MINUTES
GBI Consensus Body for New Construction- Call #6
Webinar/Teleconference
March 27, 2024, from 11:00 a.m. to 1:00 p.m. ET

NOTE ALL TIMES ARE EASTERN TIME

Consensus Body Members in Attendance

Full Name	Company	3/27/24	3/6/24	3/4/24	3/8/23	3/1/23	10/13/22
Senthil Arunachalam	BTU Engineers, LLC	N/A	N/A	N/A	N/A	N/A	X
Jeff Bradley	American Wood Council	X	X	X (left early)	X	X	X (arrived late)
Karen Butler	EPA, Office of Air and Radiation	X	X	X	X	X	X
Virgil Campaneria (Chair)	Gurri Matute PA	Absent	X	X	X	X	X
Michael Cudahy	PPFA - PPEF	X	X	Absent	X	X	X
Larry Eisenberg	Ovus Partners 360	X	X	X	X (Proxy Shymko)	X	X
Tehmina Husain	Merrick and Company	N/A	Absent	Absent	X	Absent	Absent
Josh Jacobs	WAP Sustainability	X	X	X	Absent	Absent	X
Ashley Langenfeld	Hoefer Welker	X	X	X	X	X	X (arrived late, left early)
Michael Lehman	ConTech Lighting	Absent	Absent	X	X	X	X
John Mullen	IAPMO	X (Proxy Tin)	X	X	X	X	X
James O'Brien	Independent Environmental Consultant	X (Acting Chair)	X	X	X	X	X
Thomas Pape	BMP (representing AWE)	N/A	N/A	N/A	N/A	N/A	Absent
Max Puchtel	American Institute of Steel Construction	X	X	X	Absent	X (left early)	X

Jane Rohde	JSR Associates, Inc. (representing RFCI)	X	Absent	X	Absent	X	Absent
Gord Shymko	G. F. Shymko & Associates Inc.	N/A	N/A	N/A	X	X	X
Stephen Szoke	American Concrete Institute	X (Proxy Puchtel)	X	X	X	X	X
Sumayyah Theron	Cyclone Energy Group	X	X	X (left early)	N/A	N/A	N/A
Angela Tin	American Lung Association	X	X	X	X	X (Proxy O'Brien)	X

Voting Alternates in Attendance

Full Name	Organization	3/27/24	3/6/24	3/4/24	3/8/23	3/1/23	10/13/22
John Cross	American Institute of Steel Construction				X		X

Interested Parties in Attendance

Full Name	Organization	3/27/24	3/6/24	3/4/24	3/8/23	3/1/23	10/13/22
Rob Brooks	Rob Brooks Associate						X
Ron Burke	Alliance for Water Efficiency				X		
Steve Kooy	BIFMA						X
Viken Koukounian	Parklane Mechanical Acoustics	X (arrived late)			X		
Matthew Lemay	NRMCA						X
Julian Mills – Beale	NRMCA				X		
Niklas Moeller	LogiSon Acoustic Network			X			

Staff in Attendance

Full Name	Organization	3/27/24	3/6/24	3/4/24	3/8/23	3/1/23	10/13/22
Emily Marx	Secretariat, GBI	X	X	X	X	X	X
Sara Rademacher	Staff, GBI	X		X	X	X	X

Micah Thomas	Staff, GBI		X				

Roll Call & Welcome
Secretariat Emily Marx welcomed everyone to the meeting, reviewed the GBI Anti-Trust Policy, Code of Conduct policy and notified participants that the call was being recorded for the purpose of preparing minutes. No objections or concerns were raised.

Marx reviewed the Consensus Body for New Construction roster and noted the three interest categories, General Interest, Producer, and User. She stated that there is balance on the Consensus Body for New Construction.

Administrative Items
Interim Chair James O'Brien thanked everyone for attending the meeting. O'Brien reviewed the agenda and asked if anyone had any comments or concerns. There were no comments or concerns.

MOTION: A Motion was made, seconded, and carried unanimously to approve the agenda as presented.

Ashley Langenfeld joined the meeting

Energy Proposed Revision Review
The secretariat reviewed each proposed revision before a motion was made.

Energy-201
Proposed Revision: •8.1.1B Performance – ENERGY STAR® Benchmarking in Target Finder~~: MURBS and Offices~~: Up to 180 points
8.1.1B ENERGY STAR® BENCHMARKING in Target Finder: ~~– MURBS AND OFFICES~~ (180 points)

8.1.1B.1 The ENERGY STAR® score of the proposed design ~~building~~ is ~~75~~ 80 or greater for a mixed use multi-family and multi-family building benchmarked in Target Finder ~~MURB; and 80 or greater for an office building~~ as determined by whole building energy modeling in accordance with the modeling guidelines prescribed in ANSI/ASHRAE/IES Standard 90.1-2010 Appendix G.

~~For MURBs and Office buildings only.~~

Maximum = 180 points
• One hundred eighty points are earned for an ENERGY STAR® score of ~~97~~98 to 100 for a mixed use multi-family and multi-family building ~~MURB~~.
• One hundred seventy-five points are earned for an ENERGY STAR® score of ~~95 to~~ 96 to 97 for a mixed use multi-family and multi-family building ~~MURB~~.

• One hundred sixty-eight points are earned for an ENERGY STAR® score of ~~93 to~~ 94 to 95 for a mixed use multi-family and multi-family building ~~MURB~~.
• One hundred sixty-one points are earned for an ENERGY STAR® score of ~~91 to~~ 92 to 93 for a mixed use multi-family and multi-family building ~~MURB~~.
• One hundred fifty-four points are earned for an ENERGY STAR® score of ~~89 to~~ 90 to 91 for a mixed use multi-family and multi-family building ~~MURB~~.
• One hundred forty-seven points are earned for an ENERGY STAR® score of ~~87 to~~ 88 to 89 for a mixed use multi-family and multi-family building ~~MURB~~.
• One hundred forty points are earned for an ENERGY STAR® score of ~~85 to~~ 86 to 87 for a mixed use multi-family and multi-family building ~~MURB~~.
• One hundred thirty-three points are earned for an ENERGY STAR® score of ~~83 to~~ 84 to 85 for a mixed use multi-family and multi-family building ~~MURB~~.
• One hundred twenty-six points are earned for an ENERGY STAR® score of ~~81 to~~ 82 to 83 for a mixed use multi-family and multi-family building ~~MURB~~.
• One hundred nineteen points are earned for an ENERGY STAR® score of ~~79 to~~ 80 to 81 for a mixed use multi-family and multi-family building ~~MURB~~.
~~• One hundred twelve points are earned for an ENERGY STAR® score of 77 to 78 for a MURB.~~
~~• One hundred five points are earned for an ENERGY STAR® score of 75 to 76 for a MURB.~~
• No points are earned for an ENERGY STAR® score <~~75~~ 80 for a mixed use multi-family and multi-family building ~~MURB~~.

~~• One hundred eighty points are earned for an ENERGY STAR® score of 98 to 100 for an office building.~~
~~• One hundred seventy points are earned for an ENERGY STAR® score of 96 to 97 for an office building.~~
~~• One hundred fifty points are earned for an ENERGY STAR® score of 94 to 95 for an office building.~~
~~• One hundred thirty points are earned for an ENERGY STAR® score of 92 to 93 for an office building.~~
~~• One hundred ten points are earned for an ENERGY STAR® score of 90 to 91 for an office building.~~
~~• Ninety points are earned for an ENERGY STAR® score of 88 to 89 for an office building.~~
~~• Seventy points are earned for an ENERGY STAR® score of 86 to 87 for an office building.~~
~~• Fifty points are earned for an ENERGY STAR® score of 84 to 85 for an office building.~~
~~• Thirty points are earned for an ENERGY STAR® score of 82 to 83 for an office building.~~
~~• Ten points are earned for an ENERGY STAR® score of 80 to 81 for an office building.~~
~~• No points are earned for an ENERGY STAR® score of <80 for an office building.~~

Reason: Remove Offices option to reduce confusion and unalignment of point allocations. Increase to 80 to keep in line with EPA.

MOTION: The Motion was made and seconded to accept the proposed revision.

Discussion took place on the Motion:

- A member noted that multi-use buildings and multi-family buildings are very different and should not be co-mingled. She also noted that it may not be possible for new construction buildings to complete benchmarking which may entail a certain number of years of data.

- There was discussion on the use of the terms, and it was agreed to update the revision to "mixed use multi-family and multi-family building."
- There was discussion on the term benchmarking, but it was argued that the benchmarking term used by clients may be different than that of the EPA.
- It was argued that Target Finder should be included in the criteria.
- The final wording of the criteria was agreed upon.

VOTE: The Motion carries with 10 in favor, 0 opposed, 2 abstained.

Abstain: Josh Jacobs, Stephen Szoke

Energy-202

Proposed Revision: 8.1.1C PATH C - ENERGY STAR® BENCHMARKING – MURBS AND OFFICES (180 points)

Discussion took place on the Editorial Revision:

- There were no concerns for the editorial revision.

Energy-203

Proposed Revision: Maximum = 3 points ~~or N/A~~

• Three points are earned where ≥90% of light fixtures have continuously dimmable light reduction controls.

•Two points are earned where ≥90% of the of light fixtures have light reduction controls based multi-level lighting;

• One point is earned where there is bi-level control.

Reason: N/A was formally removed in March 2023.

MOTION: The Motion was made and seconded to accept the proposed revision.

Discussion took place on the Motion:

- There was no discussion.

VOTE: The Motion carries with 12 in favor, 0 opposed, 0 abstained.

Sumayyah Theron left the meeting.

Energy-204

Proposed Revision: off-site renewable energy: green power ~~or Renewable Energy Certificates (RECs)~~ Energy Attribute Certificates (EAC), Renewable Energy Certificates (RECs) or other similar instruments purchased from a third-party source such as an electrical utility. There is no physical renewable energy system either on site or specifically connected to the building.

Reason: First, the correct descriptor is Energy Attribute Certificates, not "Aligned Credits".

EACs are really very much the same thing as RECs, except that EAC markets operate outside of the US, and the REC market is pretty much US-based. EACs are not supplanting RECs. They're just another type of REC under a different name.

MOTION: The Motion was made and seconded to accept the proposed revision.

Discussion took place on the Motion:

- It was noted that there is a proposed revision for the criterion on RECs.

VOTE: The Motion carries with 7 in favor, 2 opposed, 2 abstained.

Opposed: Josh Jacobs, Stephen Szoke
Abstain: Karen Butler, Michael Cudahy

Energy-205

Proposed Revision: ~~Renewable Energy Certificates (RECs): renewable energy certificates (RECs) also known as renewable energy credits, green certificates, green tags, or tradable renewable certificates, represent the environmental attributes of the power produced from renewable energy projects and are sold separately from commodity electricity. Customers can buy green certificates whether or not they have access to green power through their local utility or a competitive electricity marketer and they can purchase RECs without having to switch electricity suppliers.~~

Reason: First, the correct descriptor is Energy Attribute Certificates, not "Aligned Credits".

EACs are really very much the same thing as RECs, except that EAC markets operate outside of the US, and the REC market is pretty much US-based. EACs are not supplanting RECs. They're just another type of REC under a different name.

MOTION: The Motion was made and seconded to accept the proposed revision.

Discussion took place on the Motion:

- It was agreed that EACs is a more well-known term outside of the US.
- It was also argued that EACs are a more understood term in the industry.
- It was noted that there is no definition for EACs in the New Construction standard.

VOTE: The Motion carries with 8 in favor, 2 opposed, 1 abstained.

Opposed: Josh Jacobs, Stephen Szoke
Abstain: Karen Butler

Energy-206

Proposed Revision: 8.4.2 OFF-SITE RENEWABLE ENERGY CREDITS
8.4.2.1 The building owner commits to signing a contract to purchase <u>off-site renewable energy from a certified third-party source</u> ~~Renewable Energy Certificates (RECs), either certified Green Power (US Dept. of Energy) listed renewable energy credit products or other certified RECs or carbon offsets~~, with a minimum three-year commitment.

Renewable energy supplied as part of a utility provider portfolio may be considered towards earning this credit for systems utilizing 10% or greater of power from appropriate sources.

Buildings using the prescriptive path and that don't otherwise have an energy model may base the percentage of renewable energy on median EUI from CBECS for the building type.

Reason: First, the correct descriptor is Energy Attribute Certificates, not "Aligned Credits".

EACs are really very much the same thing as RECs, except that EAC markets operate outside of the US, and the REC market is pretty much US-based. EACs are not supplanting RECs. They're just another type of REC under a different name.

MOTION: The Motion was made to reject the proposed revision.

WITHDRAWN: The Motion to reject the proposed revision was withdrawn.

Discussion took place before the Motion:

- It was argued that this is to make the criteria more generalized so it can be used outside of the US.

MOTION: The Motion was made and seconded to accept the proposed revision.

Discussion took place on the Motion:

- There was discussion that we should be encouraging onsite renewable energy installations more than RECs.
- It was argued that the intention of this change is to make the criteria more usable outside of the US.

VOTE: The Motion fails with 4 in favor, 6 opposed, 1 abstained.

Opposed: Jane Rohde, Josh Jacobs, Stephen Szoke, Karen Butler, Larry Eisenberg, Mike Cudahy
Abstain: Max Puchtel

Ashley Langenfeld left the meeting.

MOTION: The Motion was made and seconded to reject the proposed revision.

Discussion took place on the Motion:

- There was no discussion.

VOTE: The Motion carries with 6 in favor, 1 opposed, 3 abstained.

Opposed: Jeff Bradley
Abstain, Angela Tin, John Mullen, Max Puchtel

Energy-207

Proposed Revision: 8.3.3.2 Install a fault detection and diagnostic system (FDD) on HVAC and lighting systems, <u>if applicable,</u> with the ability to detect the following:

- Economizer operation;
- Simultaneous heating and cooling;
- Photocell malfunction; and
- Additional HVAC and lighting setpoints.

1 point or N/A

- Not applicable for buildings <u>less than 20,000 ft2.</u> ~~without a Building Automation System (BAS).~~

Reason: Assessor Feedback/question: Relative to the FDD, apparently it would have to cover both HVAC and lighting as stated as the four points apply partially to HVAC and partially to lighting. If it

was for only one system it would be no credit. Yes, I think "if applicable" should be added. I also think there should be an option for the client to select NA.

As an aside, I have had an issue with requiring FDD for both HVAC and lighting or you get nothing.
MOTION: The Motion was made and seconded to accept the proposed revision.
Discussion took place on the Motion:

- There was no discussion.

VOTE: The Motion carries with 10 in favor, 0 opposed, 0 abstained.

Ahsley Langenfeld and Sumayyah Theron re-joined the meeting.

Energy-208, Energy-209, Energy-210
Energy-208 Proposed Revision: 8.1.1 Assessing Energy Performance
~~Five~~ Six paths are provided for assessing energy performance. All paths provide a maximum of 180 points out of 180, except for Path F ~~E~~, which provides a maximum of 111 points out of 180. Select one of the paths below. Points cannot be combined between paths.
• 8.1.1A Path A: Performance - ANSI/ASHRAE/IES Standard 90.1~~-2013~~0, Appendix G~~. Other Baselines: or ANSI/ASHRAE/IES Standard 90.1~~ Appendix G – 90.1-201~~0~~3, 90.1-2016, or 90.1-2019 as translated using the Green Globes Energy Baseline Calculator~~: Up to 180 points
OR
• 8.1.1B Path B: Performance – International Energy Conservation Code (IECC)~~, 2012, 2015, 2018, 2021 as translated to ANSI/ASHRAE/IES Standard 90.1-2013, Appendix G (3.1.1A Path A), using the Green Globes Energy Baseline Calculator~~: Up to 180 points.
OR
• 8.1.1C~~B~~ PathC ~~B~~: Performance – ENERGY STAR® Benchmarking: MURBS~~ and Offices~~: Up to 180 points
OR
• 8.1.1D~~C~~ Path D~~C~~: Performance – ASHRAE Building EQ: Up to 180 points
OR
• 8.1.1E~~D~~ Path E~~D~~: Performance- Net Zero Carbon or Energy Certification: 180 points
OR
• 8.1.1F~~E~~ Path F~~E~~: Prescriptive: Up to111 points
Energy-208 Reason: Update all path lettering. Simplify Name, carry through out

Energy-209 Proposed Revision: 8.1.1A PATH A: ANSI/ASHRAE/IES STANDARD 90.1-201~~3~~0, APPENDIX G. Other Baselines: ~~OR~~ ANSI/ASHRAE/IES STANDARD Appendix G, 90.1-201~~3~~0, 90.1-2016, OR 90.1-2019, as translated using the Green Globes Energy Baseline Calculator (180 POINTS)
8.1.1A.1~~ The building complies with minimum performance based requirements of ANSI/ASHRAE/IES Standard 90.1-2010 or the 2012 IECC;~~ The proposed building complies with all minimum energy performance requirements of the Authority Having Jurisdiction.
AND

~~The building demonstrates an improvement over an ANSI/ASHRAE/IES Standard 90.1-2010 Appendix G baseline through the use of a whole-building energy modeling.~~ The Proposed building demonstrates an improvement over the ANSI/ASHRAE/IES Standard 90.1-2013 Appendix G Baseline through the use of whole-building energy modeling in accordance with Appendix G. For whole-building energy modeling in accordance with ANSI/ASHRAE/IES Standards 90.1-2010, 90.1-2016, or 90.1-2019 Appendix G (as may be dictated by the Authority Having Jurisdiction), the Green Globes Energy Baseline Calculator is used to estimate the ANSI/ASHRAE/IES Standard 90.1-2013 Appendix G baseline.

If there is no Authority Having Jurisdiction requirement for ANSI/ASHRAE/IES Standard 90.1 compliance, any of the aforementioned versions of ANSI/ASHRAE/IES 90.1 may be utilized for compliance in conjunction with the Green Globes Energy Baseline Calculator.

~~OR~~

~~The proposed building complies with the minimum performance-based requirements of either ANSI/ASHRAE/IES Standard 90.1-2013, 90.1-2016, or 90.1-2019, or the 2015, 2018, or 2021 IECC.~~

~~AND~~

~~The proposed building demonstrates an improvement over an estimated ANSI/ASHRAE/IES Standard 90.1-2010 Appendix G baseline through the use of whole-building energy modeling in accordance with Appendix G for either ANSI/ASHRAE/IES Standards 90.1-2013, 2016, or 2019, using the Green Globes® Energy Baseline Translator™ to estimate the ANSI/ASHRAE/IES Standard 90.1-2010 Appendix G baseline.~~

Maximum = 180 points

- One hundred and eighty points are earned for a ≥40% improvement over the baseline.
- One hundred and seventy-six points are earned for a ≥38% to <40% improvement over the baseline.
- One hundred and sixty-eight points are earned for a ≥38% to <40% improvement over the baseline.
- One hundred and sixty points are earned for a ≥34% to <36% improvement over the baseline.
- One hundred and fifty-two points are earned for a ≥32% to <34% improvement over the baseline.
- One hundred and forty-four points are earned for a ≥30% to <32% improvement over the baseline.
- One hundred and thirty-six points are earned for a ≥28% to <30% improvement over the baseline.
- One hundred and twenty-eight points are earned for a ≥26% to <28% improvement over the baseline.
- One hundred and twenty points are earned for a ≥24% to <26% improvement over the baseline.
- One hundred and twelve points are earned for a ≥22% to <24% improvement over the baseline.
- One hundred and four points are earned for a ≥20% to <22% improvement over the baseline.
- Ninety-six points are earned for a ≥18% to <20% improvement over the baseline.
- Eighty-eight points are earned for a ≥16% to <18% improvement over the baseline.
- Eighty points are earned for a ≥14% to <16% improvement over the baseline.
- Seventy-two points are earned for a ≥12% to <14% improvement over the baseline.
- Sixty-four points are earned for a ≥10% to <12% improvement over the baseline.
- Fifty-six points are earned for a ≥8% to <10% improvement over the baseline.
- Forty-eight points are earned for a ≥6% to <8% improvement over the baseline.
- Forty points are earned for a ≥4% to <6% improvement over the baseline.
- Thirty-two points are earned for a ≥2% to <4% improvement over the baseline.

• Twenty-four points are earned for a ≥0% to <2% improvement over the baseline.
• No points are earned for a 0% improvement over the baseline.
~~• One hundred eighty points are earned for a ≥45% improvement over the baseline.~~
~~• One hundred sixty points are earned for a ≥40% to <45% improvement over the baseline.~~
~~• One hundred forty points are earned for a ≥35% to <40% improvement over the baseline.~~
~~• One hundred twenty points are earned for a ≥30% to <35% improvement over the baseline.~~
~~• One hundred points are earned for a ≥25% to <30% improvement over the baseline.~~
~~• Eighty points are earned for a ≥20% to <25% improvement over the baseline.~~
~~• Sixty points are earned for a ≥15% to <20% improvement over the baseline.~~
~~• Forty points are earned for a ≥10% to <15% improvement over the baseline.~~
~~• Twenty points are earned for a ≥5% to <10% improvement over the baseline.~~
~~• No points are earned for a <5% improvement over the baseline.~~

Energy-210 Proposed Revision: 8.1.1B Path B: Performance – International Energy Conservation Code (IECC), 2012, 2015, 2018, or 2021 as translated to ANSI/ASHRAE/IES Standard 90.1-2013, Appendix G (8.1.1A Path A), as applicable to the project as dictated by the Authority Having Jurisdiction and translated using the Green Globes Energy Baseline Calculator (180 POINTS)
8.1.1B.1 The proposed building complies with all minimum energy performance requirements of the Authority Having Jurisdiction.
AND
The building demonstrates an improvement over an estimated ANSI/ASHRAE/IES Standard 90.1-2013, Appendix G (as per 8.1.1A Path A) through the use of a whole-building energy modeling and as translated from the IECC Baseline using the Green Globes Energy Baseline Calculator.
If there is no Authority Having Jurisdiction requirement for IECC compliance, any of the aforementioned versions of the IECC may be utilized for compliance in conjunction with the Green Globes Energy Baseline Calculator.
Maximum = 180 points
• One hundred and eighty points are earned for a ≥40% improvement over the baseline.
• One hundred and seventy-six points are earned for a ≥38% to <40% improvement over the baseline.
• One hundred and sixty-eight points are earned for a ≥38% to <40% improvement over the baseline.
• One hundred and sixty points are earned for a ≥34% to <36% improvement over the baseline.
• One hundred and fifty-two points are earned for a ≥32% to <34% improvement over the baseline.
• One hundred and forty-four points are earned for a ≥30% to <32% improvement over the baseline.
• One hundred and thirty-six points are earned for a ≥28% to <30% improvement over the baseline.
• One hundred and twenty-eight points are earned for a ≥26% to <28% improvement over the baseline.
• One hundred and twenty points are earned for a ≥24% to <26% improvement over the baseline.
• One hundred and twelve points are earned for a ≥22% to <24% improvement over the baseline.
• One hundred and four points are earned for a ≥20% to <22% improvement over the baseline.
• Ninety-six points are earned for a ≥18% to <20% improvement over the baseline.
• Eighty-eight points are earned for a ≥16% to <18% improvement over the baseline.
• Eighty points are earned for a ≥14% to <16% improvement over the baseline.

• Seventy-two points are earned for a ≥12% to <14% improvement over the baseline.
• 64 points are earned for a ≥10% to <12% improvement over the baseline.
• Fifty-six points are earned for a ≥8% to <10% improvement over the baseline.
• Forty-eight points are earned for a ≥6% to <8% improvement over the baseline.
• Forty points are earned for a ≥4% to <6% improvement over the baseline.
• Thirty-two points are earned for a ≥2% to <4% improvement over the baseline.
• Twenty-four points are earned for a ≥0% to <2% improvement over the baseline.
• No points are earned for a 0% improvement over the baseline.

MOTION: The Motion was made and seconded to accept the proposed revisions for Energy-208, Energy-209, and Energy-210.

Discussion took place on the Motion:

- It was noted that more points are awarded for the newer versions of the ASHRAE standard.

VOTE: The Motion carries with 10 in favor, 0 opposed, 2 abstained.

Abstain: Karen Butler, Mike Cudahy

Energy-222

Proposed Revision: 3.1.1E.1 The project has achieved GBI's Green Globes Journey to ~~a~~ Net Zero ~~Carbon or a Net Zero Energy~~ certification/recognition, or equivalent from a nationally or regionally recognized certification program within the last three years.

Maximum = 180 points
• One hundred eighty points is earned for a certification of 100% reduction.
• One hundred forty points are earned for a recognition of ≥90% to <100% reduction.
• One hundred five points are earned for a recognition of ≥70% to <90% reduction.
• Eighty points are earned for a recognition of at ≥50% to <70% reduction.
• No points are earned for a recognition of at <50% reduction.

MOTION: The Motion was made and seconded to accept the proposed revision.

Discussion took place on the Motion:

- It was asked who the 'or equivalent programs' are and how they will be denoted for users. Staff stated that this will be included in the Technical Manual which will allow for programs to be added at any time.

VOTE: The Motion carries with 10 in favor, 2 opposed, 0 abstained.

Opposed: Josh Jacobs, Stephen Szoke

NC102-3

Public Comment: Replace all references to ASHRAE 90.1-2010 with ASHRAE 90.1-2013.

Reason: The standard references ASHRAE 90.1-2010, which is over 10 years old. For Federal agencies, agencies must use ASHRAE 90.1-2013 and, where lifecycle cost effective, be 30% more energy efficient than ASHRAE 90.1-2013. At a minimum, this standard should replace all references to ASHRAE 90.1-2010 and make them ASHRAE 90.1-2013 or newer [although the Department of Energy has not yet finalized its regulation that agencies use ASHRAE 90.1-2019; the regulation still requires agencies to use ASHRAE 90.1-2013.]

Recommended Response: Thank you for your comment. Your comment has been accepted with modification. Energy Pathways utilizing all versions of ASHRAE 90.1 2010 through 2019 have been implemented in the standard, including implementing the ASHRAE 90.1 2013 as the Energy Baseline for Path A.

The change to 8.2.3.3 to cite ASHRAE 90.1 2013, Section 8.4.2 has been implemented as follows.

8.2.3.3 The project is furnished with receptacles that automatically control the availability of power based on occupancy sensors AND/OR timed schedules in accordance with ANSI/ASHRAE/IES Standard 90.1-~~2010~~ 2013, Section 8.4.2.

Maximum =2 points
• Two points are earned where energy-saving power strips are installed on ≥75% to ≤100% of private offices, open offices and computer classrooms, including receptacles installed in modular partitions.
• One point is earned where energy-saving power strips are installed on ≥50% to <75% of private offices, open offices and computer classrooms, including receptacles installed in modular partitions.
MOTION: The Motion was made and seconded to accept with modification the proposed response.
Discussion took place on the Motion:

- There was no discussion.

VOTE: The Motion carries with 12 in favor, 0 opposed, 0 abstained.

Energy-212, Energy-213, Energy-214, Energy-215, Energy-216
Energy-212 Proposed Revision: ~~8.2.1.1 The building elevators use regenerative braking AND/OR machine-roomless (MRL) elevators for all passenger elevators and any regularly used elevators. 2 points or N/A~~
~~• Two points are earned where there are regenerative drive systems elevators AND/OR machine-roomless (MRL) elevators.~~
~~• Not applicable where there are no elevators.~~

Energy-213 Proposed Revision: 8.2.1.~~2~~1 Enhance the energy efficiency of elevator systems through the use of:
• Regenerative braking AND/OR machine-roomless (MRL) elevators;
• TWIN elevators (stacked cabins on one operating elevator in one shaft);
• Elevators with a destination dispatch system (grouping people traveling to the same floor); AND/OR
• Elevators with a zero-power sleep mode.
Maximum = ~~1~~ 2 points
• One point is earned ~~where any~~ for each of the prescribed strategies ~~are used~~ for a maximum of 2 points.
• Two points are ~~is~~ earned where there are no escalators or elevators.

Energy-214 Proposed Revision: ~~8.2.1.3 Equip escalators and moving walkways with the efficiency measures to reduce energy consumption. 1 point or N/A~~
~~• One point is earned where escalators and moving walkways have the capability to slow down or stop when detectors indicate no traffic or for the use of motor efficiency controllers.~~
~~• Not applicable where there are no escalators or moving walkways.~~
Energy-214 Reason: Update numbering of 8.2.1.4 to 8.2.1.2.

Energy-215 Proposed Revision: 8.2.2.1 Install lighting systems that are capable of load shedding. Loading shedding may be initiated automatically or manually.
Maximum = 4 ~~3~~ points
• ~~Three~~ Four points are earned where lighting system can reduce power by ≥~~30~~20% from peak levels.
• ~~Two~~ Three points are earned where lighting system can reduce power by ≥10~~15~~% to <20~~30~~% from peak levels.
• Two points are earned where lighting system can reduce power by ≥5% to <10% from peak levels.

Energy-216 Proposed Revision: 8.2.2.2 HVAC equipment controls that are capable of load shedding are installed. Loading shedding may be initiated automatically or manually. Load shedding program initiates setback of space temperatures, heating and cooling system hydronic temperatures, air system static pressure setpoints, or cycling of heating and cooling equipment.
~~2~~ 3 points
MOTION: The Motion was made and seconded to accept the proposed revisions for Energy-212, Energy-213, Energy-214, Energy-215, and Energy-216.
Discussion took place on the Motion:

- There was no discussion.

VOTE: The Motion carries with 12 in favor, 0 opposed, 0 abstained.

Energy-222
Proposed Revision: ~~8.3.3.1 Provide verification of the measurement of energy use and efficiency in accordance with Section 4.5 Option D – Whole Building Calibrated Simulation, of the International Performance Measurement & Verification Protocol (IPMVP): Concepts and Practices for Determining Energy savings in New Construction, Volume III, Part I. January 2006.~~
~~Savings are determined at the whole-building level by measuring energy use at main meters or sub-meters or using whole-building simulation calibrated to measured energy use data.~~
~~9 points~~
~~• Nine points are earned where verification documentation that the energy data gathered, analysis performed, and computation of energy efficiency is consistent with the objectives of the design intent of the project is provided.~~
Reason: Assessor Question:
It is not clear to me how this criteria can be achieved. It seems to refer to verification that takes place after the project has been occupied. Note the energy data and analysis appears to be in the past tense however there would be no relevant data available until the project has been occupied for

some time . . . or after the certification has been awarded.

Additional Assessor Feedback: I agree this is a poorly worded criteria and is only applicable to existing buildings.
It should not be in NC21.
MOTION: The Motion was made and seconded to accept the proposed revision.
Discussion took place on the Motion:

- A member asked if some of the intent of the criteria could be kept in some form. She noted ways that information could be put into different systems or software to award the project for setting up the documentation to complete the verification at a later time.
- It was agreed that it is an important topic and should be further reviewed at a later date.

VOTE: The Motion carries with 10 in favor, 0 opposed, 2 abstained.
Abstained: Josh Jacobs, Stephen Szoke

Energy-217, Energy-218, Energy-219, Energy-220
Energy-217 Proposed Revision: 8.3.1.1 Install Metering or ensure a mandatory design requirement exists for metering (at the building level) for the following:
• Electricity;
• Heating fuels;
• Steam; and
• Other (e.g., chilled or hot water for campus/district systems).
Maximum = 10 ~~5~~ points
• One point is earned for each 20% increment of the building's site energy that is metered through any combination of building-level energy meters up to a maximum of 10 ~~5~~ points.

Energy-218 Proposed Revision: 8.3.1.2 Install sub-metering or energy monitoring equipment in the building, or require a mandatory tenant improvement that calls for sub-metering or energy monitoring equipment to be installed for the following systems:
• Lighting and lighting controls by floor or by zones with floor areas no greater than 20,000 ft2 (1860 m2);
• Plug loads by floor or by zones no greater than 20,000ft2 (1860 m2);
• Major electric HVAC equipment (e.g., chillers, cooling towers, AHU fans, pumps) 5 HP or greater;
• Chilled water generation;
• Onsite renewable energy power generation;
• Heating water or steam generation; AND/OR
• Specialty or process electrical equipment.
Maximum = 6 ~~5~~ points or N/A
• One point each for sub-metering five or more of the listed systems in a mixed use multi-family building ~~MURB at the building level~~ to a maximum of 6 ~~5~~ points.
• Two points each are earned when heating, cooling, and electricity are sub-metered at the individual unit level in a MURB to a maximum of 6 ~~5~~ points.

• One point is earned for each listed system where sub-metering is installed to a maximum of 6 ~~5~~ points.
• Not applicable for buildings <20,000 ft2 (1860 m2).

Energy-219 Proposed Revision: 8.3.2.1 A Resource Management Plan addresses all energy consuming areas of a building or project and includes the following monitoring protocols (i.e., hourly, daily, monthly, seasonal, by floor, etc.):
• Electricity;
• Heating fuels;
• Steam; and
• Other (e.g. campus/district systems) Note: This may reflect new technology that uses other energy sources as long as they are measurable.
~~Maximum = 2~~ 1 point~~s~~
~~• One point is earned where there is documentation of the plan that provides guidance for monitoring installed systems based upon Section 4.5 of the International Performance Measurement & Verification Protocol (IPMVP) Concepts and Practices for Determining Energy savings in New Construction, Volume III, Part I, January 2006.~~
~~• One point is earned where there is a definition of a constant feedback loop process in the plan for defining improvements in the efficiency of energy usage, based upon review and analysis of the gathered building level meter monitoring documentation.~~
~~• One point is earned where the gathered data is provided for review by occupants and visitors with up-to-date or real-time information on space energy consumption.~~

Energy-220 Proposed Revision: 8.3.2.2 Create an action plan for evaluating the results of documentation defined by the Resource Management Plan and gathered by metering equipment (based upon Section 4.5 D, of the International Performance Measurement & Verification Protocol (IPMVP): Concepts and Practices for Determining Energy savings in New Construction, Volume III, Part I, January 2006).
The action plan has a process for implementing changes identified as a result of the analysis of the monitoring of energy use. The action plan addresses a minimum of two of the following systems:
• Lighting and lighting controls by floor or by zones;
• Plug loads by floor or by zones;
• Major electric HVAC equipment (e.g., chillers, cooling towers, AHU fans, pumps) 5 HP or greater;
• Chilled water generation;
• Onsite renewable energy power generation;
• Heating water or steam generation; AND/OR
• Specialty or process electrical equipment.
~~Maximum = 3~~ 2 points
~~• One point is earned where there are provisions in the plan that mandate the creation of improvement goals, identified based upon the automated data collection of monitored meter usage information for two or more of the listed systems.~~
~~• Two points are earned where there is definition of a process for implementing improvements in~~

~~energy usage to reach the stated goals, based upon review and analysis of the gathered documentation for two or more of the listed systems.~~

MOTION: The Motion was made and seconded to accept the proposed revisions for Energy-217, Energy-218, Energy-219, and Energy-220.
Discussion took place on the Motion:

- There was no discussion.

VOTE: The Motion carries with 12 in favor, 0 opposed, 0 abstained.

203-23
Public Comment: …used to inform design decisions regarding incremental ~~equipment~~ performance efficiency of building systems for the systems ~~envelope, lighting~~, materials, ~~and~~ HVAC, etc.
Reason: Integrated Process benefits the project more than just the energy efficiencies. For instance, it can also ensure low-carbon materials are selected from the manufacturer to meet a level of GWP efficiency without trading-off other performance requirements such as thermal mass benefits, durability, air tightness, etc.
Recommended Response: Thank you for your comment. Your comment has been rejected for the following reason: This is a carbon issue and will be further reviewed in the future. However, at this time it is addressed in other Areas/sections.
Discussion took place before the Motion:

- It was argued that this could be a very strangely worded criteria if approved.
- It was asked if the intent is to get embodied carbon into the criteria and it was argued that it seems they want to balance carbonization but in the wrong criteria topic.
- It was asked if a Carbon Subcommittee or Task Group could be created for the next cycle to look at the entire standard.
- A revision to the criteria was suggested but some argued that it would not achieve the commenter's intent.

MOTION: The Motion was made and seconded to accept with modification the proposed response.
Discussion took place on the Motion:

- It was argued that the reason is good, but the change is not responding well to what the commenter wants.

WITHDRAWN: The motion and second were withdrawn.
MOTION: The Motion was made and seconded to reject the comment and reply with the proposed response.
Discussion took place on the Motion:

- There was no discussion.

VOTE: The Motion carries with 10 in favor, 0 opposed, 1 abstained.
Abstain: Mike Cudahy

Ashley Langenfeld re-joined the meeting.

Materials Proposed Revisions
The secretariat reviewed each proposed revision before a motion was made.

NCMaterials-201
Proposed Revision: Points are earned based on the Sustainable Materials Index (SMI), the percentage of the total value of the ~~building materials~~ products that have sustainable materials attributes. The sustainable materials attributes considered in calculating the SMI are pre-consumer recycled content, post-consumer recycled content, biobased content, third-party sustainable forestry certification content and materials or that meet the requirements of the Eco-Certified Composite sustainability standard. The SMI is the sum of the value of these attributes divided by the Total Project Materials Cost expressed as a percentage.

Sustainable Materials Index (%) =

100 x
($ value of pre-consumer recycled content
+
$ value of post-consumer recycled content
+
$ value of biobased content
+
$ value of third-party sustainable forestry certification content
+
$ value of Eco-Certified Composite)
÷
Total Project Materials Cost

See example Sustainable Materials Index (SMI) Worksheet in the Technical Reference Manual.

Only the portion of ~~materials~~ products that has the identified attribute should be included. For example, if a product has 40% pre-consumer recycled content, only 40% of the value of that product is included.
Reason: Assessor/SME Feedback: Change "building materials" to "products" and then FF&E can be included. It doesn't really matter which group is purchasing or specifying the FF&E as long as the documentation is available. Typically the equipment falls into the GC arena, furniture ends up with interior designer who procures or a furniture dealer (typically coordinated by the interior designer on the project), and the operator/owner/enduser usually procures the electronics, software, small wares, etc. I think if you change the language to "products" that would solve the concern – as in my opinion it wouldn't matter who is doing the procurement, as long as the specifications and sustainable documentation is available as part of the documentation.
MOTION: The Motion was made and seconded to accept the proposed revision.

Discussion took place on the Motion:

- There was no discussion.

VOTE: The Motion carries with 12 in favor, 0 opposed, 0 abstained.

Sumayyah Theron left the meeting.

NCMaterials-219

Proposed Revision: Points are earned based on the Sustainable Materials Index (SMI), the percentage of the total value of the building materials that have sustainable materials attributes. The sustainable materials attributes considered in calculating the SMI are pre-consumer recycled content, post-consumer recycled content, biobased content, third-party sustainable forestry certification content and materials or that meet the requirements of the Eco-Certified Composite sustainability standard. The SMI is the sum of the value of these attributes divided by the Total Project Materials Cost expressed as a percentage.

Sustainable Materials Index (%) =

100 x
($ value of pre-consumer recycled content
+
$ value of post-consumer recycled content
+
$ value of biobased content
+
$ value of third-party sustainable forestry certification content
+
$ value of Eco-Certified Composite)
÷
Total Project Materials Cost

See example Sustainable Materials Index (SMI) Worksheet in the Technical Reference Manual.

Only the portion of materials that has the identified attribute should be included. For example, if a product has 40% pre-consumer recycled content, only 40% of the value of that product is included. Mass balanced attributable recycled content may be calculated by weight using third-party certifications.

Biobased physical content percentage may be calculated by weight or in accordance with ASTM D6866-16 Standard Test Methods for Determining the Biobased Content of Solid, Liquid, and Gaseous Samples Using Radiocarbon Analysis. Mass balanced attributable biobased may be calculated by weight using third-party certifications.

The following ~~forest~~ certification systems and standards are recognized:
· Forest Stewardship Council (FSC): https://us.fsc.org/en-us (last accessed 1/23/23)
· Sustainable Forestry Initiative, Inc. (SFI): http://www.sfiprogram.org/ (last accessed 1/23/23)
· American Tree Farm System (ATFS): https://www.treefarmsystem.org/ (last access 1/23/23)
· Canadian Standards Association Sustainable Forestry Management (CSA): http://www.csasfmforests.ca/ (last accessed 1/23/23)
· Programme for the Endorsement of Forest Certification (PEFC): https://www.pefc.org/ (last accessed 1/23/23)
· Products categorized as Responsible or Certified Sources in accordance with ASTM D7612-21 Standard Practice for Categorizing Wood and Wood-Based Products According to Their Fiber Sources~~.~~
· ISCC+
· Redcert

Reason: Initial Feedback: I am trying to determine if Green Globes recognizes Mass Balanced (MB) materials. For instance, insulation boards will start to have Mass Balanced chemicals in them and other products will too and they will have a reported lower carbon footprint than their non MB products. ISCC Mass Balance is the same accounting type exercise as "sustainable Forestry" like FSC Certified.

MOTION: The Motion was made and seconded to accept the proposed revision.

Discussion took place on the Motion:

- A question was asked on whether recycled content is needed. It was stated that this line is more of a plastics issue and in this context, it is correct and necessary.
- A revision to the proposed line was made to provide better clarification for users.

VOTE: The Motion carries with 11 in favor, 0 opposed, 0 abstained.

Public Participation

An interested party noted their frustration with the suggested points reduction in the Acoustics Comfort section and asked for clarification on the reasons for the reduction. Staff noted that the entire Standard was reviewed and there are many proposed point changes throughout all Assessment Areas besides Project Management. Staff noted that because the Standard is in Continuous Maintenance, it allows for criteria and points to continue to be reviewed, revised, and updated as needs in the building industry, new technologies and standards, and market trends arise.

Review Schedule

Marx reminded attendees of the next Consensus Body for New Construction meeting next Wednesday, April 3, 2024.

MOTION: The motion was made, seconded, and carried unanimously to adjourn.

Meeting adjourned at 12:58 PM EST.