Regional modeling of the Earth gravity field in Scandinavia in terms of spherical scaling functions and wavelets is presented here. Spherical harmonic analysis of the Earth gravity field, on a global scale, is the standard procedure in geodesy and geophysics. However, finer structures of the field on regional and local scales might not be well modeled by spherical harmonics. We used GRACE simulated orbit and K-band data over Scandinavia as the test region. The energy balance approach is applied to compute the potential differences between GRACE satellites along the orbit. These potential differences are our observation vector for the modeling. For an optimum regional solution a proper grid of points as well as an appropriate kernel for the scaling functions should be chosen. In this work we compare and discuss various grid points and kernel functions. Our results prove the success of the regional modeling of gravity in Scandinavia.