

PEEB CRITERIA FOR BUILDINGS

The Programme for Energy Efficiency in Buildings (PEEB) supports **low-emissions and climate resilient buildings** through project financing, policy advice and capacity-building. PEEB contributes to global efforts towards a net zero emissions buildings and construction sector, in line with the vision of the Global Alliance for Buildings and Construction (GlobalABC).

PEEB is technology-neutral and aims to achieve maximum results through an integrated approach for construction and renovation projects. Following an Avoid-Shift-Improve strategy (see next page), PEEB works to reduce green-house gas emissions and prevent resource depletion, while improving local climate resilience, energy security and living conditions.

PEEB supports project owners to raise their ambitions beyond national regulations and standards with the aim to achieve, whenever possible, nearly or net zero emissions buildings*.

The following principles guide our activities:

1 | Bioclimatic design Create functional, space-efficient and adaptable lay-outs with passive solar building design, adaptable to local climate conditions, building techniques and social context. For example, design should include appropriate solar orientation, compacity, shading and roof insulation.¹

2 | Efficient technology Choose durable, low energy and water consuming systems and appliances, adapted to local conditions, skills and user needs. They range from low-tech solutions such as ceiling fans and water-savings taps, to thermal storage tanks and smart building management systems.²

3 | Renewable energy Replace combustion appliances where possible and connect building equipment to sustainable energy networks, such as district heating and cooling, and to on-site renewable energy production, for example through photovoltaic, solar heating or geothermal.

4 | Sustainable materials Prefer low embodied carbon materials and components, from short value chains and renewable sources, adapted to local climate conditions and building techniques, low-processed, durable and recyclable, emitting little to no air pollutants.³

5 | Climate resilience Address vulnerabilities and prevent disasters by adapting building design and equipments to local social conditions and future climate and temperature projections with a focus on thermal comfort, flood resistance, energy and water security.⁴

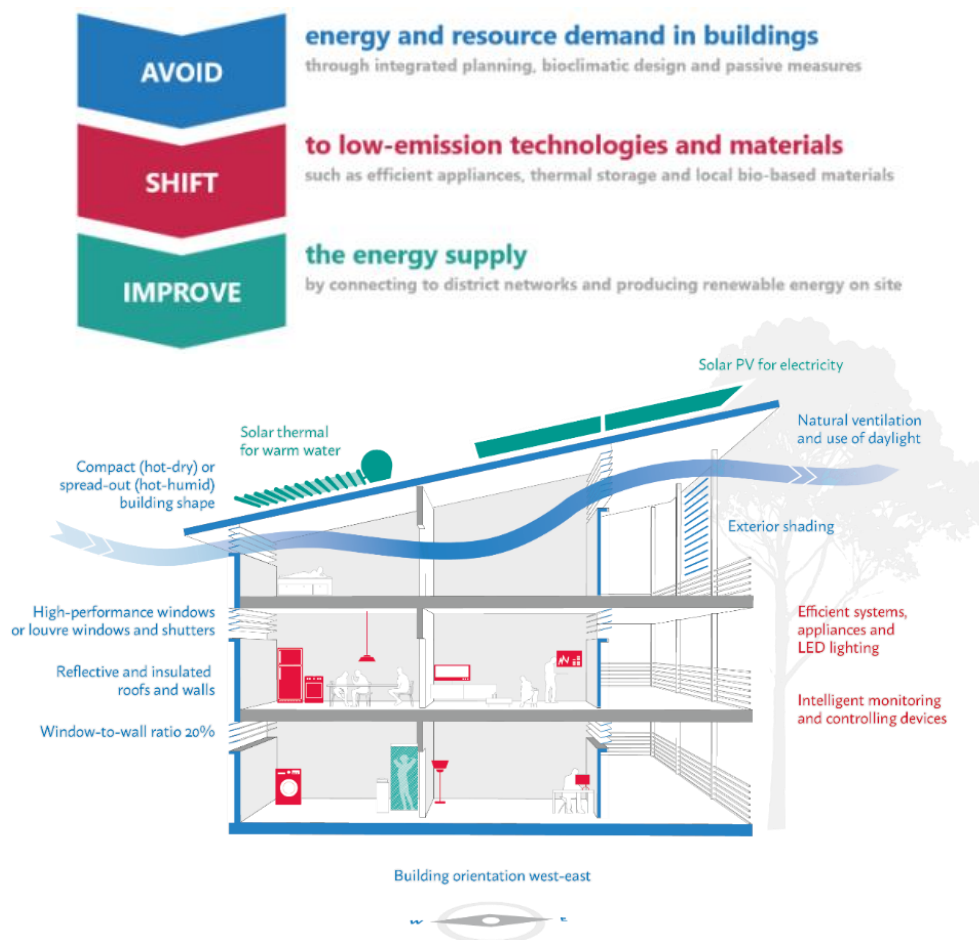
6 | Urban integration Contribute to liveable and sustainable environments by avoiding sprawl and unnecessary travel, enabling walking, cycling, public transport and electric mobility, promoting gender-inclusive spaces and biodiversity, avoiding soil sealing and supporting disaster prevention.

7 | Local skills Provide training to project stakeholders on finance, design, construction and operation of low-emission and climate resilient buildings. Raise awareness of local populations and building users through attractive and exemplary buildings and accessible user guidance.

Avoid-Shift-Improve – better building design is the basis for mitigation, resilience and well-being

* Minimum criteria to mobilise PEEB project support are: 1) aim to achieve at least 20% reduction in energy consumption, in green-house gas emissions and/or water consumption as compared to project baseline scenario (at least 2 of the 3 options); 2) aim to address project relevant climate vulnerabilities with a special focus on thermal comfort improvement; 3) transformational potential for the local buildings and construction sector through the project's visibility, scale or replicability.

Improved building design is often the most cost-effective solution to reduce resource and energy consumption, lower green-house gas emissions and increase resilience to climate change. Building design should adapt to the local context and climate by applying bioclimatic and passive building design principles. In addition, low-emission technologies and materials, as well as the use of renewable energy can increase the mitigation impact.



REFERENCES

1. **PEEB, 2019.** *Smart and Efficient: Digital solutions to save energy in buildings.*
2. **PEEB, 2020.** *Better design for Cool Buildings.*
3. **PEEB, 2021.** *Embodied Carbon: A hidden heavyweight for the climate.*
4. **PEEB, 2021.** *The Adaptation Imperative: How can development nabks scale up low-carbon and resilient buildings.*

On behalf of



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