



# ENERGY MANAGEMENT

Getting Started - To Reduce Your Energy Costs

# Pollution – How it's changing our Air



Industrial Pollution



Powerstation Pollution



Vehicle Pollution - 15%



Domestic Boiler Pollution - 25%  
7 ½ tonnes of CO<sub>2</sub> / Yr

# Energy & Resource Waste



Cost £17,200 / yr - Waste £15,000



Cost £1,400 / yr / mile - Waste £1,000



Lighting £14,000 / yr - Waste £9,000



Lighting Excessive & Un-controlled

All Companies Want To Reduce Costs - But Very Few Think About Energy Management

However, Energy Management Will Boost a Companies Cash Flow

A 20% Decrease In Energy Costs - Could Represent 5-10% Increase In sales & Profit

## Where We Can Reduce Energy Waste



# How We Can Reduce Energy Waste

The background of the slide features a world map in shades of blue and white. Overlaid on the map are silhouettes of five people in a meeting. One person on the left is standing and gesturing with their hands, while the others are seated or standing in a listening posture. The background is also filled with a pattern of binary code (0s and 1s) in a light blue color.

1. Make Someone Responsible - Energy Champion & Team
2. Develop An Action Plan
3. Establish The Facts - ( Past & Present ).
4. Collect Data - Benchmark - ( Past & Present )
5. Analyse Data
6. Develop An Improvement Plan
7. Improve
8. Control - Monitor - Communicate - Teach Others

# The Journey - Step 1

1 Make Someone Responsible - Champion & Team.

2 Develop An Action Plan

3 Establish The Facts

1. Produce The Bills
2. Production Figures
3. Process Costs

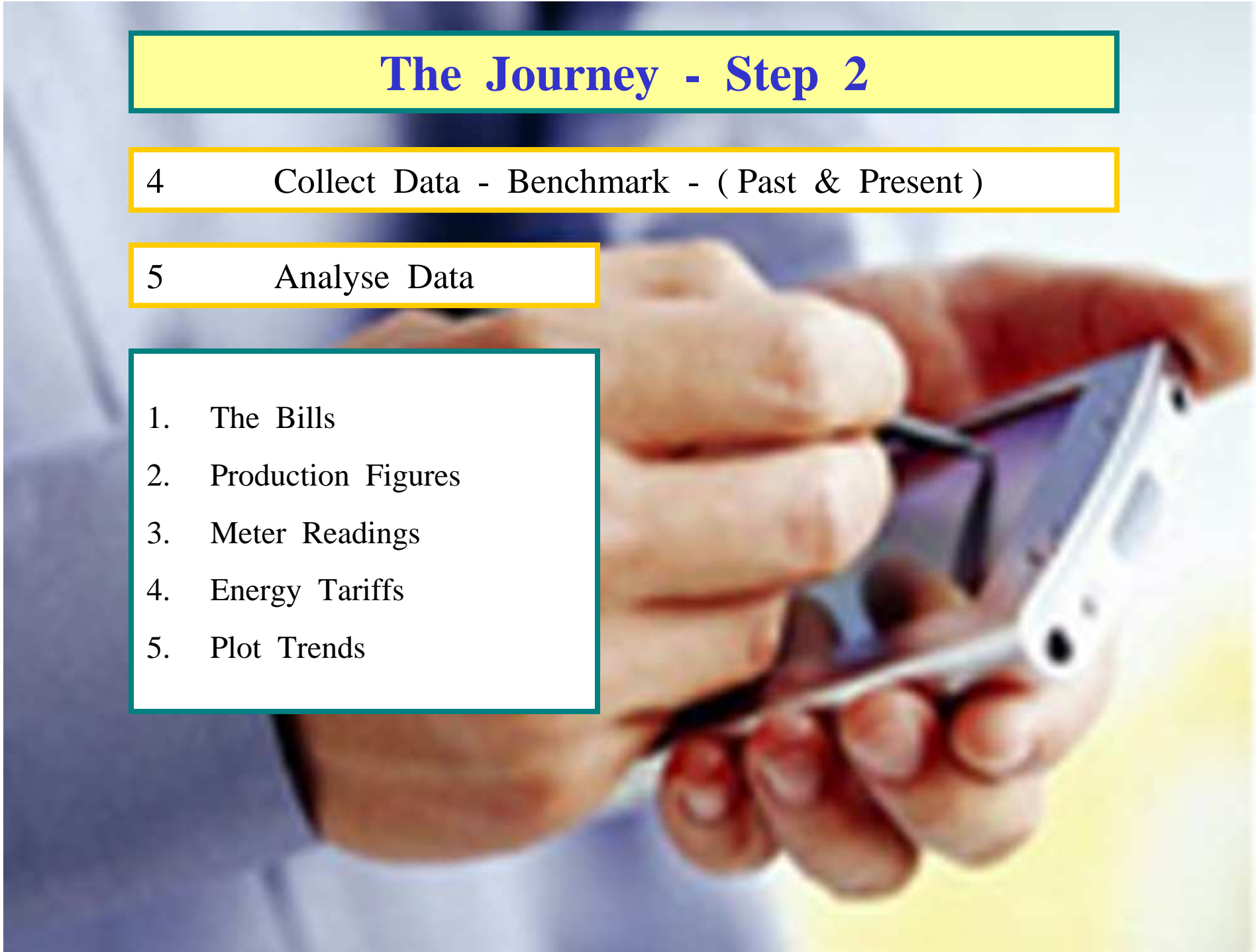
4. Conduct An Energy Survey / Audit
  - a. Building Structure
  - b. Lighting
  - c. Process Power
  - d. Process Air
  - e. Water Use
  - f. Heating & Ventilation
  - g. Transport

## The Journey - Step 2

4 Collect Data - Benchmark - ( Past & Present )

5 Analyse Data

1. The Bills
2. Production Figures
3. Meter Readings
4. Energy Tariffs
5. Plot Trends



# The Journey - Step 3

6 Develop An Improvement Plan

7 Improve

## **Heating**

- Boiler Maintenance
- Piping ( Lagged )
- Thermostat Settings
- Occupancy Controls
- Heating Distribution

## **Lighting**

- Adequate Lighting Level
- Energy Efficient Bulbs
- Clean Fitments
- Occupancy Detectors
- Best Use - Natural Light

## **Power - Process**

- Switch Off - If Not In Use

## **Building Structure**

- Building - Air Tight
- Roof Condition - Clean

## **Water**

- Minimum Use
- Leak Free

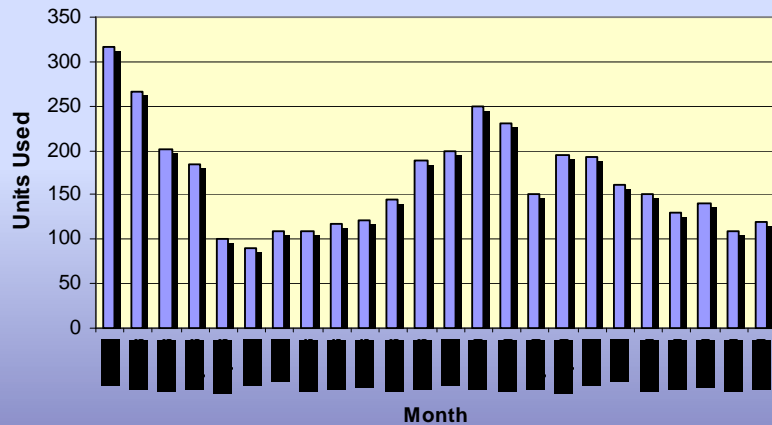
## **Air Supply**

- Leak Free

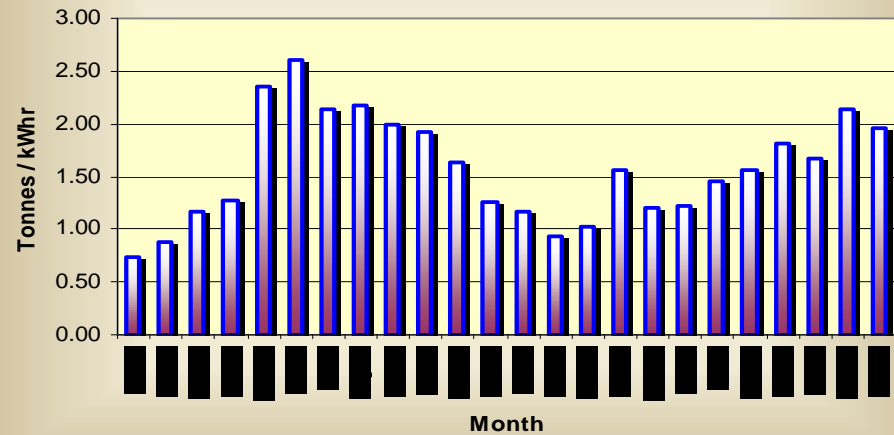
# The Journey - Step 4

8 Control - Monitor - Communicate - Teach Others

Electricity Usage 07:00 24:00 ( Monthly )



PRODUCTION OUTPUT Tonnes / kWhr



**We Don't Inherit The Earth From Our Parents  
We Borrow It From Our Children.** ( old Indian Proverb )

**We Have To Reduce Energy Use - Now...**

[www.leanline.co.uk](http://www.leanline.co.uk)

