sustainable settlement

green infrastructure

ENERGY EFFICIENCY

Australian Institute of Landscape Architects®

National Policy Statement

AILA advocates that energy efficiency issues should be addressed within the context of broader sustainability challenges.

It is AILA's position that there is an urgent need to incorporate ecosystem-services based landscape value assessment into energy efficiency and climate adaptation decision-making before it is too late, and the significant and currently unrealised potential of this vital aspect of our natural asset base is lost forever.

In particular, AILA emphasises the considerable potential for realising significant energy efficiency gains via improved planning and management of urban and regional landscape networks – i.e. 'green infrastructure' – as part of the development of more collaborative, integrated and systems-based approaches to national sustainability challenges as a whole.

It is important to recognise that decisions made around how we value, manage and invest in this crucial infrastructure component of our cities and settlements directly impact on broader energy efficiency and sustainability outcomes at local, regional and national scales.

Currently in Australia, green infrastructure receives disproportionately far less management, investment and strategic planning attention than that directed towards grey infrastructure; e.g. roads, rail, transport and other service infrastructure.

As a consequence, the vital, functional regenerative capacity of landscape, especially in relation to the life-supporting ecosystem services it provides, is coming under increasing threat via fragmentation, degradation and loss, especially in urban areas.

Investing in green infrastructure can help tackle future sustainability challenges in a way which enhances overall prosperity via the integration of innovative ecological and technological design solutions.

Landscape assets, and the ecosystem services they provide, are currently assigned only token monetary value in urban decision-making, despite the extraordinarily high actual value of green infrastructure when measured across a range of ecosystem services classifications, including production, regulation, stabilization, life-fulfilling and future option-protecting services:

"The benefits of green infrastructure are numerous. Green infrastructure is an effective and cost-efficient tool for absorbing and sequestering atmospheric carbon dioxide (C02). Efficient use of green infrastructure can reduce energy usage through passive heating and cooling; filter air and water pollutants; decrease solar heat gain; provide wildlife habitat; reduce the public cost of stormwater management infrastructure and provide flood control; offer food sources; and stabilize soil to prevent or reduce erosion. Green infrastructure is crucial to combating climate change, creating healthy built environments, and improving quality of life." UK House of Commons Environmental Audit Committee Sixth Report - Adapting to Climate Change – March 25th 2010

Values relating to energy efficiency gains are only one aspect of this provisioning potential. The US Environmental Protection Agency lists a range of environmental, economic and human health co-benefits of Green Infrastructure, many of which have the capacity to significantly leverage outcomes of existing climate adaptation and energy-efficiency measures.

The value-add potential of these benefits is particularly accentuated in urban and suburban areas where green space is limited and environmental damage is more extensive – thus offering unique opportunities for 'step-change' improvements in energy-efficiency policy development and outcomes in these areas.

Healthy urban landscape/green infrastructure networks are a vital component of the infrastructure of a successful modern economy. Ignoring the underlying value-adding potential of green infrastructure jeopardises our ability to meet existing and future challenges, including adapting to climate change and broader sustainability issues affecting food, water and energy security.

Conserving, enhancing and regenerating landscape performance potential via integrated green infrastructure strategies provides an efficient and cost-effective means to deliver a wide range of benefits to society. This includes significant improvements to energy efficiency outcomes. This potential exponentially increases when both market and non-market values of ecosystem services provisioning are incorporated in infrastructure investment decision-making.

Key Actions on Energy Efficiency & Green Infrastructure

At a government level, a range of measures for encouraging planning & investment in green infrastructure can be implemented, including:

- Setting targets for green infrastructure provisioning, regeneration and ongoing management, and integrating social and economic indicators into this context.
- Tailoring existing funding capacity and structures towards 'value-added' development, including promoting best-practice examples of economic advantages of urban-landscape based projects.
- Focusing fiscal measures on strategic incentives for enhancing and supporting green infrastructure potential – e.g. conservation-based land 'banking' schemes, ecosystem-services based land management programs, community title arrangements, public/private partnerships, landscape contribution credits/offsets etc.

This Policy statement is part of the AILA's Sustainable Settlement suite of Policy Statements on Australian Landscape Architecture, the profession committed to the creation of meaningful and enjoyable outdoor places and to the sustainable management of our built and natural environment.

More details on AILA National Policy Statements: www.aila.org.au/policies

All queries on National Policy should be directed to the AILA's CEO.

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