33,63,000	Ragtron India- B-7 Mg Road Upside Industrial Area Masoori Ghaziabad U.P
15.	Electricity Equipment And Installation	1	1,00,00,000	
16.	Heater Furnace 80pcs	80	34,94,400	Jiangyin Greenleaf Industrial Co Ltd, China
17.	Spray Bar1650mm & 1600mm - 2 Set	2	68,88,000	Jiangsu Greenleaf Metallurgy Equipment Co Ltd, Jiangyin Province, China
18.	Filtration Unit -2 Unit	2	69,72,000	Jiangyin Greenleaf Industrial Co Ltd, China
19.	Sarvo Control Values And Emplifier	1	14,91,000	Jincheng Group Imp & Exp Co Ltd
20.	Bealling	1	13,44,000	Jiangyin Aupu Machinery Co Ltd, China
21.	Roll Grinder	1	2,26,80,000	Jiangyin Greenleaf Industrial Co Ltd, China
22.	Foil And Sheet Mill Capling	1	3,48,808	Vision Associates, 666-67, 1st Floor , Churiwalan, Chawri Bazar, Delhi





# TECHNO-ECONOMIC VIABILITY REPORT

## M/S MAA VINDHYVASINI FOILS LIMITED

23.	Bearing Housing	12	2,05,320	Kisaan Die Tech Pvt Ltd, Ss Gt Road Industrial Area, Ghaziabad
24.	Electronic Thickness Gauge Sheet Mill, & Foil Mill Along With Agc Panal	2	87,91,000	Jasch Industries Limited, 43/5, Bahalgarh, Sonipat,
25.	Murugappa Morgan Thermal	1	8,72,728	Murguppa Morgan Thermal Ceramics Ltd, Plot No 681, Mothiboyan Sanand Kalol State Higway, Gandhinagar, Gujrat
26.	Heat Exchanger, Admiraty Brass Tube, Copper Tube,	1	11,80,000	Shanky Engineering Works, 49, Arya Nagar Industrial Area, Ghaziabad Up
27.	Fs Curtis Air Compressor	24	1,25,00,000	Fs Compressor India Pvt Ltd, Plot No S-3, Phase-II, Chakan Midc Village, Savardari, Khed, Pune Maharashtra,
28.	Pneumatics Accessories	1	2,53,945	S H Enterprises (Ghaziabad
29.	Co2 Pipe Line	1	6,00,699	Pipe And Sections Pvt Ltd
30.	Co2	1	94,40,000	Maa Jaalpa Bhawani Enterprises, Bhora Kalan Gurugram, Haryana
31.	Chock Of Foil Mill And Roll	1	23,60,000	Varia Pratik Engineering
32.	Chock Of Sheet Mill And Roll	1	59,00,000	Varia Pratik Engineering
33.	Oil Mist System Bearing	1	18,17,200	Centraline Lubro Tech Engineers
34.	Dc Motor.	7	1,36,88,000	A K Electricals, Bawana Delhi
35.	Wire & Cable	1	1,31,02,791	V-Marc India Limited, Sector Iidc , Sidcul, Plot No 3, 4, 18, 20, Haridwar, Uttarakhand
36.	Steel For M/C Hood , Chiney And Lining	1	24,57,185	Gaurav Steels
37.	Crain	1	19,10,891	Action Construction Equipment Ltd
38.	Hydrolic Sheet Ss	1	2,70,840	Sahib Dass Metal Pvt Ltd, Asaf Ali Road, Delhi
39.	Hydrolic Pipeline Ms And Ss	1	5,86,026	Pipe And Sections Pvt Ltd
40.	Ac For Panel	6	6,64,320	Ashiana Hvac Solution B12 Ground Floor, Lohia Nagar Markeet.Ghaziabad - 201 001 (U.P)
41.	Forging As Per Drg	1	3,21,904	Kisaan Die Tech Pvt Ltd, Ss Gt Road Industrial Area, Ghaziabad





# TECHNO-ECONOMIC VIABILITY REPORT

## M/S MAA VINDHYVASINI FOILS LIMITED

42.	Grease Ap-3	1	22,833	Aggarwal Lubricants Ambedkar Road, Ghaziabad
43.	Grease-Xhp222	1	13,169	Aggarwal Lubricants Ambedkar Road, Ghaziabad
44.	Hydraulic Oil 32 Gread	1	6,06,614	Aggarwal Lubricants Ambedkar Road, Ghaziabad
45.	Hydraulic Oil 68 Gread	1	3,79,134	Aggarwal Lubricants Ambedkar Road, Ghaziabad
46.	Gear Oil 8000 Ltr	1	12,99,463	Aggarwal Lubricants Ambedkar Road, Ghaziabad
47.	Coolent Castrol 60000 Ltr	1	67,26,000	Tashikent Oil Co Pvt (Baroda)
48.	Coolent Castrol 80000 Ltr	1	88,73,600	Tashikent Oil Co Pvt (Baroda)
49.	Ginol 6000 Ltr	1	15,22,200	Tashikent Oil Co Pvt (Baroda)
50.	LIn Blower	1	3,24,095	Panels Power Movers, Block No 8, Plot No 166, Ramesh Nagar, Delhi
51.	Ups 1000 Kva	320	77,40,800	Aditi Power Solution Services , Shahbery , Nodia
52.	2 Furnace From Kaveri Industries	2	4,95,60,0 00	Kaveri Induetries, Kh No 42 Block D, Harpala Road, Sikari , Ballabh Garh, Faridabad, Haryana
53.	Earthing	1	11,03,300	Maa Jaalpa Bhawani Enterprises, Bhora Kalan Gurugram, Haryana
54.	Power Hyflo Supercel Zbs300	1	1,69,920	Abhinav Pharrmaachemm, Pokhran Road, Thane , Maharashtra
55.	Power Tonsil	1	4,10,640	Abhinav Pharrmaachemm, Pokhran Road, Thane , Maharashtra
56.	Filter Paper Roll	1	3,62,880	Abhinav Pharrmaachemm, Pokhran Road, Thane , Maharashtra
57.	Ms Pipe And Others	1	5,76,982	Dadu Enterprices
58.	Battrry 200 Ah 320 Nos	320	63,28,320	Aditi Power Solution Services , Shahbery , Nodia
59.	Casing Pump Up150/45, Diesel Engine Pump Db80/26xe	4	7,31,246	Ashu Sales Pvt Ltd
60.	Lab Equipment	1	22,42,000	Raman Instruments Pvt. Ltd. B-14, Punit Industrial Co-Op. Society, Plot 11 & 11 A, Ttc Turbhe, Navi Mumbai-400 705 E-Mail: Sales.Mumbai@Ramaninstruments.in Tel. No: +91-22-26439614/26439615

61.	Abb (Sh)-33 Kv Ind. Vcb, 1250a, 31.5ka, 3 Panel Board (1+2 Panel)	1	25,07,500	Industrial Control System, 1853/9, Surya Bazar, Bhagirath Palace, Delhi
62.	Fully Computerized Universal Testing Machine 5000kgf With Touch Screen Display. Wedge Grips For Flat Dumbbell Testing	1	12,21,300	Sona Testing Inc, 12/59 B Tilak Nagar New Delhi-110018, India Tel: +91- 8810223588, 7982932201
Total			INR 31,58,94,794	

**Source:** Data/information provided by the client.

Thus, the estimated cost for plant & machinery will be ~INR 3,158.94 lakhs including the applicable GST. The estimated cost of the Plant & Machinery has been provided to us by the client as per the quotations received by the client.

However, as a TEV consultant the cost of major plant & machinery has been verified by us independently, which we found reasonable & in the permissible range although the cost may change as per specifications & brand.

Adding to this, we also assessed & checked the feasibility of the plant & machinery and its capacity with respect to the classification of product which is to be manufactured. We observed that to achieve the target production, few points are needed to be considered like the plant runs maximum time with foils size 0.032 mm to 0.040 mm and if foils of less thickness are produced then required working hours may increase.

## 7. UTILITIES: Details of Water, Electricity and other utilities are described as below:

### a. ELECTRICITY:

As per the data/information provided to us by the client, Company has applied for sanction of 4,000 KVA power load.

### b. WATER:

As per the data/information provided by the client, the water requirements for running the mill will be minimal and most of the wastewater will be recycled.





Thus, ~INR 0.002 Crore per metric ton will be the CAPEX for the proposed Aluminium Rolling Mill including GST, pre-operative and preliminary expenses. As per our tertiary research and data/information available in the public domain, we found that the investment required can be anywhere from ~ INR 1 Crore to INR 3 Crore per metric ton which is much lower than market rates.

However, as a TEV consultant, estimation/vetting of the project cost is out of scope of this TEV report, and we have relied upon the data/information provided by the client regarding Total Project cost such as quotations, etc.

Date	Company	Unit	Capacity (MTPA)	Capex (Lakhs)	Capex per MTPA (Lakhs)	Reference
Jan-24	SRF Ltd	Aluminium foil manufacturing facility	20,000	53,600	2.68	<a href="https://www.moneycontrol.com/news/business/markets/srf-shares-rise-1-as-company-commissions-rs-536-crore-aluminium-foil-manufacturing-facility-11986161.html">https://www.moneycontrol.com/news/business/markets/srf-shares-rise-1-as-company-commissions-rs-536-crore-aluminium-foil-manufacturing-facility-11986161.html</a>
May-24	Chiripal Polyfilms Limited	Aluminium foil plant	25,036	47,200	1.89	<a href="https://www.indiaratnings.co.in/pressrelease/69678">https://www.indiaratnings.co.in/pressrelease/69678</a>
FY 2021-22	Shyam Metalics and Energy Limited	Aluminium foil rolling mill	40,000	40,000	1.00	<a href="https://economictimes.indiatimes.com/industry/indl-goods/svs/steel/shyam-metalics-plans-to-invest-rs-850cr-in-fy22-ropes-in-salman-khan-for-tmt-bar-promotion/articleshow/86558558.cms?from=mdr">https://economictimes.indiatimes.com/industry/indl-goods/svs/steel/shyam-metalics-plans-to-invest-rs-850cr-in-fy22-ropes-in-salman-khan-for-tmt-bar-promotion/articleshow/86558558.cms?from=mdr</a>
FY 2023-24	Hindalco Industries Limited	Fine-quality aluminium foil for EVs	25,000	80,000	3.20	<a href="https://www.hindalco.com/media/press-releases/hindalco-set-up-battery-foil-manufacturing-facility-Odisha-tap-ev-market">https://www.hindalco.com/media/press-releases/hindalco-set-up-battery-foil-manufacturing-facility-Odisha-tap-ev-market</a>

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**PART E**

**PROJECT TECHNICAL DETAILS**

**1. CAPACITY OF THE PROPOSED ALUMINIUM ROLLING MILL:**

As per the data/information provided by the client, the Aluminium Rolling Mill is proposed to be set up with a designed capacity of 2,800 MT per month.

Capacity of the proposed Aluminium Rolling Mill	
Particular	Capacity
Aluminium Foils	986 MT/ Month
Aluminium Sheet	1478 MT/ Month
Aluminium Scrap	336 MT/ Month

The rated capacity is dependent on the rolling mill which is expected to have the following specifications:

Specifications of the proposed Aluminium Rolling Mill	
Rolling Speed	1000MPM
Spool Size	1800 mm
Width	1100 mm
Weight	3.5 Ton
Work Roll	225*1100 mm
Backup Roll	600*100 mm

**2. PRODUCTION PROCESS OF ALUMINIUM ROLLING MILL:**

The manufacturing process of aluminium foil encompasses several stages. It typically commences with the mining and extraction of bauxite, an ore rich in aluminium. After extraction, bauxite undergoes refining processes to yield alumina. Subsequently, electrolysis is utilized to extract pure aluminium from alumina.

Once aluminium is obtained, it undergoes a rolling process to decrease its thickness. This rolling process entails passing the metal through a sequence of rollers until the desired thinness is attained. Finally, the rolled aluminium is cut into sheets, resulting in the familiar aluminium foil.





As informed to us by the Management, the Company will use 7mm aluminium rolling stock and/or aluminium ingots as an input for production. The manufacturing process involves following steps:

**a) CASTING:**

The process starts with the casting of aluminium ingots by first melting the scrap in the furnace, which are then reheated and homogenized.

**b) COLD ROLLING MILL:**

The aluminium coils undergo a cold rolling process to further reduce their thickness and improve surface finish. The cold rolling process involves passing the aluminium coils through a series of cold rolling mills at ambient temperature. This process imparts a smooth, uniform finish to the aluminium foil and allows for precise control over its 6 to 0.350 mm thickness.

**c) FOIL MILL ROLLING:**

Following the initial stages, aluminium coils undergo a cold rolling process to further decrease their thickness and enhance surface quality. The foil mill rolling procedure entails feeding the aluminium roll through a sequence of foil rolling mills at room temperature. This process results in a smooth, consistent finish for the aluminium foil, enabling precise control over its thickness, ranging from 0.350 to 0.010 mm.

**d) ANNEALING:**

Following cold rolling, the aluminium foil undergoes an annealing process to relieve internal stresses and improve its mechanical properties. During annealing, the foil is heated to a controlled temperature and then cooled gradually to ensure uniformity and minimize distortion. This process also enhances the formability and machinability of the aluminium foil.

**e) SLITTING AND CUTTING:**

Once annealing is complete, the aluminium foil is slit into narrower widths using precision slitting machines. This allows for the production of foil rolls of various sizes to meet customer specifications. Additionally, the foil may be cut to length using cutting machines to produce individual sheets or pre-cut lengths of foil



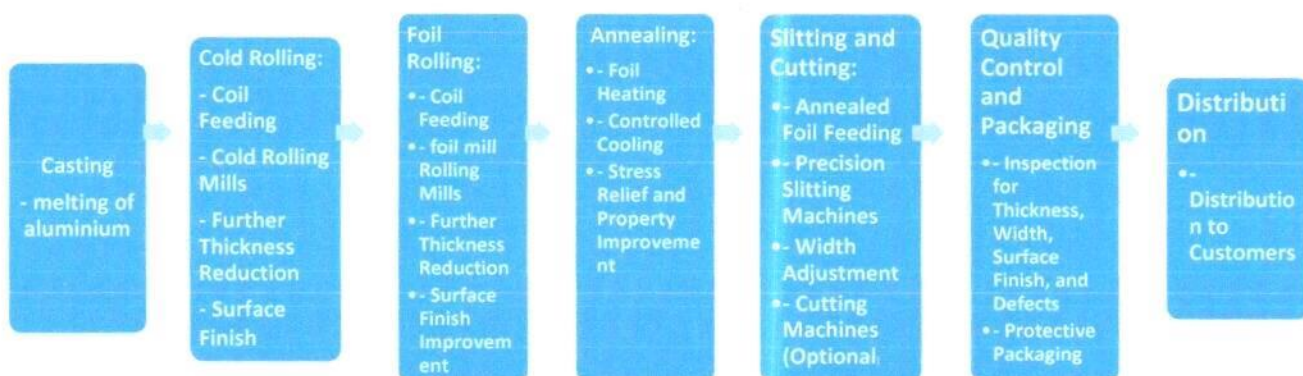
#### f) QUALITY CONTROL AND PACKAGING:

Throughout the manufacturing process, stringent quality control measures are implemented to ensure the final product meets the required specifications for thickness, width, surface finish, and mechanical properties. The finished aluminium foil rolls or sheets are then inspected for defects and packaged in protective packaging materials to prevent damage during storage and transportation

#### g) DISTRIBUTION

Finally, the packaged aluminium foil products are ready for distribution to customers across various industries, including food packaging, pharmaceuticals, insulation, and electronics. Aluminium foil is a versatile material prized for its excellent barrier properties, heat resistance, and recyclability, making it an essential component in numerous applications worldwide.

### 3. PROCESS FLOW CHART OF THE PROPOSED ALUMINIUM ROLLING MILL:



### 4. TECHNICAL SPECIFICATIONS OF THE PROPOSED PLANT:

Technical specification of the proposed Aluminium Rolling Mill is presented in the below table:

Aluminium Rolling Mill Technical Specification			
S. No.	Machine/ Part Name	Make/ Model	Specification /Capacity
1	Foil Separator	SUDDHA Machineries	1400 mm, Foil separator cum slitter with ultrasonic welding.
2	Heavy Gauge Rewinder	GUPTA Enterprise	Unwinder 60 HP, Cutter 10 HP, 2 Rewinder 40 HP each, Cutter 7.5 HP



# TECHNO-ECONOMIC VIABILITY REPORT

## M/S MAA VINDHYVASINI FOILS LIMITED

3	Roll Force Cylinder	UVDHL	B 560 X R380 X STK 150 mm
4	Transformer	Macro Powertech	4000 KVA ,2000 KVA
5	Furnace Heater	JIANGYIN GREENLEAF	30 KW Heater (80Nos.), drawing will both confirm after deposit. Working Volt:240V, Heater capacity:30KW, Surface load of the heater:3w/cm2, The Resistance at room temperature:1.63Ω , The Resistance at working temperature:1.9 Ω, Expansion full length of heater:3225mm, Material: Cr20Ni80
6	Furnace	Kaveri Industries	1080 KW (2 Nos.), 3 Zones, Operating Temp. – 450 °C Max. Temp.- 600 °C Space on both sides – 300(W) x 9900(L) x 3900 mm (H)
7	Superwool	Morgan Advanced Materials	1200°C, Size: 128Kg/m <sup>3</sup> 7320X610X25MM
8	Electronic Thickness Gauge	JASCH Industries Ltd.	80KV and 30KV X-Ray Gauge for Sheet Mill
9	Second hand CNC roll grinder	JIANGYIN GREENLEAF Model : MK84125-III25X5000	Length: 5000 mm Mfg. by - Kunshan Hiecise Heavy Machinery Co., Mfg. year :2009 Max grinding diameter is 1250mm, Max grinding length is 5000mm. Max grinding weight is 25MT. Control system: SIEMENS 840D
10	Metal Baler Machine	JIANGYIN AUPU Machinery Model: Y81F-125AZ	300 x 300 mm Chamber Size: 1200x700x600mm Motor: 15KW/HY63 Baler Size: 300 x 300 mm
11	4400LMP PLATE FILTER, SIEMENS PLC	JIANGYIN GREENLEAF Model: JLJ-4400L	Flow: 4400L/min; pressure: 0.4 MPA; Cleaning Time: 30Min; diameter: 150mm
12	1800LMP PLATE FILTER, SIEMENS PLC	JIANGYIN GREENLEAF Model: JLJ-1800L	Flow: 1800L/min; pressure: 0.4 MPA; Cleaning Time: 30Min; diameter: 150mm
13	1650mm COLD MILL Spray System	JIANGYIN GREENLEAF	Total Flow Rate : 3800L/min 1*Upper sprayer body (4 rows *30 nozzles) 1*Lower sprayer body (3 rows *30 nozzles)
14	1600mm FOIL MILL Spray System	JIANGYIN GREENLEAF	Total Flow Rate : 1800L/min 1*Upper sprayer body (4 rows *29 nozzles) 1*Lower sprayer body (3 rows *29 nozzles)
15	UTM 5000 kgf.	Sona Testing Inc	Fully Computerized Universal Testing Machine 5000kgf with touch screen display.



16	Air Conditioner (HVAC)	BLUE STAR DSA66TR3	5.5Tr
17	D.C. Motor	Kirloskar	750KW, Frame – 500 L, RPM – 750/1500
18	D.C. Motor	IE	375KW, Frame – 355 L, RPM – 600/1500

**Note:** The CNC Roller Grinder is a second-hand machine manufactured in 2009 by Kunshan Hiecise Heavy Machinery Co. Ltd. and now procured by JIANGYIN GREENLEAF Co. by PI No. GL-240509RG Dated: 09-05-2024.

## 5. TECHNOLOGY USED:

### a) TECHNOLOGY SUPPLIER:

Company is expected to procure most of its machinery from JIANGYIN GREENLEAF Co. which is based out of China.

### b) PROPOSED TECHNOLOGY:

The Company is expected to operate a semi-automatic plant having rolling speed of 1000m/min, operating width of 1100mm and minimum thickness of 9 microns.

## 6. LATEST TECHNOLOGY/TECHNOLOGICAL ASSESSMENT:

As per our assessment, fully automated plants are also available in the market. A fully automatic aluminium foil making machine operates without manual intervention throughout the entire production process. These machines are equipped with advanced sensors, controllers, and robotics to handle sheet feeding, rolling, cutting, and even packaging.

We have considered Primetals Technologies, a company providing EPC setup for Foil mills aligned with the market trend toward greater coil weights, combined with wider strip offering a completely integrated automation and drive solution, including the latest generation of drive technology and a powerful automation platform for drawing comparison with our Company.

Below is a quick comparison between the Rolling Mill of Primetals Technologies and Maa Vindhyavasini Foils.

Specification	Maa Vindhyavasini Foils	Primetals Technologies
Rolling Speed	1000m/min	2000 m/min
Operating Width	1100 mm	> 2000 mm



<b>Minimum Thickness</b>	9 microns	5.5 microns
<b>Automation</b>	Semi	Full
<b>Capex</b>	Lower	Higher

Capex required for a semi-automatic plant is lower than capex required for a fully automatic plant.

Thus, as per the above technical assessment, M/s Maa Vindhyavasini Foils is using the appropriate rolling mill technology, which is a going on, recognized and trending in the market at present. However, it is a traditional technology used since few decades. It can be commented positively that the plant will be running smoothly. Technology & specification of the plant are matching with the need to run the plant smoothly and achieve the economies of scale.

## 7. TESTING STANDARDS FOR PRODUCTION:

As per communicated by client, company will be having a quality control Laboratory, wherein, they check the entire range on defined parameters like design, quality and finish. Production shall be done as per Standard Operating Procedures (SOP) based on various regulatory guidelines mentioned below:

- BIS: 2066-1962 - Coadding and classification for non ferrous scrap metal & residues. Section I of this standard deals with non ferrous scrap metal e.g. aluminium brass bronze copper lead tin nickel & zinc section - II deals with metallurgical residues e.g. slags, skimming drosses etc. An appendix specifies conditions of slags.
- BIS: 8970-1991 - Aluminium foil laminates for packaging (first revision).
- BIS 7161:1973 - Vegetable parchment or grease proof paper : Aluminium foil laminate for wrapping butter.
- BIS 10257:1982 - Aluminium foil stock Above Specifications may be obtained from Bureau of Indian Standards,9, B.S. Zafar Marg, New Delhi - 110002

## 8. MANPOWER:

As per information shared by the client/company, an estimate of manpower requirement allowing for leave, absentecism, sickness and holidays for smooth and for efficient operation

of different sections of the plant including its administrative and commercial departments, has been prepared based on technical and management ground primarily to indicate the order of manpower requirement.

In estimating the manpower requirement, a proper ratio between the administrative, managerial, supervisory and shop floor staff has been maintained with a view to affording proper industrial and professional management at various levels. The basic structure of the manpower will require the following kind of resources to operate the plant 16 hours a day for 300 days a year:

Proposed manpower details along with Cost (INR)		
Designation of staff	Number	Average Monthly Salary
Factory General Manager	4	10,00,000
Supervisor	6	2,80,000
Sales Marketing Executives	4	5,00,000
Accounts Staff	5	4,00,000
Clerk / Typist Etc	3	1,00,000
Skilled Workers	100	18,00,000
Semi-Skilled Workers	28	5,00,000
Helper	50	7,00,000
Peon /Chowkidar	10	1,60,000
<b>Grand Total</b>	<b>210</b>	<b>6,52,80,000</b>

**Source:** Data/information provided by the client.







Pattern sheets offer a remarkable strength-to-weight ratio and exhibit excellent welding and forming characteristics. Available in two distinctive designs - Five Bar and Diamond, the Comomoany will provide this product in addition to the standard specifications. Furthermore, the Comomoany will offer customized pattern sheets in various alloys and sizes to suit specific requirements. Widely utilized across diverse sectors, pattern sheets serve applications such as general engineering, flooring sheets for buses, tracks, and railways. The primary alloys utilized are 3109 and 3102.

Specification:				
Thickness (max)	Thickness (min)	Width (max)	Width (min)	Length
5.00 mm	0.45 mm	1550 mm	813 mm	Customized

Source: Detailed Project Report provided by the Company

Composition 8011					
Aluminium	Iron	Silicon	Copper	Zinc	Others
97.5 ~ 99.1	0.6 ~ 1	0.5 ~ 0.9	0 ~ 0.1	0 ~ 0.1	>0.3

Source: Detailed Project Report provided by the Company

Composition 8079					
Aluminium	Iron	Silicon	Copper	Zinc	Others
98.1 ~ 99.1	0.7 ~ 1.3	0.05 ~ 0.3	0 ~ 0.05	0 ~ 0.1	>0.15

Source: Detailed Project Report provided by the Company

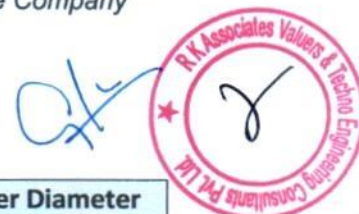
### c) CLOSURE STOCK:

The product will be manufactured using advanced automated mills to achieve precise tolerances, ensuring pilfer-proof caps that seamlessly integrate with customers' high-speed machines, ensuring uninterrupted operations and optimal yield. Suitable for a wide range of applications including vial caps, liquid bottle caps, syrup caps, fruit bottle caps, and more. Major alloy utilised is 8011.

Specification:			
Thickness (min)	Thickness (max)	Width	Length
0.15 mm	0.22 mm	870 mm	Up to 1.00 Mt.

Source: Detailed Project Report provided by the Company

Thickness (min)	Thickness (max)	Width	Standard Inner Diameter
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0.15 mm	0.22 mm	870 mm	152 mm
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Source: Detailed Project Report provided by the Company

Composition 8011					
Aluminium	Iron	Silicon	Copper	Zinc	Others
97.5 ~ 99.1	0.6 ~ 1	0.5 ~ 0.9	0 ~ 0.1	0 ~ 0.1	>0.3

Source: Detailed Project Report provided by the Company

#### d) BARE FOIL:

The Company will offer bare foil in a range of widths and tempers, tailored to meet industry and customer specifications. Applications include tagger foil, semi-rigid containers (SRC), air filters, tobacco packaging, flexible packaging, and more. Major alloys utilised are 8011 and 8006.

Specification:			
Thickness (min)	Thickness (max)	Width	Length
0.09 mm	0.15 mm	150 to 1550 mm	76mm & 152 mm

Source: Detailed Project Report provided by the Company

Composition 8011					
Aluminium	Iron	Silicon	Copper	Zinc	Others
97.5 ~ 99.1	0.6 ~ 1	0.5 ~ 0.9	0 ~ 0.1	0 ~ 0.1	>0.3

Source: Detailed Project Report provided by the Company

Composition 8006					
Aluminium	Iron	Manganese	Copper	Zinc	Others
95.5 ~ 98.5	1.2 ~ 2	0.3 ~ 1	0 ~ 0.3	0 ~ 0.1	>0.15

Source: Detailed Project Report provided by the Company

#### e) ROOFING SHEET:

Aluminum roofing sheets are engineered for longevity, making them a top choice for roofing projects meant to endure for generations. Their lightweight nature, corrosion resistance, and exceptional resale value set them apart from alternative solutions such as galvalume and asbestos roofing sheets. Widely used in applications ranging from industrial sheds to residential roofing, aluminum roofing sheets offer unparalleled durability and performance. Major alloy used is 3105.

Composition 3105		
Aluminium	Manganese	Magnesium
98.5 ~ 99	0.55	0.5

Source: DPR provided by the Company



**f) HOME FOIL:**

Home foil will come in diverse specifications to fulfill all consumer needs. Widely utilized for food packaging purposes, this product undergoes annealing in our high-precision gas-fired furnaces before being hygienically packed. Major alloy used is 8011.

Specification:			
Thickness (min)	Thickness (max)	Standard Width	Length
0.15 mm	0.22 mm	879 mm	9, 18, 72 meter and 1kg

Source: Detailed Project Report provided by the Company

Composition 8011					
Aluminium	Iron	Silicon	Copper	Zinc	Others
97.5 ~ 99.1	0.6 ~ 1	0.5 ~ 0.9	0 ~ 0.1	0 ~ 0.1	>0.3

Source: Detailed Project Report provided by the Company

**3. SELLING, MARKETING AND DISTRIBUTION PLAN:**

The domestic market demand is anticipated to expand by 8-10% in the coming years. Additionally, aluminium plays a crucial role in driving growth in downstream sectors, fostering the MSME (Micro, Small, and Medium Enterprises) ecosystem, and enhancing domestic value addition.

The India Aluminium Market is expected to witness significant growth during the forecast period from 2023 to 2029. This growth is driven by factors such as the rising infrastructure development, automotive industry expansion, and increasing demand from the electrical sector.

Additionally, rapid urbanization is fuelling construction activities, including the development of buildings, airports, and bridges, further boosting aluminium demand. However, we have not been provided with any specific selling, marketing and distribution plan by the Company.





**PART G**

**FEEDSTOCK ANALYSIS**

**1. INTRODUCTION:**

The Company is expected to use 33,600 MTPA of raw material at full capacity. The raw material used would be 7mm aluminium foil stock and/or aluminium ingots. Aluminium foil stock is made from aluminium ingots. The process starts with the casting of aluminium ingots, which are then reheated and homogenized.

The aluminium slabs are subsequently rolled multiple times to reduce their thickness and transform them into thin foil. The Company expects to procure 7mm aluminium foil stock and aluminium ingots from following suppliers:

List of expected supplier of 7mm foil stock		
S. No.	Expected Supplier	Address
1.	Ashapura Steel	Address: 114/ A, R.K. Wadi, Shop No. 8, 2nd Parsiwada Lane, Mumbai, Maharashtra - 400 004 Phone: +(91)-(22)-66394870/66394492 Fax: +(91)-(22)-23821566 Mobile / Cell Phone: +(91)-9820469696/9320006141 Website: <a href="http://www.ashapurasteel.com/non-ferrous.html">http://www.ashapurasteel.com/non-ferrous.html</a>
2.	Jindal Impex	Address: E-384, Phase-VI, Focal Point, Ludhiana, Punjab - 141 010, India Phone: +(91)-(161)-5021500 Fax: +(91)-(161)-2678784 Mobile / Cell Phone: +(91)-9872969707/9878572700 Website: <a href="http://www.jindalimpex.com">http://www.jindalimpex.com</a>
3.	J J Aluminium Private Limited	Address: Plot No. 117, Road No.6, Kathwada G.I.D.C., Kathwada, Odhav, Ahmedabad, Gujarat - 382 430, India Phone: +(91)-(79)-22901182 Fax: +(91)-(79)-22901182 Mobile / Cell Phone: +(91) 9825773828/9825047875
4.	Vijay Prakash Gupta & Sons	Address: No. 3019, Street No. 2, Chuna Mandi, Paharganj, New Delhi - 110 055, India Phone: +(91)-(11)-23586472/23584321 Fax: +(91)-(11)-23585757 Mobile / Cell Phone: +(91)-9811125181



5.	Nisarg Casting	Address: 54/b/1, Changodar Industrial Estate, Near Presion Bearing, Chnagodar, Ahmedabad, Gujarat - 382 213, India Phone: +(91)-(2717)-250128 Mobile / Cell Phone: +(91)-978914205/ 9426015205
6.	G. K. Founders Private Limited	Address: No. 13, Ranka House, Kale Marg, Bail Bazar Road, Mumbai, Maharashtra - 400 070, India Phone: +(91)-(22)-25141266 Fax: +(91)-(22)-32569042 Mobile / Cell Phone: +(91)-9324258495/9825804585
7.	Maruti Alluminium Private Limited	Address: Plot No.- 380, Raod No.- 9, G.I.D.C. Kathwada, Opposite Odhav Octroi Naka, Odhav, Ahmedabad, Gujarat - 382 430, India Phone: +(91)-(79)-22901347/22901330 Fax: +(91)-(79)-22901347 Mobile / Cell Phone: +(91)-9909030758
8.	Manaksia Limited	Address: 8/1, Lal Bazar Street, Kolkata, West Bengal - 700 001, India Phone: +(91)-(33)-22210051 Mobile / Cell Phone: +(91)-9830790059/9830052173
9.	Gold Star Alloys	Address: Plot No.276, Sector No. 7, Opposite Sahani Gas Industrial PCNDTA, Bhosari, Pune, Maharashtra - 411 026, India Mobile / Cell Phone: +(91)-9822401637

**Sources:** Detailed Project Report provided by the Company

## 2. FEEDSTOCK REQUIREMENT:

The Company is expected to use 33,600 MTPA of raw material at full capacity. The raw material used would be 7mm aluminium foil stock and/or aluminium ingots.

## 3. AVAILABILITY OF FEEDSTOCK:

The plant is situated approximately 22 kilometers from the center of Roorkee, Uttarakhand. As per discussion with the Company, there multiple suppliers in the nearby areas.

## 4. PRICING STRATEGY:

As informed to us by the Company, the expected price for 7mm foil stock would be current market price for Aluminium Alloy Ingot plus INR 3,000 conversion charges for 7mm foil stock. As per our tertiary research and data available in the public domain, we found the unit rate are in the permissible range. Average market price for Aluminium Alloy Ingot is ~INR 2,42,000. (Ref: <https://nalcoindia.com/domestic/current-price/>).





**PART H**

**INDUSTRY OVERVIEW**

**1. INTRODUCTION:**

India has the second-largest production capacity of aluminium in the world of about 4.2 million tonnes per annum (MTPA). The production of aluminium was 40.73 lakh tons in FY23. About 7 to 8 per cent of the total aluminium consumed in India is by the packaging industry. Growing consumerism and the need for better branding of consumer products has led to a sizeable growth in the packaging sector. Aluminium, by virtue of its properties, is a better substitute to glass, tinplate, paper and jute.

Aluminium foil is popular packaging material in the food and beverages, aeronautical, transport, medical devices, and pharmaceutical industries. Owing to its high malleability, it can be folded, moulded, and easily rolled as per the need of packaging.

The intrinsic properties of aluminium foil enable it to transform into paper wraps, containers, tablet packs, and others. It has great reflectance, which finds its application in both decorative and functional areas.

The most important application of aluminium foil is insulation. It acts as a thermal insulation layer in pipes and ducts, and in the construction industry it is employed as a vapour barrier by topping it as a layer for insulating material, such as foam insulation and rock wool.

Aluminium foil is a very thin sheet which can provide great protection against light and oxygen. Owing to these properties, it is extensively used in primary packaging for products that develop sensitivity to moisture, microorganism, and oxygen over time.

**2. POTENTIAL AND EXPANSION:**

Global sales of aluminium foil are estimated to be valued at US\$ 27,630.4 million in 2024 and US\$ 44,787.7 million by 2034. Sales revenue is projected to surge at a CAGR of 4.9% over the forecast period. The global market revenue totalled US\$ 44,787.7 million in 2023 and is anticipated to exhibit Y-o-Y growth of 4.4% in 2024. Growing usage of aluminium packaging, including foil, in pharmaceuticals, food & beverage, and cosmetics sectors and booming packaging industry are set to augment sales through 2034. Aluminium foil demand is also anticipated to rise due to the increasing need for air conditioning systems and the growing demand for electric vehicles (EVs).





The aluminium foil market in India is projected to record a CAGR of 7.4% through 2024 to 2034. This is attributed to growing usage of aluminium packaging in India's thriving pharmaceutical sector and surging demand for packaged food products. Convenience, portion control, and decreased food waste are the key reasons why single-serve and portion-controlled packaging formats are gaining traction in India. To meet the increasing market need for portioned and portable products, aluminium foil works well for sealing individual portions of food and beverage items.

### 3. GROWTH DRIVERS:

- **Recyclability of Aluminium Minimizes the Environmental Impact:** Aluminium foil is a sustainable material that can be recycled, reducing the need for virgin aluminium and minimizing environmental impact. European Aluminium Foil Association (EAFA) states that the average recycling rate of aluminium has been more than 55% in Europe since 2020. The packaging industry is committed to sustainability and the circular economy, and aluminium foil can be a remarkable solution.
- **Growth of the Pharmaceutical Industry and Growing Need for Safe Packaging:** Pharmaceutical packaging is essential for the product's safety, integrity, and protection from external conditions such as moisture, light, oxygen, and contamination. Aluminium foil offers incredible barrier properties, providing a reliable protective layer for pharmaceutical products. Aluminium packaging is designed with tamper-evident features and developed printing techniques that provide visible evidence of tampering.

This is set to enhance product security and prevent the unauthorized use of duplicate products in the market. The demand for child-resistant packaging is projected to rise due to stringent regulations and increasing focus on preventing accidental ingestion worldwide. This is projected to boost sales and create lucrative growth opportunities for manufacturers.

India Brand Equity Foundation (IBEF) reported that the pharmaceutical industry in India is anticipated to grow at a CAGR of 10%, reaching a valuation of US\$ 130 billion by 2030. Growing demand for sustainable and secure packaging for the pharmaceutical sector is increasing the adoption of aluminium packaging in India.

- **Increasing Demand in Packaging:** Aluminium foil is widely used in packaging applications due to its excellent barrier properties, resistance to moisture, light, and



gasses. The growing demand for packaged food and beverages, pharmaceuticals, and personal care products is driving the demand for aluminium foil.

- **Growing Food and Beverage Industry:** The food and beverage industry are a significant consumer of aluminium foil. The rising population, changing consumer preferences, and increasing consumption of convenience foods are driving the demand for aluminium foil in food packaging applications.

#### 4. CHALLENGES:

- **Cheap imports from China:** In 2022, India imported \$880M in Aluminium Foil, becoming the 4th largest importer of Aluminium Foil in the world, out of which \$490M was from China on account of cheaper rates. China is alleged to have been dumping aluminium foil stock in India, which poses a serious threat to Indian manufacturers of aluminium foil in the absence of anti-dumping duty on foil stock.
- **Limited availability of raw materials:** Limited availability of raw materials due to the limited domestic stock, especially bauxite which is the primary raw material used to manufacture aluminium.
- **Volatile Raw Material Prices:** The price of aluminium, the primary raw material for aluminium foil production, is subject to market fluctuations. Variations in aluminium prices can impact the cost of producing aluminium foil and influence the profitability of manufacturers.
- **Recycling and Waste Management Challenges:** Recycling and Waste Management Challenges: While aluminium foil is recyclable, its recovery and recycling rates vary across regions. Inadequate recycling infrastructure and consumer awareness about proper disposal and recycling of aluminium foil can limit the recycling potential and increase waste generation
- **Inadequate Infrastructure and Logistics:** Limited infrastructure, including transportation and port facilities, can affect the supply chain and lead to a slowdown in the manufacturing process.
- **Energy Costs and Supply:** Energy is a prominent cost factor in aluminium production. Fluctuations in energy prices and supply interruptions can affect the competitiveness of the market.

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## 5. CONCLUSION:

The aluminium foil market in India is projected to record a CAGR of 7.4% through 2024 to 2034. Stimulated Pharmaceutical Industry in India and booming food and beverage Industry is propelling demand. Aluminium foil offers secure, protective packaging for medicines, medical devices, and healthcare products, making it a sustainable and reliable option for e-commerce. Rising uses of aluminium foil in non-food industries, including electronics and building, is set to further propel market growth.

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**PART I**

**SWOT ANALYSIS**

**SWOT ANALYSIS – ALUMINIUM FOIL MARKET**

**STRENGTHS**

- **Strategic Location:** The project is situated approximately 22 kilometres from the centre of Roorkee, Uttarakhand and can facilitate seamless transportation of raw materials and final products.
- **Experience in Industry:** The promoters are having experience of more than 20 years in the aluminium foil/sheet industry which can prove to be a huge strength in the long run.
- **Recyclability of Aluminium:** Aluminium foil is a sustainable material that can be recycled, reducing the need for virgin aluminium and minimizing environmental impact.
- **Abundant resources of aluminium ore:** India has the second-largest production capacity of aluminium in the world of about 4.2 million tonnes per annum (MTPA).
- **Low cost and efficient labour force:** Skilled and efficient is available in India at a rather low cost as compared to other countries.

**WEAKNESSES**

- **High Energy Costs:** Energy is a prominent cost factor in aluminium production. Fluctuations in energy prices and supply interruptions can affect the competitiveness of the market.
- **Regulatory Approvals** - Company has taken Consent to Establish under Air (Prevention and Control of Pollution) Act, 1981 & Water (Prevention and Control of Pollution) Act, 1974, Uttarakhand Pollution Control Board for production of 500 MT/ month of Aluminium sheets/foils. Whereas the Company is contemplating producing 2800MT/month as per the plan shared with us. The Company will need to reapply Consent to Establish with the increased capacity in order to operate.
- **CAPEX:** The proposed Aluminium Rolling Mill would be set up by a high initial investment, in which ~60% capital would be required for plant & machinery.
- **Infrastructure Requirements:** The project's power load and water consumption are significant, and ensuring uninterrupted power supply and adequate water resources may pose challenges.
- **High Duties and Taxes:** Aluminium and aluminium products are





# TECHNO-ECONOMIC VIABILITY REPORT

## M/S MAA VINDHYVASINI FOILS LIMITED

	<p>charged with high rate of GST ranging from 18% to 28%.</p> <ul style="list-style-type: none"> <li>• <b>Prone to punctures and tears:</b> Aluminium foil packaging is usually prone to punctures and tears, especially if it comes into touch with sharp or pointed items. If the foil is perforated even slightly, it can undermine the package's integrity thus decreasing its effectiveness as a barrier against moisture, light, or pollutants.</li> </ul>
OPPORTUNITIES	<ul style="list-style-type: none"> <li>• <b>Growing demand in pharmaceutical industry:</b> pharmaceutical industry in India is anticipated to grow at a CAGR of 10%, reaching a valuation of US\$ 130 billion by 2030. Growing demand for sustainable and secure packaging for the pharmaceutical sector is increasing the adoption of aluminium packaging in India.</li> <li>• <b>Growing Food and Beverage Industry:</b> The food and beverage industry are a significant consumer of aluminium foil. The rising population, changing consumer preferences, and increasing consumption of convenience foods are driving the demand for aluminium foil in food packaging applications.</li> <li>• <b>Sustainable packaging:</b> The market for aluminium foil packaging is being driven as rising need for simple and sustainable packaging solutions.</li> <li>• <b>Growing demand for electric cars:</b> Growing demand for electric cars is increasing the demand for EV battery foil.</li> </ul>
THREATS	<ul style="list-style-type: none"> <li>• <b>Cheap imports from China:</b> In 2022, India imported \$880M in Aluminium Foil, becoming the 4th largest importer of Aluminium Foil in the world, out of which \$490M was from China on account of cheaper rates. China is alleged to have been dumping aluminium foil stock in India, which poses a serious threat to Indian manufacturers of aluminium foil in the absence of anti-dumping duty on foil stock</li> <li>• <b>Limited availability of raw materials:</b> Limited availability of raw materials due to the limited domestic stock, especially bauxite which is the primary raw material used to manufacture aluminium.</li> <li>• <b>Volatile Raw Material Prices:</b> The price of aluminium, the primary raw material for aluminium foil production, is subject to market fluctuations. Variations in aluminium prices can impact the cost of producing aluminium foil and influence the profitability of manufacturers.</li> <li>• <b>Recycling and Waste Management Challenges:</b> While</li> </ul>



## TECHNO-ECONOMIC VIABILITY REPORT M/S MAA VINDHYVASINI FOILS LIMITED

aluminium foil is recyclable, its recovery and recycling rates vary across regions. Inadequate recycling infrastructure and consumer awareness about proper disposal and recycling of aluminium foil can limit the recycling potential and increase waste generation.

- **Inadequate Infrastructure and Logistics:** Limited infrastructure, including transportation and port facilities, can affect the supply chain and lead to a slowdown in the manufacturing price.



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**PART J**

**PROJECT COST AND MEANS OF FINANCE**

As per data/information shared by the client, the proposed Aluminium Rolling Mill is proposed to be commissioned by making an investment of INR 4,184.54 lakhs as shown in the below table along with Means of finance:

Total Project Cost		
S. No.	Capital Cost Head	Amount (INR)
1	Land	₹ 1,40,30,000
2	Civil Work	₹ 6,00,00,000
3	Plant & Machinery	₹ 31,58,94,794
4	Misc. Fixed Assets / Furniture & Fixture	₹ 98,70,000
5	Preliminary Expense	₹ 6,75,000
6	Interest During Construction (IDC)	₹ 1,79,85,000
	<b>TOTAL</b>	<b>₹ 41,84,54,794</b>
Means of Finance		
S. No.	Particular	Amount (INR)
1	Promoters' Equity	₹ 10,00,00,000
2	Unsecured Loan	₹ 10,04,54,794
3	Loan from Banks	₹ 21,80,00,000
	<b>TOTAL</b>	<b>₹ 41,84,54,794</b>
	<b>Total Loan</b>	<b>₹ 21,80,00,000</b>

*Source: Data/Information provided by the company.*

**Notes:**

- It is to be noted that the estimation/vetting of the project cost is out of scope of this TEV report, and we have relied upon the data/information provided by the client regarding Total Project cost such as quotations, etc.
- As per the sale deed shared by the client/company, the promoters have purchased 1.3545 hectares (13,545 sq. m.) of land at Khasra No: 138, Village: Susanda, Prangana: Mangalore, Tehsil: Roorkee, Haridwar, Uttarakhand - 247665. Change of land use (CLU) has been approved by Collector/ District Magistrate, Haridwar on 02<sup>nd</sup> January 2023, for setting up the proposed Aluminium Rolling Plant.





3. As per sale land deed, INR 2.13 Cr is the consideration for cost of land, however, company has provided us INR 1.40 Cr as cost. We recommend the bank to advice the client to clarify the differences.
4. The estimated Building & Civil works cost has been verified independently by us, which we found to be on the lower side as compared with the fair market value which is approx. INR 9 Cr. The estimated cost Building & Civil works estimated by the Company ~INR 6 Cr. including the applicable GST.
5. The cost of major plant & machinery has been verified by us independently, which we found reasonable & in the permissible range although the cost may change as per specifications & brand. The estimated cost for plant & machinery will be ~INR 3,158.94 lakhs including the applicable GST.
6. As per our assessment, estimated project cost is extremely low as compared to industrial/sectoral capex data. Company is proposing ~INR 0.002 Crore per metric ton CAPEX for the proposed Aluminium Rolling Mill including GST, pre-operative and preliminary expenses. As per our tertiary research and data/information available in the public domain, we found that the investment required can be anywhere from ~ INR 1 Crore to INR 3 Crore per metric ton which is much lower than market rates.
7. The project is proposed to be funded through a term loan of INR 21.80 crores, promoter's equity of INR 10.00 crores and unsecured loan from promoters of INR 10.04 crores.

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**PART K**

**PROJECT IMPLEMENTATION SCHEDULE**

Company has planned to achieve the C.O.D by 31<sup>st</sup> March 2025, as per the proposed implementation schedule shown in the table below:

S. No.	Particulars	Activity	Expected completion date	Status
1.	Sanction of Rupee Term Loan	Sanction of Rupee Term Loan (TL-1)	March 2024	Completed
		Sanction of Rupee Term Loan (TL-2)	July 2024	Pending
2.	Building & Civil Works	Site Plan preparation	January 2023	Completed
		Building & Civil Works completion	June 2024	Completed
3.	Plant & Machinery	Finalization of P&M suppliers	June 2024	Completed
		Orders to P&M suppliers	Not Available	Pending
		Arrival of P&M	Not Available	Pending
		Installation of P&M	Not Available	Pending
		Utility Installation	Not Available	Pending
4.	Statutory Approvals, registrations & NOCs	From the respective authorities	Multiple Dates	Pending
5.	Finishing & Trial Run	Informed by client	March 2025	Pending
6.	Commercial Operation Date	Informed by client	31 <sup>st</sup> March 2025	Pending

**Notes:**

- Schedule has been made as per feasibility to achieve different milestones.
- Achievement of Milestone will depend on sanction of term loan as per proposed timeline.
- For current status of statutory approvals, kindly refer the "Section L" of this report.
- As per this timeline, the expected C.O.D will be 31<sup>st</sup> March 2025.

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**PART L**

**STATUTORY APPROVALS | LICENCES | NOC**

As shown in the below table along with current status, following major approvals are required. However, the list is not exhaustive, and State/District Authorities may be approached for further clearances required (if any):

S. No.	REQUIRED APPROVALS	DATE REFERENCE NO.	STATUS (Approved/ Applied For/ Pending)
1.	Certificate of Incorporation <i>Ministry of Corporate Affairs, Government of India</i>	25 <sup>th</sup> May 2022 CIN: U27203UP2022PLC164759	Approved
2.	Land conversion to Industrial/Non agriculture <i>Collector/ District Magistrate, Haridwar</i>	02 <sup>nd</sup> January 2023 Ref: 500/DLRC/2023	Approved
3.	NOC from Gram Panchayat <i>Gram Panchayat, Haridwar, Uttarakhand</i>	20 <sup>th</sup> January 2023	Approved
4.	Labour Licence Registration & grant of license under The Factories Act, 1948 <i>Department of Labour, Uttarakhand</i>	-	Pending
5.	Building and civil works Plan Sanction Approval <i>Concerned local development authority</i>	20 <sup>th</sup> January 2023 Ref: Letter 1240/District Panchayat Hari. 2022-23	Approved
6.	Pre-establishment fire NOC <i>Uttarakhand Fire and Emergency Services</i>	-	Pending
7.	Fire NOC (on completion) <i>Fire Services Department</i>	-	Pending
8.	New HT line - non domestic /industrial Power Connection <i>Uttarakhand Power Corporation Limited</i>	-	Application filed
9.	Consent to Establish under Air (Prevention and Control of Pollution) Act, 1981 & Water (Prevention and Control of Pollution) Act, 1974 <i>Uttarakhand Pollution Control Board</i>	28 <sup>th</sup> January 2024 Letter No: UKPCB/HO/NOC- 7942/2024/1647	Approved



**Observation Notes:**

1. Company has taken the In-Principle Project Approval from State/District Nodal Agency, Single Window Clearance System, Government of Uttarakhand on 3<sup>rd</sup> September 2022 (Ref: Certificate No:02-7-CAFIP-5174622044624).
2. Company has taken Consent to Establish under Air (Prevention and Control of Pollution) Act, 1981 & Water (Prevention and Control of Pollution) Act, 1974, Uttarakhand Pollution Control Board for production of 500 MT/ month of Aluminium sheets/foils. Whereas the Company is contemplating producing 2800MT/month as per the plan shared with us. The Company will need to reapply Consent to Establish with the increased capacity in order to operate at increased capacity.
3. Above is the only illustration of the major approvals sought or to be sought by the company. It should not be construed as the exhaustive list and in case any approval is missed to be mentioned then it is the sole responsibility of the company to keep the unit compliant with the necessary statutory approvals/ NOCs.





**PART M**

**COMPANY'S FINANCIAL FEASIBILITY**

**1. PROJECTIONS OF THE FIRM:**

The financial projections of the project are prepared from FY 2024-25 to FY 2031-32 based on the expected COD and loan tenor as per the best practice in industry to assess the financial feasibility of the project are elaborated below:

**A. PROJECTED PROFIT & LOSS ACCOUNT:**

(INR Lakhs)

Financial Year	FY 2026	FY 2027	FY 2028	FY 2029
<b>Months</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>12</b>
<b>% Production</b>	<b>30%</b>	<b>35%</b>	<b>40%</b>	<b>45%</b>
Sale of Aluminium Foil	10808.5	13240.5	15888.5	18768.3
Sale of Aluminium Sheet	15084.5	18478.5	22174.2	26193.2
Sale of Aluminium Scrap	2349.6	2878.3	3454.0	4080.0
<b>Gross Annual Revenue</b>	<b>28242.6</b>	<b>34597.2</b>	<b>41516.7</b>	<b>49041.6</b>
1. Raw Material	25930.8	31765.2	38118.3	45027.2
2. Power	441.5	540.8	649.0	766.6
3. Water	1.9	2.3	2.8	3.3
4. Repair & Maintenance	202.5	212.7	223.3	234.4
<b>Total Variable Expenses</b>	<b>26576.7</b>	<b>32521.0</b>	<b>38993.4</b>	<b>46031.6</b>
1. Salary & Wages	718.1	789.9	868.9	955.8
2. Selling & Distribution	111.1	122.2	134.4	147.9
3. Misc expenses	27.5	30.3	33.3	36.6
<b>Total Fixed Expenses</b>	<b>856.7</b>	<b>942.3</b>	<b>1036.6</b>	<b>1140.2</b>
<b>Total Production Cost</b>	<b>27433.4</b>	<b>33463.4</b>	<b>40029.9</b>	<b>47171.8</b>
EBIDTA	809.2	1133.9	1486.8	1869.8
Interest on Term Loan	230.6	208.4	179.7	145.0
Interest on Unsecured Loan	0.0	0.0	0.0	0.0
Depreciation	569.1	487.4	417.5	357.9
Preliminary Expenses	1.4	1.4	1.4	1.4
PBT	8.2	436.7	888.1	1365.6
Less: Taxation	2.1	109.9	223.5	343.7
<b>PAT</b>	<b>6.1</b>	<b>326.8</b>	<b>664.6</b>	<b>1021.9</b>

# TECHNO-ECONOMIC VIABILITY REPORT

## M/S MAA VINDHYVASINI FOILS LIMITED

(Continued)

Financial Year	FY 2030	FY 2031	FY 2032
<b>Months</b>	<b>12</b>	<b>12</b>	<b>12</b>
<b>% Production</b>	<b>50%</b>	<b>55%</b>	<b>60%</b>
Sale of Aluminium Foil	21896.4	25290.3	28968.9
Sale of Aluminium Sheet	30558.8	35295.4	40429.3
Sale of Aluminium Scrap	4760.0	5497.8	6297.5
<b>Gross Annual Revenue</b>	<b>57215.2</b>	<b>66083.5</b>	<b>75695.7</b>
1. Raw Material	52531.7	60674.2	69499.5
2. Power	894.4	1033.1	1183.3
3. Water	3.8	4.4	5.1
4. Repair & Maintenance	246.2	258.5	271.4
<b>Total Variable Expenses</b>	<b>53676.2</b>	<b>61970.1</b>	<b>70959.3</b>
1. Salary & Wages	1051.3	1156.5	1272.1
2. Selling & Distribution	162.7	178.9	196.8
3. Misc expenses	40.3	44.3	48.7
<b>Total Fixed Expenses</b>	<b>1254.3</b>	<b>1379.7</b>	<b>1517.7</b>
<b>Total Production Cost</b>	<b>54930.4</b>	<b>63349.8</b>	<b>72477.0</b>
EBIDTA	2284.8	2733.7	3218.7
Interest on Term Loan	106.7	65.6	20.1
Interest on Unsecured Loan	0.0	0.0	0.0
Depreciation	306.9	263.2	225.9
Preliminary Expenses	1.4	0.0	0.0
PBT	1869.8	2404.9	2972.8
Less: Taxation	470.6	605.3	748.2
<b>PAT</b>	<b>1399.2</b>	<b>1799.6</b>	<b>2224.6</b>

### B. PROJECTED BALANCE SHEET:

Below table shows the Projected Balance Sheet of the proposed Aluminium Rolling Mill from the period FY 2024-25 to FY 2031-32. FY 2025 would be the implementation period of the project:

Financial Year	FY 2025	FY 2026	FY 2027	FY 2028
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# TECHNO-ECONOMIC VIABILITY REPORT

## M/S MAA VINDHYVASINI FOILS LIMITED

Months	Cons.	12 M	12 M	12 M
Equity	1000.0	1000.0	1000.0	1000.0
Reserve & Surplus	0.0	6.1	333.0	997.6
Secured Loan	2010.0	1774.0	1486.0	1150.0
Unsecured loan	1004.5	1541.5	1541.5	1541.5
Trade Payables	0.0	1109.3	1353.1	1618.5
Term liabilities payable within one year	170.0	236.0	288.0	336.0
<b>Total Equity &amp; Liabilities</b>	<b>4184.5</b>	<b>5667.0</b>	<b>6001.6</b>	<b>6643.6</b>
Land	140.3	140.3	140.3	140.3
Civil Works	628.0	628.0	628.0	628.0
Plant & Machinery	3306.2	3306.2	3306.2	3306.2
Furniture & Fixtures	103.3	103.3	103.3	103.3
<b>Total Gross Block</b>	<b>4177.8</b>	<b>4177.8</b>	<b>4177.8</b>	<b>4177.8</b>
Depreciation	0.0	569.1	1056.4	1474.0
<b>Net Block</b>	<b>4177.8</b>	<b>3608.7</b>	<b>3121.4</b>	<b>2703.8</b>
Trade Receivables	0.0	773.8	947.9	1137.4
Inventories	0.0	1278.8	1566.5	1879.8
Cash & Bank	0.0	0.3	361.8	919.8
<b>Current Assets</b>	<b>0.0</b>	<b>2052.9</b>	<b>2876.2</b>	<b>3937.1</b>
Preliminary Expenses W/off	6.8	5.4	4.1	2.7
<b>Total Assets</b>	<b>4184.5</b>	<b>5667.0</b>	<b>6001.6</b>	<b>6643.6</b>

(Continued)

Financial Year	FY 2029	FY 2030	FY 2031	FY 2032
Months	12 M	12 M	12 M	12 M
Equity	1000.0	1000.0	1000.0	1000.0
Reserve & Surplus	2019.4	3418.7	5218.3	7442.9
Secured Loan	790.0	397.3	0.0	0.0
Unsecured loan	1541.5	1541.5	1541.5	1541.5
Trade Payables	1907.2	2220.8	2561.1	2930.1
Term liabilities payable within one year	360.0	392.7	397.3	0.0
<b>Total Equity &amp; Liabilities</b>	<b>7618.2</b>	<b>8971.0</b>	<b>10718.3</b>	<b>12914.5</b>
Land	140.3	140.3	140.3	140.3
Civil Works	628.0	628.0	628.0	628.0
Plant & Machinery	3306.2	3306.2	3306.2	3306.2
Furniture & Fixtures	103.3	103.3	103.3	103.3
<b>Total Gross Block</b>	<b>4177.8</b>	<b>4177.8</b>	<b>4177.8</b>	<b>4177.8</b>
Depreciation	1831.8	2138.7	2401.9	2627.8



# TECHNO-ECONOMIC VIABILITY REPORT

## M/S MAA VINDHYVASINI FOILS LIMITED

<b>Net Block</b>	<b>2346.0</b>	<b>2039.1</b>	<b>1775.9</b>	<b>1550.0</b>
Trade Receivables	1343.6	1567.5	1810.5	2073.9
Inventories	2220.5	2590.6	2992.2	3427.4
Cash & Bank	1706.7	2773.8	4139.8	5863.3
<b>Current Assets</b>	<b>5270.9</b>	<b>6931.9</b>	<b>8942.5</b>	<b>11364.5</b>
Preliminary Expenses W/off	1.4	0.0	0.0	0.0
<b>Total Assets</b>	<b>7618.2</b>	<b>8971.0</b>	<b>10718.3</b>	<b>12914.5</b>

### C. PROJECTED CASH FLOW STATEMENT:

(INR Lakhs)

Financial Year	FY 2025	FY 2026	FY 2027	FY 2028
<b>Particulars</b>	<b>Cons.</b>	<b>12 M</b>	<b>12 M</b>	<b>12 M</b>
Net Profit	0.0	6.1	326.8	664.6
Increase in Equity / Share Capital	1000.0	0.0	0.0	0.0
Increase in TL	2180.0	0.0	0.0	0.0
Increase in Unsecured Loan	1004.5	537.0	0.0	0.0
Depreciation	0.0	569.1	487.4	417.5
Preliminary Expenses w/off	0.0	1.4	1.4	1.4
Trade payables	0.0	1109.3	243.7	265.4
<b>TOTAL</b>	<b>4184.5</b>	<b>2222.9</b>	<b>1059.3</b>	<b>1348.9</b>
Capital Expenses	4177.8	0.0	0.0	0.0
Decrease in Term Loan	0.0	170.0	236.0	288.0
Decrease in Unsecured Loan	0.0	0.0	0.0	0.0
Trade Receivable	0.0	773.8	174.1	189.6
Inventory	0.0	1278.8	287.7	313.3
Preliminary Expense	6.8	0.0	0.0	0.0
<b>TOTAL</b>	<b>4184.5</b>	<b>2222.6</b>	<b>697.8</b>	<b>790.9</b>
Opening Balance	0.0	0.0	0.3	361.8
Net Surplus/ Deficit	0.0	0.3	361.4	558.1
<b>Cumulative Balance</b>	<b>0.0</b>	<b>0.3</b>	<b>361.8</b>	<b>919.8</b>

(Continued)

Financial Year	FY 2029	FY 2030	FY 2031	FY 2032
<b>Particulars</b>	<b>12 M</b>	<b>12 M</b>	<b>12 M</b>	<b>12 M</b>
Net Profit	1021.9	1399.2	1799.6	2224.6
Increase in Equity / Share Capital	0.0	0.0	0.0	0.0
Increase in TL	0.0	0.0	0.0	0.0



## TECHNO-ECONOMIC VIABILITY REPORT

### M/S MAA VINDHYVASINI FOILS LIMITED

Increase in Unsecured Loan	0.0	0.0	0.0	0.0
Depreciation	357.9	306.9	263.2	225.9
Preliminary Expenses w/off	1.4	1.4	0.0	0.0
Trade payables	288.7	313.6	340.3	368.9
<b>TOTAL</b>	<b>1669.8</b>	<b>2021.1</b>	<b>2403.2</b>	<b>2819.4</b>
Capital Expenses	0.0	0.0	0.0	0.0
Decrease in Term Loan	336.0	360.0	392.7	397.3
Decrease in Unsecured Loan	0.0	0.0	0.0	0.0
Trade Receivable	206.2	223.9	243.0	263.3
Inventory	340.7	370.1	401.5	435.2
Preliminary Expense	0.0	0.0	0.0	0.0
<b>TOTAL</b>	<b>882.9</b>	<b>954.0</b>	<b>1037.2</b>	<b>1095.9</b>
Opening Balance	919.8	1706.7	2773.8	4139.8
Net Surplus/ Deficit	786.9	1067.1	1366.0	1723.5
<b>Cumulative Balance</b>	<b>1706.7</b>	<b>2773.8</b>	<b>4139.8</b>	<b>5863.3</b>

#### D. KEY FINANCIAL RATIO:

YEAR	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
<b>EBITDA Margin %</b>	2.9%	3.3%	3.6%	3.8%	4.0%	4.1%	4.3%
<b>EBIT Margin %</b>	0.9%	1.9%	2.6%	3.1%	3.5%	3.7%	4.0%
<b>PAT Margin %</b>	0.0%	0.9%	1.6%	2.1%	2.4%	2.7%	2.9%
<b>Revenue Growth %</b>	-	22.5%	20.0%	18.1%	16.7%	15.5%	14.5%

#### E. GRAPHICAL REPRESENTATION OF KEY RATIOS:



# TECHNO-ECONOMIC VIABILITY REPORT

## M/S MAA VINDHYVASINI FOILS LIMITED





**F. ESTIMATED KEY FINANCIAL METRICS:**

**DEBT SERVICE COVERAGE RATIO (DSCR)**

Particular	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
PAT (Profit After Tax)	6.1	326.8	664.6	1021.9	1399.2	1799.6	2224.6
Depreciation	569.1	487.4	417.5	357.9	306.9	263.2	225.9
Preliminary Expenses	1.4	1.4	1.4	1.4	1.4	0.0	0.0
Interest on term loan	230.6	208.4	179.7	145.0	106.7	65.6	20.1
Interest on CC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Subtotal</b>	<b>807.2</b>	<b>1023.9</b>	<b>1263.2</b>	<b>1526.1</b>	<b>1814.2</b>	<b>2128.5</b>	<b>2470.6</b>
Interest on term loan	230.6	208.4	179.7	145.0	106.7	65.6	20.1
Interest on CC	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Loan Repayment	170.0	236.0	288.0	336.0	360.0	392.7	397.3
<b>Subtotal</b>	<b>400.6</b>	<b>444.4</b>	<b>467.7</b>	<b>481.0</b>	<b>466.7</b>	<b>458.3</b>	<b>417.4</b>
<b>DSCR</b>	<b>2.0</b>	<b>2.3</b>	<b>2.7</b>	<b>3.2</b>	<b>3.9</b>	<b>4.6</b>	<b>5.9</b>
Average DSCR	3.52						
Maximum DSCR	5.92						

**G. SENSITIVITY ANALYSIS OF D.S.C.R:**

The proposed project is found comparatively more sensitive with respect to the revenue, than the cost of raw material and any surge in the interest rate. Sensitivity analysis of the project with respect to 10% decrease in the revenue, 10% increase in the variable cost and 2% increment in the proposed interest rate has been shown in the below table:

Sensitivity Analysis of D.S.C.R			
S. No.	Particular	Average D.S.C.R	Max. D.S.C.R
1.	If the projected revenue /capacity utilisation decreased by 10%	2.83	4.81
2.	If the projected raw material cost increased by 10%	Negative	Negative
3.	If interest rate is increased by 2%	3.35	5.87





**H. NPV, IRR AND PAYBACK PERIOD OF THE PROJECT:**

(INR Lakhs)

Free Cash Flow for the project								
Particulars	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
Period (Months)	Cons.	12.0	12.0	12.0	12.0	12.0	12.0	12.0
EBIT	0.0	238.8	645.1	1067.9	1510.5	1976.5	2470.5	2992.8
Less: Taxes	0.0	2.1	109.9	223.5	343.7	470.6	605.3	748.2
Add: Depreciation & Amortisation	0.0	569.1	487.4	417.5	357.9	306.9	263.2	225.9
<b>NOPAT</b>	<b>0.0</b>	<b>805.8</b>	<b>1022.6</b>	<b>1261.9</b>	<b>1524.7</b>	<b>1812.8</b>	<b>2128.5</b>	<b>2470.6</b>
+/- WCC	0.0	943.2	218.1	237.4	258.2	280.4	304.2	329.6
Capex	4177.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Free Cash Flow to Firm (FCFF)</b>	<b>-</b> <b>4177.8</b>	<b>-</b> <b>137.4</b>	<b>804.5</b>	<b>1024.4</b>	<b>1266.5</b>	<b>1532.4</b>	<b>1824.3</b>	<b>2140.9</b>
Discount Period	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Discount Factor	1.00	0.87	0.75	0.65	0.57	0.49	0.43	0.37
PV Of FCFF	(4177.8)	(119.2)	605.7	669.2	717.9	753.6	778.5	792.7
TV	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19617.3
PV Of TV	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7263.6
<b>PV(FCFF+TV)</b>	<b>-</b> <b>4177.8</b>	<b>-</b> <b>119.2</b>	<b>605.7</b>	<b>669.2</b>	<b>717.9</b>	<b>753.6</b>	<b>778.5</b>	<b>8056.3</b>

Key Input for NPV & IRR		
S. No.	Key Input	Description
1.	Market Risk Premium	7.81% (Damodaran ERP India Jan 2024)
2.	Company Specific Risk Premium	2%
3.	Discount Rate	15.25%
4.	Perpetual Growth Rate	5.0%
NPV		INR 7,284.25 Lakhs
IRR		36.45%

*(Handwritten signature and circular stamp of R.K. Associates Valuers & Techno Engineering Consultants P. Ltd.)*

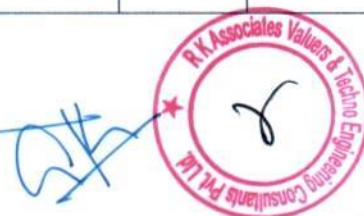


Payback Period of the Project		
Financial Year	Cash Accrual	Accumulated Cash Accrual
2025	0.00	0.00
2026	575.20	575.20
2027	814.17	1389.37
2028	1082.15	2471.52
2029	1379.75	3851.27
2030	1706.10	5557.37
2031	2062.85	7620.22
2032	2450.49	10070.71
<b>Total</b>	<b>10070.71</b>	
<b>TPC</b>	<b>INR 4184.55 lakhs</b>	
<b>Payback Period</b>	<b>4.20 Years</b>	

Thus, the project will be having a payback period of **4.20 years** and NPV & IRR of the project as on COD will **INR 7,284.25 Lakhs & 36.45%** respectively, which indicates worthiness of the project.

#### I. OTHER FINANCIAL RATIOS:

Financial Year	2026	2027	2028	2029	2030	2031	2032
Return On Revenue (%)	0%	1%	2%	2%	2%	3%	3%
Return On Capital (%)	9%	23%	34%	40%	41%	40%	35%
Return On Investment	1%	33%	66%	102%	140%	180%	222%
Return On Net Worth	1%	25%	33%	34%	32%	29%	26%
Fixed Assets Coverage	2.0	2.1	2.4	3.0	5.1	-	-
Interest Coverage Ratio	3.5	5.4	8.3	12.9	21.4	41.7	160.4
Current Ratio	1.5	1.8	2.0	2.3	2.7	3.0	3.9
TOL / TNW	3.1	2.3	1.6	1.0	0.7	0.5	0.3
Debt - Equity Ratio	2.0	1.8	1.5	1.2	0.8	0.4	0.0





**J. BREAK-EVEN ANALYSIS:**

(INR lakhs)

Financial Year	2026	2027	2028	2029	2030	2031	2032
Revenue	28242.6	34597.2	41516.7	49041.6	57215.2	66083.5	75695.7
Variable Expenses	26576.7	32521.0	38993.4	46031.6	53676.2	61970.1	70959.3
Contribution	1665.9	2076.2	2523.3	3010.0	3539.0	4113.4	4736.4
Fixed Expenses	1656.4	1638.1	1633.9	1643.1	1667.8	1708.5	1763.6
Profit / PBT	9.6	438.1	889.5	1366.9	1871.2	2404.9	2972.8
<b>PV RATIO</b>	<b>5.9%</b>	<b>6.0%</b>	<b>6.1%</b>	<b>6.1%</b>	<b>6.2%</b>	<b>6.2%</b>	<b>6.3%</b>
BEP Revenue	28080.7	27297.1	26882.1	26770.7	26963.6	27448.3	28185.8
BEP%	99.4%	78.9%	64.8%	54.6%	47.1%	41.5%	37.2%

**K. TERM LOAN INPUTS:**

Term Loan Repayment Inputs – Term Loan 1	
Total loan amount	INR 680 lakhs
Rate of Interest	11.00%
1st Disbursement	July-24
IDC Start & End Month	July-24 to Mar-25
IDC Period (construction period)	9 Months
Commencement /Operation Start	Mar-25
Moratorium Start & End Month (only interest to pay)	July-24 to Mar-25
Moratorium Period after COD	-
Repayment Start	Apr-25
Repayment End	Nov-31
Repayment Period	80 Months

Financial Year (FY)	2025	2026	2027	2028	2029	2030	2031	2032
Op. Bal	0.0	680.0	630.0	562.0	466.0	346.0	226.0	97.3
Disbursement	680.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rep.	0.0	50.0	68.0	96.0	120.0	120.0	128.7	97.3
Closing balance	680.0	630.0	562.0	466.0	346.0	226.0	97.3	0.0
Interest	56.1	72.2	65.9	57.0	44.7	31.5	18.1	3.6
IDC	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TL Interest	49.9	72.2	65.9	57.0	44.7	31.5	18.1	3.6

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Term Loan Repayment Inputs – Term Loan 2	
Total loan amount	INR 1500 lakhs
Rate of Interest	11.00%
1st Disbursement	Jul-24
IDC Start & End Month	July-24 to Mar-25
IDC Period (construction period)	9 Months
Commencement /Operation Start	Mar-25
Moratorium Start & End Month (only interest to pay)	July-24 to Mar-25
Moratorium Period after COD	-
Repayment Start	Apr-25
Repayment End	Mar-32
Repayment Period	84 Months

Financial Year (FY)	2025	2026	2027	2028	2029	2030	2031	2032
Op. Bal	0.0	1500.0	1380.0	1212.0	1020.0	804.0	564.0	300.0
Disbursement	1500.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rep.	0.0	120.0	168.0	192.0	216.0	240.0	264.0	300.0
Closing balance	1500.0	1380.0	1212.0	1020.0	804.0	564.0	300.0	0.0
Interest	123.8	158.4	142.6	122.8	100.3	75.2	47.5	16.5
IDC	96.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TL Interest	27.5	158.4	142.6	122.8	100.3	75.2	47.5	16.5

**L. DEPRECIATION SCHEDULE (WRITTEN DOWN VALUE METHOD):**

(INR lakhs)							
Financial Year (FY)	2026	2027	2028	2029	2030	2031	2032
Building/Civil Works	628.0	565.2	508.7	457.8	412.0	370.8	333.7
Depreciation - Building/Civil Works	62.8	56.5	50.9	45.8	41.2	37.1	33.4
Furniture & Fittings	103.3	93.0	83.7	75.3	67.8	61.0	54.9
Depreciation - Furniture & Fittings	10.3	9.3	8.4	7.5	6.8	6.1	5.5
Plant & Machinery	3,306.2	2,810.3	2,388.7	2,030.4	1,725.9	1,467.0	1,246.9
Depreciation - P&M	495.9	421.5	358.3	304.6	258.9	220.0	187.0
Total WDV Depreciation	569.1	487.4	417.5	357.9	306.9	263.2	225.9



**M. WORKING CAPITAL REQUIREMENT:**

(INR lakhs)

Financial Year (FY)	2026	2027	2028	2029	2030	2031	2032
Net Working Capital	943.2	1161.3	1398.7	1656.9	1937.3	2241.5	2571.1

**2. KEY ASSUMPTIONS & BASIS:**

S. No.	Item	Assumptions and Basis																								
1.	General	<p>a. The projections of the Company are done for the period from FY 2025 to FY 2032, ~8 years, to cover the term loan period as per the industry best practices. It is assumed that the unit will be achieving on 31<sup>st</sup> March 2025.</p> <p>b. We have considered both Revenue &amp; cost-based model (top to bottom approach) while making the future financial projections.</p>																								
2.	Revenue Build up	<p>a. The plant is assumed to be operational for 300 days for 16 hours annually.</p> <p>b. Total income for the financial years during the forecasted period will be generating from sale of sale of Aluminium Foil (0.010 mm to 0.350 mm), sale of Aluminium Sheet (0.350 mm to 6 mm) and Sale of aluminium Scrap.</p> <table><tr><th colspan="4">Revenue @100% capacity</th></tr><tr><th>Products</th><th>Unit Price</th><th>Annual Quantity</th><th>Amount (INR)</th></tr><tr><td>Sale of Aluminium Foil (0.010 mm to 0.350 mm)</td><td>2,90,000.00</td><td>INR/MT</td><td>3,43,12,80,000</td></tr><tr><td>Sale of Aluminium Sheet (0.350 mm to 6 mm)</td><td>2,70,000.00</td><td>INR/MT</td><td>4,78,87,20,000</td></tr><tr><td>Sale of Aluminium Scrap</td><td>1,85,000.00</td><td>INR/MT</td><td>74,59,20,000</td></tr><tr><td colspan="3">Total Revenue (INR)</td><td>8,96,59,20,000</td></tr></table>	Revenue @100% capacity				Products	Unit Price	Annual Quantity	Amount (INR)	Sale of Aluminium Foil (0.010 mm to 0.350 mm)	2,90,000.00	INR/MT	3,43,12,80,000	Sale of Aluminium Sheet (0.350 mm to 6 mm)	2,70,000.00	INR/MT	4,78,87,20,000	Sale of Aluminium Scrap	1,85,000.00	INR/MT	74,59,20,000	Total Revenue (INR)			8,96,59,20,000
Revenue @100% capacity																										
Products	Unit Price	Annual Quantity	Amount (INR)																							
Sale of Aluminium Foil (0.010 mm to 0.350 mm)	2,90,000.00	INR/MT	3,43,12,80,000																							
Sale of Aluminium Sheet (0.350 mm to 6 mm)	2,70,000.00	INR/MT	4,78,87,20,000																							
Sale of Aluminium Scrap	1,85,000.00	INR/MT	74,59,20,000																							
Total Revenue (INR)			8,96,59,20,000																							

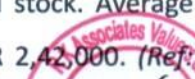


		<p>c. Thus, the company is expected to generate INR 28242.6 Lakhs (@ 30% Capacity Utilization) in the initial year. Further it is expected to increase up to INR 75695.7 Lakhs till FY 2031-32.</p>										
3.	Pricing (Average Price Per Unit)	<p>a. Proposed selling price per unit of Aluminium Foil and Sheet by products are shown in the below table:</p> <table><tr><th colspan="2">Selling price per unit</th></tr><tr><th>Products</th><th>Unit prices</th></tr><tr><td>Sale of Aluminium Foil (0.010 mm to 0.350 mm)</td><td>INR 2,90,000.00/MT</td></tr><tr><td>Sale of Aluminium Sheet (0.350 mm to 6 mm)</td><td>INR 2,70,000.00/MT</td></tr><tr><td>Sale of Aluminium Scrap</td><td>INR 1,85,000.00/MT</td></tr></table> <p>b. The Company is proposing to sell aluminium foil ranging from 0.010 mm to 0.350 mm, with primary focus on selling 32 microns SRC (Semi Rigid Container foil). As per the current market scenario, average rate of 32 microns SRC is more than INR 2,90,000.00/MT (Ref: <a href="https://www.indiamart.com/proddetail/src-aluminium-foil-for-containers-21188344355.html">https://www.indiamart.com/proddetail/src-aluminium-foil-for-containers-21188344355.html</a>).</p> <p>c. The Company is proposing to sell aluminium sheet ranging from 0.350 mm to 6 mm, with primary focus on selling 0.35 MM (roofing sheet). As per the current market scenario, average rate of 0.35 MM (roofing sheet) is more than INR 2,70,000/MT, which the Company is proposing to sell (Ref: <a href="https://dir.indiamart.com/delhi/aluminum-roofing-sheet.html">https://dir.indiamart.com/delhi/aluminum-roofing-sheet.html</a>)</p> <p>d. Average market price of aluminium scrap is ~2,00,000/MT (Ref: <a href="https://aluminiummagazine.com/mag/business/current-aluminium-price.html#google_vignette">https://aluminiummagazine.com/mag/business/current-aluminium-price.html#google_vignette</a>)</p> <p>e. An escalation factor of 5% has been considered in the prices of the products during the forecasted periods considering the micro and macro-economic factors.</p>	Selling price per unit		Products	Unit prices	Sale of Aluminium Foil (0.010 mm to 0.350 mm)	INR 2,90,000.00/MT	Sale of Aluminium Sheet (0.350 mm to 6 mm)	INR 2,70,000.00/MT	Sale of Aluminium Scrap	INR 1,85,000.00/MT
Selling price per unit												
Products	Unit prices											
Sale of Aluminium Foil (0.010 mm to 0.350 mm)	INR 2,90,000.00/MT											
Sale of Aluminium Sheet (0.350 mm to 6 mm)	INR 2,70,000.00/MT											
Sale of Aluminium Scrap	INR 1,85,000.00/MT											

4.	<b>Capacity Utilization</b>	<p>a. For the proposed aluminium rolling mill, initially we have assumed a 30% capacity utilization in the initial year. Capacity utilisation has been projected to increase to 35% in 2<sup>nd</sup> year, 45% in 3<sup>rd</sup> year and to 60% in 7<sup>th</sup> year and constant thereafter as the new proposed unit will take some time to achieve the economies of scale and is expected to operate at a higher capacity in the later years.</p> <p>b. We have considered the capacity utilization on conservative basis to keep a mark-up for future market &amp; economic risks in the Project.</p>
5.	<b>Capital Expenditure</b>	<p>a. As per sale land deed, INR 2.13 Cr is the consideration for cost of land, however, company has provided us INR 1.40 Cr as cost. We recommend the bank to advice the client to clarify the differences.</p> <p>b. The estimated cost of the Civil works has been estimated by the Company at ~INR 6.00 crores including applicable GST The estimated Building &amp; Civil works cost has been verified independently by us, which we found to be on the lower side as compared with the fair market value which is approx. INR 9 Cr.</p> <p>c. The cost of Plant &amp; Machinery/Equipment has been estimated at Rs. 31.59 crores, including purchases of all the required equipment for the proposed unit as per the quotations received from the vendors by the Company. The cost of major plant &amp; machinery has been verified by us independently, which we found reasonable &amp; in the permissible range although the cost may change as per specifications &amp; brand.</p> <p>d. The estimated cost of the furniture and fixtures has been estimated by the Company at ~INR 0.99 crores including applicable GST.</p>





		<p>e. Estimated cost of Pre-Operative Expenses has been estimated by the Company at INR 0.07 crores.</p> <p>f. The estimation/vetting of Total Project Cost or its component is out of scope of this TEV report, and we have relied upon the data/information provided by the client in this regard as quotations has been shared by the client.</p> <p>g. Also, as per our assessment, estimated project cost is extremely low as compared to industrial/sectoral capex data. Company is proposing ~INR 0.002 Crore per metric ton CAPEX for the proposed Aluminium Rolling Mill including GST, pre-operative and preliminary expenses.</p> <p>h. As per our tertiary research and data/information available in the public domain, we found that the investment required can be anywhere from ~ INR 1 Crore to INR 3 Crore per metric ton which is much lower than market rates.</p>																
6.	Expenses	<p>a. The 7mm foil stock to be used as raw material will be costing @ INR 2,45,000/MT. The cost of the raw material @ 100% capacity has been shown in the below table:</p> <table><tr><th colspan="4">Raw material Cost @ 100% capacity</th></tr><tr><th>Raw Material</th><th>INR/Ton</th><th>Annual Quantity</th><th>Amount INR</th></tr><tr><td>Annual Consumption of aluminium (7mm foil stock)</td><td>2,45,000</td><td>33,600</td><td>8,23,20,00,000</td></tr><tr><td>Total</td><td colspan="3">INR 8,23,20,00,000</td></tr></table> <p>b. As per our tertiary research and data available in the public domain, we found the unit rate are in the permissible range. As informed to us by the Company, the expected price for 7mm foil stock would be current market price for Aluminium Alloy Ingot plus INR 3,000 conversion charges for 7mm foil stock. Average market price for Aluminium Alloy Ingot is ~ INR 2,42,000. (Ref: </p>	Raw material Cost @ 100% capacity				Raw Material	INR/Ton	Annual Quantity	Amount INR	Annual Consumption of aluminium (7mm foil stock)	2,45,000	33,600	8,23,20,00,000	Total	INR 8,23,20,00,000		
Raw material Cost @ 100% capacity																		
Raw Material	INR/Ton	Annual Quantity	Amount INR															
Annual Consumption of aluminium (7mm foil stock)	2,45,000	33,600	8,23,20,00,000															
Total	INR 8,23,20,00,000																	





		fund working capital investment in FY2026.
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### Key Findings:

1. Average DSCR, EBIDTA margin, EBIT margin is 3.52, 3.70%, and 2.79% respectively during the estimated period.
2. The company is having a positive NPV and IRR as on COD, of INR 7,284.25 lakhs and 36.45% respectively at the base cases while it may vary with changes in the assumptions & micro and macro-economic trends considered as on date.
3. The proposed project is having a payback period of 4.20 years.
4. Based on the above key financial ratios of the proposed Project during the forecasted period shows that the project appears financially viable if the promoters of the project are able to maintain assumed capacity utilization, revenue and can contain cost as assumed above in the calculation.

*[Handwritten signature]*



**PART N**

**CONCLUSION**

Based on the technological, economic and market analysis done above, various assumptions of sectoral trends taken, product pricing to be adopted by the company, the Project appears to be Techno-commercially viable subject to the risks, threats, weaknesses, limitations of the product as detailed previously.

As per financial projections for the estimated period, **Average DSCR, EBITDA Margin and EBIT Margin** of the project are **3.52, 3.70%, and 2.79%** respectively, where higher DSCR is the indicator of the project capability to pay out its outstanding debt and EBITDA margin shows the capability of the project to generate the operating profits over the forecasted period. Also, the project is having the payback period of **4.20 Years** in the line with sectoral trends.

The proposed Aluminium Rolling Mill is having a positive **NPV and IRR** as **INR 7,284.25 lakhs and 36.45%** respectively at a 60% capacity utilization as the industry is expectedly growing at a CAGR of 7.4% during the forecasted period. While it is not avoidable that the future projections may change in the upcoming years due to various factors impacting the operation, managerial, financial efficiency and economies of scale of the project.

While it would be depending on the management's capability in future that how efficiently company adopts marketing and advertisement strategy, supply chain and carry out inventory & resource management to achieve higher profitability. After considering the foreseen demand of the aluminium foil and sheet domestically and globally, various initiatives taken by the government, financial analysis of the project based on the assumptions taken over the projected period, it appears reasonable to comment that the proposed project is "**Technically and Economically**" Viable subject to current assumptions considered and occurring the same in the upcoming years same as the forecasted period which is dependent on the sincerity and efforts of the management and various micro and macroeconomic & industry situation.

We have tried our level best to analyse the Project techno-economic feasibility of the Project based on the Industry research, Project information and various futuristic assumption taken within the limitations and challenges came in front of us. However, achieving the financial milestones depends on the ability, sincerity and efforts of the company, promoters and its key management to maintain the projected raw material cost level Y-o-Y basis keeping the fact in mind that the project is found sensitive with respect to the upside fluctuation in the raw material cost.







# TECHNO-ECONOMIC VIABILITY REPORT

## M/S MAA VINDHYVASINI FOILS LIMITED

<b>Declaration</b>	<p>i. The undersigned does not have any direct/indirect interest in the above property/project/Company.</p> <p>ii. The information furnished herein is true and correct to the best of our knowledge, logical and scientific assumptions.</p> <p>iii. This TEV Report is carried out by our Financial Analyst team on the request from SBI, SME Branch, Partapur, Meerut - 250103.</p> <p>iv. Meeting of Financial projections will be subject to the market &amp; economy stability factors, judicious business operations and proper &amp; timely implementation of the project and putting proper plan for achieving high productivity, efficiency and achieving cost saving benefits to increase profitability.</p> <p>v. We have submitted TEV report to the SBI, SME Branch, Partapur.</p>
<b>Number of Pages in the Report</b>	77
<b>Enclosed Documents</b>	Disclaimer & Remarks 72-75
<b>Place</b>	Noida
<b>Date</b>	29 <sup>th</sup> June 2024

FOR ON BEHALF OF M/S. R.K. ASSOCIATES VALUER & TECHNO ENGINEERING CONSULTANTS PVT. LTD.		
SURVEYED BY	PREPARED BY	REVIEWED BY
Mr. Deepak Joshi	Mr. Aneesh Mallick	Mr. Gaurav Kumar
		



**PART O**

**DISCLAIMER | REMARKS**

1. No employee or member of R.K Associates has any direct/ indirect interest in the Project.
2. This report is prepared based on the copies of the documents/ information which the Bank/ Company has provided to us out of the standard checklist of documents sought from them and further based on our assumptions and limiting conditions. The client/owner and its management/representatives warranted to us that the information they supplied was complete, accurate and true and correct to the best of their knowledge. All such information provided to us has been relied upon in good faith and we have assumed that it is true and correct in all respect. I/We shall not be liable for any loss, damages, cost or expenses arising from fraudulent acts, misrepresentations, or wilful default on part of the owner, company, its directors, employee, representative or agents. Verification or cross checking of the documents provided to us from the originals or from any Govt. departments/ Record of Registrar has not been done at our end since this is beyond the scope of our work. If at any time in future, it is found or came to our knowledge that misrepresentation of facts or incomplete or distorted information has been provided to us then this report shall automatically become null & void.
3. Legal aspects for e.g. investigation of title, ownership rights, lien, charge, mortgage, lease, sanctioned maps, verification of documents, etc. have not been done at our end and same has to be taken care by legal expert/ Advocate. It is assumed that the concerned Lender/ Financial Institution has satisfied them with the authenticity of the documents, information given to us and for which the legal verification has been already taken and cleared by the competent Advocate before requesting for this report. I/ We assume no responsibility for the legal matters including, but not limited to, legal or title concerns.
4. This report is a general analysis of the project based on the scope mentioned in the report. This is not an Audit report, Design document, DPR or Techno feasibility study. All the information gathered is based on the facts seen on the site during survey, verbal discussion & documentary evidence provided by the client and is believed that information given by the company is true best of their knowledge.
5. This Techno Economic-Viability study is prepared based on certain futuristic assumption which are intra dependent on economic, market and sectorial growth condition in future and socio-economic, socio-political condition at macro and micro level.





6. Meeting of assumption and financial ratio will entirely depend on the sincerity and efforts of the company, promoters and its key managerial performance.
7. All observations mentioned in the report is only based on the visual observation and the documents/ data/ information provided by the client. No mechanical/ technical tests, measurements or any design review have been performed or carried out from our side during Project assessment.
8. This report has been diligently prepared by our techno-financial team to the best of their ability. However, it's important to note that the recommendations provided in this Total Economic Viability (TEV) assessment do not imply an endorsement, validation, or certification of the accuracy or completeness of the disclosed information by the involved stakeholders. Furthermore, we do not claim or endorse that the opinions presented herein are the sole best course of action for decision-makers to follow. There may exist additional approaches and inputs that have not been covered within this report or fall outside the scope of this report.
9. Bank/FII should **ONLY** take this report as an Advisory document from the Financial/ Chartered Engineering firm and its specifically advised to the creditor to cross verifies the original documents for the facts mentioned in the report which can be availed from the borrowing company directly.
10. In case of any default in loans or the credit facility extended to the borrowing company, R.K Associates shall not be held responsible for whatsoever reason may be and any request for seeking any explanation from the employee/s of R.K Associates will not be entertained at any instance or situation.
11. The documents, information, data provided to us during the course of this assessment by the client are reviewed only up to the extent required in relation to the scope of the work. No document has been reviewed beyond the scope of the work.
12. This report only contains general assessment & opinion as per the scope of work evaluated as per the information given in the copy of documents, information, data provided to us and/ and confirmed by the owner/ owner representative to us at site which has been relied upon in good faith. It doesn't contain any other recommendations of any sort including but not limited to express of any opinion on the suitability or otherwise of entering into any transaction with the borrower.




13. We have relied on data from third party, external sources & information available on public domain also to conclude this report. These sources are believed to be reliable and therefore, we assume no liability for the truth or accuracy of any data, opinions or estimates furnished by others that have been used in this analysis. Where we have relied on data, opinions or estimates from external sources, reasonable care has been taken to ensure that such data has been correctly extracted from those sources and /or reproduced in its proper form and context, however still we can't vouch its authenticity, correctness or accuracy.
14. This Report is prepared by our competent technical team which includes Engineers and financial experts & analysts.
15. This is just an opinion report and doesn't hold any binding on anyone. It is requested from the concerned Financial Institution which is using this report for taking financial decision on the project that they should consider all the different associated relevant & related factors also before taking any business decision based on the content of this report.
16. All Pages of the report including annexure are signed and stamped from our office. In case any paper in the report is without stamp & signature then this should not be considered a valid paper issued from this office.
17. Though adequate care has been taken while preparing this report as per its scope, but still we can't rule out typing, human errors, over sightedness of any information or any other mistakes. Therefore, the concerned organization is advised to satisfy themselves that the report is complete & satisfactory in all respect. Intimation regarding any discrepancy shall be brought into our notice immediately. If no intimation is received within **15 (Fifteen) days** in writing from the date of issuance of the report, to rectify these timely, then it shall be considered that the report is complete in all respect and has been accepted by the client up to their satisfaction & use and further to which R.K Associates shall not be held responsible in any manner.
18. Defect Liability Period is **15 DAYS**. We request the concerned authorized reader of this report to check the contents, data and calculations in the report within this period and intimate us in writing if any corrections are required or in case of any other concern with the contents or opinion mentioned in the report. Corrections only related to typographical, calculation, spelling mistakes, incorrect data/ figures/ statement will be entertained within the defect liability period. Any new changes for any additional information in already approved report will be regarded as additional work for which additional fees may be charged. No request for any illegitimate change in regard to any facts & figures will be entertained.





19. R.K Associates encourages its customers to give feedback or inform concerns over its services through proper channel at [valuers@rkassociates.org](mailto:valuers@rkassociates.org) in writing within **15 days** of report delivery. After this period no concern/ complaint/ proceedings in connection with the Techno- Economic Viability Study Services will be entertained due to possible change in situation and condition of the subject Project.
20. Our Data retention policy is of **ONE YEAR**. After this period, we remove all the concerned records related to the assignment from our repository. No clarification or query can be answered after this period due to unavailability of the data.
21. This Techno Economic Viability Study report is governed by our (1) Internal Policies, Processes & Standard Operating Procedures, (2) Information/ Data/ Inputs given to us by the client and (3) Information/ Data/ Facts given to us by our field/ office technical team. Management of R.K Associates never gives acceptance to any unethical or unprofessional practice which may affect fair, correct & impartial assessment and which is against any prevailing law. In case of any indication of any negligence, default, incorrect, misleading, misrepresentation or distortion of facts in the report then it is the responsibility of the user of this report to immediately or at least within the defect liability period bring all such act into notice of R.K Associates management so that corrective measures can be taken instantly.
22. R.K Associates never releases any report doing alterations or modifications from pen. In case any information/ figure of this report is found altered with pen then this report will automatically become **null & void**.
23. If this report is prepared for the matter under litigation in any Indian court, no official or employee of R.K Associates will be under any obligation to give in person appearance in the court as a testimony. For any explanation or clarification, only written reply can be submitted on payment of charges by the plaintiff or respondent which will be 10% of the original fees charged where minimum charges will be Rs. 15,000/.

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# TECHNO-ECONOMIC VIABILITY REPORT

## M/S MAA VINDHYAVASINI FOILS LIMITED

**कार्यालय जिला पंचायत, हरिद्वार**

पत्रांक 1240 / जिप0हरि0 / 2022-23 दिनांक : 20/01/2023

**M/s MAA VINDHYAVASINI FOILS LIMITED,**  
ग्राम-सुसांडा,  
परगना-मंगलौर, तहसील-रुड़की,  
जनपद-हरिद्वार।

ग्राम- सुसांडा, परगना-मंगलौर, तहसील-रुड़की, जनपद-हरिद्वार में स्थित भूमि, जिसका ख0रं0-138 है, पर M/s MAA VINDHYAVASINI FOILS LIMITED फर्म के नाम से उद्योग संचालित करने हेतु प्रस्तुत मानचित्र उत्तर प्रदेश क्षेत्र पंचायत तथा जिला पंचायत अधिनियम, 1961 की धारा 239(2) यथासंशोधित उत्तराखण्ड पंचायतीराज अधिनियम-2016 की धारा 106(2) में प्रदत्त अधिकारों का प्रयोग करते हुए जिला पंचायत, हरिद्वार द्वारा निर्मित उपविधि सं0 1143/23-5(6)(2013-14), दिनांक 31 जनवरी, 2014 में निर्धारित निम्न शर्तों के अधीन स्वीकृत किया जाता है।

- उक्त फर्म का निर्माण मुख्य सड़क से 75 फिट तथा लिंक रोड से 15 फिट छोड़कर करना होगा।
- निर्माण कार्य सड़क की नाली छोड़कर करना होगा।
- उक्त फर्म का निर्माण करते समय पर्यावरण का पूर्ण ध्यान रखना होगा। निर्माणाधीन फर्म के समीप छाया/हवादार पेड़ लगाने होंगे।
- भूमि संबंधी तथा सरकारी एवं गैर सरकारी विवाद उठने पर होने वाले निर्माण की समस्त जिम्मेदारी स्वयं निर्माणकर्ता की होगी।
- उक्त फर्म ने सींचालय य पेशाबघर, शर्तों के अनुरूप रखने होंगे तथा उनका निकास यदि सीवर लाईन पड़ी हो तो उसमें जोड़ना होगा, यदि सीवर लाईन न हो तो उसका स्लोक पिट ऐसे सुरक्षित स्थान पर बनाया जायेगा, जिससे किसी अन्य को किसी हानि या गन्दगी का सामना न करना पड़े। सफाई का पर्याप्त बन्दोबस्त करना होगा।
- उक्त फर्म का निर्माण भूकम्परोधी होगा।
- उक्त फर्म के संचालन हेतु अग्निशमन एवं अन्य सम्बन्धित विभाग का अनापत्ति प्रमाण पत्र लेना अनिवार्य होगा।
- जिला पंचायत द्वारा दी गयी स्वीकृति 05 वर्ष तक के लिये मान्य रहेगी। उक्त अवधि समाप्त होने के बाद प्रस्तावित निर्माण कार्य जिला पंचायत की स्वीकृति के बिना नहीं किया जायेगा।

(हस्ताक्षर) **जिला पंचायत, हरिद्वार।**

**HEAD OFFICE**  
**Uttarakhand Pollution Control Board**  
"Gaura Devi Paryavaran Bhawan"  
46B, IT Park, Sahasradhara Road, Dehradun  
E-mail : msukpcb@yahoo.com, Phone No.-0135-2607092

Letter No - UKPCB/HO/NOC-7942/2024 | 1649 Date 28/1/24 Registered/AD

To,  
M/s Maa Vindhya Vasini Foils Ltd.,  
Kh.no. 138, Vill-Susanda, Pargana Manglore,  
Tehsil-Roorkee, Distt- Haridwar.

CAF ID- 44624  
CTE - Fresh

**Sub:- Regarding Issuance of Consent to Establish (CTE-Fresh) for the establishment of new unit under Section-25 of the Water (Prevention and Control of Pollution) Act, 1974 and Section-21 of Air (Prevention and Control of Pollution) Act, 1981.**

In reference to your application dated 26.04.2023 (Application no. 3416709) and the inspection report submitted by the concerned regional office and recommendation on the above subject were examined at the Headquarters and accepted after examination. As a part of the decision, the industry is hereby issued a letter of Consent to Establishment (CTE-Fresh) with the condition of proper compliance with the following specific conditions and general conditions from the point of view of environmental pollution.

1- This consent letter for establishment is being issued only for the following specific details:	
a. Address	Kh.no. 138, Vill-Susanda, Pargana Manglore, Tehsil-Roorkee, Distt- Haridwar.
b. Production	Aluminum sheets/foils - 500 MT per month
c. Raw Material	1. Rolling Oils - 300 KL per month 2. Aluminium Sheet - 550 MT per month 3. Corrugated Box - 05 MT per month
d. Effluent generation	Industrial - Nil Domestic - 2.4 KLD
e. Used fuel	1. Diesel for DG Set (500 KVA) 2. Others Electricity for Rolling Mill (300 MT & 200 MT)

In case of any change in the above subject matter, it will be necessary to obtain consent letter for the re-establishment of unit.

- The Progress report made in the installation of all necessary Plant Equipments, Green Belt Development, Effluent Treatment Plant and Air Pollution Control System in the industry should be sent to this office continuously by the tenth of every month.
- Do not start trial production in an industrial unit until it obtains Consent to Operate (CTO) from the Board under the Water Act and Air Act. To obtain water consent and air consent (CTO), prescribed consent applications must be submitted to this office at least 2 months before the date of starting production in the unit, mentioning the first application before production. If the industry does not comply with the above, then legal action can be taken against the industry under the statutory provisions of the said Acts without any prior notice.
- Before trial production in the industry, inspection of the unit should be ensured by the concerned regional office.

Clean Environment and Healthy Life Style  
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