Energy as a Service

**EaaS** 









## **About Us**

The Sustainability norms have become more critical than ever. Consumers are becoming increasingly aware of the negative impacts on their lifestyles, purchases, and travel habits have on the environment, and globally, all stakeholders are aligning with businesses that align with their values and processes.

Sustainable practices support ecological, human, economic health, and vitality.

Resources are finite and, therefore, should be used conservatively and wisely with a view to long-term priorities and consequences of the ways in which resources are used and deployed.

We are a team of senior professionals, helping organizations maximize their profits and efficiency while reducing their environmental footprint through research and strategy.

With a focus on Mergers and Acquisitions, we operate under the primary verticals:





#### Renewable Energy

M&As of stressed assets in the Solar, Wind, Hydro, Wave, and EV sectors. Carry out energy surveys and audits and advise clients on sources of renewable energy, smart energy, smart city projects & solutions.

#### Infrastructure

M&As of stressed real-estate assets and providing advisory services on sustainable solutions within the norms of the environmental requirements and infrastructure sectors by analysing the available technical data. These include highways, land & buildings, water projects, pharmaceuticals & chemicals and industrial sectors.

#### Services

We provide Energy Storage Solutions for the Renewable Energy Sector, Telecom sector, Data Storage and Banking Sector, Military & Mission Critical Projects, and the Hospital & Hospitality sectors. We help clients in engaging with potential investors, mergers & acquisitions, solutions & growth initiatives with innovative products and services. We also help in liaising with various government departments using our network of professionals.

#### Manpower

We have the ability to align diversified and intricate HR needs of our clients by providing reliable and strategic staffing solutions including L&D interventions by understanding the significance of aligning talent strategy with business strategy with business strategy we tend to offer workforce solution that drive businesses forward.

**Acquisition** of specific portfolio projects and execution of the same as per our core objectives being mission and vision goals.

Iry Solutions strong reputation has taken usforward asa 'preferred service providerî for most ofthe top blue chip companies inIndia, the APAC, MENA and the ASEAN region, for most ofthe incumbent sectors with the small, medium tolarge players inthese industry segments, for their position closure, over years.



# Challenges related to Energy Storage

- Energy Cost is roughly 33% of the Network Operating Cost.
- Battery banks are deployed for energy storage in case of grid supply failure.
- DG sets are deployed as secondary back up if the battery bank is discharged.
- Batteries are not maintained properly on the sites causing pre-mature failure of battery cells.
- New batteries are replaced with old batteries in every 2 - 3 years causing huge capital expenditure.
- Huge CAPEX investment and O&M cost is the main concern.

# **EaaS**Industrial Solution



## **Energy-as-a-Service**

EaaS is a unique solution to address the Energy Efficiency Gap & its open possibilities for the future growth. Energy-as-aService (EaaS) is a business model whereby customers pay for a service without having to make any upfront capital investment.

EaaS models usually takes the form of a subscription for energy storage devices owned and maintained by a service provider to deliver the desired energy back up in case of grid failure.

## **Current Challenges**

## **Buying Battery on CAPEX**



- Battery back-up is a Non-priority sector for lending from banks.
- OPEX model not available globally for the battery storage sectors
- There is prohibitive CAPEX engagement for these industries
- Due to which project proposals become unviable
- Battery storage solutions are hardly considered in any of the sectors except in telecom and banking

- No battery storage solutions are available on lease or subscription.
- CAPEX on batteries depreciates over 15 years or more.
- Immense issues with maintenance & servicing of these large battery banks
- Storage and logistics space availability is an issue
- Pilferage adds to further losses
- Insurance is costly

# **EaaS**Advantages



- OPEX funding / Lease rental options available\*
- Technologically agnostic solutions
- Brand agnostic solutions
- Lead acid. Lithium-ion batteries etc., to be used
- Battery rejuvenation of lead acid batteries
- Dedicated skilled technical team for timely operations & maintenance

- Easy processing of orders & funds\*
- Minimum documentation related to leasing to renowned organization\*
- Lease rent on minimum interest rates\*
- Inventory management support extended
- Fast deployment at sites
- CAPEX solution also available

\*T&C applicable

# CaaS Lifecycle



Our lease/rental process is easy and cost effective.
You know exactly what you are getting.



#### Step 1

Customer decides to deploy batteries and finalizes lease rent



Step 7

Battery company installs the equipment



**Customer signs Master Rental Agreement** 

## Step 3

Customer places rent request based on step 1

### Step 4

Leasing co orders the equipment

#### Step 5

Customer pays agreed fixed lease rent

## OPEX

Leasing Company

Step 6:

Leasing Co pays for the equipment

# Industries we serve











# CaaS India Advantages











## **Growing Demand**

India ranked sixth in the list of countries to make significant investment in clean energy by allotting US\$ 90 billion in between 2010-H22019.

\*Growing population along with increasing electrification and percapita usage will provide further impetus. Power consumption is estimated to reach 1,894.7 TWh in2022.

#### Attractive Opportunities

Under the Union Budget 2021-22, the government allocated Rs. 305,984 crore (US\$ 42 billion) for a revamped, reforms-based and result-linked new power distribution sector scheme over the next five years.

\*In June 2019, Government launched US\$ 5 billion of transmission-line tenders in phases to reach 175 GW target by2022.

### Policy Support

100% FDI allowedin the power sector has boosted FDI inflow in this sector.

\*Schemes such as
Deen Dayal Upadhyay
Gram Jyoti Yojana
(DDUGJY) and
Integrated Power
Development Scheme
(IPDS) are expected to
augment
electrification across
the country.

#### Higher Investments

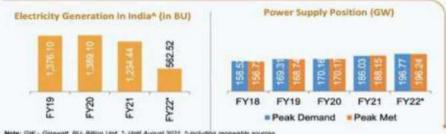
As per the National Infrastructure Pipeline 2019-25, energy sector projects accounted for the highest share (24%) out of the total expected capital expenditure of Rs. 111 lakh crore (US\$ 1.4 trillion).

\*Total FDI inflow in the power sector reached US\$ 15.36 billion between April 2000and June 2021.





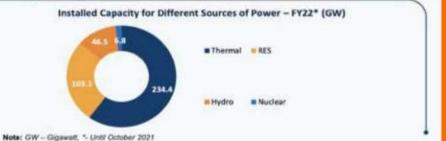




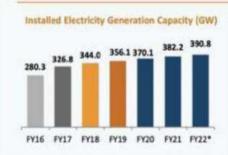
Note: GW - Gigawatt, BU- Billion Unit, 5- Until August 2021, 5-Including renewable sources

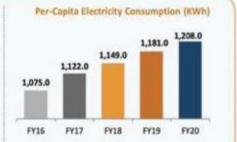


SECTOR COMPOSITION



KEY **TRENDS** 





Note: GW - Gigawatt, KWh- Kilo Watt hour, \* Until August 2021, P- Provisional







GOVERNMENT INITIATIVES



Saubhagya Scheme



**UJALA Scheme** 



Ujwal Discoms Assurance Yojana (UDAY)



ADVANTAGE INDIA

- Growing demand: India ranked sixth in the list of countries to make significant investment in clean energy by allotting US\$ 90 billion in between 2010-H22019.
- Higher investments: As per the National Infrastructure Pipeline 2019-25, energy sector projects accounted for the highest share (24%) out of the total expected capital expenditure of Rs. 111 lakh crore (US\$ 1.4 trillion). Total FDI inflow in the power sector reached US\$ 15.36 billion between April 2000 and June 2021.
- Policy support: Electrification in the country is increasing with support from schemes like Deen Dayal Upadhyay
  Gram Jyoti Yojana (DDUGJY), Ujwal DISCOM Assurance Yojana (UDAY), and Integrated Power Development Scheme
  (IPDS).
- Attractive opportunities: Under the Union Budget 2021-22, the government allocated Rs. 305,984 crore (US\$ 42 billion) for a revamped, reforms-based and result-linked new power distribution sector scheme over the next five years.



# 2050-theFuture!

Wind, water, geothermal and solar power can meet the worldwide demand for 11.804 TW of energy while avoiding the predicted global temperature increase of 2.7 degrees Fahrenheit (1.5 degrees Celsius) above preindustrial levels by 2050.

The researchers outline how doing so would save the lives of 4 million to 7 million people who might have otherwise died from diseases caused by air pollution, save countries more than \$20 trillion overall in health and climate costs, and produce a net increase of more than 24 million long-term jobs.



Planet Texas 2050 is a research grand challenge at The University of Texas at Austin. We're a team of more than 150 researchers across all disciplines working together over the next decade to find ways to make our state more resilient in the face of extreme weather events and rapid population growth.













## Dr. Deepak Vohra Chief Mentor & Advisor

He is a Special Advisor to the Prime Minister of India, on various aspects including Security and also Ambassador and advisor to Lesotho, and Guinea-Bissau. He is also the Advisor to the Ladakh Autonomous Hill Development Councils, Kargil and Leh, in India.

He is from the Indian Foreign Service, Class of 1973. He has studied at the most prestigious Universities in India and overseas including St.Stephen's College, National Defence College and Sorbonne University, Paris.

H.E. Dr. Vohra, has been India's senior Ambassador to various countries in the past. He has served in France, Vietnam, Tunisia, the United States, Nigeria, Cameroon, Benin, Chad, Malaysia, Papua New Guinea, Spain, Armenia, Georgia, Sudan, Poland, and Lithuania.

Ambassador Vohra has specialized in developmental issues (especially in remote and developing geographies ) for emerging nations.

In October 2005, Armenia awarded him a gold medal and named a school after him. Sudan gave him its highest civilian honor and in 2006, he was made Prince of an African tribe.

He has vast international experience, having represented India at several conferences, and is a specialist in the development of socio economic





### Ajay Mishra (IAS-Retd) Senior Advisor

An expert in Renewable Energy issues, brings with him an unique experience of policy formulation at the provincial level, providing inputs for national policy and implementing renewable energy projects at the grassroots level. During my tenure as Special Chief Secretary, Energy Department, Telangana State for four years, monitored and supervised the implemented of solar energy projects of installed capacity of 3500 MW, resulting in Telangana being ranked as the leading state in the country during 2017-18. Also created an enabling ecosystem with different stakeholders for implementation of Rooftop solar projects of 100MW installed capacity resulting in Telangana emerging as the leading state in the country. In a time bound manner, Planned and implemented the program for providing electricity connections to all rural households in the province, including round the clock power supply to all the consumers.

As Director General Of Renewable Energy Society Of India, a knowledge focused body, organised various online conferences on Green Hydrogen, Wind energy etc for the benefit of graduate students of technology institutions for more than two years.

## Sreedhar Vedula (IAS) Senior Advisor

Sreedhar Vedula is a dynamic individual with diverse accomplishments and a passion for learning. He secured All India 16th Rank and emerged as South India Topper in UPSC 1997, earning Gold Medalist & Best Probationer awardee. He currently serves as an Executive Director of a JV of a State govt. & Govt. of India, funded by Germany and EIB. Vedula is an author, educator, and a passionate coding enthusiast, having conducted seminars and workshops on effective study techniques in India and South East Asian countries. He also designs and creates his website, studynomics.com, catering to the global student community and amateur stock market traders. Vedula is an internationally certified trainer, focusing on motivation, goal-setting, and time management.

As an artist, Vedula finds solace in Carnatic Classical Music and has a programming prowess in VB, MQL, Java, and Python. He shares his research results through seminars on stock market strategies and builds Algo-trading systems for efficient testing and trading. Vedula is an avid reader, a Civil Engineer, and a content creator. He has studied Astrology and gained expertise in evaluating compatibility and relationship dynamics between partners. Vedula is a mentor to students and teachers, specializing in Mind Maps, Scientific Revision, Memory tips, Time Management, Study Planner, and Study less-Learn More.





#### Sanjeev Anand Advisor

Currently Sanjeev is the Group CEO of Atlas Mara-BancABC. He has been a serial CEO leading and advising institutions spanning Asia, Europe, GCC and Africa, across regional and global banking groups such as Citigroup, Actis-I&M, Banque Populaire, Development Bank of Rwanda and Euro Exim Bank. His track record has been in transformation, turnaround, start-ups, scaling and M&A. He retains a number of Directorships in banking, financial services and manufacturing sector.

He is a Life Member of the BRICS Chamber of Commerce and was its Honorary Director for Africa, working on investment and trade facilitation. He was also the Vice Chairman and acting Chairman , for two terms, for an emerging sovereign fund, guiding its formation. His experience includes financings and projects for public and private sector companies, as well as PPP working alongside local, DFIs, bilateral and multilateral partners. He has been the member of the investment committee for Access to Finance and the Steering Committee of the East Africa Monetary Unification. Sanjeev is a chartered accountant and an Honors graduate, with distinction, from Delhi University. He has been Chairman Banker's Association for two terms and Vice Chairman Leasing Association. He has taught certified courses in Finance, Leadership and Credit internationally. Under his leadership Awards and Accolades include Best Country Bank from Euro Money and Global Finance for several years, Most Technologically Innovative Company by CIO 100 and Best Digital Wallet.

## Debasish Banerjee.. Advisor - Engineering, Energy & Optimisation

Decades-long MD/CEO with proven success in turning around billion-dollar businesses. Led transformations with disruptive technologies and new markets. Embraced uncertainty to drive business growth.

Passionate clean energy expert driving innovation in renewables, storage, EVs, and hard-to-abate sectors. Creates distributed energy solutions using virtual power plants, smart tech, and blockchain-based P2P trading. Optimizes energy efficiency for residential and commercial clients with automation and demand response strategies. Delivers energy security, affordability, and a smooth transition to clean energy through on-site RE generation and battery storage.

As Reliance Energy CEO, He boosted profitability, tackled competition, and secured a new license through operational excellence and customer focus.MNCs like Schneider Electric are thriving in India, while established players like Crompton Greaves are consolidating their lead in power and industrial sectors.



#### Squadron Leader Prerana Chaturvedi - Veteran Advisor - Armed Forces & Defence Practice

With over 30 years of experience in diverse fields such as Strategy, Operations, Management, Business Aviation, Aerospace & Defense, and Electric Mobility. She is an effective communicator with strong analytical and problem-solving skills. Fiercely loyal, skilled in driving innovation, and fostering team success. Her mastery of the art of learning and adaptation, coupled with her entrepreneurial mindset, makes her proficient in carving out new paths and fostering a culture of innovation and growth.

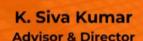
She has honed her art of pioneering by successfully leading multiple groundbreaking startups. A shining star in the automotive industry, she is disrupting a sector poised to make global history. You'll find her with sleeves rolled up, working collaboratively with her team to relentlessly pursue goals and overcome obstacles.

# Deepak Mathur Advisor: Renewable Energy and Clean Tech

He is an accomplished transformation leader in the power sector, exceptional cross-functional expertise, focused on clean /renewable energy for sustainable development. A strategist by nature, he possesses over 40 years of rich experience in developing and managing Energy infrastructure projects globally. He brings the right balance of strategy, business acumen, operational expertise and technical know-how. He has proven capabilities of managing the entire value chain of the energy business end to end, across electricity generation, transmission, and distribution. He has been honoured with "Exemplary Leader Award 2012" by World HRD Congress in Singapore and the "India's Most trusted CEO- Trendsetter 2018" award by WCRC & Int+. etc. Also the World Bank his support in developing indicators for "Ease of doing Business: Going Beyond Efficiency".

Transformed several power companies and utilities while working for Government and the Private Sector organisations across Asia & Africa.





A seasoned leader with over 33 years of experience, consistently spearheading management methods in diverse, multi-industrial environments, overseeing revenue, and managing operations across multiple international locations.

With extensive experience spanning nine countries, adeptly navigating complex business environments across diverse geographies, culminating in a contemporary global outlook. This expertise includes establishing and overseeing joint ventures, managing stakeholders effectively, and coordinating collaborative projects. Additionally, served as a director on the boards of a desalination project with a capacity of 100 MLD, an engineering company based in Singapore, and a subsidiary of a technology corporation based in the United States, specializing in water solutions.

#### OVD Prasad Advisor

OVD Prasad is not just a financial professional; he is also a visionary entrepreneur at the helm of a thriving manufacturing company and an engineering and on-site works enterprise. Under his adept leadership, these companies have not only flourished but have also contributed significantly to various industries.

With a distinguished portfolio that includes the manufacturing, testing, and commissioning of a wide array of process equipment, pressure vessels, air fin coolers, and more, Prasad has established a legacy of excellence in engineering innovation. Moreover, his esteemed company board has been graced by industry luminaries such as the Former Managing Director of BHPV, and Former Executive Director of Tungabhadra Steels, underscoring Prasad's standing as a respected leader within the business community.



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