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**Abstract:** This paper is on the problem of short-term hydro, scheduling, particularly concerning head-dependent cascaded hydro systems. We propose a novel mixed-integer quadratic programming approach, considering not only head-dependency, but also discontinuous operating regions and discharge ramping constraints. Thus, an enhanced short-term hydro scheduling is provided due to the more realistic modeling presented in this paper. Numerical results from two case studies, based on Portuguese cascaded hydro systems, illustrate the proficiency of the proposed approach. (C) 2009 Elsevier Ltd. All rights reserved.

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