We usually send bits by pulses, not step functions. However, we want to send a lot of bits. To deliver a lot of information, we could look at different functions. The power is non-monotonic, due to the signs. Similarly, you can construct a plot for 0 < V/I < 1.

For V (For I)

Assuming T, L > 0

Bounce diagrams
What we really care is how a pulse would propagate back & forth on this transmission line, not a step function.

But why did we do that? How's that related to what we really want to know?

Well, a pulse is the superposition of two step functions.

\[
\text{Pulse}(t) = V_0 \left[ u(t) - u(t-t_0) \right]
\]

The transmission line, plus generator plus load, is a linear system.

So, the response to the superposition of the two steps is simply the superposition of the two responses.
Now, we use an example to show how we trace the echoes of a pulse with the bounce diagram:

\[ \Gamma_{c} = 0.5, \quad \Gamma_{g} = -0.6, \quad \tau = \frac{T}{2} \]

\[ V_{i}^{+} = 4V \]

Let's look at the voltage waveform at the load, \( V_{L}(t) \)