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ASSESSING DISPLAYS FOR TEMPORAL CONTROL QUALITY IN HYDROPOWER SYSTEMS

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Abstract: This paper discusses the temporal fit of teams of controllers to a real world hydropower system (HPS) in a deregulated market environment, emphasizing how well displays support quality of control performance by industry controllers. The results of an empirical evaluation suggest that displays that integrate task constraints over appropriate time scales help controllers construct more immediate responses and more effective patterns of activity in handling contingencies.

Keywords: human-machine interface, evaluation, human-supervisory control, hydroelectric system, temporal reasoning, time, measurement, energy control.