The goal of this talk is to describe techniques used to compute the defining equations of the Rees algebra for a certain family of ideals. We will work in the setting of a polynomial ring $R = k[x_1, \ldots, x_d]$ and homogeneous Gorenstein ideals $I = (g_1, \ldots, g_n)$ where $\deg(g_i) = \delta$ which have a Gorenstein linear resolution. We will discuss some general results for this family and find explicit polynomial generators for the ideal of defining equations of the Rees algebra in the case where $\delta = 2$. (Received January 23, 2019)