

The Owners Corporation "Mondrian" SP 69259
2-4 Powell St
Waterloo
NSW 2017

7th October 2022

NABERS ENERGY AND WATER RATINGS 2021/22 **SP 69259**

Owners,

We have pleasure in enclosing formal NABERS rating documentation:

Energy

NABERS Energy Rating Report
NABERS Energy Rating Certificate – **5.5 stars**

Water

NABERS Water Rating Report
NABERS Water Rating Certificate – **4 stars**

In order to further assist we also report to you as below:

1 BACKGROUND

1.1. What is the significance of a NABERS rating?

The NABERS rating program is well established in the commercial property sector and compulsory for certain types of commercial property. It has become a significant factor in how commercial tenants view properties. In the apartment sector the NABERS program is in its fifth year of operation and not yet compulsory. It is perhaps too early to measure the importance that apartment buyers place on a NABERS rating when purchasing. This is likely to increase as awareness of NABERS becomes more widespread. Nevertheless, an excellent rating is something that can only enhance the Mondrian brand.

1.2. What is being measured?

Energy comprises, in Mondrian's case, common property electricity only. The heating of domestic hot water is excluded as the owners corporation does not pay for this.

Water comprises all water paid for by the owners corporation. Water use within the apartments is included, because it is paid for by the owners corporation.

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NABERS measures both Energy and Water efficiency on a 1-6 Star scale with the best performance achievable being 6 stars.

1.3. What was the process followed at Mondrian?

- Mondrian's previous rating expired in August 2021 being based on usage in 2019/20.
- Mondrian went through a period of not having a valid current NABERS rating from August 2021 until the issue of the latest rating in September 2022
- Strata Answers Pty Ltd selected the usage period 1 July 2021 to 30 June 2022 for the purpose of the current rating so as to ensure as long a validity period as possible
- The assessment was submitted to the Dept of the Environment for level 1 auditing
- In September 2022 NABERS ratings were issued with **validity till September 2023**

2 HOW MONDRIAN RATED

2.1 Energy

For its Third Year of rating Mondrian has achieved 5.5 a star rating (out of 6 stars) for its use of common property electricity. The increase of 0.5 stars since 2019/20 reflects a 5% drop in annual common property energy use since 2020.

The majority of energy saving measures that support Mondrian having a respectable NABERS rating were already in place during the 2019/20 rating period, apart from some follow up LED light work.

The reduction in common property energy use must therefore be partly attributed to successful management of Mondrian's common property electricity usage. Successful management is dependent upon ensuring that the controls & protocols that determine how long lighting and major plant – like ventilation fans, pool equipment & heat pump – operate for are closely followed.

That said, when back in 2020 we looked at the percentage of energy reduction that would have been required to take Mondrian from its then 5 to 5.5 stars, the reduction required was more than the 5% that has been achieved. That tells us that Mondrian has been "helped on its way" to 5.5 stars by changes to the algorithms used by the DoE.

To see Mondrian's 5.5 star energy rating in context, note that whilst Mondrian shares a 5.5 star energy rating with 3 other buildings, only 2 apartment buildings to date have achieved better - a 6 star NABERS rating.

2.2 Water

For its Third Year of rating Mondrian has achieved a 4 star rating (out of 6 stars) for its use of water. This is an improvement upon the 3 stars achieved in 2019/20 and can be attributed to the 11% drop in annual water consumption. Most of Mondrian's water is consumed within

apartments, meaning that the drop in consumption must be in large part due to the use of water by residents.

We can only speculate on the reasons for the drop in residential water use. We are unaware of any previous major leakages that may have been rectified and the indications are that the water saving is due to changes in resident behaviour. We note that the summer months of 2021/22 were cooler than usual, which may have translated into less water use.

That said, owners should be aware that Mondrian could too easily lose its 4 star water rating, unless an awareness of the need to save water, despite high dam levels in the short term, is maintained. The owners corporation may wish to encourage residents in this respect.

High Water efficiency ratings are hard to achieve. This is evidenced by Mondrian being amongst 8 buildings that have achieved a 4 star water rating, but with only 2 buildings having achieved a rating better than 4 stars.

To assist you further we include below our comments on the significance of these ratings and a roadmap for their future improvement.

3 RECOMMENDED ACTIONS

3.1 Energy Options

With Mondrian achieving a creditable 5.5 star rating it is increasingly challenging to achieve greater efficiencies with the more accessible energy saving measures having already been adopted.

3.1.1 Measures Already Adopted

Mondrian's Solar PV Installation

Mondrian's 30kW of solar production remains the most significant single factor in ensuring that Mondrian maintains a high Energy star rating. Most of this production goes to offset what would have been grid consumption during the day.

As a guide, in the most recent financial year, electricity costs for Mondrian were very similar to what was paid in 2014 in nominal \$ terms – approx. \$38,000. When account is taken of the increase in tariff rates over this 6 year period, the extent of financial savings is plainly evident.

Other Energy Reduction Measures

In terms of reducing usage most “low hanging fruit” opportunities for energy saving have already been adopted. *The installation of sensor controlled LED lighting in the car park and firestairs, CO monitor controls on the car park ventilation fans, heat pump heating for pool etc.*

Note that when replacement of larger electric motors becomes necessary (eg pumps and car park fans) care should be taken to ensure that they incorporate variable speed drives.

3.1.2 Remaining opportunities for energy saving

As noted above most of the traditional opportunities for energy saving have already been adopted at Mondrian. The challenge now is to

- Ensure that these savings continue
- Ensure the OC remains alert to further opportunities for savings that may be offered by new technology
- Ensure that Mondrian actions all further measures necessary to reduce is greenhouse gas emissions

Retaining Savings through Managing Energy Usage

The “SUMS portal” was designed to provide management with real time interval data. Monitoring this data can provide early warning of malfunctioning equipment causing spikes in consumption. (Eg. If the car park ventilation system is activated by a false fire alarm, this can consume \$100 a day worth of additional electricity until reset.) The energy usage for pool heating is also separately identifiable on the portal.

It is essential that building management continue to monitor this portal; note that the utility of the portal could be enhanced by the use of customised warning alerts sent to the building manager’s email or phone.

Opportunities to extend Mondrian’s Solar PV production

Currently Mondrian’s common property electricity usage during the day is significantly reduced by the solar pv generated. Additional investment in solar pv could reduce even further day time common property usage, but this would come with the risk that part of the additional production would be exported back to the grid at times of peak production. Environmentally – and for NABERS rating purposes - this would be beneficial, but with just 5 cents per kWh being earned on “exports” this simple model is a poor business case for expansion.

Rather, Mondrian could install a further 30-35 kW of rooftop solar pv capacity and apply it to all or any of the following:

1. Reducing individual apartment owners’ own electricity consumption & costs
2. Providing additional energy for EV charging in car spaces
3. Converting the centralised hot water service plant from gas to electric heat pump technology
4. Utilising battery storage to effect savings in common property electricity consumed outside of daytime solar periods

Examining the business cases for the above goes beyond the scope of this report, but we note the importance of continually monitoring developments in these areas and their potential for adoption at Mondrian. In many instances the further expansion of Mondrian's solar pv capacity may not, for technical reasons, enhance its NABERS rating, but it could nevertheless translate into both \$ savings for owners as well as greenhouse gas savings.

Purchasing Green Power

Purchasing common property electricity on a Green Power tariff ensures that all or part of electricity used is sourced from renewables. The NABERS rating system recognises that buildings purchasing "Green Power" are further contributing to a reduction in greenhouse gases.

Owners at their last AGM in November 2021 resolved that Mondrian purchase its common property electricity via a Green Power tariff. We note that this has not been implemented.

3.2 Water Options

Reducing water usage would not only enhance Mondrian NABERS Water rating but would also save the owners corporation money. The significance of this is shown by the annual cost of water to the owners corporation, which now exceeds what the OC pays for electricity.

Usage within lots

The bulk of water consumption at Mondrian is within lots and therefore not directly within the control of management. Within lots / apartments the most significant causes of excess water use are leaking toilets and extended use of showers. With the owners corporation paying for water there is no incentive for lot owners to minimise leaks from fittings or to moderate their water usage. This requires a campaign to create awareness.

Whilst failed equipment (eg leaking toilet cistern or flush valves) is the lot owner's responsibility, the owners corporation has an economic interest and might wish to offer a repair service to lot owners to address leaks, or at the very least, conduct an awareness campaign on the need for owners to address them.

Management controlled usage

Close monitoring of water usage via the "SUMS portal" is essential for identifying leaks and other factors that might lead to extra costs and prejudice Mondrian's NABERS rating. The "SUMS portal" is fully operational for water. The utility of the portal could be further enhanced by the use of customised warning alerts sent to the building manager's email or phone.

Mondrian has a small rainwater catchment capacity which is utilised for watering the front lawns. Its effectiveness contributes to Mondrian's NABERS Water rating. The scope for extending this is limited by the availability of space for further tanks. It is however important

that the operation of the mains top up facility is regularly checked as failure has the potential prevent the tank capacity being used to its full potential.

4 CONCLUSION

Mondrian's achievement of a 5.5 star Energy rating sets it amongst the few residential apartment buildings with such green credentials. Careful management is necessary to ensure that this rating is retained. Forward thinking is also required on ways the rating might be further enhanced. Future measures have the potential to provide economic benefits to owners at the same time as enhancing the NABERS rating.

Mondrian's achievement of a 4 star Water rating is similarly impressive in an environment where few apartment buildings succeed in achieving ratings better than this.

An important reason for seeking NABERS ratings is to demonstrate the green credentials of a building. The owners corporation should consider the different ways in which Mondrian's rating credentials should be communicated to others. eg. website, newsletter, communication with sales agents etc.

Noting that the current ratings expire in September 2023, it is vital for action to be taken to renew the rating no later than July 2023, if Mondrian is to avoid its ratings lapsing and losing its status.

We trust that you will find the above of assistance. Please do not hesitate to contact us if there is anything you wish to discuss.

Kind regards

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