We thank the anonymous reviewers for their valuable feedback and comments. We will address all their comments and be sure to fix minor mistakes and typos in the revised version of our paper. In the paper, we present three algorithms.

The first two algorithm are for minimizing the ℓ_q norm of the disagreements vector on arbitrary and complete graphs. We note that both algorithms can be implemented in practice (the algorithms are not particularly complex). Both algorithms require that we first solve the convex program (P). This program has a polynomial number of linear constraints, and its objective function is convex: This is because the objective function, $\max(\|y\|_q^q, \sum_u z_u)$, is the maximum of two convex functions. The first function, $\|y\|_q^q$ is the sum of q-th powers of the variables y_u which are positive. Thus, $\|y\|_q^q$ is convex and differentiable. The second function, $\sum_u z_u$ is a linear function. Therefore, we can use off-the-shelf convex solvers (quadratic solvers for ℓ_2) to get an optimal solution to (P).

The third algorithm is for a cluster-wise local objective. The algorithm consists of solving a simple linear program for each vertex in the graph. This linear program has a $O(n^2)$ constraints and hence is relatively fast to solve.