$$b_k(\check{e})=c_1+\check{e}+\pi_2^k(\check{e})+\frac{\bar{e}-\check{e}}{2}\frac{3\bar{e}-2\Delta c}{6\bar{e}}$$

A.17)

$$b_k(e_k)=\frac{(\bar{e}-\check{e})^2}{\bar{e}-e_k}\frac{3\bar{e}-2\Delta c}{6\bar{e}}+\check{e}+c_1+\pi_2^k(\check{e})$$

$$=\frac{(\bar{e}-\check{e})^2(3\bar{e}-2\Delta c)}{6\bar{e}(\bar{e}-e_k)}+\frac{2c_2+c_1}{3}+\frac{\bar{e}}{2}-e_k+\frac{\bar{e}}{3}+\frac{4\Delta c}{9}$$

Such a bid represents an equilibrium since no alternative bid yields higher profits (although for most e in this range, small increases or decreases from this strategy yield equal profits).

c) For $e_k < \dot{e}$, the solution to A.12) equals

$$\pi(e)=\pi(\dot{e})+\frac{\int_e^{\dot{e}}(1-F(x))dx}{2}=\pi(\dot{e})+\frac{1}{2\bar{e}}[\bar{e}\dot{e}-\frac{\dot{e}^2}{2}-\bar{e}e+\frac{e^2}{2}]$$

$$=> b_k(e_k)=\pi(\dot{e})\frac{\bar{e}}{\bar{e}-e}+c_1+e_k+\pi_2^k(e_k)+\frac{\bar{e}\dot{e}-\frac{\dot{e}^2}{2}-\bar{e}e+\frac{e^2}{2}}{2(\bar{e}-e}$$

Using A.17 and the definition of $\pi_2(e_k)$

$$b_k(e_k)=\frac{(\bar{e}-\check{e})^2(3\bar{e}-2\Delta c)}{6(\bar{e}-e_k)\bar{e}}+\frac{2c_2+c_1}{3}+\frac{2\Delta c^2}{9(\bar{e}-e_k)}+\frac{e_k}{2}+\frac{\bar{e}\dot{e}-\frac{\dot{e}^2}{2}-\bar{e}e_k+\frac{e_k^2}{2}}{2(\bar{e}-e_k)} \blacksquare$$