How Fast can Maker Win?

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We consider positional Maker-Breaker games played on the edge set of the complete graph K_n on n vertices. Quite a few such games were researched in the literature and are known to be Maker's win. Here we are interested in estimating the minimum number of moves needed for Maker in order to win these games.

We will show how Maker can construct a Hamilton cycle within at most n+2 moves. This improves the classical bound of 2n due to Chvátal and Erdős, and is almost tight. Then, we will briefly discuss how Maker can construct a perfect matching (for even n) within n/2+1 moves, which is tight.