

**UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

OLLNOVA TECHNOLOGIES LTD.,

Plaintiff,

v.

ECOBEE TECHNOLOGIES, ULC d/b/a  
ECOBEE,

Defendant.

Case No. 2:22-cv-00072-JRG

**JURY TRIAL DEMANDED**

**P.R. 4-3 JOINT CLAIM CONSTRUCTION AND PREHEARING STATEMENT**

Pursuant to Patent Rule 4-3 and the Court’s Second Amended Docket’s Control Order (Dkt. No. 82), Plaintiff Ollnova Technologies Ltd. (“Ollnova”) and Defendant ecobee Technologies, ULC d/b/a ecobee (“ecobee”) hereby file this Joint Claim Construction and Prehearing Statement.

**I. TERMS ON WHICH THE PARTIES AGREE [P.R. 4-3(A)(1)]**

In accordance with Patent Rule 4-2(c), the parties met and conferred to narrow the list of disputed claim terms and phrases for their P.R. 4-1 lists and P.R. 4-2 exchange of preliminary claim construction and extrinsic evidence. **Exhibit A** sets forth Ollnova’s and ecobee’s agreed constructions.

**II. PROPOSED CONSTRUCTIONS AND EXTRINSIC EVIDENCE FOR DISPUTED TERMS [P.R. 4-3(A)(2)]**

**Exhibit B** sets forth Ollnova’s and ecobee’s proposed respective constructions of each disputed claim term or phrase of the patents-in-suit. Included in **Exhibit B** is an identification of all references from the specification and prosecution history that each party believes supports its

proposed constructions and an identification of the extrinsic evidence known to each party on which each party intends to rely either to support its proposed construction of each claim term or phrase or to oppose another party's proposed construction of each claim term or phrase.

### **III. CLAIM CONSTRUCTION HEARING LENGTH [P.R. 4-3(A)(3)]**

The parties anticipate that the claim construction hearing will take up to three hours. The parties agree that time will be split equally between Ollnova and ecobee.

### **IV. WITNESSES, INCLUDING EXPERTS, FOR THE CLAIM CONSTRUCTION HEARING [P.R. 4-3(A)(4)]**

The parties do not expect to present live testimony of witnesses at the Claim Construction Hearing. As noted in Exhibit B, the parties may submit expert declarations from Dr. Vijay Madiseti and/or Erik de la Iglesia (in support of Ollnova) and Dr. John Martens (in support of ecobee).

### **V. OTHER ISSUES [P.R. 4-3(A)(5)]**

The parties are currently unaware of any other issues which might appropriately be taken up at a prehearing conference prior to the Claim Construction Hearing.

Dated: January 10, 2023

Respectfully submitted,

/s/ Brett Cooper

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Dated: January 10, 2023

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**CERTIFICATE OF CONFERENCE**

The undersigned hereby certifies that counsel has complied with the meet and confer requirement in Local Rule CV-7(h) and that this is a joint motion.

/s/ Brett Cooper  
Brett Cooper

**CERTIFICATE OF SERVICE**

I hereby certify that a true and correct copy of the above and foregoing document has been served on all counsel of record on January 10, 2023.

/s/ Brett Cooper  
Brett Cooper

# **EXHIBIT A**

**Exhibit A: Agreed Claim Terms**

**1. U.S. Patent No. 8,224,282**

| Term # | Claims       | Term                     | Agreed Construction                                                  |
|--------|--------------|--------------------------|----------------------------------------------------------------------|
| A.     | 1, 7, 13, 20 | “a multi-sensor package” | “a single packaged sensor device, not a group of individual sensors” |

**2. U.S. Patent No. 7,746,887**

| Term # | Claims | Term     | Agreed Construction |
|--------|--------|----------|---------------------|
| B.     | 1      | “chance” | “change”            |

# **EXHIBIT B**

**Exhibit B: Disputed Claim Terms and Evidence****1. U.S. Patent No. 8,224,282**

| <b>Term #</b> | <b>Claims</b> | <b>Term</b>         | <b>Ollnova's Proposed Construction and Intrinsic/Extrinsic Evidence</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>ecobee's Proposed Construction and Intrinsic/Extrinsic Evidence</b>                                                                                                                                                                                                                                                      |
|---------------|---------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.            | 4, 10, 16     | Preambles of claims | <p>“The automation component of claim [3] / [9] / [15]”</p> <p><b><u>INTRINSIC EVIDENCE</u><sup>1</sup></b></p> <p>'282 patent at claims 1, 3, 4, 7, 9, 10, 13 15, and 16; 3:10-14; 6:25-39; 9:4-8; '282 patent prosecution history.</p> <p><b><u>EXTRINSIC EVIDENCE</u></b></p> <p>Plaintiff's Infringement Contentions and the evidence cited therein.</p> <p>Based on the intrinsic record and any extrinsic evidence, Dr. Vijay Madiseti and/or Erik de la Iglesia may opine regarding how a person of ordinary skill in the art (“POSITA”) would understand this term in view of the intrinsic record and any extrinsic evidence (including background knowledge and skill).</p> | <p>Plain and ordinary meaning, no construction required</p> <p><b><u>INTRINSIC EVIDENCE</u></b></p> <p>'282 patent at claims 1, 4, 7, 10, 13 and 16; 6:25-39.</p> <p><b><u>EXTRINSIC EVIDENCE</u></b></p> <p>Testimony of expert witness John Martens, Ph.D., as set forth in ecobee's P.R. 4-2 and 4-3(b) disclosures.</p> |

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<sup>1</sup> Each party reserves the right to rely on, or address, any intrinsic or extrinsic evidence cited by the other party.

| Term # | Claims    | Term                                                                                                                     | Ollnova's Proposed Construction and Intrinsic/Extrinsic Evidence                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ecobee's Proposed Construction and Intrinsic/Extrinsic Evidence                                                                                                                                                                                                                                   |
|--------|-----------|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.     | 4, 10, 16 | "identification flag for each identified sensor value"                                                                   | <p>No construction necessary. Plain and ordinary meaning.</p> <p><b><u>INTRINSIC EVIDENCE</u></b></p> <p>'282 patent at claims 1, 3, 4, 7, 9, 10, 13 15, and 16; 3:10-14; 6:25-39; 9:4-8; '282 patent prosecution history.</p> <p><b><u>EXTRINSIC EVIDENCE</u></b></p> <p>Plaintiff's Infringement Contentions and the evidence cited therein.</p> <p>Based on the intrinsic record and any extrinsic evidence, Dr. Vijay Madiseti and/or Erik de la Iglesia may opine regarding how a person of ordinary skill in the art ("POSITA") would understand this term in view of the intrinsic record and any extrinsic evidence (including background knowledge and skill).</p> | <p>Indefinite</p> <p><b><u>INTRINSIC EVIDENCE</u></b></p> <p>'282 patent at claims 1, 4, 7, 10, 13 and 16; 3:10-14; 6:25-39; 9:4-8.</p> <p><b><u>EXTRINSIC EVIDENCE</u></b></p> <p>Testimony of expert witness John Martens, Ph.D., as set forth in ecobee's P.R. 4-2 and 4-3(b) disclosures.</p> |
| 3.     | 1         | "receive sensor control information related to sensor data in control at a second automation component in communication" |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <p>receive information that relates to or identifies the sensor values and routines that are controlling and driving a second automation component in</p>                                                                                                                                         |

| Term # | Claims | Term                                                                                       | Ollnova's Proposed Construction and Intrinsic/Extrinsic Evidence                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ecobee's Proposed Construction and Intrinsic/Extrinsic Evidence                                                                                                                                                                                                                                              |
|--------|--------|--------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        |        | with the building automation system"                                                       | <p>No construction necessary. Plain and ordinary meaning.<sup>2</sup></p> <p><b><u>INTRINSIC EVIDENCE</u></b></p> <p>'282 patent at 8:57-9:36; 10:30-40; Fig. 6; claim 1.</p> <p><b><u>EXTRINSIC EVIDENCE</u></b></p> <p>Plaintiff's Infringement Contentions and the evidence cited therein.</p> <p>Based on the intrinsic record and any extrinsic evidence, Dr. Vijay Madisetti and/or Erik de la Iglesia may opine regarding how a person of ordinary skill in the art ("POSITA") would understand this term in view of the intrinsic record and any extrinsic evidence (including background knowledge and skill).</p> | <p>communication with the building automation system</p> <p><b><u>INTRINSIC EVIDENCE</u></b></p> <p>'282 patent at 8:57-9:36; Fig. 6; claim 1.</p> <p><b><u>EXTRINSIC EVIDENCE</u></b></p> <p>Testimony of expert witness John Martens, Ph.D., as set forth in ecobee's P.R. 4-2 and 4-3(b) disclosures.</p> |
| 4.     | 7      | "receive status data related to sensor data in control at a second automation component in | <p>No construction necessary. Plain and ordinary meaning.</p> <p><b><u>INTRINSIC EVIDENCE</u></b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <p>receive information that provides the complete status for each of the control routines or algorithms running at a second automation component in</p>                                                                                                                                                      |

<sup>2</sup> For terms/phrases where Ollnova has indicated that no construction is necessary, Ollnova contends that either no construction is necessary or the term should be construed according to its plain and ordinary meaning.

| Term # | Claims | Term                                               | Ollnova's Proposed Construction and Intrinsic/Extrinsic Evidence                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ecobee's Proposed Construction and Intrinsic/Extrinsic Evidence                                                                                                                                                                                                                                                                                                                                             |
|--------|--------|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        |        | communication with the building automation system" | <p>'282 patent at 3:51-4:4; 9:9-26; 9:36-10:10; 10:30-40; Fig. 7; claim 7.</p> <p><b><u>EXTRINSIC EVIDENCE</u></b></p> <p>Plaintiff's Infringement Contentions and the evidence cited therein.</p> <p>Based on the intrinsic record and any extrinsic evidence, Dr. Vijay Madiseti and/or Erik de la Iglesia may opine regarding how a person of ordinary skill in the art ("POSITA") would understand this term in view of the intrinsic record and any extrinsic evidence (including background knowledge and skill).</p> | <p>connection with each sensor element in the sensor package, the second automation component in communication with the building automation system</p> <p><b><u>INTRINSIC EVIDENCE</u></b></p> <p>'282 patent at 9:36-10:10; Fig. 7; claim 7.</p> <p><b><u>EXTRINSIC EVIDENCE</u></b></p> <p>Testimony of expert witness John Martens, Ph.D., as set forth in ecobee's P.R. 4-2 and 4-3(b) disclosures.</p> |
| 5.     | 13     | "receive a wake-up command"                        | <p>No construction necessary. Plain and ordinary meaning.</p> <p><b><u>INTRINSIC EVIDENCE</u></b></p> <p>'282 patent at 1:63-2:13, 3:51-4:4; 4:6-46; 10:10-24; 10:30-40; Fig. 8; claim 13.</p> <p><b><u>EXTRINSIC EVIDENCE</u></b></p>                                                                                                                                                                                                                                                                                      | <p>receive a command that turns on a device or changes it from a low-power to a high-power state</p> <p><b><u>INTRINSIC EVIDENCE</u></b></p> <p>'282 patent at 1:63-2:13, 4:6-46; 10:10-24; Fig. 8; claim 13.</p> <p><b><u>EXTRINSIC EVIDENCE</u></b></p>                                                                                                                                                   |

| Term # | Claims | Term | Ollnova's Proposed Construction and Intrinsic/Extrinsic Evidence                                                                                                                                                                                                                                                                                                                                     | ecobee's Proposed Construction and Intrinsic/Extrinsic Evidence                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------|--------|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        |        |      | <p>Plaintiff's Infringement Contentions and the evidence cited therein.</p> <p>Based on the intrinsic record and any extrinsic evidence, Dr. Vijay Madiseti and/or Erik de la Iglesia may opine regarding how a person of ordinary skill in the art ("POSITA") would understand this term in view of the intrinsic record and any extrinsic evidence (including background knowledge and skill).</p> | <p>The American Heritage College Dictionary (3d ed. 1993) at 1517 ("wake ... To cease to sleep; become awake. ... To be brought into a state of awareness or alertness. ... To stir, as from a dormant or inactive condition; rouse.") (ecobee-Ollnova-000091869 – ecobee-Ollnova-000091874);</p> <p>Newton's Telecom Dictionary (21st ed. Mar. 2005) at 926 ("Wake on LAN This standard allows a PC to be powered on by a network server, so the server can perform routine tasks.") (ecobee-Ollnova-000091866 – ecobee-Ollnova-000091868);</p> <p>IBM Dictionary of Computing (1994) at 519 (power down ... To turn the power off and bring an orderly end to system operation.") (ecobee-Ollnova-000091856 – ecobee-Ollnova-000091858);</p> <p>Microsoft Press Computer Dictionary (3d ed. 1997) at 376 (power down ... To shut down (a computer); to turn off the power.") (ecobee-Ollnova-000091862 – ecobee-Ollnova-000091865);</p> |

| Term # | Claims | Term                           | Ollnova's Proposed Construction and Intrinsic/Extrinsic Evidence                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ecobee's Proposed Construction and Intrinsic/Extrinsic Evidence                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------|--------|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        |        |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <p>Gary Legg, ZigBee: Wireless Technology for Low-Power Sensor Networks, EETimes (May 6, 2004) (ecobee-Ollnova-000091515 – ecobee-Ollnova-000091520);</p> <p>Testimony of expert witness John Martens, Ph.D., as set forth in ecobee's P.R. 4-2 and 4-3(b) disclosures.</p>                                                                                                                                                                                                                                                                          |
| 6.     | 13     | “receive a power-down command” | <p>No construction necessary. Plain and ordinary meaning.</p> <p><b><u>INTRINSIC EVIDENCE</u></b></p> <p>'282 patent at 1:63-2:13, 3:51-4:4; 4:6-46; 10:10-40; Fig. 8; claim 13.</p> <p><b><u>EXTRINSIC EVIDENCE</u></b></p> <p>Plaintiff's Infringement Contentions and the evidence cited therein.</p> <p>Based on the intrinsic record and any extrinsic evidence, Dr. Vijay Madisetti and/or Erik de la Iglesia may opine regarding how a person of ordinary skill in the art (“POSITA”) would understand this term in view of the intrinsic record and any extrinsic</p> | <p>receive a command that turns off a device or returns it to a low-power state</p> <p><b><u>INTRINSIC EVIDENCE</u></b></p> <p>'282 patent at 1:63-2:13, 4:6-46; 10:10-16; 10:25-29; Fig. 8; claim 13.</p> <p><b><u>EXTRINSIC EVIDENCE</u></b></p> <p>The American Heritage College Dictionary (3d ed. 1993) at 1517 (“wake ... To cease to sleep; become awake. ... To be brought into a state of awareness or alertness. ... To stir, as from a dormant or inactive condition; rouse.”) (ecobee-Ollnova-000091869 – ecobee-Ollnova-000091874);</p> |

| Term # | Claims | Term | Ollnova's Proposed Construction and Intrinsic/Extrinsic Evidence | ecobee's Proposed Construction and Intrinsic/Extrinsic Evidence                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------|--------|------|------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        |        |      | evidence (including background knowledge and skill).             | <p>Newton's Telecom Dictionary (21st ed. Mar. 2005) at 926 ("Wake on LAN This standard allows a PC to be powered on by a network server, so the server can perform routine tasks.") (ecobee-Ollnova-000091866 – ecobee-Ollnova-000091868);</p> <p>IBM Dictionary of Computing (1994) at 519 (power down ... To turn the power off and bring an orderly end to system operation.") (ecobee-Ollnova-000091856 – ecobee-Ollnova-000091858);</p> <p>Microsoft Press Computer Dictionary (3d ed. 1997) at 376 (power down ... To shut down (a computer); to turn off the power.") (ecobee-Ollnova-000091862 – ecobee-Ollnova-000091865);</p> <p>Gary Legg, ZigBee: Wireless Technology for Low-Power Sensor Networks, EETimes (May 6, 2004) (ecobee-Ollnova-000091515 – ecobee-Ollnova-000091520)</p> <p>Testimony of expert witness John Martens, Ph.D., as set forth in ecobee's P.R. 4-2 and 4-3(b) disclosures.</p> |

| Term # | Claims                  | Term                                  | Ollnova's Proposed Construction and Intrinsic/Extrinsic Evidence                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ecobee's Proposed Construction and Intrinsic/Extrinsic Evidence                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------|-------------------------|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7.     | 1, 5, 7, 11, 13, 19, 20 | "[first/second] automation component" | <p>No construction necessary. Plain and ordinary meaning.</p> <p><b><u>INTRINSIC EVIDENCE</u></b></p> <p>'282 patent at 1:15-2:19; 3:33-35; 3:51-4:4; 4:26-4:4; 4:26-46; 4:57-5:12; 5:13-38; 5:52-6:67; 10:30-40; Figs.1, 2; claims 1, 5, 7, 11, 13, 19, 20.</p> <p><b><u>EXTRINSIC EVIDENCE</u></b></p> <p>Plaintiff's Infringement Contentions and the evidence cited therein.</p> <p>Based on the intrinsic record and any extrinsic evidence, Dr. Vijay Madiseti and/or Erik de la Iglesia may opine regarding how a person of ordinary skill in the art ("POSITA") would understand this term in view of the intrinsic record and any extrinsic evidence (including background knowledge and skill).</p> <p>US9696052 [OLLNOVA-ECO-00005137-5157];</p> | <p>[first/second] component designed to operate without human interaction in an automation system</p> <p><b><u>INTRINSIC EVIDENCE</u></b></p> <p>'282 patent at 3:33-35; 3:51-4:4; 4:26-46; 4:57-5:12; 5:13-38; 5:52-6:67; Figs.1, 2; claims 1, 5, 7, 11, 13, 19, 20.</p> <p><b><u>EXTRINSIC EVIDENCE</u></b></p> <p>McGraw-Hill Dictionary of Scientific and Technical Terms (5th ed. 1994) at 162 ("automation ... The replacement of human or animal labor by machines.") (ecobee-Ollnova-0000091869 – ecobee-Ollnova-0000091874);</p> <p>Chambers Science and Technology Dictionary (1988) at 63 ("automation ... Industrial closed-loop control system in which manual operation of controls is replaced with servo operation.") (ecobee-Ollnova-0000091853 – ecobee-Ollnova-0000091855);</p> |

| Term # | Claims | Term | Ollnova's Proposed Construction and Intrinsic/Extrinsic Evidence                                                                                                                                                                                                                                   | ecobee's Proposed Construction and Intrinsic/Extrinsic Evidence                                                   |
|--------|--------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
|        |        |      | <p>US9016593 [OLLNOVA-ECO-00005118-5136];</p> <p>US8965585 [OLLNOVA-ECO-00005098-5117];</p> <p>US20120253527 [OLLNOVA-ECO-00005158-5176];</p> <p>US20130178985 [OLLNOVA-ECO-00005177-5204];</p> <p>US20130238140 [OLLNOVA-ECO-00005205-5234];</p> <p>US20130332306 [OLLNOVA-ECO-00005235-5266]</p> | <p>Testimony of expert witness John Martens, Ph.D., as set forth in ecobee's P.R. 4-2 and 4-3(b) disclosures.</p> |

2. U.S. Patent No. 7,745,887

| Term # | Claims | Term                                                                                                                                                                           | Ollnova's Proposed Construction and Intrinsic/Extrinsic Evidence                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ecobee's Proposed Construction and Intrinsic/Extrinsic Evidence                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8.     | 1      | “wherein transmission of the most recent reading of the indicator . . . is suspended in response to detecting a change in the sensed condition within the predetermined range” | <p>No construction necessary. Plain and ordinary meaning.</p> <p><b><u>INTRINSIC EVIDENCE</u></b></p> <p>’887 patent at Abstract; 2:20-34; 3:36-40; 10:57-12:3; 14:40-46; claims 1, 8, 16, 17.</p> <p><b><u>EXTRINSIC EVIDENCE</u></b></p> <p>Plaintiff’s Infringement Contentions and the evidence cited therein.</p> <p>Based on the intrinsic record and any extrinsic evidence, Dr. Vijay Madiseti and/or Erik de la Iglesia may opine regarding how a person of ordinary skill in the art (“POSITA”) would understand this term in view of the intrinsic record and any extrinsic evidence (including background knowledge and skill).</p> | <p>wherein the transmission of the most recent reading of the indicator that would otherwise occur is stopped in response to detecting a change in the sensed condition within the predetermined range</p> <p><b><u>INTRINSIC EVIDENCE</u></b></p> <p>’887 patent at Abstract; 2:20-26; 10:57-12:3; claim 1.</p> <p><b><u>EXTRINSIC EVIDENCE</u></b></p> <p>The American Heritage College Dictionary (3d ed. 1993) at 1368 (“suspend . . . To cause to stop for a period; interrupt.”) (ecobee-Ollnova-000091869 – ecobee-Ollnova-000091874);</p> <p>Microsoft Press Computer Dictionary (3d ed. 1997) at 454 (suspend . . . To halt a process temporarily.”) (ecobee-Ollnova-000091862 – ecobee-Ollnova-000091865);</p> |

| Term # | Claims | Term                                              | Ollnova's Proposed Construction and Intrinsic/Extrinsic Evidence                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ecobee's Proposed Construction and Intrinsic/Extrinsic Evidence                                                                                                                                                                                                                                               |
|--------|--------|---------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        |        |                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Testimony of expert witness John Martens, Ph.D., as set forth in ecobee's P.R. 4-2 and 4-3(b) disclosures.                                                                                                                                                                                                    |
| 9.     | 1, 21  | "information associated reading of the indicator" | <p>"information associated with the reading of the indicator"</p> <p><b><u>INTRINSIC EVIDENCE</u></b></p> <p>'887 patent at 2:8-18; 11:17-12:3; claims 1, 21; March 22, 2022 Certificate of Correction; '887 patent prosecution history.</p> <p><b><u>EXTRINSIC EVIDENCE</u></b></p> <p>Plaintiff's Infringement Contentions and the evidence cited therein.</p> <p>Based on the intrinsic record and any extrinsic evidence, Dr. Vijay Madiseti and/or Erik de la Iglesia may opine regarding how a person of ordinary skill in the art ("POSITA") would understand this term in view of the intrinsic record and any extrinsic evidence (including background knowledge and skill).</p> | <p>Indefinite</p> <p><b><u>INTRINSIC EVIDENCE</u></b></p> <p>'887 patent at 11:17-12:3; claims 1, 21; March 22, 2022 Certificate of Correction.</p> <p><b><u>EXTRINSIC EVIDENCE</u></b></p> <p>Testimony of expert witness John Martens, Ph.D., as set forth in ecobee's P.R. 4-2 and 4-3(b) disclosures.</p> |

### 3. U.S. Patent No. 7,860,495

| Term # | Claims | Term                                                      | Ollnova's Proposed Construction and Intrinsic/Extrinsic Evidence                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ecobee's Proposed Construction and Intrinsic/Extrinsic Evidence                                                                                                                                                                                                                                                                                                                                                                                             |
|--------|--------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10.    | 1      | "free of communications with the second wireless network" | <p>No construction necessary. Plain and ordinary meaning.</p> <p><b><u>INTRINSIC EVIDENCE</u></b></p> <p>'495 patent at 2:65-3:7; 4:12-13; 4:50-6:43; 5:66-6:9; 7:45-47; 8:26-60; 10:30-11:14; 11:28-35; 11:56-12:5; 15:46-16:10; 16:60-17:7; 19:11-18; claims 1, 6, and 11; Figs. 1 and 4; '495 patent prosecution history.</p> <p><b><u>EXTRINSIC EVIDENCE</u></b></p> <p>Plaintiff's Infringement Contentions and the evidence cited therein.</p> <p>Based on the intrinsic record and any extrinsic evidence, Dr. Vijay Madiseti and/or Erik de la Iglesia may opine regarding how a person of ordinary skill in the art ("POSITA") would understand this term in view of the intrinsic record and any extrinsic evidence (including background knowledge and skill).</p> | <p>free of communications with any component on the second wireless network</p> <p><b><u>INTRINSIC EVIDENCE</u></b></p> <p>'495 patent at 2:65-3:7; 4:12-13; 4:50-6:43; 5:66-6:9; 8:26-60; 10:30-11:14; claim 1; Fig. 1; '495 patent file history, 1/25/2010 Office Action Response at 16-19.</p> <p><b><u>EXTRINSIC EVIDENCE</u></b></p> <p>Testimony of expert witness John Martens, Ph.D., as set forth in ecobee's P.R. 4-2 and 4-3(b) disclosures.</p> |
| 11.    | 3      |                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Indefinite                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| Term # | Claims | Term                                                                                                     | Ollnova's Proposed Construction and Intrinsic/Extrinsic Evidence                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ecobee's Proposed Construction and Intrinsic/Extrinsic Evidence                                                                                                                                                                                           |
|--------|--------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        |        | “the second processors having a greater processing power and storage capacity than the first processors” | <p>No construction necessary. Plain and ordinary meaning.</p> <p><b><u>INTRINSIC EVIDENCE</u></b></p> <p>'495 patent at 6:61-7:10; 11:15-32; 19:11-18; claims 1, 3.</p> <p><b><u>EXTRINSIC EVIDENCE</u></b></p> <p>Plaintiff's Infringement Contentions and the evidence cited therein.</p> <p>Based on the intrinsic record and any extrinsic evidence, Dr. Vijay Madiseti and/or Erik de la Iglesia may opine regarding how a person of ordinary skill in the art (“POSITA”) would understand this term in view of the intrinsic record and any extrinsic evidence (including background knowledge and skill).</p> | <p><b><u>INTRINSIC EVIDENCE</u></b></p> <p>'495 patent at 6:61-7:10; 11:22-28; claims 1, 3.</p> <p><b><u>EXTRINSIC EVIDENCE</u></b></p> <p>Testimony of expert witness John Martens, Ph.D., as set forth in ecobee's P.R. 4-2 and 4-3(b) disclosures.</p> |

4. U.S. Patent No. 8,264,371

| Term # | Claims  | Term                              | Ollnova's Proposed Construction and Intrinsic/Extrinsic Evidence                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ecobee's Proposed Construction and Intrinsic/Extrinsic Evidence                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------|---------|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12.    | 1, 2, 6 | "change-of-value request message" | <p>No construction necessary. Plain and ordinary meaning.</p> <p><b><u>INTRINSIC EVIDENCE</u></b></p> <p>'371 patent at 3:10-22; 6:36-7:10; 7:11-8:25; 8:26-37; Figs. 3, 4, 5; claims 1, 2, 6, 15.</p> <p><b><u>EXTRINSIC EVIDENCE</u></b></p> <p>Plaintiff's Infringement Contentions and the evidence cited therein.</p> <p>Based on the intrinsic record and any extrinsic evidence, Dr. Vijay Madiseti and/or Erik de la Iglesia may opine regarding how a person of ordinary skill in the art ("POSITA") would understand this term in view of the intrinsic record and any extrinsic evidence (including background knowledge and skill).</p> | <p>a message that requests or directs an automation component to indicate if detected values, received values, parameters, or measurements have changed or altered beyond a pre-defined reporting limit</p> <p><b><u>INTRINSIC EVIDENCE</u></b></p> <p>'371 patent at 6:36-7:38; Figs. 3, 4, 5; claims 1, 2, 6.</p> <p><b><u>EXTRINSIC EVIDENCE</u></b></p> <p>The American Heritage College Dictionary (3d ed. 1993) at 233-34 ("change ... To cause to be different. ... To give a completely different form or appearance to; transform.") (ecobee-Ollnova-000091869 – ecobee-Ollnova-000091874);</p> <p>Steven T. Bushby, BACnet™ – A standard communication infrastructure for intelligent buildings, Automation in Construction 6 (1997) (ecobee-Ollnova-000091841 – ecobee-Ollnova-000091852);</p> |

| Term # | Claims               | Term                       | Ollnova's Proposed Construction and Intrinsic/Extrinsic Evidence                                                                                                                                                                                           | ecobee's Proposed Construction and Intrinsic/Extrinsic Evidence                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------|----------------------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        |                      |                            |                                                                                                                                                                                                                                                            | <p>Frederik Österlind et al., Integrating Building Automation Systems and Wireless Sensor Networks, SICS Technical Report T2007:04, Chapters 4, 6 (May 2007) (ecobee-Ollnova-000090401 – ecobee-Ollnova-000090418);</p> <p>International Patent Publication No. WO 2007/123774 A2 (filed Mar. 30, 2007) (ecobee-Ollnova-000091875 – ecobee-Ollnova-000091908);</p> <p>Testimony of expert witness John Martens, Ph.D., as set forth in ecobee's P.R. 4-2 and 4-3(b) disclosures.</p> |
| 13.    | 1, 8, 10, 13, 17, 19 | “change-of-value messages” | <p>No construction necessary. Plain and ordinary meaning.</p> <p><b><u>INTRINSIC EVIDENCE</u></b></p> <p>'371 patent at 2:18-67; 5:64-7:38; 8:26-37; Figs. 4, 5; claims 1-21; '371 patent prosecution history.</p> <p><b><u>EXTRINSIC EVIDENCE</u></b></p> | <p>messages denoting that information, settings, signals and/or indications have been altered, updated or otherwise changed</p> <p><b><u>INTRINSIC EVIDENCE</u></b></p> <p>'371 patent at 5:64-7:38; Figs. 4, 5; claims 1, 8, 10, 13, 17, 19.</p> <p><b><u>EXTRINSIC EVIDENCE</u></b></p>                                                                                                                                                                                            |

| Term # | Claims | Term | Ollnova's Proposed Construction and Intrinsic/Extrinsic Evidence                                                                                                                                                                                                                                                                                                                                     | ecobee's Proposed Construction and Intrinsic/Extrinsic Evidence                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------|--------|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        |        |      | <p>Plaintiff's Infringement Contentions and the evidence cited therein.</p> <p>Based on the intrinsic record and any extrinsic evidence, Dr. Vijay Madiseti and/or Erik de la Iglesia may opine regarding how a person of ordinary skill in the art ("POSITA") would understand this term in view of the intrinsic record and any extrinsic evidence (including background knowledge and skill).</p> | <p>The American Heritage College Dictionary (3d ed. 1993) at 233-34 ("change ... To cause to be different. ... To give a completely different form or appearance to; transform.") (ecobee-Ollnova-000091869 – ecobee-Ollnova-000091874);</p> <p>Steven T. Bushby, BACnet™ – A standard communication infrastructure for intelligent buildings, Automation in Construction 6 (1997) (ecobee-Ollnova-000091841 – ecobee-Ollnova-000091852);</p> <p>Frederik Österlind et al., Integrating Building Automation Systems and Wireless Sensor Networks, SICS Technical Report T2007:04, Chapters 4, 6 (May 2007) (ecobee-Ollnova-000090401 – ecobee-Ollnova-000090418);</p> <p>International Patent Publication No. WO 2007/123774 A2 (filed Mar. 30, 2007) (ecobee-Ollnova-000091875 – ecobee-Ollnova-000091908);</p> <p>Testimony of expert witness John Martens, Ph.D., as set forth in ecobee's P.R. 4-2 and 4-3(b) disclosures.</p> |