

Communications GeoPlanner™

Off-Air TV Analysis

Timber Road 3 - 138 kV Transmission Line



Prepared on Behalf of
Paulding Wind Farm III, LLC

November 16, 2015



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Comsearch analyzed the off-air television stations whose service could potentially be affected by the proposed 138 kV transmission line project in Paulding County, Ohio. Off-air stations broadcast signals from terrestrially-located facilities that can be received directly by a television receiver. Comsearch examined the coverage of the off-air TV stations and the communities in the area that potentially could have degraded television reception due to the location of the proposed transmission line project.

The proposed transmission line project area and local communities are depicted in Figure 1.



To begin the analysis, Comsearch compiled all off-air television stations¹ within 150 kilometers of the project area of interest (AOI). Appendix A contains a tabular summary of these stations. A plot depicting their locations appears in Figure 2.

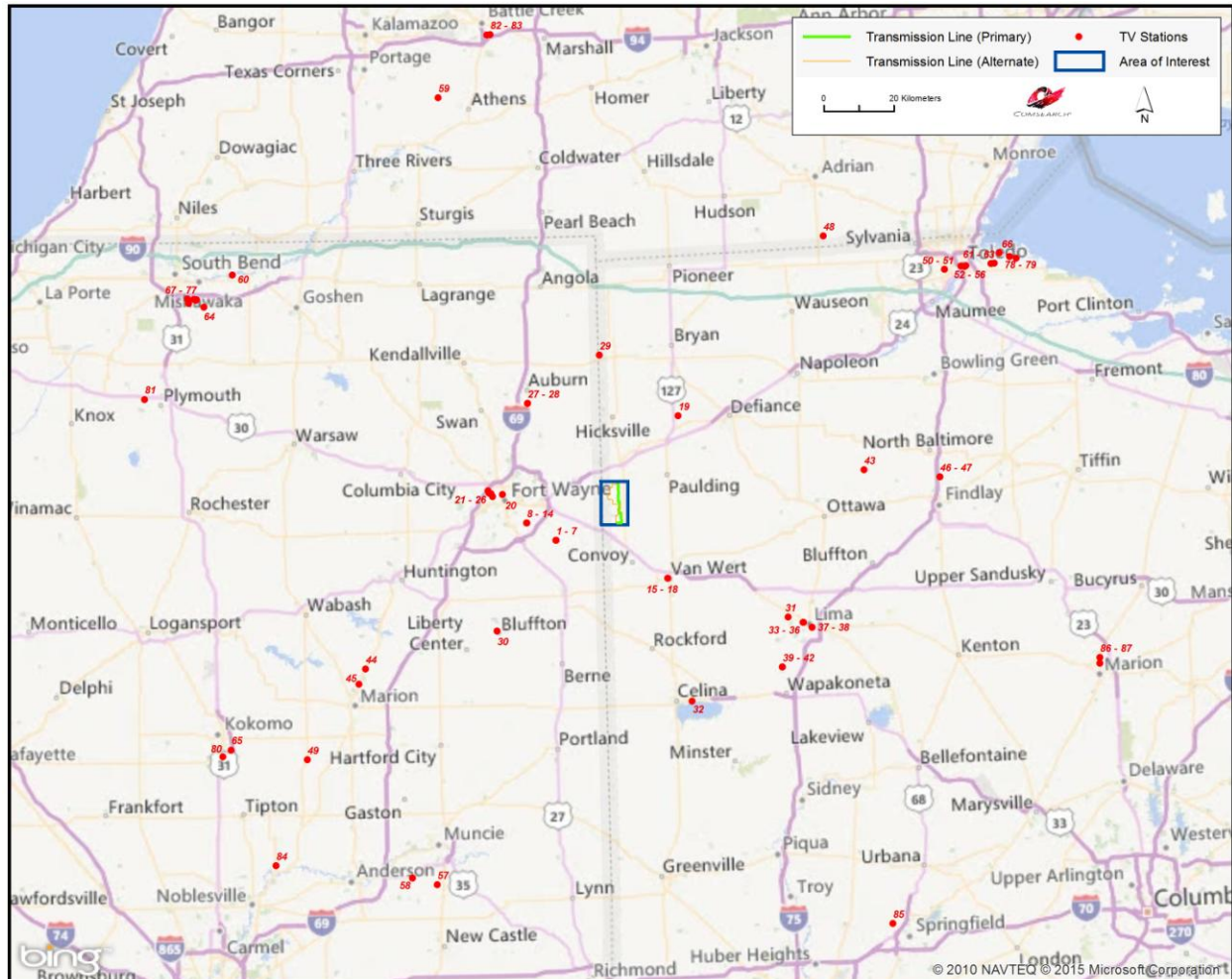


Figure 2: Plot of Off-Air TV Stations within 150 Kilometers of Project Area

TV stations at a distance of 75 kilometers or less are the most likely to provide off-air coverage to the project area and neighboring communities. These stations are listed in Table 1, and a plot depicting their locations is provided in Figure 3. There are a total of forty-three database records for stations within approximately 75 kilometers of the transmission line project. Of these

¹ Comsearch makes no warranty as to the accuracy of the data included in this report beyond the date of the report. The data presented in this report is derived from the TV station's FCC license and governed by Comsearch's data license notification and agreement located at http://www.comsearch.com/files/data_license.pdf.

stations, only nineteen are currently licensed and operating, ten of which are low-power stations or translators. Translator stations are low-power stations that receive signals from distant broadcasters and retransmit the signal to a local audience. These stations serve local audiences and have limited range, which is a function of their transmit power and the height of their transmit antenna. The nine remaining operational stations broadcast at full power and are licensed under call signs WANE-TV, WISE-TV, WPTA, WFWA, WFFT-TV, WINM, WTLW, WLIO, and WBGU-TV.

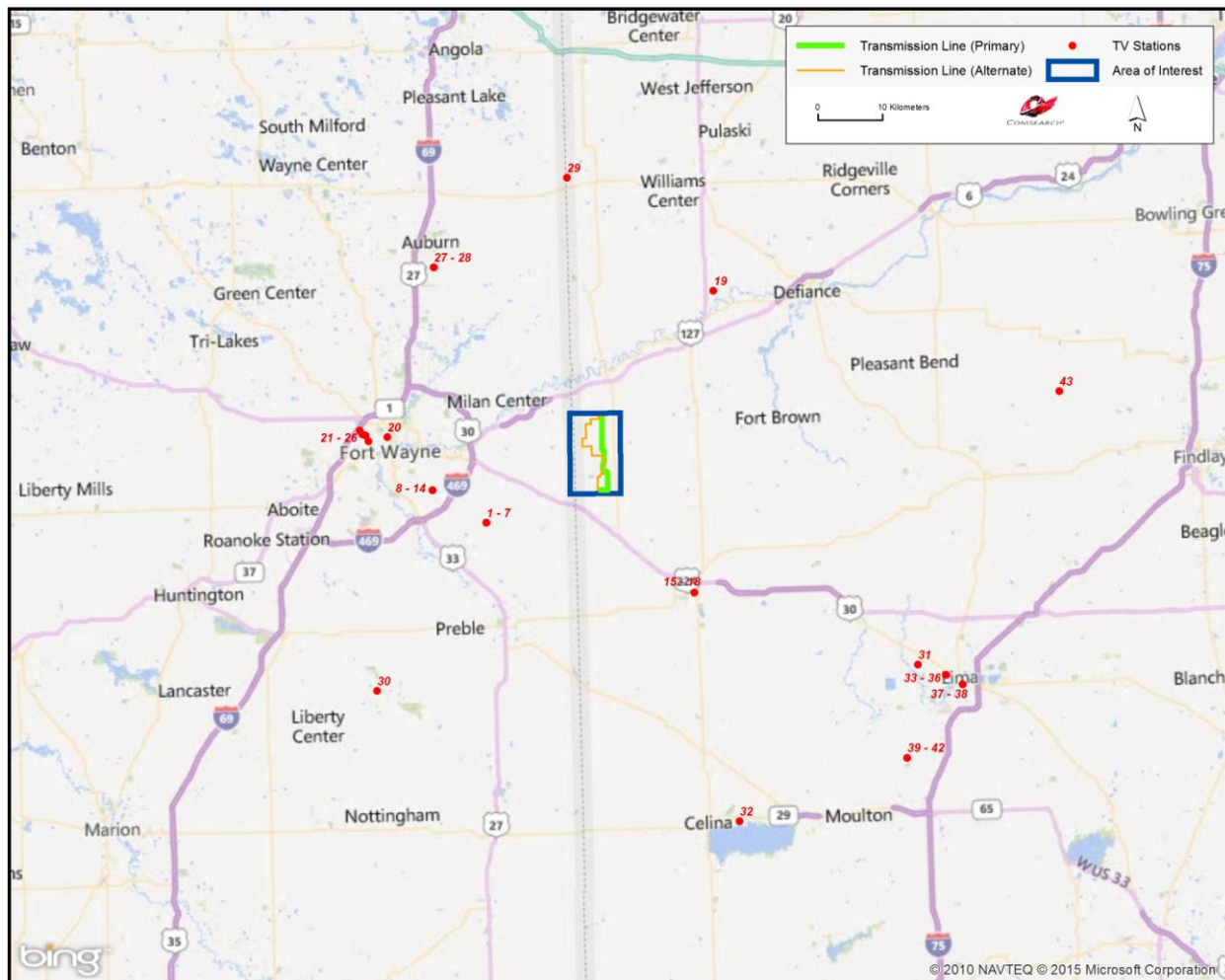


Figure 3: Plot of Off-Air TV Stations within 75 Kilometers of Project Area

| ID | Call Sign | Status | Service ² | Channel | City | State | Distance to Nearest Transmission Line (km) |
|----|-----------|--------|----------------------|---------|------------|-------|--|
| 1 | NEW | APP | LD | 4 | FORT WAYNE | IN | 17.90 |
| 2 | W16CU-D | CP MOD | LD | 16 | FORT WAYNE | IN | 17.90 |
| 3 | NEW | APP | LD | 26 | FORT WAYNE | IN | 17.90 |
| 4 | W29DX-D | CP MOD | LD | 29 | FORT WAYNE | IN | 17.90 |
| 5 | W41DS-D | CP MOD | LD | 41 | FORT WAYNE | IN | 17.90 |
| 6 | W43DI-D | CP MOD | LD | 43 | FORT WAYNE | IN | 17.90 |
| 7 | WODP-LD | CP MOD | LD | 49 | FORT WAYNE | IN | 17.90 |
| 8 | W14DS-D | CP | LD | 14 | FORT WAYNE | IN | 24.12 |
| 9 | W19DT-D | CP | LD | 19 | FORT WAYNE | IN | 24.12 |
| 10 | W20DG-D | CP MOD | LD | 20 | FORT WAYNE | IN | 24.12 |
| 11 | W21DJ-D | CP | LD | 21 | FORT WAYNE | IN | 24.12 |
| 12 | W33DC-D | CP | LD | 33 | FORT WAYNE | IN | 24.12 |
| 13 | NEW | APP | LD | 35 | FORT WAYNE | IN | 24.12 |
| 14 | W51EQ-D | CP | LD | 51 | FORT WAYNE | IN | 24.12 |
| 15 | W16DM-D | CP | LD | 16 | LIMA | OH | 20.73 |
| 16 | W29EL-D | CP | LD | 29 | LIMA | OH | 20.73 |
| 17 | W42EP-D | CP | LD | 42 | LIMA | OH | 20.73 |
| 18 | W49EM-D | CP | LD | 49 | LIMA | OH | 20.73 |
| 19 | WDFM-LP | LIC | TX | 26 | DEFIANCE | OH | 25.98 |
| 20 | WFWC-CD | LIC | DC | 45 | FORT WAYNE | IN | 30.11 |
| 21 | WANE-TV | LIC | DT | 31 | FORT WAYNE | IN | 33.04 |
| 22 | WISE-TV | LIC | DT | 18 | FORT WAYNE | IN | 33.46 |
| 23 | WPTA | LIC | DT | 24 | FORT WAYNE | IN | 33.46 |
| 24 | W38EA-D | LIC | LD | 38 | FORT WAYNE | IN | 34.00 |
| 25 | WFWA | LIC | DT | 40 | FORT WAYNE | IN | 34.00 |
| 26 | WFFT-TV | LIC | DT | 36 | FORT WAYNE | IN | 34.36 |
| 27 | W07CL | LIC | TX | 7 | AUBURN | IN | 33.65 |
| 28 | W26DH-D | LIC | LD | 26 | AUBURN | IN | 33.65 |
| 29 | WINM | LIC | DT | 12 | ANGOLA | IN | 37.24 |

² Definitions of U.S. service and status codes:

DT – Digital television broadcast station

LD – Low power digital television broadcast station

TX – Translator station

CA – Class A analog television broadcast station

DC – Class A digital television broadcast station

DD – Digital distributed transmission system

LIC – Licensed and operational station

CP – Construction permit granted

CP MOD – Modification of construction permit

APP – Application for construction permit, not yet operational

| ID | Call Sign | Status | Service ² | Channel | City | State | Distance to Nearest Transmission Line (km) |
|----|-----------|--------|----------------------|---------|---------------|-------|--|
| 30 | W22DV-D | CP MOD | LD | 22 | MARION | IN | 46.13 |
| 31 | WTLW | LIC | DT | 44 | LIMA | OH | 55.00 |
| 32 | W32DS-D | LIC | LD | 32 | MAPLEWOOD | OH | 55.07 |
| 33 | WOHL-CD | LIC | DC | 35 | LIMA | OH | 59.59 |
| 34 | WLIO | LIC | DT | 8 | LIMA | OH | 59.60 |
| 35 | WLQP-LP | CP | LD | 45 | LIMA | OH | 59.60 |
| 36 | WLMO-LP | CP | LD | 47 | LIMA | OH | 59.60 |
| 37 | WLQP-LP | APP | LD | 18 | LIMA | OH | 62.54 |
| 38 | DWJND-LD | APP | LD | 20 | FINDLAY | OH | 62.54 |
| 39 | WLQP-LP | LIC | TX | 18 | LIMA | OH | 62.06 |
| 40 | W23DE-D | LIC | LD | 23 | LIMA | OH | 62.06 |
| 41 | WLMO-LP | LIC | TX | 38 | LIMA | OH | 62.06 |
| 42 | W23DE-D | CP | LD | 43 | LIMA | OH | 62.06 |
| 43 | WBGU-TV | LIC | DT | 27 | BOWLING GREEN | OH | 70.85 |

Table 1: Off-Air TV Stations within 75 Kilometers of Project Area

3. Impact Assessment

Typically, transmission lines do not create reception problems for television signals. This includes transmission lines carrying high voltages such as those planned for the Paulding County project. However, if the lines are not kept in good maintenance condition there may be corona and arcing at the insulators and/or conductor connectors of the transmission line, creating broadband noise. The broadband noise could cause interference to television receivers in residences near the transmission line, particularly those residents whose homes are within approximately 100 meters of the transmission line.

4. Recommendations

In order to prevent interference to television broadcast reception in the homes near the transmission line, there should be an effective quality control maintenance program in effect for the useful life period of the transmission line's operation.



5. Contact

For questions or information regarding the Off-Air TV Analysis, please contact:

| | |
|-----------------|--|
| Contact person: | Denise Finney |
| Title: | Account Manager |
| Company: | Comsearch |
| Address: | 19700 Janelia Farm Blvd., Ashburn, VA 20147 |
| Telephone: | 703-726-5650 |
| Fax: | 703-726-5595 |
| Email: | dfinney@comsearch.com |
| Web site: | www.comsearch.com |

6. Appendix A

| ID | Call Sign | Status | Service ³ | Channel | City | State | Distance to Nearest Transmission Line (km) |
|----|-----------|--------|----------------------|---------|------------|-------|--|
| 1 | NEW | APP | LD | 4 | FORT WAYNE | IN | 17.90 |
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| 3 | NEW | APP | LD | 26 | FORT WAYNE | IN | 17.90 |
| 4 | W29DX-D | CP MOD | LD | 29 | FORT WAYNE | IN | 17.90 |
| 5 | W41DS-D | CP MOD | LD | 41 | FORT WAYNE | IN | 17.90 |
| 6 | W43DI-D | CP MOD | LD | 43 | FORT WAYNE | IN | 17.90 |
| 7 | WODP-LD | CP MOD | LD | 49 | FORT WAYNE | IN | 17.90 |
| 8 | W14DS-D | CP | LD | 14 | FORT WAYNE | IN | 24.12 |
| 9 | W19DT-D | CP | LD | 19 | FORT WAYNE | IN | 24.12 |
| 10 | W20DG-D | CP MOD | LD | 20 | FORT WAYNE | IN | 24.12 |
| 11 | W21DJ-D | CP | LD | 21 | FORT WAYNE | IN | 24.12 |
| 12 | W33DC-D | CP | LD | 33 | FORT WAYNE | IN | 24.12 |
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| 14 | W51EQ-D | CP | LD | 51 | FORT WAYNE | IN | 24.12 |
| 15 | W16DM-D | CP | LD | 16 | LIMA | OH | 20.73 |
| 16 | W29EL-D | CP | LD | 29 | LIMA | OH | 20.73 |
| 17 | W42EP-D | CP | LD | 42 | LIMA | OH | 20.73 |
| 18 | W49EM-D | CP | LD | 49 | LIMA | OH | 20.73 |
| 19 | WDFM-LP | LIC | TX | 26 | DEFIANCE | OH | 25.98 |
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| 23 | WPTA | LIC | DT | 24 | FORT WAYNE | IN | 33.46 |
| 24 | W38EA-D | LIC | LD | 38 | FORT WAYNE | IN | 34.00 |
| 25 | WFWA | LIC | DT | 40 | FORT WAYNE | IN | 34.00 |
| 26 | WFFT-TV | LIC | DT | 36 | FORT WAYNE | IN | 34.36 |
| 27 | W07CL | LIC | TX | 7 | AUBURN | IN | 33.65 |

³ Definitions of service and status codes :

TV – Analog television broadcast station

DT – Digital television broadcast station

DS – Digital special temporary authority (STA)

LP – Low power analog television broadcast station

LD – Low power digital television broadcast station

CA – Class A analog television broadcast station

DC – Class A digital television broadcast station

DD – Digital distributed transmission system

TX – Translator station

LIC – Licensed and operational station

CP – Construction permit granted

CP MOD – Modification of construction permit

APP – Application for construction permit, not yet operational

STA – Special transmit authorization, usually granted by FCC for temporary operation

| ID | Call Sign | Status | Service ³ | Channel | City | State | Distance to Nearest Transmission Line (km) |
|----|-----------|--------|----------------------|---------|---------------|-------|--|
| 28 | W26DH-D | LIC | LD | 26 | AUBURN | IN | 33.65 |
| 29 | WINM | LIC | DT | 12 | ANGOLA | IN | 37.24 |
| 30 | W22DV-D | CP MOD | LD | 22 | MARION | IN | 46.13 |
| 31 | WTLW | LIC | DT | 44 | LIMA | OH | 55.00 |
| 32 | W32DS-D | LIC | LD | 32 | MAPLEWOOD | OH | 55.07 |
| 33 | WOHL-CD | LIC | DC | 35 | LIMA | OH | 59.59 |
| 34 | WLIO | LIC | DT | 8 | LIMA | OH | 59.60 |
| 35 | WLQP-LP | CP | LD | 45 | LIMA | OH | 59.60 |
| 36 | WLMO-LP | CP | LD | 47 | LIMA | OH | 59.60 |
| 37 | WLQP-LP | APP | LD | 18 | LIMA | OH | 62.54 |
| 38 | DWJND-LD | APP | LD | 20 | FINDLAY | OH | 62.54 |
| 39 | WLQP-LP | LIC | TX | 18 | LIMA | OH | 62.06 |
| 40 | W23DE-D | LIC | LD | 23 | LIMA | OH | 62.06 |
| 41 | WLMO-LP | LIC | TX | 38 | LIMA | OH | 62.06 |
| 42 | W23DE-D | CP | LD | 43 | LIMA | OH | 62.06 |
| 43 | WBGU-TV | LIC | DT | 27 | BOWLING GREEN | OH | 70.85 |
| 44 | WSOT-LD | LIC | LD | 27 | MARION | IN | 83.22 |
| 45 | WIWU-CD | LIC | DC | 51 | MARION | IN | 87.13 |
| 46 | WFND-LD | LIC | LD | 22 | FINDLAY | OH | 92.28 |
| 47 | DW09CG | APP | LD | 51 | FINDLAY | OH | 92.28 |
| 48 | WLMB | LIC | DT | 5 | TOLEDO | OH | 92.40 |
| 49 | W15CZ-D | LIC | LD | 15 | MARION | IN | 111.69 |
| 50 | W38DH | CP | LD | 23 | TOELDO | OH | 112.20 |
| 51 | W38DH | LIC | TX | 38 | TOLEDO | OH | 112.20 |
| 52 | WDTJ-LD | LIC | LD | 18 | TOLEDO | OH | 116.65 |
| 53 | DW59DC | APP | TX | 32 | TOLEDO | OH | 116.65 |
| 54 | WDTJ-LP | LIC | TX | 68 | TOLEDO | OH | 116.65 |
| 55 | NEW | APP | LD | 50 | TOLEDO | OH | 117.45 |
| 56 | WMNT-CD | LIC | DC | 48 | TOLEDO | OH | 117.95 |
| 57 | WIPB | LIC | DT | 23 | MUNCIE | IN | 115.85 |
| 58 | DWMUN-LP | APP | LD | 26 | MUNCIE | IN | 117.52 |
| 59 | W26BX-D | LIC | LD | 26 | KALAMAZOO | MI | 121.91 |
| 60 | WEID-LP | LIC | LD | 16 | SOUTH BEND | IN | 124.28 |
| 61 | WUPW | LIC | DT | 46 | TOLEDO | OH | 124.33 |
| 62 | WUPW | CP | DT | 46 | TOLEDO | OH | 124.33 |
| 63 | WGTE-TV | LIC | DT | 29 | TOLEDO | OH | 125.33 |
| 64 | WHME-TV | LIC | DT | 48 | SOUTH BEND | IN | 127.42 |
| 65 | DWKGK-LP | CP MOD | DC | 50 | KOKOMO | IN | 128.32 |
| 66 | WTVG | LIC | DT | 13 | TOLEDO | OH | 128.05 |
| 67 | WCWW-LD | LIC | LD | 25 | SOUTH BEND | IN | 130.22 |
| 68 | WBND-LD | LIC | LD | 34 | SOUTH BEND | IN | 130.22 |
| 69 | WMYS-LD | LIC | LD | 39 | SOUTH BEND | IN | 130.22 |

| ID | Call Sign | Status | Service ³ | Channel | City | State | Distance to Nearest Transmission Line (km) |
|----|-----------|--------|----------------------|---------|--------------|-------|--|
| 70 | W23EA-D | APP | LD | 23 | LAFAYETTE | IN | 130.41 |
| 71 | WNIT | LIC | DT | 35 | SOUTH BEND | IN | 130.42 |
| 72 | WSJV | LIC | DX | 28 | ELKHART | IN | 130.91 |
| 73 | WSJV | LIC | DT | 28 | ELKHART | IN | 130.91 |
| 74 | WNDU-TV | LIC | DT | 42 | SOUTH BEND | IN | 131.82 |
| 75 | WNDU-TV | LIC | DT | 42 | SOUTH BEND | IN | 131.86 |
| 76 | WSBT-TV | LIC | DT | 22 | SOUTH BEND | IN | 132.68 |
| 77 | WSBT-TV | LIC | DX | 22 | SOUTH BEND | IN | 132.68 |
| 78 | WTOL | LIC | DT | 11 | TOLEDO | OH | 129.98 |
| 79 | WNWO-TV | LIC | DT | 49 | TOLEDO | OH | 131.46 |
| 80 | DWKGK-LP | LIC | CA | 50 | KOKOMO | IN | 131.33 |
| 81 | W23EA-D | LIC | LD | 23 | LAFAYETTE | IN | 135.82 |
| 82 | WXMI | LIC | LD | 17 | BATTLE CREEK | MI | 133.89 |
| 83 | WOBC-CD | LIC | DC | 14 | BATTLE CREEK | MI | 134.07 |
| 84 | WNDY-TV | LIC | DT | 32 | MARION | IN | 138.65 |
| 85 | WLWD-LP | LIC | TX | 20 | SPRINGFIELD | OH | 138.96 |
| 86 | WMNO-CD | LIC | DC | 28 | MARION | OH | 142.82 |
| 87 | WXCB-CD | LIC | DC | 45 | DELAWARE | OH | 143.34 |

Table A: Off-Air TV Stations within 150 Kilometers of Project Area

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in

Case No(s). 15-1737-EL-BTX

Summary: Application Exhibit C-1 (Television Analysis) electronically filed by Mr. Michael J. Settineri on behalf of Paulding Wind Farm III LLC