

Building Science Institute, Ltd. Co. Process 002-2023 Training & Certification System

Related policies:

- Building Science Institute, Ltd. Co. Policy 08-2022 Terminology
- Building Science Institute, Ltd. Co. Policy 11-2022 Resource Requirements for Verification Organizations

This process applies to Verification Organizations and the Building Science Institute, Ltd. Co.

Referenced Documents

BSI Policy 08 Terminology
BSI Policy 11 Resource Requirements for Verification Organizations
BSI Policy 14 Referenced Standards, Codes, and Programs

Recognition of Other Certifications or Credentials

Current ENERGY STAR certifications are accepted by Building Science Institute.

Current RESNET® certifications are considered by Building Science Institute to determine required training and assessments needed to become credentialed by the Building Science Institute.
Current Building Performance Institute® (BPI) certifications are considered by Building Science Institute to determine required training and assessments needed to become credentialed by the Building Science Institute.

Qualifications such as an ICC certification as a Residential Building Inspector or Plans Examiner/Residential Energy Code Inspector, or registered/licensed engineer or architect are considered by Building Science Institute to determine required training and assessments needed to become credentialed by the Building Science Institute.

Recognition is considered on a case-by-case basis.

RESNET® Certification	Additional Training Required for Building Science Institute Certification
HERS® Rating Field Inspector	<p>Energy Code Field Verifier:</p> <ul style="list-style-type: none">• ICC Plans Examiner/Residential Energy Code Inspector <p>ENERGY STAR Field Verifier Level 1:</p> <ul style="list-style-type: none">• ICC Plans Examiner/Residential Energy Code Inspector• ENERGY STAR Single Family New Construction• ANSI/RESNET/ACCA/ICC Std 310 <p>ENERGY STAR Field Verifier Level 2:</p> <ul style="list-style-type: none">• ICC Residential Plans Examiner• ENERGY STAR Single Family New Construction• ENERGY STAR Multi Family New Construction• ANSI/RESNET/ACCA/ICC Std 310 <p>Indoor airPlus Verifier</p> <ul style="list-style-type: none">• ICC Plans Examiner/Residential Energy Code Inspector• ENERGY STAR Single Family New Construction• Indoor airPLUS <p>Zero Energy Ready Home Field Verifier Level 1:</p> <ul style="list-style-type: none">• ICC Plans Examiner/Residential Energy Code Inspector• ENERGY STAR Single Family New Construction• ANSI/RESNET/ACCA/ICC Std 310• Zero Energy Ready Home Single Family New Construction <p>Zero Energy Ready Home Field Verifier Level 2:</p> <ul style="list-style-type: none">• ICC Plans Examiner/Residential Energy Code Inspector• ENERGY STAR Single Family New Construction• ENERGY STAR Multi Family New Construction• ANSI/RESNET/ACCA/ICC Std 310• Zero Energy Ready Home Single Family New Construction• Zero Energy Ready Home Multi Family New Construction

HERS® Energy Modeler

Energy Code Software Analyst:

- ICC Plans Examiner/Residential Energy Code Inspector

ENERGY STAR Software Analyst Level 1:

- ICC Plans Examiner/Residential Energy Code Inspector
- ENERGY STAR Single Family New Construction
- ANSI/RESNET/ACCA/ICC Std 310

ENERGY STAR Software Analyst Level 2:

- ICC Plans Examiner/Residential Energy Code Inspector
- ENERGY STAR Single Family New Construction
- ENERGY STAR Multi Family New Construction
- ANSI/RESNET/ACCA/ICC Std 310

Indoor airPLUS

- ICC Plans Examiner/Residential Energy Code Inspector
- ENERGY STAR Single Family New Construction
- Indoor airPLUS

Zero Energy Ready Home Software Analyst Level 1:

- ICC Plans Examiner/Residential Energy Code Inspector
- ENERGY STAR Single Family New Construction
- ANSI/RESNET/ACCA/ICC Std 310
- Zero Energy Ready Home Single Family New Construction

Zero Energy Ready Home Software Analyst Level 2:

- ICC Plans Examiner/Residential Energy Code Inspector
- ENERGY STAR Single Family New Construction
- ENERGY STAR Multi Family New Construction
- ANSI/RESNET/ACCA/ICC Std 310
- Zero Energy Ready Home Single Family New Construction
- Zero Energy Ready Home Multi Family New Construction

HERS® Rater

Energy Code Compliance Specialist:

- ICC Plans Examiner/Residential Energy Code Inspector

ENERGY STAR Verifier Level 1:

- ICC Plans Examiner/Residential Energy Code Inspector
- ENERGY STAR Single Family New Construction
- ANSI/RESNET/ACCA/ICC Std 310

ENERGY STAR Verifier Level 2:

- ICC Plans Examiner/Residential Energy Code Inspector
- ENERGY STAR Single Family New Construction
- ENERGY STAR Multi Family New Construction
- ANSI/RESNET/ACCA/ICC Std 310

Indoor airPlus Verifier

- ICC Plans Examiner/Residential Energy Code Inspector
- ENERGY STAR Single Family New Construction
- Indoor airPLUS

Zero Energy Ready Home Verifier Level 1:

- ICC Plans Examiner/Residential Energy Code Inspector
- ENERGY STAR Single Family New Construction
- ANSI/RESNET/ACCA/ICC Std 310
- Indoor airPLUS
- Zero Energy Ready Home Single Family New Construction

Zero Energy Ready Home Verifier Level 2:

- ICC Plans Examiner/Residential Energy Code Inspector
 - ENERGY STAR Single Family New Construction
 - ENERGY STAR Multi Family New Construction
 - ANSI/RESNET/ACCA/ICC Std 310
 - Indoor airPLUS
 - Zero Energy Ready Home Single Family New Construction
 - Zero Energy Ready Home Multi Family New Construction
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HERS® Quality Assessment Designee

Quality Assessor/Quality Assessment Designee:

- ICC Plans Examiner/Residential Energy Code Inspector
- ENERGY STAR Single Family New Construction
- ENERGY STAR Multi Family New Construction
- ANSI/RESNET/ACCA/ICC Std 310
- Indoor airPLUS
- Zero Energy Ready Home Single Family New Construction
- Zero Energy Ready Home Multi Family New Construction
- ASQ Auditing Fundamentals 1
- ASQ Auditing Fundamentals 2
- ASQ Auditing Fundamentals 3
- ISO Std 19011
- ISO Std 17020

BPI® Certification

Additional Training Required for Building Science Institute Certification

Infiltration & Duct Leakage

Energy Code Field Verifier:

- ICC Plans Examiner/Residential Energy Code Inspector
- ANSI/RESNET/ICC Std 301 Appendices A & B

Heating Professional

ENERGY STAR® Field Verifier Level 1:

- ICC Plans Examiner/Residential Energy Code Inspector
- ANSI/RESNET/ICC Std 301 Appendices A & B
- ENERGY STAR Single Family New Construction
- ANSI/RESNET/ACCA/ICC Std 310

AC/Heat Pump

ENERGY STAR Field Verifier Level 2:

- ICC Plans Examiner/Residential Energy Code Inspector
- ANSI/RESNET/ICC Std 301 Appendices A & B
- ENERGY STAR Single Family New Construction
- ANSI/RESNET/ACCA/ICC Std 310
- ENERGY STAR Multi Family New Construction

Building Analyst Technician

Indoor airPlus Verifier

- ICC Plans Examiner/Residential Energy Code Inspector
- ANSI/RESNET/ICC Std 301 Appendices A & B
- ENERGY STAR Single Family New Construction
- Indoor airPLUS

Zero Energy Ready Home Field Verifier Level 1:

- ICC Plans Examiner/Residential Energy Code Inspector
- ANSI/RESNET/ICC Std 301 Appendices A & B
- ENERGY STAR Single Family New Construction
- ANSI/RESNET/ACCA/ICC Std 310
- Zero Energy Ready Home Single Family New Construction

Zero Energy Ready Home Field Verifier Level 2:

- ICC Plans Examiner/Residential Energy Code Inspector
 - ANSI/RESNET/ICC Std 301 Appendices A & B
 - ENERGY STAR Single Family New Construction
 - ENERGY STAR Multi Family New Construction
 - ANSI/RESNET/ACCA/ICC Std 310
 - Zero Energy Ready Home Single Family New Construction
 - Zero Energy Ready Home Multi Family New Construction
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Building Analyst

Energy Code Software Analyst:

- ICC Plans Examiner/Residential Energy Code Inspector
- ANSI/RESNET/ICC Std 301

ENERGY STAR Software Analyst Level 1:

- ICC Plans Examiner/Residential Energy Code Inspector
- ANSI/RESNET/ICC Std 301
- ENERGY STAR Single Family New Construction
- ANSI/RESNET/ACCA/ICC Std 310

Indoor airPLUS:

- ICC Plans Examiner/Residential Energy Code Inspector
- ANSI/RESNET/ICC Std 301
- ENERGY STAR Single Family New Construction
- Indoor airPLUS

Zero Energy Ready Home Software Analyst Level 1:

- ICC Plans Examiner/Residential Energy Code Inspector
- ANSI/RESNET/ICC Std 301
- ENERGY STAR Single Family New Construction
- ANSI/RESNET/ACCA/ICC Std 310
- Indoor airPLUS
- Zero Energy Ready Home Single Family New Construction

Multi Family Building Analyst

Energy Code Software Analyst:

- ICC Plans Examiner/Residential Energy Code Inspector
- ANSI/RESNET/ICC Std 301

ENERGY STAR Software Analyst Level 2:

- ICC Plans Examiner/Residential Energy Code Inspector
- ANSI/RESNET/ICC Std 301
- ENERGY STAR Single Family New Construction
- ENERGY STAR Multi Family New Construction
- ANSI/RESNET/ACCA/ICC Std 310

Indoor airPLUS:

- ICC Plans Examiner/Residential Energy Code Inspector
- ANSI/RESNET/ICC Std 301
- ENERGY STAR Single Family New Construction
- ENERGY STAR Multi Family New Construction
- Indoor airPLUS

Zero Energy Ready Home Software Analyst Level 2:

- ICC Plans Examiner/Residential Energy Code Inspector
 - ANSI/RESNET/ICC Std 301
 - ENERGY STAR Single Family New Construction
 - ENERGY STAR Multi Family New Construction
 - ANSI/RESNET/ACCA/ICC Std 310
 - Indoor airPLUS
 - Zero Energy Ready Home Single Family New Construction
 - Zero Energy Ready Home Multi Family New Construction
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Building Analyst Professional

Energy Auditor

Energy Code Compliance Specialist:

- ICC Plans Examiner/Residential Energy Code Inspector
- ANSI/RESNET/ICC Std 301

ENERGY STAR Verifier Level 1:

- ICC Plans Examiner/Residential Energy Code Inspector
- ANSI/RESNET/ICC Std 301
- ENERGY STAR Single Family New Construction
- ANSI/RESNET/ACCA/ICC Std 310

ENERGY STAR Verifier Level 2:

- ICC Plans Examiner/Residential Energy Code Inspector
- ANSI/RESNET/ICC Std 301
- ENERGY STAR Single Family New Construction
- ENERGY STAR Multi Family New Construction
- ANSI/RESNET/ACCA/ICC Std 310

Indoor airPLUS Verifier:

- ICC Plans Examiner/Residential Energy Code Inspector
- ANSI/RESNET/ICC Std 301
- ENERGY STAR Single Family New Construction
- Indoor airPLUS

Zero Energy Ready Home Verifier Level 1:

- ICC Plans Examiner/Residential Energy Code Inspector
- ANSI/RESNET/ICC Std 301
- ENERGY STAR Single Family New Construction
- ANSI/RESNET/ACCA/ICC Std 310
- Indoor airPLUS
- Zero Energy Ready Home Single Family New Construction

Zero Energy Ready Home Verifier Level 2:

- ICC Plans Examiner/Residential Energy Code Inspector
- ANSI/RESNET/ICC Std 301
- ENERGY STAR Single Family New Construction
- ENERGY STAR Multi Family New Construction
- ANSI/RESNET/ACCA/ICC Std 310
- Indoor airPLUS
- Zero Energy Ready Home Single Family New Construction
- Zero Energy Ready Home Multi Family New Construction

Quality Control Inspector

Quality Assessor/Quality Assessment Designee:

- ICC Plans Examiner/Residential Energy Code Inspector
- ANSI/RESNET/ICC Std 301
- ENERGY STAR Single Family New Construction
- ENERGY STAR Multi Family New Construction
- ANSI/RESNET/ACCA/ICC Std 310
- Indoor airPLUS
- Zero Energy Ready Home Single Family New Construction
- Zero Energy Ready Home Multi Family New Construction
- ASQ Auditing Fundamentals 1
- ASQ Auditing Fundamentals 2
- ASQ Auditing Fundamentals 3
- ISO Std 19011
- ISO Std 17020

Continuing Education

All individuals credentialed by the Building Science Institute must complete 6 hours of continuing education per calendar year to maintain their credential.

The intent of this requirement is to promote life-long learning.

Continuing education courses must be approved by the Building Science Institute and may include topics on residential construction, building science, business, leader development, personal development, and may also include attending conferences and webinars.

Proof of completion must be submitted to the Building Science Institute.

In addition, individuals credentialed as Quality Assessors/Quality Assessment Designees may satisfy this requirement by writing a case study on quality management based on their experience during the calendar

year for publication on the Building Science Institute website and dissemination to the broader quality management community.

Energy Code Field Verifier

Energy Code Field Verifiers credentialed by the Building Science Institute are qualified to perform verifications and testing in conformance with ANSI/RESNET/ICC Std 301, Std 380, and ANSI/RESNET/ACCA Std 310; and perform inspections and testing for the ICC Energy Code Prescriptive, UA, Cost Performance, and ERI compliance paths. They are NOT qualified to perform verifications, testing, or software analysis on ENERGY STAR, Indoor airPLUS, or Zero Energy Ready Home program homes.

Energy Code Field Verifier Required Training

Prior to credentialing, candidates must successfully complete the following training programs:

1. ICC-approved Energy Code Inspector (6 hours)
2. ANSI/RESNET/ICC Std 301 Appendices A & B by Building Science Institute (6 hours)
3. ANSI/RESNET/ICC Std 380 training by Building Science Institute (10 hours)
4. HouseRater training by Building Science Institute (4 hours)

Energy Code Field Verifier Required Assessments

Prior to credentialing, candidates must successfully complete the following assessments:

1. ICC-proctored Energy Code Inspector exam
2. 5 pre-drywall/insulation inspections mentored by Building Science Institute's Quality Assessor or Quality Assessment Designee
3. 5 final inspections mentored by Building Science Institute's Quality Assessor or Quality Assessment Designee

Energy Code Field Verifier Competencies

Energy Code Field Verifiers must demonstrate knowledge of:

- ICC International Energy Code
- ANSI/RESNET/ICC Std 301, Appendices A & B
- ANSI/RESNET/ICC Std 380
- HouseRater
- residential construction systems
- operation of processes
- delivery of services
- defects which may occur during construction of a dwelling unit
- failures in the operation of a process
- deficiencies in the delivery of services
- building science
- significance of deviations found with regard to energy code, residential construction specifications, operation of processes, and the delivery of services

Energy Code Software Analyst

Energy Code Software Analysts credentialed by the Building Science Institute are qualified to perform software analysis in conformance with ANSI/RESNET/ICC Std 301, Std 380, and ANSI/RESNET/ACCA Std 310; and perform software analysis for the ICC Energy Code Prescriptive, UA, Cost Performance, and ERI compliance paths. They are NOT qualified to perform verifications, testing, or software analysis on ENERGY STAR, Indoor airPLUS, or Zero Energy Ready Home certified homes.

Energy Code Software Analyst Required Training

Prior to credentialing, candidates must successfully complete the following training programs:

1. ICC-approved Plans Examiner (2 hours)
2. Software analyst specific ANSI/RESNET/ICC Std 301 training by Building Science Institute (12 hours)
3. ANSI/RESNET/ACCA Std 310 (4 hours)
4. Energy Modeler training by Building Science Institute (7 hours)
5. HouseRater training by Building Science Institute (4 hours)

Energy Code Software Analyst Required Assessments

1. ICC-proctored Plans Examiner exam
2. 10 energy models in HouseRater (plans & specs provided by Building Science Institute), evaluated by Quality Assessor or Quality Assessment Designee credentialed by the Building Science Institute
 - a. 2 single story
 - b. 2 2-story
 - c. 2 duplexes
 - d. 2 townhouses
 - e. 2 apartment units

Energy Code Software Analyst Competencies

Energy Code Software Analysts must demonstrate knowledge of:

- ICC International Energy Code
- ANSI/RESNET/ICC Std 301
- HouseRater
- residential construction systems
- operation of processes
- delivery of services
- failures in the operation of a process
- deficiencies in the delivery of services

Energy Code Compliance Specialist

Energy Code Compliance Specialists credentialed by the Building Science Institute are qualified to perform verifications, testing, and software analysis in conformance with ANSI/RESNET/ICC Std 301, Std 380, and ANSI/RESNET/ACCA Std 310; and perform inspections, testing, and software analysis for the ICC Energy Code Prescriptive, UA, Cost Performance, and ERI compliance paths. They are NOT qualified to perform verifications, testing, or software analysis on ENERGY STAR, Indoor airPLUS, or Zero Energy Ready Home certified homes.

Energy Code Compliance Specialist Required Training

Prior to credentialing, candidates must successfully complete the following training programs:

1. ICC-approved Plans Examiner/Energy Code Inspector (8 hours)
2. ANSI/RESNET/ICC Std 301 training by Building Science Institute (50 hours)
3. ANSI/RESNET/ICC Std 380 training by Building Science Institute (10 hours)
4. ANSI/RESNET/ACCA Std 310 training by Building Science Institute (6 hours)
5. ANSI/ACCA Std 12 training by Building Science Institute (6 hours)
6. Energy Modeler training by Building Science Institute (7 hours)
7. HouseRater training by Building Science Institute (4 hours)

Energy Code Compliance Specialist Required Assessments

1. ICC-proctored Plans Examiner/Energy Code Inspector exam
2. 10 energy models in HouseRater (plans & specs provided by Building Science Institute), evaluated by Quality Assessor or Quality Assessment Designee credentialed by the Building Science Institute
 - a. 2 single story
 - b. 2 2-story
 - c. 2 duplexes
 - d. 2 townhouses
 - e. 2 apartment units
3. 5 pre-drywall/insulation verifications mentored by Quality Assessor or Quality Assessment Designee credentialed by the Building Science Institute
4. 5 final verifications mentored by Quality Assessor or Quality Assessment Designee credentialed by the Building Science Institute

Energy Code Compliance Specialist Competencies

Energy Code Compliance Specialists must demonstrate knowledge of:

- ICC International Energy Code
- ANSI/RESNET/ICC Std 301
- ANSI/RESNET/ICC Std 380
- ANSI/RESNET/ACCA Std 310

- HouseRater
- residential construction systems
- operation of processes
- delivery of services
- defects which may occur during construction of a dwelling unit
- failures in the operation of a process
- deficiencies in the delivery of services
- building science
- significance of deviations found with regard to energy code, residential construction specifications, operation of processes, and the delivery of services

ENERGY STAR Field Verifier Level 1

ENERGY STAR Field Verifier Level 1 is credentialed by the Building Science Institute and is qualified to perform verifications and testing for the ENERGY STAR New Homes Single program; perform verifications and testing in conformance with ANSI/RESNET/ICC Std 301, Std 380, and ANSI/RESNET/ACCA Std 310; and perform inspections and testing for the ICC Energy Code Prescriptive, UA, Cost Performance, and Energy Rating Index (ERI) compliance paths. They are NOT qualified to perform software analysis and must work with a qualified Software Analyst credentialed by the Building Science Institute. They are NOT qualified to perform verifications or testing for Indoor airPLUS or Zero Energy Ready Home programs.

ENERGY STAR Field Verifier Level 1 Required Training

Prior to credentialing, candidates must successfully complete the following training programs:

1. ICC-approved Energy Code Inspector (6 hours)
2. ANSI/RESNET/ICC Std 301 Appendix A & B training by Building Science Institute (6 hours)
3. ANSI/RESNET/ICC Std 380 training by Building Science Institute (10 hours)
4. ANSI/RESNET/ACCA Std 310 training by Building Science Institute (2 hours)
5. ANSI/ACCA Std 12 training by Building Science Institute (6 hours)
6. ENERGY STAR Single Family training by Building Science Institute (3.2 hours)
7. HouseRater training by Building Science Institute (4 hours)

ENERGY STAR Field Verifier Level 1 Required Assessments

1. ICC-proctored Energy Code Inspector exam
2. ENERGY STAR Single Family exam proctored by Building Science Institute
3. ENERGY STAR Multi Family exam proctored by Building Science Institute
4. 5 pre-drywall/insulation ENERGY STAR Single Family verifications mentored by Quality Assessor or Quality Assessment Designee credentialed by the Building Science Institute
5. 5 final ENERGY STAR Single Family verifications mentored by Quality Assessor or Quality Assessment Designee credentialed by the Building Science Institute

ENERGY STAR Field Verifier Level 1 Competencies

ENERGY STAR Field Verifiers must demonstrate knowledge of:

- ICC International Energy Code
- ANSI/RESNET/ICC Std 301, Appendices A & B
- ANSI/RESNET/ICC Std 380
- ENERGY STAR Single Family program requirements
- residential construction systems
- operation of processes
- delivery of services
- defects which may occur during construction of a dwelling unit
- failures in the operation of a process
- deficiencies in the delivery of services
- building science
- significance of deviations found with regard to energy code, residential construction specifications, operation of processes, and the delivery of services

ENERGY STAR Field Verifier Level 2

ENERGY STAR Field Verifier Level 2 must be credentialed by the Building Science Institute as ENERGY STAR Field Verifier Level 1 first. They are qualified to perform verifications and testing for the ENERGY STAR New Homes Multi Family program; perform verifications and testing in conformance with ANSI/RESNET/ICC Std 301, Std 380, and ANSI/RESNET/ACCA Std 310; and perform inspections and testing for the ICC Energy

Code Prescriptive, UA, Cost Performance, and Energy Rating Index (ERI) compliance paths. They are NOT qualified to perform software analysis and must work with a qualified Software Analyst credentialed by the Building Science Institute. They are NOT qualified to perform verifications or testing for Indoor airPLUS or Zero Energy Ready Home programs.

ENERGY STAR Field Verifier Level 2 Required Training

Prior to credentialing, candidates must successfully complete the following training programs:

1. Credentialed as ENERGY STAR Field Verifier Level 1
2. ENERGY STAR Multi Family training by Building Science Institute (4.8 hours)
3. HouseRater training by Building Science Institute (4 hours)

ENERGY STAR Field Verifier Level 2 Required Assessments

1. ENERGY STAR Multi Family exam proctored by Building Science Institute
2. 5 pre-drywall/insulation ENERGY STAR Multi Family verifications mentored by Quality Assessor or Quality Assessment Designee credentialed by the Building Science Institute
3. 5 final ENERGY STAR Multi Family verifications mentored by Quality Assessor or Quality Assessment Designee credentialed by the Building Science Institute

ENERGY STAR Field Verifier Level 2 Competencies

ENERGY STAR Field Verifiers must demonstrate knowledge of:

- ICC International Energy Code
- ANSI/RESNET/ICC Std 301, Appendices A & B
- ANSI/RESNET/ICC Std 380
- ENERGY STAR Single Family program requirements
- ENERGY STAR Multi Family program requirements
- residential construction systems
- operation of processes
- delivery of services
- defects which may occur during construction of a dwelling unit
- failures in the operation of a process
- deficiencies in the delivery of services
- building science
- significance of deviations found with regard to energy code, residential construction specifications, operation of processes, and the delivery of services

Indoor airPLUS Verifier

Indoor airPLUS Verifiers must be credentialed by the Building Science Institute as ENERGY STAR Field Verifier Level 1 first. They are qualified to perform verifications for the Indoor airPLUS program; perform verifications and testing in conformance with ANSI/RESNET/ICC 301-2019, 380-2019, and ANSI/RESNET/ACCA 310-2020; and perform inspections and testing for the ICC Energy Code Prescriptive, UA, Cost Performance, and Energy Rating Index (ERI) compliance paths. They are NOT qualified to perform software analysis and must work with a qualified Software Analyst credentialed by the Building Science Institute. They are NOT qualified to perform verifications or testing for the Zero Energy Ready Home program.

Indoor airPLUS Verifier Required Training

Prior to credentialing, candidates must successfully complete the following training programs:

1. ICC-approved Plans Examiner/Residential Energy Code Inspector (6 hours)
2. ANSI/RESNET/ICC Std 301 Appendix A & B training by Building Science Institute (6 hours)
3. ANSI/RESNET/ICC Std 380 training by Building Science Institute (10 hours)
4. ANSI/RESNET/ACCA Std 310 training by Building Science Institute (2 hours)
5. ANSI/ACCA Std 12 training by Building Science Institute (6 hours)
6. ENERGY STAR Single Family training by Building Science Institute (3.2 hours)
7. HouseRater training by Building Science Institute (4 hours)
8. Indoor airPLUS training by Building Science Institute (2 hours)

Indoor airPLUS Verifier Required Assessments

1. 5 pre-drywall/insulation ENERGY STAR Single Family verifications incorporating Indoor airPLUS specifications, mentored by Quality Assessor or Quality Assessment Designee credentialed by the Building Science Institute

2. 5 final ENERGY STAR Single Family verifications incorporating Indoor airPLUS specifications, mentored by Quality Assessor or Quality Assessment Designee credentialed by the Building Science Institute

Indoor airPLUS Verifier Competencies

Indoor airPLUS Verifiers must demonstrate knowledge of:

- ICC International Energy Code
- ANSI/RESNET/ICC Std 301, Appendices A & B
- ANSI/RESNET/ICC Std 380
- ENERGY STAR Single Family program requirements
- Indoor airPLUS specifications
- residential construction systems
- operation of processes
- delivery of services
- defects which may occur during construction of a dwelling unit
- failures in the operation of a process
- deficiencies in the delivery of services
- building science
- significance of deviations found with regard to energy code, residential construction specifications, operation of processes, and the delivery of services

ENERGY STAR Software Analyst Level 1

ENERGY STAR Software Analyst Level 1 is credentialed by the Building Science Institute to perform software analysis for the ENERGY STAR New Homes Single program; perform software analysis in conformance with ANSI/RESNET/ICC Std 301, Std 380, and ANSI/RESNET/ACCA Std 310; and perform software analysis for the ICC Energy Code Prescriptive, UA, Cost Performance, and Energy Rating Index (ERI) compliance paths. They are NOT qualified to perform verifications, inspections, and testing and must work with a qualified Verifier/Field Verifier credentialed by the Building Science Institute. They are NOT qualified to perform software analysis for Indoor airPLUS or Zero Energy Ready Home program homes.

ENERGY STAR Software Analyst Level 1 Required Training

Prior to credentialing, candidates must successfully complete the following training programs:

1. ICC-approved Plans Examiner (2 hours)
2. Software analyst specific ANSI/RESNET/ICC Std 301 training by Building Science Institute (12 hours)
3. ANSI/RESNET/ACCA Std 310 training by Building Science Institute (4 hours)
4. Energy Modeler training by Building Science Institute (7 hours)
5. ENERGY STAR Single Family training by Building Science Institute (3.2 hours)
6. HouseRater training by Building Science Institute (4 hours)
7. Indoor airPLUS training by Building Science Institute (2 hours)

ENERGY STAR Software Analyst Level 1 Required Assessments

1. ICC-proctored Plans Examiner exam
2. ENERGY STAR Single Family exam proctored by Building Science Institute
3. 8 energy models in HouseRater (plans & specs provided by Building Science Institute), evaluated by Quality Assessor or Quality Assessment Designee credentialed by the Building Science Institute
 - a. 2 single story
 - b. 2 2-story
 - c. 2 duplexes
 - d. 2 townhouses

ENERGY STAR Software Analyst Level 1 Competencies

ENERGY STAR Software Analysts must demonstrate knowledge of:

- ICC International Energy Code
- ANSI/RESNET/ICC Std 301
- ENERGY STAR Single Family program requirements
- HouseRater
- residential construction systems
- operation of processes
- delivery of services

- failures in the operation of a process
- deficiencies in the delivery of services

ENERGY STAR Software Analyst Level 2

ENERGY STAR Software Analysts credentialed by the Building Science Institute are qualified to perform software analysis for the ENERGY STAR New Homes Multi Family program; perform software analysis in conformance with ANSI/RESNET/ICC Std 301, Std 380, and ANSI/RESNET/ACCA Std 310; and perform software analysis for the ICC Energy Code Prescriptive, UA, Cost Performance, and Energy Rating Index (ERI) compliance paths. They are NOT qualified to perform verifications, inspections, and testing and must work with a qualified Verifier/Field Verifier credentialed by the Building Science Institute. They are NOT qualified to perform software analysis for Indoor airPLUS or Zero Energy Ready Home program homes.

ENERGY STAR Software Analyst Level 2 Required Training

Prior to credentialing, candidates must successfully complete the following training programs:

1. ENERGY STAR Software Analyst Level 1
2. ENERGY STAR Multi Family training by Building Science Institute (4.8 hours)

ENERGY STAR Software Analyst Level 2 Required Assessments

1. ENERGY STAR Multi Family exam proctored by Building Science Institute
2. 10 energy models in HouseRater (plans & specs provided by Building Science Institute), evaluated by Quality Assessor or Quality Assessment Designee credentialed by the Building Science Institute
 - a. 2 apartment units on 1st floor adjacent to stairwell/elevator
 - b. 2 apartment units on 2nd floor adjacent to stairwell/elevator
 - c. 2 corner apartment units on 1st floor
 - d. 2 corner apartment units on 2nd floor
 - e. 2 top floor apartment units, not adjacent to stairwell/elevator, not corner units

ENERGY STAR Software Analyst Level 2 Competencies

ENERGY STAR Software Analysts must demonstrate knowledge of:

- ICC International Energy Code
- ANSI/RESNET/ICC Std 301
- ENERGY STAR Single Family program requirements
- ENERGY STAR Multi Family program requirements
- HouseRater
- residential construction systems
- operation of processes
- delivery of services
- failures in the operation of a process
- deficiencies in the delivery of services

ENERGY STAR Verifier Level 1

ENERGY STAR Verifier Level 1 is credentialed by the Building Science Institute to perform verifications, testing, and software analysis for the ENERGY STAR New Homes Single Family program; perform verifications, testing, and software analysis in conformance with ANSI/RESNET/ICC Std 301, Std 380, and ANSI/RESNET/ACCA Std 310; and perform inspections, testing, and software analysis for the ICC Energy Code Prescriptive, UA, Cost Performance, and Energy Rating Index (ERI) compliance paths. They are NOT qualified to perform verifications, testing, and software analysis for the ENERGY STAR New Homes Multi Family, Indoor airPLUS, or Zero Energy Ready Home programs.

ENERGY STAR Verifier Level 1 Required Training

Prior to credentialing, candidates must successfully complete the following training programs:

1. ICC-approved Plans Examiner/Residential Energy Code Inspector (8 hours)
2. ANSI/RESNET/ICC Std 301 training by Building Science Institute (50 hours)
3. ANSI/RESNET/ICC Std 380 training by Building Science Institute (10 hours)
4. ANSI/RESNET/ACCA Std 310 training by Building Science Institute (6 hours)
5. ANSI/ACCA Std 12 training by Building Science Institute (6 hours)
6. Energy Modeler training by Building Science Institute (7 hours)
7. ENERGY STAR Single Family training by Building Science Institute (3.2 hours)
8. HouseRater training by Building Science Institute (4 hours)

ENERGY STAR Verifier Level 1 Required Assessments

1. ICC-proctored Plans Examiner/Residential Energy Code Inspector exam
2. ENERGY STAR Single Family exam proctored by Building Science Institute
3. 8 energy models in HouseRater (plans & specs provided by Building Science Institute), evaluated by Quality Assessor or Quality Assessment Designee credentialed by the Building Science Institute
 - a. 2 single story
 - b. 2 2-story
 - c. 2 duplexes
 - d. 2 townhouses
4. 5 pre-drywall/insulation ENERGY STAR Single Family verifications mentored by Quality Assessor or Quality Assessment Designee credentialed by the Building Science Institute
5. 5 final ENERGY STAR Single Family verifications mentored by Quality Assessor or Quality Assessment Designee credentialed by the Building Science Institute

ENERGY STAR Verifier Level 1 Competencies

ENERGY STAR Verifiers must demonstrate knowledge of:

- ICC International Energy Code
- ANSI/RESNET/ICC Std 301
- ANSI/RESNET/ICC Std 380
- ANSI/RESNET/ACCA Std 310
- ENERGY STAR Single Family program requirements
- HouseRater
- residential construction systems
- operation of processes
- delivery of services
- defects which may occur during construction of a dwelling unit
- failures in the operation of a process
- deficiencies in the delivery of services
- building science
- significance of deviations found with regard to energy code, residential construction specifications, operation of processes, and the delivery of services

ENERGY STAR Verifier Level 2

ENERGY STAR Verifiers credentialed by the Building Science Institute are qualified to perform verifications, testing, and software analysis for the ENERGY STAR New Homes Multi Family programs; perform verifications, testing, and software analysis in conformance with ANSI/RESNET/ICC Std 301, Std 380, and ANSI/RESNET/ACCA Std 310; and perform inspections, testing, and software analysis for the ICC Energy Code Prescriptive, UA, Cost Performance, and Energy Rating Index (ERI) compliance paths. They are NOT qualified to perform verifications, testing, and software analysis for the Indoor airPLUS, or Zero Energy Ready Home programs.

ENERGY STAR Verifier Level 2 Required Training

Prior to credentialing, candidates must successfully complete the following training programs:

1. ENERGY STAR Verifier Level 1
2. ENERGY STAR Multi Family training by Building Science Education (4.8 hours)

ENERGY STAR Verifier Level 2 Required Assessments

1. ENERGY STAR Multi Family exam proctored by Building Science Education
2. 10 energy models in HouseRater (plans & specs provided by Building Science Education), evaluated by Quality Assessor or Quality Assessment Designee credentialed by the Building Science Institute
 - a. 2 apartment units on 1st floor adjacent to stairwell/elevator
 - b. 2 apartment units on 2nd floor adjacent to stairwell/elevator
 - c. 2 corner apartment units on 1st floor
 - d. 2 corner apartment units on 2nd floor
 - e. 2 top floor apartment units, not adjacent to stairwell/elevator, not corner units
3. 5 pre-drywall/insulation ENERGY STAR Multi Family verifications mentored by Quality Assessor or Quality Assessment Designee credentialed by the Building Science Institute
4. 5 final ENERGY STAR Multi Family verifications mentored by Quality Assessor or Quality Assessment Designee credentialed by the Building Science Institute

ENERGY STAR Verifier Level 2 Competencies

ENERGY STAR Verifiers must demonstrate knowledge of:

- ICC International Energy Code
- ANSI/RESNET/ICC Std 301
- ANSI/RESNET/ICC Std 380
- ANSI/RESNET/ACCA Std 310
- ENERGY STAR Single Family program requirements
- ENERGY STAR Multi Family program requirements
- HouseRater
- residential construction systems
- operation of processes
- delivery of services
- defects which may occur during construction of a dwelling unit
- failures in the operation of a process
- deficiencies in the delivery of services
- building science
- significance of deviations found with regard to energy code, residential construction specifications, operation of processes, and the delivery of services

Zero Energy Ready Home Verifier Level 1

Zero Energy Ready Home Verifier Level 1 is credentialed by the Building Science Institute to perform verifications, testing, and software analysis for the Zero Energy Ready Home Single Family program; perform verifications, testing, and software analysis in conformance with referenced standards, codes, and program requirements; and perform inspections, testing, and software analysis for the ICC Energy Code Prescriptive, UA, Cost Performance, and Energy Rating Index (ERI) compliance paths. They are NOT qualified to perform verifications, testing, and software analysis for the Zero Energy Ready Home Multi Family program.

Zero Energy Ready Home Verifier Level 1 Required Training

Prior to credentialing, candidates must successfully complete the following training programs:

1. ENERGY STAR Verifier Level 1 credential by Building Science Institute
2. Indoor airPLUS Verifier training by Building Science Institute (2 hours)
3. Zero Energy Ready Home Single Family training by Building Science Institute (2 hours)

Zero Energy Ready Home Verifier Level 1 Required Assessments

1. Zero Energy Ready Home Single Family exam proctored by Building Science Institute
2. 5 pre-drywall/insulation Zero Energy Ready Home Single Family verifications mentored by Quality Assessor or Quality Assessment Designee credentialed by the Building Science Institute
3. 5 final Zero Energy Ready Home Single Family verifications mentored by Quality Assessor or Quality Assessment Designee credentialed by the Building Science Institute

Zero Energy Ready Home Verifier Level 1 Competencies

Zero Energy Ready Home Verifiers must demonstrate knowledge of:

- ICC International Energy Code
- ANSI/RESNET/ICC Std 301
- ANSI/RESNET/ICC Std 380
- ANSI/RESNET/ACCA Std 310
- ENERGY STAR Single Family program requirements
- Indoor airPLUS program requirements
- Zero Energy Ready Home Single Family program requirements
- HouseRater
- residential construction systems
- operation of processes
- delivery of services
- defects which may occur during construction of a dwelling unit
- failures in the operation of a process
- deficiencies in the delivery of services
- building science

- significance of deviations found with regard to energy code, residential construction specifications, operation of processes, and the delivery of services

Zero Energy Ready Home Verifier Level 2

Zero Energy Ready Home Verifier Level 2 is credentialed by the Building Science Institute to perform verifications, testing, and software analysis for the Zero Energy Ready Home Multi Family program; perform verifications, testing, and software analysis in conformance with referenced standards, codes, and program requirements; and perform inspections, testing, and software analysis for the ICC Energy Code Prescriptive, UA, Cost Performance, and Energy Rating Index (ERI) compliance paths.

Zero Energy Ready Home Verifier Level 2 Required Training

Prior to credentialing, candidates must successfully complete the following training programs:

1. ENERGY STAR Verifier Level 2 credential by Building Science Institute
2. Zero Energy Ready Home Verifier Level 1 credential by Building Science Institute
3. Zero Energy Ready Home Multi Family training by Building Science Institute (2 hours)

Zero Energy Ready Home Verifier Level 2 Required Assessments

1. Zero Energy Ready Home Multi Family exam proctored by Building Science Institute
2. 5 pre-drywall/insulation Zero Energy Ready Home Multi Family verifications mentored by Quality Assessor or Quality Assessment Designee credentialed by the Building Science Institute
3. 5 final Zero Energy Ready Home Multi Family verifications mentored by Quality Assessor or Quality Assessment Designee credentialed by the Building Science Institute

Zero Energy Ready Home Verifier Level 2 Competencies

Zero Energy Ready Home Verifiers must demonstrate knowledge of:

- ICC International Energy Code
- ANSI/RESNET/ICC Std 301
- ANSI/RESNET/ICC Std 380
- ANSI/RESNET/ACCA Std 310
- ENERGY STAR Single Family program requirements
- ENERGY STAR Multi Family program requirements
- Indoor airPLUS program requirements
- Zero Energy Ready Home program Single Family requirements
- Zero Energy Ready Home Multi Family program requirements
- HouseRater
- residential construction systems
- operation of processes
- delivery of services
- defects which may occur during construction of a dwelling unit
- failures in the operation of a process
- deficiencies in the delivery of services
- building science
- significance of deviations found with regard to energy code, residential construction specifications, operation of processes, and the delivery of services

Quality Assessor / Quality Assessment Designee

True North Quality Management Services Quality Assessors credentialed by the Building Science Institute are qualified to perform external quality management conformance assessments for conformance with ENERGY STAR® New Homes program requirements, Indoor airPLUS program requirements, Zero Energy Ready Home program requirements, ANSI/RESNET/ICC Std 301, ANSI/RESNET/ICC Std 380, ANSI/RESNET/ACCA Std 310, ANSI/ACCA Standard Std 12, and Building Science Institute policies and processes.

Quality Assessment Designees credentialed by the Building Science Institute are direct employees of verification organizations and are qualified to perform internal quality management conformance assessments for conformance with ENERGY STAR® New Homes program requirements, Indoor airPLUS program requirements, Zero Energy Ready Home program requirements, ANSI/RESNET/ICC Std 301, ANSI/RESNET/ICC Std 380, ANSI/RESNET/ACCA Std 310, ANSI/ACCA Standard Std 12, and Building Science Institute policies and processes.

Quality Assessor / Quality Assessment Designee Pre-Requisite Work Experience

Prior to credentialing, candidates must have documented work experience as:

- ENERGY STAR® Verifier, 3 years performing energy ratings OR
- 3 years performing Quality Control in construction as a qualified engineer, inspector, or architect OR
- 3 years of experience in residential construction as a builder, green building verifier, energy auditor, or performing weatherization PLUS experience performing at least 25 energy ratings (energy rating experience may be gained during training phase prior to credentialing; if True North Quality Management Services Quality Assessor candidate, may be gained through secondment to verification organization with provision that candidate does NOT perform conformity assessments on that verification organization for a period not to exceed one year) OR
- Current certification as a RESNET® Quality Assurance Designee

Quality Assessor / Quality Assessment Designee Required Training

Prior to credentialing, candidates must successfully complete the following training programs:

1. ASQ Auditing Fundamentals 1 (8 hours)
2. ASQ Auditing Fundamentals 2 (9 hours)
3. ASQ Auditing Fundamentals 3 (8 hours)
4. ANSI/RESNET/ICC Std 301 training by Building Science Institute (50 hours)
5. ANSI/RESNET/ICC Std 380 training by Building Science Institute (10 hours)
6. ANSI/RESNET/ACCA Std 310 training by Building Science Institute (6 hours)
7. ANSI/ACCA Std 12 training by Building Science Institute (6 hours)
8. Energy Modeler training by Building Science Institute (7 hours)
9. ENERGY STAR® Single Family training by Building Science Institute (3.2 hours)
10. ENERGY STAR® Multi Family training by Building Science Institute (4.8 hours)
11. ENERGY STAR® Quality Assessment training by Building Science Institute (1 hour)
12. Indoor airPLUS training by Building Science Institute (2 hours)
13. Zero Energy Ready Home Single Family training by Building Science Institute (2 hours)
14. Zero Energy Ready Home Multi Family training by Building Science Institute (2 hours)
15. ISO Std 19011 training by Building Science Institute (3 hours)
16. ISO Std 17020 training by Building Science Institute (20 hours)

A current or prior certification as a RESNET® QAD may waive up to 40 hours of training on ANSI/RESNET/ICC 301-2019 through a challenge test proctored by Building Science Institute.

Quality Assessor / Quality Assessment Designee Required Assessments

Prior to credentialing and deployment, candidates must successfully complete the following assessments:

1. ASQ Auditing Fundamentals 3 exam
2. ENERGY STAR® Single Family exam proctored by Building Science Institute
3. ENERGY STAR® Multi Family exam proctored by Building Science Institute
4. 20 ENERGY STAR® software file evaluations mentored by Building Science Institute Quality Assessor
5. 10 ENERGY STAR® field evaluations mentored by Building Science Institute Quality Assessor
6. Zero Energy Ready Home exam proctored by Building Science Institute
7. Building Science Institute Policies 09 “General Requirements for Verification Organizations”, 10 “Structural Requirements for Verification Organizations”, 11 “Resource Requirements for Verification Organizations”, and 12 “Process Requirements for Verification Organizations” conformity assessments mentored by Building Science Institute Quality Assessor

Quality Assessor / Quality Assessment Designee Competencies

Assessors and Designees must demonstrate knowledge of:

- ANSI/RESNET/ICC Std 301
- ANSI/RESNET/ICC Std 380
- ANSI/RESNET/ACCA Std 310
- ANSI/ACCA Std 12
- ENERGY STAR® Single Family program requirements
- ENERGY STAR® Multi Family program requirements
- Indoor airPLUS program requirements
- Zero Energy Ready Home program requirements
- ISO Std 19011
- ISO Std 17020

- HouseRater software
- residential construction systems
- operation of processes
- delivery of services
- defects which may occur during construction of a dwelling unit
- failures in the operation of a process
- deficiencies in the delivery of services
- building science
- significance of deviations found with regard to energy code, residential construction specifications, operation of processes, and the delivery of services

Assessors and Designees must demonstrate the following communication skills:

- Listening
- Questioning
- Probing
- Critiquing
- Conflict resolution
- Clear and concise communications
- Good writing skills
- Good oral skills
- Appropriate body language
- Tact

Assessors and Designees must demonstrate the following assessment skills:

- Identify the steps needed to prepare for an audit
- Use general audit terminology
- Identify types of data used as evidence
- Conduct the steps for performing an audit
- Use working papers such as checklists
- Determine when a practice or situation represents a nonconformance or finding
- Determine methods to analyze and classify nonconformities or findings
- Report results of an audit
- Verify corrective action of audit findings
- Close out audit findings
- Demonstrate linkages between reporting and follow-up to ensure there was action
- Integrate process auditing practices and auditing process-based management systems into auditing conventions
- Explain audit terminology
- Apply the principles of professional conduct
- Respond to unethical situations and conduct
- Determine the purpose of audits
- Relate how audits add value
- Apply new auditor competencies for team leadership
- Apply verification and validation techniques during audits
- Implement audit program management strategies
- Assess configuration management systems
- Explain risk management basics
- Explain business processes and how they are linked
- Contrast joint and combined auditing
- Provide advisor and other roles that add value
- Incorporate ISO Std 19011 guidance to current practices
- Design check sheets, checklist and logs
- Apply flow charting techniques on the job
- Use different types of charts(i.e. pie, line, Pareto, CE, etc.)
- Assess quality improvement programs such as lean, corrective action, FMEA, 5S, and Six Sigma
- Select the appropriate sampling method for the situation
- Explain sampling concepts such as consumer risk
- Determine if statistical and non-statistical sampling is appropriate
- Explain descriptive statistics
- Use quality tools such as histograms
- Assess quantitative and qualitative data
- Identify variables and attribute data
- Link results to wealth of the organization using cost of quality

- Interpret histograms and scatter diagrams
- Explain the purpose and use of control charts
- Identify in-control and capable processes
- Assess quality tool usage by others

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Approved by Building Science Institute Quality Council on April 23, 2023

Not Voting: Brett Dillon, Chair; Wes Davis

Approve: Brian Christensen, Amber Wood, Erik Straite, Kevin Burk

Reject: None

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