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# Optimizing Energy Production Using Policy Search and Predictive State Representations – Appendix

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## A Complementary Plots

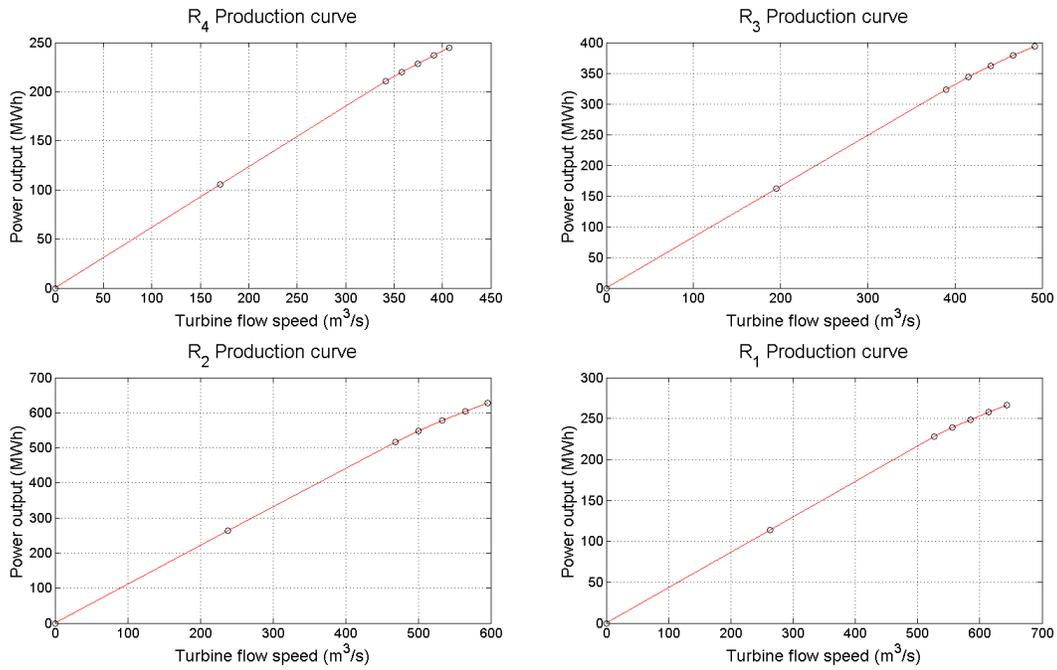


Figure A.1: Production functions of each site. For sites R<sub>2</sub>, R<sub>3</sub> and R<sub>4</sub> the curves are given for some reference headwater of the corresponding reservoirs (shown in Fig. A.2). The largest  $x$  value on each curve represents the maximum total speed of the turbines.

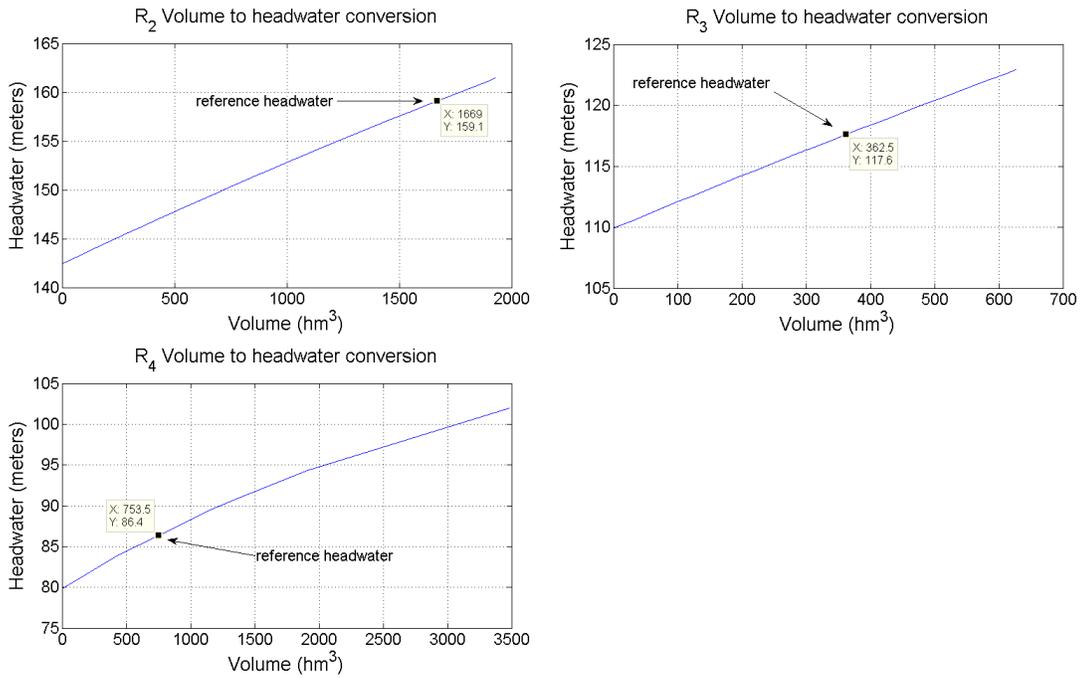


Figure A.2: Volume to level conversion tables for three reservoirs along with the reference points used to calculate the production curve baseline. Maximum capacities of reservoirs R<sub>4</sub>, R<sub>3</sub> and R<sub>2</sub> are 3480 hm<sup>3</sup>, 626.4 hm<sup>3</sup> and 1927 hm<sup>3</sup> correspondingly.

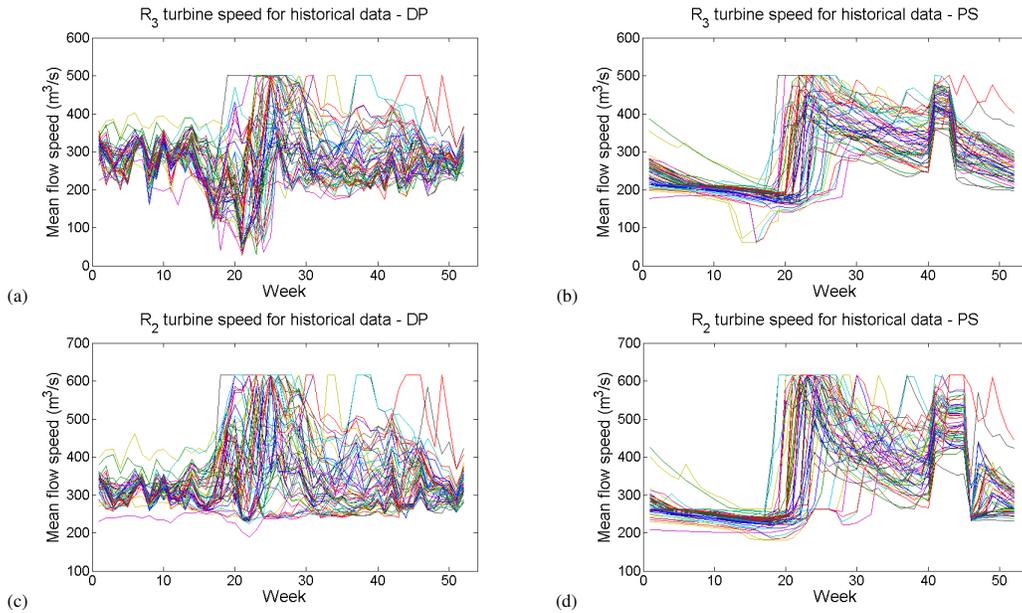


Figure A.3: Qualitative comparison between *DP* and *PS with pred* solutions evaluated on the historical data - a complementary figure to Fig. 3 in the paper. Left - *DP*, right - *PS with pred*. Plots (a)-(d) show the amount of water turbined at sites R<sub>3</sub> and R<sub>2</sub>.