



1
G Tower Hotel
At this hotel, located on Jalan Tun Razak, Kuala Lumpur, double-glazed glass windows enable maximum entry of natural light while minimising heat transmission. Rooms are cooled by a low-energy centralised chilled water air-conditioning system. Low-energy lighting helps to further reduce energy consumption.

Cleaning detergents are certified environmentally-friendly, and to reduce the use of chemicals, salt is used in the water for the swimming pool instead of chlorine.

Energy expended by the air-conditioning system is used to heat bathrooms and the swimming pool, and all sanitary and tap fittings are designed to ensure efficiency in water usage without affecting comfort levels.

Vertical gardens on the walls act as natural air purifiers, absorbing carbon dioxide and releasing oxygen to help maintain good air quality. Rainwater is harvested to irrigate the building's green roof and vertical gardens.

Waste is separated and disposed of in recycling bins. Where possible, furnishings are made of recyclable materials. The project also aims to use low-volatile organic compound to improve indoor air quality.



2
Point 92
The size of the building's site—0.92 acre—gives it its name, Point Nine Two. But what is significant about this building in Damansara Perdana, Petaling Jaya, is the fact that a total of 500 trees have been planted in this small area, creating a sense of dense vegetation around the main lobby. Combined with green terraces on the higher floors, the feature helps to reduce temperature around the building.

The white concrete facade and 150mm thick walls with only 38% openings for windows help to minimise heat gain while maintaining optimum entry of natural light.

Apart from the facade is taken up by six windows in various shapes, repeatedly spelling out the project name in Braille. Apart from their aesthetic quality, the windows enable maximum penetration of natural light and improved ventilation.

The west-facing windows are slanted down to provide shade for the interior. Vegetation are planted at strategic positions on the southeast side of the building to cast long shadows on the building, yet preventing the offices from direct sunlight. The northwest side of the building is completely shaded.

Other green features of the building that has been awarded Green Building Index certification are air-conditioning and water recollection system.

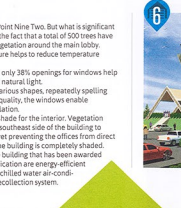


6
Sabah Art Gallery Conservation Centre
Various energy-saving features in Sabah's first green building, located at Jalan Penampang in Kota Kinabalu, has helped to reduce its annual energy bill from RM46,000 to RM107,000.

It is designed to maximise use of natural light for illumination and solar panels help to power the air-conditioning system. Power supply only kicks in when natural light is insufficient and when the solar panels are unable to cope with additional demand. Lights switch off by themselves whenever there are no visitors.

Efficient water consumption has helped to cut water usage by 330,000 litres per year, a 32% reduction. Considering that a Malaysian uses an average of 226 litres per day, the amount saved is enough for 1,460 people per day.

Carbon dioxide emission has been reduced by 780 tonnes per year, equivalent to the amount of CO₂ emission that would have caused a 2°C rise in global temperature.



7
Pusat Tenaga Malaysia (Malaysia Energy Centre)
Previously known as a GEO (zero energy office) building, it is recognised as Malaysia's first Green Building Index (GBI) certified building. Now known as a GED (green energy office) building, it is also the country's first green-rated office building.

Planned as a showcase of energy efficiency in 2005, it is now recognised as the most energy efficient building not only in Malaysia but in Asean as well. It consumes just one-third of the amount of energy as the LED (low energy office) building of the Energy, Green Technology and Water Ministry, previously rated the most energy-efficient building in the country.

The Malaysia Energy Centre, located in Bangsar, Selangor, scored full points under the Energy Efficiency and Innovation criteria of the GBI.



9
Menara Binjai
The use of environmental-friendly materials and energy-efficient operations help to reduce energy usage in this building by 25%.

Among the features are double-glazed windows for optimum heat transfer and insulation, and centralised water-chilled air conditioning supported by energy-saving green chillers to reduce energy consumption.

Its destination-based lift system that provides not only additional service but also customised floor selection helps to reduce waiting time. The lifts' drive motors ensure comfortable and speedy rides while regenerating energy, helping to recover up to 30% of electricity used to power the lift operations.

Other features are energy-saving light fittings that dim peripheral lighting during the brightest hours of the day as well as water-conserving sanitary fittings and eco-friendly toilets with seat bidets.

The 35-storey Menara Binjai, located at the Ampang Rapid KL LRT station, is the first dedicated office tower in Malaysia to be awarded dual green certification—Malaysia Green Building Index Design Assessment for GBI certification and the Green Mark Gold (Provisional) certification by Singapore's Building and Construction Authority.

1,000 back-up power supply and professionally managed onsite



4
Sarawak Energy Bhd
The Sarawak Energy Bhd (SEB) headquarters in Kuching was awarded the Final Green Building Index Silver Rating under the Non-Residential New Construction category in 2013, making it the first green building in East Malaysia.

The nine-storey structure was originally designed as a low-energy building with office facilities for 1,500 people.

The building has been designed with an east-west orientation and most of the windows face north or south to reduce heat gain. The interior design optimises utilisation of natural light.

Other green features are rainwater harvesting, photovoltaic system to generate electricity and energy efficient fans.



5
Menara Worldwise
This high-rise office block, located at Jalan Bukit Bintang in the Golden Triangle of Kuala Lumpur, combines the latest in integrated building intelligence with a spacious ultra-modern design. The design and construction of an energy- and cost-efficient integrated building system that serves only to envelope the building but also generate power. That has resulted in savings in material and energy costs, reduction in the use of fossil fuels and emission of ozone depleting gas as well as added architectural interest to the building.

The building, owned by Worldwide Holdings, a subsidiary of Selangor State Development Corporation, was completed in July 2010.

Builders' Best green efforts

It makes sense to go green. Apart from helping to give Mother Nature a fighting chance, sustainability efforts help to cut costs in the long term—a key incentive for builders and property owners. The Malaysian government has also come on board, introducing policies to encourage greening efforts. In conjunction with World Environment Day on June 5, Focusweek looks at 10 buildings (in no particular order) in Malaysia that have set the pace for sustainability



4
Sarawak Energy Bhd
The Sarawak Energy Bhd (SEB) headquarters in Kuching was awarded the Final Green Building Index Silver Rating under the Non-Residential New Construction category in 2013, making it the first green building in East Malaysia.

The nine-storey structure was originally designed as a low-energy building with office facilities for 1,500 people.

The building has been designed with an east-west orientation and most of the windows face north or south to reduce heat gain. The interior design optimises utilisation of natural light.

Other green features are rainwater harvesting, photovoltaic system to generate electricity and energy efficient fans.



9
Menara Binjai
The use of environmental-friendly materials and energy-efficient operations help to reduce energy usage in this building by 25%.

Among the features are double-glazed windows for optimum heat transfer and insulation, and centralised water-chilled air conditioning supported by energy-saving green chillers to reduce energy consumption.

Its destination-based lift system that provides not only additional service but also customised floor selection helps to reduce waiting time. The lifts' drive motors ensure comfortable and speedy rides while regenerating energy, helping to recover up to 30% of electricity used to power the lift operations.

Other features are energy-saving light fittings that dim peripheral lighting during the brightest hours of the day as well as water-conserving sanitary fittings and eco-friendly toilets with seat bidets.

The 35-storey Menara Binjai, located at the Ampang Rapid KL LRT station, is the first dedicated office tower in Malaysia to be awarded dual green certification—Malaysia Green Building Index Design Assessment for GBI certification and the Green Mark Gold (Provisional) certification by Singapore's Building and Construction Authority.

1,000 back-up power supply and professionally managed onsite



4
Sarawak Energy Bhd
The Sarawak Energy Bhd (SEB) headquarters in Kuching was awarded the Final Green Building Index Silver Rating under the Non-Residential New Construction category in 2013, making it the first green building in East Malaysia.

The nine-storey structure was originally designed as a low-energy building with office facilities for 1,500 people.

The building has been designed with an east-west orientation and most of the windows face north or south to reduce heat gain. The interior design optimises utilisation of natural light.

Other green features are rainwater harvesting, photovoltaic system to generate electricity and energy efficient fans.



9
Menara Binjai
The use of environmental-friendly materials and energy-efficient operations help to reduce energy usage in this building by 25%.

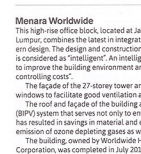
Among the features are double-glazed windows for optimum heat transfer and insulation, and centralised water-chilled air conditioning supported by energy-saving green chillers to reduce energy consumption.

Its destination-based lift system that provides not only additional service but also customised floor selection helps to reduce waiting time. The lifts' drive motors ensure comfortable and speedy rides while regenerating energy, helping to recover up to 30% of electricity used to power the lift operations.

Other features are energy-saving light fittings that dim peripheral lighting during the brightest hours of the day as well as water-conserving sanitary fittings and eco-friendly toilets with seat bidets.

The 35-storey Menara Binjai, located at the Ampang Rapid KL LRT station, is the first dedicated office tower in Malaysia to be awarded dual green certification—Malaysia Green Building Index Design Assessment for GBI certification and the Green Mark Gold (Provisional) certification by Singapore's Building and Construction Authority.

1,000 back-up power supply and professionally managed onsite



4
Sarawak Energy Bhd
The Sarawak Energy Bhd (SEB) headquarters in Kuching was awarded the Final Green Building Index Silver Rating under the Non-Residential New Construction category in 2013, making it the first green building in East Malaysia.

The nine-storey structure was originally designed as a low-energy building with office facilities for 1,500 people.

The building has been designed with an east-west orientation and most of the windows face north or south to reduce heat gain. The interior design optimises utilisation of natural light.

Other green features are rainwater harvesting, photovoltaic system to generate electricity and energy efficient fans.



9
Menara Binjai
The use of environmental-friendly materials and energy-efficient operations help to reduce energy usage in this building by 25%.

Among the features are double-glazed windows for optimum heat transfer and insulation, and centralised water-chilled air conditioning supported by energy-saving green chillers to reduce energy consumption.

Its destination-based lift system that provides not only additional service but also customised floor selection helps to reduce waiting time. The lifts' drive motors ensure comfortable and speedy rides while regenerating energy, helping to recover up to 30% of electricity used to power the lift operations.

Other features are energy-saving light fittings that dim peripheral lighting during the brightest hours of the day as well as water-conserving sanitary fittings and eco-friendly toilets with seat bidets.

The 35-storey Menara Binjai, located at the Ampang Rapid KL LRT station, is the first dedicated office tower in Malaysia to be awarded dual green certification—Malaysia Green Building Index Design Assessment for GBI certification and the Green Mark Gold (Provisional) certification by Singapore's Building and Construction Authority.

1,000 back-up power supply and professionally managed onsite

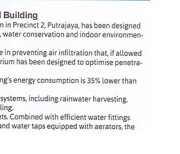


4
Sarawak Energy Bhd
The Sarawak Energy Bhd (SEB) headquarters in Kuching was awarded the Final Green Building Index Silver Rating under the Non-Residential New Construction category in 2013, making it the first green building in East Malaysia.

The nine-storey structure was originally designed as a low-energy building with office facilities for 1,500 people.

The building has been designed with an east-west orientation and most of the windows face north or south to reduce heat gain. The interior design optimises utilisation of natural light.

Other green features are rainwater harvesting, photovoltaic system to generate electricity and energy efficient fans.



9
Menara Binjai
The use of environmental-friendly materials and energy-efficient operations help to reduce energy usage in this building by 25%.

Among the features are double-glazed windows for optimum heat transfer and insulation, and centralised water-chilled air conditioning supported by energy-saving green chillers to reduce energy consumption.

Its destination-based lift system that provides not only additional service but also customised floor selection helps to reduce waiting time. The lifts' drive motors ensure comfortable and speedy rides while regenerating energy, helping to recover up to 30% of electricity used to power the lift operations.

Other features are energy-saving light fittings that dim peripheral lighting during the brightest hours of the day as well as water-conserving sanitary fittings and eco-friendly toilets with seat bidets.

The 35-storey Menara Binjai, located at the Ampang Rapid KL LRT station, is the first dedicated office tower in Malaysia to be awarded dual green certification—Malaysia Green Building Index Design Assessment for GBI certification and the Green Mark Gold (Provisional) certification by Singapore's Building and Construction Authority.

1,000 back-up power supply and professionally managed onsite