

Building efficiency for jobs and growth

Why every building counts in the post-COVID recovery

The property and construction sector is playing a key role in the post-pandemic recovery of our economy and communities. Being one of the largest employers in Australia and a key contributor to our national GDP, the sector is well positioned to achieve immediate impacts in terms of jobs creation and industry support, while addressing our most pressing construction related needs.

At the same time, buildings present a significant – and largely untapped – opportunity for an energy efficiency driven rebound. As governments move to mobilise the sector, support for energy efficient buildings can provide an effective boost of economic activity and increased labour demand, while delivering on a number of policy objectives. Benefits range from labour intensive projects that are rooted in local supply chains to improved energy affordability for consumers, reduced stress on the electricity network and a least cost pathway to decarbonisation.

Around the world, there are many examples of governments using energy efficient building programs to support the bounce back from major economic crises. While the Australian Government is already progressing a comprehensive agenda through the COAG Energy Council's Trajectory for Low Energy Buildings, additional, targeted measures would deliver new opportunities for the economy, environment and society.

Such sector-specific measures could complement a general framework for managing the economy in the midst of the COVID-19 crisis. In the short term, they can take the form of immediate stimulus opportunities that limit job losses and in the longer run, reform opportunities that help to bolster industry regrowth and general economic recovery.

These short and longer term measures to upgrade the energy efficiency of Australia's buildings would help to reboot the economy and:

- Create 91,881 job-years of employment;
- Cut households' and businesses' energy bills by \$4.8 billion per annum;
- Strengthen the electricity grid and reduce the risk of power shortages;
- Reduce households' gas use by 940 million gigajoules over a decade. This could provide almost a quarter of the Australian manufacturing sector's gas needs; and,
- Dramatically reduce Australia's greenhouse gas emissions.

A blueprint for action

In 2019, the Green Building Council of Australia and Property Council of Australia, with support from the Australian Sustainable Built Environment Council and Energy Efficiency Council released *Every Building Counts: A practical plan for emissions reduction in the built environment*. Comprising a total of 75 recommendations for federal, state and territory and local governments, the report leveraged regulatory and market based interventions to address a number of opportunities for new and existing buildings.

As governments look to the property and construction sector to rebuild our economies, these recommendations highlight areas where the biggest difference can be made for energy efficiency in buildings. Assertive action is needed to raise the energy performance of new buildings and incentivise investment in existing building upgrades. Support for training and upskilling will enable industry to deliver sustainable solutions at scale. Government policies can also improve access to finance, de-risk investment in new technologies and lower the cost of the clean energy transition.

Supporting businesses, households and skills

We, a coalition of industry groups urge Australian governments to fund a major overhaul of the building sector to reignite the economy. Informed by *Every Building Counts* and with a focus on energy efficiency and management, this property-upgrade strategy would build on existing and proposed measures to tackle the economic impacts of COVID-19.

Investment for programs that support businesses and households to improve how efficiently and productively buildings are developed and operated could:

- Drive significant economic activity: energy efficiency and energy management upgrades are labour intensive so have an even larger 'local job' multiplier than renewables, especially among sole traders and SMEs.
- Be rolled out rapidly across the entire economy: Energy efficiency and energy management upgrades involve improving the performance of business processes and buildings across the entire economy. That means lots of small to medium 'shovel ready' projects that can get started very quickly.
- Have a long term productivity dividend: Energy efficiency and energy management investments continue to deliver lower energy bills for businesses and households long after the initial investment is paid off, boosting economic productivity in the medium and long term.
- Deliver low cost greenhouse gas reductions: Energy efficiency has been the most significant source of emission reductions this century. From 2014 to 2016, improvements in energy efficiency were responsible for 75 per cent of the stabilisation of emissions from the global energy system. Focusing stimulus measures on energy efficiency provides an opportunity to drive significant low cost abatement, and support delivery of the respective emissions reduction targets and goals.

Stimulus priorities in the short-term:

Recommendation 1: Support commercial building upgrades through tax incentives (Federal, State and Territory Government)

Australia's premium offices are world leaders in energy efficiency, but the energy performance of many buildings outside the commercial office building sector remains poor.

Upgrading the energy efficiency of Australia's commercial buildings would not only stimulate economic activity through inputs of local labour, it would also deliver an estimated \$12 billion in

energy savings between 2016 and 2030. Since efficient buildings are also healthier and more productive, gains in staff productivity are likely to dwarf the benefits in energy savings.

Notwithstanding the progress made by market leaders, energy efficiency investment for most stakeholders in the built environment remains a low priority. Barriers include the perceived difficulty of energy upgrades, high upfront costs and long payback periods. To address this, tax incentives supporting high performing buildings can address the gap between energy efficiency outlays and returns, and motivate action by building owners and tenants.

We urge the Federal Government to deliver new tax incentives for investments aimed at improving building energy efficiency. Priority should be placed on:

- Modernising the 10 per cent green building withholding tax regime by:
 - Expanding the regime to all buildings held for rental purposes. The regime is currently limited to offices, hotels and shopping centres.
 - Applying the rate to buildings that have been refurbished to achieve the necessary NABERS – Energy and Green Star ratings. The regime is currently limited to newly constructed buildings.
 - Applying the test on an asset by asset basis. The regime currently requires all of the MIT's assets to satisfy the Green Star rating requirements.
- Extend the current \$150,000 instant asset write-off scheme for an additional twelve months beyond the end of 2020 to support purchase of more energy efficient equipment for commercial buildings (such as large energy- using equipment like chillers, air handling units, pumps, and fans) and fund an associated information campaign to highlight this opportunity.
- Introducing a green depreciation scheme, which would see the deferment of taxable income in early years in exchange for bringing forward investment in large upgrades that exceed the instant asset write-off threshold.

State and Territory Governments, in partnership with their local government counterparts should also introduce rates and charges relief for buildings that satisfy a performance standard, for instance through stamp duty and land tax concessions for high performing buildings. As businesses focus on cost reduction during this critical time, tax incentives can help improve the overall return on investment of energy efficiency projects, contributing to economic activity that delivers better assets and more jobs.

[Recommendation 2: Establish a 'Smart Building Fund' to drive commercial building upgrades \(Federal Government\)](#)

Over the last two decades, the widespread adoption of established government and industry-led rating and certification initiatives such as NABERS - Energy and Green Star – Performance have provided built environment sector a better understanding of the energy efficiency opportunities in commercial buildings. We recommend that these tools should be leveraged to drive commercial office retrofits through a Commonwealth program where buildings are funded for improving their NABERS - Energy or Green Star – Performance ratings from a specified baseline.

This program can take the form of a \$500 million 'Smart Building Fund', which could cover the cost of a building's initial rating under the respective programs if a rating does not exist (combined, the two programs currently cover the vast majority of commercial buildings in Australia). The Smart Building Fund could also supplement incentives from existing government programs to cover up to 70 per cent of the costs of implementing energy efficiency upgrades, as long as building owners commit to deliver an energy efficiency improvement of at least 1 star under NABERS - Energy or 1 star under Green Star – Performance. Grants would be capped at \$500,000 per building.

The Smart Building Fund should be designed to complement any existing energy efficiency programs in the building space, including the NSW Energy Saving Scheme, Victorian Energy Upgrades schemes, South Australian Retailer Energy Efficiency Scheme and ACT Energy Efficiency Improvement Scheme. These existing schemes were designed for pre-COVID economic conditions, and provide far too little incentive to drive upgrades during a downturn. However, if these existing frameworks are complemented by the Smart Building Fund they would significantly lower the cost of driving upgrades in the commercial building sector compared to other sectors of the economy.

We estimate that this fund would leverage at least \$250 million in investment from the private sector, injecting a combined \$750 million in energy efficiency investment in commercial buildings over a period of 2 years. This is expected to result in over \$1.8 billion in energy bills savings, and reduce GHG emissions by a cumulative 50 Mt Co2 by 2030.

[Recommendation 3. Upgrade government owned and occupied facilities \(Federal, State and Territory Government\)](#)

Australian governments occupy about 30 per cent of the commercial building space in Australia, including schools and hospitals, and are involved in energy intensive sectors such as water supply and treatment. The vast bulk of these assets are held at the state level.

Upgrading schools and hospitals to be more energy efficient reduces governments' energy bills and resource intensity, strengthens budgets by lowering operating expenditure, reduces emissions and improves the resilience of the electricity system. However with a handful of exceptions, programs to upgrade the energy performance of these buildings are either non-existent or underfunded.

From a stimulus perspective, upgrades to public buildings like schools and hospitals is the most straightforward way of driving job retention and creation in the energy efficiency sector, as capital allocation and decision making is entirely under the control of government.

This program would not only strengthen governments' budgets, it would also support hundreds of trades and professionals, including contractors, subcontractors and local manufacturers that supply high performance building technology and materials.

The Federal Government should allocate \$1 billion of 'dollar for dollar' matched funding for state government undertaking energy efficiency upgrades of schools, hospitals and other public buildings.

This funding should be:

- Offered on a first come, first served basis;
- Capped at \$150 million for states, and \$50 million for ACT and the Northern territory, with the aim of driving a \$2 billion asset improvement program;
- Provided on the basis that all funds are expended no later than June 30, 2022.

Recommendation 4: Incentivise deep retrofits to improve homes performance (State and Territory Governments)

Across Australia, existing homes have an average rating of only 1.7 stars in terms of energy efficiency, compared to newly built homes, which have an average rating of 6.1 stars. Many people are living in homes which are cold in winter and hot in summer, putting them at risk of increased health problems. Upgrading Australian homes will drive significant activity for small and medium enterprises and the local construction sector. According to the IEA, when homes are upgraded to higher efficiency standards, more than half of the total investment typically goes directly to labour.

We support recommendations from a number of groups that governments should particularly focus their funding on upgrading public housing and the homes of highly vulnerable segments of the population. However, it is also critical to catalyse transformation in the wider building stock, with a focus on technologies that are readily available and can be rolled out quickly by appropriately qualified trades, such as electricians and plumbers.

The Commonwealth should commit \$500 million to a residential energy transformation fund focused along two tracks:

- \$250m to fund the bulk rollout of commonly available technologies that improve the energy performance of residential buildings;
- \$250m to provide grants to improve the thermal performance of existing homes. These grants should focus on renovations that improve the health, safety and energy efficiency of homes, such as draught-proofing. The grants should prioritise vulnerable households that often live in the lowest quality buildings.

We recommend State and Territory governments should establish similar co-funding schemes to drive deep home retrofits. Working with industry, government could undertake additional measures to drive market capacity, to ensure that suppliers are positioned to scale up quickly, and support consumer demand for products and services. Examples of these measures might include government sponsored programs to support workforce skills and training, or initiatives to help consumers make well-informed choices among qualified products and services. Besides providing skills uplift and supporting job creation, such efforts would ensure that industry is ready to respond with sufficient levels of quality and safety.

Recommendation 5: Upgrade social housing (Federal, State and Territory Governments)

Poor performing homes affect not only Australians' health and comfort, but they also have an impact on the economy overall through increases in public health spending.

Australia has approximately 440,000 social housing dwellings, which provide low-cost housing for people who cannot afford accommodation in the private rental market. Despite a growing portfolio of ageing stock, renovations are not happening at the depth or pace necessary. Retrofitting the

worst performing properties would quickly create thousands of jobs, lower bills by reducing household energy cost and lead to improved health and wellbeing.

Federal, State and Territory Governments should co-invest to implement energy efficiency for all social housing. Under the NLEPP framework proposed by the Australian Council of Social Services, all social housing properties should first undertake an energy audit to determine the need for energy upgrades, or alternatively, advise whether a new re-build is required. Based on the outcomes of the energy audits, properties could install energy productivity upgrades that would include (but not be limited to) reverse cycle air conditioners for heating and cooling, more efficient hot water (heat pumps), draught sealing, ceiling fans, efficient thermal building envelope, high performance windows, lighting and solar PV.

[Recommendation 6: Support leadership through project acceleration \(State & Territory\)](#)

Governments around Australia are currently identifying building and construction projects of state and regional importance that are 'shovel-ready', to keep Australians at work and deliver much needed infrastructure and buildings. These projects are expected to provide immediate benefits for local economies, and their acceleration is being supported by governments who recognise not only their economic contribution but also their alignment with broader goals related to energy efficiency or emissions reduction.

Governments have an opportunity to work with industry to ensure these objectives are achieved meaningfully, in the context of projects earmarked for fast-tracking and development assistance. This is possible through leveraging established rating systems such as Green Star to validate sustainable design, construction and operational performance outcomes, thereby helping governments to provide assurance of outcomes while maintaining an accelerated timeline for delivery.

[Reform priorities:](#)

[Recommendation 7: Planning incentives to drive energy efficient housing and upgrades \(State and Territory Governments\)](#)

To date, the provision of planning incentives to homebuyers and builders that commit to best practice is an important mechanism that has largely been overlooked in the most governments' policy mix. Planning incentives would support the accelerated deployment of high performing new buildings by targeting one of the highest priorities for building developers – the cost and time invested and the uncertainty of planning processes. State and territory governments should work with local governments to prioritise implementation of:

- Density bonuses and additional floor-space allowances, which offer developers an increase in the permitted density of residential projects, and floor-space in commercial building projects in exchange for committing to higher energy performance standards than required in BASIX and the National Construction Code
- Green door policies to provide expedited or prioritised review and approval of development applications associated with more sustainable and higher performing buildings.

Recommendation 8: Build a foundation of leading homes (State and Territory Governments)

Sustainable homes can be a driver for economic growth. Accelerating Australia's transition to sustainable housing would deliver more than half a billion dollars of extra investment in the construction industry over the next decade and create over 7,000 new jobs. It would also save Australians \$600 million on their energy bills.

A 1,000-home pilot program that incentivises volume builders to deliver sustainable homes should be funded through an agency such as ARENA. The results of the pilot program would be used to support training and skills development of early industry adopters, inform better engagement with home buyers, and assess the need for any subsequent programs or incentives to support market transformation.

Recommendation 9. Workforce Development (Federal, State and Territory Governments)

The delivery of energy efficient new buildings and deep retrofits at scale cannot be achieved without a highly trained workforce. To grow the market for sustainable buildings, Australia needs a consistent base of knowledge across the construction supply chain that is accessible and can be tailored to the needs of each industry subsector and jurisdiction. As the Expert Panel led by Grant King noted in their findings recently, skills shortages around energy efficiency is hampering efficiency improvements in the building and transport sectors. Training and education can support industry capacity building, the benefits of which include supporting workers transitioning from other sectors, local economic development as well as improved building quality and greater energy affordability for consumers.

Past research has indicated that cross-industry issues impacting the construction of high performance buildings including knowledge and skills, quality control and regulatory compliance. We strongly suggest that governments should partner with industry associations as well as tertiary institutions to provide targeted education and skills training to address these issues. To ensure that knowledge and education are subject to constant review and renewal, skills recognition (including CPD training and quality assessment) should be leveraged. The coordination of this training is vital, and necessary to ensure an education and training agenda that encourages an integrated cross-industry understanding of energy efficiency.

We recommend that:

- The Australian Government should commit \$50 million over two years to cross-sector energy efficiency skills and training program. This investment would support jobs, the delivery of energy efficiency stimulus programs, and the long term success of the government's 2030 emissions reduction target.
 - Initial effort should focus on supporting initiatives that are either underway or in pilot stage at the state level such as energy training for business advisors and energy auditor training.
 - Further activity should be underpinned by a rapid review of skills needs around energy efficiency, as recommended by the King Review. This review should address The differential effects of the COVID19 crisis on industry sub-sectors and how

education and training can support those sectors develop business opportunities in the development and supply of energy efficiency products and services.

- This review should be updated every two years to keep pace with consumer demand and technology development and develop targeted education and training programs addressing the gaps.
- State and Territory Governments fund the development of targeted education and training programs in relation to changes to the National Construction Code (NCC) and state regulations addressing energy efficiency, such programs:
 - To be available before the changes come into operation.
 - Address the immediate needs of industry sub-sectors impacted by COVID19 such as sales and marketing training on how to articulate the value proposition of energy efficient buildings to consumers (an example of such training is NSW DPIE sustainable housing sales training).
 - Address the purpose, rationale, value proposition and theory underlying each change
 - To equip industry with the knowledge and skills to generate economic and environmental outcomes.

[Recommendation 10: Adopt recommendations from Expert Panel examining additional sources of low cost abatement \(Federal, State and Territory Governments\)](#)

In 2019 the Australian Government commissioned an expert panel to undertake a review of Australia's emissions reduction policies. Led by the former BCA president Grant King, the review's findings were recently released and provides a robust platform for the Government to unlock low cost carbon abatement across the economy.

Among the expert panel report recommendations is a series of measures aimed at improving the uptake of energy efficiency in buildings. We strongly encourage their adoption by the Federal Government, to help drive benefits for businesses, households and industry and to help achieve our climate goals. They include:

- Expanding the NABERS and the Commercial Buildings Disclosure (CBD) Program to a broader range of commercial building types (e.g. hotels).
- Developing an energy performance rating scheme for new and existing residential buildings based on the Nationwide House Energy Rating Scheme (NatHERS) as a matter of priority;
- Introducing mandatory energy performance disclosure obligations for the residential sector linked to the rating system;
- Establish a knowledge sharing and outreach hub for key sectors to addressing information barriers impeding the uptake of ERF projects and investment in cost-effective abatement opportunities with a focus on energy efficiency in SMEs, agriculture, road freight, the property sector and industrial facilities.
- Undertaking a review to determine the extent of skills shortages associated with abatement activities and whether there is a need for additional measures to address relevant training needs, particularly in regard to the availability of trained energy efficiency experts in the industry and building sectors.

- Committing to these actions would complement the COAG Energy Council's Trajectory for Low Energy Buildings work program, whilst helping to overcome non-financial barriers to energy efficiency identified in the expert panel's report. They can also contribute to the Government's economic recovery efforts, whilst addressing long term challenges such as the transition to net zero emissions.