EVALUATION OF WIFI THERMOSTAT

A REPORT FROM THE TECHNOLOGY COMMITTEE TO THE AMBERSON TOWERS CONDOMINIUM ASSOCIATION DISTRIBUTED TO COUNCIL@AMBERSONTOWERS.ORG ON 7 JUNE 2023

Focus

Gil Citro, President of the Council, asked the Technology Committee to conduct an *evaluation of a WiFi thermostat* based on a proposal from an owner.

Recommendation by the Committee to the Council

The Committee recommends that the Council reject the proposal.

Background to the Evaluation

<u>Citro indicated</u> that the Council considered in 2020 the installation of <u>smart thermostats</u> in Amberson units. None of the smart thermostats identifiable in the market met the requirements for the 120V fan coil HVAC system deployed in Amberson Towers. Building maintenance installed 120V compatible <u>digital Honeywell thermostats</u> in 2020. Since 2020, line voltage smart thermostats have <u>entered the market</u>, but whether any of these products meets our requirements is unclear, and the Technology Committee has not vetted this opportunity.

An Amberson Towers' resident has proposed approval of the installation of an MBtek Wi-Fi Fan Coil Thermostat (\$129 from MBtek; \$139 from Amazon) that is advertised as a replacement for the building's Honeywell thermostats. A five-page description of features, settings, dimensionality, connection board, and wiring diagram for the MBtek thermostat is available.

Support for Recommendation by the Committee

- 1. Bill Miller, Maintenance Supervisor, <u>suggests</u> "I would prefer not to adapt to this thermostat given its unfamiliarity to our system, our tenants. I feel we have a great unit in place and it has been researched to be the correct one to be used and we should not alter from the one that has been selected."
- 2. In line with Miller's suggestion, the Committee believes that adopting the MBtek thermostat would impose undue financial and administrative burdens on Amberson Towers. A mix of this, or any, smart thermostat with the currently-installed thermostats would require a fundamental alteration of building services due to the maintenance of multiple control systems.
- 3. The Association owns thermostats because they are part of the HVAC system. Any smartphone app used to control a thermostat presumably is part of this system. Maintenance personnel would likely need to assume the burden to ensure that residents can connect, use, and maintain control of thermostats from phone apps working on various phone operating systems.
- 4. The MBtek thermostat seems to be essentially an unknown product with limited documentation and an absent public record of health and safety or reliability (i.e., time to failure), which users should expect competent manufacturers to make available from their own product validation.

For Follow-Up by the Council

The door is open for the Council to receive future requests for support of smart thermostats. Citro wrote that a unit in the building had installed smart thermostats, which indicates, prime facia, that (a) installation of a smart thermostat already has been permitted, (b) mixed-manufacturer thermostats can operate with the existing building HVAC system, and, (c) by way of point (a), the Association tacitly accepts the burden of maintaining non-Honeywell thermostats and their controlling smart apps as part of the HVAC system. The Committee suggests that the Council review this situation and decide on practical and financial grounds whether it wishes to continue to permit and maintain smart thermostat control systems in the building.