Energy Advisor Online Training

Introduction to the EnerGuide Rating Service

7 hours narrated instruction, 15-20 hours to complete the online portion of the program with review of content, quizzes, final test and review of downloadable materials.

7 quizzes   Final test 100 questions   Passing mark on final test = 70%

COURSE DESCRIPTION

Drawn from the Building Knowledge presentation for Energy Advisor Training, this course covers the fundamentals of the roles and responsibilities of an Energy Advisor, from administration and quality assurance to data collection and modelling the energy use of the house in HOT2000.

Objectives

Module 1: Introduction to Energy Advisor Training
- Describe rated energy intensity and direct and indirect greenhouse gas emissions
- Explain the difference between standard, reduced, and household operating conditions
- Describe the Basic Service of an EnerGuide Rating Evaluation
- Identify and describe the EnerGuide label and the Homeowner Information Sheet
- Identify homes and buildings that are eligible for an evaluation
- Describe the state-of-home requirements
- Describe the process of risk assessment

Module 2: Basic Service
- Describe the tasks included in the Basic Service and Renovation Upgrade Service
- Describe the tools needed to do an evaluation and what they're used for
- List the requirements for data collection for mechanical equipment
- List the requirements for data collection for interior and exterior building components
- Recognize when vermiculite insulation presents enough risk to leave out the blower door test

Module 3: Blower Door Testing
- List the parts and specifications of blower door testing equipment
- Describe what an airtightness test does and what the results are used for
- Describe how to prepare a house for a blower door test and reset it afterward
- Explain how an eight-point airtightness test is done
- List the solutions to common problems
- Describe blower door test zones and how to perform tests with more than one zone
- Understand the mathematics behind air change rates

Module 4: Modelling in HOT2000

- Demonstrate how to set up a house file in HOT2000 and save and store it properly
- Identify data input requirements for each building component and mechanical system
- Complete the data entry of house information into the screens correctly
- Describe the difference between nominal, onscreen, and effective RSI or R values
- Generate reports from the software

Module 5: Developing Upgrade Recommendations

- Identify the categories of energy efficiency upgrade recommendations
- Describe recommendations in each category
- Explain how upgrade recommendations are prioritized
- Recognize when an upgrade recommendation is appropriate
- Explain the Renovation Upgrade Report

Module 6: Administration

- Explain the roles and responsibilities of NRCan, service organizations, and service organization managers
- Explain the roles and responsibilities of energy advisors, quality assurance specialists, and builders
- Explain the Registration, Licensing, Designation and Re-qualification processes
- Explain the Suspension and Delicensing processes

Module 7: Quality Assurance

- Explain the importance of conducting quality assurance activities
- Identify and explain the 5 levels of QA in the Energy Rating System
- Understand the QA responsibilities of an Energy Advisor

Module 8: Preparing for the Energy Advisor Exam

- List preparations required for the exam
- Apply strategies for choosing the best answer during the exam
- Schedule the exam

Energy Advisor Online Training

BLUE HOUSE ENERGY

COURSE OUTLINE

Module 1: Introduction

Introduction to EA Training
- Energy advisors
- Energy intensity
- Greenhouse gas emissions
- Operating conditions

The Basic Service
- EnerGuide label
- Homeowner information sheet
- HOT2000 warnings

Eligible House Types
- Eligible residential housing
- Eligible mixed-use buildings
- State-of-home requirements
- Refusing service
- Risk assessment

Module 2: Basic Service

Introduction to Site Visits
- Types of services

The Basic Service
- Tasks
- Data collection

Renovation Upgrade Service
- Tasks
- Construction services

Onsite Data Collection
- Equipment
- Photos

Sketches and Dimensions
- Protocols
- Geometry calculations

Exterior Data Collection
- Protocols
- Foundations
- Windows and doors

Interior Data Collection
- Protocols
- Attics
- Walls
- Floors
- Vermiculite

Mechanicals and Renewables Data Collection
- Heating and cooling systems
- Combo systems
- Domestic hot water systems
- Ventilation systems
- Renewable energy systems

Module 3:
Blower Door Testing

The Blower Door Test
  Technical Specifications
  Airtightness test
  Exhaust devices
  depressurization test
  Air leakage location
  identification

Airtightness Test Protocols
  Standard Protocols
  Troubleshooting
  Blower door zones
  Evaluating the airtightness
  test

Module 4:
Modelling in HOT2000

Introduction to HOT2000
  Basic inputs
  Preferences
  The Help menu
  The User Guide

The House Wizard
  Limitations
  Creating a house file
  Basic input screens

The Code Editor
  The main interface
  Modes
  Code Selector
  Favourite Codes
  RSI/R Value

Modelling Building Envelope Components
  RSI/R Value
  Modelling ceilings
  Modelling walls
  Modelling windows
  Modelling doors
  Modelling floors
  Modelling foundations

Modelling Mechanical Systems
  Base loads
  Modelling renewable
  systems
  Modelling heating and
  cooling systems
  Modelling hot water systems

Modelling Renovation Upgrades
  Basic inputs
  Upgrade categories

Generating Reports
  Saving the file
  Exporting the data to official
  reports in PDF format

Module 5: Developing Upgrade Recommendations

Introduction to Developing Upgrades
Prioritizing Upgrades
Report Categories

Developing Building Envelope Upgrades
Air sealing
Ventilation
Insulation
Doors & Windows

Developing Mechanical System Upgrades
Heating and cooling systems
Thermostats
Water heaters
Ventilation systems

Creating a Renovation Upgrade Report
Key elements
Energy action roadmap
Energy calculations

Module 6: Administration

Introduction to Administration
Code of Ethics
Code of Conduct
Conflict of Interest

Roles and Responsibilities of NRCan
Role
Database & Online Duties
QA Duties
Official marks and identifiers

Roles and Responsibilities of Service Organizations
Role
Administrative Duties
QA Duties
Marketing Duties
Recruitment Duties

Roles and Responsibilities of QA Specialists
Role
Duties

Roles and Responsibilities of SO Managers
Role
Duties

Roles and Responsibilities of Energy Advisors
Role
General duties
Delivering services

Roles and Responsibilities of Builders
Role
Duties

Registration and Licensing
Designating service providers
Exams
Probationary field files

Suspension and Delicensing
Major and minor infractions

Energy Advisor Online Training

Module 7:
Quality Assurance

Introduction to QA
QA Objectives
Who does QA

Levels of Quality Assurance
Audit levels
EA self-QA

QA for Energy Advisors
Energy Advisor QA responsibilities
Documentation retention

Module 8:
Exam Preparation

Exam Writing Tips