Energy Advisor (HOUSE)
Exam Prep

50-70 hours to complete with review of content, final test and review of downloadable materials

6 modules, 60 learning sessions
BONUS! 4 practice houses for Hot2000

Module Quizzes: Timed, multiple choice, unlimited attempts
Timed Final Exam: 150 questions each, unlimited attempts

Passing mark on Section Exams = 70

COURSE DESCRIPTION

This course covers the competency guidelines for Natural Resources Energy Advisor (HOUSE) Exam. The guidelines are broken out into 4 main categories:

1. The EnerGuide Rating System (ERS)
2. Modelling in HOT2000 v.11
3. Administration
4. Quality Assurance

This course reflects the specific information you need to know about the technical and administrative requirements that you will be working with every day as an Energy Advisor. You will need to memorize a lot of information that NRCan has provided in online handbooks and manuals. When you're in the field, you don't need to keep it all in your head. But you will need to study hard to pass the exam.

 Our exam prep program is based on instructional design principles and introduces the material in a way that is based on the latest brain science and online learning techniques. We want you to succeed!

You will learn each concept and topic through a short video lesson, a worksheet that helps you to apply what you learned in the video to a real-world situation, and some questions or actions that will help you solidify your understanding of the topic. You get points for each piece you complete.

There's a community forum where you can ask questions, and a curated resource list that you can sort and filter to suit your own path. Our learning platform also comes with an AI assistant that will help you find the information you want when it comes to review and study time.

Energy Advisor (HOUSE) Exam Prep
COURSE DESCRIPTION
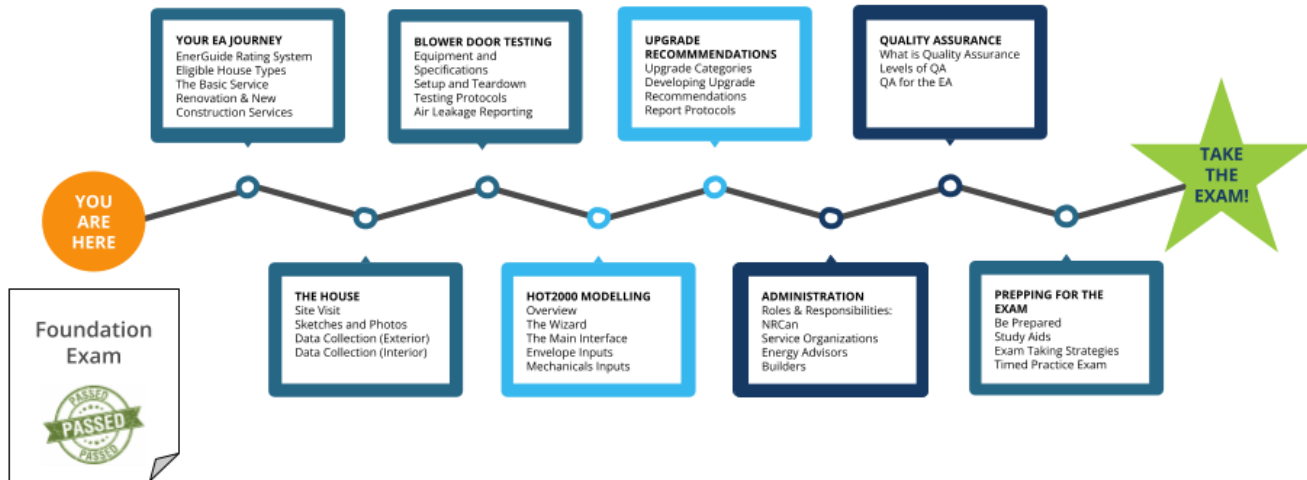
Here's how it goes. You start with the basics - what is the EnerGuide Rating Service (ERS). This outlines the four separate services for new and existing houses that an Energy Advisor can provide.

Then, you learn about the site visit, equipment, and what data you need to collect from inside and outside the house as well as how to carry out a variety of tests using the blower door apparatus.

Once you've got the data, it's time to input it into HOT2000, the energy modelling software used in the ERS. You learn about the Wizard, The Main Interface, creating a base model and then how to identify and develop upgrade recommendations and reports. (NOTE: you don't have access to the reporting module until you are a registered EA, so the exam focusses on the protocols for reporting)

Then there's the paperwork side of the ERS: Administration defines the different roles and responsibilities and how you get registered and licensed. Quality Assurance clarifies the roles and responsibilities further, you learn who reviews your files, and what to do to check off your own work.

The final module is all about how to prepare for the actual exam: tips, strategies, and a timed practice exam that will help you get comfortable with the multiple choice exam format.

Use the links below to jump to the outline of each section or module:

EnerGuide Rating System   HOT2000 Modelling   Administration
The House   Developing Upgrade   Quality Assurance
Blower Door Testing   Recommendations   Prepping for the Exam

Energy Advisor (HOUSE) Exam Prep
TOP LEVEL LEARNING OBJECTIVES

EnerGuide Rating System (ERS)

- *Describe of the EnerGuide Rating System (ERS), its communication tools and its related services*
- *Explain of the EnerGuide rating and it's related terminology and calculations*
- *Explain the ERS Services: Basic, Construction Blower Door, Construction Upgrade for New Homes and Renovation Upgrade*
- *Demonstrate knowledge of data collection requirements for building components and mechanical equipment*

Blower Door Testing

- *List the parts and specifications of blower door testing equipment*
- *Identify the various tests that can be performed with the blower door testing equipment*
- *Demonstrate knowledge of the air leakage location identification procedure*

HOT2000 Energy Modelling

- *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 how to generate reports from the software*

Developing Upgrade Recommendations

- *Identify the categories of energy efficiency upgrade recommendations*
- *Describe recommendations in each category*
- *Explain how upgrade recommendations are prioritized*
- *Explain the Renovation Upgrade Report*

Administration

- *Explain the roles and responsibilities of the various stakeholders involved in the EnerGuide Rating Service*
- *Explain the Registration, Licensing, Designation, Re-qualification, Suspension and Delicensing processes*

Quality Assurance

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

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*

ENERGUIDE RATING SYSTEM

KICKSTART YOUR EA JOURNEY
Foundation Complete, on to the ERS!
- Energy advisors
- Energy intensity
- Greenhouse gas emissions
- Operating conditions

BASICALLY, IT'S THE ERS
The Basic Service (Rating)
- EnerGuide label
- Homeowner information sheet
- HOT2000 warnings

GOING ON A HOUSE HUNT
Eligible House Types
- Eligible residential housing
- Eligible mixed-use buildings
- State-of-home requirements
- Refusing service
- Risk assessment

ON HOME BASE
Introduction To The 4 ERS Services
- Overview

START AT THE BEGINNING
The Basic Service
- Tasks
- Data collection

LOOK TO THE FUTURE
Renovation & New Construction Services
- Renovation Upgrade Service
- Construction Upgrade Service
- Construction Blower Door Service

TIMED MODULE ASSESSMENT: 25 QUESTIONS

Energy Advisor (HOUSE) Exam Prep
COURSE OUTLINE

THE HOUSE

HARVEST THE HOUSE
Onsite Data Collection
- Equipment
- Photos

INDULGE YOUR INNER PICASSO
Sketches And Dimensions
- Protocols
- Geometry calculations

TAKE A WALK OUTSIDE
Exterior Data Collection
- Protocols
- Foundations
- Windows and doors

INSIDE THOUGHTS
Interior Data Collection
- Protocols
- Foundations
- Above Grade

CONDITIONED FOR COMFORT
Space Conditioning Data Collection
- Heating and cooling systems
- Heat pumps
- Supplementary Heating

CARRY THE WATER
Domestic Hot Water Data Collection
- Storage tanks, tankless, indirect
- Hot water heat pumps (HWHP)
- Solar Thermal DHW

BLOWING IN THE WIND
Ventilation Data Collection
- Whole House Ventilation
- Spot Ventilation

ONGOING CONTRIBUTIONS
Renewable Energy Data Collection
- Photovoltaics (PV)
- Wind

Blower Door Testing

BIGGEST FAN OF BUILDING SCIENCE
Blower Door Testing
- Components and equipment
- Specifications and calibration
- Types of Tests

DON'T BLOW THE TEST
Airtightness Testing Protocols
- CGSB, As Operated
- Depressurization
- Blower door zones

EVALUATING YOUR BIGGEST FAN
Blower Door Testing
- Evaluating the blower door test
- Airtightness test results calculations

TIMED MODULE ASSESSMENT: 25 QUESTIONS

Energy Advisor (HOUSE) Exam Prep
COURSE OUTLINE

MODELLING IN HOT2000

MODEL ENERGY
Introducing Modelling in HOT2000
- Basic inputs
- Preferences
- Help menu
- User Guide

CONJURE A HOUSE IN 5 STEPS
The House Wizard
- Limitations
- Creating a house file
- Basic input screens

EVALUATE THE ENVELOPE
Envelope Components Above Grade
- Modelling ceilings and roofs
- Modelling walls
- Modelling floor headers
- Modelling windows and doors
- Modelling exposed floors

BUILDING THE BASE
Envelope Components Below Grade
- Foundations in General
- Modelling basements
- Modelling crawlspaces
- Modelling slab-on-grade
- Natural Air Infiltration

FROM SCRATCH MODEL
The Code Editor
- House info tabs
- Code Selector
- Favourite Codes
- Code Editor
- Nominal RSI/R Value
- Hot Keys

ENERGY IN - ENERGY OUT
Modelling Mechanical Systems
- Base loads
- Modelling renewable systems
- Modelling heating and cooling systems
- Modelling hot water systems

TIMED MODULE ASSESSMENT: 25 QUESTIONS

Developing Upgrade Recommendations

UPGRADES ARE NOT JUST FOR SEATS

Renovation Upgrade
- How to access upgrade screens
- Basic inputs

REPORTING FOR ENERGY DUTY

Generating Reports
- ERS calculation
- File name protocols
- Evaluation codes

CUSTOM ENERGY SOLUTIONS

Introduction To Developing Upgrades
- Recommendation criteria
- Upgrade categories
- Sequencing and prioritizing

WRAP UP ENERGY SAVINGS

Developing Envelope Upgrades
- Air sealing recommendations and factors
- Ventilation requirements
- Insulation recommendations and limiting factors
- Moisture and repair
- Combustion spillage

MECHANICAL MAKE OVERS

Developing Mechanical System Upgrades
- Heating and cooling systems
- Thermostats
- Water heaters
- Ventilation systems
- Air conditioning
- Renewable energy

REPORTING REVELATIONS

Developing the Renovation Upgrade Report
- Key elements
- Energy action roadmap
- Energy calculations
- Warnings

TIMED MODULE ASSESSMENT: 25 QUESTIONS

Energy Advisor (HOUSE) Exam Prep
COURSE OUTLINE

THE PAPERWORK

ROLES AND RESPONSIBILITIES
Introduction To Administration
- Code of Ethics
- Code of Conduct
- Conflict of Interest

NRCAN'S ROLE
Administration Responsibilities
- Database & QA Duties
- Official marks and identifiers

THE SERVICE ORGANIZATION
Administration Responsibilities
- Administrative & QA Duties
- Marketing Duties
- Recruitment Duties

KEEPING TABS ON FILES
Responsibilities of the Quality Assurance Specialist (QAS)
- Role & Duties

MANAGING THE TEAM
Role And Responsibilities Of The Service Organization Manager (SOM)
- Role & Duties

ENERGIZING EXPERT EMPOWERED
Role And Responsibilities of the Registered Energy Advisor (REA)
- Role & General duties
- Delivering services

CONSTRUCTING EFFICIENCY
Responsibilities Of Builders
- Role & Duties

LICENSE TO SAVE
Registration and Licensing
- Designating service providers
- Exams
- Probationary field files

THE POWER OF CONSEQUENCE
Suspension and Delicensing
- Major and minor infractions

Quality Assurance (QA)

ENSURING EXCELLENCE
Introduction To Quality Assurance
- QA Objectives
- Who does QA

LEVEL UP
Levels of Quality Assurance
- Audit levels
- EA self-QA

KEEPING YOUR HOUSE IN ORDER
Quality Assurance for Energy Advisors
- Energy Advisor QA responsibilities
- Documentation retention

TIMED MODULE ASSESSMENT: 25 QUESTIONS

Energy Advisor (HOUSE) Exam Prep
COURSE OUTLINE

EXAM PREPARATION

BE PREPARED
How to Study for Your Exam

WE'RE JUST PLAYING WITH YA
Question and Answer Games for
Memorization

DON'T SECOND GUESS
How to Use Multiple Choice Exam
Strategies

PRACTICE PRACTICE PRACTICE

TIMED MODULE ASSESSMENT:
150 QUESTIONS