

Spanning USA Report

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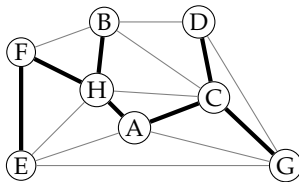
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Results

The following table summarizes our results:

Input file	MST total weight
USA-highway-miles.txt	16598
tinyEWG-alpha.txt	181

The MST we found in tinyEWG-alpha.txt can be drawn like this:



Implementation details

We implemented the algorithm of Prim, using a priority queue to choose the smallest next edge to consider. We check if an edge is fully connected by checking if both end nodes are already visited, if both nodes are visited the edge is already connected. The total running time for implementation is $O(|m| \log |v|)$.