PET Bottle Recycling - Manufacturing Plant Detailed Project Report, Profile, Business plan, Industry Trends, Market research, survey, Manufacturing Process, Machinery, Raw Materials, Feasibility study, Investment opportunities, Cost and Revenue
Introduction

Polyethylene terephthalate or PET (also known as PETE) is one of the most common types of plastic. Most single-serve plastic bottles, including those for water, soft drinks and juices, are made with PET. Designated by the recycling code “1”. Being extremely light, PET bottles help to reduce the emission of contaminants during their transport.
Since they require less fuel during transport, they also help saving energy. PET is globally recognized as a safe, recyclable packaging material. PET is the main constituent in a variety of consumer and industrial products including plastic fibers, videotape, audiotape, film, engineered resin, food containers.
PET recycling is the process of reprocessing plastic that already has been used before and giving it some new reusable form. For instance, this could mean melting down soft drink bottles and then casting them as plastic chairs and tables. Typically a plastic is not recycled into the same type of plastic, and products made from recycled plastics are often not recyclable. Thus, it is a good project for entrepreneurs to invest.
Few Indian Major Players are as under:

- Allen Laboratories Ltd.
- Dhunseri Petrochem & Tea Ltd.
- F C L Technologies & Products Ltd. [Merged]
- Filaments India Ltd.
- Futura Polymers Ltd. [Merged]
- Garden Polymers Pvt. Ltd.
- Jauss Polymers Ltd.
- L-Pack Polymers Ltd.
• Mold-Tek Packaging Ltd.
• Pearl Engineering Polymers Ltd.
• Pearl Polymers Ltd.
• Polycon International Ltd.
• Radico Khaitan Ltd.
• Sachi Molding Solutions Pvt. Ltd.
• Sen Pet (India) Ltd.
• Shripet Cybertech Systems Ltd.
• South Asian Petrochem Ltd. [Merged]
• Sunrise Containers Ltd.
## Project at a Glance

<table>
<thead>
<tr>
<th>COST OF PROJECT</th>
<th>MEANS OF FINANCE</th>
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<tbody>
<tr>
<td><strong>Particulars</strong></td>
<td><strong>Existing</strong></td>
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<tr>
<td>Land &amp; Site Development Exp.</td>
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<tr>
<td>Buildings</td>
<td>0.00</td>
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<tr>
<td>Plant &amp; Machineries</td>
<td>0.00</td>
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<tr>
<td>Motor Vehicles</td>
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<td>Office Automation Equipments</td>
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<td>Technical Knowhow Fees &amp; Exp.</td>
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<td>Franchise &amp; Other Deposits</td>
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<td>Preliminary &amp; Pre-operative Exp</td>
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<tr>
<td>Provision for Contingencies</td>
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<tr>
<td>Margin Money - Working Capital</td>
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<tr>
<td>TOTAL</td>
<td>0.00</td>
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## Project at a Glance

<table>
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<tr>
<th>Year</th>
<th>Annualised</th>
<th>Book Value</th>
<th>Debt</th>
<th>Dividend</th>
<th>Retained Earnings</th>
<th>Payout</th>
<th>Probable Market Price</th>
<th>P/E Ratio</th>
<th>Yield Price/ Book Value</th>
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<td>1-2</td>
<td>4.35</td>
<td>8.26</td>
<td>14.35</td>
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<td>100.00</td>
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<td>32.85</td>
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<td>100.00</td>
<td>10.85</td>
<td>1.00</td>
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<td>100.00</td>
<td>16.74</td>
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## Project at a Glance

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<tr>
<th>Year</th>
<th>D. S. C. R.</th>
<th>Debt / Deposits Debt</th>
<th>Equity as-Equity</th>
<th>Total Net Worth</th>
<th>Return on Net Worth</th>
<th>Profitability Ratio</th>
<th>Assets Turnover Ratio</th>
<th>Current Ratio</th>
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<tbody>
<tr>
<td></td>
<td>Individual</td>
<td>Cumulative</td>
<td>Overall</td>
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<tr>
<td></td>
<td>(Number of times)</td>
<td>(Number of times)</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
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<td>Initial</td>
<td>3.00</td>
<td>3.00</td>
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<td>1-2</td>
<td>1.24</td>
<td>1.24</td>
<td>1.67</td>
<td>1.67</td>
<td>2.92</td>
<td>10.13%</td>
<td>4.19%</td>
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<td>1.59</td>
<td>1.41</td>
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<td>1.75</td>
<td>11.87%</td>
<td>6.81%</td>
<td>4.47%</td>
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<td>3-4</td>
<td>2.00</td>
<td>1.59</td>
<td>1.99</td>
<td>0.37</td>
<td>0.37</td>
<td>1.08</td>
<td>13.03%</td>
<td>8.65%</td>
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<td>4-5</td>
<td>2.47</td>
<td>1.78</td>
<td>0.13</td>
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<td>0.69</td>
<td>13.80%</td>
<td>9.93%</td>
<td>6.31%</td>
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<tr>
<td>5-6</td>
<td>3.03</td>
<td>1.99</td>
<td>0.00</td>
<td>0.00</td>
<td>0.46</td>
<td>14.30%</td>
<td>10.82%</td>
<td>6.85%</td>
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## Project at a Glance

<table>
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<th>BEP</th>
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<tr>
<td>BEP - Maximum Utilisation Year</td>
<td>5</td>
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<tr>
<td>Cash BEP (% of Installed Capacity)</td>
<td>63.60%</td>
</tr>
<tr>
<td>Total BEP (% of Installed Capacity)</td>
<td>66.59%</td>
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</table>

<table>
<thead>
<tr>
<th>IRR, PAYBACK and FACR</th>
<th></th>
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<tbody>
<tr>
<td>Internal Rate of Return .. ( In %age )</td>
<td>26.12%</td>
</tr>
<tr>
<td>Payback Period of the Project is ( In Years )</td>
<td>2 Years 4 Months</td>
</tr>
<tr>
<td>Fixed Assets Coverage Ratio ( No. of times )</td>
<td>11.807</td>
</tr>
</tbody>
</table>
1. District Profile & Geotechnical Site Characterization
   1.1. General
   1.2. Physical Characteristics
   1.3. Climate
   1.4. Transportation and Communications
   1.5. Map
   1.6. Economy
   1.7. Culture & Attitudes

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3. Uses & Applications
4. Facts on PET Bottle & Its Recycling
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4.2. Plastic Container Code
4.3. Modernization of PET Bottle

5. Advantage & Benefits

6. B.I.S. Specifications
6.1. 2828:1964 Glossary of terms used in the plastics industry
6.2. 7019:1982 Glossary of terms in plastics and flexible packaging, excluding paper (first revision)
6.3. 14534:1998 Guidelines for recycling of plastics
7. Types of Plastic Recycling

8. Market Survey
8.1. PET and Containers
8.2. PET Containers
8.3. Market Structure
8.4. PET Bottle Recycling: Cash the Trash
8.5. Export
8.6. Global Demand

9. Financials & Comparison of Major Indian Players/Companies
9.1. About Financial Statements of CMIE Database
9.2. Profits & Appropriations
9.3. **Total Liabilities**
9.4. **Total Assets**
9.5. **Net Cash Flow from Operating Activities**
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   9.6.2. Name of Director(S)
   9.6.3. Plant Capacity
   9.6.4. Location of Plant
   9.6.5. Capital Expenditure Projects
   9.6.6. Name of Raw Material(S) Consumed With Quantity & Cost

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   9.7.2. Profits
   9.7.3. Forex Transaction
9.7.4. Liabilities
9.7.5. Assets
9.7.6. Growth in Assets & Liabilities
9.7.7. Growth in Income & Expenditure
9.7.8. Liquidity Ratios
9.7.9. Profitability Ratio
9.7.10. Return Ratios
9.7.11. Cost as % ge of sales
9.7.12. Working Capital & Turnover Ratios
9.7.13. Structure of Assets & Liabilities(%) 

10. Export & Import Statistics Data of India
10.1. Export Statistics Data for Empty Pet Bottle
10.2. Import Statistics Data for Empty Pet Bottle
11. Present Manufacturers

12. Specification of Machinery & Equipments

13. Manufacturing Process
13.1. Process Description:


15. Suppliers of Raw Material

16. Suppliers of Plant & Machinery
17. Product, Machinery & Raw Material Photographs
17.1. Product Photographs
17.2. Machinery Photographs
17.3. Raw Material Photographs

18. Plant Layout

19. Quotation of Plant, Machinery and Equipments from Supplier
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  - Plant Economics .............................................................................2
  - Production Schedule .......................................................................3
  - Land & Building ............................................................................4

Factory Land & Building
Site Development Expenses
• **Plant & Machinery**
  - Indigenous Machineries
  - Other Machineries (Miscellaneous, Laboratory etc.)

• **Other Fixed Assets**
  - Furniture & Fixtures
  - Pre-operative and Preliminary Expenses
  - Technical Knowhow
  - Provision of Contingencies

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  - Raw Material
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  - Consumable Store
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• Annexure 2 :: Profitability and Net Cash Accruals

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- Expenses/Cost of Products/Services/Items
- Gross Profit
- Financial Charges
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- Net Profit After Taxes
- Net Cash Accruals
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  - Gross Working Capital
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  ▪ RONW (Average of Share Capital)
  ▪ ROI (Average of Total Assets)

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  ▪ Earnings Per Share (EPS)
  ▪ Debt Equity Ratio
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- Semi-Variable/Semi-Fixed Expenses
- Profit Volume Ratio (PVR)
- Fixed Expenses / Cost
- B.E.P
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- Resultant N.P.B.T
- Resultant D.S.C.R
- Resultant PV Ratio
- Resultant DER
- Resultant ROI
- Resultant BEP
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  ▪ Equity Capital
  ▪ Preference Share Capital
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  ▪ Achievable Efficiency/Yield % of Products/Services/Items
  ▪ Net Usable Load/Capacity of Products/Services/Items
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• Annexure 16 :: Raw Material Cost per unit
• Annexure 17 :: Total Lab & ETP Chemical Cost
• Annexure 18 :: Consumables, Store etc.
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• Annexure 20 :: Packing Material Cost Per Unit
• Annexure 21 :: Employees Expenses
• Annexure 22 :: Fuel Expenses
• Annexure 23 :: Power/Electricity Expenses
• Annexure 24 :: Royalty & Other Charges
• Annexure 25 :: Repairs & Maintenance Expenses
• Annexure 26 :: Other Manufacturing Expenses
• Annexure 27 :: Administration Expenses
• Annexure 28 :: Selling Expenses
<table>
<thead>
<tr>
<th>Annexure</th>
<th>Description</th>
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<tbody>
<tr>
<td>29</td>
<td>Depreciation Charges – as per Books (Total)</td>
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<tr>
<td>30</td>
<td>Depreciation Charges – as per Books (P &amp; M)</td>
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<td>31</td>
<td>Depreciation Charges - as per IT Act WDV (Total)</td>
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<tr>
<td>32</td>
<td>Depreciation Charges - as per IT Act WDV (P &amp; M)</td>
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<td>33</td>
<td>Interest and Repayment - Term Loans</td>
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<tr>
<td>34</td>
<td>Tax on Profits</td>
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<tr>
<td>35</td>
<td>Projected Pay-Back Period and IRR</td>
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</tbody>
</table>
Niir Project Consultancy Services (NPCS) can provide Detailed Project Report on PET Bottle Recycling

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- Economic feasibility study of the Project
- Market potential survey/research
- Report Compilation

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- Educational Institutions
- Embassies & Consulates
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- Alcoholic And Non Alcoholic Beverages, Drinks
- Adhesives, Industrial Adhesive, Sealants, Glues, Gum & Resin
- Activated Carbon & Activated Charcoal
- Aluminium And Aluminium Extrusion Profiles & Sections,
- Bio-fertilizers And Biotechnology
- Breakfast Snacks And Cereal Food
- Bicycle Tyres & Tubes, Bicycle Parts, Bicycle Assembling
Sectors We Cover (cont...)

- Bamboo And Cane Based Projects
- Building Materials And Construction Projects
- Biodegradable & Bioplastic Based Projects
- Chemicals (Organic And Inorganic)
- Confectionery, Bakery/Baking And Other Food
- Cereal Processing
- Coconut And Coconut Based Products
- Cold Storage For Fruits & Vegetables
- Coal & Coal Byproduct

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- Copper & Copper Based Projects
- Dairy/Milk Processing
- Disinfectants, Pesticides, Insecticides, Mosquito Repellents,
- Electrical, Electronic And Computer based Projects
- Essential Oils, Oils & Fats And Allied
- Engineering Goods
- Fibre Glass & Float Glass
- Fast Moving Consumer Goods
- Food, Bakery, Agro Processing
Sectors We Cover  cont...

- Fruits & Vegetables Processing
- Ferro Alloys Based Projects
- Fertilizers & Biofertilizers
- Ginger & Ginger Based Projects
- Herbs And Medicinal Cultivation And Jatropha (Biofuel)
- Hotel & Hospitality Projects
- Hospital Based Projects
- Herbal Based Projects
- Inks, Stationery And Export Industries
Sectors We Cover

- Infrastructure Projects
- Jute & Jute Based Products
- Leather And Leather Based Projects
- Leisure & Entertainment Based Projects
- Livestock Farming Of Birds & Animals
- Minerals And Minerals
- Maize Processing (Wet Milling) & Maize Based Projects
- Medical Plastics, Disposables Plastic Syringe, Blood Bags
- Organic Farming, Neem Products Etc.
Sectors We Cover

- Paints, Pigments, Varnish & Lacquer
- Paper And Paper Board, Paper Recycling Projects
- Printing Inks
- Packaging Based Projects
- Perfumes, Cosmetics And Flavours
- Power Generation Based Projects & Renewable Energy Based Projects
- Pharmaceuticals And Drugs
- Plantations, Farming And Cultivations
- Plastic Film, Plastic Waste And Plastic Compounds
- Plastic, PVC, PET, HDPE, LDPE Etc.
Sectors We Cover

- Potato And Potato Based Projects
- Printing And Packaging
- Real Estate, Leisure And Hospitality
- Rubber And Rubber Products
- Soaps And Detergents
- Stationary Products
- Spices And Snacks Food
- Steel & Steel Products
- Textile Auxiliary And Chemicals

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