A hybrid hot water system is a combination of a primary hot water system and a gas boost system. The primary system can either be a solar thermal system, or an electric heat pump system which many hotels in Singapore are currently using.

**Mercure Singapore Bugis**

Besides having a spacious room, comfortable bed and complimentary wi-fi, hotel guests also expect to enjoy a good showering experience with constant supply of hot water in the bathroom.

To ensure all hotel guests have sufficient hot water supply even during peak hours, in the early morning and late evening, Mercure Singapore Bugis relies on a hybrid hot water system to help them achieve just that.

**What Is a Hybrid Hot Water System?**

A hybrid hot water system is a combination of a primary hot water system and a gas boost system. The primary system can either be a solar thermal system, or an electric heat pump system which many hotels in Singapore are currently using.
The gas boost system is made up of manifold gas instantaneous water heaters.

The fast heating feature of this gas boost system complements the electric heat pump system, which may have problem coping with higher hot water demand during peak hours.

Tanks for storing hot water at set temperature produced by the hybrid hot water system.
PHOTO: RINNAI HOLDINGS (PACIFIC)

How Does a Hybrid Hot Water System Works?

When hot water is drawn from the storage tank to be supplied to hotel rooms, it will be replaced with cold water. This will cause a temperature drop in the storage tank.

Once temperature falls below the set temperature (usually between 50°C to 60°C), hot water from the storage tank will be transferred to the electric heat pump system to be heated and maintained at the set temperature.

However, during peak hours, there will be an increase in hot water demand and the electric heat pump system might not be able to produce hot water fast enough for all hotel guests. When that happens, the temperature in the storage tank will fall further to below a lower limit set. This will activate the gas boost system which will help heat the hot water until the whole storage tank has reached the set temperature.
Once the hot water demand has returned to normal level, the gas boost system will go back to standby mode leaving the electric heat pump system to maintain the temperature of the hot water storage.

## Advantages of a Hybrid Hot Water System

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<th>Capital cost of hybrid system is only about 50%* of a typical electric heat pump system (EHP)</th>
<th>Gas boost system is able to back up 100% when the primary system (e.g. solar thermal or electric heat pump system) is down for repair or maintenance</th>
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<td>Energy-saving since capacity of standby hot water storage can be reduced to just 50% of hotel’s total hot water demand (which is usually 100% for EHP)</td>
<td>Gas water heaters of gas boost system can last more than 10 years on average</td>
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<td>Space-saving of as much as 80%* as compared to EHP</td>
<td>Less loading on building structure as total weight of hybrid system is only 50%* of EHP</td>
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<td>Performance of gas boost system not affected by ambience temperature</td>
<td>Gas boost system can be easily expanded by adding more gas water heaters (wall mounted) to existing installation to cope with higher hot water demand (e.g. due to more hotel rooms added in future)</td>
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<td>Hotel operator has the flexibility to switch energy source between electricity &amp; Town Gas due to supply issue or higher energy cost</td>
<td>Upgrading of existing infrastructure is not necessary since the electrical demand is substantially reduced by using a gas boost system</td>
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*Estimation by Rinnai Holdings (Pacific) based on a typical 4-star hotel with 300 guest rooms*
Quote from Mercure Singapore Bugis Staff

Mr Sharum Bin Abdullah, Chief Engineer of Mercure Singapore Bugis, who has 14 years of technical experience in the hotel industry, shared his satisfaction with the hybrid hot water system’s performance:

“The hybrid hot water system has been very stable and reliable since the hotel started operation. It gives me and my team an ease of mind knowing that the electric heat pump system will be complemented by the gas boost system during the peak hours when hot water demand is high. Also, in the event that the electric heat pump system breaks down, the gas boost system will always be able to back up 100%.”

About Mercure Singapore Bugis

Located in the heart of the heritage enclave of Bugis and Bras Basah, this 15-storey hotel offers travellers and guests the advantage of being surrounded by a myriad historical and cultural sites, trendy shopping malls with hip and diverse eateries.

The hotel features 395 guest rooms and suites that come in four room types – Standard Room, Loft Room, Superior Room and Executive Loft Room. All hotel room offers free Wi-Fi, complimentary access to over 2,000 online publications via the PressReader App and a Smartphone with unlimited free mobile internet access, free local and IDD calls to ten key destinations worldwide and an up-to-date City Guide for guests while they are on the go.

The hotel also boasts three stellar F&B concepts including a contemporary Cantonese restaurant – Song Garden, an all-day-dining concept – Royale, and BARtistry - a chill-out lobby bar.
Lobby and waiting area - An eclectic mix of contemporary and uniquely-Singapore artworks, sculptures and paintings were commissioned for this hotel to reflect the aesthetics and local charm of its surrounding precinct.
PHOTO: MERCURE SINGAPORE BUGIS

Suite living room - Every room and common area of the hotel is designed and decorated to reflect the Lion City's rich cultural background and diverse ethnicities.
PHOTO: MERCURE SINGAPORE BUGIS

The Mercure Singapore Bugis has 395 heritage inspired rooms, and is located in the heart of Singapore's leisure business and cultural districts. Situated 5 minutes from Bugis MRT and next to one of the CBD's most vibrant markets.

If you have a reservation enquiry, please contact Mercure Singapore Bugis at 65216088 or visit http://bit.ly/1OugjSi.

Suite bathroom - Mercure Singapore Bugis aspires to always offer their hotel guests modern amenities and comforts they are accustomed to.
PHOTO: MERCURE SINGAPORE BUGIS
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