



Natural Resources
Canada

Ressources naturelles
Canada

EnerGuide Rating System Candidate Exam Handbook Version 15.2

July 2016



Canada

Information contained in this publication or product may be reproduced, in part or in whole, and by any means, for personal or public non-commercial purposes, without charge or further permission, unless otherwise specified.

You are asked to:

- exercise due diligence in ensuring the accuracy of the materials reproduced;
- indicate the complete title of the materials reproduced and the name of the author organization; and
- indicate that the reproduction is a copy of an official work that is published by Natural Resources Canada and that the reproduction has not been produced in affiliation with, or with the endorsement of, Natural Resources Canada.

Commercial reproduction and distribution is prohibited except with written permission from Natural Resources Canada. For more information, contact Natural Resources Canada at copyright.droitdauteur@nrcan-rncan.gc.ca.

DISCLAIMER

Natural Resources Canada is not responsible for the accuracy or completeness of the information contained in the reproduced material. Natural Resources Canada shall at all times be indemnified and held harmless against any and all claims whatsoever arising out of negligence or other fault in the use of the information contained in this publication or product.

THIRD-PARTY MATERIALS

Some of the information contained in this publication or product may be subject to copyrights held by other individuals or organizations. To obtain information concerning copyright ownership and restrictions, contact us by:

Telephone: 1-877-953-5454

Email: homes@nrcan.gc.ca

Mail: EnerGuide Rating System
Office of Energy Efficiency
Natural Resources Canada
580 Booth Street (1 Observatory Crescent)
Ottawa ON K1A 0E4

Également disponible en français sous le titre : *Système de cote ÉnerGuide – Manuel du candidat à l'examen – Version 15.2*

© Natural Resources Canada, 2016

Reference documents

In addition to the *Candidate Exam Handbook*, the following reference documents are required for the administration of the EnerGuide Rating System. References to these documents in this document apply to the most current versions, which are maintained and available at www.nrcan.gc.ca/HousingIndustry.

Title and description
<p><i>EnerGuide Rating System—Standard—Version 15.x</i></p> <ul style="list-style-type: none"> • Defines the scope and technical requirements for rating the energy efficiency of new and existing houses under the EnerGuide Rating System
<p><i>EnerGuide Rating System—Administrative Procedures—Version 15.x</i></p> <ul style="list-style-type: none"> • Defines key roles, responsibilities and required administrative procedures
<p><i>EnerGuide Rating System—Quality Assurance Procedures—Version 15.x</i></p> <ul style="list-style-type: none"> • Defines the quality assurance audit process that validates overall service organization and energy advisor performance, effectiveness, and compliance with program procedures and guidelines
<p><i>EnerGuide Rating System—Technical Procedures—Version 15.x</i></p> <ul style="list-style-type: none"> • Defines required on-site data collection and evaluation procedures and protocols
<p><i>EnerGuide Rating System—HOT2000 User Guide—Version 15.x</i></p> <ul style="list-style-type: none"> • Defines procedures and protocols for the use of the HOT2000 energy modelling software in producing EnerGuide ratings and other outputs of the EnerGuide Rating System
<p><i>EnerGuide Rating System—File Submission User Guide—Version 15.x</i></p> <p>Defines the process for submitting EnerGuide Rating System house files to Natural Resources Canada</p>
<p><i>Maps of Climate Data</i></p> <ul style="list-style-type: none"> • Defines climate data to be used for modelling purposes under the EnerGuide Rating System for all geographical locations in Canada

Table of contents

REFERENCE DOCUMENTS	II
1 EXAM DEVELOPMENT PROCESS	1
1.1. OBJECTIVE.....	1
1.2. ENERGUIDE RATING SYSTEM VERSION 15 EXAMS.....	1
1.3. DEVELOPMENT OF COMPETENCY PROFILES.....	1
1.4. BLUEPRINT DEVELOPMENT.....	2
1.5. DEVELOPMENT OF EXAM QUESTIONS (ITEMS).....	2
1.6. REVIEW OF EXAM QUESTIONS.....	2
1.7. EXAM ASSEMBLY AND STANDARD SETTING.....	2
1.8. TRANSLATION.....	2
1.9. EXAM SECURITY AND CONFIDENTIALITY.....	3
2 GETTING READY FOR THE EXAMS	4
2.1. INTRODUCTION.....	4
2.2. FOUNDATION LEVEL EXAM.....	4
2.3. ENERGY ADVISOR, QUALITY ASSURANCE SPECIALIST AND SERVICE ORGANIZATION MANAGER EXAMS.....	4
2.4. TRAINING.....	5
2.5. EXAM QUESTIONS.....	5
2.6. NUMBER OF EXAM QUESTIONS AND EXAM LENGTH.....	5
2.7. TUTORIAL QUIZ AND ERS SAMPLE QUESTIONS QUIZ.....	5
3 REGISTERING FOR AN EXAM	7
3.1. STANDARD REGISTRATION PROCESS.....	7
3.2. ELIGIBILITY REQUIREMENTS.....	7
3.3. REQUEST FOR SPECIAL ACCOMMODATION.....	7
3.3.1. Formal request.....	7
3.3.2. Additional charges.....	8
3.3.3. Process.....	8
3.4. EXAM FEES.....	8
3.5. PAYMENT METHODS.....	8
3.6. TESTING CENTRES.....	9
3.7. OFFICIAL LANGUAGES.....	9
3.8. DISCLOSURE OF PERSONAL INFORMATION.....	9
4 AFTER REGISTRATION	10
4.1. EMAIL ACKNOWLEDGEMENT.....	10
4.2. NAME CHANGE AND ADDRESS CHANGE.....	10
4.3. EXAM SITE CHANGE.....	10
4.4. EXAM CANCELLATION BY CANDIDATE.....	10
4.5. EXAM RESCHEDULING REQUEST BY CANDIDATE.....	11
4.6. FAILURE TO TAKE THE EXAM.....	11
5 CANDIDATE’S STATEMENT OF UNDERSTANDING	12
5.1. CONDUCT AND TOLERANCE.....	12

6 ON EXAM DAY.....	13
6.1. ADMISSION TO THE EXAM.....	13
6.2. BEFORE THE START OF THE EXAM	13
6.3. TUTORIAL QUIZ	13
6.4. MATERIAL PERMITTED TO BE USED DURING EXAM	13
6.5. WASHROOM BREAKS	14
6.6. AT THE END OF THE EXAM	14
6.7. ONLINE FEEDBACK SURVEY	14
6.8. EXAM RESULTS	14
7 AFTER THE EXAM.....	15
7.1. PERFORMANCE REPORT.....	15
7.2. INFORMING YOUR SERVICE ORGANIZATION OF THE EXAM RESULTS.....	15
8 REWRITING AN EXAM	16
8.1. APPLYING TO REWRITE AN EXAM	16
8.2. WAITING PERIOD BEFORE REWRITING AN EXAM.....	16
9 CONTACT INFORMATION	17
APPENDIX A: THE MODIFIED ANGOFF METHOD & DETERMINING A PASS MARK.....	18
APPENDIX B: CANDIDATE STATEMENT OF UNDERSTANDING.....	20

1 Exam development process

1.1. Objective

A robust exam development process following industry best-practices was implemented to ensure that those who are registered to deliver the EnerGuide Rating System, Version 15 services sufficiently master the necessary competencies (e.g. knowledge, abilities, skills, attitudes and judgment) to perform these services effectively.

The recommendation for more rigorous exams stemmed from a Policy Advisory Committee supported by three subcommittees and three working groups using an open and transparent approach. This process included balanced representation of expertise and interest groups, a decision-making process based on the principles of consensus and public review of the Committee’s recommendations in order to seek input from a broad range of stakeholders.

All current and new energy advisors, service organization managers and quality assurance specialists will be required to pass specific exams before delivering the EnerGuide Rating System, Version 15 services. Exam candidates will be required to take the exams via a secure online exam system at various proctored exam centres across Canada. Natural Resources Canada has retained a company that has expertise in the development, analysis and administration of defensible exams.

1.2. EnerGuide Rating System Version 15 exams

The following exams are used to qualify service providers under the EnerGuide Rating System:

- Foundation Level exam (required for energy advisors and quality assurance specialists)
- Energy Advisor exam (required for energy advisors and quality assurance specialists)
- Quality Assurance Specialist exam (required for quality assurance specialists)
- Service Organization Manager exam (required for service organization managers)

1.3. Development of competency profiles

For each of the EnerGuide Rating System exams, Natural Resources Canada worked with subject matter experts (SMEs) to develop detailed competency profiles. These competency profiles describe the skills, knowledge and abilities required for the position. The exam competency profiles are sub-divided into three parts: competency categories; competencies; and learning objectives. The competency profiles are used as the basis for the development of an exam and identify the topics that candidates will be tested on during the exam.

Candidates should thoroughly review the relevant competency profile prior to taking an exam to help them assess whether they have the necessary skills, knowledge and abilities. Should candidates feel that they may not be fully competent in specific areas identified in the competency profile prior to taking the exam, they can improve their competence in these areas through a variety of means, such as the self-study of relevant reference material, online or in-class training or workshops, and/or mentoring by qualified individuals. The competency profiles for all of the EnerGuide Rating System Version 15, exams are

available at www.NRCan.gc.ca/Housingindustry.

1.4. Blueprint development

An exam blueprint outlining the content to be tested in the exam was developed by Natural Resources Canada with oversight by expert Psychometrician's. The blueprint includes the competencies - that is, the content domain that forms the basis for test development. It also specifies variables that provide structure for the exam, as well as guidelines and specifications for weighting the competencies to ensure that the exam accurately reflects the requirements of minimally-competent service providers.

1.5. Development of exam questions (Items)

Exam items are developed by SMEs who are trained in item writing. The exam items measure the specified competencies in accordance with the guidelines identified in the exam blueprint. After an item is developed, it is reviewed by Natural Resources Canada and then further evaluated and refined by the Standard Setting group.

1.6. Review of exam questions

Exam items go through several stages of review by internal staff at Natural Resources Canada. They ensure that each item is fair, that it matches the relevant learning objective and that it is accurately referenced within relevant reference material.

1.7. Exam assembly and standard setting

The pass mark represents the performance expected of a minimally competent candidate.

The pass mark for each exam is established by using the professionally accepted and widely used Modified Angoff method, whereby SMEs set the standard for each question based on its difficulty. For more information on the Modified Angoff method and standard setting, see **Appendix A: The Modified Angoff Method & Determining a Pass Mark**.

The examination is computer administered and scored on the basis of the total number of correct answers; one point is allotted for each correct answer. It is not adjusted to a "Bell" curve. Passing or failing the examination does not depend on the scores of the other candidates but on how well the candidate did on the items administered in relation to the standard set.

1.8. Translation

Exams are translated by professional translators and further reviewed and validated by Natural Resources Canada staff to ensure the proper and consistent use of administrative and technical terminology.

1.9. Exam security and confidentiality

The exam content is the property of Natural Resources Canada and must remain secure at all times. The exam is administered in proctored test centres under strict protocols in order to ensure that security and confidentiality are maintained. Proctors are required to sign a statement of understanding as are all candidates taking the exam. The Candidate Statement of Understanding (**Appendix B: Candidate Statement of Understanding**) outlines the expectations surrounding the exam in terms of ensuring security of exam content and confidentiality of exam results.

2 Getting ready for the exams

2.1. Introduction

This section explains how candidates can prepare for the relevant EnerGuide Rating System—Version 15 exams.

2.2. Foundation level exam

The Foundation Level exam assesses foundational competencies such as numeracy, low-rise housing construction and renovation, building envelope, heating, ventilation and air conditioning, building science principles and the house-as-a-system concept. As such, the competency profile for this exam is not based on any specific EnerGuide Rating System—Version 15 or Natural Resources Canada reference material.

Organizations such as Natural Resources Canada and Canada Mortgage and Housing Corporation publish a variety of reference material available online which covers some of the competencies and learning objectives identified in the Foundation Level exam competency profile and which can be helpful to candidates to prepare for the exam. Candidates are also encouraged to review and study applicable reference material published by any other reputable organization or author in preparation for this exam.

Although the competency profile for the Foundation Level exam includes competencies and learning objectives in the areas of communication and computer skills, these are not assessed during the exam. However, candidates are expected to be competent in these areas.

2.3. Energy advisor, quality assurance specialist and service organization manager exams

The recommended approach to prepare for the qualification exams is to review and study the respective competency profiles along with the following applicable reference material. Candidates must ensure they use the most recent version of these documents, available at www.NRCan.gc.ca/Housingindustry:

- EnerGuide Rating System—Standard—Version 15.x
- EnerGuide Rating System—Technical Procedures—Version 15.x
- EnerGuide Rating System—HOT2000 User Guide—Version 15.x
- EnerGuide Rating System—Administrative Procedures—Version 15.x
- EnerGuide Rating System—Quality Assurance Procedures—Version 15.x
- EnerGuide Rating System—Electronic File Submission User Guide—Version 15.x

Competency profiles include references for each learning objective, identifying the title of the reference material and its section number. With these references, candidates can pinpoint and review specific sections of the reference documents.

2.4. Training

There is no requirement by Natural Resources Canada for candidates to have participated in training before taking the exams. However, candidates may access online or in-class training offered by their service organization or through training organizations, schools, colleges, industry associations or other reputable organizations or individuals. Natural Resources Canada does not endorse or recommend any specific trainers or training organizations.

2.5. Exam questions

Exam questions are multiple-choice. Multiple-choice questions are the most common form of assessment used for licensure and certification exams. The exam questions consist of the stem, which presents a question or a problem, and four alternatives or choices from which the candidate selects the correct or best option. Options are presented as words, statements or numbers. Shown here is an example of a multiple-choice question.

What is the square root of 625?

- A. 15
- B. 25
- C. 35
- D. 45

2.6. Number of exam questions and exam length

Exam Name	No. of exam questions	Exam length
Foundation Level exam	150	3 hours
Energy Advisor exam	150	3 hours
Quality Assurance Specialist exam	75	1.5 hours
Service Organization Manager exam	75	1.5 hours

2.7. Tutorial Quiz and ERS Sample Questions Quiz

To assist in preparation for the exams, the exam website now has a Tutorial Quiz, and an ERS Sample Questions Quiz. Both of these quizzes can only be taken after registering at <https://nrca.nrcan.gc.ca/energy-services/energy-services-portal>. See Section 3 for more details on registering for exams.

The Tutorial Quiz has 5 multiple choice questions that help a candidate become familiar with the exam format and interface. The Tutorial Quiz does not have a time limit, and it can be taken numerous times.

The ERS Sample Questions Quiz includes 15 multiple choice questions that are representative of the four ERS exams. These questions have been compiled into a Sample Questions Quiz in order to show the range of difficulty of the questions, and to highlight the importance of studying the competency profiles

and ERS documentation. After taking the ERS Sample Question exam, the candidate will see the correct answer, plus the reference and rationale that supports it. The ERS Sample Questions Quiz does have a 15 minute time limit; however, it too can be taken numerous times. Candidates should not take the ERS Sample Questions Quiz at the testing centre while there to take an exam, as it could affect the scheduled time of your examination booking.

3 Registering for an exam

3.1. Standard registration process

- The Natural Resources Canada Housing Division exams are hosted by Yardstick Software inc. (Yardstick) at <https://nrca.yasasecure.com>. Click on this link and “Create A New Account” if you do not already have one.
- Select the ‘products’ option at the top to review the available examinations for purchase.
- Once the examination is chosen, simply follow the purchase steps provided on the platform (NOTE – only major credit cards are approved. No other form of payment is accepted). You need to pay for the exam before you can select your preferred location and time.
- Once the purchase is complete, simply click on ‘my exams’.
- You will then see the word ‘book’ next to the examination in question. Select that button.
- You will then be directed to select a region (city) you wish to write and you will be provided with options within that region.
- Select the location as well as three date/time combinations for your examination request and submit. (NOTE – you will not be able to choose any date sooner than five business days from the day you are entering this request as the testing site needs time to coordinate this request).
- At this point the request will be reviewed by Yardstick and coordinated with the testing site. Once the date/time combination has been confirmed, you will receive a final booking confirmation email with the details on the date, time, location and examination particulars.

3.2. Eligibility requirements

Candidates are required to complete the online registration and pay the exam fee. No other criterion is measured.

Candidates who falsify any documentation will not be allowed to write the exam. If falsification is discovered after the exam has been taken, the exam results will be null and void.

3.3. Request for special accommodation

3.3.1. Formal request

Alternative arrangements may be available to candidates who have special needs. To request an accommodation for a physical, cognitive or other special need, please submit a written request to Natural Resources Canada for consideration before you register for an exam. The requests are to be sent to: nrcan.ers_exams-examens_sce.rncan@canada.ca and include:

- the specific exam accommodation requested;
- the accommodations rationale;
- preferred exam site;
- contact information; and
- supporting documentation (such as educational assessment, doctor’s letter, etc.).

Special accommodation includes any medication you want to bring into the exam. Requests for accommodation of special needs are considered on a case-by-case basis. The booking confirmation for these requests may take upwards of 30 days to accommodate as each request is completed on an individual basis. Requests for accommodation received fewer than 30 days before the exam will not be considered, except in unusual circumstances, such as a recent injury.

3.3.2. Additional charges

Any additional charges for special accommodations are to be paid by the candidate, and are in addition to the regular exam fee. Not all special accommodation requests will require additional funds (such as snacks for a diabetic, etc.). Additional charges are set at the discretion of the exam administrator, and are payable to Yardstick prior to the day of the exam, by credit card only.

3.3.3. Process

1. Candidate opens the exam site, signs up an account, and views available testing sites.
2. Candidate sends an email to Natural Resources Canada detailing the special accommodation request (see above).
3. Natural Resources Canada provides a decision on the request, informs the candidate and copies the decision to the exam administrator.
4. If approved, the candidate goes to the exam booking website, purchases the exam product and submits the booking request with three date / time combinations.
5. The exam administrator investigates the special accommodation request, finds the correct location to assist the candidate with the approved request and completes the booking process for the candidate.
6. Candidate is emailed the confirmation email with exam details, etc.

3.4. Exam fees

Exam Name	Exam Fee
Foundation Level exam	\$150.00
Energy Advisor exam	\$150.00
Quality Assurance Specialist exam	\$100.00
Service Organization Manager exam	\$100.00
Special Accommodation Requests	To be determined at time of request

NOTE: Please be advised, exam fees are subject to a price increase in the Fall of 2016. Stakeholders will be given adequate notice of upcoming exam fee increases.

3.5. Payment methods

Payment must be made online using VISA, MasterCard or American Express.

3.6. Testing centres

The exam testing centres are located across Canada. The full list can be found on the Yardstick online exam site when registering for an exam.

3.7. Official languages

When registering for an examination, applicants can choose their language preference at the bottom of the “Register” page. Also on this page is the option to check the box “I require a French-Speaking Proctor”. Each exam is available in both official languages. A candidate will be able to toggle back and forth between French and English when viewing questions during the exam. Additional communications related to the examinations will be provided in both official languages.

3.8. Disclosure of personal information

Only Natural Resources Canada will have access to the candidate’s business information and exam results, and will not disclose it to any individual or organization.

4 After registration

4.1. Email acknowledgement

Once a candidate has registered for an exam by submitting a booking request by location (with their date/time combinations), a confirmation email listing the final confirmed date, time, and location of the exam will be emailed to the candidate. The email will also contain instructions on what to bring on exam day to the test centre.

Should the candidate require immediate support from Yardstick regarding the exam, at any time between registering and the exam date, they can call Yardstick Emergency Support at **1-888-881-1005**. Please note, Yardstick staff will pick up between 6:30am and 5:00pm MST – Monday through Friday. Outside those hours, a message can be left with the answering service. Someone will respond at their earliest convenience.

4.2. Name change and address change

In the event that changes are required to the candidate's personal information (candidate name, address, etc.) the candidate may do so online in their profile.

4.3. Exam site change

In the event of an unexpected exam site change, all candidates affected will be contacted by email and telephone in order to confirm the new location. Please provide an emergency contact number when registering in case Yardstick needs to inform you of a last minute change.

4.4. Exam cancellation by candidate

The registration fee for an exam will be fully refunded if a cancellation request is made at least 15 business days prior to the scheduled exam.

Cancellation requests made between 15 business days and **two business days** prior to the exam will receive 50% of the registration fee refunded by the exam administrator.

There will be no refunds if the candidate cancels less than **two business days** prior to the exam.

4.5. Exam rescheduling request by candidate

Should the candidate want to change the exam date, time or location, they need to send a rescheduling Request to testingsupport@getyardstick.com and meet the following two conditions:

1. Request must be sent at least five business days prior to the currently scheduled exam date and
2. At least five business days prior to the new requested exam date.

4.6. Failure to take the exam

No refund will be provided to a candidate who does not take the exam at the approved test centre and at the scheduled date/time unless the failure to take the exam is due to:

1. Death in the family (immediate);
2. Sudden illness or injury (incapacitating); or
3. Other circumstances deemed to be commensurate with (1) or (2).

In these situations, candidates have 10 business days from the date of the exam to submit a refund request email to testingsupport@getyardstick.com along with supporting documentation outlining the circumstances that prevented them from taking the exam on the scheduled exam day. If the refund request is approved, 50% of the purchase price may be refunded.

5 Candidate's Statement of Understanding

5.1. Conduct and tolerance

Conduct occurring before, during or after testing that violates principles detailed in the Candidate Statement of Understanding may result in invalidation of exam results and/or other penalties and will be reported to Natural Resources Canada.

On the day of the exam, each candidate will receive an electronic copy of the Candidate Statement of Understanding. Candidates will not be able to begin the exam without reading and agreeing to the statement. A print version is attached to this document in **Appendix B: Candidate Statement of Understanding**.

6 On exam day

6.1. Admission to the exam

To allow the proctor to validate the candidate's identity, candidates are required to bring a copy of the exam scheduling confirmation email and government issued photo identification (e.g., passport, driver's license) to the test centre. Candidates without proper identification will not be allowed to take the exam. Candidates will be asked to review their personal information on the roster to ensure the accuracy of the information. The name on the photo ID must be identical to the name used during on-line registration.

The proctor will provide information to all candidates regarding the test centre and exam protocol including the storage of cell phones and mobile devices, calculators, paper material, books, bags, etc. Permissible items include disposable ear plugs and may include water/juice/coffee/drink in a clear spill-proof container if approved by the Test Centre Proctor.

6.2. Before the start of the exam

It is recommended that the candidate arrive at least 30 minutes prior to the scheduled exam start time for registration and orientation, as the exam will start at the scheduled time. Proctors will log each candidate into the exam at the designated time. Before the exam begins candidates will be required to read and agree to the Candidate Statement of Understanding. A print version is attached to this document in **Appendix B: Candidate Statement of Understanding**.

Candidates who arrive between the scheduled start time and 30 minutes after the scheduled start time will be allowed to take the exam. However, the exam clock will start at the scheduled exam time, and the candidates will have lost the amount of time that they were late.

Candidates who arrive more than 30 minutes after the scheduled start time will not be permitted to take the exam.

6.3. Tutorial quiz

Candidates will have the opportunity to take a 'Tutorial Quiz' prior to the actual exam in order to become familiar with the exam interface. The time spent on the tutorial quiz does not count towards the allotted exam time.

6.4. Material permitted to be used during exam

Scrap paper and a pencil will be provided by the Exam Proctor at the beginning of each exam and must be turned in at the end of the exam. An on-line calculator and memo pad are also available as part of the exam interface for all exams.

Each exam question has a place to record notes during the exam. Please note that anything entered there can be viewed by Natural Resources Canada after the exam is submitted.

6.5. Washroom breaks

Candidates will be permitted one washroom break during the 90 minute exam, and two washroom breaks during the three hour exam. The exam timer will not be paused during the washroom break and therefore no additional time will be provided to complete the exam. Candidates must also notify the exam proctor prior to taking the washroom break, who will note the amount of time that the candidate is away from the room, by having the candidate sign in and out.

6.6. At the end of the exam

At the end of the exam candidates will receive a confirmation that their exam responses have been captured and their exam successfully submitted.

6.7. Online feedback survey

Candidates will be asked to complete a short online feedback survey before the results of their exam will be made available. Responses to the survey contribute to the on-going improvement of Natural Resources Canada's EnerGuide Rating System examination delivery system. All candidates are encouraged to fill out the survey.

6.8. Exam results

Once the feedback survey is completed, the candidate will be emailed the result of their exam to the address the candidate provided at the time of registration. The email will state the name of the exam, and whether the candidate "Passed" or "Did Not Pass".

7 After the exam

7.1. Performance report

Candidates who did not pass an exam will be emailed a performance report approximately two weeks later that will provide information on how the candidate did on the exam.

7.2. Informing your service organization of the exam results

Natural Resources Canada will not share candidates' exam results with other parties, including stakeholders and service organizations. Candidates can do so at their own discretion. Natural Resources Canada will use the exam results for administration purposes, such as for validation and tracking of registrations under the EnerGuide Rating System. For your information, the list of service organizations across the country can be found here: <http://www.nrcan.gc.ca/energy/efficiency/housing/service-providers/15807>

8 Rewriting an exam

8.1. Applying to rewrite an exam

Candidates that do not pass an exam will need to re-register via the Yardstick online site in order to rewrite an exam. Candidates will have an unlimited number of attempts to rewrite an exam to achieve the pass mark.

8.2. Waiting period before rewriting an exam

In addition, candidates that did not pass an exam must wait a minimum of 30 calendar days before they can rewrite the same exam.

9 Contact information

For more information regarding Natural Resources Canada's EnerGuide Rating System—Version 15 exams or the instructions in this *Candidate Exam Handbook*, please contact Natural Resources Canada by email at nrcan.ers_exams-examens_sce.rncan@canada.ca

Appendix A: The Modified Angoff Method & Determining a Pass Mark

Standard Setting is the business of setting passing scores, (or what is referred to as 'cut scores'), for exams. The cut score(s) serves to classify candidates into categories; those who score above the cut score are judged to possess the minimum level of proficiency required for inclusion into the category, while those who score below the cut score are deemed not to possess the minimum level of proficiency required, and are classified accordingly.

Standard Setting is most often a judgmental process. It typically involves a panel of subject matter experts and stakeholders who must estimate the difficulty of each question for so-called minimally-competent, or borderline candidates. Those judgments are then aggregated in order to arrive at a passing score across sets of questions. Standard setting methods differ in the way that those judgments are made by the SMEs, and also in the way that question-level judgments are aggregated to create a passing score. One of the most common methods of standard setting is the Modified Angoff method.

The central task of the Modified Angoff method is for SMEs to estimate the percentage of minimally competent candidates who would answer each item correctly. The instructions to panelists would be to examine the question carefully, both in terms of the 'structure' of the question, and of the difficulty of the competency being tested. This information is used to make a judgment regarding the expected performance on that question of the minimally competent candidate. Two types of judgments are common, either the probability that any single candidate would answer the question correctly, or the number out of 100 minimally competent candidates that would answer the question correctly.

These judgments are summed for each SME to create a recommendation for a passing score. This makes sense because the item-level judgments are themselves pass-level judgments per question. For example, if a SME provided judgments of 0.7, or 70% for each and every question, the passing standard would logically be 70% for the entire exam.

Item	Angoff Participant 1 round 1	Angoff Participant 1 round 2
1	0.87	0.79
2	0.64	0.60
3	0.43	0.47
4	0.55	0.51
5	0.61	0.63
6	0.43	0.44
7	0.76	0.79
8	0.61	0.66

Typically these judgments are made over multiple rounds after which the judgments become increasingly refined. Between rounds, various types of information can be provided to the SMEs regarding the reasonableness of their judgments. A common type of information is impact data, or the number and percentages of candidates who would pass based upon the average or median passing score recommendation by panelists. Other types of feedback include the difficulty of each question for the

candidates or the consistency of each of the SMEs' judgements.

As shown in the figure below, the changes in item-level ratings impact the overall recommended passing score. The passing score recommendation made in the final round is the one that is ultimately adopted.

Round One: Initial Ratings



Round Two: "Impact" data is presented.



For more detailed information on standard setting procedures and methods, refer to the book, *Setting Performance Standards: Concepts, Methods, and Perspectives*, edited by Gregory Cizek and Robert Sternberg.

Appendix B: Candidate Statement of Understanding

Conduct occurring before, during or after testing that violates these principles may result in invalidation of exam results and/or other penalties and will be reported to Natural Resources Canada.

I have read, understand and agree to abide by the above statement.

1. The EnerGuide Rating System exams are highly confidential. **The exam questions are the property of Natural Resources Canada.** Unauthorized disclosure of the exam questions is prohibited under copyright laws. **By acknowledging this statement of understanding, you agree to maintain the confidentiality of the exam questions.** You must therefore:
 - Keep the exam content confidential, even after the exam. This also includes not discussing the content with anyone who wrote the exam before you, with you or who has not written the exam yet.
 - Not use, or be in possession of any electronic device (such as cell phones, cameras, pagers, iPods, etc.) in the exam room;
 - Realize that any recording or memorization of exam questions is strictly forbidden whether you intend to recreate parts of the exam for financial gain or not.
2. Candidates may be observed at all times while they are taking an exam. This observation will include direct observation by invigilators. Invigilators may not necessarily inform you of their observations, but they are required to report behaviour that may violate the terms and regulations of Natural Resources Canada or other forms of irregular behaviour.
3. Any cheating and/or breach of confidentiality/security or any attempt to subvert the exam process by any candidate violates the purpose and principles of the exam. Any candidate who carries out, takes part in or who witnesses such behaviour must report it to the Invigilator and/or Natural Resources Canada as soon as possible.
4. Yardstick Software Inc. strives to report results that accurately reflect the skill and performance of each candidate and represent a valid measure of their knowledge or competence as sampled by the exam. Accordingly, our standards and procedures for administering exams have two related goals: giving candidates comparable opportunities to demonstrate their abilities, and preventing any of them from gaining an unfair advantage over others. To promote these objectives, Natural Resources Canada reserves the right to cancel or withhold any exam results when, in the sole opinion of Natural Resources Canada, a testing irregularity occurs; cheating has occurred; there is an apparent discrepancy in, or falsification of, a candidate's identification; a candidate engages in misconduct or plagiarism; when aberrancies in performance are detected for which there is no reasonable and satisfactory explanation; or the results are believed to be invalid for any other reason.

A candidate agrees to abide by all regulations, as well as oral and written instructions controlling the conduct of the exam. These regulations are intended to preserve the integrity of the exam process by providing standard test administration conditions that yield valid and reliable results.