

# The Impact of Variable-length Time Periods in Long-term Modeling with World-TIMES

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TIMES is a techno-economic linear programming model, based on the MARKAL and EFOM approach, which has several important new features like variable-length time periods. The objective of this research is to analyze the impact of different definitions of time periods on the decisions taken by the model. We use several time period configurations, on the 2100 horizon, to model base and carbon-constrained scenarios with the world-TIMES model. We present energy and emission results for the 15 regions of the model.

**Keywords:**

World-TIMES, long-term modeling, emission scenarios, variable-length periods