

Cost of Service Methodology Review
 PUB - MFR 13

STUDY	PCOSS06	PCOSS06 ^{Note 1}	PCOSS08	PCOSS10 ^{Note 2}	PCOSS13	PCOSS14	PCOSS14
VERSION	Recommended Methodology	Response Order 117/06	Response to Order 116/08		With Methodology Changes		Amended
DATE	September 2005	April 12, 2007	Mar 3, 2009	Nov 30, 2009	July 2012	June 2013	December 2015
DESCRIPTION	MH's recommended method which reflects recommendations from NERA report	Reflects Order 117/06	Reflects Orders 116/08 and 117/06	Reflects 116/08 with modifications	Reflects recommendations from 2012 Christensen and Associates' review of COS methodology	Reflects recommendations from 2012 Christensen and Associates' review of COS methodology	Reflects recommendations from 2015 Christensen and Associates' Supplemental review, discussions at 2014 Stakeholder sessions, and further reconsideration by MH

EXPORT CLASS							
Export Differentiation	Recognizes cost differences of export sales and differentiates between Dependable and Opportunity exports	Does not recognize cost distinction between export sales types	Does not recognize cost distinction between export sales types	Does not recognize cost distinction between export sales types	Recognizes cost differences of export sales and differentiates between Dependable and Opportunity exports	Recognizes cost differences of export sales and differentiates between Dependable and Opportunity exports	Recognizes cost differences of export sales and differentiates between Dependable and Opportunity exports
Export Assumptions	<ul style="list-style-type: none"> 45% of Power Purchases and Brandon Thermal assumed to serve Opportunity, unserved Opportunity receive Water Rentals only Dependable served from Generation Pool 	<ul style="list-style-type: none"> Exports not served by DSM, Power Purchases or Thermal are served out of the Generation Pool 	<ul style="list-style-type: none"> Exports not served by Power Purchases or Thermal are served out of the Generation Pool DSM energy savings not assumed to serve export load, instead are added to domestic load 	<ul style="list-style-type: none"> Exports not served by Power Purchases/Wind or Brandon GS are served from Generation Pool 	<ul style="list-style-type: none"> Opportunity not served by Power Purchases (excl wind), attract Water Rentals and Variable Hydraulic O&M only Dependable served from Generation Pool 	<ul style="list-style-type: none"> Opportunity not served by Power Purchases (excl wind), attract Water Rentals and Variable Hydraulic O&M only Dependable served from Generation Pool 	<ul style="list-style-type: none"> Domestic, Dependable and Opportunity exports share Power Purchases (excl Wind), Water Rental Fees and Variable Hydraulic O&M Dependable served from Generation Pool
Basis of Export Revenue	As forecast in IFF	As forecast in IFF	Recalculated to use most recent actual prices	As forecast in IFF	As forecast in IFF	As forecast in IFF	As forecast in IFF

EXPORT COST ASSIGNMENT							
DSM Costs	Domestic Direct (based on class participation)	Exports (w/energy reduction)	Export Direct (no energy reduction)	Domestic Direct (based on class participation)	Domestic Direct (based on class participation)	Domestic Direct (based on class participation)	Domestic Direct (based on class participation)
Affordable Energy Fund (AEF) Expenditures	n/a	Export Direct	Export Direct	Export Direct	Export Direct	Export Direct	Export Direct
Trading Desk	Domestic/Depend Export Pool	Export Direct	Export Direct	42% Export Direct 58% Domestic Pool	42% Export Direct 58% Domestic Pool	42% Export Direct 58% Domestic Pool	Domestic/Export Pool
Purchased Power & Transmission (excl wind)	45% Opportunity Export Direct 55% Domestic/Depend Export Pool	Export Direct	Export Direct	Export Direct	Opportunity Export Direct	Opportunity Export Direct	Domestic/Export Pool
MISO Fees	45% Opportunity Export Direct 55% Domestic/Depend Export Pool	Export Direct	Export Direct	42% Export Direct 58% Domestic Pool	42% Export Direct 58% Domestic Pool	42% Export Direct 58% Domestic Pool	Domestic/Export Pool
Water Rentals & Variable Hydraulic O&M	Unservd Opportunity Direct Remaining Costs: Domestic/Depend Export Pool	Domestic/Unservd Export Pool	Domestic/Unservd Export Pool	Domestic/Unservd Export Pool	Unservd Opportunity Direct Remaining Costs: Domestic/Depend Export Pool	Unservd Opportunity Direct Remaining Costs: Domestic/Depend Export Pool	Domestic/Export Pool
Wind Purchases	45% Opportunity Export Direct 55% Domestic/Depend Export Pool	Export Direct	Export Direct	Export Direct	Domestic/Depend Export Pool	Domestic/Depend Export Pool	Domestic/Depend Export Pool
Selkirk GS Fuel	Domestic/Depend Export Pool	Export Direct	Export Direct	Domestic Pool	Domestic/Depend Export Pool	Domestic/Depend Export Pool	Domestic/Depend Export Pool
Selkirk GS All Other	Domestic/Depend Export Pool	Domestic/Unservd Export Pool	50% Export Direct 50% Domestic Pool	Domestic Pool	Domestic/Depend Export Pool	Domestic/Depend Export Pool	Domestic/Depend Export Pool
Brandon CT Fuel	45% Opportunity Export Direct 55% Domestic/Depend Export Pool	Export Direct	Export Direct	Domestic Pool	Domestic/Depend Export Pool	Domestic/Depend Export Pool	Domestic/Depend Export Pool
Brandon CT All Other	Domestic/Depend Export Pool	Domestic/Unservd Export Pool	50% Export Direct 50% Domestic Pool	Domestic Pool	Domestic/Depend Export Pool	Domestic/Depend Export Pool	Domestic/Depend Export Pool
Brandon GS Fuel	45% Opportunity Export Direct 55% Domestic/Depend Export Pool	Export Direct	Export Direct	Export Direct (also incl Variable O&M costs)	Domestic Pool	Domestic Pool	Domestic/Depend Export Pool
Brandon GS All Other	Domestic/Depend Export Pool	Domestic/Unservd Export Pool	50% Export Direct 50% Domestic Pool	Domestic Pool	Domestic Pool	Domestic Pool	Domestic/Depend Export Pool
Balance of Generation Costs	Domestic/Depend Export Pool	Domestic/Unservd Export Pool	Domestic/Unservd Export Pool	Domestic/Unservd Export Pool	Domestic/Depend Export Pool	Domestic/Depend Export Pool	Domestic/Depend Export Pool
Balance of Transmission Costs	Domestic/Depend Export Pool	Domestic/Export Pool	Domestic/Export Pool	Domestic/Export Pool	Domestic/Depend Export Pool	Domestic/Depend Export Pool	Domestic/Depend Export Pool

GENERATION AND TRANSMISSION							
Generation Allocator	4 period marginal cost Weighted Energy (CRP Credit on 2CP Demand)	12 period marginal cost Weighted Energy	12 period marginal cost Weighted Energy	12 period marginal cost Weighted Energy	12 period marginal cost Weighted Energy	12 period marginal cost Weighted Energy	12 period marginal cost Weighted Energy incl value of capacity
Dorsey Converter Facilities Functionalization	100% Transmission	100% Transmission	100% Transmission	100% Transmission	100% Transmission	100% Transmission	100% Generation
Radial Transmission Functionalization	Transmission lines not eligible for the OATT, including radial transmission, functionalized as Subtransmission	Transmission lines not eligible for the OATT, including radial transmission, functionalized as Subtransmission	Transmission lines not eligible for the OATT, including radial transmission, functionalized as Subtransmission	Transmission lines not eligible for the OATT, including radial transmission, functionalized as Subtransmission	Transmission lines not eligible for the OATT, including radial transmission, functionalized as Subtransmission	Transmission lines not eligible for the OATT formerly in Subtransmission, functionalized as Non Tariffable Transmission	Transmission lines not eligible for the OATT formerly in Subtransmission, functionalized as Non Tariffable Transmission
Transmission Interconnections Classification	All Interconnections: Energy	All Interconnections: 2CP Demand	All Interconnections: 2CP Demand	All Interconnections: 2CP Demand	All Interconnections: 2CP Demand	All Interconnections: 2CP Demand	US Interconnections: Weighted Energy incl value of capacity

Cost Assignment:
 Domestic Direct: Costs directly assigned to domestic classes
 Domestic Pool: Costs allocated between domestic classes
 Domestic/Depend Export Pool: Costs allocated between domestic and all dependable exports
 Domestic/Export Pool: Costs allocated between domestic classes and all exports
 Export Direct: Costs directly assigned to exports
 Opportunity Export Direct: Costs directly assigned to Opportunity exports

Definitions:
 Unserved Opportunity or Unserved Export: Residual Export load that has not already been deemed served by direct assignment of DSM, water rentals, thermal fuel or power purchases
 Remaining Costs: Residual costs that remain to be allocated, after the initial direct assignment of Water Rentals to Opportunity Exports

Notes on Other PCOSS Not Included in Chart:
 PCOSS08 (July 2007) was prepared using same methodology as PCOSS06 Response to Order 117/06
 PCOSS11 (May 25, 2010) was prepared using same methodology as PCOSS10, with the modification to allocate Brandon GS Fuel to domestic classes