COMMERCIAL BUILDING ENERGY STANDARDS

The Commercial Building Energy Standards (CBES) have been revised as of November 24, 2014. Revisions took effect March 1, 2015 and applies to construction commenced on and after the date they became effective. CBES applies to most new commercial construction, including additions, alterations, renovations, and repairs. Where a building permit has been issued or applied for prior to March 1, 2015 this construction shall have the option of complying with either the 2011 CBES or the 2015 CBES.

Free hard copies of the updated Vermont Commercial Energy Codebook are available. Electronic copies are also available for purchase through the International Code Council (ICC) website (http://www.iccsafe.org/Pages/default.aspx). Please contact the Energy Code Assistance Center on 1-855-887-0673 to receive a free hard copy.

Background

The CBES was enacted into law in 2006 (30 V.S.A. § 53), (http://legislature.vermont.gov/statutes/section/30/002/00053) It is the energy code for all commercial buildings and residential building 4 stories or greater above grade in Vermont, and took effect January 1, 2007.

On March 1, 2015 an update to CBES takes effect, which applies to all new commercial building construction, additions, alterations, renovations, and repairs. The 2015 Vermont Commercial Building Energy Standards is available as the energy code handbook; it is a standalone document for the State of Vermont based upon amendments to the International Energy Conservation Code® 2015 Supplement. The CBES also allows an alternative compliance path of ASHRAE 90.1 2013 with some Vermont specific requirements outlined in the energy code handbook. A limited number of hard copies are available from the Energy Code Assistance Center on 1-855-887-0673 and a free for viewing electronic copy is available on the ICC website.

30 V.S.A. §53 requires certification that both the design AND the construction of a commercial building is in compliance with the CBES. The design shall be certified by the primary designer; if a licensed professional engineer or a licensed architect is not involved in designing the project, certification shall be issued by the builder. The construction of a commercial building shall be certified as compliant with CBES by the party having primary responsibility for constructing the construction of the building, such as a
general contractor or construction manager. In the absence of such a party, the owner must certify compliance. The certifying person may reasonably rely on one or more supporting affidavits received from subcontractors or others engaged in the construction or design of the commercial building affirming that the portions of the building constructed by them were properly certifiable. Certifications must be accompanied by affidavits certifying that the building was designed and constructed in substantial compliance with the requirements of the CBES. To meet certification requirements, a CBES Certificate and a CBES Affidavit must be completed and sent to the Department of Public Service along with the appropriate supporting documentation. Further, certification must be permanently affixed to the outside of the heating or cooling equipment, to the electrical service panel located inside the building, or in a visible location in the vicinity of one of these three areas.

2015 Vermont Commercial Building Energy Standards: Compliance Documents & Tools

- [COMcheck Software](https://www.energycodes.gov/comcheck) (listed under Vermont 2014)
- [COMcheck-Web](https://energycode.pnl.gov/COMcheckWeb/): (listed under Vermont 2014)

Training

2015 Commercial Energy Code Workshops

These are three-hour training sessions that will provide an overview of the recent changes to Vermont's Commercial Energy Code. Effective March 1, the 2015 Vermont Commercial Building Standards (CBES) supersedes the 2011 version, and includes new sections on applying the code to existing and historic buildings. Major changes and their impact on projects will be discussed, along with a review of opportunities for exceeding code requirements. These workshops are intended for anyone involved in commercial design and construction, will provide 3 hours of AIA continuing education (LU/HSW) credits, and are free to attend.
2011 Vermont Commercial Building Energy Standards: Compliance Documents & Tools

The 2005 Affidavit is being accepted by the Public Service Department while the compliance software is being updated. This information will be updated with the 2011 Affidavit and instructions upon the availability of the Vermont compliant 2011 COMCheck software.

- **COMcheck Software** ([http://www.energycodes.gov/comcheck](http://www.energycodes.gov/comcheck)): Free downloadable software developed by the Department of Energy that can be used to demonstrate code compliance.
- **COMcheck-Web**: Free online software developed by the Department of Energy that can be used to demonstrate code compliance. There have been errors reported within this software. Please use the downloadable version for COMcheck compliance path.

**Energy Code Update Process**

Vermont law requires that the commercial energy code (CBES) be updated every three years, this process has now begun and is expected to continue through 2014. On June 17, 2013, the Vermont legislature adopted **Act 89** ([/sites/dps/files/documents/Energy_Efficiency/June%202013%20ACT089.pdf](/sites/dps/files/documents/Energy_Efficiency/June%202013%20ACT089.pdf)), which clarifies the applicability of Vermont’s commercial (and residential) building energy codes to mixed-use buildings and includes various amendments to promote compliance with those codes, such as using existing State and local permit processes to encourage compliance.

**Other Resources**

- **Building Codes Assistance Project (BCAP)** ([http://bcap-energy.org/](http://bcap-energy.org/))

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**MENU**
• Illuminating Engineering Society of North America (IES) (http://www.ies.org/)
• International Code Council (ICC) (http://www.iccsafe.org/Pages/default.aspx) (for electronic copies of the updated Vermont Commercial Energy Codebook)
• Energy Code Assistance Center: 1-855-887-0673

For more information contact Barry Murphy at barry.murphy@vermont.gov or 802-828-3183.

Department of Public Service

June Tierney, Commissioner
112 State Street
Montpelier, VT
05620-2601

For questions, to submit comments or to file a complaint, please go to our Contact page.
VT COMMERCIAL BUILDING ENERGY STANDARDS (CBES) CERTIFICATE
This certificate is for projects whose state or local permit application was submitted on or after March 1, 2015
Before completing this form, refer to the instructions

<table>
<thead>
<tr>
<th>Site Address (street, town, ZIP Code)</th>
<th>County</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Construction Start Date</th>
<th>Construction Finish Date</th>
<th>Project Description</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Building Sq. Ft.</th>
<th># of Stories Above Grade</th>
<th>Act 250 Permit #</th>
</tr>
</thead>
</table>

The premise listed above has been designed and constructed in substantial compliance with the requirements of the Vermont Commercial Building Energy Standards created under 30 V.S.A. § 53.

The method used to determine code compliance to the 2015 Vermont Commercial Building Energy Standards:

<table>
<thead>
<tr>
<th>Select One</th>
<th>Compliance Path</th>
<th>Required Compliance Documentation*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2015 CBES (Chapter 4)</td>
<td>COMcheck™ Software Version TBD or newer or COMcheck-Web™ Results Report</td>
</tr>
<tr>
<td></td>
<td>ASHRAE 90.1-2013 (with CBES amendments as noted in Section 401.2.1)</td>
<td>COMcheck™ Software Version TBD or newer or COMcheck-Web™ Results Report</td>
</tr>
<tr>
<td></td>
<td>ASHRAE/IESNA Standard 90.1–2013 Energy Cost Budget Method – Simulation Program</td>
<td>All documentation as noted in Section 11.1.5 Documentation Requirements of ASHRAE 90.1-2013</td>
</tr>
<tr>
<td></td>
<td>Above-Code Program Prescriptive</td>
<td>Contact Vermont DPS for approval of above-code program</td>
</tr>
</tbody>
</table>

* See supporting documentation requirements below

I certify that the above information is correct and that the premises listed HAVE been DESIGNED in accordance with the Vermont Commercial Building Standards (CBES) created under 30 V.S.A. § 53.

Signature
Print Name

Company
Phone #
Date

I certify that the above information is correct and that the premises listed HAVE been CONSTRUCTED in accordance with the ordinary standard of care applicable to the participating construction trades, and that the subject commercial building was constructed substantially in accordance with the construction documents including the plans and specifications certified herein, and in accordance to 30 V.S.A. §53

Signature
Print Name

Company
Phone #
Date

30 V.S.A. §53 requires this certificate label to be permanently affixed to the inside electrical service panel or heating or cooling equipment or nearby in a visible location. In addition an affidavit shall accompany this certificate, certifying that the commercial construction meets the CBES requirements. Copies of the certificate and affidavit shall be provided to the Dept. of Public Service, Energy Efficiency Division, 112 State St., Montpelier, VT 05620-2601

NOTE: Noncompliance with CBES may result in action for damages under 30 V.S.A. §53. This label does not specify all 2015 CBES requirements.

QUESTIONS? CALL THE VERMONT DEPARTMENT OF PUBLIC SERVICE: 800-642-3281 (in state) OR 802-828-4056 (out of state)
I certify the premise listed above has been constructed in accordance with the ordinary standard of care applicable to the participating construction trades, and that the subject commercial building was constructed substantially in accordance with the construction documents including the plans and specifications certified herein, and in accordance to 30 V.S.A. §53.

Signature  
Print Name

Company  
Phone #  
Date

Subscribed and sworn to before me:

Signature of Notary  
Date  
Expiration Date

30 V.S.A. §53 requires this affidavit certifying that the commercial construction meets the CBES requirements. Copies of the affidavit and supporting documentation demonstrating code compliance shall be provided to the Dept. of Public Service, Energy Efficiency Division, 112 State St., Montpelier, VT 05620-2601
<table>
<thead>
<tr>
<th>Site Address (street, town, ZIP Code)</th>
<th>County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Start Date</td>
<td>Construction Finish Date</td>
</tr>
<tr>
<td>Building Sq. Ft.</td>
<td># of Stories Above Grade</td>
</tr>
</tbody>
</table>

I certify the premise listed above has been **designed** in accordance with the designer’s professional duty of care, and that the building was designed in substantial compliance with the requirements of the Vermont Commercial Building Energy Standards (CBES) created under 30 V.S.A. § 53.

Signature

Print Name

Company

Phone #

Date

Subscribed and sworn to before me:

Signature of Notary

Date

Expiration Date

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30 V.S.A. §53 requires this affidavit certifying that the commercial construction design meets the CBES requirements. Copies of the affidavit and supporting documentation demonstrating code compliance shall be provided to the Dept. of Public Service, Energy Efficiency Division, 112 State St., Montpelier, VT 05620-2601
The following supporting documentation shall accompany this certificate depending on which code compliance method was used:

<table>
<thead>
<tr>
<th>Compliance Path</th>
<th>Required Compliance Documentation</th>
</tr>
</thead>
</table>
| 2015 CBES (Chapter 4) OR ASHRAE 90.1-2013 (with CBES amendments as noted in Section 401.2.1)¹ | COMcheck™ Software Version TBD or newer or COMcheck-Web™ Results Report, including, where applicable:²  
  - COMcheck Envelope Compliance Certificate³  
  - COMcheck Interior Lighting Compliance Certificate  
  - COMcheck Exterior Lighting Certificate  
  - COMcheck Mechanical Compliance Certificate  
  - COMcheck Mechanical Requirements Description                                                                 |
| ASHRAE/IESNA Standard 90.1–2013 Energy Cost Budget Method – Simulation Program | All documentation as noted in Section 11.1.5 Documentation Requirements of ASHRAE 90.1-2013                                                       |
| Above-Code Program                                                              | Contact Vermont DPS for approval of above-code program and required documentation.                  |

1. If using ASHRAE 90.1-2013 as the compliance path, it is the responsibility of the designer to ensure that the project complies with CBES amendments noted in Section 401.2.1. COMcheck will check compliance against ASHRAE 90.1-2013, excluding the CBES amendments.

2. Addition/alteration/renovation/repair projects (as described in 2015 CBES Chapter 5) only need to include COMcheck compliance sections for building systems, or portions thereof, altered in the project.

3. Certain minimum cavity insulation R-values, published in 2015 CBES, when entered into COMCheck, will not register as a passing system. This will happen for certain combinations of assembly types and insulation values due to the calculation methods used in COMcheck. If this occurs, describe the assembly component and the 2015 CBES published minimum R-value in the COMcheck project notes.
Instructions for Completing the Vermont Commercial Building Energy Standards Certificate

Read these instructions in their entirety before completing the Vermont CBES Certificate. Items are listed in **bold** in the order they appear on the certificate.

1. List the building **Site Address**.
2. List the **County** the building is located in.
3. List the **Construction Start Date** by Month/Year; the construction start date is when site work began to prepare for the building foundation or slab.
4. List the **Construction Finish Date** by Month/Year; the construction finish date is when the building is sufficiently ready for occupancy.
5. List the **Project Description**, (i.e. office building, retail store, etc.).
6. List the **Building Sq. Ft**.
7. List the **# of Stories Above Grade**.
8. If the building received an Act 250 Permit, list the **Act 250 Permit #**, if not check N/A.
9. Select the **method used to determine code compliance** by checking off the box of which method was used.
10. **Designer Certification Signature**: this is the signature of the primary designer of the building (e.g. professional engineer, licensed architect, or other licensed professional) to certify compliance with CBES. If a licensed professional engineer or a licensed architect is not involved in designing the project, certification shall be issued by the builder.
11. **Construction Certification Signature**: the signature of the general contractor, construction manager, or other party having primary responsibility for coordinating construction; or in the absence of such a person, by the building owner to certify construction of building is in compliance with CBES.
12. **Print** the **Name** of the person whose signature is presented.
13. List the **Company**, the business name of the party certifying code compliance.
14. List the **Phone #** of the Company certifying code compliance (including area code).
15. List the **Date** the certificate was signed and completed.
16. **30 V.S.A. §53** requires this certificate label to be **permanently affixed** to the inside electrical service panel or heating or cooling equipment or nearby in a visible location.
17. Copies of the certificate and affidavit shall be provided to the Dept. of Public Service, Energy Efficiency Division, 112 State St., Montpelier, VT 05620-2601

QUESTIONS? CALL THE VERMONT DEPARTMENT OF PUBLIC SERVICE: 800-642-3281 (in state) OR 802-828-4056 (out of state)
Instructions for Completing the Vermont Commercial Building Energy Standards Construction Affidavit

Read these instructions in their entirety before completing the Vermont CBES Affidavit. Items are listed in bold in the order they appear on the Affidavit.

1. List the building Site Address.
2. List the County the building is located in.
3. List the Construction Start Date by Month/Year; the construction start date is when site work began to prepare for the building foundation or slab.
4. List the Construction Finish Date by Month/Year; the construction finish date is when the building is sufficiently ready for occupancy.
5. List the Project Description, (i.e. office building, retail store, etc.).
7. List the # of Stories Above Grade.
8. If the building received an Act 250 Permit, list the Act 250 Permit #, if not check N/A.
9. Signature, this is the signature of either the builder who directed construction or of another party authorized to certify code compliance. Note: The builder or general contractor may reasonably rely on affidavits from subcontractors or other persons that contributed to the construction affirming that the portions of the construction produced by them were properly certifiable under CBES.
10. Print the Name of the person whose signature is presented.
11. List the Company, the business name of the party certifying code compliance.
12. List the Phone # of the Company certifying code compliance (including area code).
13. List the Date the certificate was signed and completed.
14. Signature of Notary, the Affidavit shall be signed by a Notary
15. List the Date the Notary signed the Affidavit.
16. List the Expiration Date of the Notary’s License.
17. Copies of the affidavit and supporting documentation shall be provided to the Dept. of Public Service, Energy Efficiency Division, 112 State St., Montpelier, VT 05620-2601

QUESTIONS? CALL THE VERMONT DEPARTMENT OF PUBLIC SERVICE: 800-642-3281 (in state) OR 802-828-4056 (out of state)
Instructions for Completing the Vermont Commercial Building Energy Standards Design Affidavit

Read these instructions in their entirety before completing the Vermont CBES Affidavit. Items are listed in **bold** in the order they appear on the Affidavit.

1. List the building **Site Address**.
2. List the **County** the building is located in.
3. List the **Construction Start Date** by Month/Year; the construction start date is when site work began to prepare for the building foundation or slab.
4. List the **Construction Finish Date** by Month/Year; the construction finish date is when the building is sufficiently ready for occupancy.
5. List the **Project Description**, (i.e. office building, retail store, etc.).
6. List the **Building Sq. Ft.**
7. List the **# of Stories Above Grade**.
8. If the building received an Act 250 Permit, list the **Act 250 Permit #**, if not check **N/A**.
9. **Signature**, this is the signature of the primary designer of the building (e.g. professional engineer, licensed architect, or other licensed professional) to certify compliance with CBES. If a licensed professional engineer or a licensed architect is not involved in designing the project, certification shall be issued by the builder. Note: The certifying person may reasonably rely on affidavits from subcontractors or other persons that contributed to the design of the building affirming that the portions of the design produced by them were properly certifiable under CBES.
10. **Print** the **Name** of the person whose signature is presented.
11. List the **Company**, the business name of the party certifying code compliance.
12. List the **Phone #** of the Company certifying code compliance (including area code).
13. List the **Date** the certificate was signed and completed.
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