We use a four stage coding scheme over the Poisson channel with Poisson feedback. Using this scheme we find the reliability function to be:

\[ E_{feedback}(\bar{R}) \geq \left( \frac{1}{\epsilon A_2} + \frac{2}{A_3} \right)^{-1} \left( 1 - \frac{\bar{R}}{R_1} \right) \]

where \( \epsilon A_2 \) is the average power used on one of the feedback stages and \( A_3 \) represents the power constraint on the forward Poisson channel. \( \bar{R} \) is the average rate of data communication of the scheme and \( R_1 \) is the rate of communication on the forward channel.