In this case, the power output is the "pulsed power" delivered by the pulse generator to the antenna structure and represents a maximum value for the transmitter. The maximum voltage delivered to the antenna terminals by the pulse generator is 10 kV. Assuming a terminal impedance of 50 ohms, this gives a maximum peak power to the antenna terminals of:

$$P_a = \frac{\left(10 \cdot 10^3\right)^2}{50} = 2\ MW$$

The radiation efficiency of the unit is expected to be low since the matching between the source and antenna has not been fine-tuned as the transmitter is in its early stages of development. The transmitter vendor quotes a maximum ("worst case") peak electric field value of 1kV/m on boresight at a range of 10 meters. The radiated power, then, can be calculated as:

$$P_r = \frac{\left|E_r\right|^2}{Z} r^2\, \Omega_A,$$

where, E_r is the peak electric field at rang, r, and Ω_A is the beam solid angle, and Z is the characteristic of free space, 377 ohms.

The beam solid angle is given by,

$$\Omega_A = \frac{4\pi}{D}$$

so that,

$$P_r = \frac{\left|E_r\right|^2}{Z\ D} 4\pi r^2$$

For the half-wave dipole ("worst case"), directivity D = 1.64. Solving for the radiated power (effective radiated power referenced to a $\lambda/2$ dipole), we find

$$P_r = 2\ MW$$