

CALIFORNIA GREEN BUILDING CODE

LEED / GPR COMPARISON

troy simpson



*note:

This presentation represents an initial analysis of the Draft 2010 California Green Building Standards Code conducted by Global Green USA. The analysis is designed to provide a thematic comparison between the Code and two commonly used third party rating systems. The prerequisite and point values should not be considered final values, but rather used as a general guide. Elective measures associated with Tiers 1 and 2 are not factored into the points analysis. Global Green welcomes comments and collaboration aimed at further refining the analysis.

CALIFORNIA GREEN BUILDING STANDARDS CODE

OVERVIEW

DRAFT

DRAFT 2010 CALIFORNIA GREEN BUILDING STANDARDS CODE (Pending publication by the International Code Council)

LEGEND FOR AGENCY ADOPTIONS

Unless otherwise noted, state agency adoptions are indicated by the following banners in the section leaders:
Department of Housing and Community Development: [HCD]
California Building Standards Commission: [BSC]
Division of the State Architect, Structural Safety: [DSA-SS]
Office of Statewide Health Planning and Development: [OSHDP 1, 2 & 4]

PREFACE

This document is the 11th of 12 parts of the official compilation and publication of the adoptions, amendments and repeal of regulations to California Code of Regulations, Title 24, also referred to as the California Building Standards Code. This Part is known as the California Green Building Standards Code, and it is intended that it shall also be known as the CALGreen Code.

The California Building Standards Code is published in its entirety every three years by order of the California Legislature. The California Legislature delegated authority to various State agencies, boards, commissions and departments to create building regulations to implement the State's statutes. These building regulations or standards have the same force of law, and take effect 180 days after their publication unless otherwise stipulated. The California Building Standards Code applies to all occupancies in the State of California as annotated.

A city, county or city and county may establish more restrictive standards reasonably necessary because of local climatic, geological, or topographical conditions. For the purpose of this code, these conditions include local environmental conditions as established by a city, county, or city and county. Findings of the local condition(s) and the adopted local building standard(s) must be filed with the California Building Standards Commission to become effective and may not be effective sooner than the effective date of this edition of the California Building Standards Code. Local building standards that were adopted and applicable to previous editions of the California Building Standards Code do not apply to this edition without appropriate adoption and the required filing.

Should you find publication (e.g. typographical) errors or inconsistencies in this code or wish to offer comments toward improving its format, please address your comments to:

California Building Standards Commission
2525 Natomas Park Drive, Suite 130
Sacramento, CA 95833-2935
Phone: (916) 263-0916
Fax: (916) 263-0959

Website: www.bsc.ca.gov

EFFECTIVE USE OF THIS CODE

The format of this code is common to other parts of the California Building Standards Code and contains building standards applicable to occupancies which fall under the authority of different state agencies. Occupancies and applications under the authority of a specific state agency are identified in Chapter 1, Sections 103 through 106. Sections of this code which are applicable and adopted by each state agency are identified in the Matrix Adoption Tables located at the beginning of each chapter. The following outline is provided as a guide to establish which provisions are applicable to a specific occupancy.

1. Establish the type of occupancy.
2. Verify which state agency has authority for the established occupancy by reviewing the authorities list in Sections 103 through 106.
3. Once the appropriate agency has been identified, find the chapter which covers the established occupancy.
4. The Matrix Adoption Tables at the beginning of Chapters 4 and 5 identify the required green building measures necessary to meet the minimum requirements of this code for the established occupancy.
5. Voluntary tier measures are contained in Appendix Chapters A4 and A5. A Checklist containing each green building measure, both required and voluntary is provided at the end of each appendix chapter. Each measure listed in the application checklist has a section number which correlates to a section where more information about the specific measure is available.
6. The Application Checklist identifies which measures are required by this code and allows users to check-off which voluntary items have been selected to meet voluntary tier levels if desired or mandated by a city, county or city and county.

chapter 1 ADMINISTRATION

chapter 2 DEFINITIONS

chapter 3 GREEN BUILDING

chapter 4 RESIDENTIAL MANDATORY MEASURES

chapter 5 NONRESIDENTIAL MANDATORY MEASURES

chapter 6 REFERENCED ORGANIZATIONS

chapter 7 INSTALLER SPECIAL INSPECTOR QUALIFICATIONS

chapter 8 COMPLIANCE FORMS AND WORKSHEETS

appendix a4 RESIDENTIAL VOLUNTARY MEASURES

appendix a5 NONRESIDENTIAL VOLUNTARY MEASURES

CALIFORNIA GREEN BUILDING STANDARDS CODE

OVERVIEW

CEILING

FLOOR



CALIFORNIA GREEN BUILDING STANDARDS CODE

OVERVIEW

CEILING

FLOOR



CALIFORNIA GREEN BUILDING STANDARDS CODE

OVERVIEW

CEILING

FLOOR



CALIFORNIA GREEN BUILDING STANDARDS CODE

STRUCTURE

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CALIFORNIA GREEN BUILDING STANDARDS CODE

STRUCTURE

NON-RES

RES



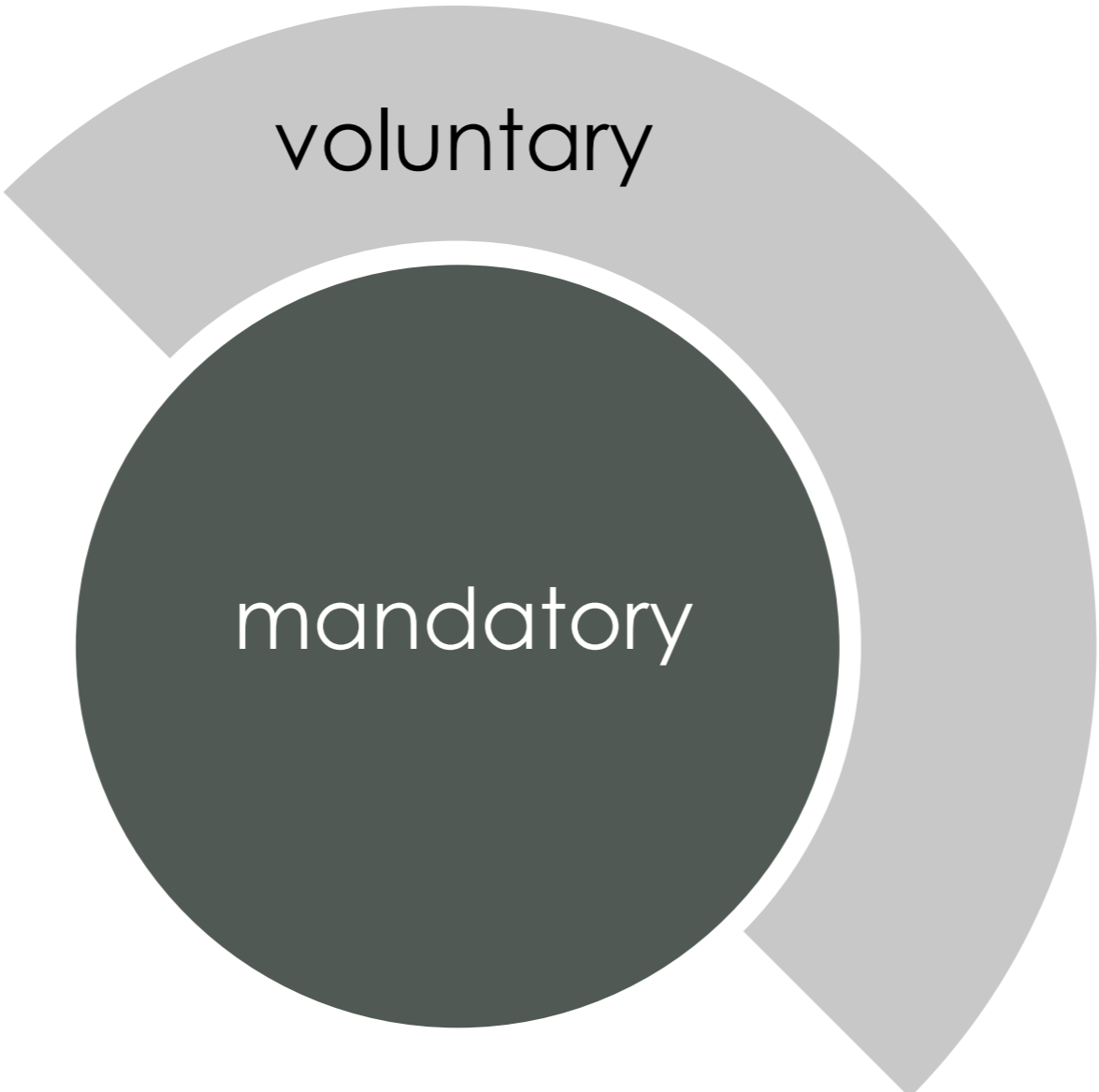
mandatory

CALIFORNIA GREEN BUILDING STANDARDS CODE

STRUCTURE

NON-RES

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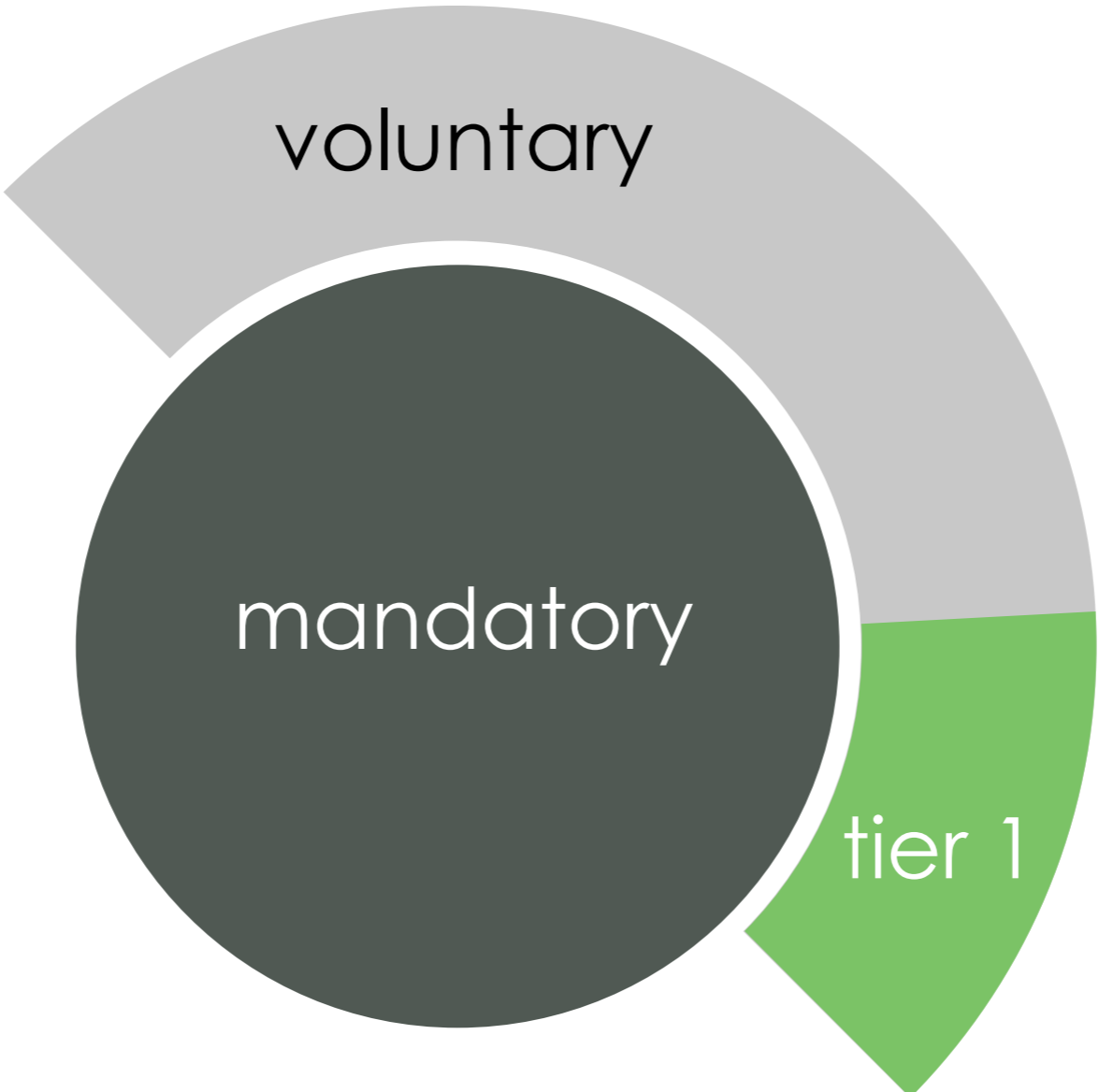


CALIFORNIA GREEN BUILDING STANDARDS CODE

STRUCTURE

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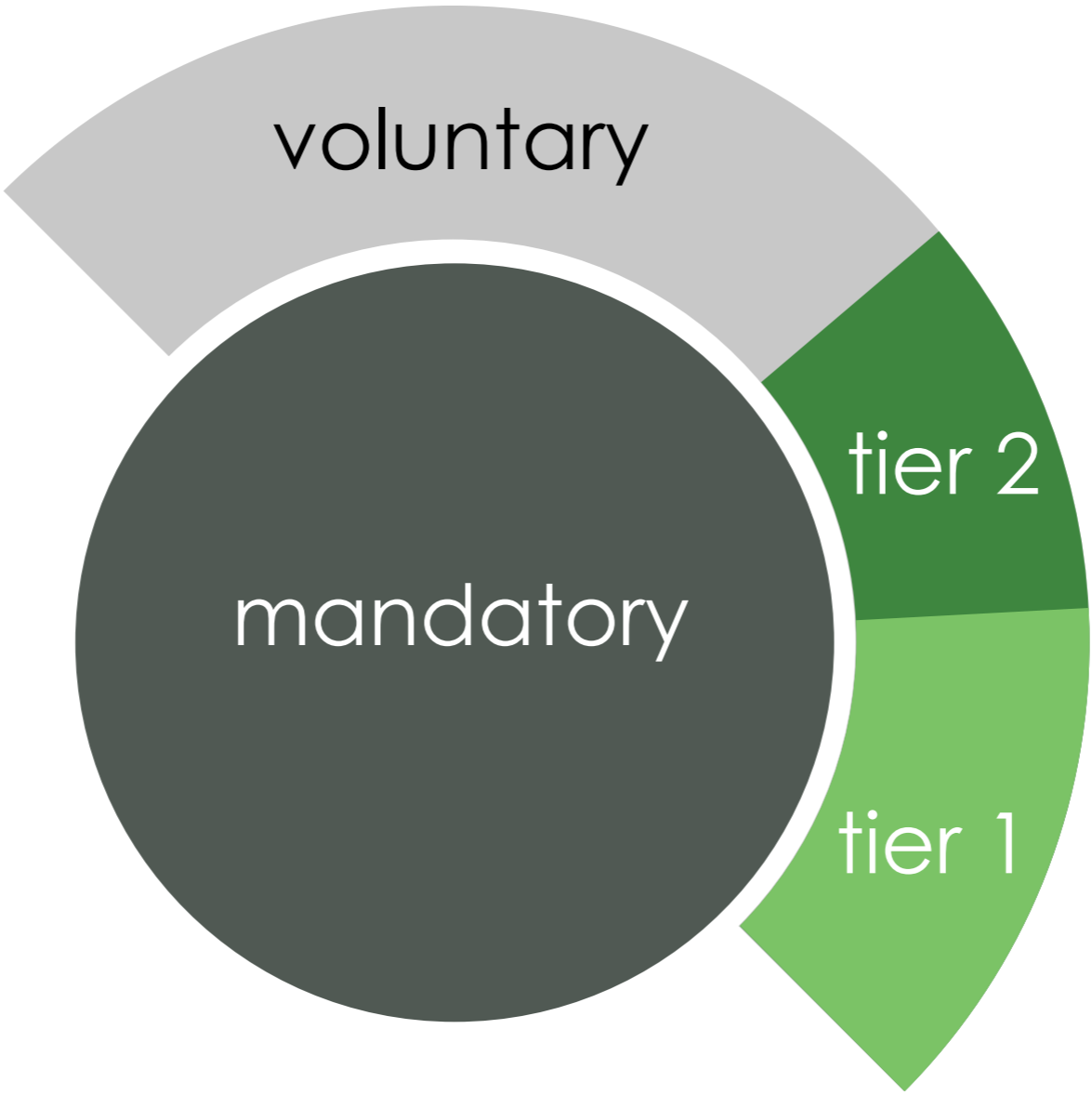


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STRUCTURE

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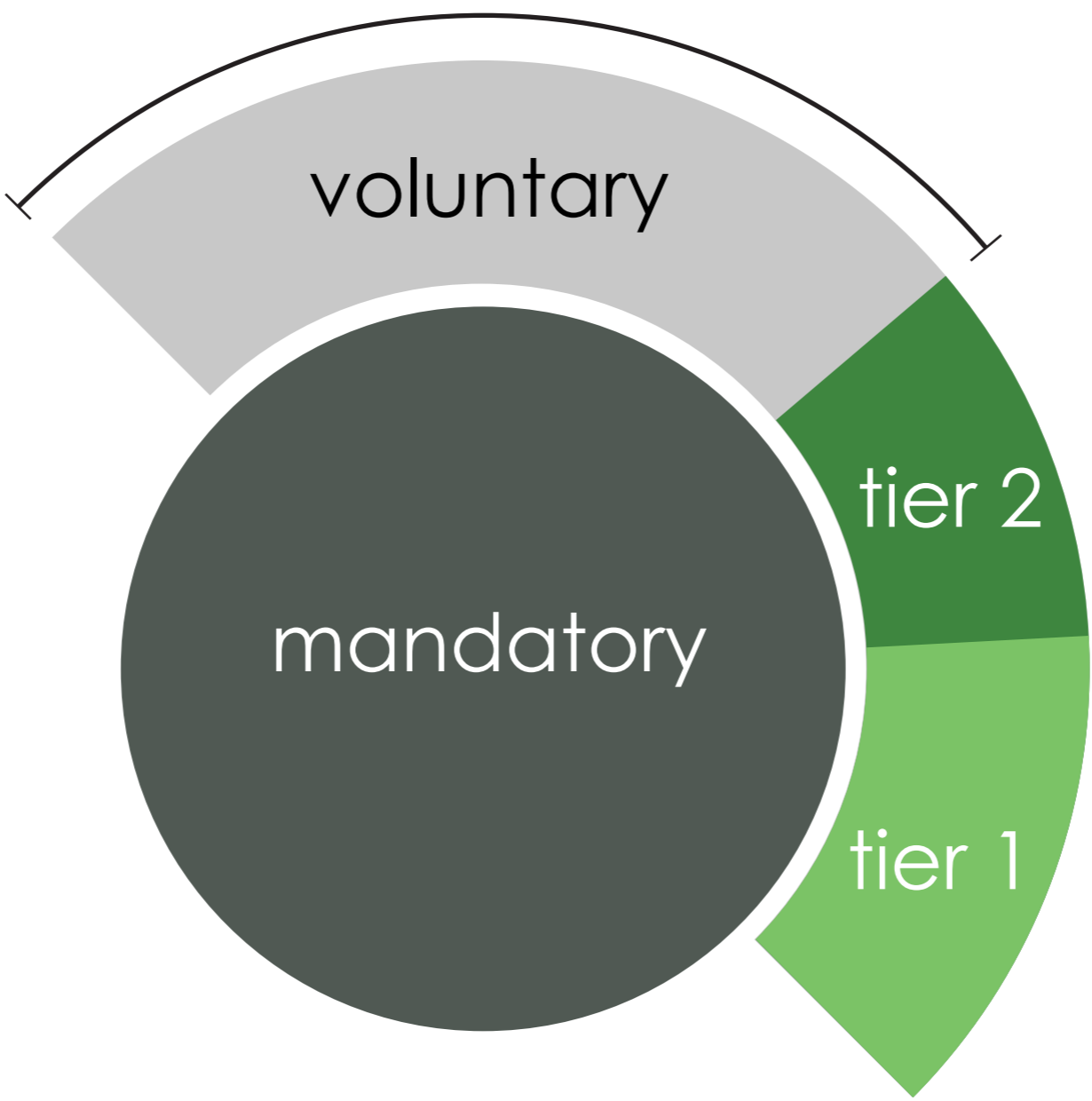


CALIFORNIA GREEN BUILDING STANDARDS CODE

STRUCTURE

NON-RES

RES



California Green Building Code

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SECTIONS

Planning & Design

site, preservation, deconstruction, development

Energy Efficiency

performance, prescriptive, renewable energy, equipment, framing

Water Efficiency & Conservation

indoor, outdoor

Material Conservation & Resource Efficiency

efficient framing, material sources, durability, weather resistance, moisture management, C&D waste reduction, life cycle assessment

Environmental Quality

fireplaces, pollutant control, indoor moisture, radon, air quality, comfort

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NONRESIDENTIAL

RESIDENTIAL

MANDATORY

VOLUNTARY TIER 1

VOLUNTARY TIER 2

20% indoor water reduction (SEC 5.303.2 / 5.303.4)

Bicycle parking & changing (SEC 5.106.4)

Commissioning ($\geq 10,000$ sf) (SEC 5.410.2)

50% C&D Diversion rate (SEC 5.408.3)

CFC/Halon prohibition (SEC 5.508.1 / 5.508.2)

Recycling location in plans (SEC 5.410.1)

Low VOC materials (SEC 5.504.1-6)

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NONRESIDENTIAL

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NONRESIDENTIAL

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NONRESIDENTIAL

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Low VOC materials (SEC 5.504.1-6)

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NONRESIDENTIAL

RESIDENTIAL

MANDATORY

VOLUNTARY TIER 1

VOLUNTARY TIER 2

Storm water drainage during construction
20% indoor water reduction (SEC 4.303.1 / 4.303.2)
Irrigation controllers required (SEC 4.304.1)
50% C&D Diversion (SEC 4.401.1)
Operator Maintenance Manual (SEC 4.410.1)
Duct covering in construction (SEC 4.504.1)
CFC/Halon prohibition (SEC 5.508.1 / 5.508.2)
Energy Star bathroom exhaust fans (SEC 4.506.1)
HVAC per ACCA J, D & S (SEC 5.507.2)
Low VOC materials (SEC 5.504.1-6)

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NONRESIDENTIAL

RESIDENTIAL

MANDATORY

VOLUNTARY TIER 1

VOLUNTARY TIER 2

- Storm water drainage during construction
- 20% indoor water reduction (SEC 4.303.1 / 4.303.2)
- Irrigation controllers required (SEC 4.304.1)
- 50% C&D Diversion (SEC 4.401.1)
- Operator Maintenance Manual (SEC 4.410.1)**
- Duct covering in construction (SEC 4.504.1)
- CFC/Halon prohibition (SEC 5.508.1 / 5.508.2)
- Energy Star bathroom exhaust fans (SEC 4.506.1)
- HVAC per ACCA J, D & S (SEC 5.507.2)
- Low VOC materials (SEC 5.504.1-6)

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NONRESIDENTIAL

RESIDENTIAL

MANDATORY

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NONRESIDENTIAL

RESIDENTIAL

MANDATORY

VOLUNTARY TIER 1

VOLUNTARY TIER 2

Exceed T-24 by **15%**

10% fuel efficient vehicle parking (SEC A5.106.5.1)

Cool roofs (SEC A5.106.11.2)

30% Indoor water savings (SEC A5.303.2.1)

40% Outdoor water savings (SEC A5.304.1)

Recycled Content Value of **15%** (SEC A5.405.4)

65% C&D waste diversion (SEC A5.408.3.1)

80% of hard floors Low VOC (SEC A5.504.4.7)

Low VOC insulation (SEC A5.504.4.8)

PLUS **5** electives (planning, water, materials, EQ)

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MANDATORY

VOLUNTARY TIER 1

VOLUNTARY TIER 2

Exceed T-24 by **30%**

12% fuel efficient vehicle parking (SEC A5.106.5.1)

Cool roofs (SEC A5.106.11.2)

40% Indoor water savings (SEC A5.303.2.2)

45% Outdoor water savings (SEC A5.304.2)

Recycled Content Value of **15%** (SEC A5.405.4)

80% C&D waste diversion (SEC A5.408.3.1)

90% of hard floors Low VOC (SEC A5.504.4.7)

Low VOC insulation (SEC A5.504.4.8)

PLUS **15** electives (planning, water, materials, EQ)

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NONRESIDENTIAL
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MANDATORY
VOLUNTARY TIER 1
VOLUNTARY TIER 2

Topsoil protection, **20%** permeable paving,
cool roofs
Exceed T-24 by **15%**
35% outdoor water savings, low flow kitchen
sink
20% cement reduction, **10%** recycled
content, **65%** C&D waste diversion
80% resilient floor requirements, low-VOC
insulation
PLUS **10** electives

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NONRESIDENTIAL
RESIDENTIAL

MANDATORY
VOLUNTARY TIER 1
VOLUNTARY TIER 2

Topsoil protection, **30%** permeable paving,
cool roofs
Exceed T-24 by **30%**
40% outdoor water savings, low flow kitchen
sink, dishwasher requirements
25% cement reduction, **15%** recycled
content, **75%** C&D waste diversion
90% resilient floor requirements, low-VOC
insulation
PLUS **17** electives

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California Green Building Code

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California Green
Building Code

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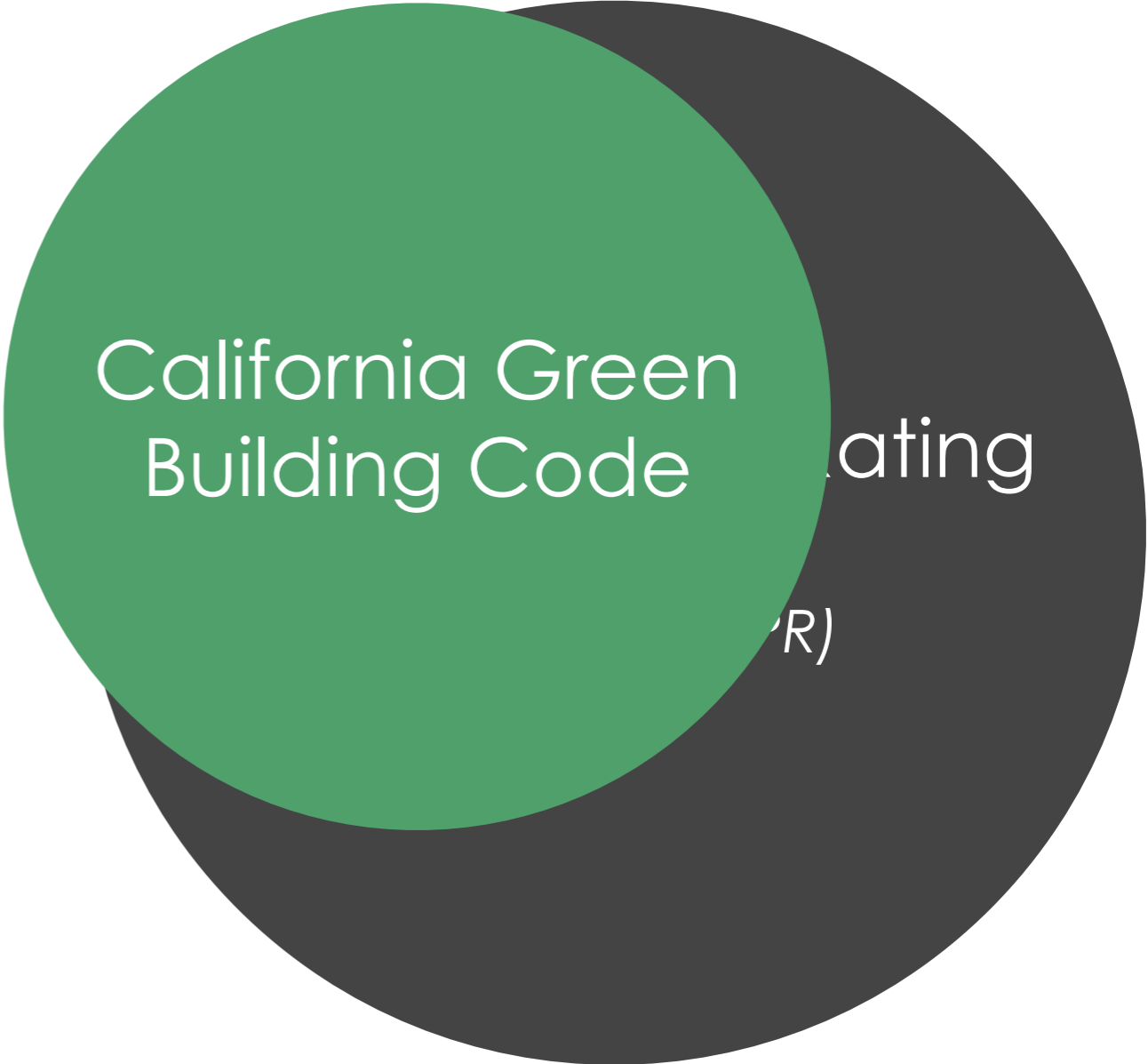
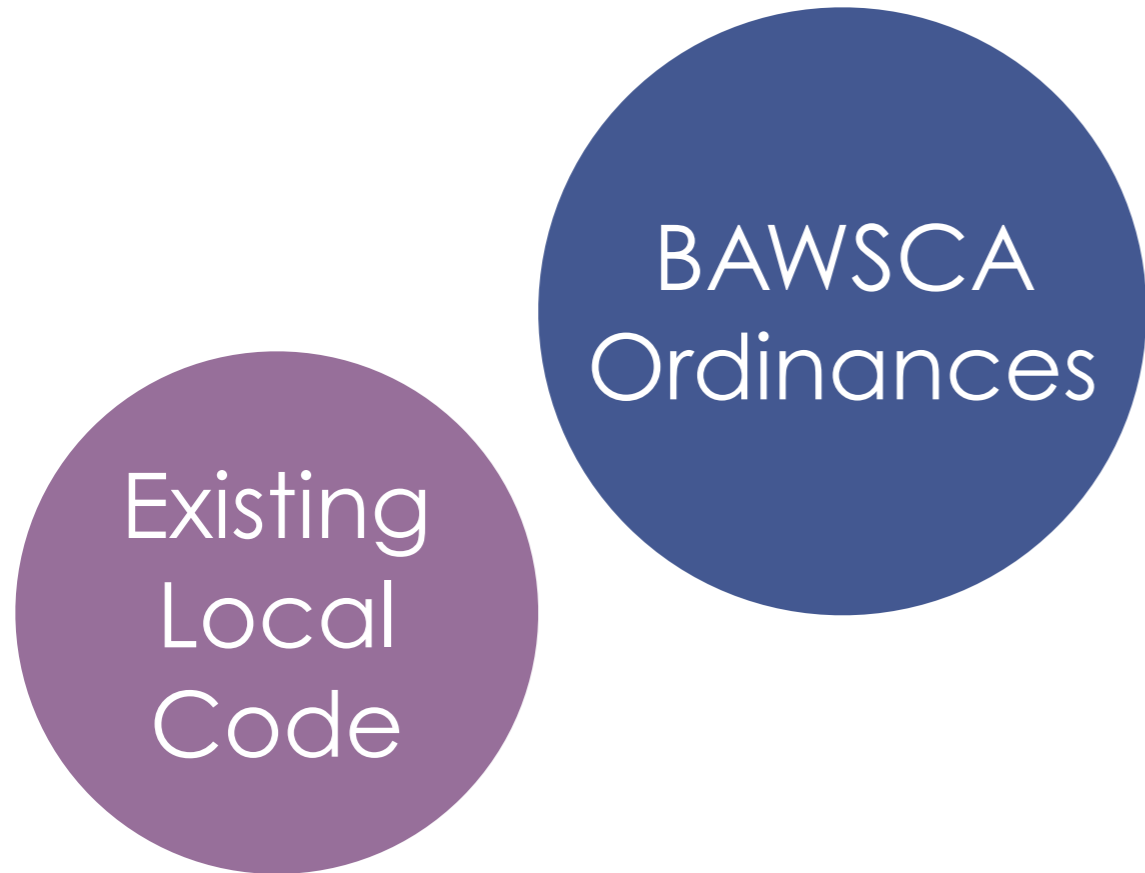
Green Building Rating
Systems
(LEED and GPR)

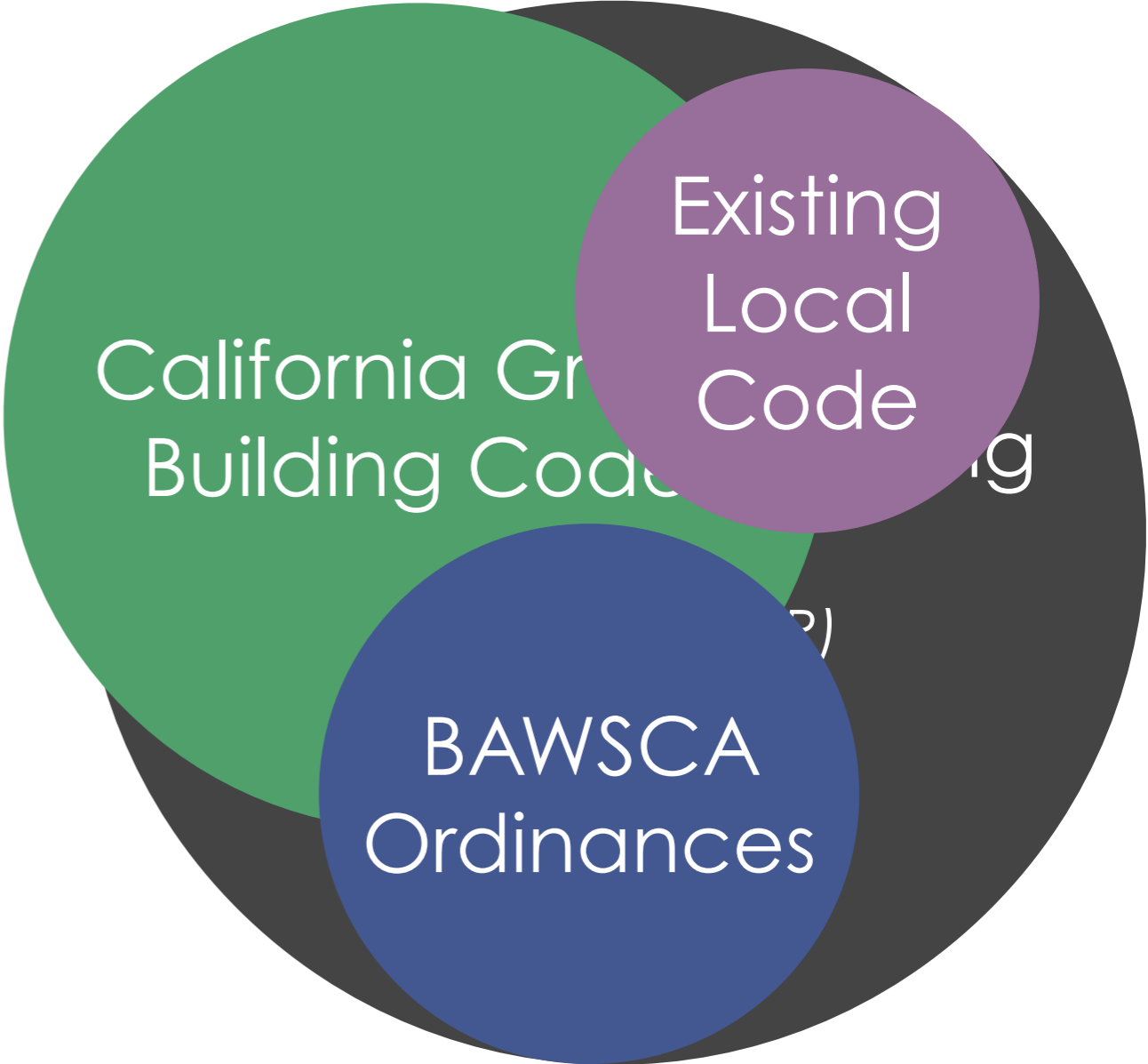


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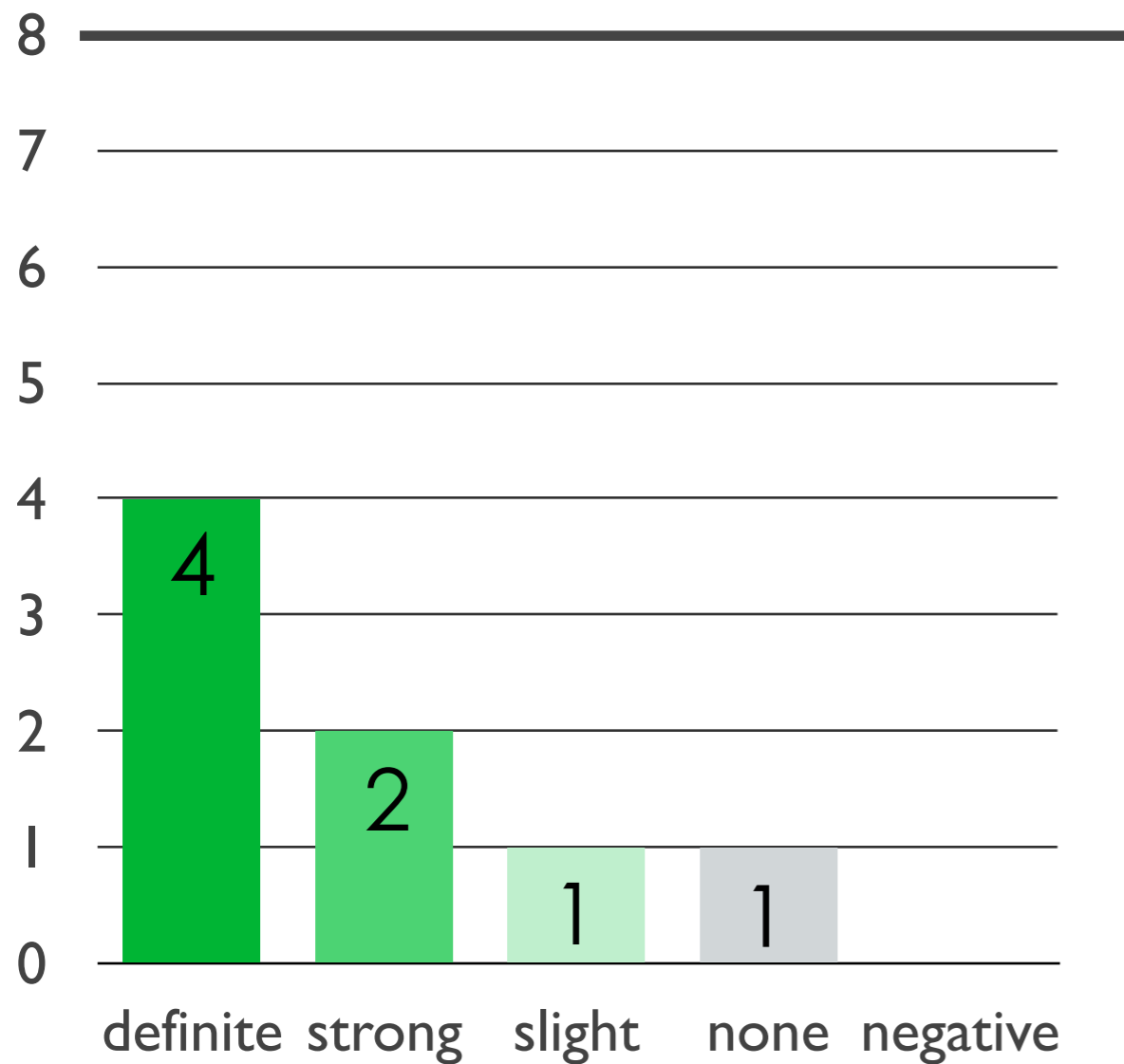
Existing Local Code

BAWSCA Ordinances

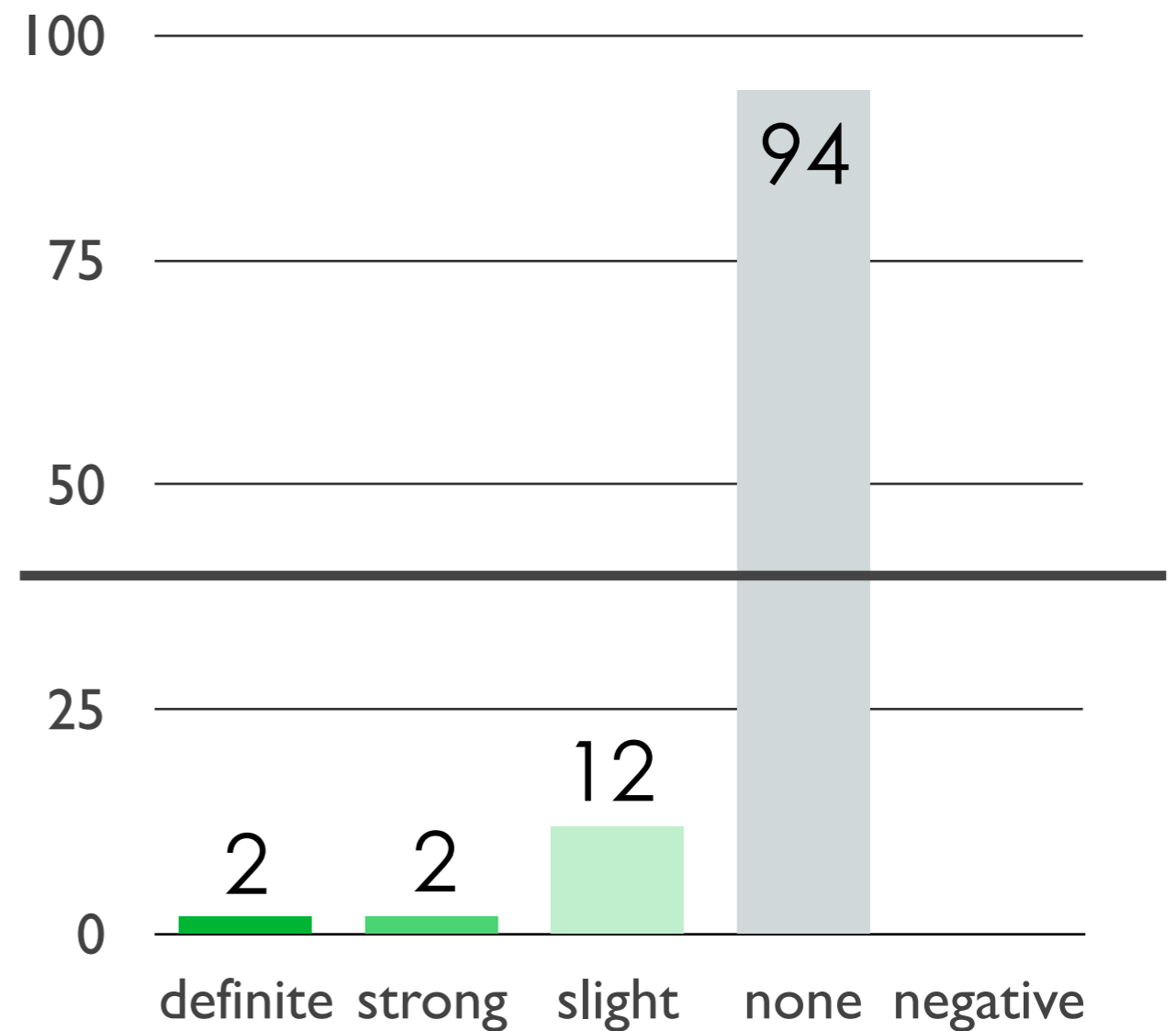
NONRES / LEED-NC

mandatory tier 1 tier 2

PREREQUISITES (min 8)



CREDITS (min 40)

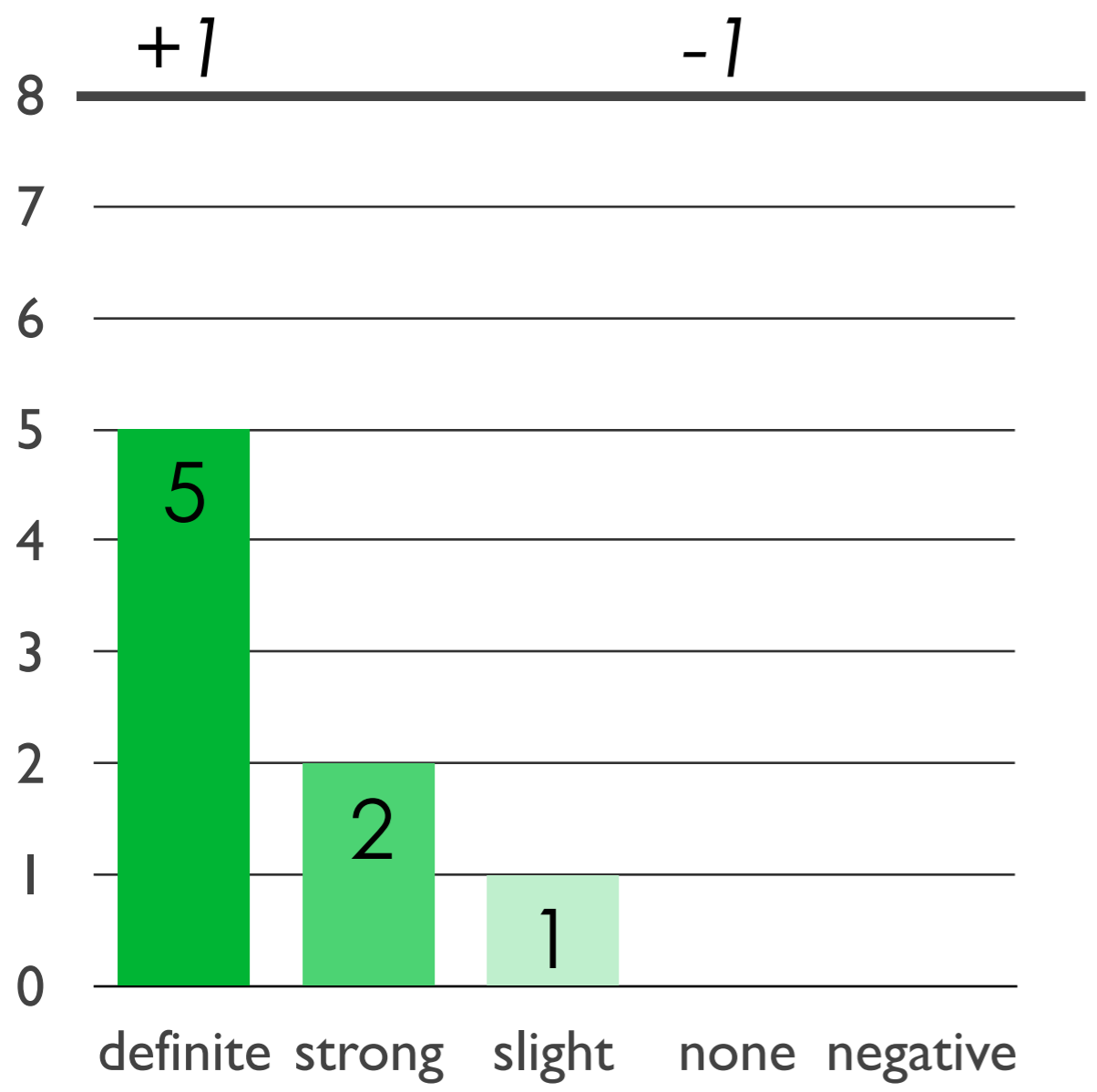


NONRES / LEED-NC

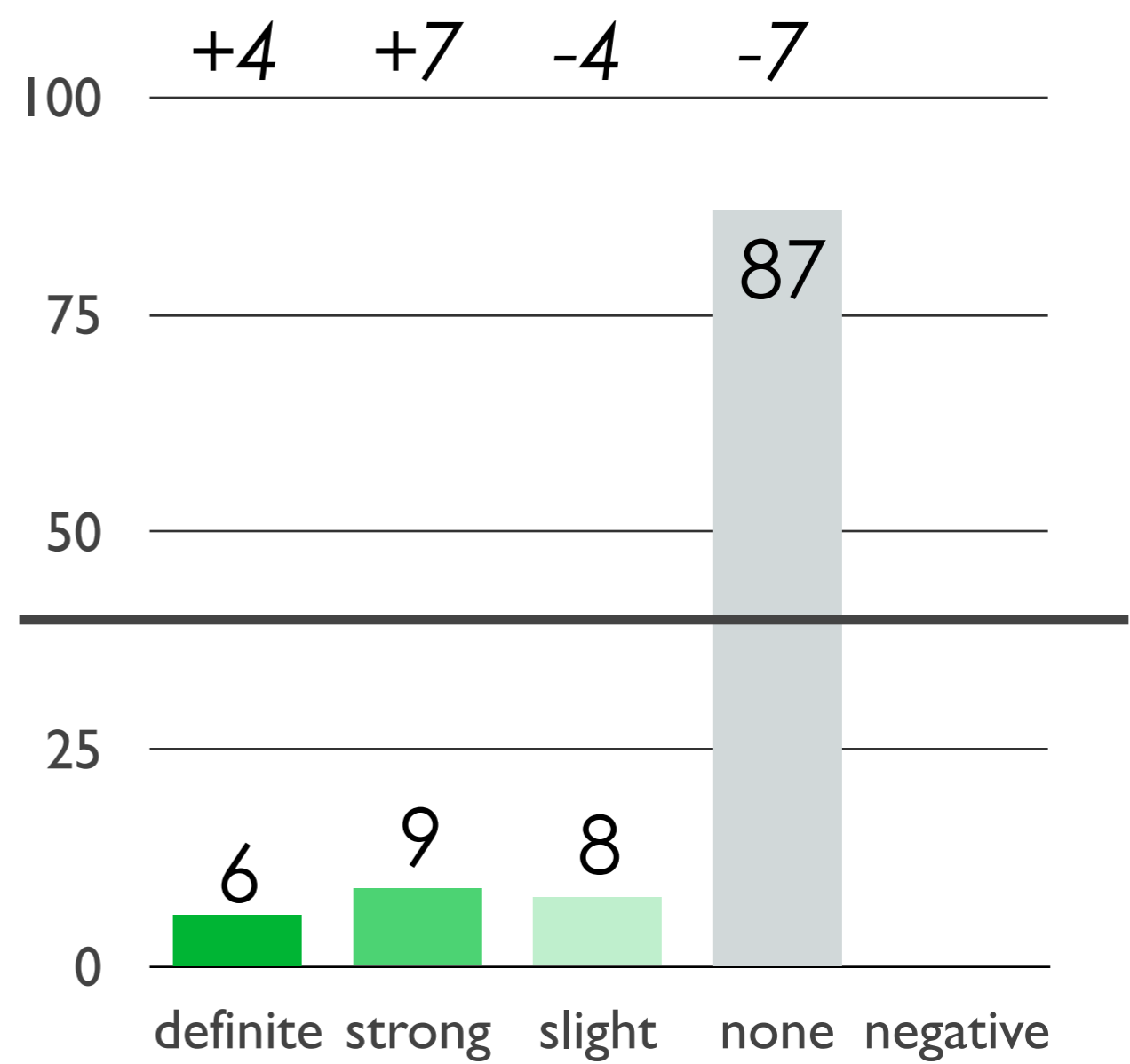
mandatory tier 1 tier 2

PLUS 5

PREREQUISITES (min 8)



CREDITS (min 40)

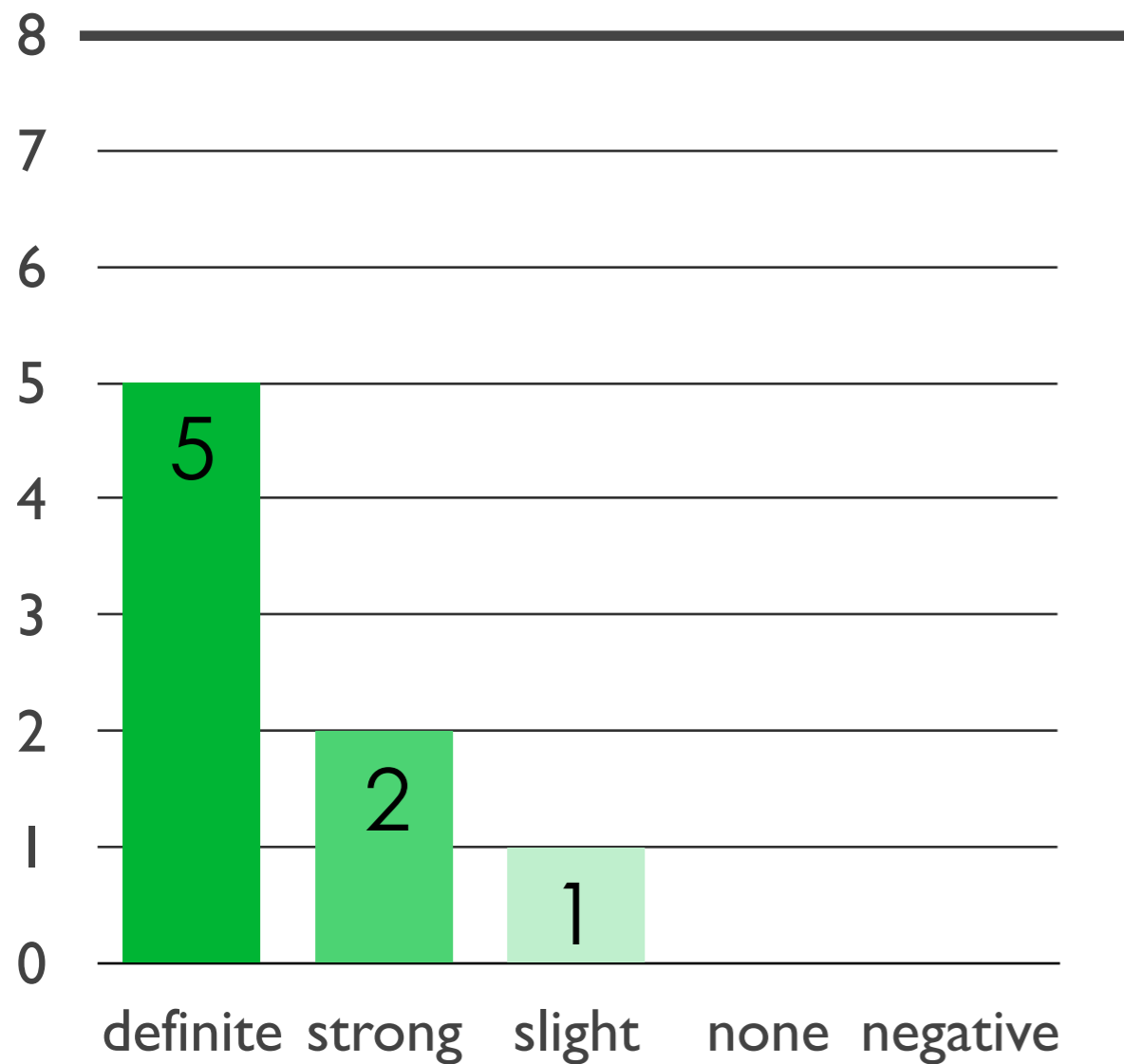


NONRES / LEED-NC

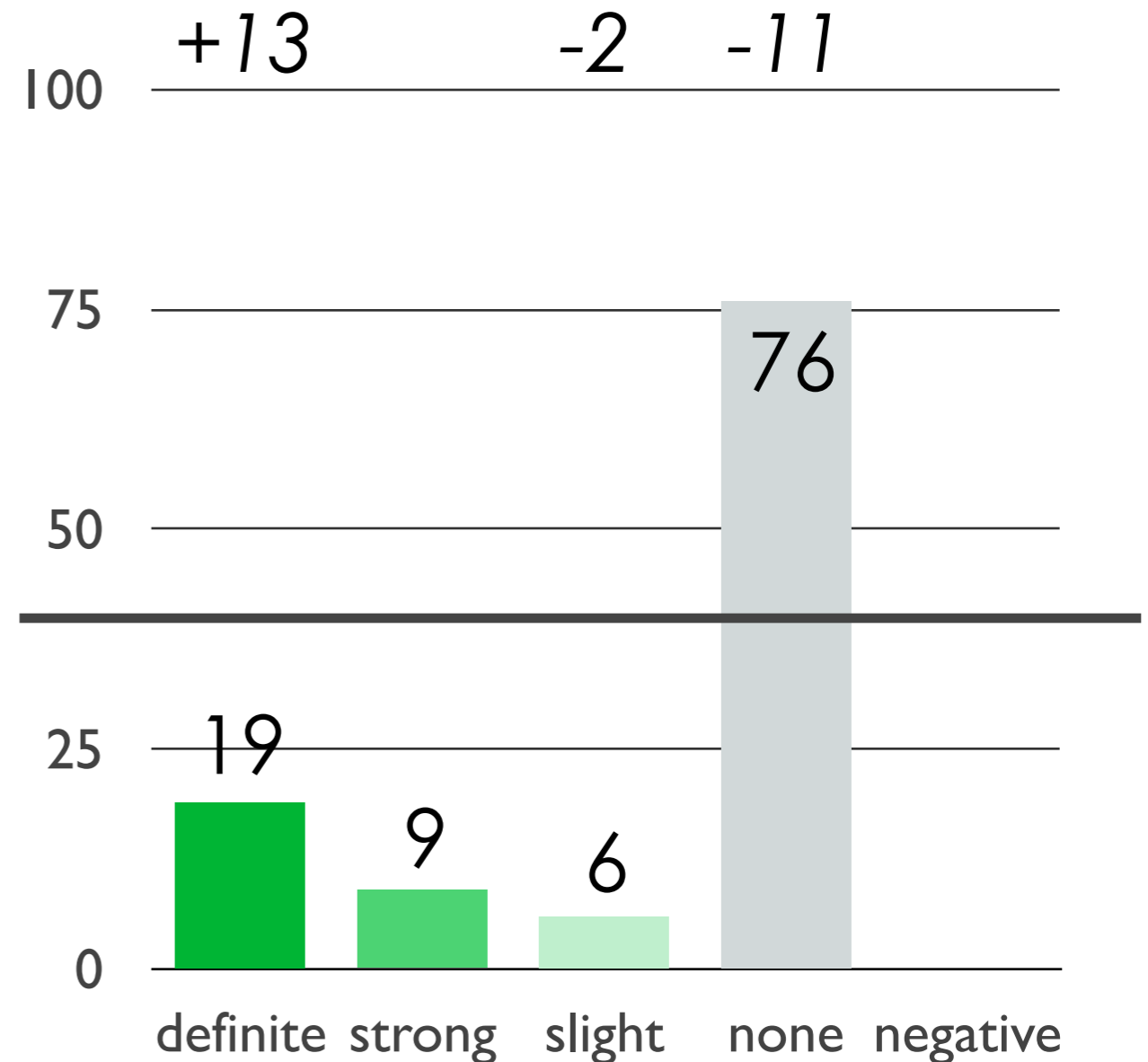
mandatory tier 1 tier 2

PLUS 15

PREREQUISITES (min 8)

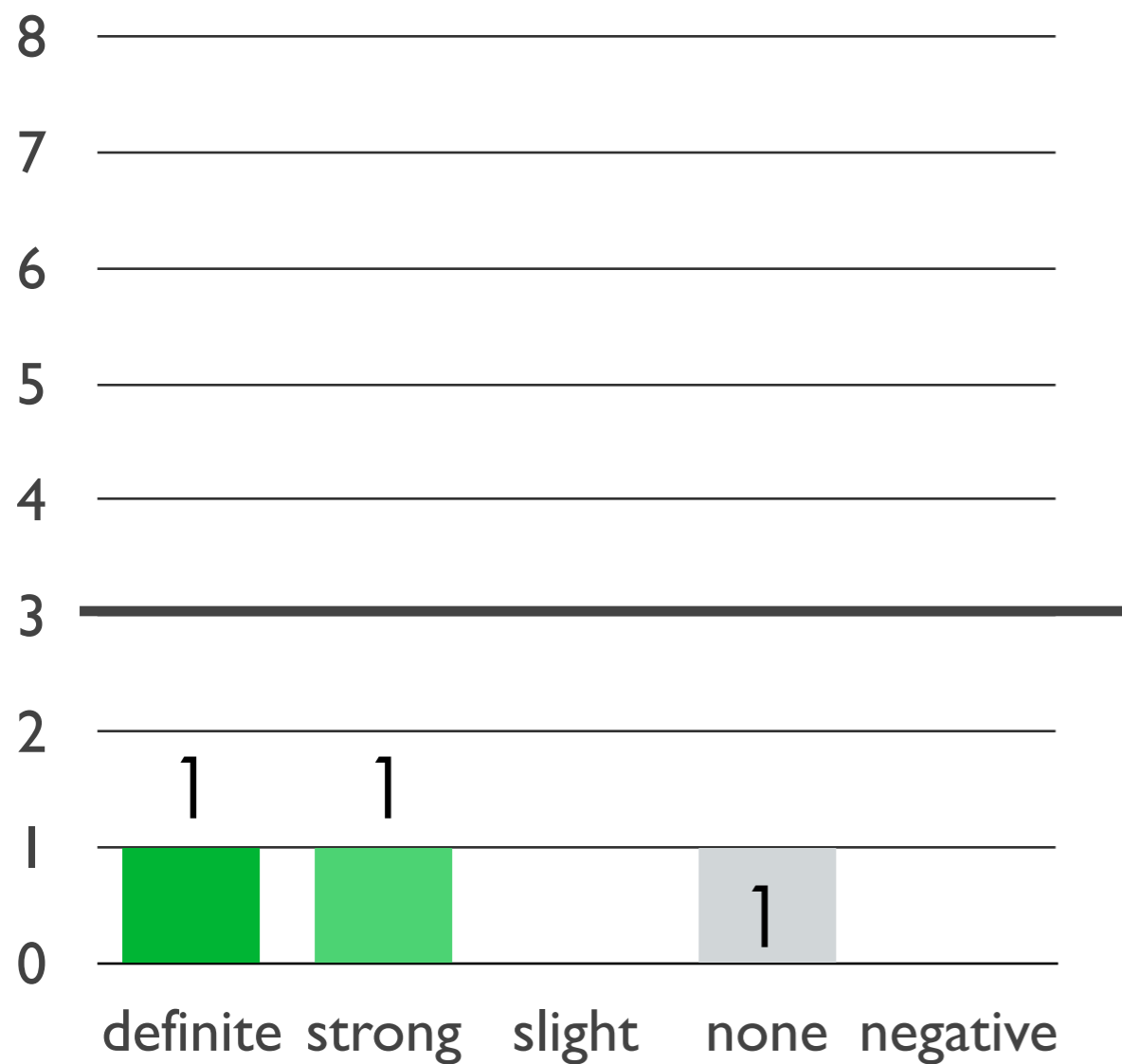


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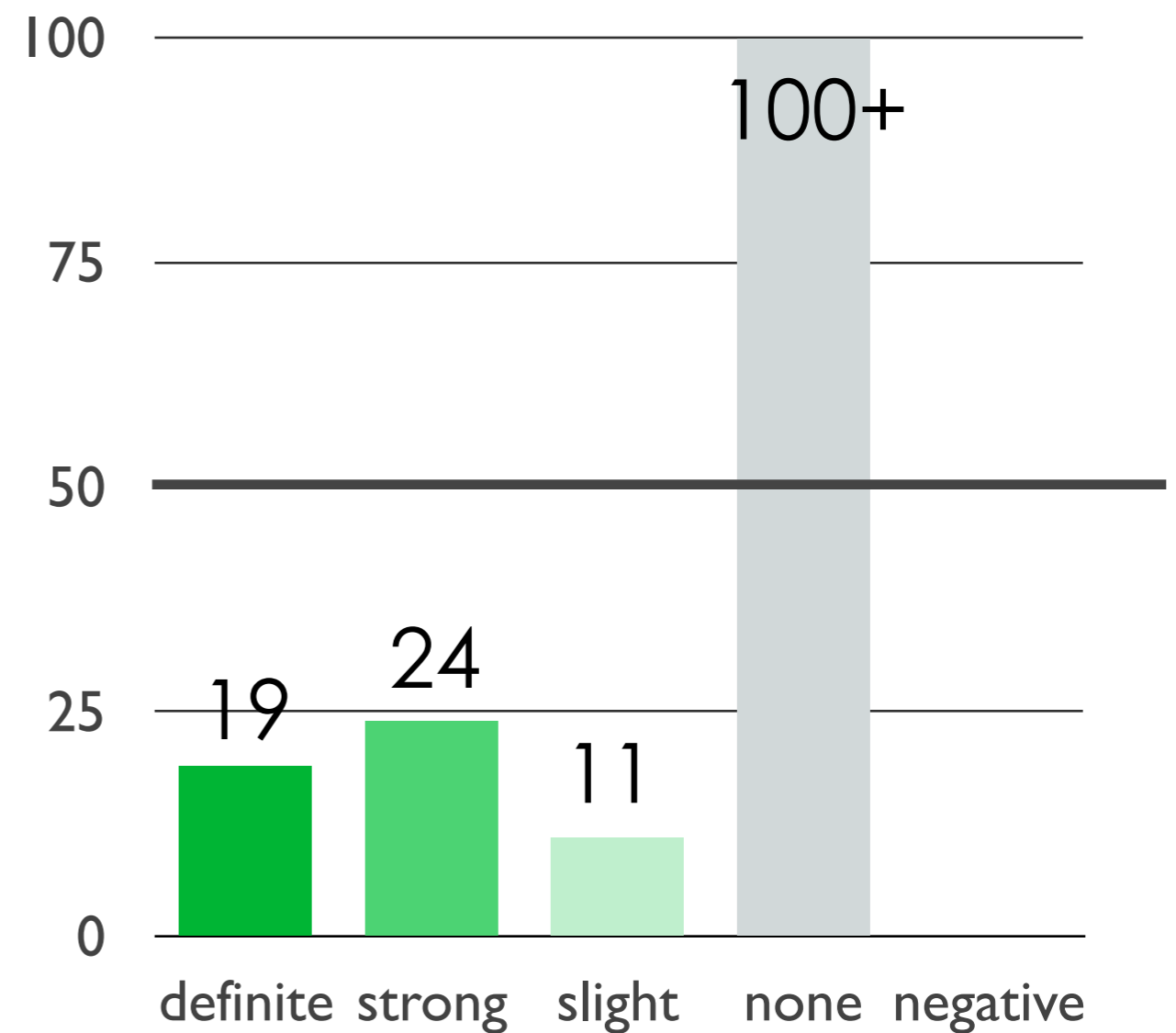


mandatory tier 1 tier 2

PREREQUISITES (min 3)



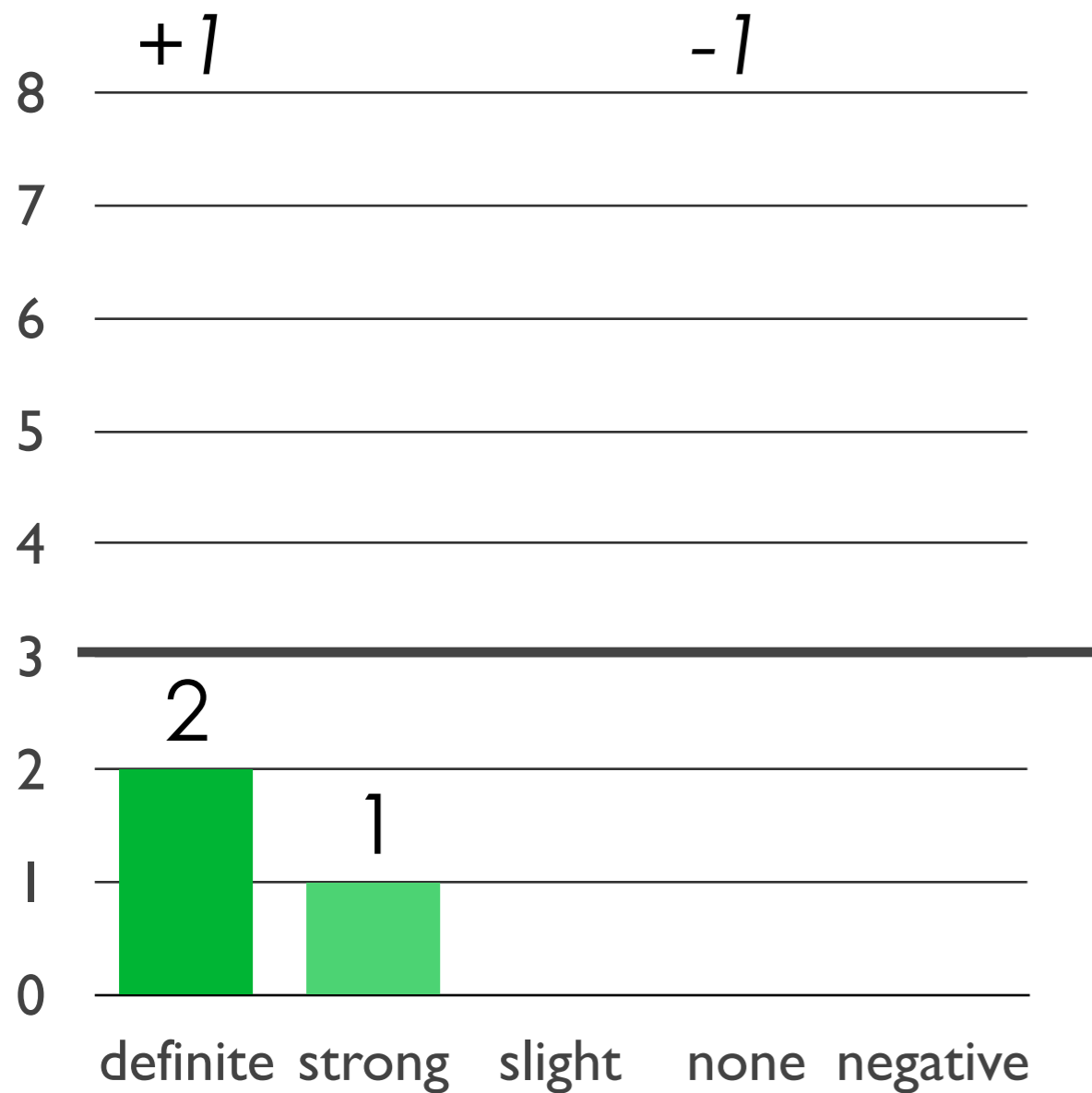
CREDITS (min 50)



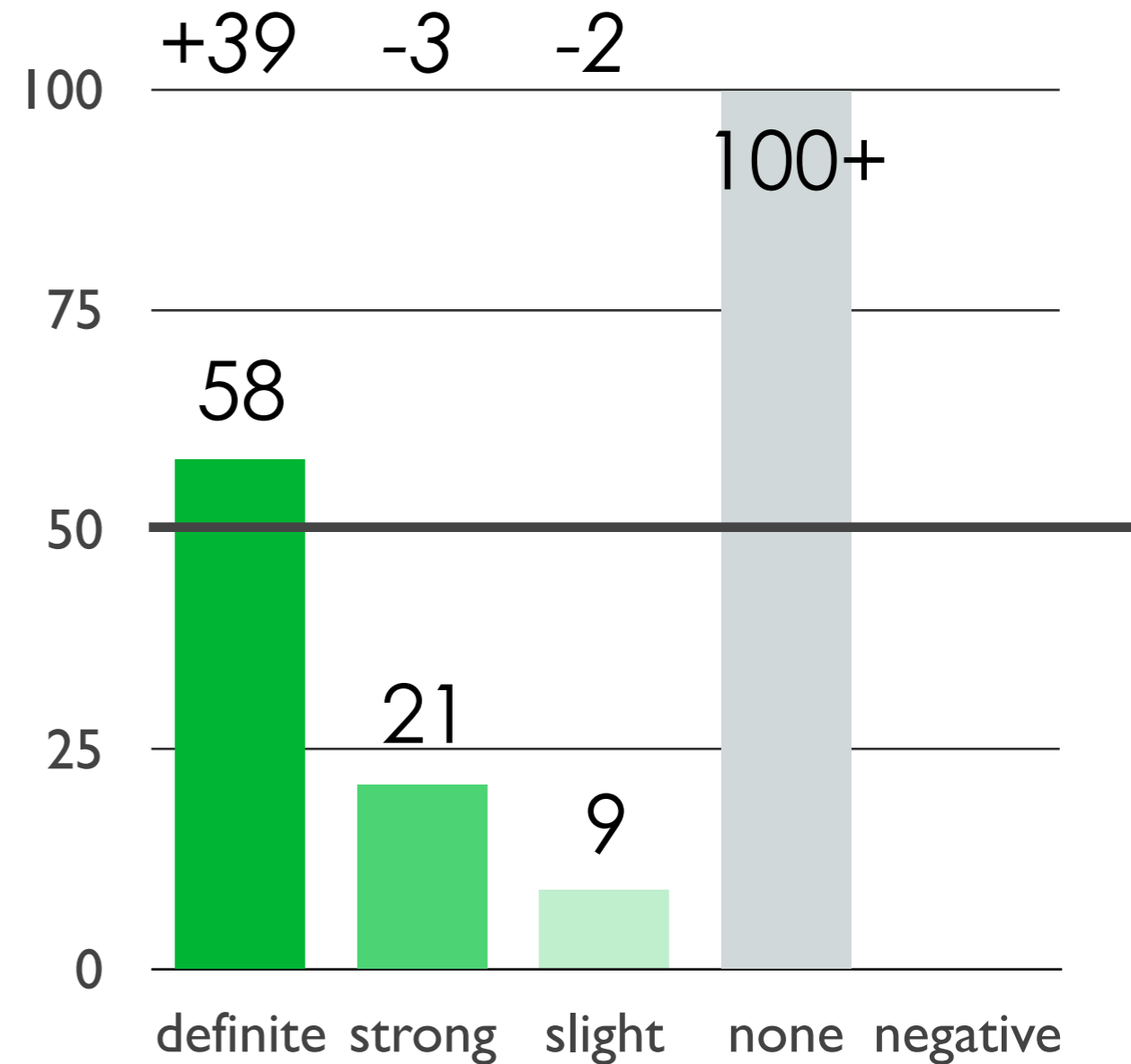
mandatory **tier 1** tier 2

PLUS 10

PREREQUISITES (min 3)



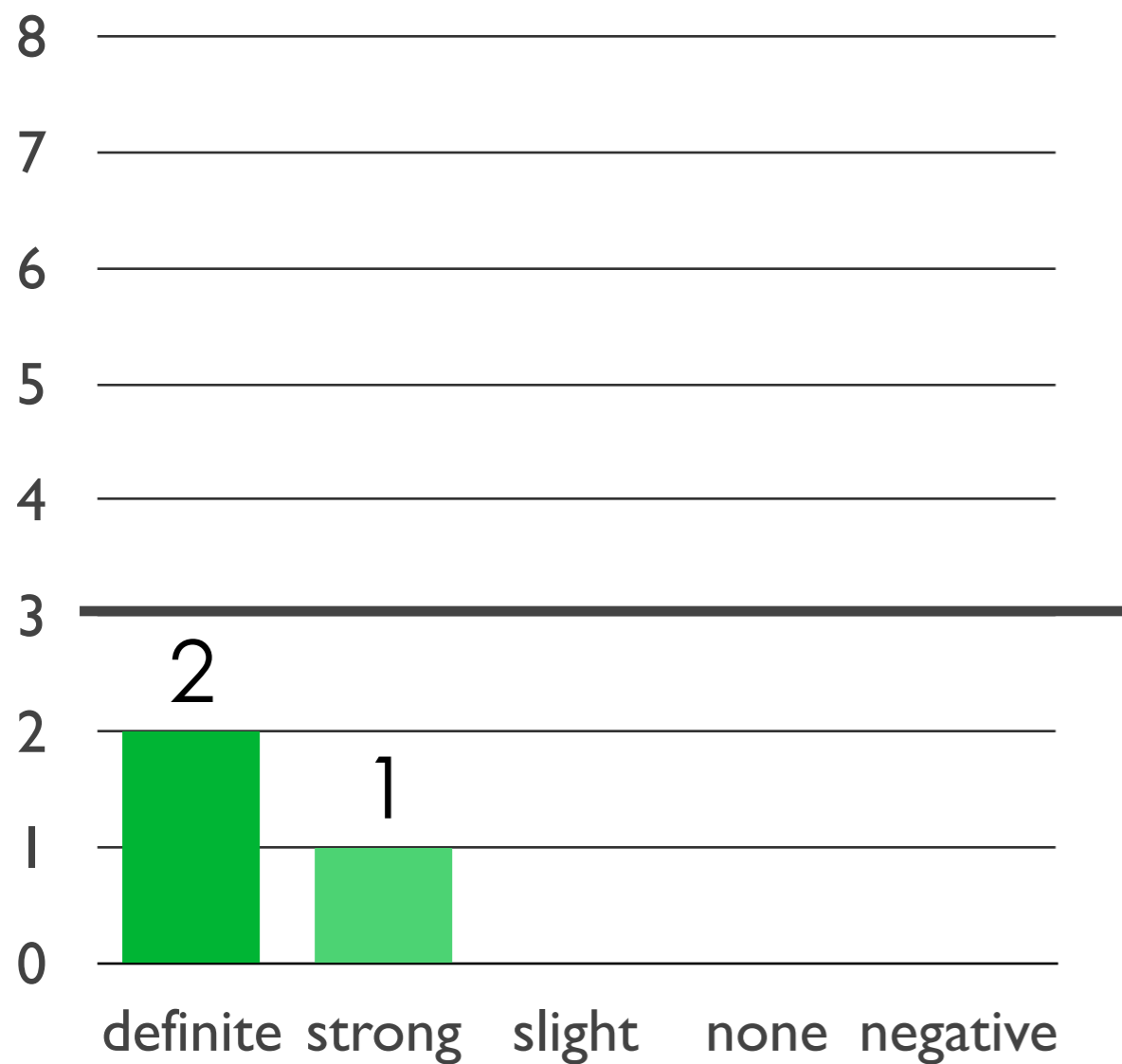
CREDITS (min 50)



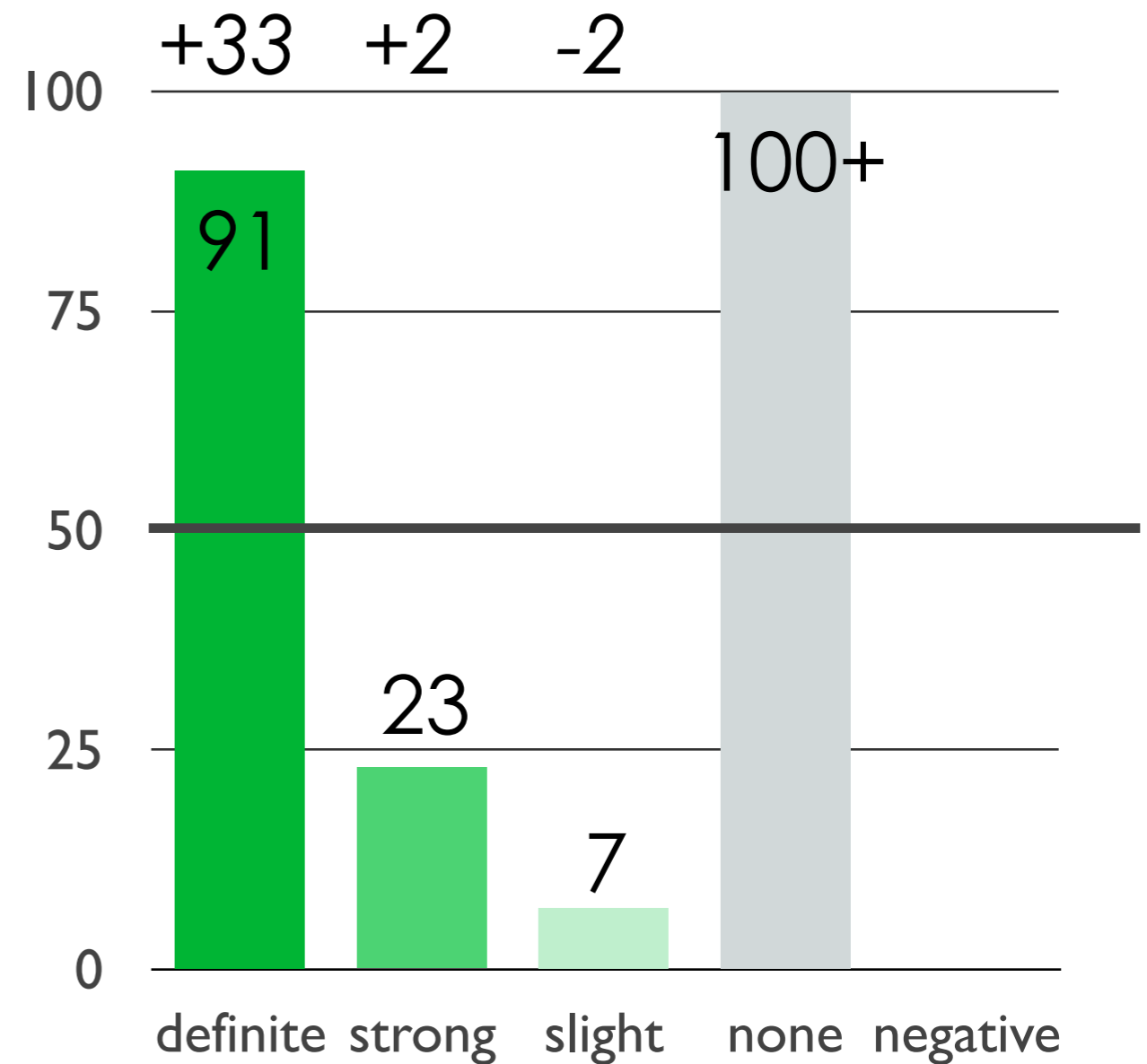
mandatory tier 1 **tier 2**

PLUS 17

PREREQUISITES (min 3)



CREDITS (min 50)



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	MANDATORY	TIER I	TIER 2
NON-RESIDENTIAL	LEED 4 of 8 prereqs ~15 pts not certified	LEED 5 of 8 prereqs ~30 pts not certified	LEED 5 of 8 prereqs ~40 pts ~certified
RESIDENTIAL	GPR 1 of 3 prereqs ~30 points	GPR 2 of 3 prereqs ~70 points	GPR 2 of 3 prereqs ~100 points

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tsimpson@globalgreen.org
310.581.2700