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# ***Detailed Project Report on Refrigerated Van***

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**Under MKUY**

**Name of the Entrepreneur/Entity:**

**Address:**



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## 1. Project Summary

1	Name of the Enterprise (as per the Illustrative List of Enterprises)	Refrigerated Van
2	Sector (as per the Illustrative List of Enterprises)	AH&VS
3	Project Capacity <sup>1</sup>	10 MT Refrigerated Van
4	Key components of the project	
5	Project Address (Village/Ward, Gram Pranchayat/Municipality, Block, District)	
6	Products/Output from the project	Perishable Product Transportation
7	Total Project Cost	Rs. 24,86,000
8	Fixed Capital Cost	Rs. 23,36,000
9	Working/Recurring capital	1,50,000
10	Bank Finance/ Self Finance	Bank Loan
11	Bank Loan Amount	Rs. 22,37,400
12	Promoter Contribution (min 10% in case of bank loan)	Rs. 2,48,600
13	Assumed Rate of Interest	11%
14	Subsidy Eligibility (40%, 50%)	
15	Repayment Terms (Tenure, Moratorium, Frequency, Mode of Repayment: equal principal/equal instalment)	Equal Monthly Instalment
16	Key Financial Indicators:	
	1. Average Annual Net Profit	Rs. 6,07,013
	2. Debt Service Coverage Ratio (DSCR)	1.69
	3. Internal Rate of Return	24.53%
	4. Break Even Year	3 Years and 5 Months
17	Estimated employment to be generated (nos.)	2

**Note: The price quoted in the DPR is indicative. Final CIS will be calculated as per the Rate in MKUY guideline.**

<sup>1</sup> Capacity can be in terms of area or quantity



## 2. Project Profile

### 2.1 Entrepreneur/Entity Profile

1	Name of the Entrepreneur/Entity	
2	Legal status (Individual/ Group/ FPO/ FPC/ Proprietorship/ Partnership firm/ Company/ Cooperative/ Federation/ Society/ Trust)	
3	Name of Representative <sup>2</sup> in Ease of entity	
4	Gender (Male/ Female/ Third Gender/ Not Applicable)	
5	Date of Birth of Individual/Representative of Entity	
6	Date of Incorporation/Registration of Entity	
7	Category opted for (Women/ ST/ SC/ Differently Abled/ Third gender/ Agri & Allied Graduate)	
8	Educational Qualification of Individual/Representative of Entity	
9	Passport size photograph of the Individual/ Representative of entity	
10	Local Address for Correspondence of the Individual/ Representative of entity	
11	Registered Address of Entity	
12	Main Office/Branch Address of Entity	
13	Phone no. of Individual/Representative of Entity	
14	Email Id of Individual/Representative of Entity	
15	AADHAR No. of Individual/Representative	
16	PAN of Individual/Representative of Entity, if available	
17	Farmer Id of Individual, if available	
18	Details of other Partner/Director/ President/Secretary	
19	Registration No./ CIN of the Entity <sup>3</sup>	
20	PAN/TAN of Entity	
21	GSTIN of Entity, if available	
22	Details of experience and exposure relevant to the proposed enterprise/project (family business, work experience, e- learning/certificate courses, trainings undertaken etc.)	

<sup>2</sup> Representative should be authorized by the board/governing body of the entity.

<sup>3</sup> Registration document:

Groups (SHG/PG/: FPO: Proprietorship firm: Registration Certificate under Shops & Establishment Act, Partnership firm: Registration Certificate from IGR of state, Company (Pvt. Ltd., Public Ltd., LLP, OPC, FPC): Certification of Incorporation, Cooperative/ Federation: Certificate of Registration from Registrar of Cooperative Societies, Society/Trust: Darpan Unique Id



## 2.2. Project Consultant Details

DPR prepared by:

Please provide further details of the consultant:





## 2.3. Concept and Scope of the Project

In the prevalent competitive business space with emphasis on sustainability and environmental protection, the bottom line has become critical for the companies in every sphere of activity. Hence it should come as no surprise if the cost optimisation approach has been accorded highest priority and importance in the cold chain terrain – to bring down the enormous wastage of fruits & veg and allied products, poultry, fish, meat, milk & dairy products, etc., due to lack of cold chain infrastructure and/or transport facilities. The wastage statistics and the financial implications thereof are mind-boggling and because of the same, successive govts in office have initiated several steps thro' policies and plans to alleviate the problems.

Reefers is a generic term, derived from of word 'refrigerated' and referring to products stored/transported in enclosed refrigerated space, viz., in temperature-controlled ambience, be it on a truck, marine / intermodal container, van or any carrier vehicle. With respect to the transport carrier moving on roads the term refers to a vehicle fitted with refrigeration unit and playing an important role in the cold chain supplies. Typically, the reefers (reefer vehicles in the context) provide controlled temperature ranging from -25 to +15 deg. C and have slowly started replacing the conventional vehicles used in the segment.

A refrigerated truck refers to a vehicle type that is particularly designed for carrying perishable goods at lower temperatures to avoid spoilage or contamination. These trucks are primarily equipped with a mechanical refrigeration system that contains carbon dioxide (dry ice) as a cooling agent to maintain the temperature below the freezing point. Refrigerated trucks are widely adopted to transport numerous temperature-sensitive items, such as meat and fish, dairy products, fruits & vegetables, confectioneries, pharmaceuticals, etc.

### **Market Demand**

In India, the expanding cold chain logistics sector coupled with the growing number of food retail services is primarily driving the demand for refrigerated trucks. In line with this, the rising consumer inclination towards frozen, chilled, and processed food items due to hectic work schedules and sedentary lifestyles is also propelling the market growth. Additionally, the wide availability of frozen meat, ready-to-cook snacks, seasonal fruits and vegetables, etc., across diverse brick-and-mortar and online distribution channels is further augmenting the deployment of refrigerated trucks for supply-based applications. Several food retailers are focusing on the adoption of advanced-cold chain transportation facilities for efficient management of their supply chains. Apart from this, a significant growth in the healthcare sector along with the rising demand for safe transportation of temperature-sensitive products, such as vaccines, biopharmaceuticals, clinical trial materials, etc., is also catalyzing the market. Moreover, the increasing investments in the development of advanced medical facilities and research laboratories are further bolstering the need for refrigerated trucks to preserve heat-labile biological materials during transportation activities. In the coming years, the emergence of hybrid refrigerated trucks with phase change material (PCM) technology offering improved energy efficiency and enhanced operational features will continue to drive the market growth in India.

Out of the 105 million ton of perishable goods transported across India each year, only 4 million ton is transported via reefers route; and the perishable goods loss amounts to Rs. 1 lakh crores! Though more than 30,000 reefers ply all across India, most are run by unorganised and small service providers. While the percentage of fruits and vegetables



movement thro' cold chain in the US is 85%, Thailand 40% in India it's negligible – throwing up clearly the enormous business opportunities for the domain players.

The India refrigerated trucks market size reached INR 5.4 Billion in 2022. Looking forward, IMARC Group expects the market to reach INR 14.7 Billion by 2028, exhibiting a growth rate (CAGR) of 18.1% during 2023-2028.

### 3. Techno-commercial Assumptions

Sl. No.	Parameter	Value	Unit
1	Increase in Rate of Transportation	7	%
2	Increase in Diesel Price	5	%
3	Collection from Debtors ( First Year)	15	Days
4	Collection from Debtors	15	Days
5	Payable to Creditors	15	Days
6	Drawing By Promoter	50	%
7	Increase in Staff Salary	5	%
8	Rate of Interest on TL	11	%
9	Rate of Interest on WC	9	%
10	Loan Repayment (in year)	7	Years
11	Raw Material in Stock (on sales)	30	Days
12	Finished Goods in stock (on sales)	0	Days
13	Promoter's Contribution (Term Loan)	10	%
14	Promoter's Contribution (Working Capital)	10	%
15	Working Capital Requirement	30	Days
17	Working Capital Utilisation	100	%
18	Distance travel during the day (to and fro)	400	Km
19	Average Mileage for First Year	10	km/lit.
20	Average Mileage for 2nd Year to 4th Year	8	km/lit.
21	Average Mileage for 5th Year to 7th Year	7	km/lit.
22	Rate of Diesel	97	Rs/lit.
23	Repair and Maintenance Cost for First and Second Year	3	%
24	Repair and Maintenance Cost for Third to 5th Year	5	%
25	Total Working Days	350	Days

### 4. Financial Details

#### 4.1. Project Fixed Capital

Details of Fixed Assets					
Sl. No.	Particulars	Unit	Qty.	Cost per unit	Total
<b>A</b>	<b>Land</b>				
1	Land Development	NA	NA	NA	0
2	Fencing (Barbed wire/Green Fencing)	NA	NA	NA	0
	<b>Sub Total</b>				
<b>B</b>	<b>Civil Construction</b>				



Details of Fixed Assets					
Sl. No.	Particulars	Unit	Qty.	Cost per unit	Total
1	Garage	sq. ft	200	400.00	80,000
	<b>Sub Total</b>				80,000
<b>C</b>	<b>Water Supply</b>				
1	NA	NA	NA	NA	0
<b>D</b>	<b>Electrification</b>				
1	NA	NA	NA	NA	0
<b>E</b>	<b>Plant &amp; Machinery</b>				
Sl. No.	Particulars	Specification	Qty	Unit Price	total
1	Vehicle	Tata LPT 909 HEX2 BS-IV	1	1300000	14,00,000
2	Insulated Container with Refrigeration System	Puff insulated PPGL, with Data logger	1	360000	8,26,000
	<b>Total</b>				<b>22,26,000</b>
<b>F</b>	<b>Miscellaneous Expenditure</b>				
1	Insurance premium of assets				30,000
2	DPR Cost				
3	Other Misc. Exp				
	<b>Total Misc. Exp</b>				<b>30,000</b>

#### 4.2. Project Variable Expenses

Details of Recurring Expenditure						
<b>A</b>	<b>Details of raw material (per annum @ 100%)</b>					
Sl. No.	Items	Unit	Rate per lit. (Rs)	Qty per day (lit.)	Qty per annum (lit)	Total (Rs)
1	Diesel		97	50	17,500	16,97,500
	<b>Total</b>					<b>16,97,500</b>

Details of salary and other benefits				
Sl. No.	Type of Workers	No. of Worker	Salary Per Month/head (Rs)	Total Salary per Annum (Rs)
1	Driver	1	20,000	2,40,000
2	Helper	1	8,000	96,000
	<b>Grand Total</b>	2	28,000	<b>3,36,000</b>

#### 4.3. Details of Sales

Details of sales (Per annum @100% capacity)						
Sl. No.	Type of products	Unit	Rate/Unit (Rs)	Quantity/day	Quantity/annum	Total (Rs)
1	Transportation Charges	Rs	22	400	1,40,000	30,80,000
	<b>Total</b>					<b>30,80,000</b>

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#### 4.4. Project Balance Sheet

Liabilities	Y1	Y2	Y3	Y4	Y5	Y6	Y7
<b>Opening Capital</b>	-	<b>3,95,082</b>	<b>4,19,965</b>	<b>4,58,268</b>	<b>5,33,860</b>	<b>6,29,633</b>	<b>7,03,433</b>
Add: Introduced	2,48,600						
Add: Profit	2,93,482	4,44,883	4,98,303	6,10,591	7,26,773	7,77,799	8,97,261
Less: Drawing	1,47,000	4,20,000	4,60,000	5,35,000	6,31,000	7,04,000	8,01,000
<b>Closing Capital</b>	<b>3,95,082</b>	<b>4,19,965</b>	<b>4,58,268</b>	<b>5,33,860</b>	<b>6,29,633</b>	<b>7,03,433</b>	<b>7,99,693</b>
Term Loan from Bank	18,91,250	16,55,667	13,92,822	10,99,561	7,72,364	4,07,304	-
Current Liabilities							
Cash Credit from Bank	1,35,000	1,35,000	1,35,000	1,35,000	1,35,000	1,35,000	1,35,000
Sundry Creditors	76,388	90,850	97,250	1,04,100	1,11,400	1,19,200	1,27,550
Expenses Payable	42,100	45,800	54,300	57,400	60,700	71,400	75,700
Current Provisions	2,289	10,257	15,201	43,273	72,318	85,075	1,16,683
<b>Total Current Liabilities</b>	<b>2,55,776</b>	<b>2,81,907</b>	<b>3,01,751</b>	<b>3,39,773</b>	<b>3,79,418</b>	<b>4,10,675</b>	<b>4,54,933</b>
<b>Total Liabilities</b>	<b>25,42,109</b>	<b>23,57,539</b>	<b>21,52,841</b>	<b>19,73,194</b>	<b>17,81,415</b>	<b>15,21,411</b>	<b>12,54,626</b>
Assets							
Fixed Assets	23,36,000	23,36,000	23,36,000	23,36,000	23,36,000	23,36,000	23,36,000
Less Depreciation	3,41,900	6,32,915	8,80,638	10,91,526	12,71,073	14,23,950	15,54,132
<b>Net Fixed Assets</b>	<b>19,94,100</b>	<b>17,03,085</b>	<b>14,55,362</b>	<b>12,44,474</b>	<b>10,64,927</b>	<b>9,12,050</b>	<b>7,81,868</b>
Current Assets							
Sundry Debtors	1,38,600	1,64,800	1,76,400	1,88,700	2,02,000	2,16,100	2,31,300
Inventories	1,31,000	1,55,800	1,66,800	1,78,500	1,91,000	2,04,400	2,18,700
Cash and Bank Balance	27,800	33,000	35,300	37,800	40,400	43,300	46,300
Other Current Assets	2,50,609	3,00,854	3,18,979	3,23,720	2,83,088	1,45,561	(23,542)
<b>Total Current Assets</b>	<b>5,48,009</b>	<b>6,54,454</b>	<b>6,97,479</b>	<b>7,28,720</b>	<b>7,16,488</b>	<b>6,09,361</b>	<b>4,72,758</b>
<b>Total Assets</b>	<b>25,42,109</b>	<b>23,57,539</b>	<b>21,52,841</b>	<b>19,73,194</b>	<b>17,81,415</b>	<b>15,21,411</b>	<b>12,54,626</b>



#### 4.5. Calculation of Depreciation

Rates of Depreciation		10%	15%	Total depreciation for the year (Rs)
Year	1	8,000.00	3,33,900	3,41,900
	2	7,200.00	2,83,815	2,91,015
	3	6,480.00	2,41,243	2,47,723
	4	5,832.00	2,05,056	2,10,888
	5	5,248.80	1,74,298	1,79,547
	6	4,723.92	1,48,153	1,52,877
	7	4,251.53	1,25,930	1,30,182

#### 4.6. Projected P&L

Description	Year ending March 31st						
	Y1	Y2	Y3	Y4	Y5	Y6	Y7
Capacity Utilisation	90	100	100	100	100	100	100
<b>Revenue</b>							
Sales	27,72,000	32,96,000	35,27,000	37,74,000	40,39,000	43,22,000	46,25,000
Opening Stock of Finished Goods	-	-	-	-	-	-	-
Closing Stock of Finished Goods	-	-	-	-	-	-	-
<b>Total Income (A)</b>	<b>27,72,000</b>	<b>32,96,000</b>	<b>35,27,000</b>	<b>37,74,000</b>	<b>40,39,000</b>	<b>43,22,000</b>	<b>46,25,000</b>
<b>Expenditure</b>							
Opening stock of Raw Material (Diesel)	-	1,31,000	1,55,800	1,66,800	1,78,500	1,91,000	2,04,400
Purchase of Material (Diesel)	15,27,750	18,17,000	19,45,000	20,82,000	22,28,000	23,84,000	25,51,000
Closing Stock of Raw material- (Diesel)	1,31,000	1,55,800	1,66,800	1,78,500	1,91,000	2,04,400	2,18,700
<b>Raw Material Consumption</b>	<b>13,96,750</b>	<b>17,92,200</b>	<b>19,34,000</b>	<b>20,70,300</b>	<b>22,15,500</b>	<b>23,70,600</b>	<b>25,36,700</b>
Repair & Maintenance	83,160	98,880	1,76,350	1,88,700	2,01,950	3,02,540	3,23,750
Insurance cost	30,000	31,500	33,100	34,800	36,600	38,500	40,500
Administrative salaries and wages	3,36,000	3,52,800	3,70,500	3,89,100	4,08,600	4,29,100	4,50,600
Other Misc Expenses [@2% of sales]	55,440	65,920	70,540	75,480	80,780	86,440	92,500
<b>Total Cost</b>	<b>19,01,350</b>	<b>23,41,300</b>	<b>25,84,490</b>	<b>27,58,380</b>	<b>29,43,430</b>	<b>32,27,180</b>	<b>34,44,050</b>
<b>Profit Before Depreciation, Interest and Tax</b>	<b>8,70,650</b>	<b>9,54,700</b>	<b>9,42,510</b>	<b>10,15,620</b>	<b>10,95,570</b>	<b>10,94,820</b>	<b>11,80,950</b>



Description	Year ending March 31st						
	Y1	Y2	Y3	Y4	Y5	Y6	Y7
Depreciation	3,41,900	2,91,015	2,47,723	2,10,888	1,79,547	1,52,877	1,30,182
<b>Profit Before Interest and Tax</b>	<b>5,28,750</b>	<b>6,63,685</b>	<b>6,94,787</b>	<b>8,04,732</b>	<b>9,16,023</b>	<b>9,41,943</b>	<b>10,50,768</b>
Interest on Term Loan	2,20,829	1,96,395	1,69,134	1,38,717	1,04,782	66,919	24,674
Interest on Working Capital Loan	12,150	12,150	12,150	12,150	12,150	12,150	12,150
<b>Total Interest Paid</b>	<b>2,32,979</b>	<b>2,08,545</b>	<b>1,81,284</b>	<b>1,50,867</b>	<b>1,16,932</b>	<b>79,069</b>	<b>36,824</b>
<b>Profit Before Tax</b>	<b>2,95,771</b>	<b>4,55,140</b>	<b>5,13,504</b>	<b>6,53,864</b>	<b>7,99,092</b>	<b>8,62,874</b>	<b>10,13,944</b>
Income Tax	2,289	10,257	15,201	43,273	72,318	85,075	1,16,683
<b>Profit after Tax</b>	<b>2,93,482</b>	<b>4,44,883</b>	<b>4,98,303</b>	<b>6,10,591</b>	<b>7,26,773</b>	<b>7,77,799</b>	<b>8,97,261</b>
Sales	27,72,000	32,96,000	35,27,000	37,74,000	40,39,000	43,22,000	46,25,000

#### 4.7. Projected Cash Flow

Period Ending:	Y1	Y2	Y3	Y4	Y5	Y6	Y7
Cash & Bank Balance at Beginning	-	27,800	33,000	35,300	37,800	40,400	43,300
<b>Cash Inflow during the Period</b>	<b>28,84,009</b>	<b>7,62,029</b>	<b>7,65,869</b>	<b>8,59,502</b>	<b>9,86,597</b>	<b>10,99,460</b>	<b>12,40,804</b>
<b>Cash Outflow during the Period</b>	<b>28,56,209</b>	<b>7,56,829</b>	<b>7,63,569</b>	<b>8,57,002</b>	<b>9,83,997</b>	<b>10,96,560</b>	<b>12,37,804</b>
<b>Closing Cash &amp; Bank Balance</b>	<b>27,800</b>	<b>33,000</b>	<b>35,300</b>	<b>37,800</b>	<b>40,400</b>	<b>43,300</b>	<b>46,300</b>

#### 4.8. Projected Loan Repayment

Year	Interest	EMI	Principal
1	2,20,828.97	4,31,978.52	2,11,149.56
2	1,96,394.99	4,31,978.52	2,35,583.54
3	1,69,133.53	4,31,978.52	2,62,844.99
4	1,38,717.42	4,31,978.52	2,93,261.11
5	1,04,781.58	4,31,978.52	3,27,196.94
6	66,918.74	4,31,978.52	3,65,059.79
7	24,674.44	4,31,978.52	4,07,304.08
<b>Total</b>	<b>9,21,449.67</b>	<b>30,23,849.67</b>	<b>21,02,400.00</b>



#### 4.9. Calculation of DSCR, IRR and BEP

Calculation of DSCR							
Year	Y1	Y2	y3	Y4	Y5	Y6	Y7
Net Sales	27,72,000	32,96,000	35,27,000	37,74,000	40,39,000	43,22,000	46,25,000
Net Profit	2,93,482	4,44,883	4,98,303	6,10,591	7,26,773	7,77,799	8,97,261
Depreciation	2,32,979	2,08,545	1,81,284	1,50,867	1,16,932	79,069	36,824
<b>Cash Accruals (a)</b>	<b>5,26,461</b>	<b>6,53,428</b>	<b>6,79,587</b>	<b>7,61,459</b>	<b>8,43,705</b>	<b>8,56,868</b>	<b>9,34,085</b>
Principal	2,11,150	2,35,584	2,62,845	2,93,261	3,27,197	3,65,060	4,07,304
Interest	2,32,979	2,08,545	1,81,284	1,50,867	1,16,932	79,069	36,824
<b>Total (b)</b>	<b>4,44,129</b>	<b>4,44,129</b>	<b>4,44,129</b>	<b>4,44,129</b>	<b>4,44,129</b>	<b>4,44,129</b>	<b>4,44,129</b>
DSCR	1.19	1.47	1.53	1.71	1.90	1.93	2.10
<b>Average DSCR</b>	<b>1.69</b>						

Calculation of Break-Even Point (BEP)							
Sales	27,72,000	32,96,000	35,27,000	37,74,000	40,39,000	43,22,000	46,25,000
Variable Cost	14,52,190	18,58,120	20,04,540	21,45,780	22,96,280	24,57,040	26,29,200
<b>Contribution</b>	<b>13,19,810</b>	<b>14,37,880</b>	<b>15,22,460</b>	<b>16,28,220</b>	<b>17,42,720</b>	<b>18,64,960</b>	<b>19,95,800</b>
Fixed Cost	10,24,039	9,82,740	10,08,956	9,74,356	9,43,628	10,02,086	9,81,856
<b>BEP Sales</b>	<b>21,50,791</b>	<b>22,52,699</b>	<b>23,37,394</b>	<b>22,58,429</b>	<b>21,86,992</b>	<b>23,22,310</b>	<b>22,75,321</b>
<b>Average BEP sales</b>	<b>22,54,848</b>						

Calculation of Internal Rate of Return (IRR)				
Sl. No.	Year	PAT	Depreciation	Cash Accrual
	Cash outflow at beginning			-24,86,000
1	31-03-2023	2,93,482	3,41,900	6,35,382
2	31-03-2024	4,44,883	2,91,015	7,35,898
3	31-03-2025	4,98,303	2,47,723	7,46,026
4	31-03-2026	6,10,591	2,10,888	8,21,480
5	31-03-2027	7,26,773	1,79,547	9,06,320
6	31-03-2028	7,77,799	1,52,877	9,30,676
7	31-03-2029	8,97,261	1,30,182	10,27,442
<b>IRR</b>		<b>24.53%</b>		
<b>Payback Period</b>	<b>3 Years 5 Months</b>			



#### 4.10. Summary of Project Cost

Sl. No.	Name of Assets	Amount (Rs)
1	Land Development	-
2	Civil Construction	80,000
3	Irrigation/Water Supply	-
4	Electrification	-
5	Plant & Machinery	22,26,000
6	Livestock	-
7	Insurance	30,000
8	DPR Cost	-
9	Other Misc. Exp	-
	<b>Total Fixed Cost</b>	<b>23,36,000</b>
	<b>Recurring</b>	<b>1,50,000</b>
	<b>Cost of Project</b>	<b>24,86,000</b>