



Lithium-Ion Battery (LIB) Manufacturing Industry.

Start a Li-ion Battery Production.

Battery Assembling Business

Introduction

Lithium is a silver-white colored soft metal that belongs to the alkali metal group. Lithium is the lightest element known and has strong electrochemical potential. It is highly reactive element making it flammable and potentially explosive when exposed to air and water and is usually stored in mineral oil to preserve it from corrosion and tarnish.



Lithium-ion batteries have become the most important application of lithium and storage technology in the areas of portable and mobile applications (e.g. laptops, cell phones, smartphones, tablets, power tools, medical devices electric bicycles and electric cars).

Lithium-ion (Li-ion) batteries are rechargeable batteries with high-energy density and are majorly used in portable equipment. The market for these batteries is expected to witness significant growth owing to increase in use in smartphones, tablets/PCs, digital cameras, and power tools. Moreover, the demand for Li-ion batteries in the automobile industry is expected to increase in line with rise in demand for electric vehicles. These batteries have gained popularity among automobile manufacturers as they offer an alternative to nickel metal batteries used in electric vehicles, due to their small size and light weight.

Applications of Lithium-Ion Batteries:

Some of the most common applications of lithium-ion batteries are:

- **Power backups/UPS**
- **Mobile, Laptops, and other commonly used consumer electronic goods**
- **Electric mobility**
- **Energy Storage Systems**

As there are varied uses of a Lithium Ion Battery, it comes in different types of packaging. However, there are some general advantages of using a Li-ion battery over other traditional batteries.

Advantages of Lithium-Ion Batteries

- **High Energy Density:** One of the biggest advantages of a lithium-ion battery is its high energy density. To put it straight, lithium-ion batteries can last way longer between charges all the while maintaining a high current output. That makes it the perfect battery for most modern needs. As we spend more and more time on our mobile phones, lithium-ion batteries can make sure that we are on the go always and spend minimal time attached to a charging cord.
- **Low Self Discharge:** Not only whilst being used, but lithium-ion batteries have a clear advantage when not being used as well. When kept idle, the rate of self-discharge, a common phenomenon in batteries, is extremely low. In fact, in most cases, it is as good as being negligent.

- **No Requirement for Priming:** Some rechargeable cells need to be primed when they receive their first charge. There is no requirement for this with lithium ion cells and batteries.
- **Low Maintenance:** One major lithium ion battery advantage is that they do not require and maintenance to ensure their performance. Ni-Cad cells required a periodic discharge to ensure that they did not exhibit the memory effect. As this does not affect lithium ion cells, this process or other similar maintenance procedures are not required.



- **Variety of types available:** There are several types of lithium ion cell available. This advantage of lithium ion batteries can mean that the right technology can be used for the particular application needed. Some forms of lithium ion battery provide a high current density and are ideal for consumer mobile electronic equipment. Others are able to provide much higher current levels and are ideal for power tools and electric vehicles.



Market Outlook

Global lithium ion battery market was valued at \$30,186.8 million in 2017, and is projected to reach \$100,433.7 million by 2025, growing at a CAGR of 17.1% from 2018 to 2025.

The growing automotive industry in the region is also a significant factor contributing to the market growth. The growth is most likely to come from emerging markets, owing to the increasing population, rapid urbanization, and increasing purchasing power.



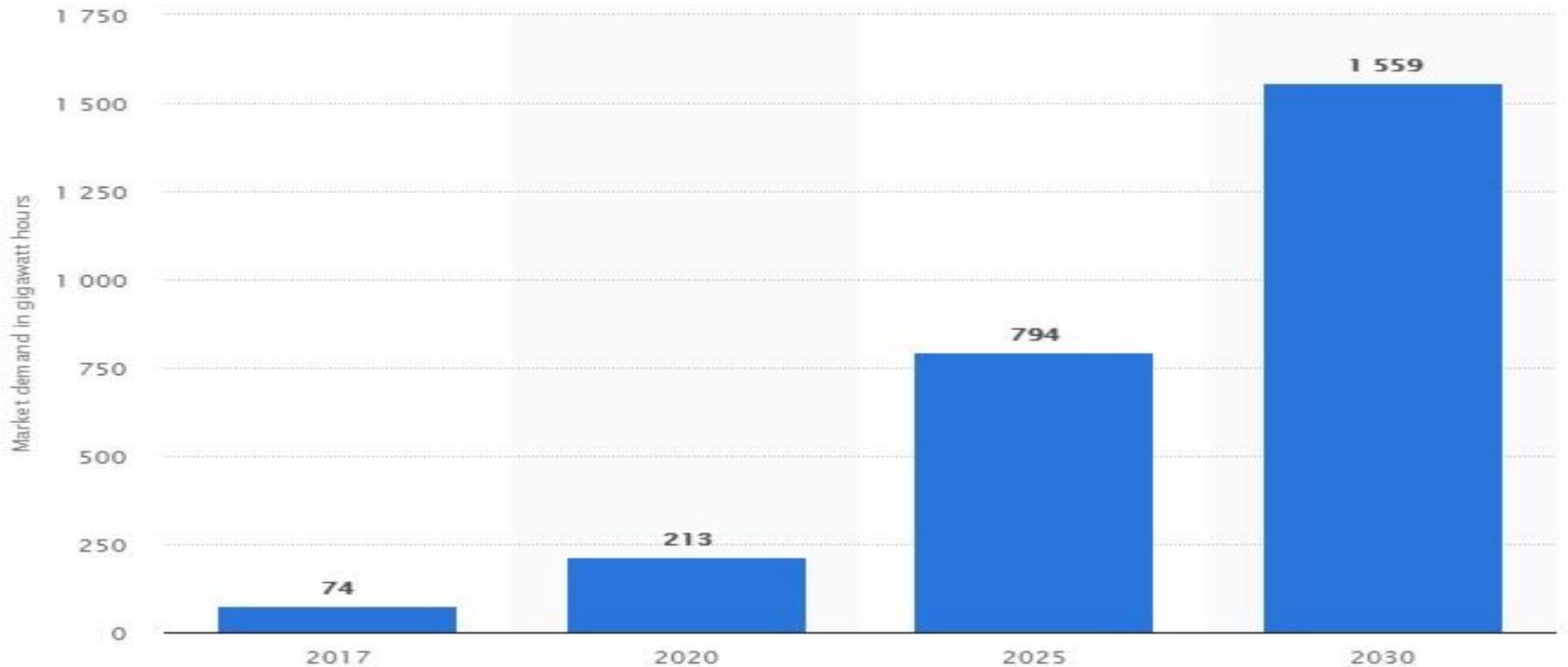
Based on application, the lithium ion battery market is categorized into energy, automotive, consumer, military, industrial, and medical. Industrial sector includes mining, cranes, smart grid, and valves; automotive sector includes buses, trains, trucks, cars, airplanes, e-bikes, and e-scooters; and consumer sector includes smartphones, uninterruptible power supply (UPS), mobile phones, and tablet PCs. The automotive application category is expected to witness the fastest growth in the market during the forecast period, owing to the increasing penetration of electric vehicles in various countries, including Norway, Germany, and China.



The lithium ion battery market is highly fragmented with the presence of large number of domestic players that occupy around 60% market share of the overall figure. Among the different players, Panasonic Corporation dominated the market in 2017. However, the market share of Panasonic Corporation is expected to decrease in the coming years due to the intensifying competition among prominent players to acquire major portion of the market.



Projected Market Demand for Lithium-Ion Batteries used in Electric Vehicles from 2017 to 2030 (in Gigawatt Hours)



The global lithium ion battery market has been segmented by various end-use industries including electrical & electronics, automotive, and industrial, with others, which include medical, military, and textile industries. The electrical & electronics end-use industry is further segmented into smartphones, tablet/PC, UPS, and others. The automotive end-use segment is further segmented into car, bus, truck, scooter & bike, and train & aircraft. Crane & forklift, mining equipment, and smart grid & renewable energy storage are considered under the industrial end-use segment.



Some of the key players operating in the global lithium ion battery market include Automotive Energy Supply Corporation, Panasonic Corporation, Samsung SDI Co. Ltd., LG Chem Power (LGCPI), LITEC Co., Ltd., A123 Systems, LLC., Toshiba Corporation, Hitachi Chemical Co., Ltd., China BAK Battery Co. Ltd., and GS Yuasa International Ltd. The other players in the market (not included in the report) include Tesla, Johnson Controls International Plc., Saft Batteries, and BYD Company Ltd.

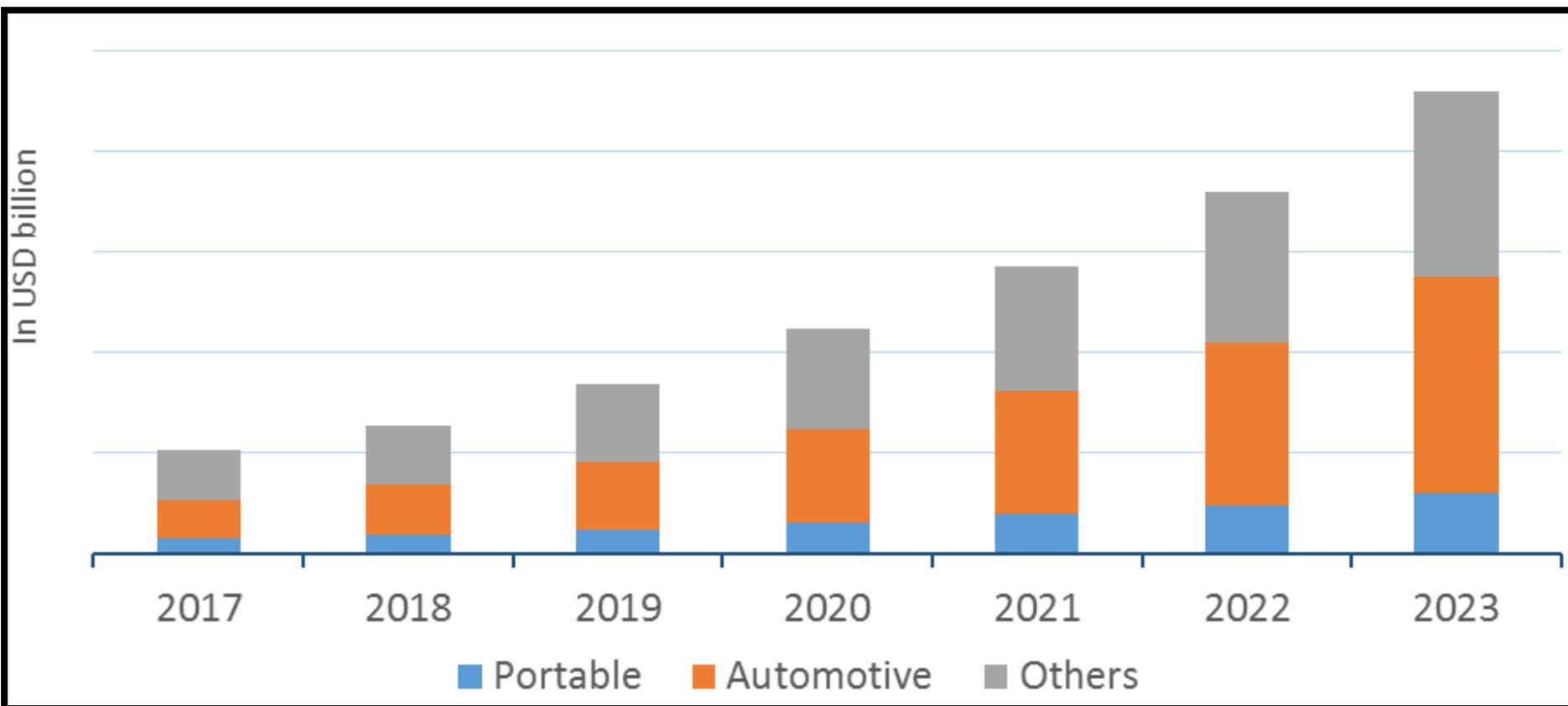


India Lithium-Ion Battery Market:

The Indian automobile sector is one of the most prominent sectors of the country, accounting for nearly 7.1% of the national GDP. However, India has set itself an ambitious target of having only electric vehicles (EV) by 2030, which is expected to increase the demand for lithium-ion batteries in India, significantly. The high cost, associated with batteries that are used in the electric vehicles, is considered to be critical for India's ambitious target. The India lithium-ion battery market is expected to grow at a robust CAGR of 29.26% during the forecast period, 2018-2023.



Lithium-ion Battery Market: Size and Demand Forecast in USD Billion, by Application, India, 2017-2023



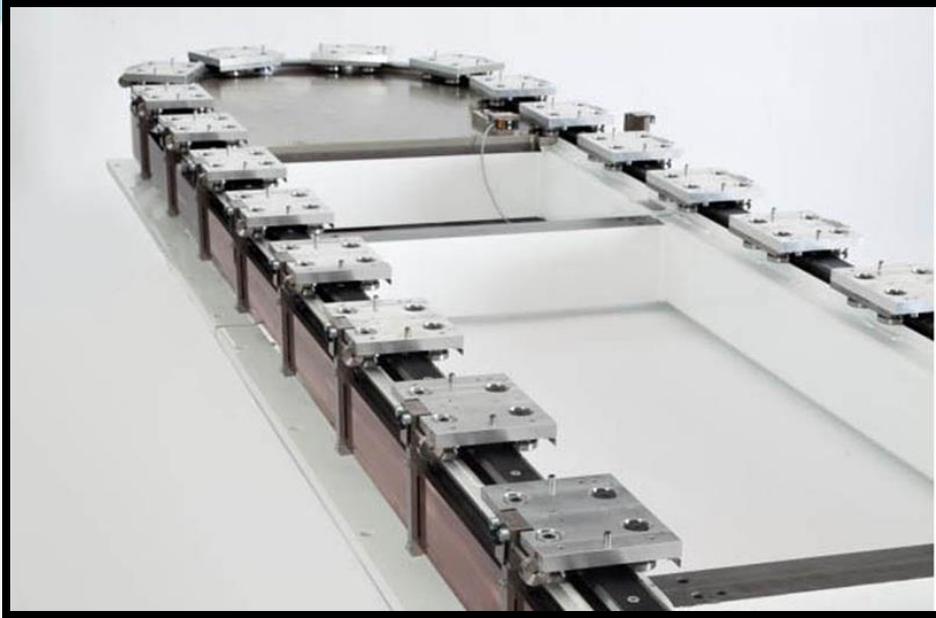
Increase in disposable income has led to rise in demand for electronic devices such as smartphones and tablets fueling the growth of lithium-Ion batteries in the India. Moreover, rise in government initiative to reduce pollution level are the major factors driving the Indian lithium-ion battery market. Growth in automotive sector has led to surge in demand for electric vehicles which has also supplemented the growth of lithium-Ion batteries. However, high cost and risk of fire in electronic devices may hinder the market growth in the coming years. Growth in automobile industry and growing trend of electronic devices among youth consumers would increase the demand for lithium-Ion batteries in the near future.



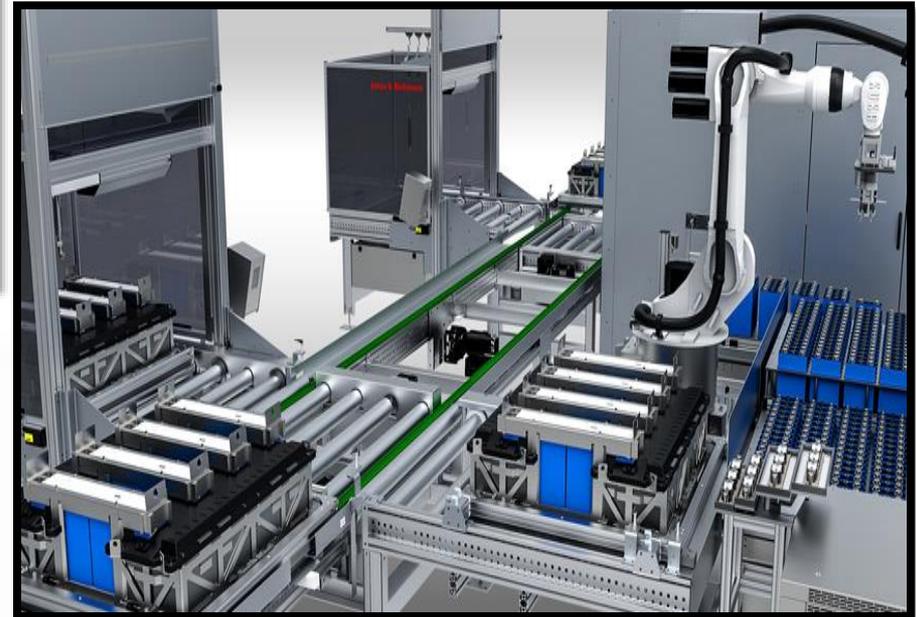
The India lithium-ion battery market has been segmented on the basis of material type and industry vertical. By material type, the market is further segmented into cathode, electrolytic solution, anode, and other materials includes (binders, separators, and others). By industry vertical, the market is bifurcated into electronics (UPS, smart phones, laptops/tablets, and others), automotive (car, buses, and trucks, scooters and bikes, train and aircraft), industrial (mining equipment, construction equipment, smart grid), and other industry verticals.

Major companies operating in the India lithium-Ion battery market are Samsung SDI Co. Ltd., Panasonic Corporation, Toshiba Corporation, Hitachi Chemical Co., Ltd., and China BAK Battery Co. Ltd., among others.

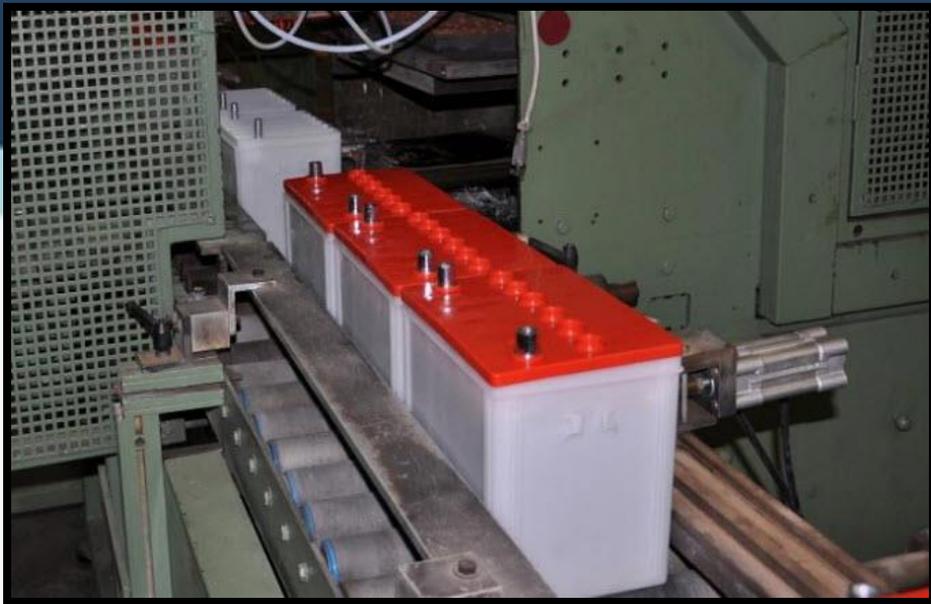
Machinery Photographs



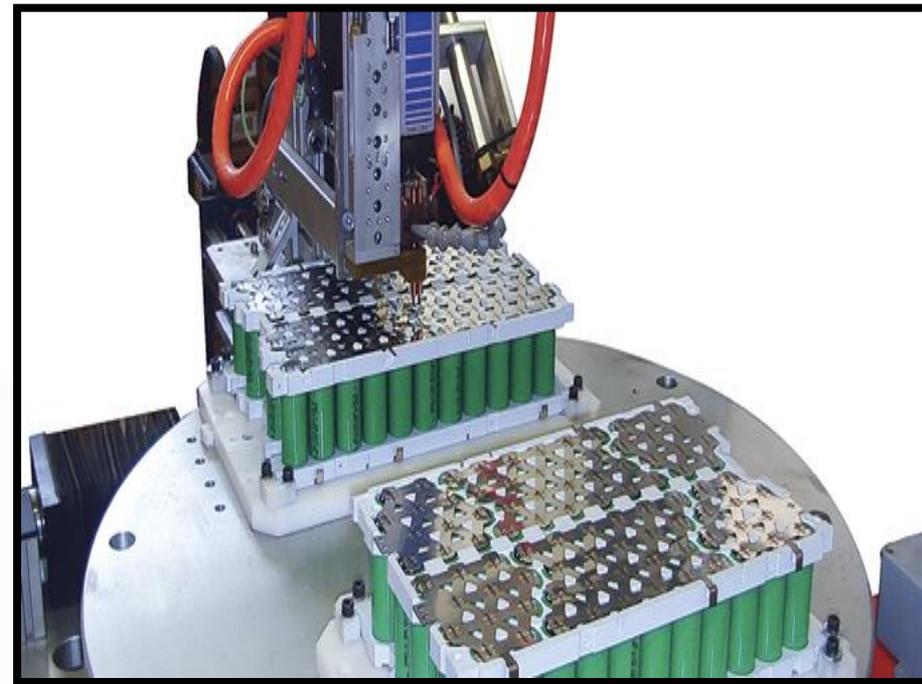
**Linear Work Piece Carrier
Transfer System**



Pre Assembly Station



Automatic Line Change



Automatic Laser Welding Station

Project at a Glance

PROJECT AT A GLANCE

(` in lacs)

COST OF PROJECT				MEANS OF FINANCE			
Particulars	Existing	Proposed	Total	Particulars	Existing	Proposed	Total
Land & Site Development Exp.	0.00	210.00	210.00	Capital	0.00	269.09	269.09
Buildings	0.00	160.50	160.50	Share Premium	0.00	0.00	0.00
Plant & Machineries	0.00	90.50	90.50	Other Type Share			
Motor Vehicles	0.00	12.00	12.00	Capital	0.00	0.00	0.00
Office Automation Equipments	0.00	40.50	40.50	Reserves & Surplus	0.00	0.00	0.00
Technical Knowhow Fees & Exp.	0.00	2.50	2.50	Cash Subsidy	0.00	0.00	0.00
Franchise & Other Deposits	0.00	0.00	0.00	Internal Cash Accruals	0.00	0.00	0.00
Preliminary & Pre-operative Exp	0.00	5.00	5.00	Long/Medium Term Borrowings	0.00	807.28	807.28
Provision for Contingencies	0.00	7.00	7.00	Debentures / Bonds	0.00	0.00	0.00
Margin Money - Working Capital	0.00	548.37	548.37	Unsecured Loans/Deposits	0.00	0.00	0.00
TOTAL	0.00	1076.37	1076.37	TOTAL	0.00	1076.37	1076.37

Project at a Glance

Year	Annualised		Book Value	Debt	Dividend	Retained Earnings		Payout	Probable Market Price	P/E Ratio	Yield Price/Book Value
	EPS	CEPS	Per Share		Per Share	Per Share		%		No.of Times	%
1-2	8.43	9.79	18.43	24.00	0.00	100.00	8.43	0.00	8.43	1.00	0.00
2-3	10.76	11.96	29.19	18.00	0.00	100.00	10.76	0.00	10.76	1.00	0.00
3-4	13.42	14.47	42.61	12.00	0.00	100.00	13.42	0.00	13.42	1.00	0.00
4-5	16.04	16.97	58.65	6.00	0.00	100.00	16.04	0.00	16.04	1.00	0.00
5-6	18.59	19.40	77.24	0.00	0.00	100.00	18.59	0.00	18.59	1.00	0.00

Project at a Glance

Year	D. S. C. R.			Debt / - Deposits Debt	Equity as- Equity	Total Net Worth	Return on Net Worth	Profitability Ratio					Assets Turnover Ratio	Current Ratio
	Individual	Cumulative	Overall					GPM	PBT	PAT	Net Contribution	P/V Ratio		
Initial	(Number of times)			(Number of times)		%	%	%	%	%		%		
1-2	1.41	1.41		3.00	3.00	10.17		2.55%	1.16%	0.74%	1039.21	3.41%	5.50	1.11
2-3	1.69	1.54		0.62	0.62	7.07		2.62%	1.28%	0.82%	1212.31	3.41%	5.61	1.12
3-4	2.07	1.71	2.08	0.28	0.28	5.34		2.67%	1.40%	0.89%	1385.49	3.41%	5.58	1.15
4-5	2.53	1.88		0.10	0.10	4.24		2.70%	1.49%	0.95%	1558.67	3.41%	5.53	1.18
5-6	3.08	2.08		0.00	0.00	3.49		2.72%	1.56%	0.99%	1731.86	3.41%	5.44	1.23

Project at a Glance

BEP

BEP - Maximum Utilisation Year	5
Cash BEP (% of Installed Capacity)	53.07%
Total BEP (% of Installed Capacity)	54.34%
IRR, PAYBACK and FACR	
Internal Rate of Return .. (In %age)	33.59%
Payback Period of the Project is (In Years)	2 Years 3 Months
Fixed Assets Coverage Ratio (No. of times)	128.915

Major Queries/Questions Answered in the Report?

- 1. What is Lithium-Ion Battery (LIB) Manufacturing industry ?**
- 2. How has the Lithium-Ion Battery (LIB) Manufacturing industry performed so far and how will it perform in the coming years ?**
- 3. What is the Project Feasibility of Lithium-Ion Battery (LIB) Manufacturing Plant ?**
- 4. What are the requirements of Working Capital for setting up Lithium-Ion Battery (LIB) Manufacturing plant ?**

- 5. What is the structure of the Lithium-Ion Battery (LIB) Manufacturing Business and who are the key/major players ?**
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- 9. Who are the Suppliers and Manufacturers of Plant & Machinery for setting up Lithium-Ion Battery (LIB) Manufacturing plant ?**
- 10. What are the requirements of raw material for setting up Lithium-Ion Battery (LIB) Manufacturing plant ?**
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Reasons for Buying our Report:

- **This report helps you to identify a profitable project for investing or diversifying into by throwing light to crucial areas like industry size, market potential of the product and reasons for investing in the product**
- **This report provides vital information on the product like it's characteristics and segmentation**
- **This report helps you market and place the product correctly by identifying the target customer group of the product**

- **This report helps you understand the viability of the project by disclosing details like machinery required, project costs and snapshot of other project financials**
- **The report provides a glimpse of government regulations applicable on the industry**
- **The report provides forecasts of key parameters which helps to anticipate the industry performance and make sound business decisions**

Our Approach:

- **Our research reports broadly cover Indian markets, present analysis, outlook and forecast for a period of five years.**
- **The market forecasts are developed on the basis of secondary research and are cross-validated through interactions with the industry players**
- **We use reliable sources of information and databases. And information from such sources is processed by us and included in the report**

Scope of the Report

The report titled “Market Survey cum Detailed Techno Economic Feasibility Report on Lithium-Ion Battery (LIB).” provides an insight into Lithium-Ion Battery (LIB) market in India with focus on uses and applications, Manufacturing Process, Process Flow Sheets, Plant Layout and Project Financials of Lithium-Ion Battery (LIB) project. The report assesses the market sizing and growth of the Indian Lithium-Ion Battery (LIB) Industry. While expanding a current business or while venturing into new business, entrepreneurs are often faced with the dilemma of zeroing in on a suitable product/line. And before diversifying/venturing into any product, they wish to study the following aspects of the identified product:

- **Good Present/Future Demand**
- **Export-Import Market Potential**
- **Raw Material & Manpower Availability**
- **Project Costs and Payback Period**

We at NPCS, through our reliable expertise in the project consultancy and market research field, have demystified the situation by putting forward the emerging business opportunity in the Lithium-Ion Battery (LIB) sector in India along with its business prospects. Through this report we have identified Lithium-Ion Battery (LIB) project as a lucrative investment avenue.

Tags

#Lithium_Ion_Battery_Assembly, #Li_Ion_Battery_Assembling, Lithium-Ion Battery, #Lithium_Ion_Batteries_Production, Manufacturing of Lithium-Ion Batteries, Lithium-Ion Battery Manufacturing, #Lithium_Ion_Battery_Assembly_Plant, Lithium Ion Battery Manufacturing Process, Lithium Ion Battery Assembly Process, Lithium Ion Battery Manufacturing Cost, How to Set up Lithium Ion Battery Plant in India, #How_to_Start_Lithium_Ion_Battery_Manufacturing_Business, Battery Manufacturing Process, Battery Manufacturing, Lithium Ion Battery Production, Lithium Ion Battery Manufacture, #Production_of_Lithium_Ion_Battery, Battery Assembly, Battery Assembly Plant, Battery Manufacturing Plant, Project Report on Lithium Ion Battery Assembly Industry, Detailed Project Report on Lithium Ion Battery Production, #Project_Report_on_Lithium_Ion_Battery_Manufacturing, Pre-Investment Feasibility Study on Lithium Ion Battery Assembly Plant, Techno-Economic feasibility study on Lithium Ion Battery Assembly Plant, #Feasibility_report_on_Lithium_Ion_Battery_Production, Free Project Profile on Lithium Ion Battery Assembly, Project profile on Lithium Ion Battery Production, #Download_free_project_profile_on_Lithium_Ion_Battery_Assembly, Lithium-Ion Battery Factory, How to Start a Battery Manufacturing Business, Cost of Setting up a Battery Manufacturing Plant, Lithium-Ion Battery Business, #Lithium_Ion_Battery_Manufacturing_Industry

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Free Instant Online Project

Identification and Selection Service

Our Team has simplified the process for you by providing a "Free Instant Online Project Identification & Selection" search facility to identify projects based on multiple search parameters related to project costs namely: Plant & Machinery Cost, Total Capital Investment, Cost of the project, Rate of Return% (ROR) and Break Even Point % (BEP). You can sort the projects on the basis of mentioned pointers and identify a suitable project matching your investment requisites.....[Read more](#)



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Reports:

▪ Detailed Project Reports

NPCS is manned by engineers, planners, specialists, financial experts, economic analysts and design specialists with extensive experience in the related industries.

Our Market Survey cum Detailed Techno Economic Feasibility Report provides an insight of market in India. The report assesses the market sizing and growth of the Industry. While expanding a current business or while venturing into new business, entrepreneurs are often faced with the dilemma of zeroing in on a suitable product/line.



And before diversifying/venturing into any product, they wish to study the following aspects of the identified product:

- **Good Present/Future Demand**
- **Export-Import Market Potential**
- **Raw Material & Manpower Availability**
- **Project Costs and Payback Period**

The detailed project report covers all aspect of business, from analyzing the market, confirming availability of various necessities such as 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, Plant Economics, Production Schedule,



Working Capital Requirement, uses and applications, Plant Layout, Project Financials, Process Flow Sheet, Cost of Project, Projected Balance Sheets, Profitability Ratios, Break Even Analysis. The DPR (Detailed Project Report) is formulated by highly accomplished and experienced consultants and the market research and analysis are supported by a panel of experts and digitalized data bank.

We at NPCS, through our reliable expertise in the project consultancy and market research field, have demystified the situation by putting forward the emerging business opportunity in India along with its business prospects.....[Read more](#)



Contact us

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Who are we?

- *One of the leading reliable names in industrial world for providing the most comprehensive technical consulting services*
- *We adopt a systematic approach to provide the strong fundamental support needed for the effective delivery of services to our Clients' in India & abroad*



We at NPCS want to grow with you by providing solutions scale to suit your new operations and help you reduce risk and give a high return on application investments. We have successfully achieved top-notch quality standards with a high level of customer appreciation resulting in long lasting relation and large amount of referral work through technological breakthrough and innovative concepts. A large number of our Indian, Overseas and NRI Clients have appreciated our expertise for excellence which speaks volumes about our commitment and dedication to every client's success.



We bring deep, functional expertise, but are known for our holistic perspective: we capture value across boundaries and between the silos of any organization. We have proven a multiplier effect from optimizing the sum of the parts, not just the individual pieces. We actively encourage a culture of innovation, which facilitates the development of new technologies and ensures a high quality product.



What do we offer?

- *Project Identification*
- *Detailed Project Reports/Pre-feasibility Reports*
- *Market Research Reports*
- *Business Plan*
- *Technology Books and Directory*
- *Industry Trend*
- *Databases on CD-ROM*
- *Laboratory Testing Services*
- *Turnkey Project Consultancy/Solutions*
- *Entrepreneur India (An Industrial Monthly Journal)*

How are we different ?

- *We have two decades long experience in project consultancy and market research field*
- *We empower our customers with the prerequisite know-how to take sound business decisions*
- *We help catalyze business growth by providing distinctive and profound market analysis*
- *We serve a wide array of customers , from individual entrepreneurs to Corporations and Foreign Investors*
- *We use authentic & reliable sources to ensure business precision*



Our Approach

Requirement collection

Thorough analysis of the project

Economic feasibility study of the Project

Market potential survey/research

Report Compilation

Contact us

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