

**STATE OF VERMONT
PUBLIC UTILITY COMMISSION**

Case No. 26 - ____-PET

Application of	)
Industrial Tower and Wireless, LLC	)
for a Certificate of Public Good,	)
pursuant to 30 V.S.A. § 248a, authorizing	)
the construction of a wireless telecommunications	)
facility in Enosburgh, Vermont.	)

**PREFILED DIRECT TESTIMONY OF KEVIN DELANEY
ON BEHALF OF INDUSTRIAL TOWER AND WIRELESS, LLC**

March 18, 2026

Summary:

Mr. Delaney's testimony will address the proposed Project and how it will promote the general good of the State of Vermont.

Q1. Please state your name, employer and current position.

A1. My name is Kevin Delaney, and I am the Vice President of Site Acquisition and Development and a Radio Frequency (“RF”) Engineering & Regulatory Compliance Manager currently working for Industrial Tower and Wireless, LLC (“ITW”) in Marshfield, Massachusetts. ITW and affiliate companies, including Industrial Communications, LLC, Industrial Communications and Electronics, Inc., and Industrial Wireless Technologies, Inc. (together “ITW”) have been serving all aspects of the communications industry for over fifty (50) years.

Q2. Please state briefly your professional background.

A2. I have worked as the RF Engineering & Regulatory Compliance Manager for ITW since January of 1993. My credentials as RF Engineering & Regulatory Compliance Manager include the following:

- Responsible for the propagation analysis and RF system design, planning and installation of 900 MHz Enhanced Specialized Mobile Radio (“ESMR”) Network throughout New England and Southern Florida. This entails site selection, antenna selection, propagation analysis, site layout/design, frequency planning, and coordination.
- Responsible for propagation analysis and RF system design of cellular, PCS, and microwave links in Colorado, Kansas, Nebraska, and Wyoming.
- Responsible for compliance with federal and state statutes and regulations affecting the siting of telecommunications facilities such as, e.g., filings with the Federal Communications Commission (“FCC”); Federal Aviation Administration (“FAA”); and filings pursuant to the National Environmental

1 Policy Act (“NEPA”) and state and local historic commissions and authorities.

- 2 • Supervisor / Manager of New England site acquisition team.
- 3 • Personally overseeing the selection and development of over five hundred
- 4 (500) wireless communications sites in nine (9) states.
- 5 • Testified in front of municipalities to explain coverage needs from an RF
- 6 propagation standpoint.
- 7 • Testified at the Vermont Public Utility Commission.
- 8 • Testified as an expert witness in Federal Court cases involving proposed
- 9 wireless telecommunications facilities.
- 10 • Testified as an expert witness in front of the Cape Cod Commission.
- 11 • Responsible for filings with the Federal Aviation Administration and the
- 12 Federal Communications Commission (“FCC”).

13 **Q3. Have you ever testified before the Public Utility Commission?**

14 A3. Yes, I have provided prefiled testimony in Case Nos. 21-3174-PET (Fairfax), 22-1156-
15 PET (Eden), and 22-2442-PET (Ira), and 24-1755-PET (Westmore) among others, all
16 involving the issuance of a CPG authorizing the installation of telecommunications
17 facilities. I have also testified in front of municipalities to explain coverage needs from an
18 RF propagation standpoint, testified as an expert witness in Federal Court cases, and
19 testified as an expert witness in front of the Cape Cod Commission.

20 **Q4. Please identify the location of the Project that is the subject to this § 248a filing.**

21 A4. ITW intends to construct a telecommunications facility on a portion of the approximately
22 506-acre parcel of land owned by Matthew Hull off of Bordoville Road, Enosburgh,
23 Vermont. ITW refers to the project as “Enosburgh.” The property owners have given ITW

1 permission to proceed with this Application. The coordinates for the Project are latitude
2 44° 50' 27.60" North and longitude 72° 48' 39.42" West. *See* Permit Plans, Exhibit LH-1,
3 for a visual depiction of the Project's location.

4 **Q5. What are ITW's objectives for the Project?**

5 A5. There is a broad gap in ITW's network and cellular coverage from any provider in the
6 area of Bordoville Road. This gap is shown on Exhibit KD-1. This gap limits the abilities
7 of persons and public safety officials to make and receive calls and radio
8 communications. The primary purpose of this Project is to fill this coverage gap. The
9 Project will have equipment enabling ITW's network and space for public safety radio
10 equipment and an additional telecommunication provider to collocate in order to provide
11 additional cellular communication services in this gap. ITW looked extensively for
12 structures that were available to provide coverage but existing and any other proposed
13 communications support structures in and near the Town of Enosburgh cannot serve the
14 area proposed to be served by the ITW Enosburgh site due to distance, height, and terrain
15 blockage. The Project will provide the needed coverage and capacity to allow ITW
16 subscribers living in, working in or passing through the Enosburgh area to be able to use
17 ITW's network, something that is impossible at present. The Propagation Plots (Exhibit
18 KD-1) illustrate the estimated extent of the planned coverage from the ITW Enosburgh
19 site.

20 **Q6. From a Radio Frequency Engineer's perspective, please describe what site**
21 **improvements will be necessary for the proposed Project?**

22 A6. ITW will create a 80' x 80' "Compound" enclosed by an 8' high chain link fence, with a
23 locked gate. Within the Compound, ITW will construct a 120' above ground level

1 (“AGL”) telecommunications self-supporting lattice tower ("Tower"). Six (6) thin
2 “whip” antennas (“Antennas”) will be mounted at 120’ AGL of the Tower. This height is
3 the minimum height necessary to allow ITW to meet its coverage objectives. Previously
4 ITW proposed a tower of 140’ to allow additional space for colocation. The Northwest
5 Regional Planning Commission objected to that project on the basis that a 120’ foot
6 tower would meet the minimum ITW’s coverage requirements. This Tower was designed
7 in line with the NRPC’s prior concerns.

8 Given the terrain, tree cover, and desire of the Town to locate towers away from
9 ridgelines, ITW selected a site that was centrally located and proposes to install the
10 lowest and smallest tower it can to meet its coverage needs. The existing terrain and tree
11 cover will screen the compound from public roads and much of the lower portions of the
12 Tower. The topography further limits views of the Tower as the hills and valleys make
13 most views of the Tower sporadic and passing.

14 On the Tower, five (5) transmit Antennas will extend upward to a maximum height of
15 133.0’ AGL. The single receive Antenna will reach downward from the 120’ AGL
16 mounting level. Each Antenna will measure approximately 13’ long and 2.75” in
17 diameter.¹ Full and accurate specifications for the Antennas are attached as Exhibit KD-2.
18 ITW will place an equipment cabinet (“Cabinet”) on a 10’ by 10’ concrete pad inside the
19 Compound, to the south of the Tower. The Cabinet will contain the electronics equipment
20 necessary for the operation of the Project. *See* Cabinet Specifications (Exhibit LH-2). Co-
21 axial cables from the mounted antennas will descend on the inside of one of the legs of

¹ From time to time, equipment manufacturers may alter their products or ITW may purchase from different suppliers. Therefore, there is a possibility that the actual antennas and other equipment may be slightly different from but similar in dimensions as those described in this testimony.

1 the Tower. The cables will exit near the base of the Tower and will connect with the
2 Cabinets via a proposed cable bridge.

3 **Q7. Please identify all existing telecommunications facilities within the area to be served**
4 **by the Enosburgh site, and, for each such existing facility, include a projection of the**
5 **coverage and an estimate of the additional capacity that would be provided if the**
6 **Enosburgh site were located on or at the existing facility.**

7 A7. The Route 108 corridor is a very difficult area to cover because it is a narrow, winding
8 road that runs between mountainous terrain. That topography presents severe challenges
9 with signal propagation. Wireless signals travel in straight lines and are obstructed by
10 elevation changes, especially when the transmitting tower is lower than surrounding
11 terrain. The propagation plots that I have created for this site illustrate these difficulties.
12 See Exhibit KD-1. In particular, intervening terrain even relatively short hills and tree
13 canopies causes a sharp drop off in coverage or blocks signals as illustrated in those plots.
14 Moreover, the population density is quite low so ITW (and other carriers) seeks to
15 provide coverage with the least number of facilities possible. The existing facilities both
16 within the Town of Enosburgh and the surrounding towns within a radius of ten (10)
17 miles from the proposed site do not provide adequate coverage to the area being served
18 by this project. Although research of the areas confirmed that there are two (2) existing
19 towers within a ten (10) mile radius of the proposed site, the propagation maps show that
20 these existing sites do not provide coverage to the identified gap. The existing towers are
21 simply too far away, not tall enough, or do not have space available to provide the needed
22 coverage (the closest existing site is 5 miles away in Enosburgh Falls, VT). *See Exhibit*
23 *KD-3 Existing Tower Analysis and Propagation Maps.*

1 Q8. **Will the Proposed Facility be Available for Co-Location of Equipment Belonging to**
2 **Other Telecommunications Providers?**

3 A8. ITW has designed the Tower and Compound to accommodate the equipment of one other
4 wireless communications provider. Sheet C-7 of the permit plans illustrates possible
5 locations for the antennas that such carriers would seek to place on the Tower. In my
6 experience, national wireless carriers, such as AT&T and Verizon, do not commit to co-
7 locating their antennas and equipment until the tower has been permitted. Furthermore, as
8 Exhibit KD-3 demonstrates, there are only two (2) existing towers within a 10-mile
9 radius of the site. As of the date of this application. Verizon is located on both facilities
10 (however these facilities are located 5.0 and 6.5 miles from the project site) and AT&T is
11 not located on any towers within a 10-mile radius of the site, As designed, the proposed
12 facility would support co-location by both of these carriers. The St. Albans Police
13 Department has written a letter in support of the proposal on behalf of St. Albans
14 Dispatch. See Exhibit KD-4. As designed, the Tower has capacity to support the central
15 dispatches installation at 120' AGL as requested.

16 **Q9. Please address the level of radiation associated with the proposed equipment.**

17 A9. Under federal law, ITW is required to comply with the RF emission levels established by
18 the Federal Communications Commission ("FCC"). Power density calculations using the
19 most extreme assumptions, which could not possibly be duplicated at this site,
20 demonstrate that RF emission levels will still be below the Maximum Permissible
21 Exposure levels established by the FCC. See Exhibit KD-5 Radiation Safety Specialist
22 Report.

23 At the nearest residence, the RF emission levels are so low that they cannot be reasonably

1 measured.

2 **Q13. Does this conclude your Prefiled Direct Testimony?**

3 A13. Yes.

Exhibits to Prefiled Testimony of Kevin Delaney

Exhibit KD-1	Propagation Maps
Exhibit KD-2	Antenna Specifications
Exhibit KD-3	Existing Tower Analysis and Propagation Maps
Exhibit KD-4	St. Albans Police Dept. – Letter of Support
Exhibit KD-5	Radiation Safety Specialist Report.