Let $R$ be a binomial ring. A nilpotent group which comes equipped with an $R$-action, and satisfies certain desirable axioms is termed an $R$-powered nilpotent group. I will discuss some extensions of the theories of localization and radicable nilpotent groups to the broader class of nilpotent $R$-powered groups. If $\pi$ is a prime in $R$, I will define such local notions as $\pi$-monomorphisms and $\pi$-epimorphisms, and explain how they relate to root extraction in nilpotent $R$-powered groups. (Received September 22, 2009)