



 **TURBOSERVE**

ENGINEERING SERVICES & ENERGY SOLUTIONS

# ENERGY AUDIT SERVICE

## ❑ Objective

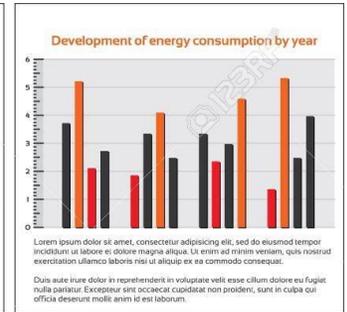
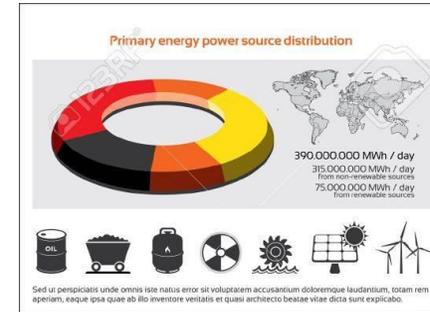
Cooperation with different facilities of diversified nature like hotels, factories, malls, hospitals, universities, water & wastewater stations, etc. to leverage their energy efficiency and utilize greener energy.



# SERVICES

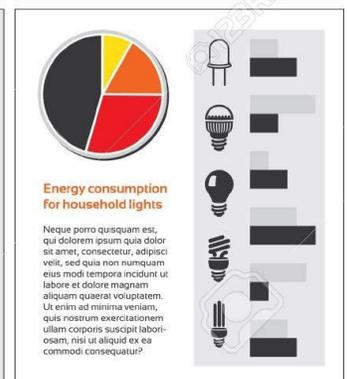
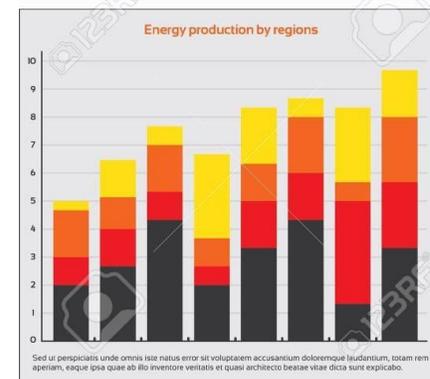
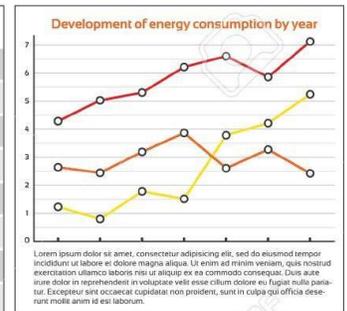
❑ A. Energy Audit on a complete facility by acquiring the below results in terms of charts from Energy Audit kit using the Power meter and datalogger installed at main facility feeder for a certain time period that could be a week or a month or more based on the agreement

- Peak power consumed in kW
- Accumulative Energy usage in kW.h
- Energy consumption trend over weekdays & weekend and any specific day.
- Power factor trend over the same periods.
- & More....



**Cost comparison for household lights**

0.4	4.0	4.0	16.0	25.0
60 W	42 W	13 W	9 W	12.5 W
86.0	57.0	66.0	90.0	80.0
14.3	13.6	50.8	100.0	64.0
2700	3100	2700	3000	2700
100	100	82	75	85
2.0	3.5	8.0	25.0	25.0
4.49	25.03	10.95	17.92	21.90



Data acquisition in terms of charts might be sufficient for some facilities, while for others when further action towards sustainability is required, we can offer solutions ....



All proposed solutions will be accompanied with guaranteed calculation of payback time and carbon footprint reduction

❑ B. Energy Audit on pumps using our kit and sensors together with the ultrasonic flowmeter to obtain the trend of pump performance over a certain time period as agreed, and propose the best possible solution based on logged data of:

- All logging data mentioned in previous Energy Audit section A.
- Pump running hours/each day
- Pump head using pressure sensors and hydraulic calculations
- Pump flowrate using Ultrasonic flowmeter
- Any other additional data depending on pumping application



Proposed solutions might be

- Direct replacement with a similar but more efficient new product or
- Direct replacement with a different sizing product that matches more with the load curve obtained by logged data or
- Adding a variable speed drive in some cases or
- Changing the control method in other cases, etc.



All proposed solutions will be accompanied with guaranteed calculation of payback time and carbon footprint reduction.

- ❑ C. Energy Audit on any specific application or equipment where there is a potential for saving which usually arises from load variability, equipment high running hours, huge equipment, poor control method, old equipment, and finally expensive energy tariff.

The energy audit kit offers logged data for the following for any application in terms of charts:

- All logged data mentioned in Energy Audit section (A)
- Flowrate
- 3 AI mA that can accept any 4-20 mA transducer that is required in the application that can be pressure, level, concentration, temperature, vibration, or any other parameter..
- 1 AI Universal (configurable to mA, V, Ohm, RTD, TC).
- 8 DI
- 4 RO
- 2 Additional Energy meters





THANK YOU !



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