

**Resolution to Update the Virginia Tech Climate Action Commitment  
Commission on University Support  
Resolution 2012-13D**

First Reading by the Commission on University Support:	April 11, 2013
Approved by the Commission on University Support:	April 18, 2013
First Reading by the University Council:	April 29, 2013
Approved by the University Council:	May 6, 2013
Approved by the President:	May 6, 2013
Effective Date:	Upon Approval by the President

**WHEREAS**, the Virginia Tech Climate Action Commitment (VTCAC) was approved by the Board of Visitors on June 1, 2009; and

**WHEREAS**, the initial phase (2009-2012) of the VTCAC implementation plan has elapsed; and

**WHEREAS**, the Energy & Sustainability Committee (E&SC) established a subcommittee in the spring of 2012 to review the language of the VTCAC and recommend changes; and

**WHEREAS**, the E&SC subcommittee recommended several updates, as outlined in the attached; and

**WHEREAS**, the full E&SC has reviewed and recommended the proposed changes to the VTCAC for University Council approval;

**THEREFORE LET IT BE RESOLVED**, that the Virginia Tech Climate Action Commitment be amended as outlined in the attached;

**AND BE IT FURTHER RESOLVED**, that the changes take effect in May 2013.

**Energy and Sustainability Subcommittee  
Virginia Tech Climate Action Commitment Resolution  
Recommended Resolution Changes**

Version Date: 2/25/2013

VTCAC Resolution #	Existing VTCAC Resolution	Recommended VTCAC Resolution Changes	Rationale for Recommended Changes
1	Virginia Tech will be a Leader in Campus Sustainability.	<p><b>Recommended Change in VTCAC wording:</b></p> <p>Virginia Tech will be a Leader in Campus Sustainability. Sustainability is an integral part of the fabric of the university as it pursues enhanced economic stability and affordability, diversity and inclusion, environmental stewardship, expansion of knowledge, and education of future leaders.</p>	Addition of the new Virginia Tech sustainability vision to clarify what it means to "be a leader in campus sustainability."
2	The university will represent the VTCAC&SP in the Virginia Tech Strategic Plan.	<p><b>Recommended Change in VTCAC wording:</b></p> <p>Virginia Tech will represent the VTCAC&amp;SP in the university Strategic Plan.</p>	Minor change of wording from "the university" to "Virginia Tech" for consistency with all Resolutions.
3	Virginia Tech will establish a target for reduction of campus GHG emissions to 80% below 1990 emission level by 2050, and interim targets from 2006 emissions of 316,000 tons consistent with the Virginia Energy Plan, the Governor's Commission on Climate Change, the Town of Blacksburg, and the federal administration: for 2012, 295,000 tons (on path to 2025 target); for 2025, 255,000 tons (2000 emission level); and for 2050, 38,000 tons (80% below 1990 emission level).	<p><b>Recommended Change in VTCAC Wording:</b></p> <p>Virginia Tech will establish a target for reduction of campus GHG emissions to 80% below 1990 emission level of 188,000 tons consistent with the Virginia Energy Plan, the Governor's Commission on Climate Change, the Town of Blacksburg, and the federal administration: by 2050, and interim targets from 2006 emissions of 316,000 tons for 2012, 295,000 tons (on path to 2025 target); for 2025, 255,000 tons (2000 emission level); and for 2050, 38,000 tons (80% below 1990 emission level).</p>	Minor language changes to add the 1990 emissions level and to remove references to programs that no longer exist.

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4	Virginia Tech will work toward these emission reduction targets through improved energy efficiency, reduction of energy waste, replacement of high-carbon fuels, and other measures identified in the VTCAC&SP.	<p><b>Recommendation: No change in VTCAC wording.</b></p> <p>Virginia Tech will work toward these emission reduction targets through improved energy efficiency, reduction of energy waste, replacement of high-carbon fuels, and other measures identified in the VTCAC&amp;SP.</p>	n/a - No change
5	Virginia Tech will establish an Office of Sustainability to <ul style="list-style-type: none"> <li>a. Coordinate programs for campus sustainability,</li> <li>b. Oversee implementation of the VTCAC&amp;SP,</li> <li>c. Monitor annual electricity and other energy use and GHG emissions, and</li> <li>d. Working with faculty and departments, manage a campus-wide student internship and undergraduate research program using the campus as a sustainability laboratory</li> </ul>	<p><b>Recommended Change in VTCAC Wording:</b></p> <p>Virginia Tech will <b>maintain a sustainability office</b> to:</p> <ul style="list-style-type: none"> <li>a. Coordinate programs for campus sustainability,</li> <li>b. Oversee implementation of the VTCAC&amp;SP,</li> <li>c. Monitor annual electricity and other energy use and GHG emissions,</li> <li>d. Working with faculty and departments, manage a campus-wide student internship and undergraduate research program using the campus as a sustainability laboratory, and</li> <li>e. <b>Coordinate communication regarding campus sustainability initiatives and programs to the university community and external audiences.</b></li> </ul>	<p>Minor change of the wording "Office of Sustainability" to "sustainability office." The goal is to keep the Resolution language general in nature to allow for unforeseen changes in the future. For example, the name of the original "Office of Sustainability" has already been changed to the "Office of Energy and Sustainability."</p> <p>Addition of 5.e to include communicating sustainability initiatives to the university community and to external audiences. This is already a major effort of the Office of Energy and Sustainability through programs such as AASHE STARS, The Princeton Review, and internal sources such as VT News articles and outreach. This should be a stated objective of the Office of Energy and Sustainability to reflect existing practices and further emphasize the importance of communicating sustainability initiatives.</p>
6	Virginia Tech will pursue LEED Silver certification or better and exceed ASHRAE 90.1 2004 energy performance by 35% (ASHRAE 90.1 2007 by 30%) for all new buildings and major renovations. Capital budgets should account for future energy price, cost of building operation, return on investment, and environmental benefits of achieving this level of performance.	<p><b>Recommended Change in VTCAC Wording:</b></p> <p>Virginia Tech will <b>improve the sustainability of its built environment by:</b></p> <ul style="list-style-type: none"> <li>a. <b>Achieving <del>pursue</del> LEED Silver certification or better for all eligible and applicable</b> new buildings and major renovations.</li> <li>b. <b>Evaluating the feasibility of LEED for Existing Buildings certification for its existing buildings.</b></li> </ul>	<p>Relocated information regarding ASHRAE to Resolution #7 (please see below) with the intent of strengthening LEED focus in #6 and campus energy focus in #7.</p> <p>Although the university has met its objectives on the LEED part of Resolution #6, it has not been exceeding ASHRAE 90.1 by the 30-35% range indicated (LEED silver certification can be readily achieved without pursuing LEED's energy efficiency measures).</p>

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7	<p>Virginia Tech will improve electricity and heating efficiency of campus facilities and their operations, including the heating and cooling infrastructure and operation, lighting efficiency, controls and operation, and equipment efficiency and controls.</p>	<p><b>Recommended Change in VTCAC Wording:</b></p> <p>Virginia Tech will improve electricity and heating efficiency of campus facilities and their operations <b>by:</b></p> <p>a. <b>Exceeding the most current version of ASHRAE 90.1 energy performance by 10% for all new buildings and major renovations. Capital budgets should account for future energy price, life cycle cost of building operation, return on investment, and environmental benefits of achieving this level of performance.</b></p> <p>b. Improving the heating and cooling infrastructure and operation, lighting efficiency, equipment efficiency, and metering and controls of its existing buildings.</p>	<p>Information regarding ASHRAE from Resolution #6 was relocated to Resolution #7.</p> <p>“ASHRAE 90.1 2004” reference was changed to “the most current version of ASHRAE 90.1” due to periodic revising of the standard.</p> <p>Past LEED buildings have used the best “state of the shelf technology”, which exceeds ASHRAE 90.1 in the range of 10-15%. To reach 30-35%, the university would have to switch to “state of the art technology” which will require university cultural and financial changes.</p> <p>A reduced percentage of exceeding ASHRAE 90.1 by 10% is felt to be aggressive, yet attainable.</p>
8	<p>The university will adopt at least 4 reduction measures in the Waste Minimization component of the national RecycleMania competition. Virginia Tech Recycling will adopt a goal of 35% recycle rate by 2012 and 50% by 2025.</p>	<p><b>Recommended Change in VTCAC Wording:</b></p> <p>Virginia Tech will <b>minimize waste</b> and achieve a 50% recycle rate by <b>2020</b>.</p>	<p>Virginia Tech has consistently exceeded both the four waste reduction measures for RecycleMania, as well as the 35% recycle rate goal, since 2009.</p> <p>The information regarding RecycleMania was moved from the Resolution to an action/measure in the Sustainability Plan because it is a specific program that may change over time.</p> <p>Using the Commonwealth of Virginia Department of Environmental Quality Calendar Year Locality Recycling Rate formula, the university achieved recycling rates of 36.5%, 37.5%, and 40.1% for calendar years 2009, 2010, and 2011 respectively, and is well on track to achieve the proposed rate of 50% by 2020.</p>

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9	Virginia Tech will require purchase of Energy Star rated equipment, maximum practicable recycled-content paper, and other low life-cycle cost products, with exceptions for special uses.	<p><b>Recommended Change in VTCAC Wording:</b></p> <p>Virginia Tech will:</p> <p>a. Require purchase or lease of Energy Star rated equipment and maximum practicable recycled content paper, <b>in accordance with University Policy 5505</b>, with exceptions for special uses.</p> <p><b>b. Consider a product's life cycle cost and impact when making purchasing decisions.</b></p>	The resolution was separated out into two components to highlight that 9.a. is mandated through existing Policy 5505 and that 9.b. is recommended.
10	Virginia Tech will engage students, faculty and staff through education and involvement to reduce consumption of energy water, and materials in academic and research buildings, dining and residence halls, and other facilities.	<p><b>Recommended Change in VTCAC Wording:</b></p> <p>Virginia Tech will engage students, faculty, and staff through education and involvement <b>to develop and implement innovative strategies for efficient and sustainable use</b> of energy, water, and materials in <b>all university-owned</b> facilities.</p>	Minor grammar changes and clarifications to the intent of the existing Resolution.
11	Virginia Tech will improve transportation energy efficiency on campus through parking, fleet, and alternative transportation policies. Alternative transportation use will increase from the current level of 45%, to a goal of 52% in 2015, and 60% in 2020.	<p><b>Recommended Change in VTCAC Wording:</b></p> <p>Virginia Tech will improve transportation energy efficiency on campus through parking, fleet, and alternative transportation policies <b>and practices. The university will continue to implement programs that encourage the use of alternative transportation methods and will continue to implement programs and services that promote eco-responsible fleet management.</b></p>	Change in wording to keep the Resolution language more general in nature to allow for possible changes in methodology.
12	The university will create and support a virtual Virginia Tech School of Sustainability or similar mechanism to coordinate, develop, and communicate related instructional, research, and outreach academic programs.	<p><b>Recommended Change in VTCAC wording:</b></p> <p><b>Virginia Tech will continue to develop and implement innovative sustainability-related academic programs in instruction, research, and outreach, and will coordinate and communicate these programs to the university community and external audiences.</b></p>	<p>Changes made to emphasize the ongoing efforts of the academic community and the importance of communicating sustainability-related initiatives.</p> <p>The "virtual Virginia Tech School of Sustainability" wording was removed since this is no longer being pursued.</p>

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13	<p>The university will monitor energy use and GHG emissions as well as changing internal and external conditions, prepare an annual 'report card' showing progress towards targets, and periodically re-evaluate targets, making adjustments to targets as appropriate based on changing internal and external conditions and evolving technologies.</p>	<p><b>Recommended Change in VTCAC wording:</b></p> <p>Virginia Tech will monitor energy use and GHG emissions as well as changing internal and external conditions, prepare an annual 'report card' showing progress towards targets, and periodically re-evaluate targets, making adjustments to targets as appropriate based on changing internal and external conditions and evolving technologies.</p>	<p>Minor change of wording from "the university" to "Virginia Tech" for consistency with all Resolutions.</p>
14	<p>With regard to all the items in this resolution, major personnel and investment decisions, including capital projects, associated with implementing the VTCAC&amp;SP will be based on a joint review of costs and benefits by university financial and facilities staff and be subject to availability of funds. Virginia Tech will provide funding to support sustainability programs through a variety of sources, which might include savings from reduced electricity and energy fuels, E&amp;G funds, loans, a Green Development Fund from private sources, and a student Green Fee.</p>	<p><b>Recommended Change in VTCAC wording:</b></p> <p>Virginia Tech will work to provide funding to support sustainability programs. With regard to all the items in this resolution, major personnel and investment decisions, including capital projects, associated with implementing the VTCAC&amp;SP will be based on a joint review of costs and benefits by university financial and facilities staff and be subject to availability of funds. <del>Virginia Tech will provide funding to support sustainability programs through a variety of sources, which might include savings from reduced electricity and energy fuels, E&amp;G funds, loans, a Green Development Fund from private sources, and a student Green Fee.</del></p>	<p>Resolution wording was reordered for consistency with all Resolutions.</p> <p>Specific names of potential funding sources were removed to keep the Resolution language more general in nature to allow for unforeseen changes and/or additional funding mechanisms in the future.</p>

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<p><b>NEW</b> n/a</p>	<p>n/a</p>	<p><b>NEW: Virginia Tech Sustainability Definition, Vision, &amp; Mission.</b></p> <p><b>Sustainability Definition:</b> Sustainability is the simultaneous pursuit of environmental quality, economic prosperity, and social justice and equity, through action, education, and engagement to address current needs without compromising the capacity and needs of future generations.</p> <p><b>Sustainability Vision:</b> Virginia Tech serves as a model community for a sustainable society. Sustainability is an integral part of the fabric of the university as it pursues enhanced economic stability and affordability, diversity and inclusion, environmental stewardship, expansion of knowledge, and education of future leaders.</p> <p><b>Sustainability Mission:</b> The pursuit of sustainability is achieved through Virginia Tech's administration; physical environment and operations; student life and experience; campus culture and behavior; and academic learning, discovery, and engagement.</p>	<p>Create an official definition of sustainability that can be used throughout Virginia Tech, to be endorsed by the full Energy &amp; Sustainability Committee.</p>
<p><b>NEW</b> n/a</p>	<p>n/a</p>	<p><b>NEW: VTCAC Acronyms</b></p> <p>ASHRAE – American Society of Heating, Refrigerating and Air Conditioning Engineers</p> <p>GHG – Greenhouse Gas</p> <p>LEED – Leadership in Energy and Environmental Design</p> <p>VTCAC&amp;SP - Virginia Tech Climate Action Commitment &amp; Sustainability Plan</p>	<p>Include acronyms used within the VTCAC Resolution.</p>