We generalise a theorem of Engman and Abreu–Freitas which bounds the first invariant eigenvalue of a non-negatively curved $T^1$-invariant metric on $S^2$ to toric Kaehler metrics with non-negative scalar curvature. Bounds for all higher eigenvalues are determined: these can be combinatorially determined from the Delzant Polytope. Similar results in the extremal case are also derived. This is joint work with Stuart Hall. (Received September 10, 2017)