

Effective Date	12/3/2019
Impacted Manual #(s)/Manual Title(s):	
Manual 15 Cost Development Guidelines	
Conforming Order(s):	
Electric Storage Participation in Markets Operated by Regional Transmission Organizations and Independent System Operators (Issued February 15, 2018) Docket Nos. RM16-23-000; AD16-20-000; Order No. 841]	
Associated Issue Tracking Title:	Electric Storage Participation - FERC Order 841
Committee Approval Path - What committee(s) have already seen these changes?	
MIC 1 st Read: 6/12/19 MIC Endorsement: 7/10/19 MRC 1 st Read: 7/25/19 MRC Endorsement: 8/22/19 MC Endorsement: 9/28/19 Board Approval: October	
MRC 1st read date:	7/25/2019
MRC voting date:	8/22/2019
Impacted Manual sections:	
Section 7 (hydro) and Section 11 (batteries/flywheels) were modified in support of Order 841	
Reason for change:	
Compliance with FERC Order 841: Electric Storage Resource Participation model to allow ESRs to participate in all markets where technically feasible.	
Summary of the changes:	
<ul style="list-style-type: none"> • Clarifying update on pumping cost equations in Section 7.3 • Updates to define Efficiency Factor, Fuel Cost, VOM and Ancillary Service costs <ul style="list-style-type: none"> • Efficiency factors measure the ratio of generation produced to the amount of electricity used to charge • Fuel cost using the average charging cost and defined in resource's FCP • Maintenance and Operating cost inclusion and exclusion guidelines and submitted in resource's VOM template 	