

**DHRUBA CHAND HALDER COLLEGE**

**DEPARTMENT OF COMMERCE**

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**B.COM HONOURS AND GENERAL (UNDER CBCS)  
SEMESTER – V**

**PROJECT**

**ENERGY AUDIT**

# **Energy Audit**

An Energy Audit is a survey conducted by an Energy Auditor to determine how much energy a building uses and identify ways to reduce energy consumption.

These are used to improve the energy efficiency of homes, businesses, and other buildings.

An energy audit has three parts: evaluation, testing, and efficiency recommendations.

## **Evaluation**

The first step is an evaluation of your building. This includes looking at past energy bills, your building's physical characteristics, and how it functions.

The energy auditor will ask questions about the building, such as when it was built, how it is used, and what kind of heating and cooling system it has.

## **Testing**

Once the Energy Auditor understands your building, they will conduct tests to see how much energy it uses. This may include a blower door test and a duct leakage test.

## **Efficiency Recommendations**

After the audit is complete, the Energy Auditor will provide you with recommendations on how to improve your building's energy efficiency. These may include changes to your heating and cooling system, insulation, windows, and doors.

## **Types of Energy Audit**

There are several types of energy audits: walk-through energy audits, target energy audits, and detailed energy audits.

## Types of Energy Audit



**Walk-through  
Energy Audits**



**Target  
Energy Audits**



**Detailed  
Energy Audits**



### Walk-through Energy Audits

The simplest and fastest type of energy audit is a walk-through energy audit. The Energy Auditor will come to your house and search for places where energy is being wasted. They will also inquire about your energy consumption.

### Target Energy Audits

A target energy audit is more comprehensive than a walk-through energy audit. In addition to looking for areas where your home is losing energy, the Energy Auditor will also conduct tests to determine how much energy your home uses.

### Detailed Energy Audits

A detailed energy audit is the most comprehensive type of energy audit.


In addition to looking for areas where your home is losing energy and conducting tests to assess how much electricity your home consumes, the Energy Auditor will also offer suggestions for enhancing your home's energy efficiency.

## Energy Audit Benefits

An Energy Audit can help you reduce the cost of your energy bills and make your home more comfortable. Aside from this, an Energy Audit will:

### Energy Audit Benefits

- ✓ Recommend Energy Efficiency Improvements
- ✓ Identify Safety Concerns
- ✓ Make Your Home More Comfortable
- ✓ Estimate Cost of Improvements
- ✓ Determine Where Your Home's Energy Is Being Wasted



### Determine Where Your Home's Energy Is Being Wasted

An Energy Audit will identify areas where your home is losing energy, such as through drafts, poor insulation, or inefficient windows.

### Recommend Energy Efficiency Improvements

The Energy Auditor will provide recommendations based on the results of the Energy Audit that will save you money on your energy bills.

### Identify Safety Concerns

An Energy Audit can also identify safety concerns, such as carbon monoxide leaks or electrical hazards.

## **Make Your Home More Comfortable**

Making your home more energy-efficient can also make it more comfortable. Sealing drafts and adding insulation can help to keep your home cooler in the summer and warmer in the winter.

## **Estimate Cost of Improvements**

The Energy Auditor will provide you with an estimate of the cost of the energy efficiency improvements that they recommend. This can help you to decide which improvements are right for you.

## **How to Get an Energy Auditor**

There are a few ways to get an Energy Auditor. You can:

- Contact a professional organization, such as the Building Performance Institute or the Residential Energy Services Network.
- Hire a private Energy Auditor.

## **How to Prepare for an Energy Audit**

There are a few things that you can do to prepare for an Energy Audit:

1. Gather your energy bills for the past 12 months. The Energy Auditor will use these to assess your energy consumption.
2. Prepare a list of questions you would like to ask the Energy Auditor. This could include questions about the results of the audit, the recommended improvements, or the cost of these improvements.
3. Clear some space in your home so that the Energy Auditor can access your heating and cooling system, insulation, windows, and doors.

## **Energy Audit Expectations**

There are several things you expect during and after the energy audit.

## **During the Energy Audit**

The Energy Auditor will ask you questions about your home and its use. They will also conduct tests to assess your home's energy consumption. These tests may include a blower door test and a duct blaster test.

## **After the Energy Audit**

After the Energy Audit is complete, the Energy Auditor will provide you with a report of their findings.

This report will include an estimate of the cost of the recommended improvements and the amount you could save on your electricity cost by making these improvements.

The Energy Auditor may also provide information on government programs that can help you pay for these improvements.

## **Tips for Reducing Your Home's Energy Consumption**

There are several things that you can do to reduce your home's energy consumption:

- Install energy-efficient windows and doors.
- Upgrade your insulation.
- Replace your heating and cooling system with a more efficient model.
- Add solar panels to your home.
- Use energy-efficient appliances.
- When not in use, turn off lights and electronics.
- Educate your family about conserving energy.
- Landscaping to provide shade and windbreaks

## The Bottom Line

An energy audit is a great way to assess how much energy your home uses and find ways to reduce your consumption.

Energy audits are conducted by Energy Auditors who will visit your home and look for areas where your home is losing energy. They will also ask questions about your energy consumption.

There are three types of energy audits: walk-through, target, and detailed. You can hire an Energy Auditor or consult the Home Energy Score Program of the Department of Energy.

Before the audit, gather your energy bills for the past 12 months and prepare a list of questions for the Energy Auditor. During the audit, the Energy Auditor will ask you questions about your home and how it is used.

They will also conduct tests to assess your home's energy consumption. After the Energy Audit is complete, the Energy Auditor will provide you with a report of their findings, including an estimate of the cost of recommended improvements and how much money you could save on your energy bills by making these improvements.

You can also reduce your home's energy consumption by taking simple steps such as turning off lights and electronics when they are not in use, installing energy-efficient windows and doors, and upgrading your insulation.

You can make your home more energy-efficient and save money on your energy bills by taking these steps.