

Sustainable
Action Plan
2021-2029



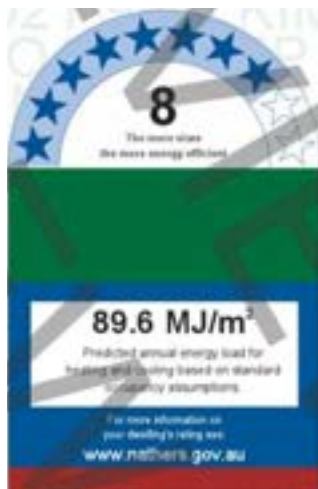
N O R T H E R N
E D G E

VISION

We can do what we have always done and live in a space that is okay

OR

We can become better designers to design better spaces that are great and surpass performance standards



NO NEGATIVE IMPACT

At Northern Edge Studio we intend to create buildings that are better for the environment. Not just the buildings themselves but also the **process** we are taking to design the buildings.

We want to design spaces that **reduce the impact** we are negatively making on the environment and make changes for a **better future**.

KNOWLEDGE

We will continue to further our knowledge within the industry and keep up with practices that are **promoting green buildings**.

We would like to be able to **provide advice** to others on how we can continue to reach and **pass industry standards** when it comes to creating **environmentally friendly buildings**.

PASSIVE HOUSE

Utilising **passive house principles** in all our buildings will make our building more **efficient** and help save the clients in the long term.

Promoting the use of better long term materials that can survive the times and **adapt to future changes**.

BUSINESS PRACTICE

We intend to better promote **sustainable design as a business**.

Promoting it on our social platforms but also informing potential customers of our vision towards a **zero emission future**, allowing them to get involved with the process earlier along with helping to promote a better future.

RESOURCES

Utilisation of better design resources will help **reduce** not only the **impact** our buildings are making on the environment but also help us become **more efficient designers** in the process.

Plug-ins and researching better methods that can be utilised make our **design process more efficient**.

AWARENESS

Raising awareness with the people we work with including, **co-workers, clients, contractors** and others within the design industry will help further promote the benefits of creating.

We desire to be able to **advocate** and be a voice when it comes to sustainable design.

LIFE CYCLE

By informing clients of **life cycle assessments** on their chosen designs, it will better allow us to get the client involved in creating a **better future** by utilising more **sustainable materials**.

This will help in **reducing later costs and implications** along with allowing us to **choose better material options**.

ADAPTATION

We want to be able to continue to **adapt to the changing circumstances** and be up to date with our knowledge.

We want to be able to **adjust our standard** of work to continue to meet and **pass industry standards on sustainability**.



SUSTAINABLE DESIGN PROCESS

What are **we** implementing to design better?

STAFF TRAINING AND RESOURCES

Ensure we are all invested in the sustainable design practice.

Allow and support staff to continue gaining knowledge on sustainable design practices by attending relevant education programs and seminars.

Learn new software that will assist in designing better outcomes to our projects.

Gain relevant certificates to allow us to continue to strive for better.

Utilise better resources in the studio to reduce the need for creating hard waste. Using recyclable materials when hard waste is created through our design process.

Source office supplies that are carbon neutral and promote this outlook outside of the working environment.

Implement minimum standards of designs and continually update these to meet and surpass minimum sustainable standards.

WINDOWS

Design all buildings to have a minimum standards for windows (aiming to reach triple glazing as standard).

Design so that windows don't create thermal breaks.

Working with manufacturers to improve standards.

BUILDING MATERIALS

Utilise local materials where possible.

Use renewable, recyclable or energy efficient materials.

Research life cycles of new materials.

INSULATION & AIR TIGHTNESS

Utilise insulation to its full potential in ceilings, walls and underfloor. Create a fully insulated thermal envelope.

Design buildings to reduce possibilities of thermal breaks.

Better ventilated buildings perform better and can help with reducing costs in the long term.

ORIENTATIONS

Design new builds to allow for the best orientation on site.

Create extension and renovations that best utilise the orientation where possible.

Better shutters and shading device included in design.

PLUMBING

Utilises plumbing fixtures in all builds so they have low flow.

Include over minimum rainwater holding requirements.

Better utilise grey and stormwater on the property.

Research options to allow filtration for domestic properties to be plumbed from rainwater.

LIGHTING AND ELECTRICAL

Design spaces to better use natural light, where not possible choose more efficient fixtures.

Specify better performing fixtures across all builds.

Put in monitoring devices to better understand energy use.

HVAC

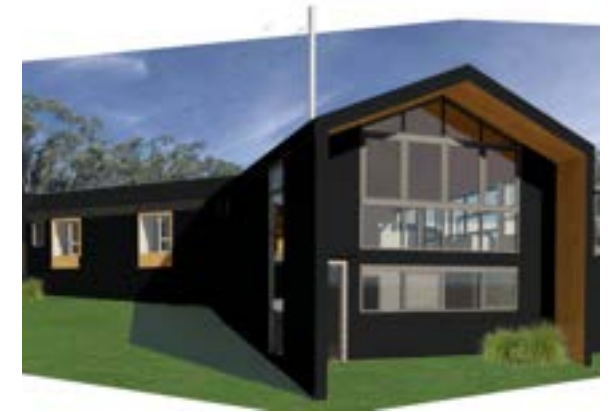
Design buildings to utilise HVAC systems over less sustainable heating and cooling options..

Promote HVAC to clients and gain more knowledge over time.

LIFE CYCLE

Create buildings with a life cycle in mind, how can the building be utilised in the future or be recycled.

Reduce the amount of demolition on current projects and promote renovation over re-build.



SUSTAINABLE OPERATIONS

How can we as a business **perform better?**

At Northern Edge we intend to better utilise our **office space and resources**. There will always be room for improvement on ways we can better lessen our impact on greenhouse gasses. **Bettering our knowledge** on sustainable design will not only help us design better buildings but also help to reduce the long term design process and **reducing our impact** from a running perspective. Keeping up with sustainable practice and continuing to better our knowledge will allow us to meet our goals and help us reduce the impact we are making in the industry.



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ENERGY USE

- ✓ Making sure we are continually turning off **appliances** when not in use.
- ✓ We can re-**evaluate our energy plan** yearly to make sure we are utilising the best system.
- ✓ **Reduce** the need for **artificial heating and cooling** along with better solutions for lighting the office.



WASTE REDUCTION

- ✓ **Reduce** the need for **printing hard copies** of our works. Better utilise digital applications that allow us to complete our work with creating hard waste.
- ✓ Implication of **better rubbish disposal**, and utilising more **sustainable paper** when printing and writing notes.
- ✓ Making **double sided printing compulsory** for all printing to reduce unnecessary paper use.



TRANSPORTATION

- ✓ As staff we can **reduce** on reliance of **passenger vehicles**. Better utilising public transport options or ride sharing between co-workers will help to reduce our impact on greenhouse emissions while travelling.
- ✓ **Reduce** the need for **face to face meetings** with clients where possible and when not possible source more sustainable transportation to attend meeting over private vehicle where possible.



RESOURCES AND SUSTAINABILITY

- ✓ **Sharing our office space** with other business helps us to reduce the unused space within the building. **Sharing the space** allows us to **share resources** and **reduce the running cost** across the businesses.



TARGETS

What we aim to do over the next 7 years, reviewing our progress regularly to make sure we are keeping on target



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2021-2023

Within the next 2 years we intend to understand how we can better design along with undertaking methods to reduce our carbon footprint, not only in design but practice. We want to educate ourselves and others on better ways forward and move in the right direction to becoming carbon positive. We would like to be able to have a good understand on the way forward so we can confidently promote sustainably utilising the correct knowledge.

To help us reach this target we are:

- ✓ Shutting off all electrical devices at the end of each day
- ✓ Promoting better transport option to and from the studio
- ✓ All electricity in the office is currently carbon offset
- ✓ Reducing hard copy prints and better utilising electronic resources
- ✓ Refine detailing in documents to minimise building waste
- ✓ Promoting better sustainable practices across sub-industries and fellow designers
- ✓ Making sure staff are active to better perform reducing the risk of long term issues



2023-2027

Within the next 5 years we intend that we will be designing better performing buildings. Working with others to continue understanding a better way forward. Utilising products with better life cycle costings, recyclability and reuse. We want to continue to improve our minimum standards for buildings and push for smarter designs. Continue to reduce waste not only on the building site but in our office space by better utilising our resource.

We aim to reach this target by:

- ✓ Encouraging staff to further their education and knowledge on sustainable practices
- ✓ Reviewing each year ways we can better perform as a business
- ✓ Further refine detailing across all drawings
- ✓ Better utilise resources available to sooner implement NABERS and green star information into drawings creating a database within the studio
- ✓ Identify better tools to help up with design and implementing sustainable aspects into buildings
- ✓ Plan to have a very thorough database of information available to all staff that can be implemented into all designs
- ✓ Better source energy and resource we use in our office space
- ✓ Minimum 8 star rating for all buildings we design
- ✓ Passive house design offered to all clients as an option for new builds
- ✓ Look at being carbon positive
- ✓ Partner with suppliers who are on the same path as us for a sustainable future



2027-2029

Within the next 7 years we intend to surpass minimum design standards on all designs. Continue to advocate for better design not only for us but for others. Create data banks that we can reference regularly to make sure we are meeting our own standards.

To reach this target we:

- ✓ Intend to have more knowledge across staff members so buildings can be designed better to begin with, reducing the need for re-design to better suit sustainable applications
- ✓ Have a series of successful homes with life cycle analysis that will showcase our designs
- ✓ Utilise better modelling software throughout all designs
- ✓ Promote carbon positive developments
- ✓ Every 6 months reviewing the Sustainable action plan to make sure we are meeting our targets.





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| The 11 Architect declare principles we have agreed to: | Northern Edge current practices: | What we plan on doing better: |
|--|---|--|
| Raise awareness of the climate and biodiversity emergencies and the urgent need for action amongst our clients and supply chains. | We discuss the option with clients as to how they can better create a project and suggest options to reduce our carbon footprint. | Increase our awareness of what we are presenting, push the conversation further with contractors, suppliers, clients and co-workers on how we can better adjust |
| Advocate for faster change in our industry towards regenerative design practices and a higher Governmental funding priority to support this. | We currently discuss this with our builders in promoting better design practice. | Get builders involved with the getting passive house accredited. Having a builder who is accredited in South Australia will help to fast track the process when designing a passive house |
| Establish climate and biodiversity mitigation principles as the key measure of our industry's success: demonstrated through awards, prizes and listings. | We have just become passive house certified and plan to utilise the passive house principles in all our projects | Aim for all of our projects to adopt the principles of passive housing, For clients not welcoming of the passive housing certification design houses no less than a current 8 Star rating |
| Share knowledge and research to that end on an open source basis. | Sharing our knowledge using our Sustainable action plan with the community. Utilising social media platforms also helps us get our voice across on what we believe are good practices and ways we are moving forward to become better. | Better communicate with the architecture and design field allowing our knowledge to help other but also gaining knowledge from others around better design practice. Better marketing around our sustainable design |
| Evaluate all new projects against the aspiration to contribute positively to mitigating climate breakdown, and encourage our clients to adopt this approach. | We already encourage our clients to have a more positive environmental outlook when it comes to design. | Implement better measures to evaluate projects earlier and set minimum standards we will try to surpass in each project. |
| Upgrade existing buildings for extended use as a more carbon efficient alternative to demolition and new build whenever there is a viable choice. | The majority of our builds are extensions or renovations, we do complete new builds but try to stray away from too much knockdown and rebuild. | Promote to clients better design that utilises more of the space they already have rather than creating larger unnecessary spaces. |
| Include life cycle costing, whole life carbon modelling and post occupancy evaluation as part of our basic scope of work, to reduce both embodied and operational resource use. | We have an understanding on sustainable materials and have a selection of standard go-to materials . | Not only further consider lifestyle costings of buildings but also push to utilise materials that have a longer lifespan to reduce further costing in the future. Research better alternatives than what we are currently using in our designs and push to use more sustainable options. |
| Adopt more regenerative design principles in our studios, with the aim of designing architecture and urbanism that goes beyond the standard of net zero carbon in use. | We have just started implementing passive house initiatives in our buildings with the plan to continue to further add these elements into future projects. | Continue to add more aspects of passive house and sustainable design into our builds, building up a portfolio that focuses on designing better performing buildings. |
| Collaborate with engineers, contractors and clients to further reduce construction waste. | We already design with dimension that utilise building products with minimum hard waste. | Better design buildings to further reduce waste. Educate ourselves and the people we are working with on better waste management practices. Create baselines for minimum energy specs for materials being utilised in projects. |
| Accelerate the shift to low embodied carbon materials in all our work. | We use locally made materials where possible to reduce transport cost of building products. | Implement a minimum standard for all materials utilised and find suitable alternatives should the standard not be suitable. Not only in our builds but also in our studio environment. |
| Minimise wasteful use of resources in architecture and urban planning, both in quantum and in detail | We are in the process of creating more effective design practices that assist us in reducing wasteful resources. Creating a more streamlined process lets us design more efficiently while still allowing us to create unique projects. | Further develop the design practice we adopt to continue to keep up with the changes in the industry. Create a better resource library to utilise when in the studio. Upgrading our technology will help us be able to design more efficient buildings more efficiently. |