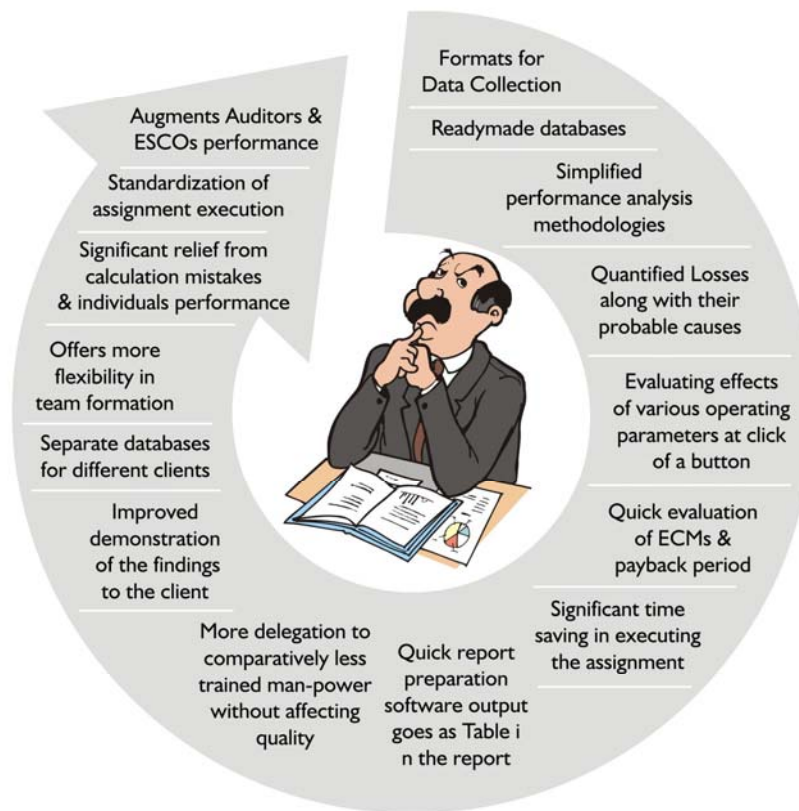In present economy, Energy Auditors & ESCOs demand is continuously growing to fulfill the dire need of improving business competitiveness by energy cost reduction. This market will grow up with enactment and implementation of Energy Conservation Act at National level. Some of the States have already made Energy Audits mandatory.

This is quite positive scenario for Energy Auditors & ESCOs. Now to do more business, the challenge is to how to effectively address growing and more demanding clients within available time and limited manpower. The challenge is to execute the assignments timely and exceed expectations of the clients in terms of quality of work and delivering committed energy savings.

In this scenario See-UtiSaveea offers many advantages. See-UtiSave^{ea} becomes your companion and improves your productivity at every stage of your assignment. See-UtiSave^{ea} assists you and improves your productivity in multiple ways.

See-UtiSave^{ea} serves you as a pathfinder for energy cost minimization in your electrical utilities. It elaborates you from concepts, helps you in selecting energy conservation measures having higher saving potential, implement them and monitor savings.

See-UtiSave^{ea} is a knowledge based IT solution to identify and quantify energy wastages and facilitates selection and implementation of ECMs in your establishment. See-UtiSave is developed by group of Energy Conservation Experts working in the field carrying out Energy Audits & Implementing Energy Saving Measures since last 12 years. See-UtiSave is presently being used by over 40 users in India & abroad.

Augments Auditors & ESCOs performance

Standardization of assignment execution

Significant relief from calculation mistakes & individuals performance

Offers more flexibility in team formation

Separate databases for different clients

Improved demonstration of the findings to the client

More delegation to comparatively less trained man-power without affecting quality

Quick report preparation software output goes as Table in the report

Formats for Data Collection

Readymade databases

Simplified performance analysis methodologies

Quantified Losses along with their probable causes

Evaluating effects of various operating parameters at click of a button

Quick evaluation of ECMs & payback period

Significant time saving in executing the assignment

FEATURES OF *See-UtiSave*

Energy Monitoring

- Applicable electrical tariff, Plant particulars: Section/block Details
- DG sets details and monitors fuel consumption versus KWhr generated
- Shift wise/Daily recording of KWhr, KVARh and computes shift wise average Power Factor
- Energy Monitoring at SEB/Feeder/DB level for Specific Energy Consumption
- Finally Compute energy cost per product for various products

PF Improvement

- Calculations for Capacitor (KVAR) requirement for desired PF improvement & reduction in demand charges
- Payback period calculation for installing capacitors & Recommendations for improving PF
- Monitoring of Capacitor Performance (Observe reduction in KVAR)

Induction Motors

- Incorporate Installed Motor Specifications (Built in database for motor name plate details) & History Card
- Carry out Motor Load Analysis for LT as well as HT motors
- Log measured V, A, PF & KW; Compute Motor Loading (%), Losses (KW), Efficiency, Annual KWhr & Operating Cost
- Evaluation for Energy Conservation Options (Delta to Star Conversion, Automatic Star/Delta Controller, Replacement by smaller rating Standard/Energy Efficient Motor, Installing Flat-belt drive, Energy Saver/Soft-Starter etc.) & the Saving Potential with Payback Period
- Life Cycle Costing Analysis & Motor Search at click of a button

Compressor

- Incorporate Compressor Specifications
- Carry out Performance Evaluation for individual & multiple compressors by Free Air Delivery (FAD) & Leakage Test; Test Output in terms of FAD in m³/Min, Volumetric Efficiency, Power Consumption in KW/100 CFM, Leakage in %, m³/Min, kWh & Rs/Annum; Savings by reducing in KW/100 CFM & Leakages
- Savings by Delivery Pressure Reduction; Reducing Suction air temperature; Derating the compressor, Calculating Pressure drop in pipelines & consequent savings by reducing the pressure drop

Lighting

- Incandescent, Fluorescent, Mercury Vapor Lamps Analysis for Energy Efficient Lighting
- Lighting Design for energy efficiency

Transformer

- Incorporate Transformer Specifications & Carry out Transformer Load Management
- Calculate KVAR required for PF improvement due to Transformer Impedance

Pumps

- Incorporate Pump Specifications & Carry out performance evaluation for the pump: Output Total head, Pumping Capacity & Pump Efficiency
- Calculate Motor Power (HP/KW) required for a given pumping requirement & Find out energy conservation potential by Impeller trimming, Impeller replacement, Pump Replacement; Providing variable speed drive and other measures

Cooling Tower (CT)

- Incorporate Cooling Tower Design Parameters & Carry out Performance test
- Output in terms of CT Capacity Utilization (%), CT Range (°C), CT Approach (°C), Evaporation Loss (%), Required Blow down (m³/hr) & Makeup water (m³/hr), Recommendation based on test results to improve CT performance

Industrial Fans

- Incorporate Fan Parameters & Air density calculations; Performance Evaluation of Fan
- Fan & Fan Motor power calculations; EC measures with VSD & Other measures

Refrigeration & Air Conditioning

1. Incorporate system Parameters (database for refrigerant properties)
2. Performance evaluation of Refrigeration System/Chiller by calculation of output in terms of Net refrigeration effect, Compression ratio, COP, Evaporator duty, Evaporator effectiveness, HP/TR, Heat load due to lighting, Condenser effectiveness, Actual flow in chiller
3. Estimation of refrigeration or air-conditioning compressor capacity & EC measures with quantified saving potential

See-UtiSave REPORTS

See-UtiSave software has been equipped with over 100 reports, which enables user to record & analyze data, take decisions for energy cost minimization and keep records.

See-UtiSave HELP

This contains detailed and elaborate technical information with formulae and methods of performance evaluation and quantifying losses.

Our Policy

To enhance our client's business competitiveness by innovating, developing and providing world-class services & solutions for minimizing Energy Cost & Improving Plant Safety

SEE-Tech Solutions is a consulting, knowledge based software solution providers and performance-contracting firm for Energy Cost Minimization. Our team consists of experts from Energy Conservation, IT, Knowledge Management, Project Engineering, R&D & Consulting. Working since 1993, we have successfully completed over 200 energy conservation projects. Our professionals have visited China, Japan, Nepal, Oman, Pakistan, Sri Lanka, UAE & USA. Our team includes 6 Certified Energy Auditors & 2 Certified Energy Managers. We are empanelled with MEDA, GEDA, GEB, PCRA, MPUVN and selected for accreditation with Bureau of Energy Efficiency (BEE), Ministry of Power, GOI. Our consultants have been professionally trained at National Productivity Council (EMCAT Project at AIP, Chennai); KIAMS, TERI; ASCI; International Education Institute Energy Division (at Washington & Sans Francisco), NPC-WMC; APO Japan (at Osaka); ECO (USAID, Nexant), ESCO tour to China and in various capacity building programs of World Bank & ADB.

Our Achievements

- Best Energy Auditor Award by MEDA for 2003 and second in year 2004
- Exported knowledgebased software solution to clients at Sri Lanka, Pakistan & Oman;
- Development of website www.letsconserve.org dedicated to Energy Conservation providing Online Training
- Development of Energy Conservation Lab & Training Centre "LetsConserve" for demonstration of Energy
- Efficient Innovative Technologies

Some of our clients

ATIRA (Pioneer in EA in the country), CSIR (India's leading research institution & TNEB Empanelled EA), Crystal Controls (Startup Energy Auditor), Cummins, Delphi-TVS, Din Textiles (Leader exporter in cotton spinning from Pakistan), ELECON, ESCO LLC (an ESCO in Middle East), Energetic Consulting (MEDA Best EA year 2004), H&R Johnson, Lanka Transformer (Leading ESCO Sri Lanka), NCCBM (Country's leading R&D institution for Cement & Building Materials), Raymond (Several times Winner of national award for Excellence in Energy Conservation in Textile Sector), Yajna Fuel Services (Completed over 350 EA) and several others.

Interested to use See-UtiSave to assist you in your efforts for energy cost minimization!
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