

EXHIBIT 7

TRANSMITTER POWER OUTPUT

1. The transmitter power output of 3.7 kW specified in the instant application is based on the data and calculations that follow.

2. The transmission line is 122 meters of Andrew HJ7-50A semi-rigid air-dielectric coaxial cable. This transmission line has a loss of 0.64 dB per 100m at 91.3 MHz¹ for a net loss of 0.781 dB for 122m. This equates to a transmission line efficiency of 83.5%.

3. WRTQ transmits with a directional antenna, Electronics Research Inc. (ERI) model P300-2AE/37M-1E-DA-SP. The authorized effective radiated power is 10.5 kW maximum in the vertical plane and 1.3 kW maximum in the horizontal plane. The directional antenna system yields peak directional power gain of 3.372 (5.279 dB) in the vertical plane and 0.341 (-4.678 dB) in the horizontal plane. Power is distributed to the vertical radiating elements and horizontal radiating elements via an asymmetrical power divider designed into the antenna feed system by the antenna manufacturer. Per the manufacturer's specifications, an input power of 3.113 kilowatts is required to achieve authorized ERP in both the vertical and horizontal polarization planes.

4. The transmitter power output (TPO) thus required is calculated as follows:

| | |
|------------------------------------|----------|
| Antenna input power: | 3.113 kW |
| Transmission Line Efficiency: | / 0.835 |
| Transmitter Power Output required: | 3.728 kW |

¹ manufacturer's specification

5. Rounding 3.728 kW value to the nearest 0.1 kilowatt increment as required per 47

CFR §73.212(a), the licensed **transmitter output power shall be 3.7 kW** to produce the authorized power in the vertical and horizontal polarization planes.