

**ENERGY CONSERVATION GOALS  
&  
EXECUTION PLAN**



**EARTH SENSE RECYCLE PVT LTD**

Energy conservation is the key element of this policy because of its potential to reduce overall energy demand, costs, and consumption. Energy conservation also plays an important role in addressing climate change by lowering overall greenhouse gas emissions. It is often the most economical strategy to advance climate protection efforts and provides an environmentally safe alternative to increased energy production and consumption. Moreover, by lowering energy demand, energy conservation provides for greater flexibility in choosing preferred methods of energy production e.g., “green power” – renewable energy that is produced with no man-made greenhouse gas emissions.

The intended purpose of this plan is to ensure energy and resource efficiency are explicitly considered, examined, and executed in all of Earth Sense Recycle Pvt Ltd Facilities. This plan establishes and dictates guidelines for cost-efficient and sustainable resource consumption within all Earth Sense Recycle Pvt Ltd facilities, while allowing Energy Conservation Team the opportunity to coordinate and manage the implementation and execution of this plan. The majority of this information and analysis is described under the short-term and long-term activities that could be implemented to reduce energy consumption and reduce costs.

### **Establishment of Energy Conservation Team & Responsibilities**

The Board of Directors encourage and support the establishment of an Energy Conservation Team. The team will consist of the following representation:

- Chief Executive Officer(Programme Head)
- Business Development Managers (3 members)
- Finance Manager (1 member)
- Factory Managers (7 members)
- Engineer-Refurbishing and Recycling (2 member)
- IT Manager (1 member)
- EHS Executive (1 member)

On occasion, the team may assemble Technical Support Teams consisting of appropriate maintenance, custodial and facilities personnel from each facility to assist in implementation of energy conservation initiatives. Energy Conservation Team representation can be amended at any time.

### **Program Goals and Initiatives**

#### **Key Initiatives**

Reduction of energy consumption by 5% within a period of 2019-21, with an overall goal of reducing energy consumption by 15% by Fiscal Year 2024

#### **Implementation**

This plan is supported by guidelines and procedures that institute and promote measurable energy reduction goals. These guidelines and procedures through this plan are a structured approach to realize and achieve these goals through a combination of energy conservation upgrades, enhanced

operational efficiencies, and employee behavioral modification changes and or actions. It predicts a considerable reduction (i.e. “low hanging fruit”) in overall energy consumption for immediate and short term initiatives without the use of capital funding. This plan and its content are not a static document and may be modified in the future to reflect emerging “best practice” energy conservation and energy management strategies and initiatives. The plan and guidelines initiative also supports objectives that result in healthier building and enhanced worker comfort, both of which can contribute to greater workplace productivity.

### **Energy Conservation Plan Overview**

The effective management of energy is based on three basic principles:

1. Changing the philosophy about energy usage.
2. Initiating changes within the facilities environment.
3. Promoting educational awareness for energy conservation success.

With planning, implementation, education and targeted spending, our energy conservation goals can be reached.

### **Energy Conservation Plan of Earth Sense Recycle Pvt Ltd.**

The Energy Conservation Plan consists of:

Immediate measures which can be implemented (or may have already been implemented) through consistent procedural changes and daily behavioural habit modification;

Short term measures which can be implemented by County facilities to reduce or limit energy usage and plan for energy conservation without on-going approvals within existing budget constraints;

Long term measures which will extend beyond the current fiscal year and which may require identification of new funding sources.

#### **A. Immediate Conservation Measures**

*Measures that will have the greatest effect on usage in most work environments*

- In the summer, close window coverings during the day to avoid the heat gain of direct sunlight.
- Turn off your computer monitor when you are away from your desk for more than 15 minutes and at the end of the day. Note that screen savers don't save energy; complex screen savers actually increase energy use.
- Eliminate unnecessary coffeepots and other small appliances in your area and turn off all tools, office machines and portable appliances when not in use. If you're the last one leaving at the end of the day, turn off the photocopiers and other office equipment.
- Turn off all lights at night, including task and office lights.
- Use natural light whenever possible. Turn off lights near windows when daylight is adequate.

- Turn off lights when they are not in use.
- Watering your landscape wastes electricity along with water. Make sure you follow local watering guidelines for proper landscape care.
- Less frequently used equipment with remote controls such as televisions should be unplugged when not in use because they still use some power even when turned off.
- Also turn off lights in unused common areas such as copy rooms, break rooms, conference rooms and rest rooms.
- Don't set a higher temperature to "warm up faster", or a lower temperature to cool quickly in AC's. It only wastes energy.
- Check to make sure that exhaust fans operate only during occupied periods.
- Close off unoccupied areas and turn off room air conditioner.
- Make sure that air vent grills are not blocked by plants, books or furnishings.
- Dressing wisely can help you maintain natural heat. Wear closely woven fabrics. They add at least a half-degree in warmth.

**B. Short Term Conservation Measures**

- Use lower wattage bulbs in non-critical areas.
- Use one large bulb instead of several small bulbs that add up to higher wattage.
- Many areas have more lighting than is required for current tasks. Measure current lighting levels and reduce excess lighting by using power reducers, multi-level switching, or simple removal of lamps and ballasts.
- Avoid using incandescent lights and use compact fluorescent lamp as your task light.
- Staggering shifts or using flexible work schedules are suggested to empty offices during energy peaks.
- Teleconferencing can reduce energy use and save travel costs.
- Keep your systems well-tuned with periodic maintenance.
- Check the duct work for air leaks about once a year if you have a forced-air cooling system.

**C. Long Term Conservation Measures**

- Perform energy audits on all buildings.
- Incorporate energy efficiency guidelines for all new construction.
- Purchase only "Energy Star" equipment.
- We can eliminate bulbs in fixtures as an initial conservation measure, but the long-term fix is to replace the T-12 bulbs with T-8 bulbs with electronic ballasts
- Replacement of windows, installing window films and insulating buildings all have to be evaluated .
- Water conservation needs to be addressed.
- Develop landscaping plans that require less water consumption in the future.
- Utilize high efficiency motors on electrical equipment.
- Evaluate processes to eliminate or reduce energy resources.

### **Conservation Plan Points of Consideration**

- The efficient and conscientious use of energy by ESRPL is essential to modelling good citizenship, accountability and service.
- Earth Sense has a responsibility to be a leader in workplace resource efficiency.
- Optimizing energy conservation and energy management can result in significant cost savings and enhanced environmental stewardship.
- The combustion of fossil fuels through electricity generation and heating plants results in carbon dioxide emissions. Increased concentrations of carbon dioxide in the atmosphere contribute to the greenhouse effect and global climate change, both locally and nationally.
- A reduction in energy consumption by Earth Sense Recycle Pvt Ltd will assist in promoting the reduction of greenhouse gas emissions attributable to County facility operations.
- To effectively address energy conservation by Earth Sense Recycle Pvt Ltd, both operational efficiency aspects and employee usage patterns must be evaluated and considered.
- Implement, where practicable, energy efficiency measures through a variety of mechanisms such as life cycle analysis and energy performance contracting.
- Encourage the tracking, promotion of sustainable and energy efficient practices.
- Recognize and award individual and collective efforts that contribute to Earth Sense Recycle Pvt Ltd energy resource conservation plan achieved at the employee level or by departments.

### **Employee Energy Conservation Educational Awareness**

- Issue department-wide emails highlighting the need for staff to play a role in reducing usage at work through simple housekeeping measures such as turning off computer monitors and lights at the end of the day.
- Staff participation campaigns to encourage the implementation of energy-saving practices.

### **Periodic Internal Audits**

- To ensure this policy is successfully implemented, internal audits will be conducted periodically by Energy Conservation Team or designee.
- Audits will cover all sections of this plan, and Earth Sense Recycle Pvt Ltd facilities.
- Audit results will be documented and retained by the Energy Conservation Team.
- Audit findings will be addressed by the Energy Conservation Team.

### **Actions Items for Energy Conservation Team**

- Clearly defined energy reduction goals.
- Communication of the goals to all organizational levels.
- Assignment of responsibility and accountability at the proper level
- Tracking of energy use
- Continuous identification of potential savings
- Adoption of project investment criteria reflecting project risks and returns

- Provision for recognition and reward for achieving the goals
- Develop reporting mechanism on how to brief the organization on energy efficiency responsibilities

### **Issues and Challenges**

The following are major issues and challenges that could potentially affect the Energy Conservation Plan. However, programming and placing the following initiatives in action now will help better prepare for the future.

- Increasing utility costs and reduced dollars available for building projects and programs
- As building systems age, operational costs increase
- Since benchmarks are not always consistent due to weather changes, equipment changes, etc, it may difficult to track energy savings.

### **Adoption of Plan**

This plan is adopted this the  7th  day of  August , 2019 by the Board of Directors of Earth Sense Recycle Pvt Ltd. This plan replaces an Energy Conservation Policy adopted by Earth Sense Recycle Pvt Ltd on September 20, 2015.