Using a Voltage Drop Calculator

Check out the voltage drop in different gauge wires as would be used for a tether:

Voltage Drop Calculator http://www.calculator.net/voltage-drop-calculator.html

1. Set the calculator to the following conditions.

12VDC, Distance = 50 feet, Single set of conductors, Current = 5 amps

AWG	VOLTAGE DROP	PERCENTAGE	VOLTAGE AT END
12			
14			
16			
18			
24			

2. Set the calculator to the following conditions.

12VDC, Distance = 10 feet, Single set of conductors, Current = 15 amps

AWG	VOLTAGE DROP	PERCENTAGE	VOLTAGE AT END
12			
14			
16			
18			
24			

What are your thoughts about wire size in the tether and main power cord?