

**Each year, you use (on average):**

- enough energy to fill your home with CO₂ pollution three times over;
- more water than two average backyard swimming pools.

What is BASIX and how does it work?

Introduced by the NSW Government, BASIX ensures homes are built to be more energy and water efficient.

BASIX is an on-line program that assesses a house or unit design, and compares it against energy and water reduction targets. The design must meet these targets before a BASIX Certificate can be printed.

Every development application for a new home must be submitted to Council with a BASIX Certificate.

BASIX uses information such as site location, house size, type of building materials and fittings for hot water, cooling and heating.

It is important to realise that the commitments made during the BASIX process are shown on the final certificate and must be marked on the plans, and adhered to during the building process.

Any changes made to the house design means another BASIX assessment must be completed and a new BASIX Certificate submitted to Council.

Who should complete a BASIX assessment?

The BASIX tool is simple to use, and the assessment can be done either by yourself or your building designer. This is best done early on in the design phase, and usually takes about an hour to complete.

If your building designer completes the assessment for you, make sure they discuss the BASIX commitments with you first. Remember, BASIX is flexible. If you don't like one option, there will be an alternative – ring the Help Line if you get stuck.

What are the Energy and Water targets?

BASIX is not a “one-size-fits-all” approach: it incorporates regional variations such as soil type, climate, rainfall and evaporation rates.

The Energy target varies according to building type and location.

The Water target varies between 0 and 40%, according to location. Read the *About the BASIX Water Target* fact sheet for more information.

Where can I get more help?

The BASIX website has a range of resources:

- Download the data input checklist – this takes you through the BASIX assessment step-by-step, and shows you all the information you will need;
- Read the Help Notes – this is a searchable index, that provides information relating to all the questions asked by BASIX;
- Complete the Tutorial – this shows you exactly how BASIX works, and prepares you for the process.

What if I don't have access to the Internet?

If you want to complete the assessment yourself, try your local library or internet café. Alternatively, your building designer can complete it for you.



Key Points about BASIX

BASIX sets one environmental standard across all NSW Council areas.

BASIX is one of the strongest sustainable planning measures to be taken in Australia, delivering equitable and effective water and greenhouse gas reductions across the state.

BASIX means no new home built in NSW will use more water than the current state average.

BASIX is flexible and easy to use, allowing homebuilders to determine how they will meet targets from a wide range of options.

BASIX sets clear sustainable housing targets.

BASIX provides much greater market certainty for sustainable industries, such as manufacturers of solar hot water systems, rainwater tanks, insulation, performance glass and stormwater systems.

BASIX provides new home owners with better quality homes that are more suited to their environment and less expensive to run.

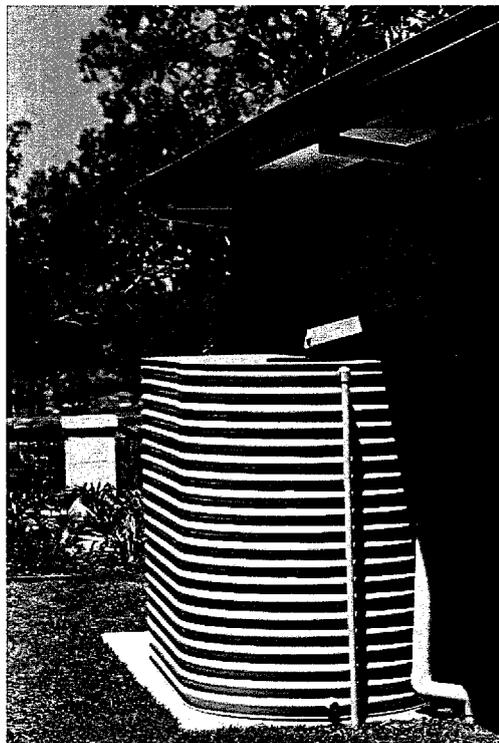
BASIX is subject to ongoing monitoring: since implementation, the Department has conducted a monitoring program of 100 BASIX-compliant home designs that are now in the development approval and construction process. Items to note:

- Every home has a rainwater tank, the average size being 4,000 litres and the majority of which will be plumbed to the toilet and laundry, as well as providing water for the garden;
- 1 in 4 of these homes will have a solar hot water or heat pump system;
- Over 30% of the homes have included performance glass and double glazing;
- All homes are opting for efficient shower heads and tap fixtures, reducing water use and costs;
- Eaves, shading, insulation and other simple design features are making a welcome comeback.

BASIX assistance is available on the Help Line on 1300 650 908 plus Help Notes and easy-to-use tutorials on the BASIX website, www.basix.nsw.gov.au.

Examples of sustainable housing features:

- rainwater tanks, plumbed to toilet, garden and/or laundry;
- efficient (WELS star rated) showerheads, toilets, tap fittings,
- use of indigenous garden species,
- grey water system where appropriate,
- solar, heat pump or high efficiency gas hot water systems
- efficient pool heating and pumps
- good solar orientation
- cross ventilation
- insulation
- external shading
- performance glazing for large glazed areas and/or poorly oriented areas
- ceiling fans, evaporative coolers or high efficiency air conditioning
- energy efficient lighting
- alternative energy systems such as photovoltaics.



BASIX Contacts

T: 1300 650 908

W: www.basix.nsw.gov.au

E: basix@planning.nsw.gov.au



BASIX for new homes

BASIX is an on-line assessment tool that works by using design data such as location, size, construction material, water source and fittings, to determine the potential energy and water consumption of a new home or unit.

BASIX is flexible: rather than insisting on specific design and fixture requirements, BASIX allows the building designer to select from a wide range of options. Once these selections have been made, they are listed on the BASIX Certificate, and must be shown on the project plans. A building inspector will check that the project is being built according to these specifications.

The BASIX tool is divided into three sections:

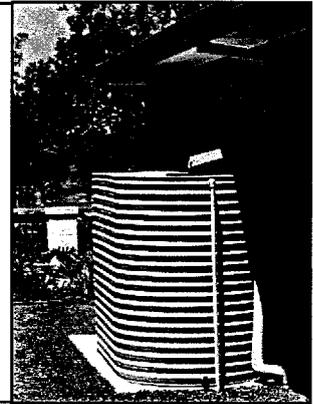
Water

The Water target ranges from **40** to **0** across NSW, depending on the location of the house or unit.

90% of new homes are covered by the 40 water target, and no new home built in NSW will use more water than the current state average.

i For more information, read these documents:

- Map of BASIX water targets
- Map of BASIX water targets, showing Local Government boundaries
- List of NSW postcodes and corresponding BASIX Water target



Thermal Comfort

This section evaluates how efficiently the home will stay cool in summer and warm in winter. You either pass or fail the Thermal Comfort section

There are two ways to complete this section:

1. Do-It-Yourself – a method that should be completed by experienced designers
2. Simulation – requires paying an Accredited Assessor

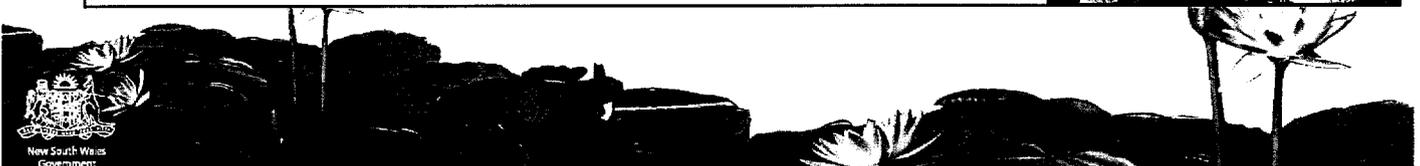
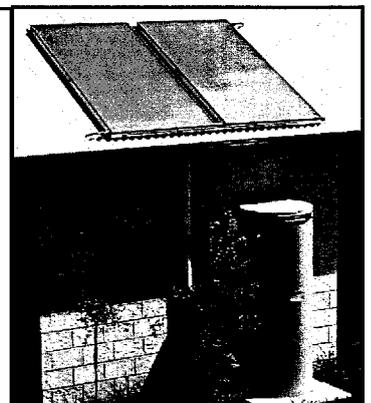
i For more information, read the D.I.Y. Fact Sheet

Energy

The BASIX Energy target varies depending on building type and location. This ensures BASIX remains cost-effective and fair to everyone.

- Over 80% of all new homes will have to meet the maximum Energy targets.
- The average greenhouse gas reduction for all building types across NSW will be 36%.

i For more information, read the Multi-Unit Fact Sheet, the BASIX Energy Target fact sheet and the Energy Target Zone map.



TIPS on how to pass the three sections

Water

- Select star-rated showerheads, dual flush toilets, water saving aerators and flow regulators in your taps
- Install a rainwater tank and connect it to your toilets, laundry and/or garden use
- Increase the size of your water tank (rainwater or stormwater)
- Increase the amount of roof area diverted to your water tank (rainwater or stormwater)
- Nominate indigenous/low water use species as part of your landscaping plan

Thermal Comfort

- Insulate walls, ceilings, roofs and suspended floors
- Choose a light or medium coloured roof to reduce heat gain in summer. Black or very dark roofs can create significant discomfort and high loads on air conditioners.
- Design eave overhangs, pergolas or other external shading devices to permit winter sun and block summer sun
- Arrange your glazing to have at least some facing north in a living area. Reduce the amount facing directly west or south
- Performance glazing can also help to reduce heat gains and losses for south or west facing glazing
- In areas with a predominant cooling summer breeze, design your home to allow the breeze to flow through living and bedroom areas

Energy

- Choose a solar, high efficiency gas or an electric heat pump hot water system
- Use ceiling fans or evaporative cooling
- Install a high efficiency air conditioning system
- Choose a fixed flued gas heater or high efficiency reverse cycle air conditioning system
- Select energy efficient light fittings and make the most of natural lighting where possible
- Use indoor and outdoor clothes drying lines
- Install a pool/spa pump timer and cover

BASIX Contacts

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