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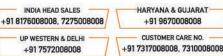
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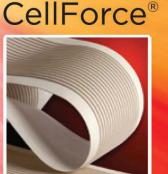
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Lead Battery Industry is Growing It will be worth 60 billion USD by



the year 2030.

Shri Gaurav Deep Sharma

any entrepreneurs are either leaving the lead battery industry and moving towards lithium or are becoming traders or thinking of some other business. I also know one such manufacturer who left the manufacturing and became a distributor of big battery companies and sat in their lap. We have to understand how to avoid this. All this is happening due to ignorance. To get out of this problem, we should take the help of a battery consultant so that we can make our battery capable of standing in the market, but some entrepreneurs are retreating and leaving the industry.

From the year 2020 to 2023, the country's battery industry had a turnover of 35 to 36.62 billion USD, i.e. Rs. 3500 crore. The Common Annual Growth Rate (CAGR) on which we are based has been increasing at a ratio of 4.4. Now if this growth rate is taken as the basis then the business of lead battery will be worth 60 billion USD by the year 2030. This is enough to understand that the lead battery industry is in no danger.

The industry is growing, new possibilities are coming and unfortunately some battery entrepreneurs are leaving the industry. If there is any problem in the industry, solve it. You have given a very important time of your life to this industry, so you should also get the benefit of this potential growth.

Now let us come to areas where

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the battery industry is providing its services. Lead batteries were born for the purpose of ignition in the automotive industry. After automotive. lead batteries were used for power backup. After this it was used in the offices by UPS. Now these batteries are making important contribution in the field of electric vehicles and solar energy.

At present, lithium batteries are challenging lead batteries. This challenge is sure to make a difference to the power backup industry, but lead batteries are still ahead in automotive. UPS, solar and e-rickshaws. Now if we can achieve 25-25 percent business among these four, then a huge business is available for lead batteries.

Now it is important to understand that there are different directions in business and customers also have different demands. We can divide customers into three categories: A (33%), B (33%) and C (34%). C category is the 34% customers who do not care about the brand name. This customer needs goods on credit. Big companies who have money and resources concentrate on these. These are those customers who neither look at the brand nor the quality, they just go on credit.

Other customers belong to category B. This is 33%. This customer looks at the brand, looks at the quality and

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Knowledge without devotion to God produces hatred. -Bhagwan Sh. Sathya Sai Baba

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President Sh. Pankaj Kishore Gupta, General Secretary Sh. Arjun Gupta, Treasurer Sh. Arjun Jaiswal

Allahabad Battery Welfare Association Celebrated 16th Foundation Day

Ilahabad Battery Welfare Association, Prayagraj celebrated its 16th Foundation Day by cutting a cake on 15th February. The association was established on 15 February 2008. At the function, officials of the association included **President Sh. Pankaj Kishore Gupta**, General Secretary Sh. Arjun Gupta, Treasurer Sh. Arjun Jaiswal, Executive Member



Janab Rehman Ashraf, Sh. Sandeep Jaiswal, Nitin Gupta, Arvind Jaiswal, Shibu Banerjee, Gautam Raj Kesharwani, Praveen Agarwal, Prahlad Singh. Other members were present.

General Secretary of the Association, Shri Arjun Gupta said that at present the number of members of the Association is more than 350.



Sh. Pankaj Kishore Gupta, Sh. Arjun Gupta, Sh. Arjun Jaiswal, Sh. Rajesh Singh and Sh. Premnath Singh

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follows the market. As it is a Luminous brand, it deals only on Luminous products even if the margin is low.

Now the next customer left is A category. This is the 33% customer who sees brand value, quality and also wants customization. Now in this situation he does not see the margin because due to customization the margin is automatically higher. In this type, the dealer-distributor works at 2 to 5 percent. This margin is low because the company knows that its goods are of good quality and will be sold easily. Customer A which is 33% who wants customization says give me the quality and does not talk about the weight. When you normally do a survey in the market, you will see that there is a demand for low weight and good performance batteries, but everyone knows that this type of battery cannot be of good quality.

Customer B and C category do not understand quality nor do they want customized products. Let us take an example, if a customer of this category needs two hours of power backup, then a 100Ah battery of C3 rating is sufficient. Now if the battery is sold with 200Ah written on it, then he will buy it. Now in this case, the customer has paid for 200Ah. But actually he carried a 100Ah battery. But this action takes away the customer's trust in both the battery and

Lead Battery Industry is Growing

the dealer. The customized product that Customer A wants also has a larger scope of work. In this field, along with quality, margins are also high.

India's market is big. There is a need to capture 33% of the A category market. There is a need to improve the quality, make heavier batteries. Today there is a demand for 200Ah, 220Ah, 250Ah batteries for solar systems. Whatever heavy battery you make for power backup, the customer will readily accept it. If you remember, Adwin had also launched a 500Ah battery. Companies are looking to work for the customer who wants customized products. The one who is a C category customer never stays with anyone. Even today, if you see, some brands are ruling only on 2V cells. Why are they able to do this? Because they are doing customized work. The customers they have are not in the normal market.

If you want to move towards growth, you will have to change your mindset. Understand your customer's needs. By reducing the weight of the battery, reducing the Ah, reducing the cost, you are neither doing any good to yourself nor to the industry. By doing this you are running a race that will take you backward. Increase your quality and focus on Class A customers. From there you will get business. I hope I have succeeded in explaining my point.

Jai Hind Jai Bharat



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SJVN commissions 50 MW Solar Power Plant

at Gujrai village in Kanpur Dehat, Uttar Pradesh

SJVN Ltd., under the Ministry of Power, Government of India, has successfully commenced commercial operation of 50 MW Gujrai Solar Power Station at Kanpur Dehat, Uttar Pradesh. On February 23, 2024, SJVN announced the successful commencement of commercial operations of its 50 MW Gujrai Solar Power Station in Kanpur Dehat, Uttar Pradesh.

Expansion of Renewable Portfolio

With the inauguration of Gujrai Solar Power Station, the total installed power capacity of SJVN now stands at 2,277 MW.

This latest addition underlines the company's commitment to expanding its renewable energy portfolio and contributing to India's energy transition.

Performance and Financial

Executed by SJVN through its renewable arm, SJVN Green Energy Limited (SGEL), the Gujrai Solar Power Station was completed at a cost of Rs. 281 crore. The project is expected to generate annual revenue of approximately Rs. 32 crore. Initial estimates suggest the station will produce 107 million units of energy in its first year, with cumulative energy production projected to reach 2,477 million units over 25 years.

Partnerships and Agreements

SGEL won the grid-connected solar project in November 2022 by winning the bid at a tariff of Rs. 2.98 per unit through a tariff-based competitive bidding process conducted by the Uttar Pradesh New and Renewable Energy Development Agency (UPNEDA).

An important aspect of this success is the power purchase agreement entered into with Uttar Pradesh Power Corporation Limited (UPPCL) for a period of 25 years, which ensures longterm stability in energy distribution.

Vision for the future

Chairman and Managing Director, Smt. Geeta Kapoor expressed SJVN's commitment to promote India's nonfossil-fuel-based energy generation.

He reiterated the company's dedication to contribute to the national goal of achieving net zero by 2070. This milestone is in line with SJVN's broader vision to reach an installed capacity of 25 GW by 2030 and 50 GW by 2040.

Battery Directory & Year Book (Vol.39 No.5) 1-15 March 2024 (Published on 13.03.2024) Exide Care's new showroom in Beawar

Jayco Battery

n 22nd February, the grand inauguration ceremony of Exide Care's new showroom Jayco Battery was held in Beawar. Sh. Lal Chand Dev (Lalji), associated with the battery industry of Beawar, is the owner of this showroom. The chief guest of the inauguration ceremony was Maha Mandaleshwar Dr. Devrishi Das Ji Maharaj Siddha Ashram, Bar and proprietor of Pandit Motors, Sh. Subhash Chandra



Sharma. Exide Industries senior officials Sh. Ankit Agarwal who came from Udaipur and Sh. Prateek Sharma who came from Ajmer also graced the function. Many dignitaries of Sahu community were present in the function.

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EPR Portal

he Central Pollution Control Board has directed all the 29 State Pollution Control Boards and 6 Pollution Control Committees of the country to take appropriate action by issuing notices to all



those battery recyclers in their area who are not uploading the required documents like invoices etc. on the online EPR portal (https://www.eprbatterycpcb.in/).

According to the instructions, those battery recyclers who are not submitting the documents on the EPR portal as per the rules or the documents submitted are incorrect, their CTO (Consent to Operate) can be stopped or withdrawn or cancelled. CPCB has directed that the state boards should physically verify the recyclers, take complete details of their GPS location, geo tagged photo or video, type of recycler, installed plant and machinery and production capacity and also make changes in the CTO if necessary.

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Amendment in Electricity Rules for EV Charging Stations



Amendment in Electricity (Consumer Rights) Rules for EV Charging Stations

he Government of India has approved amendments to the Electricity (Consumer Rights) Rules, 2020. Issuing this amendment, Union Minister for Power and New and Renewable Energy Shri R.K. Singh said these amendments will reduce the time taken in getting new electricity connections and ease the process of installing rooftop solar power plants. The Union Minister said that the amendments provide convenience to consumers living in multi-storey flats to choose the type of their connection and separate billing for common areas and back-up generators in residential societies has been provided, which will increase transparency. The amendments also have a provision for installation of check meters by the distribution company to check electricity consumption in case of complaints from consumers. The major amendments made are as follows:-

Ease and speed of installation of rooftop solar system

Amendments have been made to the rules to increase the ease of installing rooftop solar PV systems at consumers' premises and to facilitate faster installation.

The requirement of technical feasibility study is exempted for systems up to 10 kW capacity. For systems of capacity above 10 kW, the timeline for completing the feasibility study has been reduced from twenty days to fifteen days. Further, if the study is not completed within the stipulated time,

the approval granted will be considered.

Additionally, it has now been made mandatory that the distribution system strengthening work required for rooftop solar PV systems up to 5 kW capacity will be undertaken by the distribution company at its own cost.

Additionally, the timeline for commissioning of rooftop solar PV systems for distribution licensees has been reduced from thirty days to fifteen days.

Separate connection for electric vehicle charging stations

Consumers will now be able to get separate electricity connections to charge their electric vehicles (EVs).

This is in line with the country's goal of reducing carbon emissions and achieving net zero by the year 2070.

Connections & Changes to existing connections will be made quickly

Under the rules, the time period for getting a new electricity connection has been reduced from seven days to three days in metropolitan areas, from fifteen days to seven days in other municipal corporation areas and from thirty days to fifteen days in rural areas. However, in rural areas with hilly terrain, the time period for new connections or modification of existing connections will remain only thirty days.

Additional rights for consumers in residential colonies and flats

Provisions have been introduced in the rules to provide choice to consumers

Battery Directory & Year Book (Vol.39 No.5) 1-15 March 2024 (Published on 13.03.2024) and promote greater transparency in metering and billing.

Owners living in co-operative group housing societies, multi-storey buildings, residential colonies, etc. will now have the option of distribution licensees to choose either individual connections for all or single-point connection for the entire complex. The exercise of this option will be based on transparent voting conducted by the distribution company. Parity has also been brought about in the tariffs charged to consumers getting electricity supply through single-point connection and consumers availing individual connections.

Metering, billing and collection shall be done separately for: (i) individual consumption of electricity received from the distribution licensee, (ii) individual consumption of backup electricity supplied by the housing association, and (iii) electricity for the common areas of such housing associations. consumption, which is received from the distribution licensee.

Necessary facility of additional meter in case of complaints

In cases where the consumer complains about the meter reading not corresponding to his actual electricity consumption and the distribution licensee is now required to install an additional meter within five days from the date of receipt of the complaint. This additional meter will be used to calibrate the consumption for a minimum period of three months, thus reassuring consumers and ensuring accuracy in billing.

The Minister of Power and New and Renewable Energy said that the interest

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BATTERY PLANT FOR SALE

◆ AUTOMATIC DIE CASTING MACHINE (Devaki, Bengaluru) ◆ SIGMA MIXER 300kg (Devaki, Bengaluru) ◆ SIGMA MIXER 50kg (Devaki, Bengaluru) ◆SIGMA MIXER 100kg (Devaki, Bengaluru) ◆TUBULAR FILLING MACHINE (Devaki, Bengaluru) ◆TUBULAR FILLING MACHINE (Unik, Pune) ♦ SEMI AUTOMATIC PASTING MACHINE (Unik, Pune) ◆ DRY CHARGER OVEN (Unik, Pune) ♦ BATTERY WELDING MACHINE (2 nos.) ♦ HEAT SEALING MACHINE (2 nos.) ♦ HOLE PUNCHING TOOL WITH COMPLETE JIGS SEMI AUTOMATIC DIE CASTING MACHINE (Dashmesh, Jalandhar) ◆ LIFE CYCLE TESTER (Elind, Bengaluru) ♦ HIGH RATE DISCHARGE TESTER (Elind, Bengaluru) ◆ **BATTERY CAPACITY TESTER** (Elind, Bengaluru) ♦ PLATE FORMATION BOXES ◆ PLATES FORMATION CHARGER (Elind, Bengaluru)

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Along with modern education, parents should also impart moral education to their children so that they can become characterful citizens.

of consumers is paramount for the government. With this objective in mind, the government issued the Electricity (Consumer Rights) Rules, 2020 on December 31, 2020, thus setting standards for services provided by electricity distribution companies across India. These rules include aspects like billing, complaints, compensation and

deadlines for new connections. These rules also provide support for renewable energy production by prosumers (individuals who both consume and produce). The Minister of Power and New and Renewable Energy said that the current amendments will further empower consumers.



Procurement of services through GeM approximately Rs. 1,82,000 crore

176 percent increase compared to last financial year

rocurement of services through Government e-Marketplace (GeM) to increase from approximately Rs. 8,500 crore in FY 2021 to approximately Rs. 66,000 crore in FY 2023 and approximately Rs. 1,82,000 crore in FY 2024 (by February 22, 2024). This is a significant increase of approximately 176 percent compared to the previous financial year. The total value of purchases of services exceeding the total value of purchases of products in a financial year is a significant achievement which indicates the rapid acceptance of services by various buyers. In February 2024, procurement of services has been unprecedented accounting for almost 80 percent of the total order value placed on GeM. The share of procurement of services in total procurement has exceeded 50 percent in the current financial year. Two bids worth about Rs.

Battery Directory & Year Book (Vol.39 No.5) 1-15 March 2024 (Published on 13.03.2024) 40,000 crore placed by Coal India Ltd's subsidiary South Eastern Coalfield Ltd have increased the share of services procurement this month.

Speaking about this significant achievement, Sh. P.K. Singh, CEO, GeM said GeM has harnessed the digital capabilities and has emerged as a one-stop-shop for procurement of all possible services required by government buyers at various levels of administration. He said that the expansion in service offerings on GeM has been the brightest chapter in the success story of the platform, which has witnessed rapid growth in a short period.

The expanded suite of services on GeM has given a tremendous boost to the Gross Merchant Value (GMV) of GeM. This year alone, around 457 orders worth Rs. 4,036 crore have been placed for procurement of

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Procurement of services through GeM

nine types of insurance services like Group Mediclaim Insurance Service, Asset Insurance Service, Group Term Insurance Service, etc. The Gujarat government has procured group mediclaim insurance services worth Rs. 2,302 crore under the Pradhan Mantri Jan Arogya Yojana to provide insurance cover to approximately 62 lakh families.

Offering innovative and unique services like local chemist empanelment has resulted in an average discount of 30-32% on supply of medicines through GeM's e-bidding process. This has motivated the Central Government Health Schemes, Employees and State Insurance Corporations and Health and Family Welfare Departments of various states to actively avail these services through GeM.

Procurement of services such as consultants and PR agencies, outdoor advertising services and exhibition/event/seminar management has enabled government bodies to take informed policy decisions and disseminate information effectively. By investing in these types of services, government buyers have improved their capabilities and delivery of services to better meet the needs of the country's citizens.

Purchasing of services on GeM has also given a huge boost to key social welfare initiatives like Jal Jeevan Mission, Nutrition 2.0 etc. To further the vision of Swachh Bharat, GeM has created different categories of hiring sanitation services including waste collection, disposal and management. This service is being regularly procured by the Urban Development and Housing Department of the Government of Bihar, which has placed 35 orders for collection, lifting, transportation and disposal of waste in various urban local bodies. Similar contracts have also been awarded by urban and local bodies in various states like Jammu and Kashmir, Andaman and Nicobar Islands, Uttarakhand and Delhi.

This remarkable trend underlines the growing recognition of services as a strategic asset and highlights the importance of strong procurement infrastructure in streamlining public procurement processes. This unprecedented growth attests to the scale and adaptability of GeM and its critical role in driving India's economic growth.

GeM was established in 2016 to provide a holistic digital platform to government buyers to conduct public procurement of goods at affordable rates. In the financial year 2019-20, the platform enabled government buyers to provide basic services like manpower hiring, cab hiring, security services and cleaning and sanitation services to name a few through tools like e-bidding and reverse auction. Diversified its portfolio to include rental services as a separate segment.

The soul is our teacher and guide. If we listen to the voice of our soul then we can become good humans. For this it is necessary for the person to have strong determination.

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Recycling process for Secondary Lead Metal

- Sh. Suresh Kapiti -

Kapiti Overseas Pvt. Ltd., Hyderabad, Mohd. 9701029731

he recycling process for secondary lead involves several steps to recover lead from used leadacid batteries or other lead-containing materials. Here's an overview of the typical process:

1. **Collection and Sorting**: Used lead-acid batteries are collected from various sources, including automotive workshops, recycling centers and collection points. These batteries are then sorted based on their type, size, and condition.

2. **Breaking and Crushing**: The collected batteries are broken apart using mechanical processes, such as hammer mills or shredders, to expose the internal components – lead plates, lead oxide, plastic casings, and sulfuric acid electrolyte.

3. **Separation**: The crushed material undergoes various separation

processes to isolate the different components. Lead plates and other metallic components are separated from plastic casings through processes like gravity separation, magnetic separation, and eddy current separation.

4. **Desulfurization**: The lead plates are then subjected to a desulfurization process to remove sulfur residues. This process typically involves heating the lead in a furnace to a high temperature, causing the sulfur to react with fluxes and form a slag that can be easily removed.

5. **Smelting**: The cleaned lead plates are melted in a smelting furnace. During smelting, impurities like remaining plastic residues, oxides, and other non-metallic contaminants are oxidized and separated as slag, leaving behind molten lead.

6. **Refining**: The molten lead undergoes further refining processes to remove any remaining impurities, such as copper, tin, antimony, and arsenic. This is usually achieved through processes like electrolysis or various chemical refining methods.

7. **Casting and Solidification**: The refined lead is then cast into ingots or other desired shapes for transportation

Sh. Suresh Kapiti with Sh. L. Pugazhenthy at the International Conference on Lead and Lead Batteries organized by ILZDA

Recycling process for Secondary Lead

and further processing.

8. **Reuse and Manufacturing**: The recycled lead ingots can be used as raw material in various industries, including battery manufacturing, ammunition production, construction materials, and other applications where lead is needed.

Note: Throughout the recycling process, environmental regulations

and safety measures are strictly followed to minimize emissions, prevent contamination of soil and water, and ensure worker safety. Additionally, the recycling process helps to conserve natural resources, reduce energy consumption, and decrease the environmental impact associated with lead production from primary sources.

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If you keep your heart clean, your character will automatically be beautiful. If the character is beautiful then the house will be prosperous, the country will be prosperous and there will be peace in the world.



Tesla Power will Recruit More than 2,000 People in India

There will be opportunities for employees of these sectors

esla Power India's recruitment drive will include positions across engineering, operations, sales, marketing and support functions. This will provide ample job opportunities for the youth.

If you have experience in engineering, sales or operation, then in the coming days there may be job opportunities for you in battery manufacturing company Tesla Power India. Tesla Power India is preparing to recruit more than 2,000 employees in various sectors as part of its expansion plans. The company is considering making new recruitments as part of its business expansion.

The company also recently introduced the battery brand 'Restore'

The sustainable energy storage solutions provider has also recently launched its battery brand 'Restore' to sell old batteries by repairing them. It plans to open 5,000 stores of the Restore brand across the country by 2026.

Business Expansion in India

Sh. Kavinder Khurana, Managing Director, Tesla Power India, said, "As we continue to expand our business in India, we recognize the important role of talented individuals in achieving sustainability goals through innovation. We are excited to welcome new talent to our team and leverage their contributions to further our mission.

Growing EV market will increase demand for batteries

The market of electric vehicles is gradually gaining momentum in the Indian market. You can estimate this by saying that last year more than 15 lakh electric vehicles were sold. Tata Group is also making big investments in the battery business. In such a situation, the coming times may prove to be better for the battery industry. The times to come may prove to be better for Tesla Power India.



Exide Industries

40 Crore Invested to Make Advanced Chemical Battery Cells

Battery maker **Exide Industries Ltd.** has invested around Rs. 40 crore in its wholly owned arm advanced chemistry battery cell maker Exide Energy Solutions Ltd. The investment is made through subscription equity share capital of Exide Energy Solutions Ltd (EESL) on rights basis, Exide Industries said in a regulatory filing.

With this investment, the total investment made by the company in EESL stands at Rs. 1,965 crore. There is no change in the company's shareholding percentage in EESL following such acquisition.

EESL is in the process of setting up a plant to manufacture and sell lithium-ion battery cells, modules and packs business.

The company said the further capital infusion is aimed at funding the greenfield project and meeting various funding requirements of EESL.

The company said EESL is manufacturing battery cells of advanced chemistry and form factors, including but not limited to cylindrical, pouch, prismatic, as well as manufacturing, assembling, battery modules, battery packs and other related activities.

You cannot always express gratitude but you can speak politely.

Center gave Instructions to Companies

Consumers Should Get the 'Right to Repair' on the Products Purchased

on'ble Prime Minister has envisioned Mission Life to promote 'circular' economy in place of 'use and throw away' economy which will replace 'mindless and wasteful consumption' with 'careful and wise consumption'. It also includes R3 concept i.e. reduce, reuse and recycle. The Department of Consumer Affairs (DOCA) has taken an important step by launching the Right to Repair Portal https://righttorepairindia.gov.in on the occasion of National Consumer Rights Day 2022. This portal will help consumers get information related to repair of their products and reduce e-waste.

Consumer department held a meeting

The Department, under the chairmanship of Shri Rohit Kumar Singh, Secretary, DOCA, organized a meeting with key stakeholders from four sectors to promote consumer rights and address new and emerging concerns affecting consumers for repair of their products. The meeting was held to bring the automobile, consumer durables, mobile and electronics, and agricultural equipment sectors on the Right to Repair Portal India. Smt. Nidhi Khare. OSD, DOCA and other senior officials of DOCA as well as representatives of key stakeholders were present during the meeting.

During the meeting, it was highlighted that a product which cannot be repaired or has become obsolete or which comes under artificially limited life not only becomes e-waste but also the consumers are not able to reuse it. Absence of any repair forces one to buy new product.

The stakeholders were called on the basis of complaints registered on the National Consumer Helpline. With time it has been observed that repairs are becoming severely restricted often spare parts are not available due to which consumers have to face a lot of trouble along with financial burden.

A major water purifier company that saw a large number of complaints was directed to clearly disclose the average lifespan of its candles and other consumables based on specific geographical areas and water alkalinity.

Stakeholders were appealed to join the Unified Right to Repair Portal India, which acts as a catalyst to provide relevant information related to repairs between companies and consumers. This information includes the following:

Access to product manuals/ repair videos (by linking to companies' websites and YouTube channels);

Resolve concerns on spare parts price and warranty;

Clearly state the difference between liability covered guarantees,

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respects others as divine.

warranties and extended warranties;

Details of company service centers across India and third party repairers recognized by the companies, if any

Country of origin information should be clearly mentioned

During the meeting it was reiterated that the Department does not intend

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to stifle any kind of innovation but supports a balance in the interest of consumers and producers. The discussions emphasized the need for DOCA and the industry to work together towards standardization of product warranty forms to accelerate the transition from consumer rights to consumer care based ecosystem.

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Framework for Development of Battery Energy Storage system of 4,000 MWh capacity finalized

nion Minister for Power and New and Renewable Energy, Shri R.K. Singh held a meeting in New Delhi on February 22, 2024 to finalize the structure for operationalizing the scheme of Viability Gap Funding (VGF) for the development of Battery Energy Storage System (BESS) of 4,000 megawatt hour (MWh) capacity. Senior officials from the Ministry of Power, Ministry of New and Renewable Energy, Central Electricity Authority, Solar Energy Corporation of India, Grid India and NTPC Vidyut Vyapar Nigam Limited (NVVN) were present in the meetina.

Addressing the officials, the Minister of Power and New and Renewable Energy said that the cost of Battery

Battery Directory & Year Book (Vol.39 No.5) 1-15 March 2024 (Published on 13.03.2024) Energy Storage System (BESS) has declined in recent years. He said the government will encourage installation of BESS capacity to meet the rapidly increasing energy needs along with power demand. The Minister said that in future a situation will arise where we will have excess solar energy during the day and excess wind energy in the evening, which will go waste if adequate storage systems are not deployed for storage and utilization when needed. Noting that the role of the government is to create enabling structures so that investment can come in, the Minister said he wants the system to work in a way that can provide energy at the time of the day and year when the nation needs it most.

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Electric scooter's battery explodes during charging

The area was shaken by a loud explosion, two people got burnt

An accident occurred while charging the scooty in Varanasi. The electric scooter caught fire with a loud bang. Two laborers working nearby got burnt in the accident. Both have been admitted to the Central Hospital of Bareka for treatment.

The goods kept in the house got burnt due to the fire. Mahendra Rajbhar and Atul, residents of Betawar, got burnt in the accident. Doctors have declared the condition of both of them to be stable.

It was discussed that BESS should be able to deliver power during periods of peak demand and at the same time keep the grid stable. The power will be supplied through various market segments in power exchanges. Charging of BESS will be done primarily from renewable sources when electricity generated from solar and wind energy is available.

Various models for procurement

of BESS based on energy contract and capacity contract were discussed in the meeting. The advantages and disadvantages of these models as well as the challenges associated with their implementation were also discussed.

To derive maximum benefits from the storage system, various locations in renewable energy rich states were discussed as possible locations for BESS.



Central government's FAME II subsidy scheme for electric vehicles is ending after March 2024 Sales of electric vehicles increased before the end of subsidy on EVs

he central government gives subsidy on the sale of electric two-wheelers, three-wheelers and cars under its FAME-2 scheme. But this scheme will stop after March.

There is an ongoing debate in the auto industry on whether withdrawing the FAME-2 subsidy scheme for electric vehicles in India is a hasty step. But amid this discussion, there is a increase in people's inquiries as well as bookings and sales for electric vehicles in March. This is especially visible for twowheelers and three-wheelers.

The central government gives subsidy on the sale of electric twowheelers, three-wheelers and cars under its FAME-2 scheme. But this scheme will end in March. The Ministry of Heavy Industries indicated that the subsidy under the FAME-2 scheme will be available for electric vehicles sold till March 31, 2024 or till the subsidy amount remains.

The government is continuously reducing the subsidy amount. In June last year, the subsidy amount was reduced from Rs. 15,000 per vehicle to Rs. 10,000 per vehicle. The maximum limit of 40 per cent of ex-factory value was also reduced to 15 per cent.

According to the Federation of Automobile Dealers Association (FADA), an organization of vehicle dealers, the penetration of electric three-wheelers was around 53.3 percent in February, which is likely to increase to beyond 60 percent. Similarly, the penetration of electric two-wheelers is also likely to increase to 7 percent in March, whereas

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Sales of electric vehicles increased...

this figure was 5.7 percent in February.

Sales are gaining momentum due to increased purchases before the end of FAME subsidy and price cuts by companies to clear stocks. The current penetration of electric commercial vehicles is around 1 per cent and in case of electric passenger vehicles the figure is around 2.2 per cent.

FADA President Manish Raj Singhania said, 'We are seeing a spurt in sales because original equipment manufacturers and dealers are loudly declaring that this is the last month of subsidy. Its biggest impact will be seen on three-wheelers as they may see an increase of up to 60 percent in terms of penetration, while the penetration of two-wheelers may increase by 7 percent.

Sohinder Gill, Chief Executive Officer (CEO), Hero Electric, said, 'It seems that manufacturers are hastily consuming their stock due to concerns of subsidy being stopped soon. In such a situation, after the end of subsidy, the prices will suddenly increase and only then will it be known how much electric vehicles are actually being adopted.

Aniruddha Ravi Narayanan, CEO of Coimbatore EV company BNC Motors, said, 'Sales have definitely increased but not much. Comparing the figures of January and February will show an increase. This is gaining momentum mainly due to the huge discounts given by the companies and the pressure to utilize the remaining stock. Companies are insisting on exhausting the stock because if the vehicles are not sold, they will not get subsidy.

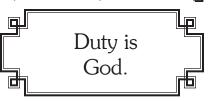
Ola Electric, Ather Energy and Okaya EV, which are preparing for initial public offering (IPO), have reduced their prices. Bajaj has also reduced the prices of Chetak. According to industry sources, companies are also trying to stock up.

Based on industry estimates and FADA data, 82,237 electric twowheelers were sold in February. But till March 4, only 4,500 vehicles have been sold.

Sushant Kumar, director of AMO Mobility, said, 'This chaos shows that the industry is preparing for the end of subsidy. This will be a very important period for the EV market. Due to end of government subsidies, there may be challenges for EV in the year 2024-25.

Prashant Vashishtha, Chairman and Managing Director of electric twowheeler company Sokudo India, said, 'We are also seeing a lot of inquiries for Sokudo Electric, especially from the cities of Uttar Pradesh, Bihar and Gujarat. In view of the imminent end of subsidies, immediate sales have gained momentum. But this will pave the way for manufacturers to innovate in their products and produce better and cheaper models for quality-conscious consumers.

Yatin Gupta, CMD, Wardwizard Innovations and Mobility, said, "There may be a temporary increase in sales of electric two-wheelers and electric three-wheelers in view of the change in subsidy, but it is important to understand that our products are not dependent on FAME subsidy. We emphasize on reverse engineering, local sourcing and production of components to reduce dependence on imports.



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Role of Lead Acid Battery Scrap in India's Recycling Industry

oday's world could not function without lead-acid batteries, which power everything from backup power systems to automobiles. However, what happens to these batteries when their life comes to an end?

Let's dive into the world of battery recycling, where India's recycling sector largely depends on old lead acid battery waste.

Why is recycling lead acid batteries important?

Lead-acid battery recycling is necessary for several reasons. If lead acid batteries are not disposed of properly, the hazardous chemicals lead and sulfuric acid they contain can harm the environment. We can prevent these hazardous materials from leaking into

Battery Directory & Year Book (Vol.39 No.5) 1-15 March 2024 (Published on 13.03.2024) landfills and damaging groundwater and soil by recycling these batteries. This reduces the possibility of harming wildlife and the ecosystem.

Lead is also a limited resource, and recycling lead acid batteries enables us to recover and reuse this valuable element. Recycling lead-acid batteries helps conserve energy because recycling lead uses less energy than mining and refining it from raw ores.

Collection is the first step in the lead acid battery recycling process. We collect used batteries from various locations, such as vehicle repair shops, recycling facilities, etc. After being collected, batteries are sent to recycling centers and go through a series of processes to remove valuable elements.

These batteries are disassembled

Role of Lead Acid Battery Scrap...

into their component pieces. Batteries are cut or disassembled to separate the lead plates, electrolyte solution, and plastic case. Lead plates are melted in a smelter to remove impurities and cast into ingots for reuse. The plastic casing is melted and recycled into new plastic items.

The electrolyte containing sulfuric acid is neutralized to make it safe for reuse. The remaining components, such as terminal connections and separators, are recycled.

Increasing need of lead acid batteries in India

India's rapid industrial and urban development has resulted in a significant increase in the need for lead acid batteries. UPS, renewable energy systems and automobiles are some of the many uses of these batteries. This has led to an increase in the quantity of lead acid battery scrap produced in the country.

This increase in scrap production has resulted in both potential and problems in the recycling sector in India. The increasing volume of scrap highlights how important it is to have proper recycling processes in place to efficiently manage this waste stream. However, it also generates revenue for companies engaged in battery recycling, from recycling to processing and refining.

Economic Benefits of Recycling Lead Acid Battery Scrap

For India, recycling of lead acid battery waste has many financial advantages. Elements such as lead can be recovered, sold and reused in different areas. This helps in saving vital

Recycling of lead acid batteries also helps in employment generation and income generation. Thousands of individuals across the country can find work in the recycling sector in positions including technicians, engineers, waste collectors and sorters, among others. Recycling businesses also make money from the sale of recycled materials, which they can use to expand their business and upgrade their facilities.

Challenges and **Opportunities in Battery** Scrap Recycling

Recycling lead acid batteries has benefits for the environment, but there are still major obstacles to be solved. Ensuring that lead acid batteries are disposed of properly at the end of their life cycle is one of the main issues. Many batteries end up in informal recycling facilities or landfills, where they can seriously harm the environment and public health.

Disposal of lead acid batteries can contaminate soil and water, which can have serious impacts on ecosystems and society. Lead is a strong neurotoxic, even a small amount of exposure can harm one's health, especially in young children and pregnant mothers. Additionally, groundwater may be contaminated with sulfuric acid from battery electrolytes, endangering aquatic life and potable water sources.

Technology for recycling

Tackling these problems requires continued investment in infrastructure and recycling technology. Thankfully, improvements in recycling technologies

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have increased the effectiveness and economy of recovering useful elements from used batteries. For example, stateof-the-art methods can remove lead from batteries with very low energy and emission outputs, reducing the environmental impact of the recycling process.

Lead acid battery recycling may also benefit in the future from advances in battery-to-battery recycling technology. These processes make it possible to directly reuse recycled materials in the manufacturing of new batteries, eliminating the need for virgin materials altogether.

Rules and regulations from the government

Government regulations are necessary to encourage ethical recycling methods and guarantee adherence to environmental restrictions. Lead acid battery management and disposal are governed by several regulations and recommendations that have been implemented by the Ministry of Environment, Forest and Climate Change (MoEFCC) in India.

These laws set standards for environmental reporting and monitoring,

Role of Lead Acid Battery Scrap...

as well as guidelines for lead acid battery collection, transportation, storage, and recycling. Government organizations collaborate closely with industry players to promote infrastructure development and capacity building, as well as educate the public about the value of battery recycling.

Education and public awareness

Public awareness and education in addition to legislative measures are important to encourage sustainable practices in lead acid battery recycling. Since many individuals are unaware of the risks posed to their health and the environment by improper battery disposal, outreach and education initiatives are necessary to influence people's opinions and behavior.

We can encourage people and companies to participate in recycling programs by educating them about the benefits of recycling batteries and providing guidance about the proper disposal of scrap batteries. A number of platforms such as media campaigns, school outreach projects and community engagement programs can be used to accomplish this.

BATTERY DIRECTORY

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Shock to Elon Musk, India will not make policy according to Tesla

Ion Musk's Tesla, which is preparing to enter India, has suffered a setback. Commerce and Industry Minister Shri Piyush Goyal has made it clear that the Central Government will not change its policies according to any one company. He said that all the electric vehicle companies of the world are welcome in the country. If they follow Indian rules then we want to see them working in India.

Tesla wants heavy concession in custom duty

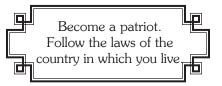
Actually, America's famous EV company Tesla has made complete plans for its entry in India. Tesla also wants to do production in India. But, before that it wants to launch its finished cars in India. For this, Tesla had asked for concession in customs duty. Tesla is preparing to launch a cheap car in India.

Will not compromise on policies – Piyush Goyal

Piyush Goyal said in an interview to PTI that we want to create an EV ecosystem in the country. Battery operated vehicles will not only help in reducing carbon emissions but will also help in reducing the import of crude oil. However, we will not compromise our policies to achieve this goal. We want all the EV companies of the world to set up their manufacturing units in India. For this, talks are going on with America, Europe, Japan and Korea.

Customs duty depends on engine size and price

At present, 60 to 100 percent customs duty is imposed on cars manufactured from outside India. It depends on the engine size and price of the car. If Tesla decides to come to India, this will be its sixth plant. Elon Musk, owner of Tesla, the world's largest electric car maker, had expressed his desire to visit India in 2024 during his meeting with Prime Minister Narendra Modi in New York last year.



Battery Directory & Year Book (Vol.39 No.5) 1-15 March 2024 (Published on 13.03.2024)

Indian youth lost his life due to Lithium Ion battery in New York!

journalist in New York was killed by a lithium-ion battery of a micromobility device in the city's latest deadly fire. Indian citizen and data journalist **Fazil Khan** died alone in an apartment fire on Friday, injuring 17 others. He was 27 years old.

The Hechinger Report, an education news outlet where Khan worked, said on Twitter, "We are deeply saddened to lose such a great colleague and wonderful person."

Khan was also a contributor to The City, another New York-based news outlet, which stated on X that "Khan was a friend of many people in our newsroom."

The New York Fire Department reported that the fire was caused by the batteries of a "micromobility device", seriously injuring several people.

Earlier this month, Fire Commissioner Laura Kavanaugh announced that lithium-ion batteries have recently become a leading cause of fires and fire deaths in New York City and that the problem is growing nationwide.



Contents



Release of souvenir of Varishtha Nagrik Kalyan Samiti

arishtha Nagrik Kalyan Samiti, GTB Enclave, Delhi released a souvenir (Sudarshan) on the auspicious occasion of Vasant Panchami on 14th February. The Chief Guest was Municipal Councilor Shri Veer Singh Panwar. Shri Veer Singh Panwar and senior founding member of the committee Shri Chandra Mohan (Editor, Battery Directory) together released the souvenir. On this occasion, former corporation councilor Smt.



Deepti Joshi, BJP Mandal President **Smt. Sushma Badhwa**, editor of monthly magazine Senior Citizen Awaaz **Shri Sardari Lal** were present as chief guests.

Before the release, Sh. BS Verma, Sh. Kedar Singh Chauhan, Smt. Deepti Joshi, Sh. Sardari Lal, Smt. Sushma Badhwa presented their powerful views. Addressing the gathering as the chief guest, Sh. Veer Singh Panwar praised the Senior Citizens Welfare Committee profusely and assured full cooperation to the committee. Founder member Shri Chandra Mohan also inspired the senior citizens present to adopt the path of spiritual practice and selfless service. Twelve years ago, in the year 2012, the first souvenir of 56 pages of Varishtha Nagrik Kalyan Samiti was published, which was published by Shri Chandra Mohan himself. At the end of the program, President of the organization Shri Rajnath Tiwari expressed his gratitude to all the distinguished guests and members present while highlighting the work of the committee. Shri Chandrakant Patankar conducted the program in a very dignified manner.



Why do Batteries Explode?

In order to help and develop the country's lead battery entrepreneurs, Microtex Energy Pvt. Ltd., Bangalore's website microtexindia.com has posted several blogs on battery and battery related topics. We are publishing one of these here.

uring charging all lead-acid batteries produce hydrogen & oxygen which is evolved by the breaking up of the electrolyte into hydrogen & oxygen. Towards the end of the charge, the rate of production of hydrogen & oxygen gases increases. It also increases if the battery is overcharged or charged too rapidly. Flooded batteries always let out these gases through the vent plugs. An ignition source near this area where the concentration of hydrogen gases is over the explosive range of 4% increases the risk of explosion.

If a path exists into the battery like in a vented battery, the flame may continue into the battery casing, igniting gases that may be inside, thereby increasing the pressure inside the container & causing the container to explode. The explosion reaction is $2H_2$ + $O_2 => 2H_2O$ + Heat. In SMF batteries

Battery Directory & Year Book (Vol.39 No.5) 1-15 March 2024 (Published on 13.03.2024) the flame can't enter the container as it is sealed. The vent-valve releases very little amounts of gas that is insufficient to ignite.

Why do batteries explode? the main source - Hydrogen gas!

Hydrogen gas being lighter than air easily disperses into the atmosphere. If the area around the battery is enclosed without any opening (like 8 batteries inside a golf cart battery box without ventilation) these gases can easily result in a powerful explosion that could have the whole golf cart in flames, if there is a small spark (such as from a brushed motor kicking in or due to loose connections on the battery terminals).

Lead-acid batteries can explode during overcharge and gassing and when the percentage of hydrogen

Why do Batteries Explode?

gas evolved exceeds 4 % by volume. Oxygen and air form an explosive mixture with 4% hydrogen. Hydrogen is an odourless, colourless & a highly inflammable gas. Possible causes for a battery to explode:

- 1. Spark near the battery which is under a charge
- 2. Frayed cables on battery terminals
- Tracking across wet battery lids during charging
- 3. Sparks or fires, near batteries which is under charge inside the battery room

Why do batteries explode? the next source - poor quality chargers

Poor quality chargers have bad voltage regulation and can cause overcharge. This leads to the evolution of hydrogen gases, which normally occurs only at the end of charge. Hydrogen can accumulate within a cell if the vent plug is blocked by dust. Or when gassing is vigorous with the rate of venting being slow compared to the rate of gas generated. In the normal course, the porous ceramic or plastic vent plug with a hole provided allows the hydrogen, to diffuse out naturally.

The density of hydrogen gas – 0.000089 g/L

The density of oxygen gas – 1.42 g/L (16000 times heavier compared to hydrogen)

The explosion/fire happens in spite of hydrogen being 16000 times lighter. Hydrogen can accumulate only when the area around the battery is enclosed. Even a small spark can lead to the battery explosion.

Why do batteries explode? clogged vent plugs

If the vent plugs on the battery are dirty & clogged from dust the gases can accumulate inside the battery & any spark near the battery will cause the hydrogen gases around to catch fire which will be propagated into the cell leading to the battery exploding & sometimes the lid could blow out. The remedy is to ensure the battery vent plugs are not blocked. Always remove the vent plugs in a flooded battery during battery charging.

Why do batteries explode? an important factor - Frayed battery cables

Frayed cables on battery terminals

Always ensure the cables connected to the battery terminals are good without any frayed wire ends at the crimped ends of the terminal connectors.



Frayed battery cables - a serious matter

Battery Directory & Year Book (Vol.39 No.5) 1-15 March 2024 (Published on 13.03.2024) Frayed ends are a source of sparks and can easily cause the battery to explode if the battery is housed inside a closed battery container. Brushed motors near the battery spark every time they kick in. So ensure the brushed motors are separated from the battery well. Sometimes the battery cable may be frayed at the point where it enters into the battery box at the point of contact of the metal container. Check to see that the cable is not at a sharp angle at the entry point.

Why do batteries explode? another overlooked factor...!

Tracking across wet battery lids during charging

It is inevitable that some amount of battery acid bubbles out during battery charging. Especially at the end of charge the evolution of hydrogen is rapid and causes the bubbling & acid spills on the lid of the batteries. Leaving cables tracking over such spills is not a good thing as it causes earth leakage voltage. Always wipe clean any acid droplets after the charging is complete.

Sparks or fires, near batteries which is under charge inside the battery room

Hydrogen gas will accumulate inside the room when ventilation is poor. The gas collects near the ceiling and builds up to 4% by volume. This is an explosive mixture and is triggered by even a tiny spark. When gas accumulates inside a cell during charge and is not vented out promptly, hydrogen can build up inside the room. Hydrogen gas becomes explosive at a

Battery Directory & Year Book (Vol.39 No.5) 1-15 March 2024 (Published on 13.03.2024)

Why do Batteries Explode?

concentration of 4 per cent. A tiny spark at the battery terminal or connector will trigger an explosion causing considerable damage. Battery charging rooms should never be in closed rooms. There should be adequate ventilation inside the battery room. Hydrogen being much lighter than air, easily escapes through the ventilation.

Why do batteries explode? how to avoid it?

Avoid metallic tools near the batteries to avoid accidental sparks. Use insulated tools- wrapping electrical insulation tape over the handles of the spanner is very simple. Wash the vent plugs with soap & water if the battery is used in dusty environments like on a dirt track in a golf course. Golf cart battery explosions are not unusual. It is best to reduce the charging current towards the end of charge. Most modern battery chargers do this automatically. Good battery manufacturers use a microporous flame arresting ceramic disc inside the vent plug. You can check to see if your vent plug is having this by looking into the hole. You would see a white disc.

Why does my battery smell like rotten eggs?

Overcharging in a lead acid can also produce hydrogen sulfide. Hydrogen sulphide is a colorless, highly poisonous & inflammable gas with a strong smell of rotten eggs. This gas also occurs naturally in rancid & decaying food or organic matter. If you find the smell coming near your battery, simply turn off the charger & stay away from the smell until it completely clears up. Remember this is only a result of overcharging your battery & does not happen all the time.

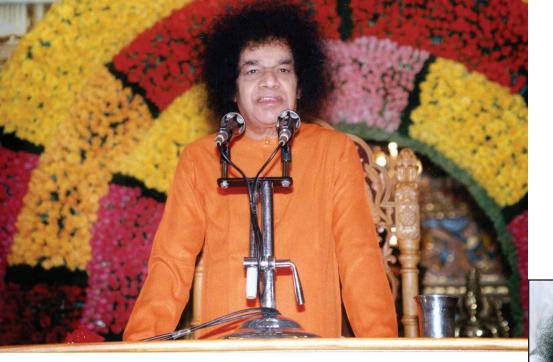
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	1,59,301 बार विजिट हो चुके हैं।	वार्षिक बैटरी डायरेक्टरी-2024 (पृष्ठ 1560, दो प्रकाशिन हम हें । नार्षिक न प्रायिक लैटरी हारारेक्टरी	-2024 (ਧੁਝ 1560, ਵੀ ਸ਼ਾਹਾ) ਹੋ ਇਸ਼ਨ ਕੈਟਮੀ ਵਾਸਨੇਸ਼ਾਤੀ ਟੇਗ-ਜਿੰਨੇ	भाग) में देश-विदेश के 5964 टेश-निटेश के उभी प्रमञ्ज लेटर्	वार्षिक बैटरी डायरेक्टरी-2024 (पृष्ठ 1560, दो भाज) में देश-विदेश के 5964 बैटरी उद्यमियों/व्यवसायियों के पते फ़्लाशिन हम <u>हैं</u> । नार्षिक न प्राक्षिक बैटरी दारायेक्सरी टेश-किरेश के अभी प्रमय बैटरी/ बैटरी प्रार्टय रवमिओं नक पहँनले	यों के पते रक पडँनले
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चंद्रमोहन



Cultivate Character: Lead an Ideal Life

- Bhagwan Shri Sathya Sai Baba -

UST as there is oil in the sesame seed, butter in milk, fragrance in U the flower, tasty juice in the fruit, fire in wood, there is Divinity in this vast Universe. The Divine is all pervasive and is present in every being. It is the Divine Power inside that makes it possible for the eyes to see and ears to hear. The entire creation is the expression of the Will Power of God. Prakrithi (Nature) is a manifestation of the Paramaathma (Supreme Divine). Man is born to manifest and reflect Divinity. All constituents of Nature reflect their inherent qualities. Man also has to do so but is not reflecting his innate human quality.

Every one should consider devotion and discipline as of the utmost

importance---duty comes only next to these two. You, the youth (both male and female) are intrinsically very good. But you lack in discipline. You should observe good discipline. You should not waste time which is precious and sacred.

How should you utilise the time usefully? You have to follow the ideal path reflecting sacred human values. Nor only that, but you should also inspire and encourage others to follow a disciplined life. Today, people do not understand discipline. They sit in a meeting and go on cheering and clapping when a speaker tells something to please them. This is sheer waste of time and energy. Every second is valuable and should be used

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well. Character is the most important life principle to be imbibed. This is the golden period in your life span and if you spoil this fine opportunity in careless living, your future will be ruined.

The sapling has to be tended very carefully, so that it could grow into a mighty tree in the right manner and serve the people well. To whatever country you may belong, cultivation of character is essential at any point

of time. There is no such thing as American character,

Russian character and so on. Character is common to the entire humanity. Them is only one caste, the caste of Humanity; one language, the language of Heart; one Religion, the

Religion of Love. Whatever country you may hail from, whatever language you speak and whichever faith you follow, you should maintain sterling human character.

Control of senses is the hallmark of character

In ancient times the youth maintained good character. If you maintain good character, the future generation will prosper. Individual sacredness and purity ensure sacredness of society and country. When all countries are filled with such noble people the world will be blooming with peace and prosperity.

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TRIBUTE



Late Sh. Vijay Kumar Aggarwal 17.04.1949 - 28.02.2024

Adore Energos Pvt. Ltd., Pilibhit Sanjay Aggarwal's father passes away

Sh. Vijay Kumar Agarwal, father of Sh. Sanjay Agarwal, passes away on 28 February. Sh. Vijay Kumar Aggarwal was associated with the battery industry since 1968 and was in the battery sector under the name Vijay Radio House. Now company is manufacturing ADROW and EXCELL Inverter, Solar and E-Rickshaw Batteries and is popular in Uttar Pradesh under the banner of Adore Energos Pvt. Ltd.

He left behind his entire family including his wife Smt. Madhu Agarwal, two sons Sh. Sanjay Agarwal and Sh. Sandeep Agarwal. Battery Directory family prays to God to give peace to his soul and strength to the family to bear this loss.

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If you say that the world is not a bed of roses but is a place of misery, the fault lies in you, the inhabitants. It is Character that marks the life of a good individual. If you go through history you will find that in the ancient days people were noted for their control of senses.



Take the example of Janaka, the great ruler and father of Seetha, offering his daughter in marriage to Raama immediately after the latter broke the Shiva Dhanush (the formidable bow of Shiva), in terms of the proclamation made by him. When Janaka repeatedly asked Raama to

look at Seetha and take her hand, Raama 1ookcd in a different direction because he-should not look at a woman till he tied the wedding knot around her neck. This is the ideal propagated by the great Avathaar Raama.

Exemplary behaviour of Lakshmana

Later on, when Lakshmana followed Raama and Seetha to the forest and stayed with them for fourteen long years he never once looked at the face of Seetha who was just an eighteen year old damsel. Abundant testimony to this exemplary behaviour of Lakshmana is borne by the episode when Raama and Lakshmana acquited the friendship of the monkey-king Sugreeva. Sugreeva bade the monkeys to bring the bundle of jewels dropped by Seetha when she was being abducted by Raavana. When Raama saw this he was overwhelmed and asked Lakshmana to identify whether they belonged to Seetha. But Lakshmana respectfully said, "I can only identify the anklets worn by mother Seetha as I used to worship her feet every day. I cannot identify the bangles or necklace worn by her as I have never looked .up at her face." Because of such worthy and laudable behaviour, they are remembered even today, though thousands of years have passed. Youth should protect Character in that way. Both men and women should consider character as their very life breath.

You may go to villages for doing Seva (service). Doing selfless service is the best way to cross the ocean of Samsaara (transmigratory life). The Vedhas declare, "Not by penance, not by undertaking pilgrimages to holy places, but by rendering service to humanity you can achieve the goal of liberation." Ego is eliminated by the spirit of Service and thus it is linked to progress in spirituality When the great Sage Vaalmeeki completed composing the epic Raamaayana, he was contemplating as to who could propagate this great Epic to the world at large. The two boys Lava and Kusha came before him. When questioned by them as to what he was contemplating on. Vaalmeeki said that he wanted the story of Raamaayana which he had composed in poem be taught to the people and the Divine Glory of Raama should be spread far and wide. The boys with folded hands submitted to the sage who was also their preceptor, "We are ready to even sacrifice our life for your Seva. Command us and we shall follow."

Vaalmeeki was moved to tears

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at the spirit of service exhibited by the young boys. He said, "Go out and spread this epic story without delay" Vaalmeeki had taught them the scriptures and moulded their character too. The nectar like contents of an earthen pot are far better than poison kept in a golden jar. The human body is only a mud pot. God exists in this mud pot as Amrith (nectar). We do not want a golden vessel with poison. The world is tempting like a golden vessel but is full of poison of worldly pleasures and pains.

Spread the message of Divinity

God resides in the heart of persons and not in shrines like Thirupathi, Badhrinath or Prashaanthi Nilayam. He is essentially Hridhayanivaasi (Indweller of the heart). Vaalmeeki told the boys-"Go and spread the message of Raamaayana with the spirit of selfless sacrifice for the welfare of the world." The boys wore garlands of beads and holding musical instruments in their hands, started on their sacred journey. It is Vaalmeeki's inspiration that made them pursue this noble task with utmost zeal.

Nowadays youth are reluctant to wear Vibhuuthi on their foreheads and participate in Nagarasankeerthan. They go forward quite willingly and openly for indulging in wicked deeds but feel shy to participate in singing the glory of God. They revel in singing cinema songs of low taste while they fight shy to sing the Divine Names. To spend life in such unholy pursuits is a wasteful exercise and will not bring credit. Morality is the backbone of the community and a

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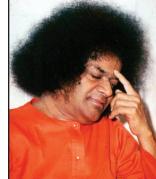
society of people bereft of moral values is worse than the jungle infested by wild animals. Even beasts have season and reason while man has lost both.

Service to people in rural areas

You are all embodiments of God. It is proclaimed in the Geetha that all beings are sparks of Divinity. You should not feel shy to speak the truth when you are going to pilgrim shrines such as Thirupathi or Parthi. You should

nor also fight shy of engaging yourselves in service especially in rural areas, as the villages lack amenities and hygienic conditions.

They need your attention more. You may not be able to visit the villages frequently when you are employed in any



job due to difficulties of getting leave. When you go to a village, collect a few young persons of the village and teach them health and hygiene and impress on them the necessity to maintain environmental cleanliness. You need nor spend much money for travelling to distant places.

Select the villages close' by and reach the villagers principles of health, hygiene and living in clean surroundings. You can take doctors to give them treatment and health checkup. You should inspire the villagers by

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your attitude of service and humility.

Serve with humility as Hanumaan

You know the greatness of Hanumaan who was the symbol of selfless service. He was endowed with mighty power, valour, strength and he was hailed as a great scholar of impeccable character.

Yet when the demons in Sri Lanka. guestioned him who he was, he never hesitated to reply that he was the servant of Shri Raamachandhra.

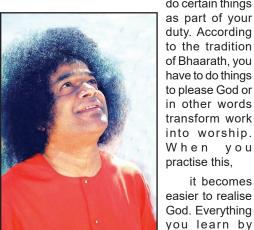
You will have to feel honoured to call yourself as a servant of God and humanity. If you start serving with the attitude that service to man is service to God you will find God there. The same

thing you cannot experience in japa or dhyaana. You have to "shut your mind and open your heart," which happens while doing Seva.

Some may ask, "While you are God why worship God?" Even as you realise you are Divine, you have to do certain things

it becomes

practice only.



Walking, talking, eating, singing and serving need practice. Practise service dedicating all activities to God.

A boy prayed to God to give him strength. What for? It is not for watching T.V. or movies but for serving God through service to mankind. You say diamond and gold are highly valuable. If you enquire deeply, man is more valuable than all the wealth of the world. Men alone decide the value of gold and diamond, and other materials. Man should have faith in himself. Every one should chant the name of God and engage in service in accordance with the advice given by Hanumaan to Vibheeshana. He said, "Mere chanting Raama's name won't do. You should also engage yourself in Raama's work." Vibheeshana went on chanting the name but failed to make any effort to alleviate the suffering of Seetha and Raama on their separation while Hanumaan engaged himself in the service of Raama.

Light the lamp of the world with Divine Love

You should use your will power to engage in such sacred tasks. A common example can be seen in an electric light. Dharma (virtue) is the wire which carries the current. Shaanthi (peace) is the bulb and Prema (love) is the light. Light the lamp of the world with Divine Love.

Divine Love lights the lamp of life, which you are not able to perceive. None can regulate Divine Love. Worldly love is fraught with conditions and expectations in return. Divine Love does not expect anything in return.

Some say they are searching for Truth. This is meaningless because you

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are yourself the embodiment of Truth which is nothing but God. Because you are not aware of this, you indulge in wrong pursuits. In a co-educational institution, what happens is that a boy and girl in the impressionable age when there is no self-control, first look at each other exchanging glances;

then it goes on developing into friendship by smiling, talking, exchanging letters and finally leads to coming together. You should control your vision initially. Many saints have prayed to God to give them the correct vision only to see good, cars to hear songs of Divine glory and hands to engage in worship. Jayadeva in a song appeals to the tongue not to indulge in untruth, not to speak ill of others and avoid excessive talk.

Nagara Sankeerthan (community singing of spiritual songs) has been arranged as part of the programme of the Sathya Sai Organisation to still the mind in the cool hours of early morning and, purify the atmosphere and make the singer and the listeners peaceful and happy with thought of the Divine.

You must make it a practice to observe silence for at least one hour daily. It saves your cosmic energy and ensures peace of mind. You should develop also the discipline of simple living and high thinking. You should avoid gaudy dress. Your white dress reflects the inner purity of your heart. Dress should be simple but clean.

You have to enquire "who am I" instead of asking everyone else "who are vou?" You must uncover your reality which is hidden by the outer coats of ego and attachment. You have to remove them to see your bare chest.

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These represent, the three qualities of Sathva, Rajas and Thamas (goodness, passion and inertia) covering your innate Reality. You have to transcend them to realise your inner Self.

Good character is of primary importance

Embodiments Of Love! Young men and women! Character is the basis for all. your behaviour, quality and actions. None can be perfect but you can make an effort to develop excellent character.

When you go to villages, you should create a good impression in them by your behaviour. You should reflect peaceful and happy demeanour. You should be careful not to disturb their work.

They should, not mistake you for a gang of rowdies. You must behave with humility and starr working sincerely. Avoid talking too much.

Learn to turn over a new leaf even if you have not lived an ideal life in the past. Do not brood over the past and worry about the future. Concentrate on the present. Take everything as the gift of God: discard worry. You cannot demand sweet medicine for your illness from the doctor. You must take whatever is prescribed. Do not give room in the heart for anything else but God. The world outside is reflection of the Inner Being. Be happy within and joyful outside and have enthusiasm for service. Do not bother about others heckling you as you 'are engaged in Service to God.

Shed only tears of devotion for God

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If some are questioning your faith in God, tell them that He is in your heart and the others have no business to question your belief. Have strong and-unshakable faith. Be fearless and avoid "crying". You have to shed only tears of devotion to God. Such tears have spiritual meaning, because Naara means water and Nayana means 'eyes'. Both together make Naaraayana.

Difficulties are like passing clouds. There are no permanent clouds at all.

Even though there are millions of youth in the world, only those of you who have come here are lucky to experience this unique chance. Wherever you go for service, Svaami will always be with you. Whatever happens I shall protect you. Do not be carried away by profit or loss. Think of God ceaselessly. Even the great saint composer Thyaagaraaja doubted for a moment-the

Shakthi (power) of Raama but immediately repented and said the fault was his to have doubted, but, God was all powerful. Never give room for doubt.

The inner current of all the nine types of devotion is Prema--Love for God. The teachings you have heard here during the four days should follow you like a shadow wherever you go. The cow constructs plenty of grass wherever it sees a green patch but goes to its shed and slowly chews the cud. Similarly, you should go to your places and recapitulate all that you learnt here and follow them scrupulously. You should stick to the principles of faith in God. and Unity in Diversity Svaami is prepared to do anything for you if you follow the path explained to you and become good and useful to the society This is my only desire. You must spread the message to others, each one instructing hundreds of persons in your places.

While you render service in the village, the villagers should be inspired and encouraged to do the work themselves. When you go out for service, do not fail to take permission of your parents. If they object, tell them softly that this body is given only for doing service and not for wasting in eating, drinking, sleeping and idling. They will not object once they are convinced that you are going for genuine service. You must behave in an exemplary manner.

Worthy son makes father proud

Usually, a father distributes sweets when a son is born. But a father will be really happy only when the society respects his son. True happiness is derived only when you earn a good name.

Be good. See good. Do good deeds. This is the ideal Svaami wants you to imbibe. All of you have been behaving well during these four days of your stay here. Continue this even when you go to your places. Because of emotion you may sometimes lose self-control. You should avoid getting emotionally charged and upset. You must control emotion, reduce your talk and practise Truth. Make your life blissful. Worldly pleasure is only temporary. Permanent bliss can be had only in association with the Divine. It is "heart to heart and love to love connection." You have Swaami's Blessings in abundance.

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