

EXHIBIT B-25

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Invalidity Contentions: U.S. Patent No. 10,534,382

W.D. Tex., Case Nos. 6:20-cv-00075-ADA, 6:20-cv-00078, 6:20-cv-00080¹

PRESENTATIVE CLAIM LIMITATION: “the one or more processors with circuitry and code designed to execute instructions to determine whether the building is occupied or unoccupied, and based on that determination, to control the HVAC system to provide heating or cooling to the building at an operational temperature”

ASSERTED CLAIMS: This limitation is present in the following Asserted Claims: ’382 patent claims 1-16, 19.

CLOSURE: To the extent Plaintiff alleges that any anticipatory reference identified in Exhibit A does not disclose any portion of the above limitation, the following exemplary pincites show that those allegedly missing portions would have been obvious to one of ordinary skill in the art at the time the alleged invention was made in light of the prior art references identified in the table below. Moreover, it would have been obvious to combine any anticipatory reference identified in Exhibit A with any one or more of the following references for at least the reasons explained in the prior document of Defendants’ Invalidity Contentions or as identified herein. All emphasis added unless otherwise indicated.

Reference	Disclosure*
demand response enabling technology development” (“Arens”)	<p><i>Arens discloses “the one or more processors with circuitry and code designed to execute instructions to determine whether the building is occupied or unoccupied, and based on that determination, to control the HVAC system to provide heating or cooling to the building at an operational temperature.”</i></p> <p>“The sensors currently implemented include...</p> <p>• Motion – used to determine occupancy of various spaces. Also used to preserve power on the signal light units (see Actuators, below). It uses a passive infrared motion sensor to detect changes in infrared radiation when there is movement by an object with a temperature different than the surroundings (see Appendix B).”</p>

¹ These contentions are being served by defendants in the following actions: *EcoFactor, Inc. v. Google LLC*, No. 6:20-cv-00075-ADA; *EcoFactor, Inc. v. Ecobee, Inc.*, No. 6:20-cv-00078-ADA; and *EcoFactor, Inc. v. Vivint, Inc.*, No. 6:20-cv-00080-ADA.

To the extent that these Invalidity Contentions rely on or otherwise embody particular constructions of terms or phrase in the Asserted Claims, Defendants are not proposing any such contentions as alternative constructions of those terms or phrases. Various positions put forth in this document are predicated on Plaintiff’s incorrectly and overly broad interpretation of the claims as evidenced by its Invalidity Contentions provided to Defendants. Those positions are not intended to and do not necessarily reflect Defendants’ interpretation of the true and proper scope of Plaintiff’s claims, and Defendants reserve the right to adopt claim construction positions that differ from or even conflict with various positions put forth in this document.

Reference	Disclosure*
	<p>Arens at p. 11.</p> <p>“The data we want to save are:</p> <p>- Input from real sensors:</p> <ul style="list-style-type: none"> o Temperature measurement of all the different areas o On/Off status of all the appliances o Consumption of all the appliances o Occupancy of all the areas o Weather station: anemometer, pyranometer (both global and diffuse radiation)” <p>Arens at p. 68.</p> <p>“For the 2005 test house, we used Moteiv T-mote Sky motes. The final implementation at the house included two motes with just temperature sensors, six motes with temperature and occupancy sensors (one included relative humidity), one mote with whole house power sensing at the breaker box, one mote outside with temperature and relative humidity sensors, one mote with solar radiation and wind speed and direction sensors, one repeater mote, and one base mote.”</p> <p>Arens at p. 75.</p> <p>“Another potential source of information towards better HVAC control and comfort is learning occupancy patterns. The system records the activity pattern of occupants in order to study whether such activity patterns can inform the controller and lead to reduced energy consumption. Most houses have one zone, but multiple sensors may allow for a multi-zone sensing strategy where the HVAC system is only activated if the occupied zone is too hot or cold.”</p> <p>Arens at p. 10.</p>

Reference	Disclosure*
	<p>“Coupled with the broader control functionality, there is a need for much more information via sensing. It is useful to know temperatures throughout the house, outside weather conditions, occupancy, appliance use, and power consumption. These combine to allow for more targeted control and to be able to deliver predictable behavior and energy cost to the occupants. The system we are designing is thus far more information-rich than current thermostats and has extended command capability.”</p> <p>Arens at p. 8.</p> <p>“A demand responsive system must be able to operate autonomously in response to price or other demand-related signals received from the electrical grid operator. To do that, the system must be capable of very abstract decision making, such as determining the best cost vs. comfort tradeoff for current conditions, to the very physical, such as turning an air conditioner on or off. At its most basic level, the system must be able to provide HVAC (heat, A/C, fan) control equivalent to current systems. It does that by gathering temperature information from motes equipped with temperature sensors and sending appropriate actuation signals to the mote that is connected to the HVAC system.</p> <p>The controller’s major functions are:</p> <ul style="list-style-type: none"> • Receive and process information from sensors • Send actuation signals • Control existing HVAC system • Control other household equipment • Learn physical characteristics of house from sensor information • Manage time-of-day profiles (mainly temperature setpoints that follow the adaptive comfort model (deDear and Brager, 2001) • Display system status to occupants • Obtain command signals and overrides from occupants

Reference	Disclosure*
	<ul style="list-style-type: none"> • Learn the preferences and patterns of the occupants • Receive and display price information from the utility • Optimize comfort vs. cost based on price and weather information • Manage power usage based on occupant-provided monthly price cap <p>... Another potential source of information towards better HVAC control and comfort is learning occupancy patterns. The system records the activity pattern of occupants in order to study whether such activity patterns can inform the controller and lead to reduced energy consumption. Most houses have one zone, but multiple sensors may allow for a multi-zone sensing strategy where the HVAC system is only activated if the occupied zone is too hot or cold."</p> <p>Arens at pp. 9-10.</p>
5. Patent No. 2004/0117330 (Ehlers")	<p><i>Ehlers discloses "the one or more processors with circuitry and code designed to execute instructions to determine whether the building is occupied or unoccupied, and based on that determination, to control the HVAC system to provide heating or cooling to the building at an operational temperature."</i></p> <p>"In another aspect of the present invention, the system 3.08 allows one or more occupancy modes to be defined and/or modified and/or utilized by the user. The use of different occupancy modes would assist in achieving a reduced level of demand on the energy delivery system as well as reduce the total cost of operation site 1.04. In one embodiment, the occupancy modes may be defined or modified through the user interface 1.14 (see below) and activated through the thermostat 1.30D and/or the user interface 1.14. Examples of possible occupancy modes include: home, away, weekend, weekday, holiday. Specific modes may also be defined for different users."</p> <p>Ehlers at [0244].</p> <p>"Additional two-way communicating sensors will also improve the operational capabilities of the system 3.08 by providing additional input data. Occupancy sensors as an example would provide the system 3.08 with knowledge of if there were people present in the site 1.04. The system 3.08 is capable of receiving authorization from any authorized entity to perform items like ramping, set point modifications or dehumidification differently depending on the presence or absence of the occupant. If unoccupied, the system 3.08 can be directed to take more savings related actions and defer comfort control options. This ability</p>

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