

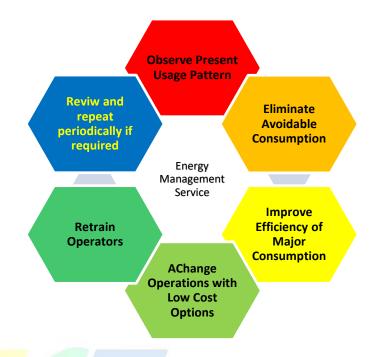
ENERGY MANAGEMENT SERVICES

Energy Management Services

Energy Management is a continuous process involving

- 1. Observation of current usage pattern,
- 2. Application of methods to eliminate wastage,
- 3. Improve efficiency of major processes, 4. Operational changes at low cost,
- 5. Record and report improvements. When there is process change or pattern change or addition of new processes, go to 1 and repeat.

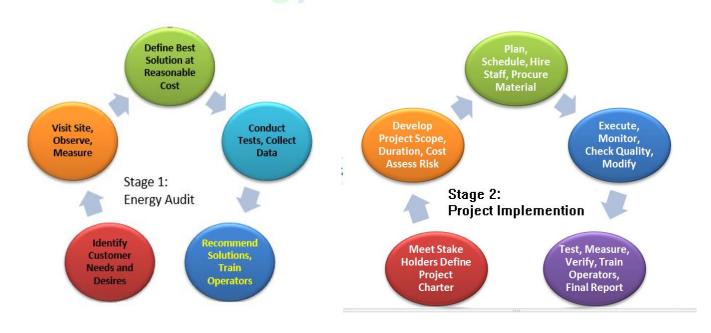
Allow us do it for you. Saved energy > Saved money > Earned money.



Energy Auditing Services

Professional services to conduct energy auditing surveys by expert energy professionals with detailed recommendations on all aspects of energy optimizing possibilities. We cover, Power Plants, Manufacturing Industries, Process Industries, Commercial Buildings, Supermarkets and the likes. Optimum operation recommendations and implementation schemes for Pumps, Compressors, Valve sizing, Furnaces, Draft Fans, Ventilation and Air Conditioning equipment

Three steps complete the Energy Auditing Services. The first preliminary survey is done to asses of there is a need to improve. The second stage is a study to define improvements by low cost operational changes and feasibility study for any major improvements. If feasible, the third stage is recommended comprising a detailed project report on major improvements and benefits achievable project. Our services extend to the stage of procurement, evaluation of Project Executing Firms and progress monitoring if required.





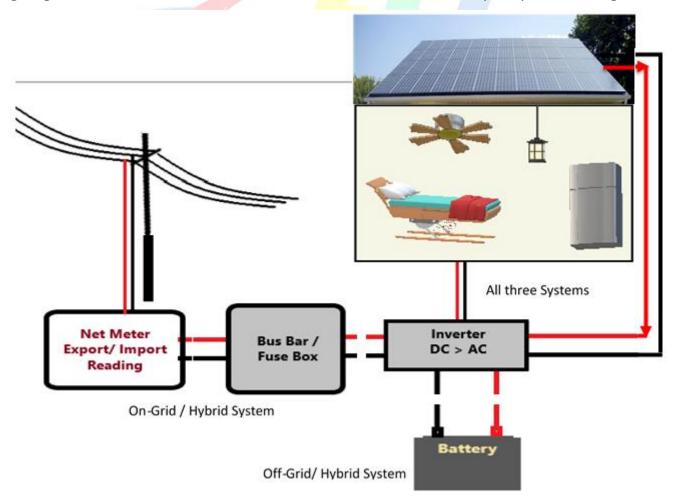
RENEWABLE ENERGY PRODUCTS

Solar PV Rooftop Power Plant

Sunshine is natures amazing gift to all life on the planet. It is sent to us every morning without fail! To complement, nature also sent to us AE Becquerel, a teenager in 1839, August Mouchet (1878), Charles Fritz (1883), Aleksander Stoletov (1888) whose work enabled Bell Labs to develop the first and most inefficient (2%) modern solar cell (1954) at a cost of \$250 per watt compared to \$2-\$3 per watt from coal. Aren't we lucky to live when PV Solar efficiency has increased to 17% at a cost of \$0.5 per watt and efforts continue that promise an efficiency of 36% within this decade¹?

Today, Solar Roof Top Power plants are here to fast replace nuclear and fossil power that have served as a wonderful stepping stones in the energy world sounding a timely alarm to say goodbye soonest as they have served their purpose to connect us to Sunshine, the Master Energy Source.

We at **ZEST** have the expertise to design, supply, install, commission and setup Solar Roof Top PV Systems in three modes that we urge every customer to **must understand** before going for it so as to ensure customer needs are met and avoid post purchase regrets.



Ref: 1. slate.com/blogs/badastronomy/2014/07/28/thegreatoxygenationeventtheearthsfirstmassextinct



On-grid System: Typically, a Solar PV System comprises a set of solar PV panels with a capacity equal or less than the contracted load. The DC Voltage output is connected to an invertor through a MCB. Invertor output connects with the building loads. In case of On-grid system, the Invertor is also connected to a net meter taking its supply from the Electric company grid. Power can flow either way depending on consumption is high or generation. In case grid power fails, invertor stops working resulting in power failure in building also.

Off-Grid System: Off-grid System has no connection to the grid. DC Voltage output is connected to the invertor which generates AC output for the connected building load. Invertor is also supplied by a battery that is charged through a charge controller from the Solar PV panels. Thus all power available from the solar panels is used by the building loads as also the stored energy in battery continues to serve in night and cloudy weather. There is no way to export any excess generation.

Hybrid System: Hybrid System is connected both to the grid as well as a back-up battery. Thus it has no power failures even when grid fails or during cloud cover as in case of Off-grid system. It serves to export excess generation to the grid on sale as in case of On-grid system. It is possible to link to an existing UPS System. Has advantages of both On-grid and Off-grid and so is the cost impact.

Solar Air-Conditioning:

Hybrid Solar Air Conditioner use the solar heat absorbed in evacuated tubes of the outdoor unit to raise the temperature of refrigerant going to condenser thus needing a smaller compressor, reducing the total electric load. Indoor air handling units can be wall mounted or floor mounted. These Airconditioners come in 1.0 ton, 1.5 ton and 2.0 ton capacities.

Central Adsorption type Solar Air Conditioners come in capacities of 10 tons or higher. This system uses steam under low pressure and temperature as the refrigerant. The heat from ETC is stored in a insulated tank enabling service even in the night. This system uses absorption or adsorption techniques for the process. It runs entirely on solar with a back-up if required. Electricity bills cut down by 80%.



Central Solar Air Conditioning System





Energy Efficient BLDC Fans by Atomberg

We at ZEST are as passionate in supplying these amazing energy saver ceiling fans to our customers as the Atomberg team that has developed this product as world leaders with patent pending. This is a 300% forward leap in the field of Energy Conservation with no compromise on service delivery. The fans have a very thoughtfully developed Intelligent Remote Control with a Sleep mode and a Timer mode as smart features.

Meet the team by visiting the link below: https://www.youtube.com/watch?v=24
X-fbRwufk



Auto Energy Efficient Lighting IS SP72

For comfortable sighting, we need illuminating lights without glare. We help our customers with not only comfortable illuminating system but also save on electric bills by sensor controlled lighting. Different activities taken by people require different levels of illumination. We design and install the lighting systems to comply with IS3646 recommended illumination levels while saving on electric bills. This helps us in contributing to control on global warming and climate change too!

Sensor Controlled Automatic Lighting







MOHAMMED SALAHUDDIN

Technical Director



ZAIBA ENERGY SUPPORT TRENDS

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ZAIBA ENERGY SUPPORT TRENDS

The Sun gives us about 5000 times more energy than we consume all over the world.

you can channelize it for use and still make money.

49, 3rd Cross, 31st Main BTM LAYOUT II Stage Bangalore-560076.