

October 16, 2019

VIA ECFS

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

**RE: Federated Wireless, Inc. Environmental Sensing Capability Sensor Registration
Wireless Telecommunications Bureau and Office of Engineering and Technology
Establish Procedure for Registering Environmental Sensing Capability Sensors, GN
Docket No. 15-319**

Dear Ms. Dortch:

On September 23, 2019, Federated Wireless, Inc. ("Federated Wireless") submitted to the Federal Communications Commission ("Commission") the attached materials for registration of Citizens Broadband Radio Service Environmental Sensing Capability ("ESC") sensors covering the West Long Beach and West San Diego Port Dynamic Protection Areas in the above-captioned proceeding.¹ In accordance with the requirements of the *ESC Sensor Registration Public Notice*, the attached materials were submitted via email to ESC.Sensor.Info@fcc.gov.² At the request of Commission staff, the instant submission is to place into the record the public, redacted version of Federated Wireless' September 23, 2019 submission.

Should you require any further information regarding the Federated Wireless ESC sensors described in the attached materials, please contact the undersigned and Alfredo Echeverria at aecheverria@federatedwireless.com.

Respectfully submitted,
/s/ Jennifer M. McCarthy
Jennifer M. McCarthy
Vice President, Legal Advocacy
Federated Wireless, Inc.
4075 Wilson Boulevard
9th Floor
Arlington, VA 22203

Attachments

¹ *Wireless Telecommunications Bureau and Office of Engineering and Technology Establish Procedure for Registering Environmental Sensing Capability Sensors*, GN Docket No. 15-319, Public Notice, DA 18-1054 (WTB/OET rel. Oct. 16, 2018) ("*ESC Sensor Registration Public Notice*").

² *Id.* at 3.



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www.federatedwireless.com

September 23, 2019

VIA ELECTRONIC FILING

Marlene H. Dortch
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Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

**RE: Request for Confidential Treatment
Federated Wireless, Inc. Environmental Sensing Capability Sensor Registration
*Wireless Telecommunications Bureau and Office of Engineering and Technology
Establish Procedure for Registering Environmental Sensing Capability Sensors, GN
Docket No. 15-319***

Dear Ms. Dortch:

Federated Wireless, Inc. (“Federated Wireless”) hereby submits the attached updated materials (“Updated Registration”) for registration of additional Citizens Broadband Radio Service (“CBRS”) Environmental Sensing Capability (“ESC”) sensors in the above-captioned proceeding.¹

Pursuant to 47 C.F.R. §§ 0.457, 0.459, Federated Wireless requests confidential treatment for the company-specific, highly sensitive and proprietary commercial information in the attached Updated Registration. The confidential information has been redacted from the version marked “REDACTED, FOR PUBLIC INSPECTION” and electronically filed with the Commission. In addition, the confidential information constitutes highly sensitive commercial information that falls within Exemption 4 of the Freedom of Information Act (“FOIA”). Certain portions of the confidential information also implicate operational security concerns for the U.S. Navy, and thus further merit confidential treatment by the Commission.

In support of this request and pursuant to Section 0.459(b) of the Commission’s rules, Federated Wireless hereby states as follows:

1. Identification of the specific information for which confidential treatment is sought.

Federated Wireless requests confidential treatment with respect to the confidential information contained after the headings [*****BEGIN CONFIDENTIAL INFORMATION*****] and before the close headings [*****END CONFIDENTIAL INFORMATION*****] and redacted from the version marked “REDACTED, FOR PUBLIC INSPECTION” and filed electronically with the Commission.

¹ *Wireless Telecommunications Bureau and Office of Engineering and Technology Establish Procedure for Registering Environmental Sensing Capability Sensors, GN Docket No. 15-319, Public Notice, DA 18-1054 (WTB/OET rel. Oct. 16, 2018).*

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2. Identification of the circumstance giving rise to the submission.

Federated Wireless is submitting the Updated Registration for purposes of registering its ESC sensors in an open Commission proceeding.

3. Explanation of the degree to which the information is commercial or financial or contains a trade secret or is privileged.

The confidential information in the Updated Registration is highly sensitive commercial information specific to the proprietary research, development, and strategies of Federated Wireless. This information is generally safeguarded from competitors and is not made available to the public.

4. Explanation of the degree to which the information concerns a service that is subject to competition.

The confidential information contained in the Updated Registration details the functioning of the Federated Wireless ESC in the CBRS, and Federated Wireless and other ESC operators will compete vigorously on the basis of the sensing and spectrum management services provided through these products.

5. Explanation of how disclosure of the information could result in substantial competitive harm.

Disclosure of the redacted information could cause substantial competitive harm to Federated Wireless, because it would provide competitors insight into confidential research, development, operational, and strategic information that would not otherwise be available, which would work to Federated Wireless's severe competitive disadvantage.

6. Identification of any measures taken to prevent unauthorized disclosure.

Federated Wireless routinely treats the redacted information as highly confidential and exercises significant care to ensure that such information is not disclosed to its competitors or the public.

7. Identification of whether the information is available to the public and the extent of any previous disclosure of the information to third parties.

Federated Wireless does not make the redacted information available to the public, and this information has not been previously disclosed to third parties.

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8. Justification of the period during which the submitting party asserts that the material should not be available for public disclosure.

Federated Wireless requests that the redacted information be treated as being confidential on an indefinite basis as it cannot identify a date certain on which this information could be disclosed without causing competitive harm to Federated Wireless.

Respectfully submitted,
/s/ Jennifer M. McCarthy
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**RE: Federated Wireless, Inc. Environmental Sensing Capability Sensor Registration
Wireless Telecommunications Bureau and Office of Engineering and Technology
Establish Procedure for Registering Environmental Sensing Capability Sensors, GN
Docket No. 15-319**

Dear Ms. Dortch:

Federated Wireless, Inc. (“Federated Wireless”) hereby submits the attached updated materials (“Updated Registration”) with respect to the registration of two Citizens Broadband Radio Service (“CBRS”) Environmental Sensing Capability (“ESC”) sensors in the above-captioned proceeding.¹

The Updated Registration sets forth the information requested in the *ESC Sensor Registration Public Notice*. In particular, the Registration demonstrates that the Federated Wireless ESC sensors provide coverage that complies with the guidance published by the National Telecommunications and Information Administration (“NTIA”) for each of the two Dynamic Protection Areas (“DPAs”) identified in the Updated Registration.²

For each ESC sensor deployed to cover the DPAs identified in the Updated Registration, Federated Wireless provides the following information as required by the *ESC Sensor Registration Public Notice*:

- site location by latitude and longitude in a table format;
- ground elevation of the site location in feet;
- the radiation center height in feet above ground level;
- azimuth in degrees relative to True North;
- the horizontal/vertical beamwidth in degrees;
- the down tilt angle of the antenna in degrees;
- the antenna gain in dBi;
- make and model of the antenna and its pattern;

¹ *Wireless Telecommunications Bureau and Office of Engineering and Technology Establish Procedure for Registering Environmental Sensing Capability Sensors*, GN Docket No. 15-319, Public Notice, DA 18-1054 (WTB/OET rel. Oct. 16, 2018) (“*ESC Sensor Registration Public Notice*”).

² See Letter from Paige R. Atkins, Assoc. Admin., Office of Spectrum Mgt., NTIA, to Julius P. Knapp, Chief, OET, FCC, and Donald Stockdale, Chief, WTB, FCC, GN Docket No. 17-258 (filed May 17, 2018).

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- the DPAs made available and protected by each sensor; and
- additional ESC design specific information demonstrating adequate coverage of each DPA.³

In addition, the Updated Registration provides a coverage map for each DPA, which shows all sensor site locations and has been generated consistent with the guidelines as set forth in the requirements published by NTIA.⁴ Federated Wireless further confirms that it has modeled pathloss using the Irregular Terrain Model published by NTIA, and that such modeling includes sensor antenna gain and orientation in the analysis.⁵

Should you require any further information regarding the Federated Wireless ESC sensors described in the Updated Registration, please contact the undersigned and Alfredo Echeverria at aecheverria@federatedwireless.com.

Respectfully submitted,
/s/ Jennifer M. McCarthy
Jennifer M. McCarthy
Vice President, Legal Advocacy
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Suite 200
Arlington, VA 22203

Attachments

cc: ESC.Sensor.Info@fcc.gov

³ ESC Sensor Registration Public Notice at 3.

⁴ *Id.*

⁵ *Id.*; see also Institute for Telecommunication Sciences, NTIA, “Irregular Terrain Model (ITM) (Longley-Rice) (20 MHz – 20 GHz),” available at <https://www.its.bldrdoc.gov/resources/radio-propagation-software/itm/itm.aspx>.



September 23rd, 2019

Notice of DPA Submission
Communication for this DPA Submission

For the DPA submission(s) listed below, all communications should be directed to Alfredo Echeverria, of Federated Wireless, Inc., at the following email address; aecheverria@federatedwireless.com.

Federated Wireless, Inc.

DPA Submission for:

San Diego, CA and Long Beach, CA

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permission from Federated Wireless, Inc.**

[REDACTED]