



# One-Day Conference on 'Investment Bazaar for Energy Efficiency Financing'



**Date: 29<sup>th</sup> November 2022.**

**Nagpur**



## AGENDA

Time	Topic	Speaker
10:00 AM - 10:30 AM	<b>REGISTRATION</b>	
10:30 AM – 10:40 AM	Welcome address	Shri. Pankaj Tagalpallewar General Manager – EC Dept – MEDA
10:40 AM – 10:50 AM	Thematic address (Through Zoom)	Mrs. Vineeta Kanwal Director Bureau of Energy Efficiency (BEE)
10:50 AM – 11:00 AM	Inaugural address	Shri. Vaibhav Pathode Regional Director, DGM- MEDA
11:00 AM – 11:05 AM	Vote of Thanks	Shri. Prafulla Tayde DGM - MEDA – Amravati
11:05 AM – 11:30 AM	<b>Tea Break and Networking (Visit to Stalls)</b>	
11:30 AM - 11:45 AM	MEDA Initiatives in Energy Efficiency and Conservation	Shri. Prafulla Tayde Divisional General Manager – MEDA
11:45 AM – 12:00 PM	BEE's Energy Efficiency Financing Schemes	Shri. Tejas Patankar Finance Expert- PAT Cell, MEDA
12:00 PM – 12:15 PM	EE Financing Schemes in MSME	Shri. Vinay Ahirwar Manager-SIDBI, Nagpur
12:15 PM - 12:30 PM	Energy Conservation Bankable Project-1, 2	Shri. Vikrant Palyekar, Nutzen
12:30 PM – 12:45 PM	Energy Conservation Bankable Project-3	Shri. Sanjay Nandre Enprotech Solutions
12:45 PM – 01:00 PM	Energy Conservation Bankable Project-4,5	Shri. Nitin Chondhe Yantra Harvest Energy Pvt Ltd



01:00 PM – 01:15 PM	Energy Conservation Bankable Project-6	Shri. Shankar Ghime Air-Technics
01:30 PM - 02:15 PM	<b>Lunch</b>	
<b>Technical Session:</b>		
02:15 PM – 02:35 PM	Energy Efficient Technologies implemented by ESCO	Shri. Milind Chittawar ESCO: SEE-Tech Energy Solutions Pvt Ltd
02:35 PM – 03:00 PM	Energy Saving Opportunities in Compressed Air System	Shri. Prasad Shrirame OEM - M/s. Godrej & Boyce
03:00 PM – 03:20 PM	IoT Based Energy Audit System	Mr. Pravin Awatade Director- Navy Blue Energy
03:20 PM – 03:40 PM	Energy Efficient Air Compressors	Shri. Nilesh Sawarkar Manager- Kaeser
03:40 PM – 04:00 PM	Bio Char and Carbon Removal- A Path towards Net Zero	Shri. Prasanna Sutaone Director- WENA FPC
04:00 PM – 04:20 PM	Reactive Power Management in Industries/Banks/Buildings	Mr. Santosh Wahane Director- M/s. Amvoltz Industries
04:20 PM – 04:40 PM	<b>High Tea with Networking</b>	

***End of Session***





The one-day conference on “Investment Bazaar for Energy Efficiency Financing” for the concerned stakeholders such as industries, banks and financial institutions, OEMs, energy auditors, etc. was organized by Maharashtra Energy Development Agency (MEDA), Govt. of Maharashtra on Tuesday, 29<sup>th</sup> November 2022 at Hotel Centre Point, Ramdaspath, Nagpur. The program was attended by the officials from BEE (on-line), SIDBI, SDA, PAT Cell Members & by various Industries, Banks, Energy Auditors and ESCOs. Total Number of Participants attended at the beginning of the event was 70.

## **“Proceedings for Investment Bazaar for Energy Efficiency financing”**

### **First Session: Inaugural Session**

The Inaugural Session of the conclave was graced by gathering of about 85+ delegates, with eminent panelists at the dais.



- The inaugural session started by lightning the lamp in the name of Goddess Saraswati followed by Welcome Address of Shri. Pankaj Tagalpallewar, GM EC, MEDA. In his address, he explained the agenda of the investment bazaar and welcomed all the participants. He also urged people for their commitment towards meeting the 2030 goals in the India’s pathway of NetZero by 2070.



- **Mrs. Vineeta Kanwal, Director, BEE-GOI**



She shared the details of the programme & briefed about the EEF (Energy Efficiency Financing Platform) under NMEEE (National Mission for Enhanced Energy Efficiency) which is one of the eight National Missions under NAPCC (National Action Plan for Climate Change).

The Director BEE detailed BEE 's financing schemes and initiatives taken by BEE for facilitating the funding support to designated consumer companies, MSMEs, Large Scale Industries, Municipalities etc. She has given brief conceptual knowledge about Banker's role in financing Energy Efficient (EE) Projects.

Also, she shared about launching of BEE's Facilitation Centre online naming as ADEETIE with below features -

It shall develop the list of new and existing EE technologies for financing.

A dashboard would be provided to track the status of EE project financing. Login access would be provided to FIs and beneficiaries.

It shall develop a dedicated Web-portal and collect the willingness forms and spread awareness of BEE's financing schemes among various beneficiaries.

BEE has set up a Facilitation Centre for encouraging and up scaling Energy Efficiency Financing in the country.

She mentioned about M/s DARASHAW, agency nominated for developing the platform for capturing EE investment potential requirements & administering the same. She proposed all participants to visit link for facilitation center.

<http://www.adeetie.beeindia.gov.in/>



- **Sh. Vaibhavkumar Pathode, Regional Director, DGM MEDA Nagpur**



He delivered inaugural address. He highlighted and recalled the Glasgow commitments and MEDAs commitment towards the same and urged all the participants to be a part of the Net Zero mission of India, save energy for National cause and make India a greener economy.

- **Sh. Prafulla Tayde, Divisional General Manager- MEDA, Amravati**



He thanked all the Special guests from BEE who attended the event online, SIDBI, Industries, Banks, OEMs, ESCOs and all the participants from DCs, MSMEs, Banks for being a part of this One Day Investment Bazaar on EE Financing.





## ❖ Second Session: Technical Session-01

Second session was started with the presentation of Divisional General Manager, MEDA Amravati on the MEDA initiatives for Energy Conservation in the State of Maharashtra.

The brief details as follow:

- **Sh. Prafulla Tayde, Divisional General Manager- MEDA, Amravati**



Divisional General Manager, MEDA initiated the technical session by giving a brief introduction of MEDA and its roles, objectives, achievements, and upcoming events being organized by MEDA. He focused on the various schemes of BEE as well as State Govt. being implemented by MEDA such as PAT (Perform, Achieve and Trade), ECBC (Energy Conservation Building Code) and State Level EC Awards, Save Energy Programs respectively.

- **Sh. Tejas Patankar, FE, PAT Cell MEDA**





Mr. Tejas Patankar has given detailed presentation on **FINANCING INITIATIVES OF BUREAU OF ENERGY EFFICIENCY (BEE)** and BEE's existing Initiatives for Financing

He recalled, the PANCHAMRIT MANTRA AT COP 26 climate summit held in Glasgow, five key commitments delivered by Hon'ble Prime Minister to tackle the climate change issues, the outcome which India will achieve net zero by 2070.

He mentioned that the Huge Investment Potential in Energy Efficiency sector viz & moderate energy savings to be achieved by 2031 is 86.90 MTOE and in terms of Rs 1 Mio' Crores as per BEE's UNNATEE Report 2019.

He further mentioned the background of BEE's Financing initiatives and how Energy Efficiency Financing Platform has been designed to achieve the *motto*, under financing energy efficiency program.

He has also explained and brought attention to -

- Designated consumers in Maharashtra Sector Viz
- Investment Bazaar Initiative & its framework
- Program on Grading of Energy Efficiency Projects & criteria for it like BEE shall reimburse grading cost of maximum Rs. 2.90 lakh per project for 100 EE projects that shall be graded by empaneled grading agencies and financed by empaneled FIs.
- EE Financing Cells & PFC has established a dedicated department "Energy Efficiency Cell"
- BEE's Facilitation Centre
- Willingness Forms
- Technical Forms
- List of EE Projects identified in Maharashtra
- Interest rate offered for EE Projects

He also explained the objective of this investment bazaar and framework of the same as well. He also talked about the facilitation centers being formed by BEE with consultation with M/s. DARASHAW and Company for bridging the gap between bankers and industries to overcome financial barriers for energy efficiency projects implementation.

He added that there will be Willingness Form which needs to be filled up by loan aspirant company & Gradation process and mechanism. At the end, he has proposed all stakeholders who wish to seek financing for their EE projects to fill up the Willingness form and submit it to MEDA official.

A total of 15 new forms have been received during the event and further few more got to be in pipeline to receive.

Total investment requirement generated to the tune of Rs. 25 Crores plus put together all Willingness forms received from various industries stakeholders.





- **Sh. Vinay Ahirwar, Manager, SIDBI Nagpur**



He shared the details of the various financing schemes offered by SIDBI (Small Scale Industrial Development Bank of India), benefits to consumers and the criteria for funding EE projects. Mr. Vinay Ahirwar has given detailed presentation on Funding on Energy Efficiency Projects by Small Scale Industrial Development Bank of India. (SIDBI)

- He has mentioned about SIDBI, leading small Bank *working for Govt of India Schemes.* He mentioned about –

*Complete Digitization: Direct Credit*

*SIDBI's Direct offering for MSMEs-*

- ❖ *ARISE: Assistance to Re – Energize capital investments by SMEs*
- ❖ *STHAPAN: SIDBI Thematic assistance for purchase of capital Assets in New Enterprises*
- ❖ *STAR: SIDBI Term loan assistance for Roof Top Solar PV Plants*
- ❖ *STEP: SIDBI's Term Loan to enhance production of MSMEs*
- ❖ *USP: SIDBI assistance to Export Oriented MSMEs under UBHARTE SITAARE Program*

*Schemes for Facilitating working capital*

- ❖ *SIDBI's 4 E (End to End Energy Efficiency) scheme*
- ❖ *SIDBI E-GPS (Express Green Power for Sustainability) Scheme*

He concluded with remarks wishing all stakeholders to put forward their requirements to SIDBI and express his gratitude towards all.



- **Sh. Vikrant Palyekar, Nutzen Engineering Solutions**



He introduced his organization M/s. Nutzen Engineering Solutions (NES) which is a full fledged EPC company providing energy solutions in focused market of waste to energy plant. Having in-house team of designing and engineering with cumulative experience of more than 10+ Years, from the expertise of process, electrical, mechanical and civil industry background.

Further he explained about their products such as -

1. Digester – eCSTR (Patent Applied)
2. Biogas Conditioning System – Bi-Metallic Bio-Chemical
3. Carbon di Oxide (CO<sub>2</sub>) removal – High Pressure Water + pressure Swing adsorption
4. Nu Bio Alpha – Patented Micro Scale Digester
5. Evaporation unit – Multi effect evaporator
6. Condensate polishing unit (CPU)

and Turn-key Solutions like:

1. Effluent to Biogas to Power – Balance of Plant, Combined heat & power, ventilation, cooling, power evacuation.
2. Effluent to Biogas to CBG – Compressor, High pressure containers, balance of plant, Supply chain.
3. MSW – Municipal Solid Waste Management (Source to Energy)

Mainly he focused on Biogas based BioCNG plant and its components and operations.

He also explained Bankable Projects which are given in the Bankable Projects Section\*



- **Sh. Sanjay Nandre, M/s. Enprotech Solutions (via Zoom)**



Mr. Sanjay Nandre is the director of M/s. Enprotech Solutions and he gave a brief introduction of his company. Enprotech Solutions is a waste to energy company having more than 30 years of experience in this domain. They are working with ADB and KPMG for developing CBG projects based on various substrates in India on DBOO/DBOOT basis. Also working with Dun and Bradstreet, New Delhi as an expert on 'Waste-to-Energy & SWM' for technical evaluation of CBG projects coming up in India, worked with World Bank for developing CBG projects in Nepal. They have executed more than 60 Bio-methanation projects for different waste substrates and worked with MNRE (Ministry of New and Renewable Energy) for 10 years and associated with UNDP/GEF funded project on "Development of High Rate Bio-methanation Projects to reduce green house gases emissions" in India.

He explained the Bankable Projects available and being implemented as below:

1. Project : 120 TPD Napier Grass Based CBG Project  
Napier Grass Aggregator : ADEG Agri Ventures Pvt Ltd, Karad, Maharashtra  
Sale of Bio-CNG : Rs. 60000 per tone with 2% Annual Increase  
Manure Generation : 9900 Tons per year  
Sale of Manure : Rs. 2500/- per Ton with 5% annual increase  
Generation of Liquid : 85 Cum./day  
Price per Liter : 1000 Rs/Cum.  
O&M Expenditure : 15-20% of Revenue, with 10% annual increase  
Interest on Term Loan : 8% per Annum  
Loan Period : 10 years





- **Sh. Gaurang Bhatt, General Manager- Technical, M/s. Yantra Harvest (via Zoom)**

Mr. Gaurang Bhatt is the General Manager-Technical for M/s. Yantra Harvest which a 42 years old business leading in the energy saving solution providers domain. M/s. Yantra Harvest having a rich experience in process and application and it's a BEE approved Grade-1 ESCO since 2013. They have the total 475+ MV Drives in India and executed 150+ MV Drives under ESCO worth of Rs. 200 Cr

He explained about the various energy efficiency solutions provided by the company such as:

1. MV Drive
2. HeatX condenser Efficiency
3. Energy Conservation Turbine
4. Power Quality

He also explained the ESCO Model being provided by Yantra Harvest to the customers with benefits such as savings in power reduction in CO<sub>2</sub>, Tax saving through Accelerated Depreciation, Zero Investment and Turn-key Solutions with the following advantages:

1. ESCO takes on the risk of not achieving the prescribed savings
2. Project Financing can be "Off-Balance Sheet" and hence not affect debt load.
3. Accelerated Depreciation Incentives available on proper documentation.

He also presented bankable projects given below in Bankable projects section. \*

- **Sh. Shankar Ghime, Director, M/s. Airtechnics MEP Services**



Mr. Shankar Ghime is the director of M/s. Airtechnics MEP Services and he explained the topic of energy efficiency in Air Conditioning and Ventilation (HVAC) systems. He emphasized on the very basics of Refrigeration system and the energy saving potential without any investment by controlling the operational parameters.



### ❖ Third Session: Technical Session-02

- **Shri. Milind Chittawar, Director, SEE-Tech Solutions Pvt Ltd**



Mr. Milind Chittawar, Director of M/s. SEE-Tech Solutions Pvt Ltd initiated the second technical session by giving a brief introduction of his company and its motto “Delivering Profits and Sustainability Together”.

The services provided by the company involve EnCon projects identification to implementation and delivering real savings. It's a 25 years old company having a team of 30+ consultants, HQ in Nagpur and operating in all over the India. They are having best qualifications like AEA (Accredited Energy Auditor), CEA (Certified Energy Auditor), CMVP and conducted more than 500 energy audits in various industries in different sectors. They have implemented over 15 energy performance contracts with investment and delivered over 20% savings in each of them. SEE-Tech Solutions has been CRISIL/ICRA rated BEE Grade-1 ESCO (2013-2019).

He explained the technologies provided by his company as below:

1. IE5 Efficiency Motors
2. EE Fans in Closed loop control
3. Micro Turbines replacing PRS
4. Adiabatic Cooling for HVAC
5. Servo Motors for Plastic and Aluminum Injection Molding
6. Servo Stepper Motor for Actuation (replacing compressed air)
7. High Temperature Heat Pump for Hot water/air
8. Centralization or De-centralization of Utilities

After that he also explained the energy efficiency projects financing and it works on the principal of projected savings of Rs. 100/- and monthly EMI is Rs. 75/- having a positive cash flow.

He also presented few case studies of the EE projects SEE-Tech Solutions has implemented with their ROI calculations.



- **Sh. Kumar Jadhav, Manager Sales, Godrej & Boyce**



He has shared the details of their various compressed air solutions and energy saving opportunities in the compressed air system. He explained the technical aspects in compressed air generation, distribution and end use.

He spoke on the Energy Saving Opportunities in Compressed Air System and at the very start gave a message that “We Do Not Inherit the Earth from Our Ancestors, We Borrow It from Our Children.”

Initially he briefed about the Godrej Group and their portfolio in different industrial sectors such as its one of 14 businesses of Godrej & Boyce company, Godrej Electricals & Electronics is as old as the company. And their businesses strive to contribute to the vision of the group by delivering Sustainable Technology Solutions.

Compressed Air Solutions is one of the important business verticals of Godrej Electricals & Electronics.

He explained the Godrej Group commitment towards sustainability as a part of the global EP100 initiative, they aim to double their energy productivity and reduce carbon intensity by 60% by 2030.

Only 7 Indian companies have committed to this initiative and Godrej & Boyce is one of them. EP100 (Energy Productivity 100) is a campaign that brings together a growing group of energy-smart companies committed to doubling their energy productivity by 2030. EP100 is led by the Climate Group in partnership with the Alliance to Save Energy.

He explained the compressed air system processed involved in, such as generation, treatment, distribution, and end use. He mentioned the potential savings in these all stages of 20%, 5%, 10% and 15% respectively. Also emphasized on the energy saving approach as Cloud Based Monitoring System i.e. Generation Controller and Heat Recovery, System Monitoring and Timely Replacement, Design and Installation of Aluminium Piping Project, Own controllers and monitoring products.

He also briefed about the CAS-Sustainable Energy Saving Solutions by Godrej.





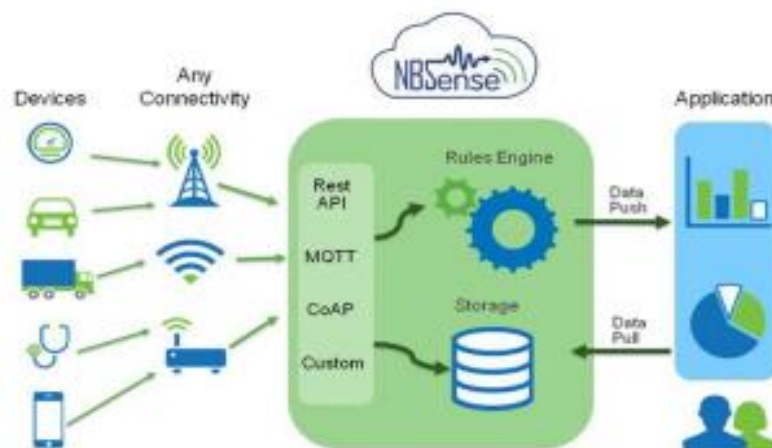
- **Sh. Pravin Awatade, Director, Navy Blue Energy**



Mr. Pravin Awatade, Director, Navy Blue Energy is the startup working in the field of Energy Audit and services from last six years in all over India. Navy Blue Energy is one of the startups who have started IoT Based Energy Analytics.

He started his presentation with the basics of energy audit and the overall energy wastage scenario. According to Energy Information Administration (EIA), 34% of Energy is being wasted at usage point level. Energy Audit and management is data driven and the accuracy of the measurement data is very important. At present, data is collected manually from the machine logs and site measurements. Navy Blue has introduced a new generation IoT based remote Energy auditing System for real time data monitoring for the accuracy of the data and big data analytics. This is particularly to address the limitations of present measurement system such as Human Error, instantaneous readings and measurements, non-availability of the long data, etc.

Navy Blue has invented this Smart Energy Monitoring and Analytics System NB Sense and it operates as below:





- **Sh. Nilesh Sawarkar, Manager Sales, Kaeser Ltd**



He has shared the details about air demand analysis solutions and energy efficiency in air compressors. He briefly explained their products and measures for energy efficiency in Air Compressors and distribution.

Firstly, he started with the compressed air phenomena as Pressurized Atmospheric Air and the Fourth Utility after Electricity, Natural Gas and Water. Compressed air systems such as generation, distribution, end use and new compressed air system demands optimum cost efficiency, reliability and maximum availability, optimum utilization, and safe operation.

He explained the cost structure of the compressor installation and compressed air cost optimization strategy by Analysis, Planning and Management.

Different structures available for the different industries/companies as well as different air consumption and compressed air quality levels were also explained by him.

He explained about -

1. KESS: which simulates and compares possible solutions to find the one that is the most efficient, Exact figures show the power consumption and energy efficiency of each simulated system, the specific power consumptions of each simulated system vis-à-vis existing system can be compared.
2. ADA (Air Demand Analysis): Generate precise consumption profiles of compressed air system, allowing us to determine estimated air demand throughout all operating sectors and at different loads, highlight weaknesses in the existing system, identify poorly dimensioned installations, lay the groundwork for the next step toward the optimal compressed air station by calculating the energy-saving potential.

He also explained the overall costs and potential savings with the new design such as waste heat recovery to reduce energy costs which account for up to 80 percent of life-cycle costs and reduce CO<sub>2</sub> footprint as heat recovery lowers the CO<sub>2</sub> emissions of the organization because the plant utilizes energy more efficiently.



- **Sh. Prasanna Sutaone, Director, M/s. WENA Bio Science Pvt Ltd**



Mr. Prasanna Sutaone is the director of M/s. WENA Bio Science Pvt Ltd and he mentioned about the good practice for ten key elements of national net zero target setting which is termed as “India’s Long Term Low Emissions Development Strategy (LTS)”

They have their major three products:

1. Bio Char

It is a charcoal-like substance produced by heating organic matter without oxygen in a process called pyrolysis. Pyrolysis doesn’t produce carbon dioxide as ordinary, oxygen-fueled fire does. Instead, the carbon gets locked as charcoal-like matter. Biochar production is an established industrial process which has been utilized for centuries.

2. Bio Oil

3. Carbon Credit Removal Certificates

He emphasized on the Carbon Removal Emerging Market Opportunity and Intergovernmental Panel on Climate Change (IPCC) estimates global demand of 6 billion tons of annual CO<sub>2</sub> removal by 2050. And we need to reduce annual emissions by as much as 80-90% by 2050 but this alone is not enough. To reach net zero, we need to remove a further 5-10 GT of CO<sub>2</sub> each year.

Reaching net zero emissions requires neutralizing a company’s residual GHG emissions with an equivalent amount of carbon removals and its only possible with carbon removal.

He mentioned the bankable project, highlights are as below: (Capacity: 10 MT/day)

1. Developing Bio Char Project: To be producer of Institutional Grade Carbon for Agriculture and Industrial use.
2. Anticipated near- term cash flow indicative revenue from Carbon removal credits as well as biochar sales.
3. Meaningfully contributing to net-zero targets driving climate change action by permanently removing carbon from the atmosphere.





- **Sh. Santosh Wahane, Director, M/s. Amvoltz Industries**



He explained the energy saving potential in industries as well as banks and commercial buildings by controlling power factor using APFC Panels.

He briefed about the reactive power compensation by maintaining the power factor near to unity. Reactive power compensation needed for the following reasons:

1. The power supplier charges penalty for excessive consumption of reactive power
2. Reduced energy losses make reactive power profitable.
3. Additional machines are to be connected to already fully loaded substations, cable and transformer
4. The Power transmission for a new plant can be planned more economically if power factor correction is taken into consideration.

He explained his products with salient features as per the applications:

1. Thyristor Based APFC Panel:

A Thyristor-switched capacitor (TSC) is a type of equipment used for compensating reactive power in electrical power systems.

Features of this system:

- Standard voltage range: 415/440/525 VAC
- Available in 8/10/12/14/16 step from 100KVAR to 1000KVAR in Single unit
- Microprocessor based intelligent APFC relay
- 2. Single Phase Power Factor Control Panel
- 3. SVC (Static VAR Compensator)
- 4. AHF (active Harmonic Filter)

Finally, he explained the various advantages of reactive power compensation.



### ❖ Stalls at the Investment Bazaar:

We invited OEMs of energy efficient technologies and Banks for putting stall at investment bazaar for showcasing their products and various financial schemes respectively.

Following are the details of the stalls and their products:

#### • OEMs:

1. M/s. Amvoltz Industries  
Product: APFC Panels
2. M/s. Godrej & Boyce  
Product: Compressed Air Solutions
3. M/s. Kaeser Compressors  
Product: Air Compressors/Dryers
4. M/s. Halonix Lighting  
Product: Energy Efficient Lights
5. M/s. Navy Blue Energy Solutions  
Product: IoT Based Energy Audit Services

#### • Banks & FIs:

6. M/s. Kotak Bank
7. M/s. State Bank of India (SBI)
8. M/s. Bank of India
9. M/s. Electronica Finance Limited
10. M/s. ICICI Bank
11. M/s. SIDBI (Small Industries Development Bank of India)



## Outcome of Investment Bazaar

### Bankable Projects identified and presented at the event:

Sr. No.	Project Description	Investment (in Lakhs)	Energy Savings	Annual Monetary Savings (in Lakhs)	Payback (Months)
1	Installation of MV Drives to the ESP ID fan of Client M/s. ESL Steel Ltd	265	792 KW/Hr	132.5	24
2	Installation of MV Drives to the ESP ID fan of Client M/s. Xindia Steel Ltd	285	180 KW/Hr	136.8	25
3	Biogas Based Bio-CNG Plant at M/s. Ivna Bioenergy Pvt Ltd	2100	15 Ton CNG/Day	749	34
4	Biogas Based Bio-CNG Plant at M/s. Sri Sri Sadguru Sakhar Karkhana	2100	19 Ton CNG/Day	979	26
5	120 TPD Napier Grass Based CBG Project at M/s. ADEG Agri Ventures Pvt Ltd, Karad, Maharashtra	3130	1650 Ton CNG/year  3000 MT Chemical Fertilizer	313	120
6	1*15 TPD Industrial Waste based an Integrated Processing-cum-Energy recovery plant for Chakan MIDC, Pune	6500-7000	180 Tons/year	NA	NA





### Innovative Technologies presented at the event:

#### 1. IE5 Electrical Motors:

There is 5 to 25% energy saving using IE5 Motors.

#### 2. Servo Stepper motors for Actuation

There is 50 to 65% energy savings by using servo motors replacing compressed air for actuation.

#### 3. EE Fans in Closed Loop Control: (Energy Efficient Fans)

These are having applications in HVAC in Hotels, Buildings and Exhaust, AHU, Textile Humidification with 20 to 60% energy savings.

#### 4. Godrej ControlAiR™ Intelligent Flow Control (IFC) System (DSM System)



This technology reduces the artificial demand of compressed air and hereby reduces the energy consumption by 4 to 25%

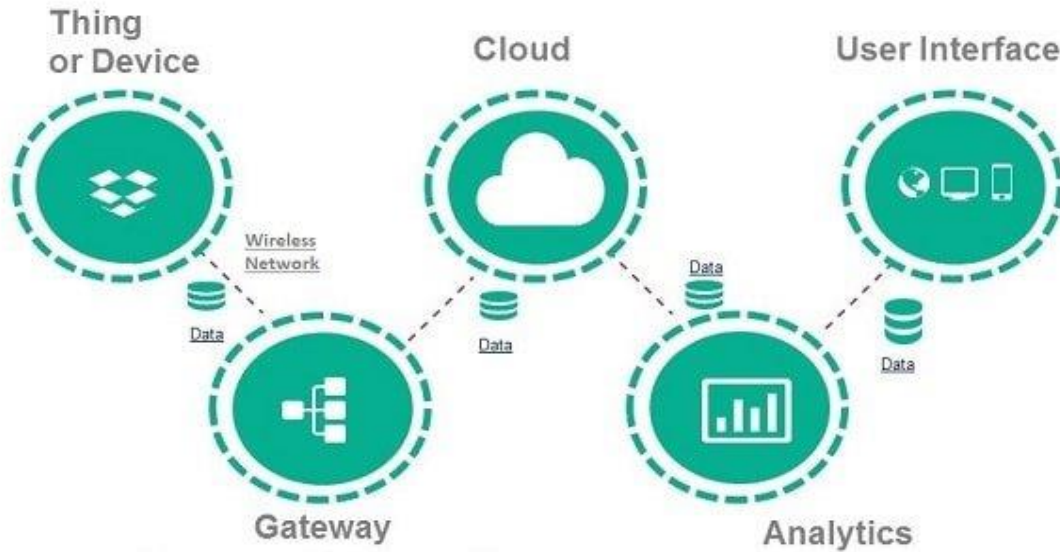
#### 5. IoT Based Energy Analytics by Navy Blue Energy:

Currently manual data measurements are taken for energy accounting. IoT based energy analytics will give real time data to draw the desired output and results.

Major Components of IoT system are given below:



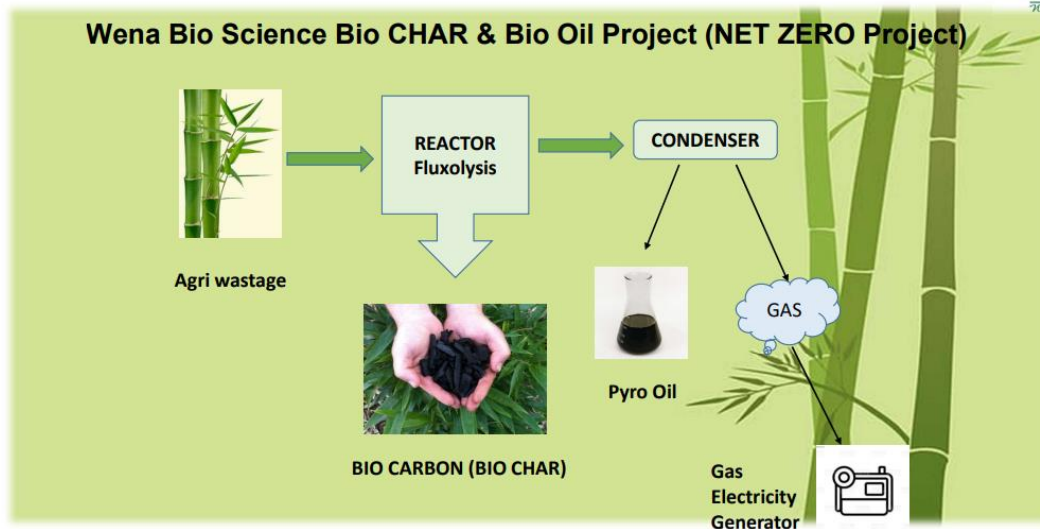
## Major Components of IoT



### 6. Bio Char and Carbon removal from Agri Residue:

In general, an economically efficient plant operation is a interaction of the Four “products” resulting from our process, the biochar, the Pyro bio oil, the energy and the carbon credits.

### Solution for Agri Wastages/ Post Harvesting Business Model







**Glimpses of the Event:**









❖ **Attendees List for the Event:**

Sr. No	Name	Designation	Name of Organization	Mobile Number	Email
1	Mukund Nama	Project Associate	Pat cell	9782237608	mukund.nama37@gmail.com
2	Suraj Nehete	EA	D2O	9730997511	surajnehete@gmail.com
3	Siddhant Sharma	CEO	Suryalakshmi cotton mills limited	9924207199	siddhant@suryalakshmi.com
4	Shankar Ghime	Principal Consultant	Airtechnics MEP Consultants	9730014130	sgghime@gmail.com
5	Amit Borad	Proprietor	Vidarbha Refrigeration	9922211100	vidrefngp@gmail.com
6	Rupak Ingle	Founding Partner	Aircon Universe	9922965440	rupakingle@gmail.com
7	Ankit Galundia	Product manager	Electronica finance limited	9607800754	ankit.galundia@efl.co.in
8	TEJAS PATANKAR	FINANCE EXPERT	D2O	9373310853	tejas@design2occupancy.com
9	Prafulla V Tayde	General Manager	MEDA	9422807719	prafullatayde@gmail.com
10	Mohanish Jugade	Electrical Manager - CPP	Gopani Iron & Power I Pvt Ltd	9960145760	mohanishjugade1983@gmail.com
11	Chetan Mangare	O&M Manager	Gopani Iron & Power I Pvt Ltd	9545904445	chetan.mangare@gmail.com
12	Parag Hemke	GM -E&I	Gopani Iron & Power I Pvt Ltd	9975877941	electrical@gopanigroup.com
13	G Srinivas	Energy Manager	Suryalakshmi Cotton Mills Ltd.	8010100816	energy@suryalakshmi.com
14	Arvind kumar Singh	DGM ( E&I)	Suryalakshmi Cotton Mills Ltd	9765151312	arvinds@suryalakshmi.com
15	Rohit Soni	Finance Expert	D2O	9887070715	rohitvedsoni@gmail.com
16	VINAYAK T DHOTE	MGR. ELECT.	PEE VEE TEXTILES LTD. JAMB.	9552538402	electpeevee@yahoo.com
17	MANOJ HURKAT	MGR. (PROJECT)	M/S. PEE VEE TEXTILES	9922433397	electpeevee@yahoo.com
18	Alok Sinha	Manager	Gimatex IND Pvt Ltd, Wani	7030441960	salok4777@gmail.com
19	Dr Anil B Onkar	District Manager	MEDA	9420445854	onkaranil63@gmail.com
20	PRITAM KATKIDE	Director	EYLES MANUFACTURING	8888990587	eyesled@gmail.com
21	Prasad V Upasane	Project Officer	MEDA, Divisional Office, Amravati	8888581540	prasadupasane88@gmail.com
22	Rahulkumar Mishra	Assistant Director	MSME-DFO, M/o MSME, Gol	9623674909	rahulbchem@gmail.com
23	Dr Shiv L. Patil	Proprietor	Dr S. L. Patil Consultants	9833041468	drpatil.india@gmail.com
24	VILAS H TALWEKAR	Chief Elect Engineer	BR SHESHRAO WANKHEDE SHETKARI	8669014947	bswengg@gmail.com





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