

## BP-14 Initial Rate Proposal

# Power Risk and Market Price Study Documentation

---

November 2012

---

BP-14-E-BPA-04A





## BP-14 Initial Rate Proposal

# Power Risk and Market Price Study Documentation

---

November 2012

---

BP-14-E-BPA-04A



**This Page Intentionally Left Blank.**

# POWER RISK AND MARKET PRICE STUDY DOCUMENTATION

## TABLE OF CONTENTS

	Page
COMMONLY USED ACRONYMS .....	iii
TABLES	
Table 1: Control Area to AURORAxmp Zone Mapping.....	1
Table 2: Control Area Load Forecast.....	2
Table 3: Federal Hydro Generation (aMW) with Hydro Independents for FY 2014 .....	10
Table 4: Federal Hydro Generation (aMW) with Hydro Independents for FY 2015 .....	12
Table 5: Heavy-Load Hydro Generation Ratios for FY 2014.....	14
Table 6: Heavy-Load Hydro Generation Ratios for FY 2015.....	16
Table 7: Federal Hydro Generation Adjustment for Stand Ready & Deployment Losses, Light-Load-Hours for FY 2014.....	18
Table 8: Federal Hydro Generation Adjustment for Stand Ready & Deployment Losses, Heavy-Load-Hours for FY 2014.....	20
Table 9: Federal Hydro Generation Adjustment for Stand Ready & Deployment Losses, Flat Energy for FY 2014 .....	22
Table 10: Federal Hydro Generation Adjustment for Stand Ready & Deployment Losses, Light-Load-Hours for FY 2015.....	24
Table 11: Federal Hydro Generation Adjustment for Stand Ready & Deployment Losses, Heavy-Load-Hours for FY 2015.....	26
Table 12: Federal Hydro Generation Adjustment for Stand Ready & Deployment Losses, Flat Energy for FY 2015 .....	28
Table 13: Value of PS Wind Generation at Expected Wind Generation for FY 2014 .....	31
Table 14: Value of PS Wind Generation at Expected Wind Generation for FY 2015 .....	32
Table 15: 4h10c Credits .....	37
Table 16: Augmentation Power Purchases .....	40
Table 17: Augmentation Power Purchases - Risk Analysis.....	41
Table 18: Calculation of Surplus Energy Sales Revenue and Balancing Purchase Expenses Provided to RAM2014, FY 2014.....	42
Table 19: Calculation of Surplus Energy Sales Revenue and Balancing Purchase Expenses Provided to RAM2015, FY 2015.....	43
Table 20: Secondary Sales .....	44
Table 21: Balancing Purchases .....	45
Table 22: Annual Secondary Sales and Balancing Purchases .....	46
Table 23: Interest Rate Forecasts .....	58
Table 24: PS End of Year Balances .....	68
FIGURES	
Figure 1: Simulated CGS Output Distribution for October 2013.....	4
Figure 2: WECC Renewable Resource Additions.....	5
Figure 3: HLH Market Prices for FY 2014 - 2015 .....	6

Figure 4:	LLH Market Prices for FY 2014 - 2015 .....	7
Figure 5:	HLH Market Prices for the Critical Water Run .....	8
Figure 6:	LLH Market Prices for the Critical Water Run .....	9
Figure 7:	Simulated Total PS Wind Generation for FY 2014-2015.....	30
Figure 8:	PS Transmission & Ancillary Services Expenses by Amount of Surplus Energy Sales For FY 2014.....	33
Figure 9:	PS Transmission & Ancillary Services Expenses by Amount of Surplus Energy Sales For FY 2015.....	34
Figure 10:	PS Transmission and Ancillary Service Expense Distribution for FY 2014.....	35
Figure 11:	PS Transmission and Ancillary Service Expense Distribution for FY 2015.....	36
Figure 12:	4(h)(10)(C) Credits Distribution for FY 2014 .....	38
Figure 13:	4(h)(10)(C) Credits Distribution for FY 2015 .....	39
Figure 14:	CGS O&M Distributions .....	47
Figure 15:	Corps of Engineers (COE) and Bureau of Reclamation (Reclamation) O&M Distributions.....	48
Figure 16:	Conservation Acquisition Expense Distributions .....	49
Figure 17:	Spokane Settlement Payment Distributions.....	50
Figure 18:	Third-Party GTA Wheeling Expense Distributions.....	51
Figure 19:	Internal Operations Expense Distributions .....	52
Figure 20:	F&W Direct Program Cost Distributions .....	53
Figure 21:	Lower Snake River Hatcheries Expense Distributions.....	54
Figure 22:	Leavenworth Complex O&M Expense Distributions.....	55
Figure 23:	Fish Passage Facilities Expense Distributions.....	56
Figure 24:	BiOp Related Court Ordered Spill Revenue Distributions.....	57
Figure 25:	Federal and Non-Federal Interest Expense Distributions .....	59
Figure 26:	Federal Appropriations Expense Distributions.....	60
Figure 27:	CGS Refueling Outage Duration Distributions .....	61
Figure 28:	CGS Refueling Outage Revenue Impact Distributions .....	62
Figure 29:	Variable Energy Resource Balancing Services (VERBS) Revenue Distributions.....	63
Figure 30:	Operating Reserve Revenue Distributions.....	64
Figure 31:	NORM Output Summary Distributions.....	65
Figure 32:	ToolKit "Main" Sheet .....	66
Figure 33:	Power Services End of Year Net Reserves .....	67

## COMMONLY USED ACRONYMS AND SHORT FORMS

AAC	Anticipated Accumulation of Cash
AGC	Automatic Generation Control
ALF	Agency Load Forecast (computer model)
aMW	average megawatt(s)
AMNR	Accumulated Modified Net Revenues
ANR	Accumulated Net Revenues
ASC	Average System Cost
BiOp	Biological Opinion
BPA	Bonneville Power Administration
Btu	British thermal unit
CDD	cooling degree day(s)
CDQ	Contract Demand Quantity
CGS	Columbia Generating Station
CHWM	Contract High Water Mark
COE, Corps, or USACE Commission	U.S. Army Corps of Engineers Federal Energy Regulatory Commission
Corps, COE, or USACE	U.S. Army Corps of Engineers
COSA	Cost of Service Analysis
COU	consumer-owned utility
Council or NPCC	Northwest Power and Conservation Council
CP	Coincidental Peak
CRAC	Cost Recovery Adjustment Clause
CSP	Customer System Peak
CT	combustion turbine
CY	calendar year (January through December)
DDC	Dividend Distribution Clause
<i>dec</i>	decrease, decrement, or decremental
DERBS	Dispatchable Energy Resource Balancing Service
DFS	Diurnal Flattening Service
DOE	Department of Energy
DSI	direct-service industrial customer or direct-service industry
DSO	Dispatcher Standing Order
EIA	Energy Information Administration
EIS	Environmental Impact Statement
EN	Energy Northwest, Inc.
EPP	Environmentally Preferred Power
ESA	Endangered Species Act
e-Tag	electronic interchange transaction information
FBS	Federal base system
FCRPS	Federal Columbia River Power System
FCRTS	Federal Columbia River Transmission System
FELCC	firm energy load carrying capability
FHFO	Funds Held for Others
FORS	Forced Outage Reserve Service

FPS	Firm Power Products and Services (rate)
FY	fiscal year (October through September)
GARD	Generation and Reserves Dispatch (computer model)
GEP	Green Energy Premium
GRSPs	General Rate Schedule Provisions
GTA	General Transfer Agreement
GWh	gigawatthour
HDD	heating degree day(s)
HLH	Heavy Load Hour(s)
HOSS	Hourly Operating and Scheduling Simulator (computer model)
HYDSIM	Hydrosystem Simulator (computer model)
ICE	IntercontinentalExchange
<i>inc</i>	increase, increment, or incremental
IOU	investor-owned utility
IP	Industrial Firm Power (rate)
IPR	Integrated Program Review
IRD	Irrigation Rate Discount
IRM	Irrigation Rate Mitigation
IRMP	Irrigation Rate Mitigation Product
JOE	Joint Operating Entity
kW	kilowatt (1000 watts)
kWh	kilowatthour
LDD	Low Density Discount
LLH	Light Load Hour(s)
LRA	Load Reduction Agreement
Maf	million acre-feet
Mid-C	Mid-Columbia
MMBtu	million British thermal units
MNR	Modified Net Revenues
MRNR	Minimum Required Net Revenue
MW	megawatt (1 million watts)
MWh	megawatthour
NCP	Non-Coincidental Peak
NEPA	National Environmental Policy Act
NERC	North American Electric Reliability Corporation
NFB	National Marine Fisheries Service (NMFS) Federal Columbia River Power System (FCRPS) Biological Opinion (BiOp)
NLSL	New Large Single Load
NMFS	National Marine Fisheries Service
NOAA Fisheries	National Oceanographic and Atmospheric Administration Fisheries
NORM	Non-Operating Risk Model (computer model)
Northwest Power Act	Pacific Northwest Electric Power Planning and Conservation Act
NPCC or Council	Pacific Northwest Electric Power and Conservation Planning Council

NPV	net present value
NR	New Resource Firm Power (rate)
NT	Network Transmission
NTSA	Non-Treaty Storage Agreement
NUG	non-utility generation
NWPP	Northwest Power Pool
OATT	Open Access Transmission Tariff
O&M	operation and maintenance
OATI	Open Access Technology International, Inc.
OMB	Office of Management and Budget
OY	operating year (August through July)
PF	Priority Firm Power (rate)
PFp	Priority Firm Public (rate)
PFx	Priority Firm Exchange (rate)
PNCA	Pacific Northwest Coordination Agreement
PNRR	Planned Net Revenues for Risk
PNW	Pacific Northwest
POD	Point of Delivery
POI	Point of Integration or Point of Interconnection
POM	Point of Metering
POR	Point of Receipt
Project Act	Bonneville Project Act
PRS	Power Rates Study
PS	BPA Power Services
PSW	Pacific Southwest
PTP	Point to Point Transmission (rate)
PUD	public or people's utility district
RAM	Rate Analysis Model (computer model)
RAS	Remedial Action Scheme
RD	Regional Dialogue
REC	Renewable Energy Certificate
Reclamation or USBR	U.S. Bureau of Reclamation
REP	Residential Exchange Program
RevSim	Revenue Simulation Model (component of RiskMod)
RFA	Revenue Forecast Application (database)
RHWM	Rate Period High Water Mark
RiskMod	Risk Analysis Model (computer model)
RiskSim	Risk Simulation Model (component of RiskMod)
ROD	Record of Decision
RPSA	Residential Purchase and Sale Agreement
RR	Resource Replacement (rate)
RRS	Resource Remarketing Service
RSS	Resource Support Services
RT1SC	RHWM Tier 1 System Capability
RTO	Regional Transmission Operator
SCADA	Supervisory Control and Data Acquisition

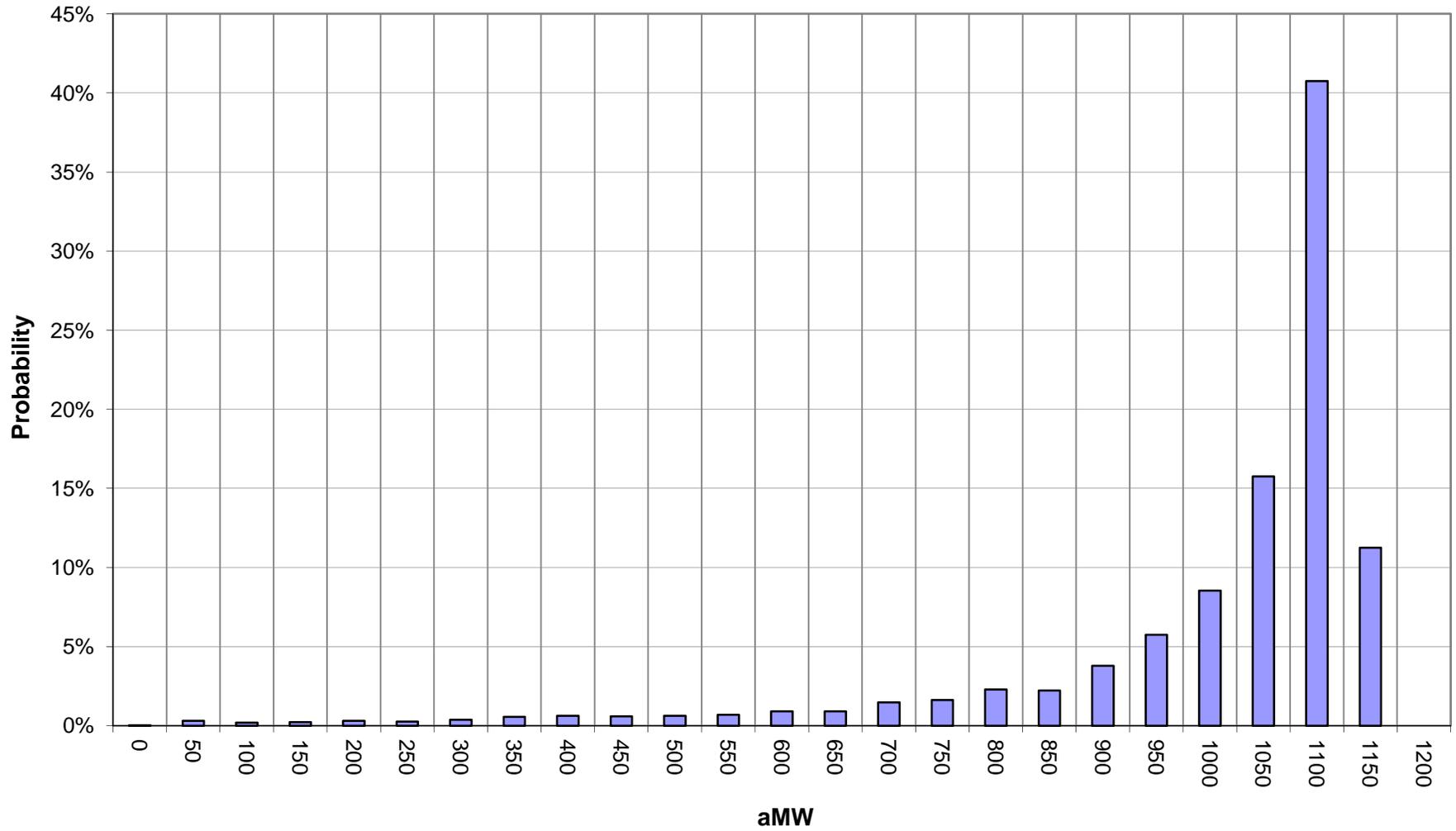
SCS	Secondary Crediting Service
Slice	Slice of the System (product)
T1SFCO	Tier 1 System Firm Critical Output
TCMS	Transmission Curtailment Management Service
TOCA	Tier 1 Cost Allocator
TPP	Treasury Payment Probability
Transmission System Act	Federal Columbia River Transmission System Act
TRL	Total Retail Load
TRM	Tiered Rate Methodology
TS	BPA Transmission Services
TSS	Transmission Scheduling Service
UAI	Unauthorized Increase
ULS	Unanticipated Load Service
USACE, Corps, or COE	U.S. Army Corps of Engineers
USBR or Reclamation	U.S. Bureau of Reclamation
USFWS	U.S. Fish and Wildlife Service
VERBS	Variable Energy Resources Balancing Service (rate)
VOR	Value of Reserves
VR1-2014	First Vintage rate of the BP-14 rate period
WECC	Western Electricity Coordinating Council (formerly WSCC)
WIT	Wind Integration Team
WSPP	Western Systems Power Pool

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD		
1	<b>Table 1: Control Area to AURORAxmp Zone Mapping</b>																															
2	BA	Alberta	Arizona	BritishColumbia	CA_IID	CA_LADWP	CA_PGandE_North	CA_PGandE_SF	CA_PGandE_ZP26	CA_SCE	CA_SDGE	CA_SMUD	Colorado	Montana	MontanaNW	NevadaNorth	NevadaSouth	NewMexico	PNW_IdahoEast	PNW_IdahoSouth	PNW_Olympia	PNW_OregonEast	PNW_OregonWest	PNW_PACWSouth	PNW_PugetSoundNorth	PNW_SeattleTacoma	PNW_Spokane	PNW_WashingtonCentral	Utah	Wyoming		
3	AESO	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4	APS	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5	AVA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00		
6	BCHA	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7	BPA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.01	0.01	0.12	0.09	0.39	0.01	0.15	0.01	0.03	0.10	0.00	0.01		
8	CHPD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00		
9	CISO	0.00	0.00	0.00	0.00	0.00	0.39	0.02	0.04	0.46	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
10	DOPD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00		
11	EPE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12	GCPD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00		
13	IID	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
14	IPC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
15	LDWP	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
16	NEVP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
17	NWE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.82	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03		
18	PAC	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.01	0.03	0.00	0.00	0.00	0.00	0.64	0.22		
19	PGE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
20	PNM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
21	PSC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.85	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02		
22	PSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.40	0.00	0.00	0.00			
23	SCL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00			
24	SMUD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
25	SPR	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.97	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
26	SRP	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
27	TEP	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
28	TID	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
29	TPWR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00		
30	WACM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11		
31	WALC	0.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
32	WAUW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

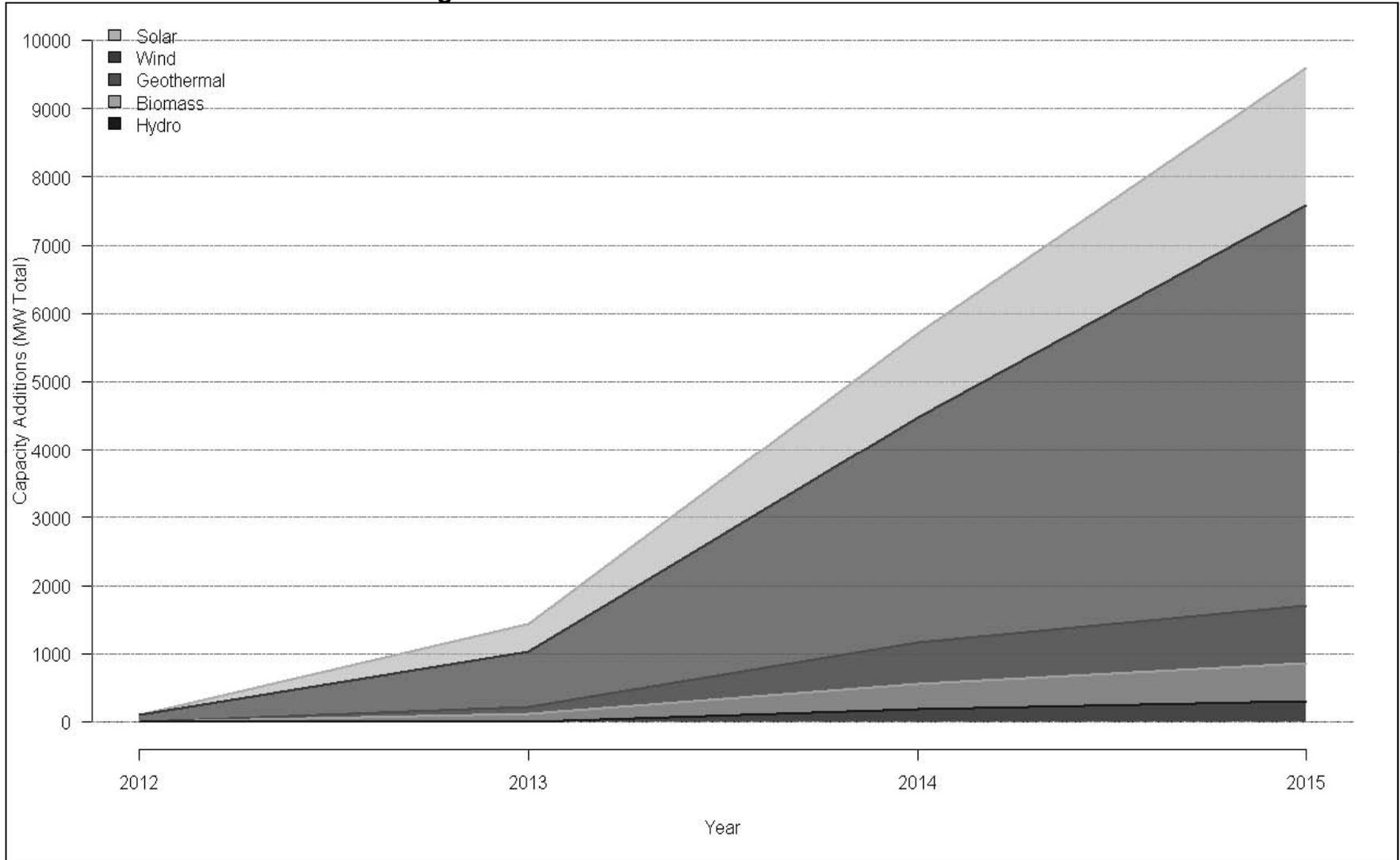
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	<b>Table 2: Control Area Load Forecast (MWh)</b>														
2	<b>Date</b>	<b>APS</b>	<b>AVA</b>	<b>BPA</b>	<b>CHPD</b>	<b>CISO</b>	<b>DOPD</b>	<b>EPE</b>	<b>GCPD</b>	<b>IID</b>	<b>IPC</b>	<b>LDWP</b>	<b>NEVP</b>	<b>NWE</b>	<b>PAC</b>
3	Oct-13	2560486	999327	4322478	291800	20023512	98288	670327	345418	299218	1177404	2221783	1809835	873157	4856903
4	Nov-13	2161020	1122092	4991799	337941	18793758	131210	616347	351634	245681	1277357	2056221	1687041	914939	5134893
5	Dec-13	2442020	1288643	5675863	393088	19969226	168228	661149	403412	255858	1523945	2233360	1855149	1025674	5656104
6	Jan-14	2492932	1202383	5682097	393334	19091394	169264	662398	394754	251918	1443770	2244565	1861798	1028878	5727540
7	Feb-14	2157584	1015705	4935524	319479	17013754	126864	587947	351795	228120	1226194	2004372	1616005	906612	5025674
8	Mar-14	2318901	1015791	4833597	306302	18596712	103716	631709	339925	247214	1179171	2187448	1725733	933155	5092136
9	Apr-14	2354522	932194	4614767	281950	17900574	95247	629518	352910	249884	1148111	2075283	1652511	854209	4771508
10	May-14	2904036	965193	4640845	276670	19781834	102980	697825	381643	334064	1484620	2252980	2045608	862002	4835887
11	Jun-14	3222449	951568	4644748	269169	21253978	101782	769596	407463	397858	1563281	2435325	2483579	866322	4985619
12	Jul-14	3823083	1047835	4883401	292717	24508770	123599	842755	451662	469087	1989982	2723921	3003631	974919	5701957
13	Aug-14	3779673	1030690	4716018	289737	24611240	125834	853389	439237	460541	1886817	2760352	2857441	945532	5687537
14	Sep-14	3216963	921918	4337156	272657	22206012	99542	746922	373257	396548	1468710	2548673	2296254	849326	4835788
15	Oct-14	2624727	1009123	4476888	292936	20401628	99645	681824	357639	304739	1203500	2253059	1839773	894453	4973774
16	Nov-14	2225204	1131861	5146209	339077	19171874	132567	627844	363814	251201	1303435	2087456	1716928	936199	5251578
17	Dec-14	2506148	1298387	5830273	394224	20347342	169584	672646	415553	261379	1550005	2264555	1884985	1046898	5772604
18	Jan-15	2558157	1204049	5828520	394279	19310288	170410	673883	406854	257896	1461270	2275394	1892251	1049786	5844654
19	Feb-15	2222754	1017371	5081947	320423	17232648	128010	599432	363856	234098	1243693	2035161	1646408	927485	5142607
20	Mar-15	2384017	1017457	4980020	307247	18815604	104861	643194	351947	253192	1196671	2218197	1756086	953992	5208887
21	Apr-15	2419583	933859	4761190	282894	18119468	96393	641002	364893	255862	1165611	2105994	1682814	875012	4888079
22	May-15	2969042	969255	4787268	277615	20090692	104646	709310	393588	340043	1512054	2283652	2075862	882771	4952280
23	Jun-15	3287401	955624	4791171	270113	21562836	103448	781080	419369	403837	1590683	2465958	2513784	887056	5101834
24	Jul-15	3887982	1051883	5029824	293662	24817628	125265	854240	463530	475065	2017353	2754515	3033788	995619	5817996
25	Aug-15	3844519	1034730	4862441	290681	24920098	127501	864874	451067	466519	1914157	2790908	2887549	966198	5803400
26	Sep-15	3281756	925950	4483579	273601	22514870	101209	758407	385049	402527	1496018	2579191	2326314	869958	4951478
27															

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
28	<b>Table 2 (cont.): Control Area Load Forecast (MWh)</b>														
29	<b>Date</b>	<b>PGE</b>	<b>PNM</b>	<b>PSC</b>	<b>PSE</b>	<b>SCL</b>	<b>SMUD</b>	<b>SPP</b>	<b>SRP</b>	<b>TEP</b>	<b>TID</b>	<b>TPWR</b>	<b>WACM</b>	<b>WALC</b>	<b>WAUW</b>
30	Oct-13	1690423	876479	3399192	2030300	832875	865643	902150	2429050	1166165	216419	393876	1909192	550928	73262
31	Nov-13	1852088	880287	3438935	2329953	925625	847319	899480	2129554	1089648	191662	465185	1935615	480859	82883
32	Dec-13	2049581	980661	3867524	2565971	979101	968659	1007164	2341963	1175921	202837	513586	2153642	563657	89951
33	Jan-14	2039599	934811	3749837	2583430	1006784	957465	989755	2456650	1178401	202855	508116	2117187	550171	92816
34	Feb-14	1767029	808087	3294472	2265271	878350	821792	865798	2139423	1092382	180928	450400	1909481	457396	81974
35	Mar-14	1786365	855986	3504177	2238475	880076	873367	931900	2286194	1119036	196493	447473	1977966	496176	81632
36	Apr-14	1667513	804513	3329003	2042822	823827	820384	873543	2288831	1091388	192619	407126	1844809	508016	71346
37	May-14	1715785	840222	3347086	1914492	797470	883375	932777	2731858	1235769	222136	379809	1904843	603226	73575
38	Jun-14	1664173	919215	3529560	1851172	772185	1023823	960184	3014137	1412083	245054	359873	1926681	707716	76450
39	Jul-14	1803383	1036743	4115920	1936860	800527	1209701	1106433	3413338	1583205	281055	369856	2184265	763969	94247
40	Aug-14	1818558	1029372	3979568	1967301	788184	1185846	1067095	3356296	1559689	275021	376316	2146201	715754	86440
41	Sep-14	1689580	887454	3364801	1884725	760228	1013389	936041	2973494	1392739	243324	363816	1903572	636017	75976
42	Oct-14	1730389	906828	3445567	2049374	841630	873349	906165	2477065	1200097	221024	396270	1922717	559070	73262
43	Nov-14	1892054	910637	3485311	2349027	934380	855025	903495	2183875	1125101	196258	467580	1949096	488975	82883
44	Dec-14	2089547	1011011	3913900	2585044	987856	976366	1011178	2391534	1209378	207425	515980	2167079	571746	89951
45	Jan-15	2074235	953655	3797800	2601300	1012642	966289	993957	2512731	1215466	207572	510325	2130580	558234	92816
46	Feb-15	1801665	826931	3342434	2283142	884208	830615	870000	2200950	1130838	185636	452609	1922831	465432	81974
47	Mar-15	1821000	874830	3552140	2256346	885934	882191	936101	2344973	1156894	201193	449682	1991272	504186	81632
48	Apr-15	1702149	823357	3376966	2060692	829685	829207	877745	2347408	1129608	197311	409335	1858072	516000	71346
49	May-15	1758872	863853	3395049	1932362	803503	892198	936978	2782457	1271313	226819	382018	1918063	611184	73575
50	Jun-15	1707261	942846	3577523	1869042	778219	1032647	964385	3059598	1444389	249730	362082	1939858	715649	76450
51	Jul-15	1846471	1060375	4163883	1954730	806560	1218524	1110635	3451597	1612366	285722	372065	2197400	771876	94247
52	Aug-15	1861645	1053004	4027530	1985171	794218	1194670	1071296	3395412	1589142	279680	378525	2159295	723636	86440
53	Sep-15	1732668	911085	3412764	1902595	766261	1022212	940242	3019220	1425017	247975	366025	1916624	643874	75976

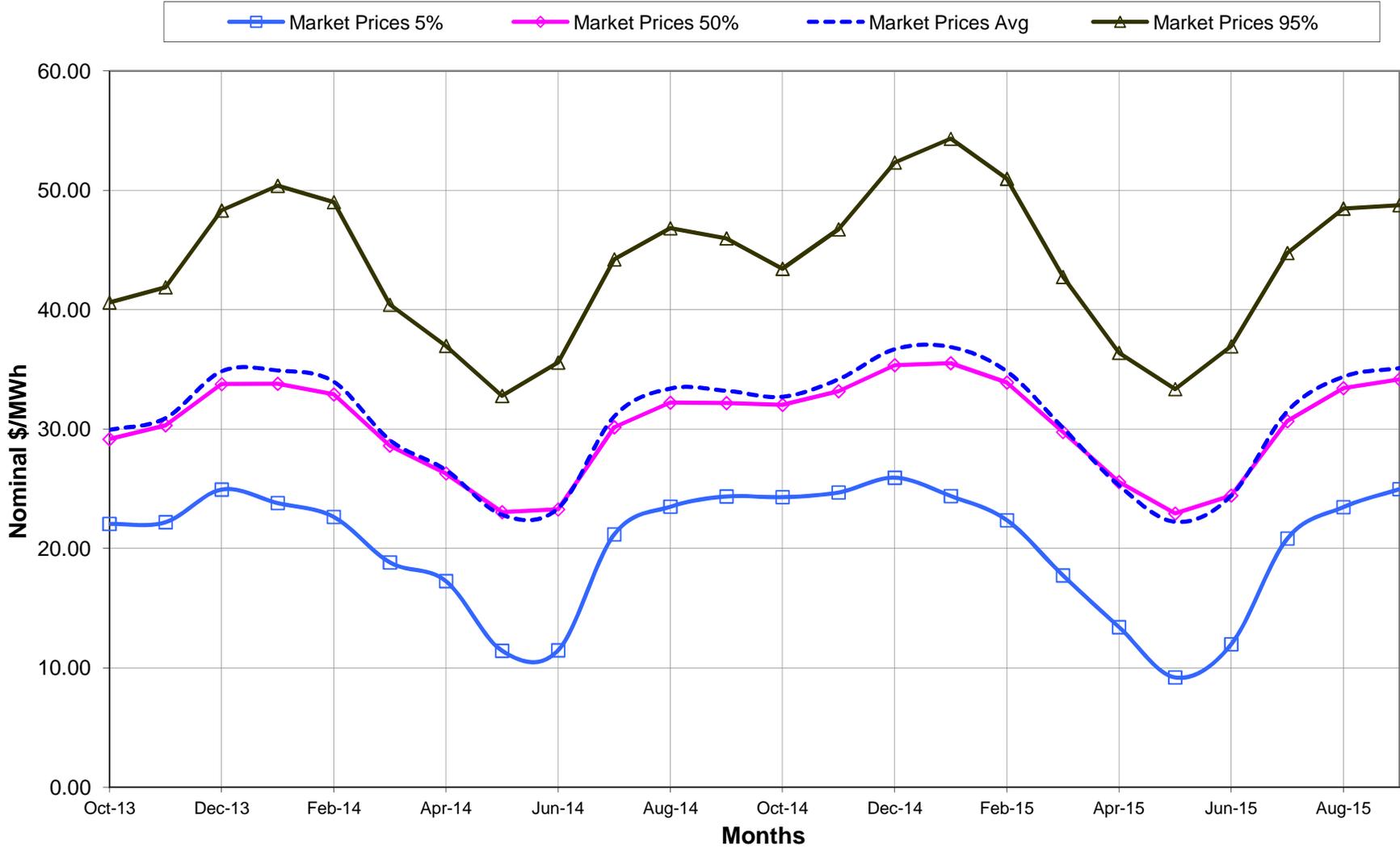
**Figure 1: Simulated CGS Output Distribution for October 2013**



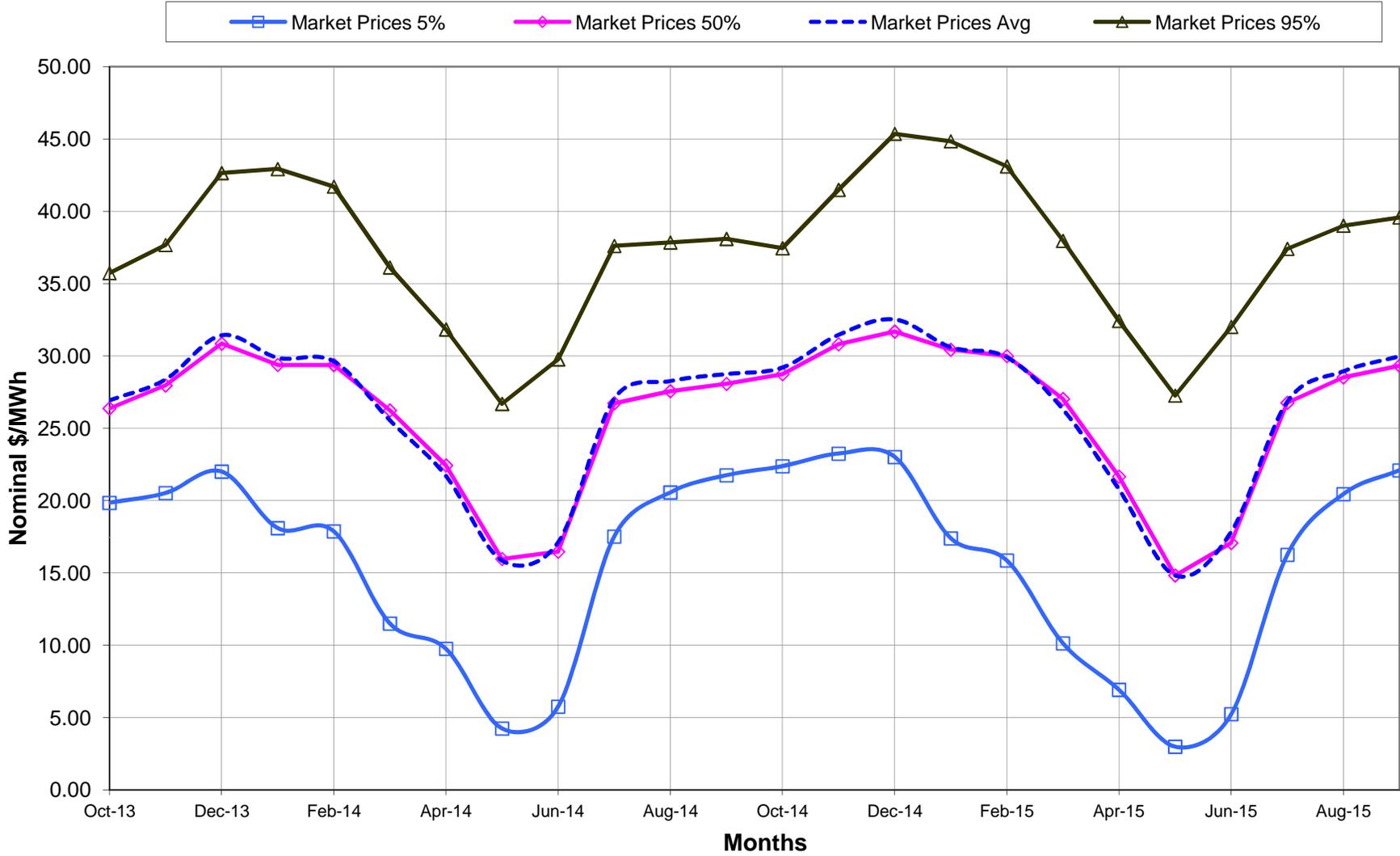
**Figure 2: WECC Renewable Resource Additions**



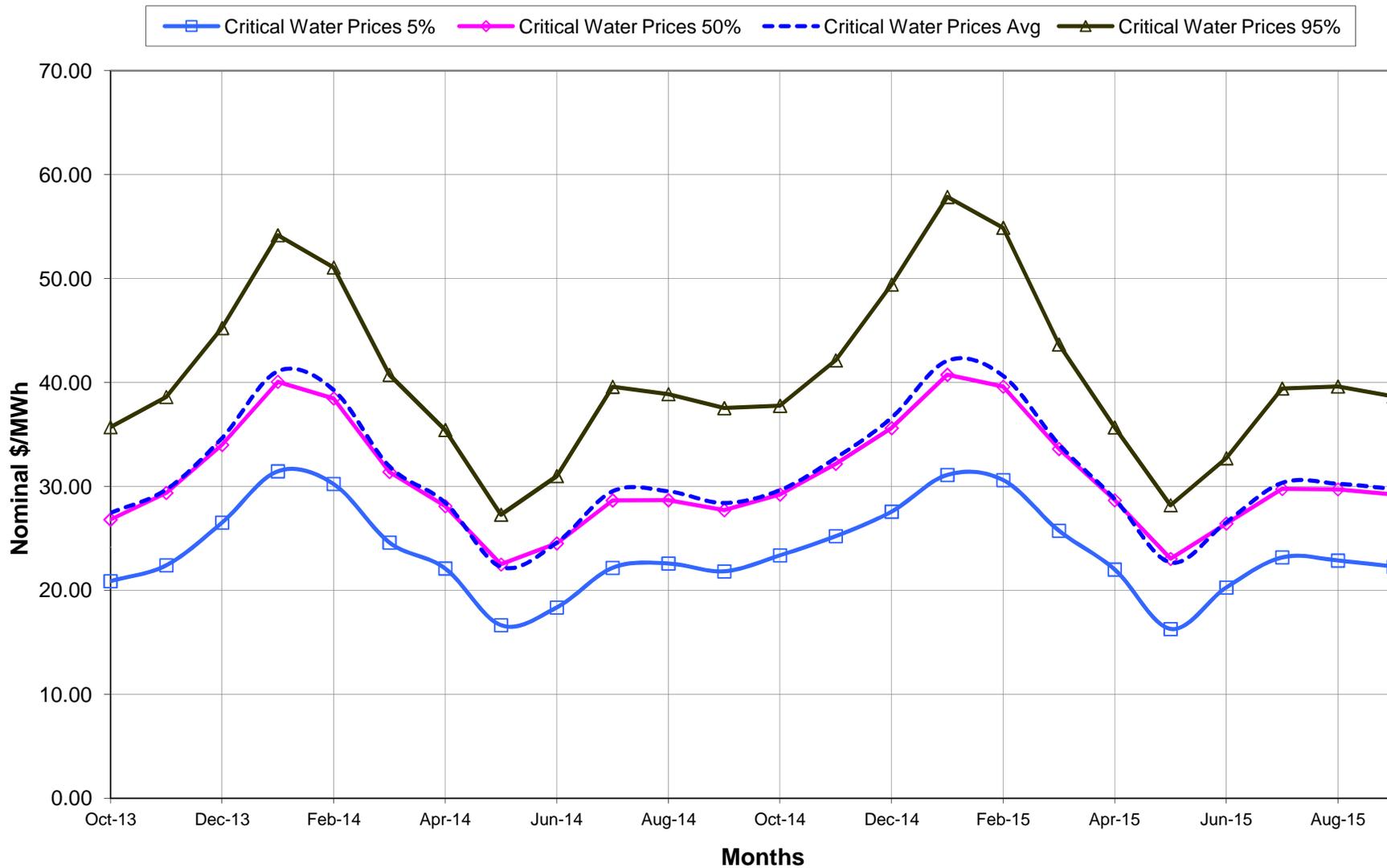
**Figure 3: HLH Market Prices for FY 2014 - 2015**



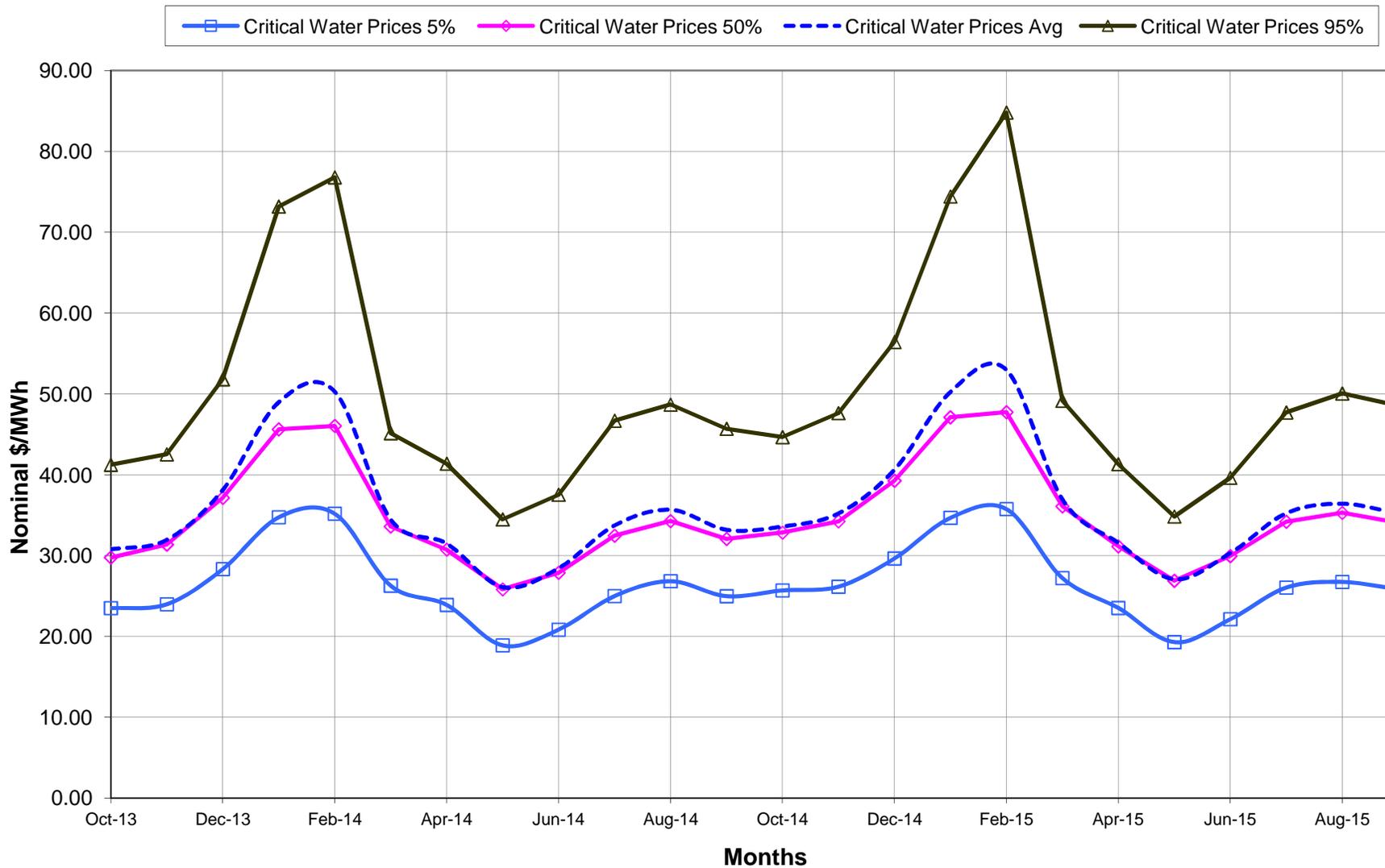
**Figure 4: LLH Market Prices for FY 2014 - 2015**



**Figure 5: HLH Market Prices for the Critical Water Run**



**Figure 6: LLH Market Prices for the Critical Water Run**



	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	<b>Table 3: Federal Hydro Generation (aMW) with Hydro Independents</b>													
2	<b>for FY 2014</b>													
3														
4	<b>Water Year</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug</b>	<b>Sep</b>	<b>Wtd Avg.</b>
5	1929	5,927	7,277	7,206	7,025	6,394	6,151	6,496	9,059	9,125	7,228	6,558	6,192	7,056
6	1930	5,538	7,102	7,239	5,269	6,559	5,959	7,102	8,842	7,089	8,346	6,827	6,338	6,853
7	1931	5,309	7,430	6,531	5,419	5,322	5,750	5,799	9,617	7,475	7,947	5,875	5,433	6,502
8	1932	5,486	6,726	7,075	5,328	5,116	8,352	12,206	13,575	13,141	8,880	8,172	6,632	8,403
9	1933	5,714	6,714	8,293	9,516	10,280	9,377	9,152	11,486	14,365	11,302	9,291	6,279	9,308
10	1934	6,775	10,325	13,603	14,593	13,653	11,486	12,631	12,198	10,388	8,793	6,779	6,025	10,587
11	1935	5,396	6,400	7,922	9,720	9,136	8,421	8,685	10,551	9,603	9,791	7,738	5,369	8,228
12	1936	5,689	7,211	7,168	5,861	5,580	6,580	9,150	13,664	11,918	8,328	6,813	5,513	7,801
13	1937	5,648	7,574	7,314	5,768	5,618	6,133	6,158	10,163	8,115	7,918	6,367	6,195	6,924
14	1938	5,461	6,601	8,006	9,435	9,496	9,239	11,751	12,514	11,273	9,645	7,094	6,180	8,885
15	1939	5,886	7,113	7,171	7,349	7,604	6,973	9,243	11,796	8,615	8,045	6,326	5,781	7,659
16	1940	5,943	7,848	8,114	6,966	6,887	8,681	9,890	11,208	9,837	7,466	6,063	5,989	7,911
17	1941	5,778	6,840	7,723	6,666	5,856	5,942	6,827	9,902	9,855	8,215	6,546	6,569	7,235
18	1942	5,729	7,240	9,084	9,469	7,044	6,480	8,092	10,455	12,092	10,480	7,843	7,070	8,432
19	1943	5,732	6,621	8,050	10,504	9,870	9,933	13,392	12,619	13,832	9,195	7,741	5,818	9,433
20	1944	5,719	7,377	7,176	7,149	6,609	5,839	6,743	8,409	6,363	7,481	6,447	6,101	6,788
21	1945	5,506	7,115	5,786	5,852	6,206	5,723	5,028	11,225	11,659	7,198	7,030	6,039	7,033
22	1946	5,551	7,038	8,246	9,145	9,179	8,797	12,019	12,686	12,116	9,977	8,445	6,419	9,131
23	1947	5,671	7,356	11,586	13,005	11,617	10,234	9,657	12,394	12,605	10,110	7,552	6,118	9,820
24	1948	8,525	9,260	9,750	12,379	10,218	8,643	10,841	14,231	14,292	11,035	9,948	7,439	10,551
25	1949	6,014	7,273	8,128	10,003	7,254	10,569	11,610	13,822	12,091	7,117	6,167	5,479	8,803
26	1950	5,680	7,145	7,909	12,213	10,439	11,835	11,688	12,561	13,124	10,229	9,675	6,363	9,904
27	1951	6,904	9,692	11,773	13,894	13,391	13,141	12,088	12,632	11,999	10,761	9,215	6,396	10,981
28	1952	7,927	8,364	9,877	11,548	10,499	10,257	12,436	13,878	12,569	9,847	7,969	5,495	10,056
29	1953	5,636	7,237	7,184	8,342	8,824	8,245	8,708	12,291	14,473	10,715	8,308	6,242	8,847
30	1954	5,907	7,676	9,189	11,504	10,942	10,776	10,042	12,595	12,492	11,851	10,468	9,236	10,221
31	1955	6,083	8,475	8,590	8,028	6,358	5,794	7,467	11,425	14,153	12,042	9,224	5,990	8,651
32	1956	6,270	9,155	11,682	13,846	13,321	11,835	12,548	13,471	14,262	10,936	9,450	6,200	11,069
33	1957	6,226	7,208	9,295	9,518	8,135	9,142	11,221	14,588	14,486	9,529	7,441	6,143	9,417
34	1958	5,813	7,396	7,771	9,970	8,836	9,369	10,322	13,650	13,201	9,026	7,286	5,936	9,048
35	1959	5,790	8,294	10,916	13,226	12,253	10,757	10,407	11,586	13,393	9,873	9,752	9,385	10,455
36	1960	9,455	10,441	10,723	11,135	9,354	9,052	12,686	11,607	12,061	9,526	7,395	5,769	9,935
37	1961	5,930	7,396	8,334	10,830	9,474	10,466	10,095	12,538	13,551	9,243	7,444	5,786	9,256
38	1962	5,705	7,375	7,638	9,708	9,193	7,198	12,694	12,395	12,739	7,157	7,308	5,677	8,719
39	1963	6,324	8,562	10,456	9,669	9,600	7,811	8,681	11,552	12,851	9,830	7,608	6,414	9,109
40	1964	5,675	6,993	8,252	8,612	7,852	7,339	9,741	12,173	14,312	11,682	9,611	7,138	9,121
41	1965	6,797	8,116	11,881	14,306	14,859	12,448	11,168	12,910	11,959	9,823	9,912	6,032	10,834
42	1966	6,164	7,758	8,652	9,552	8,549	6,730	10,828	10,949	10,358	9,841	7,595	5,989	8,579
43	1967	5,668	7,029	8,721	12,059	11,554	11,792	7,493	11,564	13,573	10,633	8,875	6,226	9,593
44	1968	5,982	7,781	8,681	10,740	10,754	9,802	7,773	9,410	12,619	10,228	8,777	7,725	9,179

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	<b>Table 3: Federal Hydro Generation (aMW) with Hydro Independents</b>													
2	<b>for FY 2014</b>													
3														
4	<b>Water Year</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug</b>	<b>Sep</b>	<b>Wtd Avg.</b>
45	1969	6,940	9,258	9,906	13,268	13,200	10,384	12,204	13,694	12,288	10,130	8,322	6,081	10,456
46	1970	5,869	7,509	7,557	9,561	8,928	8,463	8,550	11,731	13,531	8,484	7,077	5,867	8,588
47	1971	5,716	7,244	7,940	13,935	13,350	12,620	11,796	13,708	14,116	11,777	9,900	6,912	10,737
48	1972	6,288	7,515	9,095	14,020	12,981	14,419	11,929	13,653	14,116	11,629	10,238	7,671	11,123
49	1973	6,213	7,505	8,606	9,636	7,879	6,245	5,909	9,538	9,739	7,672	6,492	6,209	7,638
50	1974	5,421	6,949	9,253	15,424	14,863	13,156	12,765	13,359	13,686	12,076	9,979	7,335	11,169
51	1975	5,628	7,316	7,986	9,512	9,905	9,914	8,603	12,306	14,110	12,402	9,108	6,881	9,471
52	1976	7,130	9,591	12,983	12,974	12,639	11,863	12,399	13,397	12,797	11,105	10,435	9,788	11,418
53	1977	6,288	7,385	7,214	7,077	7,046	6,143	6,322	7,849	6,084	7,060	6,078	5,352	6,659
54	1978	5,385	6,323	9,320	9,517	8,997	8,506	10,979	12,098	10,297	9,766	7,252	7,757	8,848
55	1979	6,333	7,402	7,513	8,690	6,489	8,523	8,502	13,219	8,962	7,248	6,198	5,642	7,908
56	1980	5,667	7,333	6,853	7,528	7,458	6,270	10,013	13,831	12,689	7,866	6,898	6,163	8,211
57	1981	5,839	7,286	11,070	11,698	9,140	7,871	8,396	13,227	14,176	10,569	9,342	6,525	9,604
58	1982	5,817	7,804	9,468	11,832	12,786	13,714	11,163	13,274	13,488	10,792	10,033	8,400	10,702
59	1983	7,000	7,916	9,833	12,457	11,275	12,382	10,601	12,831	12,348	10,797	9,780	6,715	10,330
60	1984	6,049	9,945	9,759	11,219	10,987	10,468	12,833	12,664	14,414	11,169	8,316	6,686	10,364
61	1985	6,128	7,909	8,559	8,975	8,427	8,229	10,638	12,803	10,201	5,988	5,698	5,787	8,273
62	1986	5,820	8,946	8,320	10,640	10,970	14,217	11,687	11,206	12,400	8,911	7,153	5,915	9,670
63	1987	5,628	7,235	8,673	7,920	5,900	7,897	7,944	11,982	9,736	7,617	5,800	5,863	7,697
64	1988	5,430	7,050	6,796	5,834	5,694	5,951	7,413	9,666	9,567	8,463	6,383	6,093	7,034
65	1989	5,116	6,626	7,803	7,154	6,497	7,639	11,296	11,859	9,838	7,444	6,311	5,778	7,784
66	1990	5,538	7,490	8,451	10,118	10,138	10,277	11,300	11,518	12,230	9,333	8,463	5,905	9,222
67	1991	5,379	9,653	10,118	11,434	11,532	10,386	10,475	12,301	11,880	10,916	9,280	6,036	9,941
68	1992	5,571	7,319	7,295	7,202	6,558	6,852	7,242	10,945	9,105	7,093	5,942	6,074	7,271
69	1993	5,275	7,089	7,484	5,517	5,455	7,388	7,833	11,635	10,712	8,899	6,838	6,045	7,527
70	1994	5,408	7,711	7,432	5,977	5,620	6,145	7,098	10,667	9,818	8,237	6,426	6,267	7,242
71	1995	5,141	6,602	6,934	7,799	9,176	9,134	9,650	10,864	12,801	9,486	7,241	6,899	8,466
72	1996	6,393	10,817	14,580	14,962	13,704	14,259	12,653	13,241	13,255	11,529	9,605	6,041	11,749
73	1997	5,852	7,762	9,845	14,902	14,916	14,383	12,756	13,258	14,063	11,700	10,062	8,117	11,448
74	1998	8,784	9,068	9,347	9,120	9,237	8,184	9,063	14,193	13,924	9,734	7,875	6,087	9,554
75	1999	5,775	6,923	9,152	12,804	12,624	12,681	10,986	12,675	14,135	11,457	10,101	7,382	10,548
76	2000	6,007	10,017	10,546	10,372	9,758	9,539	12,361	11,564	10,238	9,275	7,362	5,941	9,410
77	2001	5,785	7,239	7,233	7,086	6,753	6,023	6,456	8,957	5,657	7,522	6,238	5,551	6,713
78	2002	4,504	6,495	7,042	6,508	6,909	6,503	11,143	10,484	12,831	10,822	8,122	6,046	8,116
79	2003	5,440	7,574	7,375	6,426	6,518	9,101	9,459	10,737	12,380	7,527	6,011	5,629	7,849
80	2004	5,748	7,465	8,331	7,333	6,862	6,704	8,448	11,398	10,624	7,843	6,571	6,414	7,815
81	2005	6,016	7,371	9,039	9,220	7,950	7,057	7,455	11,660	10,923	8,152	6,678	6,093	8,138
82	2006	5,339	7,365	8,335	10,093	11,262	9,804	12,943	13,924	12,569	9,030	6,939	5,897	9,441
83	2007	5,479	7,593	8,258	10,312	8,559	10,852	10,174	11,718	10,029	9,561	6,515	5,591	8,725
84	2008	5,755	7,296	7,527	7,842	7,231	7,376	7,717	13,540	14,454	10,148	7,996	5,780	8,563
85	80 WY Average	6,028	7,744	8,781	9,872	9,306	9,156	9,865	12,010	11,863	9,474	7,907	6,429	9,035
86	Hours	744	721	744	744	672	743	720	744	720	744	744	720	8,760

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	<b>Table 4: Federal Hydro Generation (aMW) with Hydro Independents</b>													
2	<b>for FY 2015</b>													
3														
4	Water Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Wtd Avg.
5	1929	5,771	7,273	7,214	7,066	6,768	6,228	6,679	8,575	8,874	6,371	6,636	5,745	6,932
6	1930	5,654	7,285	7,298	6,168	6,906	6,313	7,300	8,802	6,051	8,356	6,769	5,559	6,875
7	1931	5,610	7,447	7,378	5,584	5,430	5,895	6,551	9,603	7,067	7,848	5,872	5,464	6,656
8	1932	5,483	6,730	7,229	5,332	5,364	9,158	11,600	13,537	13,125	8,773	8,121	5,997	8,384
9	1933	5,800	6,720	8,902	9,450	10,561	9,170	9,121	11,503	14,351	11,310	9,281	6,040	9,344
10	1934	6,610	10,318	13,674	14,591	13,656	11,515	12,450	12,026	10,278	8,615	6,541	5,472	10,462
11	1935	5,734	6,290	8,589	9,746	9,797	9,453	8,142	10,655	9,658	9,908	8,001	5,243	8,435
12	1936	5,577	7,132	7,231	6,550	6,017	6,604	9,392	13,571	11,796	8,076	6,766	5,339	7,846
13	1937	5,577	7,486	7,333	6,306	5,623	6,084	6,213	9,757	7,685	7,478	6,625	5,291	6,799
14	1938	5,795	6,848	9,034	9,620	9,156	8,923	11,725	12,501	11,863	9,344	6,868	5,934	8,964
15	1939	5,865	7,112	7,190	8,079	7,660	7,203	9,288	11,711	7,660	7,763	6,459	5,543	7,630
16	1940	5,994	7,620	8,914	8,203	6,603	10,294	9,020	10,751	8,177	7,686	6,296	5,254	7,915
17	1941	5,772	7,007	8,605	6,756	6,690	6,564	6,914	9,840	7,990	8,407	6,640	5,366	7,221
18	1942	5,655	7,846	9,188	9,095	8,363	7,838	8,363	10,233	10,652	10,483	7,738	6,518	8,500
19	1943	5,840	6,618	8,383	10,333	10,617	9,926	13,351	12,582	13,808	9,194	7,721	5,513	9,477
20	1944	5,477	7,293	7,184	7,172	6,838	6,131	6,710	8,120	5,991	7,253	6,273	5,071	6,628
21	1945	5,705	7,210	6,651	5,875	6,323	6,162	5,665	11,203	11,649	6,967	6,973	5,374	7,150
22	1946	5,551	7,041	8,951	9,245	9,036	9,113	12,008	12,647	12,095	9,976	8,441	6,092	9,183
23	1947	5,480	7,491	11,802	12,003	11,639	11,247	9,653	12,424	12,638	10,277	7,708	5,953	9,855
24	1948	8,337	9,251	9,993	12,376	10,435	8,957	10,850	14,152	14,263	11,125	9,816	7,224	10,568
25	1949	5,833	7,264	8,391	9,784	8,099	10,534	11,390	13,325	12,128	7,006	6,217	5,190	8,766
26	1950	5,638	7,141	8,413	12,226	11,449	11,202	11,657	12,494	13,124	10,325	9,587	6,142	9,942
27	1951	6,709	9,684	11,988	13,951	14,087	12,596	11,994	12,549	11,455	10,967	9,299	6,172	10,940
28	1952	7,754	8,356	10,119	11,548	11,060	9,371	12,616	13,882	12,939	9,506	7,509	5,282	9,988
29	1953	5,480	6,928	7,315	9,148	8,959	8,700	8,636	12,230	14,456	10,788	7,818	6,018	8,871
30	1954	5,713	7,667	9,439	11,306	10,953	10,328	10,037	12,606	12,671	11,900	10,208	9,041	10,152
31	1955	5,902	8,466	8,851	8,046	7,414	6,825	7,807	11,164	13,853	12,031	9,080	5,745	8,774
32	1956	6,097	9,146	11,898	14,429	12,527	11,744	12,498	13,449	14,265	11,004	9,492	5,978	11,038
33	1957	6,030	7,200	9,539	9,655	8,611	9,062	11,056	14,308	14,454	9,868	7,834	5,858	9,461
34	1958	5,718	7,391	7,989	10,111	9,037	9,586	10,375	13,667	13,200	8,829	7,110	5,770	9,064
35	1959	5,959	8,037	11,042	13,222	12,481	10,432	10,412	11,571	13,397	9,722	9,795	9,362	10,437
36	1960	9,308	10,434	10,941	11,135	9,322	8,995	12,607	11,520	12,005	9,722	7,518	5,618	9,930
37	1961	5,764	7,322	8,596	10,878	9,644	10,577	9,689	12,402	13,535	9,600	7,770	5,575	9,279
38	1962	5,562	7,373	7,993	9,692	9,316	7,129	12,707	12,348	12,725	7,236	7,263	5,445	8,718
39	1963	6,361	8,330	10,696	10,727	9,980	8,754	8,270	11,117	10,954	9,853	7,603	6,196	9,070
40	1964	5,533	6,997	8,446	8,597	7,738	7,149	9,739	12,026	14,304	11,777	9,611	6,902	9,074
41	1965	6,618	8,107	12,098	15,051	14,053	12,178	11,038	12,884	11,953	10,388	9,894	5,736	10,824
42	1966	5,980	7,741	8,911	9,536	8,599	7,200	10,904	10,378	10,327	9,848	7,813	5,806	8,586
43	1967	5,529	7,025	8,897	12,283	11,625	10,997	7,574	11,423	13,545	10,820	8,924	6,003	9,547
44	1968	5,790	7,768	8,942	10,794	10,086	10,633	7,773	9,401	12,492	10,242	8,840	7,512	9,185

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	<b>Table 4: Federal Hydro Generation (aMW) with Hydro Independents</b>													
2	<b>for FY 2015</b>													
3														
4	Water Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Wtd Avg.
45	1969	6,762	9,250	10,148	13,259	13,130	10,407	12,128	13,659	12,283	10,196	8,324	5,882	10,436
46	1970	5,743	7,509	7,784	9,625	9,835	8,791	8,230	11,280	13,408	8,926	6,643	5,704	8,612
47	1971	5,537	7,239	8,112	13,148	14,277	12,619	11,860	13,674	14,110	11,724	9,900	6,690	10,720
48	1972	6,092	7,506	9,356	14,011	12,981	14,378	11,889	13,616	14,116	11,660	10,238	7,466	11,102
49	1973	6,022	7,496	8,868	9,838	8,245	6,494	5,909	9,502	7,827	7,568	6,531	5,503	7,486
50	1974	5,677	6,634	10,387	15,394	14,756	13,311	12,724	13,334	13,686	12,087	10,013	7,136	11,245
51	1975	5,408	7,309	8,253	9,434	9,876	9,781	8,603	12,226	14,080	12,488	9,247	6,644	9,445
52	1976	6,951	9,583	13,196	12,974	12,598	11,788	12,365	13,371	12,414	11,371	10,304	9,594	11,370
53	1977	6,108	7,379	7,216	7,094	7,141	6,488	6,292	7,897	5,182	7,336	6,027	4,802	6,583
54	1978	5,069	6,596	9,857	9,827	9,643	8,504	10,987	12,075	10,290	10,363	7,211	6,871	8,938
55	1979	6,153	7,402	7,945	8,950	7,218	8,448	8,496	12,533	8,477	6,882	6,269	5,622	7,875
56	1980	5,643	7,320	6,871	8,349	7,513	6,552	10,045	13,803	12,645	7,935	6,742	5,983	8,282
57	1981	5,760	7,285	11,158	11,614	10,751	9,168	7,803	11,573	14,051	10,550	9,408	6,587	9,641
58	1982	5,682	7,744	9,711	11,819	12,982	13,922	11,198	13,216	13,466	11,125	9,874	7,883	10,706
59	1983	6,821	7,908	10,076	12,423	11,310	12,314	10,413	12,614	12,135	11,270	9,930	6,792	10,336
60	1984	5,868	9,937	10,002	11,162	11,014	10,574	12,616	12,645	14,129	11,169	8,949	6,496	10,370
61	1985	5,941	7,901	8,821	8,936	8,385	8,191	10,580	12,724	9,728	6,006	5,828	5,488	8,207
62	1986	6,687	9,005	8,519	10,564	11,052	14,108	11,677	11,206	12,401	8,910	7,101	5,730	9,736
63	1987	5,460	7,225	8,934	8,564	7,297	7,892	7,947	10,957	9,534	7,315	6,105	5,224	7,710
64	1988	5,517	7,163	6,824	6,384	5,694	6,403	7,540	9,561	7,859	8,674	6,622	5,111	6,957
65	1989	5,458	6,872	8,557	7,251	6,108	7,930	11,314	11,822	9,842	6,916	6,423	5,424	7,835
66	1990	5,615	7,895	9,100	10,043	10,395	9,856	11,150	11,572	12,261	9,117	8,262	5,676	9,236
67	1991	5,189	9,431	10,380	11,400	11,535	10,237	10,159	12,168	12,168	11,046	9,279	5,841	9,895
68	1992	5,380	7,311	7,644	8,023	7,342	7,688	6,985	9,208	7,105	7,147	6,163	4,996	7,086
69	1993	5,597	7,100	7,809	5,774	5,505	7,454	7,927	11,747	11,024	8,445	7,067	5,356	7,581
70	1994	5,537	7,722	7,676	6,458	6,678	6,219	7,185	10,741	9,335	8,090	6,482	5,591	7,313
71	1995	5,408	6,615	7,920	7,830	9,482	10,489	8,423	10,549	12,713	9,526	7,316	6,000	8,515
72	1996	6,956	10,810	14,656	14,984	14,285	14,093	12,652	13,198	13,407	11,561	9,641	5,725	11,823
73	1997	5,659	7,752	10,089	14,935	14,778	14,381	12,707	13,255	14,087	11,776	10,015	7,962	11,431
74	1998	8,636	9,059	9,606	9,699	8,960	8,184	8,820	13,738	13,740	10,004	8,478	5,861	9,573
75	1999	5,635	6,835	9,474	12,899	12,721	12,741	10,765	12,575	14,112	11,527	10,101	7,168	10,537
76	2000	5,897	9,942	10,786	10,380	9,750	9,550	12,272	11,200	10,406	9,653	7,285	5,736	9,400
77	2001	5,663	7,233	7,235	7,123	6,812	6,503	6,605	8,872	4,765	7,267	6,195	4,448	6,567
78	2002	4,983	6,579	7,942	7,129	7,396	6,929	10,558	10,520	12,841	10,822	7,722	5,580	8,250
79	2003	5,257	7,579	7,408	7,112	6,899	9,160	9,459	10,737	12,432	6,994	5,964	5,117	7,842
80	2004	5,770	7,380	9,291	7,865	6,274	7,830	8,532	10,764	10,180	7,370	6,376	6,894	7,886
81	2005	5,880	7,363	9,298	9,205	8,622	7,308	7,455	11,498	10,592	7,800	6,768	5,609	8,116
82	2006	5,751	7,357	8,559	10,031	11,264	9,825	12,802	13,927	12,652	8,889	7,011	5,385	9,438
83	2007	5,122	7,994	8,628	10,441	8,561	11,193	10,146	11,562	9,921	9,561	6,570	5,021	8,733
84	2008	5,820	7,224	8,139	7,989	7,623	7,412	7,677	13,395	14,415	10,185	7,880	5,627	8,622
85	80 WY Average	5,984	7,748	9,096	10,020	9,561	9,335	9,806	11,834	11,585	9,483	7,930	6,071	9,036
86	Hours	744	721	744	744	672	743	720	744	720	744	744	720	8,760

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	<b>Table 5: Heavy-Load Hydro Generation Ratios for FY 2014</b>												
2													
3													
4	Water Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep
5	1929	1.158	1.154	1.198	1.181	1.157	1.170	1.119	1.120	1.162	1.211	1.193	1.166
6	1930	1.145	1.160	1.201	1.150	1.139	1.166	1.117	1.128	1.187	1.103	1.172	1.175
7	1931	1.137	1.157	1.196	1.151	1.137	1.164	1.088	1.124	1.217	1.099	1.209	1.157
8	1932	1.148	1.154	1.194	1.139	1.120	1.123	1.055	0.993	1.042	1.211	1.204	1.177
9	1933	1.150	1.141	1.203	1.213	1.188	1.136	1.112	1.046	1.043	0.998	1.078	1.177
10	1934	1.172	1.157	1.082	1.056	1.038	1.127	1.007	0.988	1.067	1.095	1.236	1.178
11	1935	1.146	1.142	1.200	1.215	1.202	1.174	1.117	1.075	1.160	1.045	1.142	1.155
12	1936	1.151	1.160	1.197	1.162	1.138	1.154	1.103	1.051	1.068	1.117	1.174	1.150
13	1937	1.147	1.161	1.198	1.166	1.140	1.166	1.122	1.122	1.185	1.145	1.200	1.170
14	1938	1.140	1.146	1.201	1.230	1.139	1.148	1.064	0.994	1.140	1.087	1.221	1.177
15	1939	1.155	1.155	1.193	1.182	1.169	1.149	1.132	1.059	1.197	1.134	1.198	1.156
16	1940	1.159	1.156	1.198	1.181	1.149	1.147	1.124	1.095	1.146	1.169	1.204	1.168
17	1941	1.158	1.148	1.194	1.172	1.143	1.167	1.135	1.113	1.190	1.128	1.193	1.168
18	1942	1.153	1.136	1.208	1.214	1.153	1.156	1.124	1.114	1.113	1.057	1.156	1.167
19	1943	1.155	1.143	1.197	1.197	1.155	1.143	1.019	0.999	1.033	1.126	1.232	1.160
20	1944	1.146	1.152	1.193	1.183	1.162	1.176	1.111	1.137	1.169	1.213	1.189	1.169
21	1945	1.146	1.154	1.175	1.164	1.145	1.166	1.086	1.103	1.144	1.203	1.172	1.165
22	1946	1.140	1.147	1.198	1.206	1.138	1.137	1.050	0.986	1.108	1.083	1.182	1.166
23	1947	1.141	1.142	1.198	1.090	1.171	1.172	1.108	1.061	1.083	1.049	1.182	1.166
24	1948	1.193	1.164	1.225	1.163	1.154	1.166	1.072	0.984	1.028	1.015	1.095	1.172
25	1949	1.160	1.150	1.200	1.177	1.142	1.161	1.071	1.026	1.112	1.208	1.194	1.151
26	1950	1.149	1.148	1.197	1.098	1.181	1.152	1.086	1.007	1.032	1.126	1.138	1.167
27	1951	1.168	1.163	1.149	1.090	1.137	1.074	1.057	0.985	1.129	1.017	1.148	1.166
28	1952	1.178	1.150	1.228	1.173	1.208	1.120	1.064	0.985	1.121	1.083	1.194	1.152
29	1953	1.141	1.158	1.195	1.187	1.151	1.169	1.113	1.014	1.033	1.068	1.165	1.166
30	1954	1.156	1.155	1.224	1.143	1.185	1.136	1.100	0.995	1.032	0.995	1.069	1.190
31	1955	1.161	1.162	1.215	1.201	1.159	1.163	1.125	1.102	1.036	0.990	1.116	1.155
32	1956	1.167	1.165	1.177	1.120	1.089	1.126	1.035	0.983	1.034	1.011	1.176	1.163
33	1957	1.159	1.147	1.223	1.229	1.165	1.140	1.092	0.992	1.030	1.112	1.232	1.168
34	1958	1.147	1.153	1.189	1.177	1.157	1.183	1.108	0.996	1.077	1.113	1.218	1.165
35	1959	1.151	1.148	1.211	1.132	1.131	1.127	1.085	0.993	1.033	1.115	1.128	1.195
36	1960	1.169	1.158	1.177	1.179	1.215	1.176	1.015	1.049	1.126	1.072	1.186	1.166
37	1961	1.159	1.154	1.203	1.144	1.192	1.164	1.098	1.003	1.033	1.087	1.208	1.161
38	1962	1.152	1.153	1.195	1.232	1.187	1.161	1.055	1.015	1.070	1.202	1.208	1.161
39	1963	1.156	1.157	1.211	1.232	1.190	1.173	1.157	1.107	1.101	1.073	1.165	1.167
40	1964	1.145	1.149	1.202	1.220	1.182	1.161	1.102	1.062	1.031	1.005	1.135	1.167
41	1965	1.172	1.155	1.190	1.103	1.045	1.117	1.057	0.984	1.096	1.102	1.122	1.161
42	1966	1.161	1.153	1.209	1.230	1.188	1.161	1.074	1.082	1.153	1.034	1.159	1.160
43	1967	1.150	1.150	1.212	1.135	1.147	1.082	1.130	1.049	1.029	1.035	1.159	1.176
44	1968	1.155	1.149	1.211	1.175	1.196	1.180	1.150	1.126	1.096	1.030	1.117	1.173

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	<b>Table 5: Heavy-Load Hydro Generation Ratios for FY 2014</b>												
2													
3													
4	Water Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep
45	1969	1.170	1.163	1.221	1.139	1.082	1.132	1.031	0.985	1.106	1.039	1.186	1.168
46	1970	1.153	1.155	1.195	1.207	1.177	1.173	1.136	1.086	1.078	1.194	1.191	1.151
47	1971	1.144	1.143	1.190	1.101	1.109	1.124	1.070	0.984	1.032	1.012	1.093	1.170
48	1972	1.150	1.147	1.212	1.088	1.109	1.060	1.043	0.984	1.028	0.999	1.074	1.180
49	1973	1.151	1.143	1.215	1.228	1.165	1.171	1.122	1.127	1.184	1.172	1.202	1.166
50	1974	1.138	1.125	1.206	1.029	1.034	1.093	1.035	0.984	1.030	0.995	1.097	1.181
51	1975	1.143	1.153	1.194	1.242	1.196	1.167	1.112	1.013	1.037	1.009	1.160	1.168
52	1976	1.153	1.166	1.121	1.154	1.111	1.128	1.053	0.985	1.101	1.010	1.060	1.150
53	1977	1.157	1.150	1.202	1.187	1.164	1.176	1.119	1.142	1.203	1.195	1.191	1.152
54	1978	1.145	1.139	1.211	1.200	1.158	1.157	1.086	1.030	1.136	1.103	1.189	1.191
55	1979	1.168	1.155	1.200	1.214	1.148	1.176	1.134	1.051	1.202	1.216	1.195	1.157
56	1980	1.150	1.157	1.194	1.176	1.162	1.159	1.088	0.986	1.095	1.215	1.214	1.168
57	1981	1.158	1.151	1.161	1.128	1.193	1.176	1.124	1.019	1.034	1.014	1.072	1.179
58	1982	1.152	1.154	1.228	1.156	1.124	1.091	1.095	0.985	1.029	1.128	1.102	1.186
59	1983	1.156	1.149	1.236	1.134	1.172	1.109	1.095	1.021	1.104	1.063	1.149	1.166
60	1984	1.145	1.167	1.226	1.217	1.175	1.116	1.056	1.074	1.053	1.052	1.184	1.160
61	1985	1.139	1.142	1.206	1.212	1.179	1.152	1.107	1.050	1.165	1.168	1.202	1.139
62	1986	1.140	1.152	1.199	1.195	1.105	1.071	1.095	1.101	1.121	1.103	1.172	1.152
63	1987	1.141	1.141	1.206	1.196	1.141	1.182	1.155	1.068	1.121	1.161	1.185	1.158
64	1988	1.141	1.156	1.191	1.162	1.140	1.164	1.138	1.133	1.162	1.097	1.203	1.171
65	1989	1.128	1.146	1.189	1.176	1.149	1.128	1.078	1.064	1.175	1.215	1.195	1.157
66	1990	1.141	1.146	1.198	1.214	1.201	1.142	1.081	1.045	1.040	1.103	1.151	1.159
67	1991	1.139	1.165	1.198	1.172	1.141	1.127	1.082	1.016	1.108	1.004	1.077	1.159
68	1992	1.143	1.151	1.186	1.177	1.150	1.160	1.158	1.087	1.164	1.214	1.190	1.164
69	1993	1.141	1.158	1.198	1.162	1.136	1.156	1.111	1.091	1.176	1.150	1.191	1.157
70	1994	1.136	1.158	1.196	1.165	1.139	1.165	1.145	1.116	1.143	1.134	1.194	1.168
71	1995	1.131	1.154	1.192	1.186	1.168	1.185	1.126	1.110	1.118	1.130	1.214	1.169
72	1996	1.158	1.157	1.054	1.054	1.089	1.047	1.044	0.988	1.062	1.006	1.114	1.166
73	1997	1.153	1.152	1.236	1.066	1.040	1.054	1.030	0.980	1.027	1.005	1.121	1.178
74	1998	1.185	1.162	1.215	1.219	1.201	1.172	1.144	1.030	1.043	1.100	1.159	1.153
75	1999	1.141	1.142	1.220	1.125	1.132	1.118	1.078	1.036	1.039	1.006	1.071	1.200
76	2000	1.151	1.166	1.191	1.201	1.204	1.171	1.047	1.085	1.171	1.080	1.154	1.158
77	2001	1.148	1.152	1.194	1.182	1.162	1.169	1.110	1.134	1.189	1.165	1.192	1.154
78	2002	1.100	1.147	1.189	1.163	1.144	1.151	1.090	1.108	1.033	1.013	1.181	1.171
79	2003	1.139	1.157	1.195	1.163	1.142	1.175	1.159	1.116	1.109	1.202	1.194	1.153
80	2004	1.158	1.153	1.196	1.182	1.151	1.155	1.132	1.101	1.151	1.186	1.197	1.160
81	2005	1.162	1.154	1.218	1.230	1.182	1.173	1.152	1.106	1.131	1.147	1.178	1.161
82	2006	1.139	1.155	1.194	1.211	1.178	1.158	1.038	0.984	1.066	1.146	1.233	1.163
83	2007	1.139	1.143	1.205	1.198	1.179	1.151	1.083	1.077	1.150	1.059	1.177	1.152
84	2008	1.156	1.150	1.191	1.198	1.161	1.159	1.117	1.026	1.038	1.080	1.193	1.159

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	<b>Table 6: Heavy-Load Hydro Generation Ratios</b>												
2	<b>for FY 2015</b>												
3													
4	Water Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep
5	1929	1.150	1.218	1.146	1.186	1.165	1.177	1.122	1.170	1.092	1.198	1.194	1.150
6	1930	1.148	1.225	1.149	1.172	1.156	1.176	1.128	1.172	1.097	1.141	1.179	1.148
7	1931	1.149	1.225	1.149	1.159	1.138	1.174	1.125	1.168	1.147	1.146	1.193	1.155
8	1932	1.147	1.216	1.139	1.136	1.131	1.151	1.077	1.073	1.014	1.176	1.153	1.165
9	1933	1.152	1.199	1.168	1.226	1.173	1.157	1.119	1.089	1.002	1.037	1.081	1.169
10	1934	1.168	1.218	1.032	1.057	1.038	1.119	1.022	1.050	1.027	1.118	1.230	1.156
11	1935	1.159	1.198	1.168	1.213	1.215	1.157	1.141	1.114	1.093	1.072	1.136	1.146
12	1936	1.145	1.223	1.148	1.169	1.152	1.168	1.114	1.099	1.044	1.173	1.174	1.142
13	1937	1.143	1.224	1.149	1.177	1.145	1.173	1.130	1.170	1.115	1.227	1.191	1.140
14	1938	1.153	1.212	1.174	1.231	1.159	1.149	1.066	1.048	1.074	1.126	1.209	1.166
15	1939	1.153	1.220	1.143	1.209	1.178	1.164	1.138	1.100	1.142	1.198	1.199	1.147
16	1940	1.159	1.221	1.168	1.214	1.151	1.174	1.164	1.153	1.146	1.179	1.201	1.143
17	1941	1.157	1.217	1.165	1.176	1.157	1.174	1.148	1.151	1.137	1.150	1.190	1.141
18	1942	1.151	1.211	1.166	1.210	1.192	1.186	1.136	1.150	1.095	1.094	1.151	1.155
19	1943	1.157	1.204	1.157	1.182	1.179	1.149	1.019	1.049	0.994	1.160	1.204	1.148
20	1944	1.135	1.214	1.142	1.187	1.169	1.177	1.113	1.181	1.081	1.238	1.205	1.122
21	1945	1.152	1.222	1.140	1.159	1.148	1.175	1.120	1.148	1.088	1.219	1.186	1.141
22	1946	1.138	1.209	1.164	1.213	1.152	1.150	1.063	1.026	1.059	1.108	1.147	1.155
23	1947	1.133	1.211	1.137	1.137	1.184	1.137	1.119	1.102	1.020	1.069	1.172	1.158
24	1948	1.191	1.226	1.178	1.164	1.200	1.174	1.077	1.032	0.989	1.051	1.068	1.192
25	1949	1.153	1.213	1.157	1.186	1.173	1.160	1.091	1.089	1.059	1.231	1.193	1.135
26	1950	1.145	1.209	1.160	1.104	1.161	1.155	1.092	1.053	0.994	1.149	1.076	1.155
27	1951	1.167	1.225	1.088	1.088	1.087	1.103	1.059	1.034	1.078	1.047	1.097	1.154
28	1952	1.175	1.214	1.179	1.175	1.188	1.155	1.053	1.027	1.056	1.127	1.183	1.137
29	1953	1.132	1.217	1.145	1.212	1.163	1.183	1.119	1.064	0.993	1.103	1.178	1.156
30	1954	1.146	1.220	1.182	1.152	1.193	1.145	1.107	1.057	0.992	1.035	1.061	1.204
31	1955	1.154	1.228	1.173	1.207	1.179	1.183	1.143	1.143	1.001	1.030	1.111	1.143
32	1956	1.162	1.229	1.116	1.095	1.123	1.136	1.037	1.025	0.995	1.046	1.077	1.153
33	1957	1.154	1.211	1.182	1.229	1.186	1.146	1.099	1.066	0.993	1.098	1.170	1.157
34	1958	1.142	1.217	1.146	1.180	1.165	1.178	1.114	1.079	1.024	1.133	1.212	1.158
35	1959	1.156	1.210	1.156	1.133	1.116	1.146	1.089	1.048	0.994	1.163	1.071	1.193
36	1960	1.171	1.221	1.116	1.181	1.220	1.182	1.018	1.098	1.072	1.096	1.172	1.159
37	1961	1.152	1.217	1.161	1.147	1.178	1.167	1.120	1.055	0.994	1.078	1.163	1.152
38	1962	1.144	1.216	1.152	1.237	1.195	1.171	1.058	1.065	1.022	1.231	1.191	1.149
39	1963	1.160	1.217	1.144	1.159	1.192	1.177	1.145	1.149	1.092	1.107	1.162	1.158
40	1964	1.138	1.211	1.158	1.224	1.185	1.171	1.106	1.110	0.992	1.043	1.074	1.159
41	1965	1.169	1.219	1.129	1.069	1.082	1.127	1.057	1.029	1.047	1.110	1.073	1.152
42	1966	1.156	1.217	1.167	1.236	1.197	1.178	1.073	1.149	1.095	1.071	1.135	1.153
43	1967	1.143	1.211	1.170	1.121	1.140	1.120	1.138	1.098	0.989	1.067	1.089	1.166
44	1968	1.147	1.214	1.170	1.174	1.190	1.164	1.155	1.183	1.052	1.063	1.120	1.164

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	<b>Table 6: Heavy-Load Hydro Generation Ratios</b>												
2	<b>for FY 2015</b>												
3													
4	Water Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep
45	1969	1.168	1.225	1.168	1.141	1.088	1.139	1.034	1.032	1.056	1.060	1.128	1.160
46	1970	1.146	1.219	1.148	1.213	1.211	1.182	1.138	1.138	1.038	1.172	1.203	1.144
47	1971	1.136	1.209	1.147	1.133	1.079	1.128	1.065	1.026	0.992	1.055	1.068	1.175
48	1972	1.147	1.213	1.171	1.089	1.109	1.067	1.045	1.027	0.989	1.035	1.060	1.192
49	1973	1.147	1.208	1.174	1.237	1.190	1.177	1.128	1.162	1.130	1.218	1.187	1.138
50	1974	1.147	1.190	1.185	1.028	1.040	1.093	1.036	1.025	0.992	1.034	1.061	1.197
51	1975	1.133	1.215	1.150	1.244	1.201	1.174	1.119	1.083	1.014	1.040	1.107	1.156
52	1976	1.149	1.229	1.067	1.155	1.115	1.136	1.053	1.028	1.067	1.043	1.061	1.167
53	1977	1.151	1.215	1.151	1.190	1.174	1.185	1.123	1.184	1.083	1.196	1.188	1.120
54	1978	1.129	1.208	1.180	1.213	1.172	1.160	1.089	1.079	1.072	1.110	1.186	1.171
55	1979	1.164	1.219	1.156	1.222	1.176	1.186	1.140	1.118	1.145	1.235	1.192	1.152
56	1980	1.148	1.220	1.139	1.205	1.169	1.168	1.094	1.038	1.045	1.228	1.197	1.158
57	1981	1.154	1.215	1.111	1.135	1.193	1.160	1.138	1.136	0.993	1.053	1.071	1.183
58	1982	1.145	1.218	1.186	1.160	1.125	1.090	1.097	1.054	0.990	1.145	1.069	1.191
59	1983	1.155	1.213	1.189	1.136	1.172	1.110	1.103	1.102	1.066	1.074	1.071	1.168
60	1984	1.139	1.228	1.184	1.221	1.184	1.124	1.073	1.113	1.028	1.087	1.128	1.147
61	1985	1.137	1.211	1.165	1.218	1.185	1.165	1.114	1.091	1.112	1.193	1.203	1.116
62	1986	1.163	1.214	1.156	1.203	1.108	1.073	1.098	1.148	1.069	1.138	1.169	1.142
63	1987	1.134	1.206	1.166	1.221	1.177	1.193	1.167	1.142	1.076	1.229	1.190	1.125
64	1988	1.143	1.223	1.138	1.166	1.147	1.175	1.146	1.175	1.140	1.126	1.189	1.128
65	1989	1.143	1.211	1.156	1.184	1.145	1.142	1.083	1.108	1.109	1.229	1.197	1.141
66	1990	1.142	1.213	1.165	1.225	1.199	1.149	1.083	1.071	0.998	1.139	1.152	1.148
67	1991	1.128	1.227	1.128	1.175	1.144	1.132	1.098	1.087	1.028	1.041	1.076	1.152
68	1992	1.132	1.214	1.134	1.203	1.175	1.177	1.136	1.179	1.147	1.236	1.190	1.112
69	1993	1.154	1.222	1.145	1.170	1.145	1.168	1.121	1.146	1.109	1.221	1.190	1.131
70	1994	1.140	1.225	1.147	1.171	1.169	1.175	1.154	1.152	1.096	1.182	1.191	1.141
71	1995	1.143	1.215	1.149	1.193	1.181	1.155	1.139	1.161	1.070	1.165	1.217	1.153
72	1996	1.167	1.218	1.009	1.054	1.087	1.067	1.047	1.047	1.036	1.044	1.072	1.160
73	1997	1.144	1.215	1.192	1.064	1.043	1.035	1.032	1.022	0.988	1.038	1.067	1.188
74	1998	1.186	1.224	1.173	1.240	1.198	1.182	1.157	1.084	1.027	1.121	1.128	1.143
75	1999	1.135	1.204	1.182	1.124	1.128	1.120	1.095	1.086	1.016	1.044	1.063	1.196
76	2000	1.146	1.230	1.128	1.202	1.209	1.177	1.056	1.137	1.105	1.089	1.148	1.149
77	2001	1.142	1.215	1.143	1.186	1.167	1.173	1.119	1.181	1.065	1.228	1.207	1.090
78	2002	1.118	1.209	1.142	1.178	1.154	1.159	1.096	1.158	0.996	1.052	1.169	1.154
79	2003	1.129	1.223	1.144	1.177	1.160	1.183	1.165	1.161	1.053	1.234	1.191	1.122
80	2004	1.157	1.218	1.167	1.199	1.147	1.184	1.177	1.163	1.114	1.238	1.190	1.158
81	2005	1.157	1.219	1.174	1.234	1.209	1.181	1.158	1.151	1.078	1.215	1.176	1.137
82	2006	1.155	1.217	1.150	1.238	1.181	1.163	1.047	1.035	1.041	1.135	1.201	1.139
83	2007	1.122	1.213	1.166	1.195	1.205	1.157	1.090	1.126	1.098	1.097	1.187	1.118
84	2008	1.157	1.215	1.157	1.195	1.182	1.172	1.122	1.088	0.999	1.116	1.174	1.152

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	<b>Table 7: Federal Hydro Generation Adjustment for</b>													
2	<b>Stand Ready &amp; Deployment Losses, Light-Load-Hours for FY 2014</b>													
3														
4	<b>Water Year</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug</b>	<b>Sep</b>	<b>Wtd Avg.</b>
5	1929	85	240	224	214	119	17	7	7	137	-3	24	25	92
6	1930	85	233	199	-15	51	-15	14	14	221	-3	433	173	117
7	1931	85	213	164	-15	-12	-17	2	2	363	195	421	-3	118
8	1932	86	216	176	-15	-11	7	-49	-49	-18	-18	109	372	68
9	1933	86	77	142	51	196	259	288	288	116	-32	-14	85	127
10	1934	145	40	-94	-68	-85	-12	-49	-49	-9	-14	91	179	6
11	1935	85	103	180	199	107	156	354	354	55	184	-14	634	200
12	1936	85	224	214	-15	-12	44	33	33	-9	-13	133	153	74
13	1937	86	196	207	46	11	0	2	2	373	2	33	25	83
14	1938	85	132	157	72	110	1	123	123	90	272	136	155	122
15	1939	86	235	163	225	211	48	193	193	-8	346	62	26	148
16	1940	86	182	170	209	81	23	285	285	43	0	420	27	152
17	1941	85	178	183	117	-8	0	80	80	166	156	91	25	98
18	1942	84	136	147	88	102	40	26	26	272	-13	14	444	114
19	1943	86	102	96	49	142	46	25	25	16	61	-14	198	69
20	1944	85	228	150	217	171	-17	25	25	149	-1	150	27	101
21	1945	86	240	73	-15	12	-17	5	5	342	181	26	166	92
22	1946	85	146	170	162	158	7	94	94	78	-12	90	284	113
23	1947	86	136	194	-78	213	154	339	339	46	-14	-14	328	143
24	1948	465	184	121	71	79	121	222	222	-14	-64	-14	62	120
25	1949	85	185	181	29	54	131	146	146	-47	-17	24	26	79
26	1950	85	166	173	-21	132	169	297	297	129	117	-20	109	136
27	1951	79	178	-22	-84	1	-83	29	29	57	53	-14	325	45
28	1952	178	184	115	116	42	133	258	258	-11	26	129	77	125
29	1953	85	230	202	116	96	157	269	269	-3	-21	111	151	139
30	1954	86	235	96	-12	143	103	281	281	46	-42	-18	68	104
31	1955	84	185	96	164	140	-18	87	87	253	-55	-25	202	99
32	1956	84	178	136	-91	-89	277	150	150	83	-38	-14	131	81
33	1957	84	171	106	94	200	-4	220	220	-25	-21	109	283	118
34	1958	85	242	156	130	97	159	352	352	-48	-18	334	275	177
35	1959	85	198	170	-90	-43	139	90	90	133	119	265	74	104
36	1960	146	160	168	93	60	189	-36	-36	3	23	69	265	93
37	1961	85	217	147	-12	155	145	243	243	-9	-52	97	457	142
38	1962	86	228	207	46	143	85	-52	-52	-8	-19	27	218	76
39	1963	84	157	7	103	132	221	244	244	278	-12	84	430	163
40	1964	85	159	156	127	178	161	236	236	61	-52	-14	75	116
41	1965	125	194	-45	-91	-18	12	383	383	92	189	255	78	129
42	1966	84	219	122	59	131	52	-14	-14	-1	68	-14	53	62
43	1967	86	191	124	-14	-12	-10	50	50	115	65	34	297	82
44	1968	85	212	120	147	78	275	204	204	337	-12	-14	376	168

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	<b>Table 7: Federal Hydro Generation Adjustment for</b>													
2	<b>Stand Ready &amp; Deployment Losses, Light-Load-Hours for FY 2014</b>													
3														
4	<b>Water Year</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug</b>	<b>Sep</b>	<b>Wtd Avg.</b>
45	1969	119	197	184	-92	-88	217	19	19	42	-13	-14	373	82
46	1970	86	231	216	130	173	171	262	262	157	-56	224	116	164
47	1971	85	155	148	-92	45	171	127	127	86	-55	-14	64	71
48	1972	84	206	107	-83	-92	-62	26	26	172	-49	-14	66	33
49	1973	84	199	154	62	200	1	8	8	340	141	395	25	135
50	1974	85	69	149	-66	-14	-32	96	96	137	80	-16	61	54
51	1975	85	246	187	61	48	179	119	119	129	-23	-14	266	118
52	1976	72	181	-85	79	-72	130	27	27	88	-15	-14	67	40
53	1977	85	245	224	208	213	41	41	41	351	-6	305	9	147
54	1978	84	81	131	163	178	21	145	145	121	133	237	92	127
55	1979	93	237	229	99	22	141	199	199	-9	249	138	17	136
56	1980	85	234	153	203	177	31	227	227	-52	-15	170	140	131
57	1981	85	208	44	-32	134	195	233	233	-10	-53	-14	89	91
58	1982	86	217	97	-41	10	-125	409	409	83	99	15	63	109
59	1983	72	230	84	-92	126	61	391	391	71	341	79	123	155
60	1984	85	262	90	17	166	11	-57	-57	337	-33	28	507	112
61	1985	85	160	149	116	174	155	139	139	-9	215	26	-4	112
62	1986	86	125	175	136	55	-58	227	227	333	58	421	223	168
63	1987	87	118	128	177	-2	141	171	171	-12	-2	458	3	121
64	1988	86	241	115	-15	-12	-11	5	5	333	61	392	26	104
65	1989	83	109	195	213	68	32	348	348	54	239	157	25	157
66	1990	86	196	138	186	170	235	227	227	-8	-22	172	350	163
67	1991	86	270	13	138	-17	-11	45	45	-9	-13	-13	101	53
68	1992	85	161	107	220	105	106	137	137	-9	5	177	19	104
69	1993	85	243	214	-14	-12	43	6	6	271	296	392	26	132
70	1994	87	204	210	-15	-6	5	6	6	103	7	57	24	59
71	1995	83	182	124	192	138	174	318	318	266	83	462	26	197
72	1996	84	52	-30	-64	231	-69	38	38	19	13	-13	77	29
73	1997	85	215	109	-73	-15	-105	121	121	126	-53	-14	69	49
74	1998	125	214	102	129	128	136	364	364	-47	-51	363	465	190
75	1999	87	116	136	-90	-96	114	130	130	85	-35	-14	61	53
76	2000	86	77	152	171	121	169	-30	-30	66	344	116	362	135
77	2001	85	225	180	234	213	-5	7	7	326	-2	453	25	146
78	2002	35	130	124	72	60	27	175	175	346	-48	-14	189	106
79	2003	85	209	210	41	59	180	234	234	263	-13	233	18	147
80	2004	85	228	139	219	135	50	140	140	151	91	273	26	140
81	2005	84	228	124	47	145	233	117	117	277	-18	472	26	155
82	2006	85	226	154	59	187	134	-11	-11	-1	-12	310	147	106
83	2007	85	111	182	156	154	151	4	4	8	28	18	26	77
84	2008	86	211	169	179	188	42	5	5	-4	-55	214	87	94
85	<b>80 WY Average</b>	<b>93</b>	<b>185</b>	<b>136</b>	<b>66</b>	<b>83</b>	<b>77</b>	<b>133</b>	<b>133</b>	<b>110</b>	<b>42</b>	<b>127</b>	<b>148</b>	<b>111</b>
86	<b>Hours</b>	<b>312</b>	<b>321</b>	<b>344</b>	<b>328</b>	<b>288</b>	<b>327</b>	<b>304</b>	<b>328</b>	<b>320</b>	<b>328</b>	<b>328</b>	<b>320</b>	<b>3848</b>

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	<b>Table 8: Federal Hydro Generation Adjustment for</b>													
2	<b>Stand Ready &amp; Deployment Losses, Heavy-Load-Hours for FY 2014</b>													
3														
4	<b>Water Year</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug</b>	<b>Sep</b>	<b>Wtd Avg.</b>
5	1929	-75	-203	-222	-184	-111	-38	-24	-129	-28	-36	-25	-31	-92
6	1930	-78	-200	-194	-10	-53	-9	-31	-195	-27	-314	-146	-26	-107
7	1931	-78	-180	-162	-6	-6	-9	-30	-263	-185	-306	-15	-39	-107
8	1932	-78	-184	-174	-12	-14	-28	-13	21	21	-64	-246	-32	-67
9	1933	-78	-75	-139	-63	-128	-214	-231	-106	-7	45	-46	-28	-89
10	1934	-121	-14	-116	-81	-121	36	-42	15	30	-58	-151	-24	-54
11	1935	-78	-94	-171	-138	-88	-134	-264	-30	-172	38	-462	-42	-137
12	1936	-76	-191	-201	-7	-5	-56	-43	17	32	-84	-135	-43	-66
13	1937	-78	-170	-195	-65	-22	-23	-26	-268	-31	-16	-23	-22	-78
14	1938	-76	-117	-157	-73	-96	-19	-70	-76	-229	-79	-136	-29	-96
15	1939	-77	-199	-160	-193	-169	-60	-176	18	-285	-44	-28	-41	-117
16	1940	-75	-158	-161	-177	-75	-42	-201	-15	27	-337	-29	-33	-107
17	1941	-76	-164	-190	-109	-12	-20	-76	-118	-103	-53	-27	-18	-80
18	1942	-76	-121	-159	-84	-90	-53	-36	-203	30	6	-325	-26	-95
19	1943	-77	-93	-101	-56	-116	-53	-15	4	-86	0	-167	-43	-67
20	1944	-76	-193	-151	-188	-140	-8	-36	-140	-32	-138	-30	-35	-97
21	1945	-77	-202	-90	-9	-28	-12	-34	-240	-128	-32	-140	-38	-86
22	1946	-77	-129	-170	-145	-132	-27	-67	-163	23	-54	-184	-35	-97
23	1947	-73	-121	-167	-103	-160	-141	-254	-23	31	39	-254	-39	-105
24	1948	-341	-169	-129	-47	-71	-111	-137	17	-29	42	-28	-21	-86
25	1949	-76	-172	-170	2	-58	-121	-79	-32	39	-33	-37	-44	-65
26	1950	-78	-144	-181	15	-112	-142	-211	-99	-180	37	-64	-38	-99
27	1951	-70	-165	8	-108	-153	-80	-91	-138	-15	42	-211	-38	-85
28	1952	-140	-158	-114	-58	-44	-86	-251	14	8	-74	-28	-44	-82
29	1953	-78	-196	-197	-105	-86	-139	-225	17	21	-70	-95	-37	-99
30	1954	-77	-198	-96	38	-98	-72	-227	-26	-15	46	-34	-199	-79
31	1955	-76	-156	-96	-147	-116	-9	-81	-182	-35	41	-129	-39	-85
32	1956	-74	-149	-154	-95	-121	-223	-125	-160	-10	42	-80	-37	-99
33	1957	-76	-148	-103	-101	-160	-20	-151	6	19	-70	-225	-40	-89
34	1958	-78	-204	-157	-122	-94	-152	-258	-26	38	-238	-221	-39	-130
35	1959	-78	-169	-147	-93	7	-82	-50	-102	-98	-184	-40	-162	-100
36	1960	-72	-109	-127	-45	-58	-163	-10	12	10	-41	-214	-39	-71
37	1961	-75	-185	-141	31	-126	-110	-155	20	-34	-62	-334	-39	-101
38	1962	-77	-194	-201	-60	-120	-89	-20	20	24	-35	-183	-40	-81
39	1963	-75	-135	12	-107	-113	-189	-200	-210	21	-51	-317	-33	-117
40	1964	-78	-139	-153	-114	-147	-142	-201	-38	-45	42	-39	-16	-89
41	1965	-114	-163	-54	-94	27	5	-270	-160	-193	-174	-44	-43	-107
42	1966	-76	-188	-117	-69	-107	-61	40	27	-29	42	-21	-39	-49
43	1967	-78	-175	-122	41	43	27	-59	-104	-109	-19	-191	-32	-65
44	1968	-77	-180	-119	-87	-67	-227	-185	-273	23	42	-249	-109	-126

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	<b>Table 8: Federal Hydro Generation Adjustment for Stand Ready &amp; Deployment Losses, Heavy-Load-Hours for FY 2014</b>													
2														
3														
4	Water Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Wtd Avg.
45	1969	-98	-178	-160	-87	-124	-182	-97	-23	25	42	-244	-37	-97
46	1970	-77	-197	-217	-125	-139	-149	-210	-109	-24	-199	-104	-47	-133
47	1971	-79	-136	-148	-96	-222	-122	-65	-141	-37	42	-30	-19	-87
48	1972	-76	-176	-106	-112	-85	-47	-6	-157	-44	43	-32	-19	-68
49	1973	-78	-179	-147	-63	-161	-26	-24	-255	-91	-318	-24	-35	-116
50	1974	-78	-69	-161	-79	-4	-20	-130	-116	-144	46	-28	-24	-67
51	1975	-77	-207	-184	-60	-48	-158	-109	-100	1	42	-167	-23	-91
52	1976	-67	-149	-96	-204	-42	-93	-89	-70	38	42	-33	-234	-83
53	1977	-77	-205	-225	-179	-171	-55	-47	-296	-29	-257	-23	-42	-133
54	1978	-77	-79	-135	-148	-143	-38	-80	-109	-137	-158	-86	-165	-112
55	1979	-77	-202	-226	-96	-33	-126	-180	22	-225	-134	-27	-41	-112
56	1980	-78	-199	-152	-175	-139	-49	-162	-45	33	-157	-126	-42	-108
57	1981	-76	-178	-24	30	-114	-169	-190	22	-30	42	-49	-22	-63
58	1982	-78	-186	-97	12	-201	-144	-316	-168	-161	13	-30	-282	-135
59	1983	-66	-195	-89	-95	-208	-307	-266	-37	-276	-47	-74	-25	-140
60	1984	-80	-209	-94	-44	-145	-30	-17	-235	-3	-16	-371	-32	-106
61	1985	-77	-151	-144	-105	-141	-140	-121	20	-157	-45	-19	-41	-93
62	1986	-74	-113	-167	-118	-118	-35	-199	-252	-19	-306	-185	-44	-136
63	1987	-82	-106	-127	-173	-16	-126	-147	18	13	-361	-26	-37	-98
64	1988	-77	-204	-121	-7	-7	-12	-23	-263	-21	-283	-32	-26	-90
65	1989	-76	-99	-185	-185	-62	-59	-231	-33	-209	-145	-32	-40	-113
66	1990	-78	-176	-137	-125	-118	-159	-153	17	19	-105	-222	-38	-107
67	1991	-80	-216	19	-72	44	34	-30	20	22	42	-66	-33	-27
68	1992	-76	-140	-113	-190	-90	-103	-120	25	25	-164	-32	-30	-84
69	1993	-76	-205	-211	-8	-9	-57	-23	-234	-265	-314	-34	-39	-123
70	1994	-82	-173	-199	-10	-11	-26	-25	-66	1	-17	-24	-26	-55
71	1995	-77	-156	-130	-164	-112	-155	-235	-231	-43	-356	-27	-16	-143
72	1996	-76	-21	10	-77	-187	-65	-100	-19	-64	42	-40	-42	-53
73	1997	-77	-182	-105	-61	15	-122	-75	-190	-41	42	-35	-160	-83
74	1998	-64	-183	-104	-126	-107	-120	-282	-42	-30	-259	-337	-46	-142
75	1999	-82	-104	-132	-93	-92	-202	-67	-65	-6	42	-28	-21	-71
76	2000	-77	-41	-108	-134	-103	-150	-39	-47	-274	-75	-277	-40	-114
77	2001	-78	-191	-178	-198	-173	-16	-23	-291	-31	-357	-25	-42	-133
78	2002	-47	-117	-129	-77	-60	-44	-114	-262	-15	42	-109	-36	-81
79	2003	-79	-177	-200	-52	-58	-155	-190	-205	17	-205	-32	-39	-115
80	2004	-75	-192	-136	-188	-115	-62	-122	-104	-47	-234	-29	-36	-112
81	2005	-74	-193	-131	-61	-132	-200	-102	-204	21	-369	-28	-36	-126
82	2006	-78	-192	-150	-60	-119	-119	-61	-3	21	-217	-131	-42	-96
83	2007	-77	-101	-185	-126	-127	-100	20	18	6	6	-27	-39	-60
84	2008	-76	-180	-167	-163	-152	-57	-25	-13	-36	-140	-44	-44	-91
85	80 WY Average	-81	-158	-139	-89	-92	-88	-114	-94	-49	-86	-108	-48	-96
86	Hours	432	400	400	416	384	416	416	416	400	416	416	400	4912

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	<b>Table 9: Federal Hydro Generation Adjustment for</b>													
2	<b>Stand Ready &amp; Deployment Losses, Flat Energy for FY 2014</b>													
3														
4	<b>Water Year</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug</b>	<b>Sep</b>	<b>Wtd Avg.</b>
5	1929	-8	-5	-16	-9	-12	-13	-11	-69	45	-21	-3	-6	-11
6	1930	-9	-7	-12	-12	-8	-12	-12	-103	84	-177	109	63	-8
7	1931	-10	-5	-11	-10	-9	-12	-16	-146	59	-85	178	-23	-8
8	1932	-10	-6	-12	-13	-13	-12	-28	-10	4	-44	-90	148	-8
9	1933	-9	-7	-9	-13	11	-6	-12	68	48	11	-32	22	6
10	1934	-9	10	-106	-75	-106	15	-45	-13	13	-38	-44	66	-27
11	1935	-9	-6	-9	11	-5	-7	-3	139	-71	102	-264	259	11
12	1936	-8	-6	-9	-11	-8	-12	-11	24	14	-53	-17	44	-5
13	1937	-9	-7	-9	-16	-8	-13	-14	-149	149	-8	2	-1	-7
14	1938	-9	-6	-12	-9	-8	-10	12	12	-87	76	-16	52	0
15	1939	-9	-6	-11	-9	-6	-13	-20	95	-162	128	11	-11	0
16	1940	-7	-6	-8	-7	-8	-13	4	117	34	-189	169	-6	7
17	1941	-9	-12	-17	-10	-10	-11	-10	-31	17	39	25	1	-2
18	1942	-9	-7	-17	-8	-8	-12	-10	-102	137	-3	-175	183	-4
19	1943	-9	-6	-10	-10	-5	-9	2	13	-41	27	-100	64	-7
20	1944	-9	-5	-12	-9	-7	-12	-10	-67	49	-78	49	-8	-10
21	1945	-9	-5	-15	-12	-11	-14	-18	-132	81	62	-66	53	-8
22	1946	-9	-6	-12	-10	-7	-12	1	-50	47	-35	-63	107	-5
23	1947	-6	-7	0	-92	0	-11	-4	136	38	16	-148	124	4
24	1948	-3	-12	-13	5	-7	-9	15	107	-22	-5	-22	16	4
25	1949	-8	-13	-8	14	-10	-10	16	46	0	-26	-10	-13	-2
26	1950	-10	-6	-17	-1	-7	-5	4	76	-43	72	-44	27	4
27	1951	-7	-12	-6	-97	-87	-81	-40	-64	17	47	-124	123	-28
28	1952	-6	-6	-8	18	-7	10	-36	121	0	-30	41	9	9
29	1953	-10	-7	-12	-7	-8	-8	-16	128	10	-48	-4	46	5
30	1954	-9	-5	-7	16	5	5	-13	109	12	7	-27	-80	1
31	1955	-9	-4	-7	-10	-6	-13	-10	-64	93	-1	-83	68	-4
32	1956	-8	-4	-20	-93	-108	-3	-9	-23	31	7	-51	37	-20
33	1957	-9	-6	-6	-15	-6	-13	6	100	0	-48	-78	104	2
34	1958	-10	-6	-12	-11	-12	-15	0	141	0	-141	24	101	5
35	1959	-10	-6	0	-92	-15	15	9	-17	4	-50	95	-57	-10
36	1960	19	11	9	16	-7	-8	-21	-9	7	-13	-89	96	1
37	1961	-8	-6	-8	12	-6	2	13	118	-23	-58	-144	181	6
38	1962	-8	-6	-12	-13	-7	-12	-33	-12	9	-28	-91	75	-12
39	1963	-8	-5	10	-14	-8	-9	-12	-10	135	-34	-140	173	6
40	1964	-10	-6	-10	-7	-8	-9	-17	83	2	0	-28	24	1
41	1965	-14	-4	-50	-93	8	8	6	79	-66	-14	88	11	-3
42	1966	-9	-7	-7	-12	-5	-11	17	8	-17	53	-18	2	0
43	1967	-9	-12	-8	17	19	11	-13	-36	-9	18	-92	114	0
44	1968	-9	-6	-9	16	-5	-6	-21	-63	163	18	-146	107	3

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	<b>Table 9: Federal Hydro Generation Adjustment for</b>													
2	<b>Stand Ready &amp; Deployment Losses, Flat Energy for FY 2014</b>													
3														
4	<b>Water Year</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug</b>	<b>Sep</b>	<b>Wtd Avg.</b>
45	1969	-7	-11	-1	-89	-109	-6	-48	-4	32	18	-143	145	-18
46	1970	-9	-6	-17	-12	-6	-8	-11	55	56	-136	40	25	-2
47	1971	-10	-7	-11	-94	-107	7	16	-23	18	-1	-23	18	-18
48	1972	-9	-6	-7	-99	-88	-54	7	-76	52	2	-24	18	-24
49	1973	-10	-11	-8	-7	-6	-14	-11	-139	100	-116	161	-8	-6
50	1974	-10	-8	-18	-73	-8	-25	-35	-23	-19	61	-23	14	-14
51	1975	-9	-6	-12	-6	-7	-9	-12	-3	58	13	-100	105	1
52	1976	-9	-2	-91	-79	-55	5	-40	-28	60	17	-25	-100	-29
53	1977	-9	-5	-17	-8	-6	-13	-10	-147	140	-146	122	-19	-10
54	1978	-10	-8	-12	-11	-5	-12	15	3	-23	-30	57	-51	-7
55	1979	-6	-7	-15	-10	-9	-8	-20	100	-129	34	46	-15	-3
56	1980	-10	-6	-11	-9	-4	-14	2	75	-5	-94	5	39	-3
57	1981	-8	-6	7	2	-8	-9	-11	115	-21	0	-34	28	5
58	1982	-9	-7	-7	-12	-110	-136	-10	86	-53	51	-10	-129	-28
59	1983	-8	-6	-9	-94	-65	-145	12	152	-122	124	-7	40	-10
60	1984	-11	1	-9	-17	-12	-12	-33	-157	148	-23	-195	207	-10
61	1985	-9	-12	-8	-7	-6	-10	-11	72	-91	70	1	-25	-3
62	1986	-7	-7	-9	-6	-44	-45	-19	-41	137	-146	82	74	-3
63	1987	-11	-6	-9	-19	-10	-8	-13	86	2	-203	187	-19	-2
64	1988	-9	-6	-12	-11	-9	-12	-11	-145	136	-131	155	-3	-5
65	1989	-9	-6	-9	-9	-6	-19	13	135	-92	24	52	-11	6
66	1990	-10	-10	-10	12	5	14	8	110	7	-69	-49	134	12
67	1991	-11	1	17	21	18	14	2	31	8	18	-43	27	8
68	1992	-9	-6	-11	-9	-6	-11	-11	74	10	-90	60	-9	-1
69	1993	-8	-5	-14	-11	-10	-13	-11	-129	-27	-45	154	-10	-11
70	1994	-11	-5	-10	-12	-9	-12	-12	-34	47	-6	12	-4	-5
71	1995	-10	-6	-12	-7	-5	-10	-1	11	94	-162	188	2	7
72	1996	-9	11	-9	-71	-8	-67	-41	6	-27	29	-28	11	-17
73	1997	-9	-6	-6	-66	2	-115	8	-52	33	0	-26	-58	-25
74	1998	15	-6	-9	-14	-6	-7	-9	137	-38	-167	-28	181	4
75	1999	-11	-6	-8	-92	-94	-63	16	21	34	8	-22	16	-16
76	2000	-9	12	12	1	-7	-10	-35	-40	-123	110	-104	139	-4
77	2001	-9	-6	-12	-8	-7	-11	-10	-159	128	-201	186	-12	-11
78	2002	-13	-7	-12	-11	-8	-13	8	-69	145	2	-67	64	1
79	2003	-10	-5	-11	-11	-8	-8	-11	-11	126	-120	85	-14	0
80	2004	-8	-5	-9	-9	-8	-13	-11	3	41	-91	104	-8	-1
81	2005	-8	-6	-13	-13	-13	-10	-10	-62	135	-214	193	-8	-3
82	2006	-10	-5	-9	-7	12	-7	-40	-6	11	-127	64	42	-7
83	2007	-9	-6	-15	-2	-7	10	13	12	7	16	-7	-10	0
84	2008	-8	-6	-12	-12	-7	-13	-12	-5	-21	-103	69	14	-10
85	<b>80 WY Average</b>	<b>-8</b>	<b>-6</b>	<b>-12</b>	<b>-21</b>	<b>-17</b>	<b>-16</b>	<b>-9</b>	<b>6</b>	<b>22</b>	<b>-30</b>	<b>-4</b>	<b>39</b>	<b>-5</b>
86	<b>Hours</b>	<b>744</b>	<b>721</b>	<b>744</b>	<b>744</b>	<b>672</b>	<b>743</b>	<b>720</b>	<b>744</b>	<b>720</b>	<b>744</b>	<b>744</b>	<b>720</b>	<b>8760</b>

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	<b>Table 10: Federal Hydro Generation Adjustment for</b>													
2	<b>Stand Ready &amp; Deployment Losses, Light-Load-Hours for FY 2015</b>													
3														
4	<b>Water Year</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug</b>	<b>Sep</b>	<b>Wtd Avg.</b>
5	1929	22	14	87	218	232	218	204	26	17	17	9	-4	86
6	1930	149	9	87	217	218	85	93	11	45	45	182	-1	94
7	1931	-3	33	87	210	219	-18	-15	-14	2	2	349	16	72
8	1932	321	3	87	198	203	-17	-15	-5	112	112	-19	-19	78
9	1933	73	10	87	71	146	67	66	224	263	263	128	-34	113
10	1934	154	11	113	49	-94	-72	-89	-12	-29	-29	-9	-15	-1
11	1935	548	8	88	73	120	195	117	229	155	155	55	232	163
12	1936	132	8	87	230	235	81	25	51	77	77	-8	-13	80
13	1937	22	10	88	210	233	140	-4	8	1	1	286	-2	82
14	1938	134	11	87	154	120	70	145	7	161	161	99	288	118
15	1939	22	11	87	214	174	170	224	52	180	180	-8	11	108
16	1940	23	17	87	211	154	148	38	146	202	202	329	182	146
17	1941	22	2	87	185	124	131	104	47	79	79	207	-2	89
18	1942	383	-1	86	181	156	141	186	189	-1	-1	327	337	165
19	1943	171	17	86	87	138	79	154	35	50	50	32	73	79
20	1944	23	19	87	190	154	232	216	4	6	6	60	1	82
21	1945	144	31	87	228	159	-17	22	9	0	0	323	223	100
22	1946	245	25	87	131	144	162	189	5	114	114	89	-13	106
23	1947	283	10	86	140	51	-11	134	226	303	303	51	-15	130
24	1948	53	-7	450	203	229	84	56	165	240	240	-9	-67	136
25	1949	23	16	86	167	173	150	84	127	331	331	30	-16	124
26	1950	94	7	87	148	159	-31	182	123	350	350	139	113	142
27	1951	281	8	82	198	-52	-87	-93	-49	53	53	74	307	65
28	1952	66	19	149	185	215	127	122	175	135	135	-32	-16	106
29	1953	130	10	87	204	224	187	101	201	223	223	9	-21	130
30	1954	58	269	87	216	175	-6	129	155	274	274	62	-42	137
31	1955	174	8	87	203	173	180	210	174	146	146	314	-59	146
32	1956	113	4	86	193	31	-110	-80	270	173	173	94	-40	77
33	1957	245	13	85	152	138	181	203	1	371	371	-16	-21	141
34	1958	238	10	87	221	186	143	130	148	352	352	-48	-21	148
35	1959	64	225	87	169	240	-95	-66	282	104	104	143	134	117
36	1960	229	9	119	169	90	102	74	174	-33	-33	24	43	81
37	1961	394	9	87	188	137	-13	146	139	359	359	7	-55	144
38	1962	188	8	87	208	232	56	146	68	-55	-55	-8	-20	69
39	1963	371	17	86	183	124	-14	122	156	114	114	306	172	145
40	1964	65	3	87	143	162	140	209	120	240	240	93	-56	119
41	1965	68	17	94	195	77	-154	116	235	317	317	101	176	130
42	1966	46	31	87	220	145	77	142	132	-15	-15	158	86	91
43	1967	256	15	87	171	125	-20	-16	-16	39	39	124	82	73
44	1968	325	98	87	191	115	136	134	48	178	178	290	-12	147

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	<b>Table 10: Federal Hydro Generation Adjustment for</b>													
2	<b>Stand Ready &amp; Deployment Losses, Light-Load-Hours for FY 2015</b>													
3														
4	<b>Water Year</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug</b>	<b>Sep</b>	<b>Wtd Avg.</b>
45	1969	322	25	88	217	13	-95	-91	261	51	51	58	-15	75
46	1970	100	19	87	230	230	139	75	199	165	165	312	-32	140
47	1971	55	0	87	136	171	-82	-83	186	127	127	98	-58	64
48	1972	57	-8	86	185	99	-87	-96	-65	53	53	151	-44	32
49	1973	22	20	87	180	143	47	167	49	6	6	336	-1	88
50	1974	53	-1	88	71	110	-71	-5	-41	117	117	112	95	53
51	1975	230	6	83	222	209	80	72	160	96	96	134	-15	113
52	1976	58	322	78	199	-92	89	-72	207	48	48	101	52	91
53	1977	8	8	87	236	230	223	210	134	16	16	382	-3	129
54	1978	80	175	72	111	154	143	177	28	163	163	135	118	126
55	1979	15	9	87	235	213	112	141	138	174	174	57	39	115
56	1980	121	33	87	235	155	198	185	52	234	234	-52	-17	120
57	1981	77	8	87	188	16	-23	117	266	27	27	183	-56	78
58	1982	54	326	87	221	160	-44	78	-163	299	299	101	120	127
59	1983	106	7	78	211	120	-96	120	68	320	320	148	313	141
60	1984	438	3	88	276	125	38	106	17	-10	-10	323	21	117
61	1985	-4	54	86	143	139	128	198	144	97	97	1	351	119
62	1986	192	17	82	128	175	187	55	-61	262	262	315	67	138
63	1987	3	27	87	101	124	131	222	134	146	146	23	8	95
64	1988	23	12	88	225	130	51	-15	32	5	5	309	19	74
65	1989	22	8	88	130	140	213	27	29	356	356	74	239	139
66	1990	302	9	87	214	180	178	203	320	340	340	-8	-35	176
67	1991	87	0	87	245	184	166	-11	-13	111	111	11	-19	79
68	1992	16	14	87	141	151	163	206	196	11	11	337	30	114
69	1993	23	6	87	233	200	-11	-8	50	28	28	298	330	105
70	1994	21	12	87	203	203	80	208	11	5	5	103	54	81
71	1995	22	-3	88	169	220	185	156	251	-12	-12	93	166	110
72	1996	66	8	106	60	-20	-76	-22	-74	56	56	46	-14	16
73	1997	59	166	87	195	154	-77	-12	-111	159	159	136	-56	71
74	1998	401	11	474	232	203	90	173	131	297	297	-44	-37	184
75	1999	53	-7	87	87	128	-94	-100	112	310	310	94	-37	78
76	2000	313	8	87	121	124	158	132	158	5	5	232	257	133
77	2001	21	9	88	203	185	241	223	35	5	5	269	-4	106
78	2002	163	26	66	138	212	187	135	57	350	350	328	-56	161
79	2003	16	8	87	208	233	181	82	173	208	208	253	-20	136
80	2004	23	8	86	213	241	193	44	89	89	89	290	333	141
81	2005	23	21	87	207	231	60	74	227	91	91	266	-5	115
82	2006	127	12	87	204	154	71	191	149	37	37	15	-20	88
83	2007	23	8	77	143	162	169	162	189	22	22	45	62	90
84	2008	75	9	87	182	193	188	228	49	3	3	45	-59	82
85	<b>80 WY Average</b>	<b>128</b>	<b>30</b>	<b>97</b>	<b>180</b>	<b>151</b>	<b>77</b>	<b>94</b>	<b>98</b>	<b>131</b>	<b>131</b>	<b>131</b>	<b>50</b>	<b>107</b>
86	<b>Hours</b>	<b>312</b>	<b>337</b>	<b>328</b>	<b>328</b>	<b>288</b>	<b>327</b>	<b>304</b>	<b>344</b>	<b>304</b>	<b>328</b>	<b>328</b>	<b>320</b>	<b>3848</b>

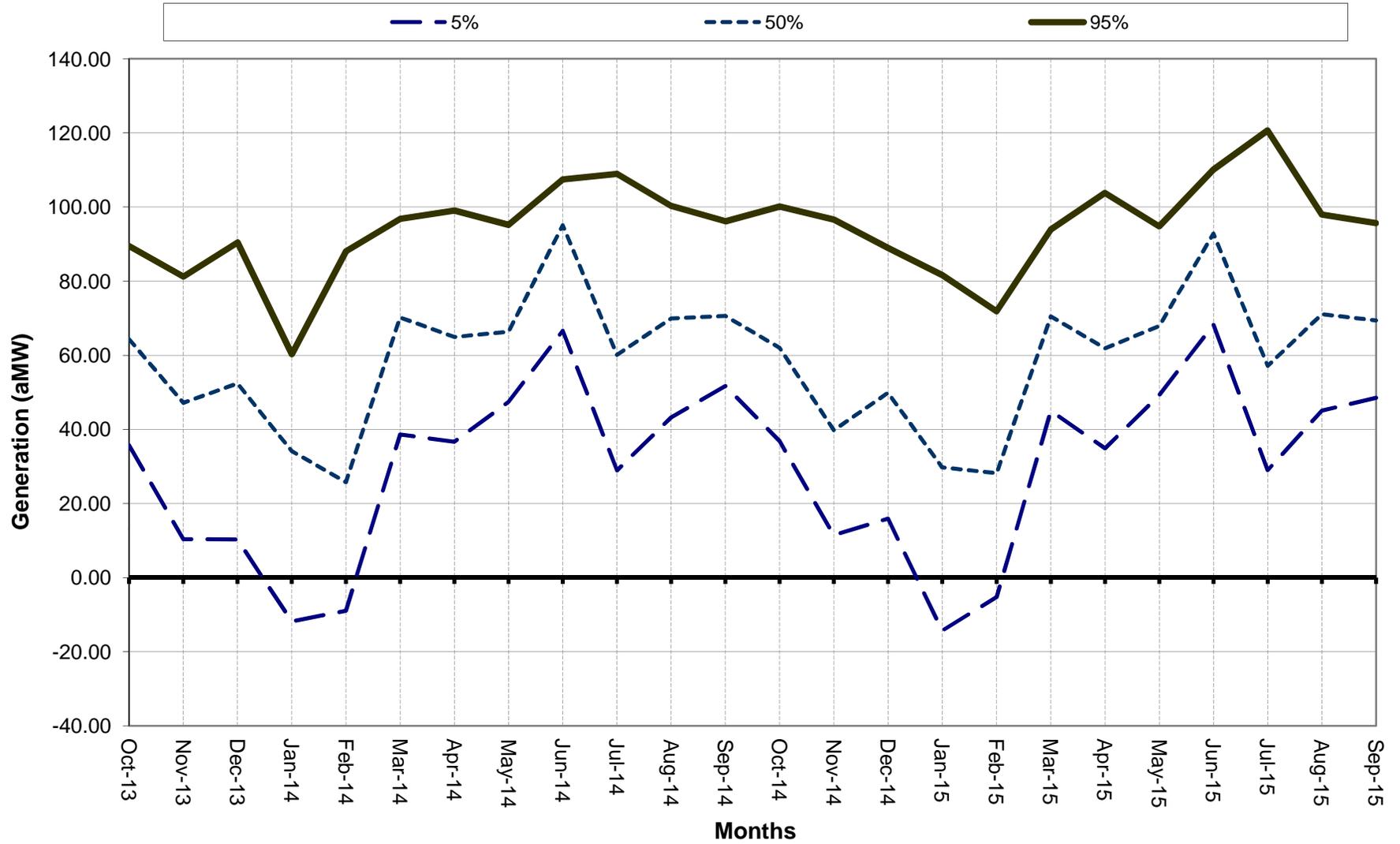
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	<b>Table 11: Federal Hydro Generation Adjustment for</b>													
2	<b>Stand Ready &amp; Deployment Losses, Heavy-Load-Hours for FY 2015</b>													
3														
4	<b>Water Year</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug</b>	<b>Sep</b>	<b>Wtd Avg.</b>
5	1929	-81	-208	-210	-190	-167	-44	-33	-33	-28	-30	-46	-28	-91
6	1930	-79	-202	-192	-85	-89	-37	-55	-55	-171	-31	-310	-132	-120
7	1931	-81	-195	-192	-14	-7	-11	-28	-28	-276	-41	-264	-16	-97
8	1932	-81	-190	-182	-13	-12	-19	-85	-85	20	20	-33	-190	-70
9	1933	-80	-80	-125	-75	-21	-189	-216	-216	-125	-7	46	-60	-96
10	1934	-93	-22	-103	-86	-125	38	-52	-52	16	30	-94	-56	-50
11	1935	-78	-82	-112	-126	-96	-165	-140	-140	-29	-196	42	-130	-104
12	1936	-81	-216	-202	-84	-36	-62	-77	-77	19	31	-19	-124	-77
13	1937	-80	-195	-200	-127	-15	-29	-28	-28	-257	-28	-240	-59	-108
14	1938	-79	-151	-109	-72	-136	-29	-101	-101	-103	-213	-256	-45	-116
15	1939	-80	-204	-157	-153	-179	-61	-162	-162	20	-37	-335	-26	-127
16	1940	-77	-196	-133	-131	-46	-135	-175	-175	-261	-158	-33	-28	-129
17	1941	-80	-179	-112	-124	-99	-62	-77	-77	-176	-25	-157	-31	-99
18	1942	-79	-173	-149	-130	-152	-165	-21	-21	-261	-258	-11	-300	-143
19	1943	-78	-93	-129	-77	-124	-45	-37	-37	-9	-90	0	-169	-73
20	1944	-83	-183	-142	-202	-174	-26	-26	-26	-73	-34	-51	-26	-86
21	1945	-81	-214	-145	-10	-36	-27	-30	-30	-250	-149	-38	-123	-94
22	1946	-81	-132	-130	-152	-153	-26	-71	-71	-186	23	-60	-155	-99
23	1947	-75	-139	-31	19	-100	-150	-229	-229	-27	30	42	-320	-99
24	1948	-337	-200	-178	-60	-54	-147	-152	-152	12	-29	42	-39	-108
25	1949	-81	-175	-152	-87	-82	-116	-218	-218	-112	35	-37	-34	-106
26	1950	-81	-145	-145	6	-127	-113	-243	-243	-130	-166	-50	-98	-127
27	1951	-76	-196	-18	-108	-87	-4	-113	-113	-162	-227	42	-123	-98
28	1952	-120	-175	-175	-66	-90	-168	-163	-163	-13	38	-205	-276	-131
29	1953	-82	-196	-205	-166	-102	-177	-193	-193	5	20	-67	-322	-139
30	1954	-82	-204	-150	32	-86	-98	-225	-225	-41	-43	32	-42	-94
31	1955	-80	-189	-149	-160	-170	-151	-132	-132	-248	-35	48	-223	-134
32	1956	-80	-179	-110	-129	-96	-225	-145	-145	-183	-9	42	-88	-112
33	1957	-81	-150	-119	-166	-164	-22	-246	-246	8	19	-8	-412	-131
34	1958	-81	-209	-167	-120	-111	-130	-256	-256	-28	38	-306	-158	-148
35	1959	-79	-164	-193	-96	-28	-229	-64	-64	-119	-101	-216	-51	-118
36	1960	-52	-127	-58	-52	-68	-151	-1	-1	-5	-3	3	-271	-65
37	1961	-80	-181	-126	32	-122	-98	-253	-253	8	-33	30	-82	-95
38	1962	-81	-199	-200	-63	-125	-77	-21	-21	21	23	-33	-175	-78
39	1963	-78	-173	-73	35	-103	-139	-107	-107	-264	-156	-53	-322	-128
40	1964	-81	-143	-142	-124	-171	-112	-207	-207	-81	-44	42	-52	-109
41	1965	-80	-182	-200	-196	-74	-159	-232	-232	-196	-172	-93	-58	-156
42	1966	-80	-207	-125	-78	-114	-122	40	40	-119	-39	42	-89	-70
43	1967	-79	-179	-113	40	47	28	-54	-54	-119	-115	38	-200	-63
44	1968	-82	-184	-108	-73	-113	-30	-169	-169	-258	24	42	-234	-112

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	<b>Table 11: Federal Hydro Generation Adjustment for</b>													
2	<b>Stand Ready &amp; Deployment Losses, Heavy-Load-Hours for FY 2015</b>													
3														
4	<b>Water Year</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug</b>	<b>Sep</b>	<b>Wtd Avg.</b>
45	1969	-76	-211	16	-89	-122	-213	-123	-123	-39	24	42	-215	-93
46	1970	-80	-215	-199	-139	-63	-176	-146	-146	-253	-42	-363	-29	-155
47	1971	-81	-136	-156	-103	-95	-130	-66	-66	-164	-36	42	-43	-86
48	1972	-83	-179	-97	-116	-88	-51	-27	-27	-154	-50	47	-45	-72
49	1973	-83	-185	-128	-58	-150	-63	-26	-26	-274	-27	-291	-28	-111
50	1974	-81	-87	-99	-84	-4	-5	-149	-149	-103	-146	47	-41	-75
51	1975	-81	-211	-184	-75	-60	-142	-92	-92	-129	-1	42	-240	-104
52	1976	-72	-179	-95	-217	-39	-146	-110	-110	-87	-11	42	-44	-89
53	1977	-80	-222	-212	-192	-172	-120	-31	-31	-344	-29	-379	-20	-153
54	1978	-72	-115	-136	-139	-144	-44	-93	-93	-129	-117	-83	-77	-103
55	1979	-78	-220	-186	-109	-133	-123	-162	-162	-33	-58	-38	-26	-110
56	1980	-81	-219	-141	-188	-151	-65	-171	-171	-47	30	-194	-61	-121
57	1981	-80	-182	5	37	-84	-215	-43	-43	-173	-29	42	-55	-68
58	1982	-80	-208	-140	11	-249	-201	-228	-228	-197	-169	-222	-42	-162
59	1983	-76	-200	-118	-98	-214	-313	-235	-235	-97	-234	42	-42	-151
60	1984	-85	-240	-106	-52	-94	-35	-65	-65	-248	-35	-14	-133	-97
61	1985	-76	-154	-127	-116	-159	-132	-93	-93	14	-255	-46	-26	-105
62	1986	-76	-127	-156	-167	-120	-39	-211	-211	-261	-24	-298	-173	-155
63	1987	-77	-106	-112	-119	-180	-121	-132	-132	-4	1	-259	-28	-105
64	1988	-81	-211	-122	-65	-8	-47	-25	-25	-271	-44	-187	-132	-102
65	1989	-81	-131	-126	-186	-37	-48	-233	-233	-56	-190	-35	-28	-116
66	1990	-83	-202	-156	-126	-136	-260	-235	-235	18	1	-188	-135	-144
67	1991	-78	-216	-128	-94	33	34	-66	-66	4	21	42	-74	-48
68	1992	-82	-140	-141	-147	-171	-172	-31	-31	-307	-53	-197	-30	-125
69	1993	-79	-219	-176	-18	-12	-60	-41	-41	-271	-252	-161	-29	-114
70	1994	-81	-190	-180	-88	-168	-32	-26	-26	-65	-21	-394	-27	-108
71	1995	-81	-176	-190	-164	-131	-173	-15	-15	-102	-107	32	-38	-96
72	1996	-87	-31	23	-82	23	-61	-115	-115	-45	-55	42	-51	-47
73	1997	-82	-187	-134	-72	17	-127	-93	-93	-212	-40	42	-42	-85
74	1998	-351	-215	-182	-87	-141	-116	-235	-235	-42	12	-212	-129	-161
75	1999	-75	-94	-115	-96	-93	-213	-203	-203	-80	-8	42	-40	-98
76	2000	-80	-84	-83	-120	-112	-141	-75	-75	-172	-178	16	-257	-113
77	2001	-84	-195	-167	-206	-181	-49	-26	-26	-262	-32	-274	-27	-127
78	2002	-61	-137	-184	-163	-117	-68	-255	-255	-267	-27	42	-379	-155
79	2003	-81	-193	-202	-160	-79	-151	-173	-173	-213	20	-38	-34	-123
80	2004	-78	-201	-191	-183	-51	-85	-87	-87	-248	-242	-48	-36	-128
81	2005	-80	-198	-180	-62	-68	-209	-86	-86	-227	16	-255	-33	-122
82	2006	-78	-195	-137	-68	-123	-132	-110	-110	-15	19	-284	-175	-117
83	2007	-71	-142	-147	-120	-133	-138	4	4	-20	-19	-1	-31	-67
84	2008	-80	-176	-168	-178	-186	-62	-27	-27	-41	-34	-132	-376	-122
85	<b>80 WY Average</b>	<b>-86</b>	<b>-172</b>	<b>-139</b>	<b>-99</b>	<b>-100</b>	<b>-104</b>	<b>-114</b>	<b>-114</b>	<b>-122</b>	<b>-57</b>	<b>-81</b>	<b>-111</b>	<b>-108</b>
86	<b>Hours</b>	<b>432</b>	<b>384</b>	<b>416</b>	<b>416</b>	<b>384</b>	<b>416</b>	<b>416</b>	<b>400</b>	<b>416</b>	<b>416</b>	<b>416</b>	<b>400</b>	<b>4912</b>

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	<b>Table 12: Federal Hydro Generation Adjustment for</b>													
2	<b>Stand Ready &amp; Deployment Losses, Flat Energy for FY 2015</b>													
3														
4	<b>Water Year</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug</b>	<b>Sep</b>	<b>Wtd Avg.</b>
5	1929	-38	-104	-79	-10	4	71	67	-6	-9	-9	-22	-17	-13
6	1930	17	-103	-69	49	43	16	7	-24	-80	2	-93	-74	-26
7	1931	-49	-88	-69	85	90	-14	-22	-21	-159	-22	6	-2	-23
8	1932	88	-99	-63	80	80	-18	-56	-48	59	61	-27	-114	-5
9	1933	-16	-38	-32	-11	51	-76	-97	-13	39	112	82	-49	-4
10	1934	11	-6	-8	-27	-112	-11	-67	-33	-3	4	-57	-38	-28
11	1935	184	-40	-24	-38	-3	-7	-32	31	48	-41	48	31	13
12	1936	9	-111	-75	54	80	1	-34	-18	44	51	-14	-75	-8
13	1937	-37	-99	-73	22	91	45	-18	-12	-148	-15	-8	-34	-24
14	1938	10	-75	-23	28	-26	15	3	-51	8	-48	-100	103	-13
15	1939	-37	-104	-49	9	-28	41	1	-63	88	59	-191	-10	-24
16	1940	-35	-96	-36	20	40	-10	-85	-26	-65	1	126	65	-8
17	1941	-37	-94	-24	12	-3	23	-1	-20	-68	21	3	-18	-17
18	1942	115	-92	-46	7	-20	-30	66	76	-151	-145	138	-17	-8
19	1943	26	-42	-34	-5	-12	10	44	-4	16	-28	14	-61	-6
20	1944	-39	-88	-41	-29	-33	87	76	-12	-40	-16	-2	-14	-12
21	1945	13	-100	-43	95	47	-23	-8	-12	-144	-83	121	31	-9
22	1946	56	-58	-34	-27	-25	57	39	-36	-59	63	6	-92	-9
23	1947	75	-69	21	72	-35	-89	-76	-19	112	150	46	-184	1
24	1948	-173	-110	99	56	67	-45	-64	-5	109	90	19	-51	-1
25	1949	-37	-86	-47	25	27	1	-90	-58	75	165	-7	-26	-5
26	1950	-8	-74	-43	69	-4	-77	-63	-73	73	61	34	-4	-9
27	1951	74	-101	26	27	-72	-41	-105	-83	-71	-103	56	68	-27
28	1952	-42	-84	-32	45	41	-38	-43	-7	49	81	-129	-160	-27
29	1953	7	-100	-76	-3	38	-17	-69	-11	97	109	-33	-188	-21
30	1954	-23	17	-45	113	26	-57	-76	-50	92	97	45	-42	8
31	1955	26	-97	-45	0	-23	-5	12	9	-81	45	165	-150	-11
32	1956	1	-94	-23	13	-41	-174	-118	47	-32	71	65	-67	-29
33	1957	56	-74	-29	-26	-35	67	-56	-132	161	174	-11	-239	-11
34	1958	53	-106	-55	30	16	-10	-93	-69	133	176	-192	-97	-18
35	1959	-19	17	-70	20	87	-170	-65	96	-25	-11	-58	31	-15
36	1960	66	-63	20	45	-1	-39	31	80	-17	-16	13	-132	-1
37	1961	119	-92	-32	100	-11	-60	-84	-72	156	140	20	-70	10
38	1962	32	-103	-74	57	28	-18	50	20	-11	-11	-22	-106	-13
39	1963	110	-84	-3	101	-6	-84	-11	15	-104	-37	105	-103	-8
40	1964	-20	-75	-41	-7	-28	-2	-31	-56	54	82	64	-54	-9
41	1965	-18	-89	-70	-24	-9	-157	-85	-16	20	44	-8	46	-31
42	1966	-27	-96	-32	54	-3	-34	83	83	-75	-29	93	-11	1
43	1967	61	-88	-25	98	80	7	-38	-36	-52	-47	76	-75	-3
44	1968	89	-53	-22	44	-15	43	-41	-68	-74	92	151	-136	2

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	<b>Table 12: Federal Hydro Generation Adjustment for</b>													
2	<b>Stand Ready &amp; Deployment Losses, Flat Energy for FY 2015</b>													
3														
4	<b>Water Year</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug</b>	<b>Sep</b>	<b>Wtd Avg.</b>
45	1969	91	-101	48	46	-64	-161	-109	55	-1	36	49	-126	-19
46	1970	-5	-106	-73	24	62	-37	-53	13	-76	50	-66	-30	-25
47	1971	-24	-73	-49	2	19	-109	-73	50	-41	36	67	-50	-20
48	1972	-25	-99	-16	17	-8	-67	-56	-45	-66	-4	92	-45	-26
49	1973	-39	-89	-33	47	-24	-15	55	9	-156	-13	-15	-16	-24
50	1974	-25	-46	-17	-15	45	-34	-88	-99	-10	-30	75	19	-19
51	1975	50	-110	-66	56	56	-44	-23	24	-34	42	83	-140	-9
52	1976	-17	55	-19	-34	-62	-43	-94	37	-30	15	68	-1	-10
53	1977	-43	-115	-80	-3	0	31	71	46	-192	-10	-44	-13	-29
54	1978	-8	21	-44	-29	-16	39	21	-37	-6	6	13	10	-3
55	1979	-39	-113	-66	42	15	-20	-34	-23	54	45	4	3	-11
56	1980	4	-101	-41	-2	-20	51	-20	-68	71	120	-131	-42	-15
57	1981	-14	-93	41	104	-42	-131	25	100	-89	-5	104	-56	-4
58	1982	-24	41	-40	104	-74	-132	-99	-198	13	37	-80	30	-35
59	1983	0	-103	-31	38	-71	-217	-85	-95	80	10	88	116	-22
60	1984	134	-126	-21	93	0	-3	7	-27	-147	-24	134	-65	-3
61	1985	-45	-57	-33	-2	-31	-17	30	17	49	-100	-25	142	-6
62	1986	37	-59	-51	-37	6	61	-99	-142	-40	102	-28	-66	-26
63	1987	-44	-44	-24	-22	-50	-10	18	-9	59	65	-135	-12	-17
64	1988	-37	-107	-29	63	51	-4	-21	1	-155	-22	32	-65	-24
65	1989	-38	-66	-32	-47	39	66	-123	-112	118	51	13	90	-4
66	1990	78	-103	-49	24	-1	-67	-50	22	154	150	-109	-91	-3
67	1991	-9	-115	-33	55	98	92	-43	-42	49	61	28	-50	7
68	1992	-41	-68	-40	-20	-33	-25	69	74	-173	-25	38	-3	-20
69	1993	-36	-114	-60	93	79	-39	-27	1	-145	-129	41	130	-18
70	1994	-38	-95	-63	40	-9	17	72	-9	-35	-10	-175	9	-25
71	1995	-37	-95	-68	-17	20	-15	57	108	-64	-65	59	53	-5
72	1996	-23	-13	59	-19	5	-68	-76	-96	-2	-6	44	-34	-19
73	1997	-23	-22	-37	46	76	-105	-59	-101	-55	48	83	-48	-17
74	1998	-36	-110	107	54	7	-25	-63	-66	101	138	-138	-88	-10
75	1999	12	-76	-35	27	8	-25	-30	-13	-13	28	17	-50	-12
76	2000	85	-41	-8	-14	-11	-10	12	33	-97	-97	111	-29	-5
77	2001	382	362	377	377	343	377	369	374	369	377	377	364	371
78	2002	33	-61	-74	-31	24	44	-90	-111	-7	139	168	-235	-16
79	2003	0	0	0	0	0	0	0	0	0	0	0	0	0
80	2004	-36	-104	-69	-8	74	38	-32	-6	-106	-96	101	128	-10
81	2005	0	0	0	0	0	0	0	0	0	0	0	0	0
82	2006	8	-98	-38	52	-4	-42	17	10	7	27	-152	-106	-27
83	2007	0	0	0	0	0	0	0	0	0	0	0	0	0
84	2008	-15	-90	-55	-19	-24	48	81	8	-22	-18	-54	-235	-33
85	<b>80 WY Average</b>	<b>10</b>	<b>-68</b>	<b>-27</b>	<b>29</b>	<b>11</b>	<b>-18</b>	<b>-21</b>	<b>-13</b>	<b>-8</b>	<b>28</b>	<b>16</b>	<b>-34</b>	<b>-8</b>
86	<b>Hours</b>	<b>744</b>	<b>721</b>	<b>744</b>	<b>744</b>	<b>672</b>	<b>743</b>	<b>720</b>	<b>744</b>	<b>720</b>	<b>744</b>	<b>744</b>	<b>720</b>	<b>8760</b>

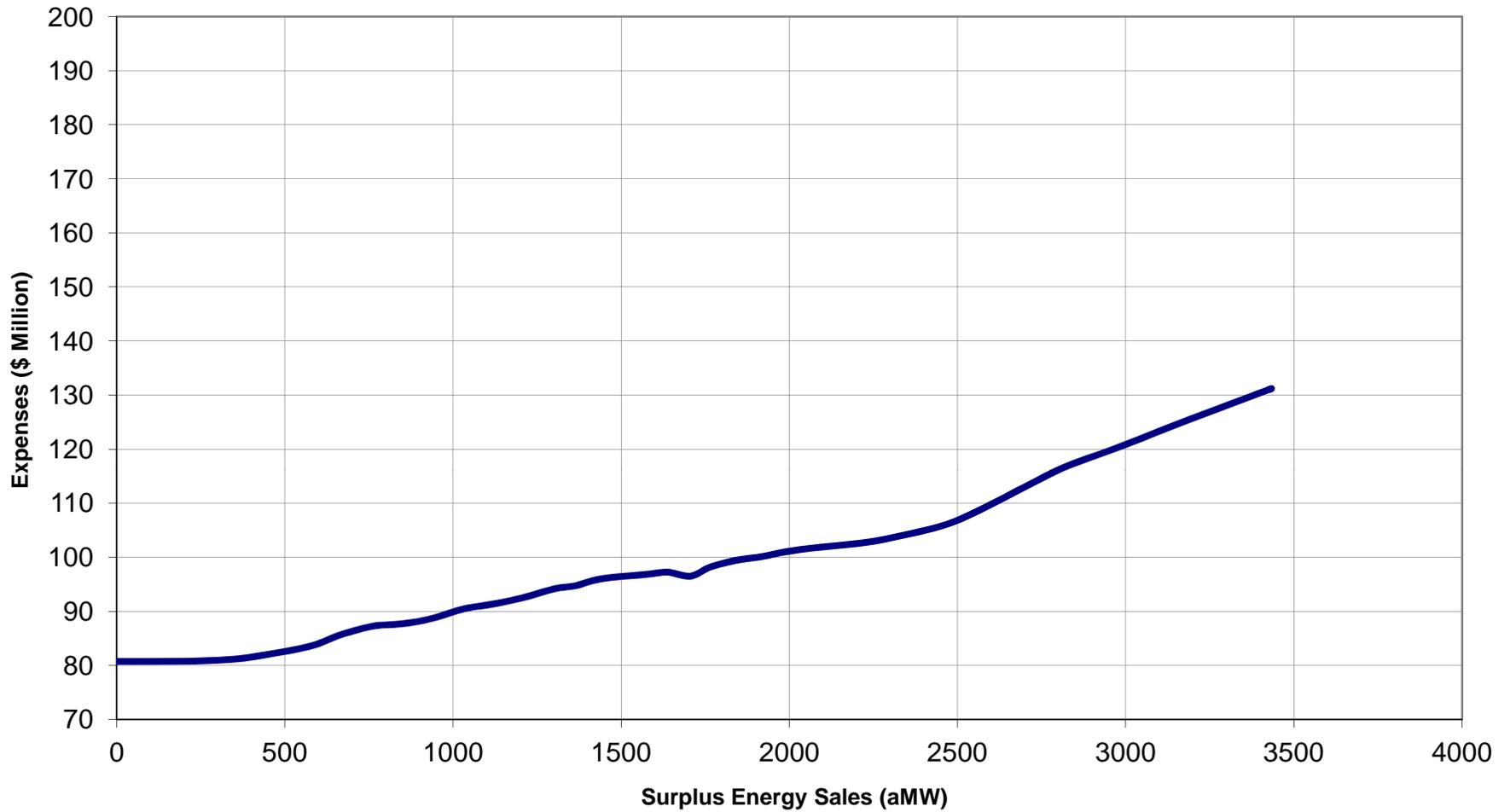
**Figure 7: Simulated Total PS Wind Generation for FY 2014-2015**



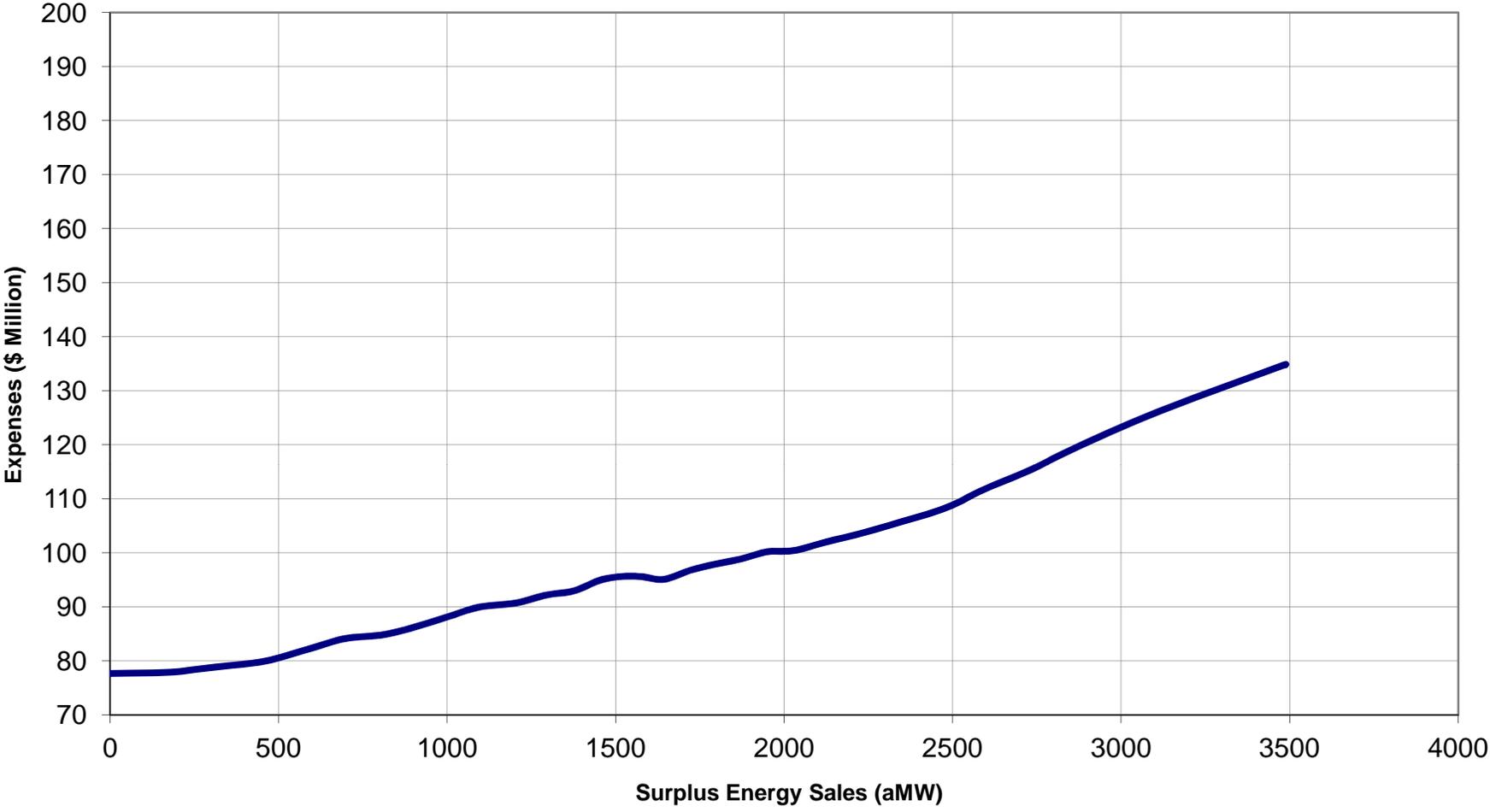
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	<b>Table 13: Value of PS Wind Generation at Expected Wind Generation for FY 2014</b>													
2														
3														
4														
5		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Annual
6	Expected Generation (aMW)	62	46	51	34	30	69	66	68	91	62	71	71	60
7	Contract Prices (\$/MWh)	\$ 31.67	\$ 50.75	\$ 43.72	\$ 70.62	\$ 66.28	\$ 40.31	\$ 34.27	\$ 31.05	\$ 23.09	\$ 27.74	\$ 24.81	\$ 23.53	\$ 38.83
8														
9	<b>Power Purchase Costs for Expected Wind Generation (\$1,000)</b>													
10														
11		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Annual
12	Expected Wind Generation Cost (\$000)	\$ 1,974	\$ 2,351	\$ 2,233	\$ 2,411	\$ 1,988	\$ 2,782	\$ 2,247	\$ 2,115	\$ 2,102	\$ 1,706	\$ 1,762	\$ 1,675	\$ 25,346
13														
14														
15	<b>Average, Median, 5th Percentile, and 95th Percentile Spot Market Electricity Prices Estimated by AURORA (\$/MWh)</b>													
16														
17		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Annual
18	5%	\$ 21.18	\$ 21.58	\$ 23.70	\$ 21.42	\$ 21.04	\$ 15.86	\$ 14.49	\$ 8.65	\$ 9.18	\$ 19.74	\$ 22.31	\$ 23.35	\$ 21.05
19	50%	\$ 27.99	\$ 29.28	\$ 32.38	\$ 31.83	\$ 31.34	\$ 27.51	\$ 24.64	\$ 19.82	\$ 20.27	\$ 28.65	\$ 30.19	\$ 30.30	\$ 28.20
20	Average	\$ 28.67	\$ 29.78	\$ 33.26	\$ 32.68	\$ 32.10	\$ 27.52	\$ 24.51	\$ 19.74	\$ 20.58	\$ 29.29	\$ 31.13	\$ 31.22	\$ 28.36
21	95%	\$ 38.46	\$ 40.03	\$ 45.61	\$ 46.76	\$ 45.82	\$ 38.38	\$ 34.35	\$ 29.81	\$ 32.88	\$ 41.05	\$ 42.75	\$ 42.28	\$ 36.02
22														
23	<b>Revenues from Expected Wind Generation at Various AURORA Price Percentiles (\$1,000)</b>													
24														
25		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Annual
26	5%	\$ 982	\$ 721	\$ 901	\$ 544	\$ 424	\$ 813	\$ 684	\$ 438	\$ 602	\$ 903	\$ 1,179	\$ 1,197	\$ 11,111
27	50%	\$ 1,298	\$ 978	\$ 1,231	\$ 808	\$ 632	\$ 1,411	\$ 1,163	\$ 1,004	\$ 1,328	\$ 1,311	\$ 1,596	\$ 1,553	\$ 14,885
28	Average	\$ 1,330	\$ 995	\$ 1,264	\$ 830	\$ 647	\$ 1,411	\$ 1,157	\$ 1,000	\$ 1,349	\$ 1,340	\$ 1,645	\$ 1,600	\$ 14,972
29	95%	\$ 1,784	\$ 1,337	\$ 1,733	\$ 1,188	\$ 923	\$ 1,968	\$ 1,622	\$ 1,510	\$ 2,155	\$ 1,879	\$ 2,260	\$ 2,167	\$ 19,014

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	<b>Table 14: Value of PS Wind Generation at Expected Wind Generation for FY 2015</b>													
2														
3														
4														
5		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Annual
6	Expected Generation (aMW)	62	46	51	34	30	69	66	68	91	62	71	71	60
7	Contract Prices (\$/MWh)	\$ 32.27	\$ 51.70	\$ 44.51	\$ 71.20	\$ 66.63	\$ 40.77	\$ 34.67	\$ 31.45	\$ 23.42	\$ 28.15	\$ 25.16	\$ 23.80	\$ 39.32
8														
9	<b>Power Purchase Costs for Expected Wind Generation (\$1,000)</b>													
10														
11		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Annual
12	Expected Wind Generation Cost (\$000)	\$ 2,012	\$ 2,395	\$ 2,273	\$ 2,431	\$ 1,999	\$ 2,814	\$ 2,273	\$ 2,142	\$ 2,132	\$ 1,732	\$ 1,787	\$ 1,694	\$ 25,683
13														
14														
15	<b>Average, Median, 5th Percentile, and 95th Percentile Spot Market Electricity Prices Estimated by AURORA (\$/MWh)</b>													
16														
17		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Annual
18	5%	\$ 23.54	\$ 24.17	\$ 24.73	\$ 21.77	\$ 19.97	\$ 15.19	\$ 11.04	\$ 6.57	\$ 9.18	\$ 19.12	\$ 22.15	\$ 23.78	\$ 20.96
19	50%	\$ 30.69	\$ 32.06	\$ 33.73	\$ 33.21	\$ 32.10	\$ 28.47	\$ 23.85	\$ 19.34	\$ 21.41	\$ 28.88	\$ 31.24	\$ 32.02	\$ 29.32
20	Average	\$ 31.23	\$ 32.90	\$ 34.85	\$ 34.10	\$ 32.71	\$ 28.43	\$ 23.38	\$ 18.81	\$ 21.64	\$ 29.44	\$ 31.98	\$ 32.82	\$ 29.35
21	95%	\$ 40.65	\$ 44.20	\$ 49.26	\$ 49.95	\$ 47.48	\$ 40.64	\$ 34.45	\$ 30.09	\$ 34.54	\$ 41.55	\$ 44.21	\$ 44.79	\$ 38.00
22														
23	<b>Revenues from Expected Wind Generation at Various AURORA Price Percentiles (\$1,000)</b>													
24														
25		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Annual
26	5%	\$ 1,092	\$ 807	\$ 940	\$ 553	\$ 403	\$ 779	\$ 521	\$ 333	\$ 602	\$ 875	\$ 1,171	\$ 1,219	\$ 11,063
27	50%	\$ 1,424	\$ 1,071	\$ 1,282	\$ 844	\$ 647	\$ 1,460	\$ 1,126	\$ 980	\$ 1,403	\$ 1,322	\$ 1,651	\$ 1,641	\$ 15,480
28	Average	\$ 1,449	\$ 1,099	\$ 1,324	\$ 866	\$ 659	\$ 1,457	\$ 1,104	\$ 953	\$ 1,418	\$ 1,347	\$ 1,690	\$ 1,682	\$ 15,492
29	95%	\$ 1,885	\$ 1,476	\$ 1,872	\$ 1,269	\$ 957	\$ 2,084	\$ 1,626	\$ 1,525	\$ 2,264	\$ 1,902	\$ 2,336	\$ 2,296	\$ 20,061

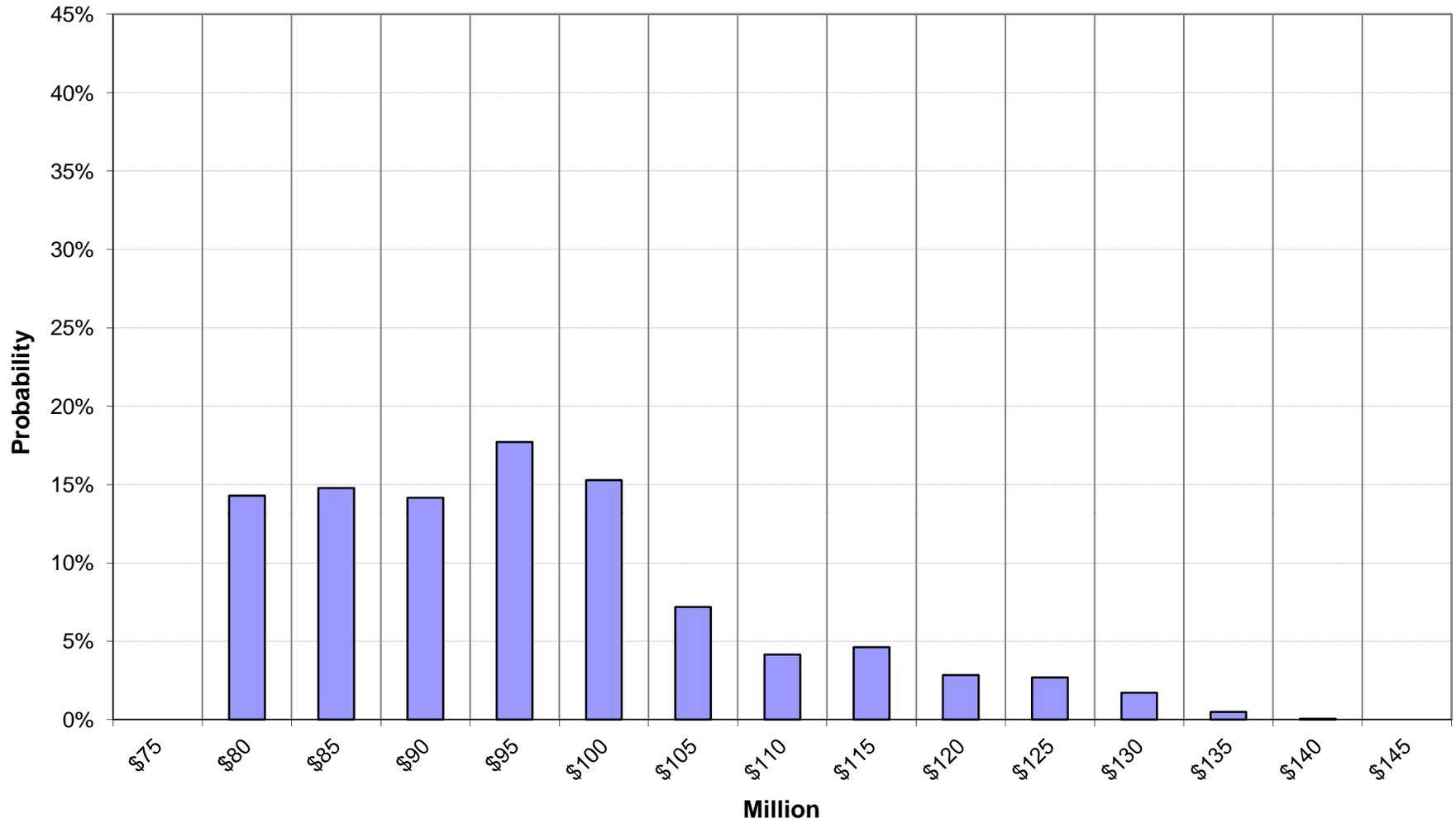
**Figure 8: PS Transmission & Ancillary Services Expenses by Amount of Surplus Energy Sales For FY 2014**



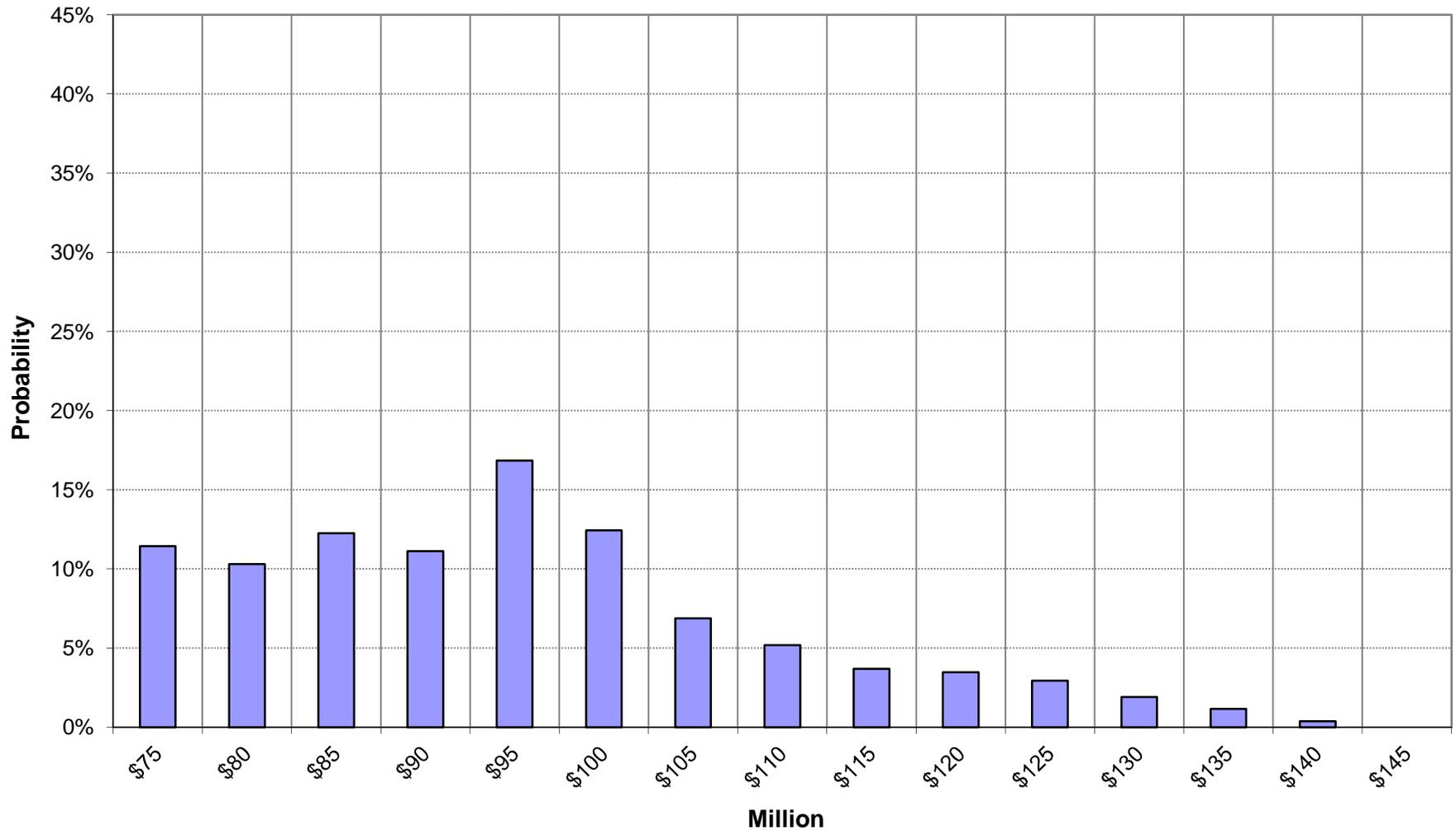
**Figure 9: PS Transmission & Ancillary Services Expenses by Amount of Surplus Energy Sales For FY 2015**



**Figure 10: PS Transmission and Ancillary Service Expense Distribution for FY 2014**



**Figure 11: PS Transmission and Ancillary Service Expense Distribution for FY 2015**



	A	B	C	D	E	F	G
1	<b>Table 15: 4h10c Credits</b>						
2	<b>4h10c Credits (\$ Million)</b>						
3							
4							
5	<b>Fiscal Year</b>	<b>Purchase Expense</b>	<b>Direct Expense</b>	<b>Pisces</b>	<b>Capital</b>	<b>%</b>	<b>Credit</b>
6	<b>2014</b>	\$ 111	\$ 254	\$ 1.8	60.3	22.3%	\$ 95.3
7	<b>2015</b>	\$ 111	\$ 260	\$ 1.8	41.8	22.3%	\$ 92.4

Figure 12: 4(h)(10)(C) Credits Distribution for FY 2014

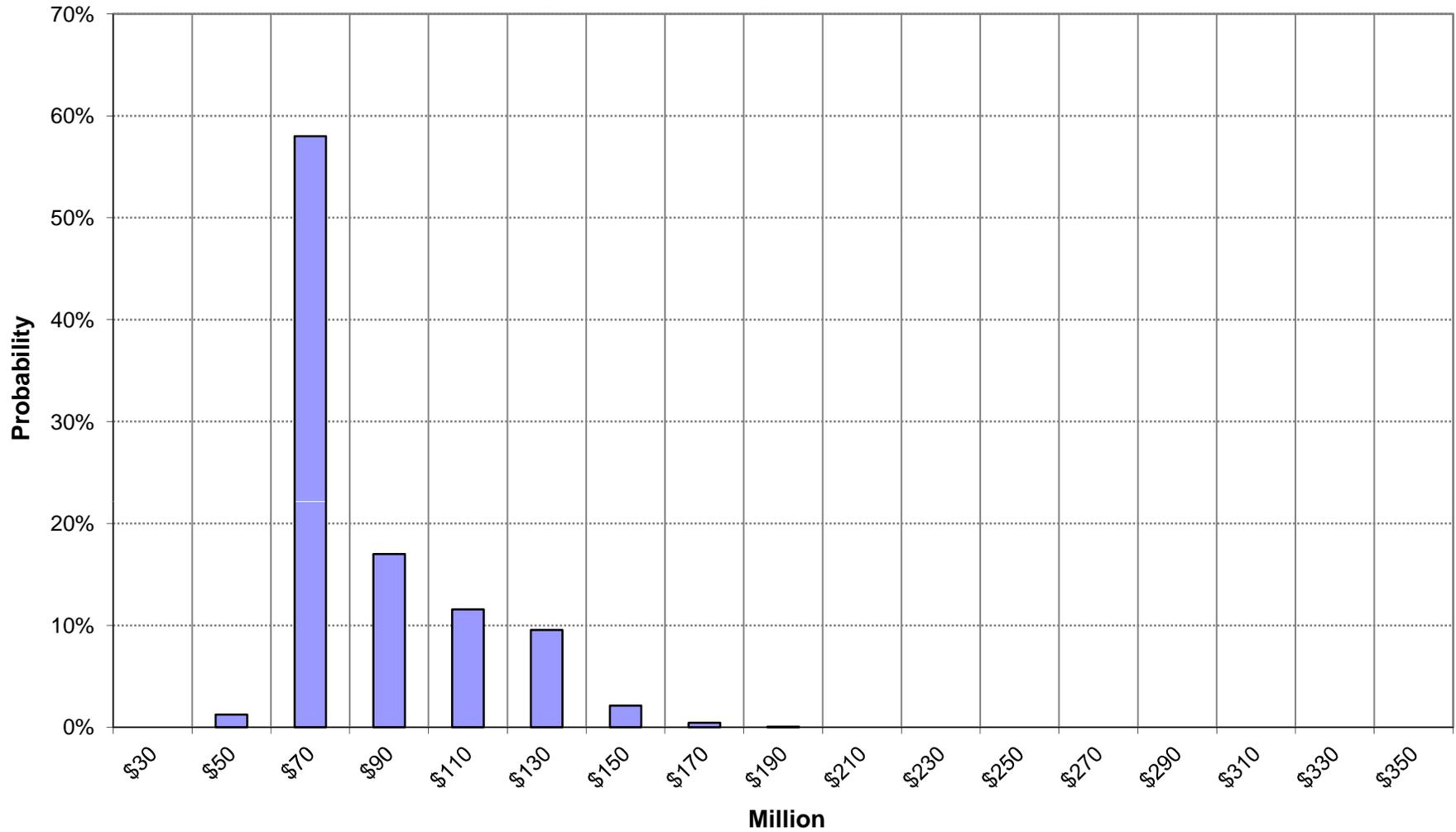
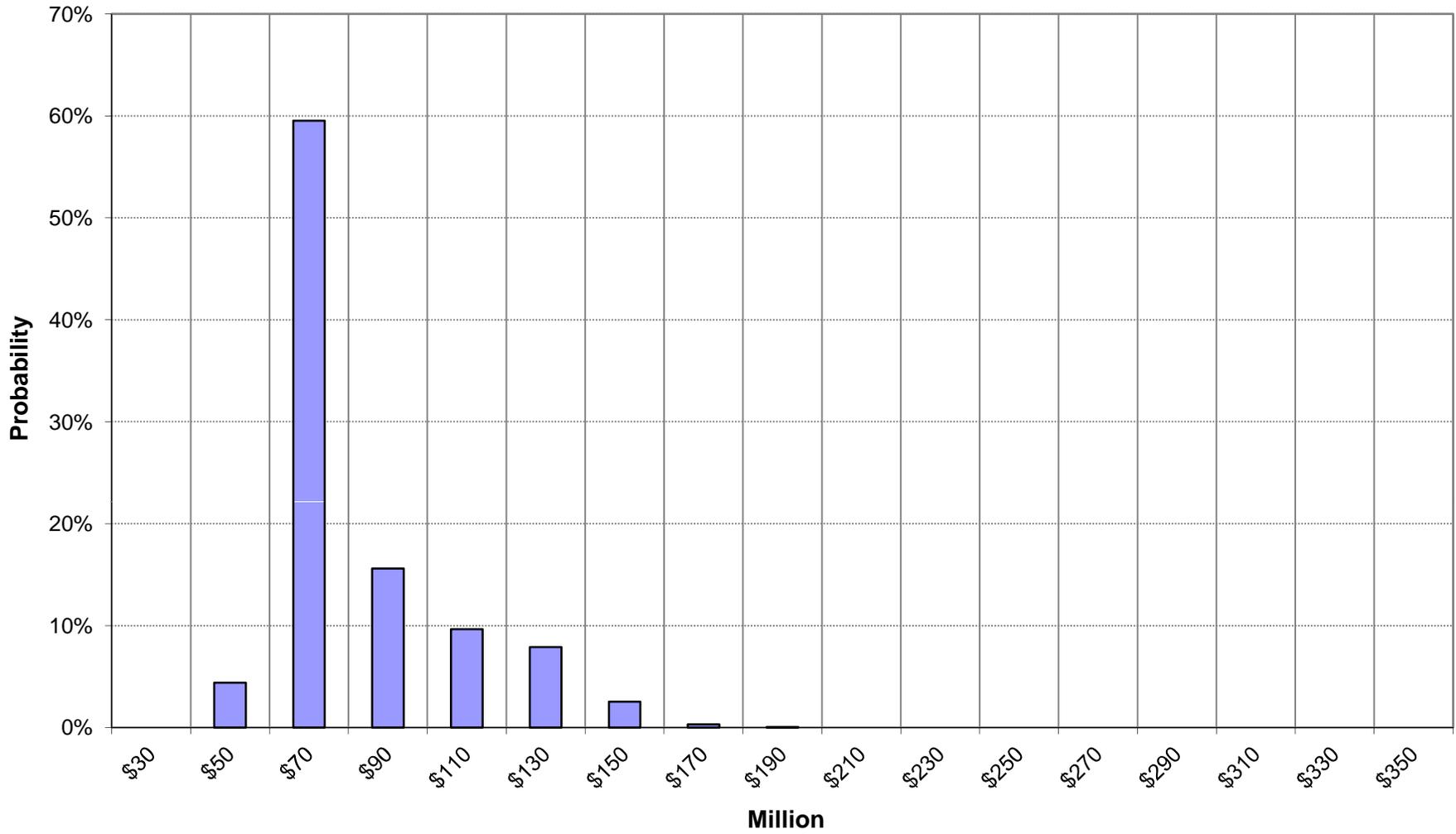


Figure 13: 4(h)(10)(C) Credits Distribution for FY 2015



	A	B	C	D	E
1	<b>Table 16: Augmentation Power Purchases</b>				
2	<b>Price = Average Annual Price for WY 1937 from Risk Analysis</b>				
3	<b>USE FOR RATE CALCs.</b>				
4					
5					
6	<b>FY</b>	<b>MW</b>	<b>Hours</b>	<b>\$/MWh</b>	<b>Exp. (\$ 000)</b>
7	<b>2014</b>	95	8,760	33.14	\$ 27,611
8	<b>2015</b>	404	8,760	34.81	\$ 123,273

	A	B	C	D	E	F	G	H	I
1	<b>Table 17: Augmentation Power Purchases - Risk Analysis</b>								
2									
3									
4									
5									
6	2014	48	<b>33.14</b>	\$ 13,853	48	<b>28.36</b>	\$ 11,855	\$ 25,708	\$ (1,998)
7	2015	124	<b>34.81</b>	\$ 37,851	280	<b>29.35</b>	\$ 72,016	\$ 109,867	\$ (13,406)

	A	B	C	D	E	F
1	<b>Table 18: Calculation of Surplus Energy Sales Revenue and Balancing Purchase Expenses Provided to RAM2014, FY 2014</b>					
2	Total Game Counter	Iteration	Sales Rev Total (\$000)	Purch Exp Total (\$000)	Net Secondary Revenue (Sales Rev. - Purch. Exp.) (\$000)	Counter From Median
3	1	2983	\$ 87,114	\$ 382,427	\$ (295,314)	
4	2	1411	\$ 79,482	\$ 338,887	\$ (259,405)	
5	3	365	\$ 77,582	\$ 331,027	\$ (253,445)	
6	*	*	*	*	*	
7	*	*	*	*	*	
8	*	*	*	*	*	
9	1441	1660	\$ 299,073	\$ 28,689	\$ 270,383	160
10	1442	831	\$ 315,208	\$ 44,410	\$ 270,798	159
11	1443	1911	\$ 291,040	\$ 20,166	\$ 270,874	158
12	*	*	*	*	*	*
13	*	*	*	*	*	*
14	*	*	*	*	*	*
15	1598	3155	\$ 317,186	\$ 20,495	\$ 296,690	3
16	1599	1508	\$ 318,408	\$ 21,634	\$ 296,774	2
17	1600	2298	\$ 344,254	\$ 47,453	\$ 296,801	1
18	1601	2638	\$ 306,839	\$ 9,823	\$ 297,016	1
19	1602	1004	\$ 307,278	\$ 9,961	\$ 297,318	2
20	1603	1602	\$ 311,238	\$ 13,897	\$ 297,341	3
21	*	*	*	*	*	*
22	*	*	*	*	*	*
23	*	*	*	*	*	*
24	1758	551	\$ 345,111	\$ 20,045	\$ 325,066	158
25	1759	2560	\$ 338,813	\$ 13,379	\$ 325,433	159
26	1760	2629	\$ 364,143	\$ 38,384	\$ 325,759	160
27	*	*	*	*	*	*
28	*	*	*	*	*	*
29	*	*	*	*	*	*
30	3198	1068	\$ 802,019	\$ -	\$ 802,019	
31	3199	2796	\$ 832,809	\$ 28	\$ 832,781	
32	3200	2996	\$ 873,634	\$ 2,902	\$ 870,732	
33						
34	<b>Average (3,200 Games)</b>		<b>\$ 346,441</b>	<b>\$ 50,046</b>	<b>\$ 296,394</b>	
35	<b>Median (3,200 Games)</b>		<b>\$ 331,639</b>	<b>\$ 29,532</b>	<b>\$ 296,908</b>	
36						
37	<b>Average to RAM2014 (\$000)</b>		<b>\$ 328,744</b>	<b>\$ 31,625</b>	<b>\$ 297,119</b>	
38	<b>(160 Above, 160 Below Median Net Secondary Revenue)</b>					
39						
40						
41	<b>Committed Sales/Purchases (\$000)</b>					
42						
43	<b>Total Median Sales/Purchases to RAM (\$000)</b>		<b>\$ 328,744</b>	<b>\$ 31,625</b>	<b>\$ 297,119</b>	

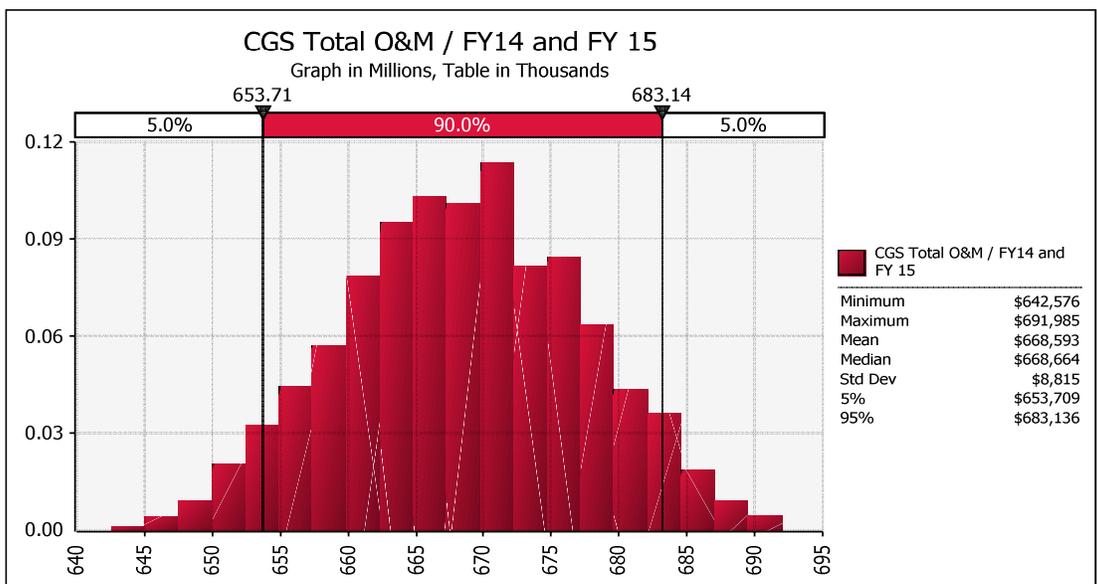
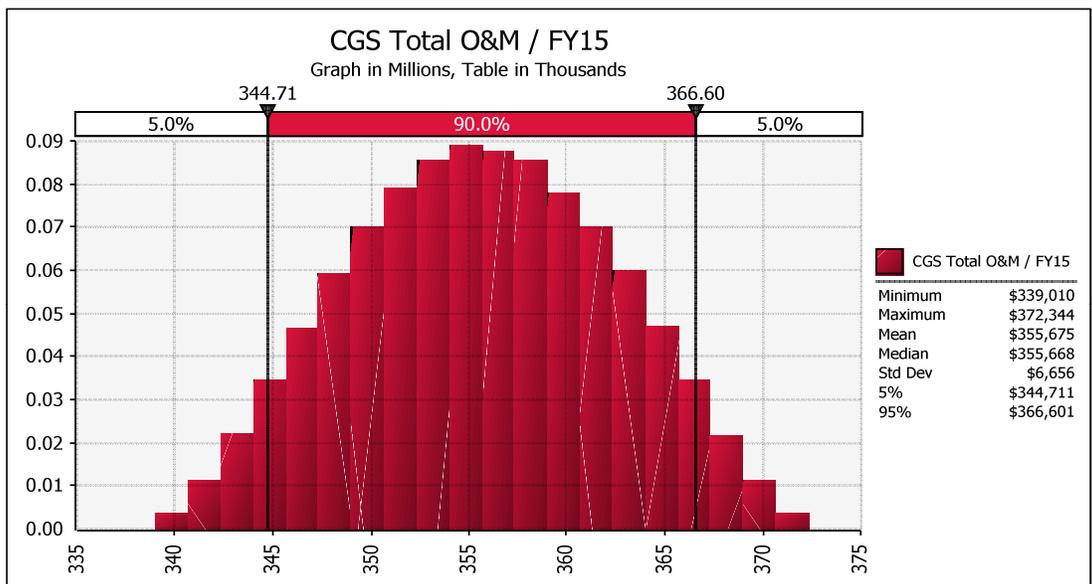
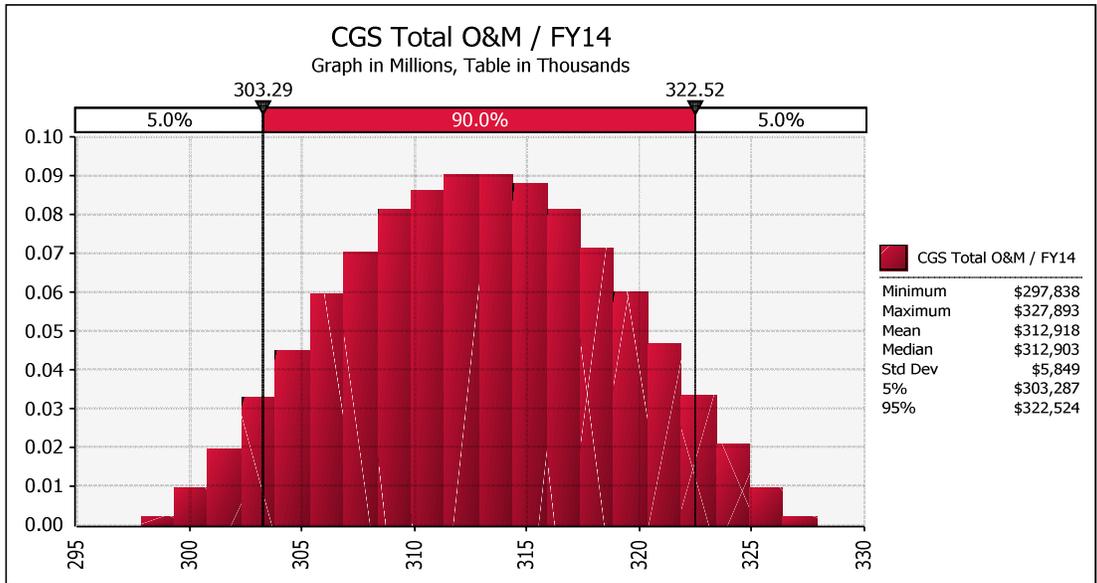
	A	B	C	D	E	F
1	<b>Table 19: Calculation of Surplus Energy Sales Revenue and Balancing Purchase Expenses Provided to RAM2015, FY 2015</b>					
2	<b>Total Game Counter</b>	<b>Iteration</b>	<b>Sales Rev Total (\$000)</b>	<b>Purch Exp Total (\$000)</b>	<b>Net Secondary Revenue (Sales Rev. - Purch. Exp.) (\$000)</b>	<b>Counter From Median</b>
3	1	2847	\$ 81,478	\$ 455,246	\$ (373,768)	
4	2	1756	\$ 44,275	\$ 273,901	\$ (229,626)	
5	3	1900	\$ 56,999	\$ 273,741	\$ (216,743)	
6	*	*	*	*	*	
7	*	*	*	*	*	
8	*	*	*	*	*	
9	1441	1705	\$ 302,284	\$ 15,341	\$ 286,943	160
10	1442	246	\$ 333,760	\$ 46,708	\$ 287,052	159
11	1443	2762	\$ 332,523	\$ 45,366	\$ 287,157	158
12	*	*	*	*	*	*
13	*	*	*	*	*	*
14	*	*	*	*	*	*
15	1598	1016	\$ 339,868	\$ 26,576	\$ 313,292	3
16	1599	492	\$ 332,410	\$ 18,982	\$ 313,428	2
17	1600	2350	\$ 327,866	\$ 14,407	\$ 313,459	1
18	1601	639	\$ 334,447	\$ 20,930	\$ 313,517	1
19	1602	1630	\$ 343,441	\$ 29,683	\$ 313,758	2
20	1603	1883	\$ 335,670	\$ 21,769	\$ 313,901	3
21	*	*	*	*	*	*
22	*	*	*	*	*	*
23	*	*	*	*	*	*
24	1758	1046	\$ 365,434	\$ 25,100	\$ 340,334	158
25	1759	1521	\$ 378,400	\$ 37,832	\$ 340,568	159
26	1760	2332	\$ 354,807	\$ 14,105	\$ 340,702	160
27	*	*	*	*	*	*
28	*	*	*	*	*	*
29	*	*	*	*	*	*
30	3198	3038	\$ 849,713	\$ 7,004	\$ 842,709	
31	3199	1912	\$ 868,854	\$ 25,965	\$ 842,889	
32	3200	2813	\$ 878,540	\$ 510	\$ 878,029	
33						
34	<b>Average (3,200 Games)</b>		<b>\$ 350,471</b>	<b>\$ 44,318</b>	<b>\$ 306,153</b>	
35	<b>Median (3,200 Games)</b>		<b>\$ 341,716</b>	<b>\$ 25,656</b>	<b>\$ 313,488</b>	
36						
37	<b>Average to RAM2015 (\$000)</b>					
38	(160 Above, 160 Below Median Net Secondary Revenue)		<b>\$ 340,638</b>	<b>\$ 26,978</b>	<b>\$ 313,660</b>	
39						
40						
41	<b>Committed Sales/Purchases (\$000)</b>					
42						
43	<b>Total Median Sales/Purchases to RAM (\$000)</b>		<b>\$ 340,638</b>	<b>\$ 26,978</b>	<b>\$ 313,660</b>	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	<b>Table 20: Secondary Sales</b>													
2														
3														
4	<b>Secondary Sales FY 2014</b>													
5		<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Annual Stats</b>
6	Monthly Hours	744	721	744	744	672	743	720	744	720	744	744	720	8,760
7	Surplus Sales Total (aMW)	194	587	834	1,561	1,407	1,731	2,567	4,214	4,103	1,844	972	337	1,696
8	<b>Surplus Sales Revenue Total (\$000)</b>	<b>\$ 1,671</b>	<b>\$ 6,645</b>	<b>\$ 12,953</b>	<b>\$ 31,066</b>	<b>\$ 22,478</b>	<b>\$ 29,165</b>	<b>\$ 45,041</b>	<b>\$ 55,450</b>	<b>\$ 56,895</b>	<b>\$ 41,259</b>	<b>\$ 19,895</b>	<b>\$ 6,228</b>	<b>\$ 328,744</b>
9														
10														
11	Committed Sales (aMW)													
12	<b>Committed Sales Revenue</b>													
13														
14	Total Surplus Sales aMW	194	587	834	1,561	1,407	1,731	2,567	4,214	4,103	1,844	972	337	1,696
15	<b>Total Surplus Sales Revenue (\$000)</b>	<b>\$ 1,671</b>	<b>\$ 6,645</b>	<b>\$ 12,953</b>	<b>\$ 31,066</b>	<b>\$ 22,478</b>	<b>\$ 29,165</b>	<b>\$ 45,041</b>	<b>\$ 55,450</b>	<b>\$ 56,895</b>	<b>\$ 41,259</b>	<b>\$ 19,895</b>	<b>\$ 6,228</b>	<b>\$ 328,744</b>
16														
17	<b>Secondary Sales FY 2015</b>													
18														
19														
20		<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Annual Stats</b>
21	Monthly Hours	744	721	744	744	672	743	720	744	720	744	744	720	8,760
22	Surplus Sales Total (aMW)	230	576	995	1,655	1,550	1,853	2,566	3,924	3,445	1,962	1,164	278	1,684
23	<b>Surplus Sales Revenue Total (\$000)</b>	<b>\$ 2,273</b>	<b>\$ 7,262</b>	<b>\$ 17,069</b>	<b>\$ 33,473</b>	<b>\$ 27,072</b>	<b>\$ 34,746</b>	<b>\$ 41,666</b>	<b>\$ 48,895</b>	<b>\$ 50,159</b>	<b>\$ 46,285</b>	<b>\$ 27,299</b>	<b>\$ 4,438</b>	<b>\$ 340,638</b>
24														
25														
26	Committed Sales (aMW)													
27	<b>Committed Sales Revenue</b>													
28														
29	Total Surplus Sales aMW	230	576	995	1,655	1,550	1,853	2,566	3,924	3,445	1,962	1,164	278	1,684
30	<b>Total Surplus Sales Revenue (\$000)</b>	<b>\$ 2,273</b>	<b>\$ 7,262</b>	<b>\$ 17,069</b>	<b>\$ 33,473</b>	<b>\$ 27,072</b>	<b>\$ 34,746</b>	<b>\$ 41,666</b>	<b>\$ 48,895</b>	<b>\$ 50,159</b>	<b>\$ 46,285</b>	<b>\$ 27,299</b>	<b>\$ 4,438</b>	<b>\$ 340,638</b>

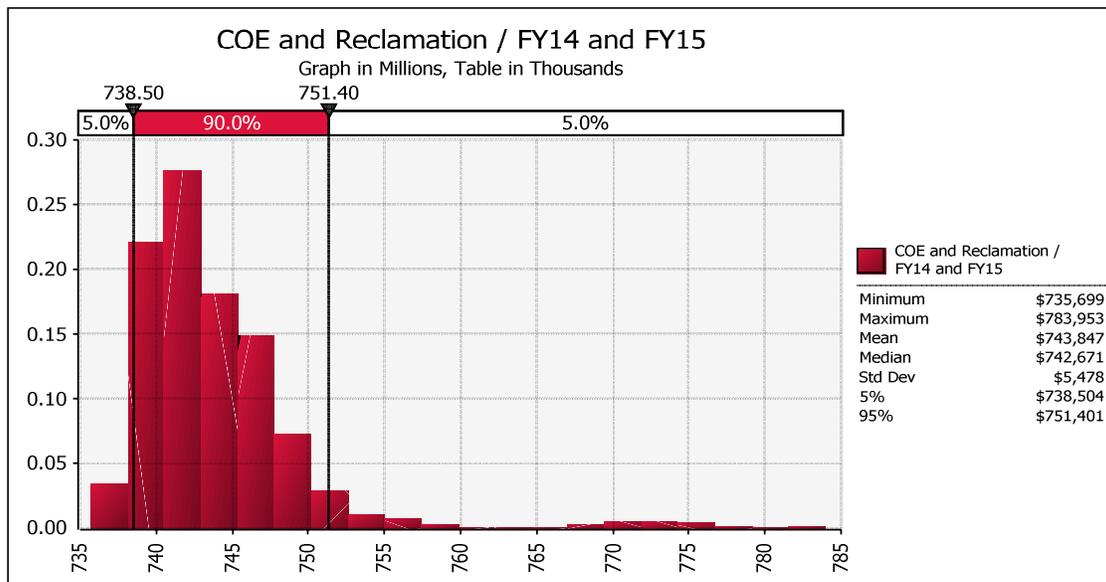
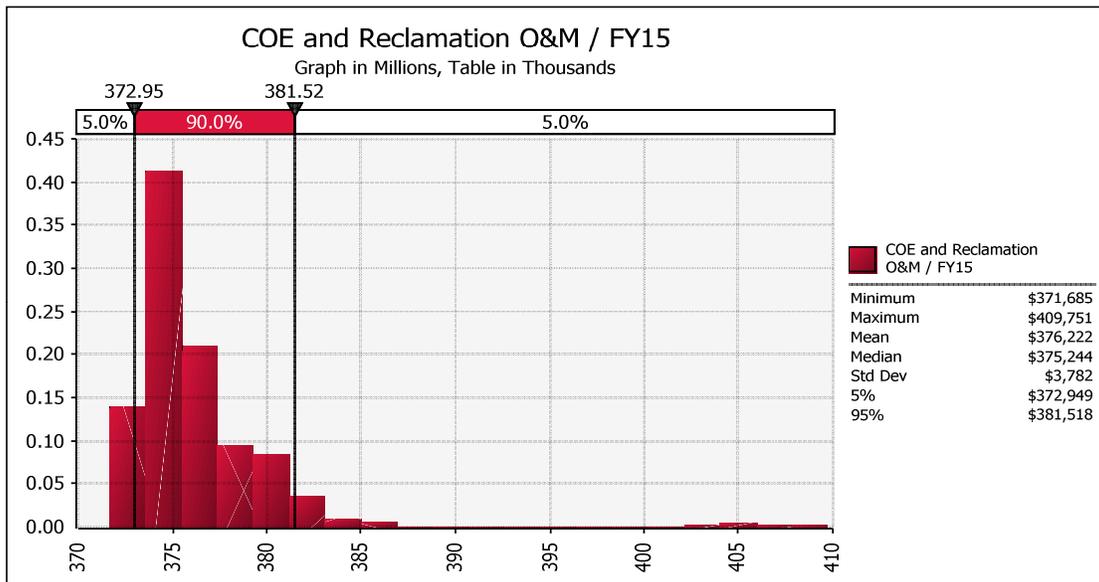
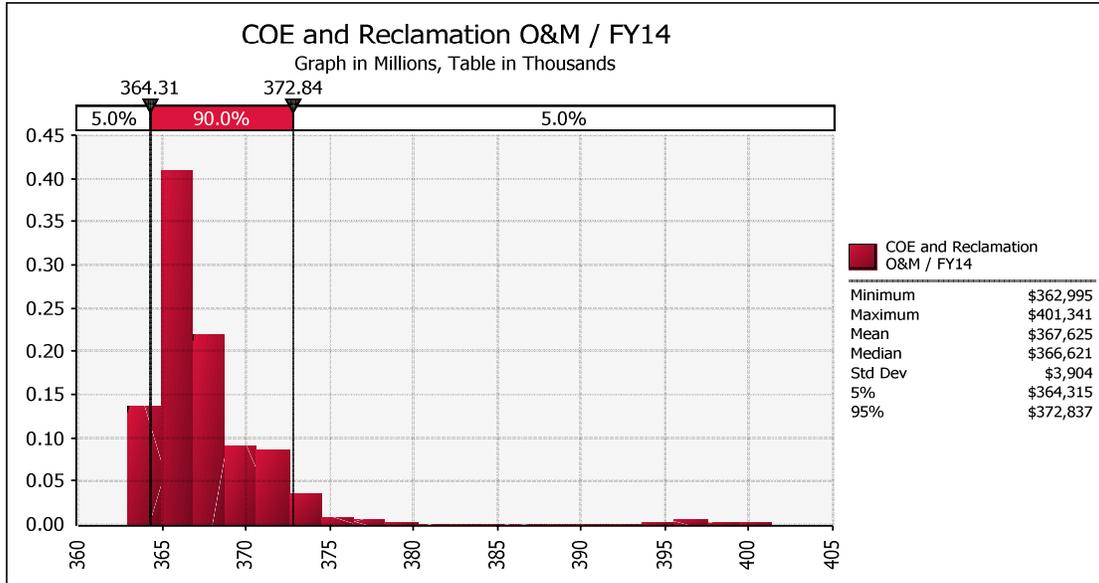
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	<b>Table 21: Balancing Purchases</b>													
2														
3	<b>Balancing Purchases FY 2014</b>													
4														
5		<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Annual Stats</b>
6	Monthly Hours	744	721	744	744	672	743	720	744	720	744	744	720	8,760
7	Balancing Purchases (aMW)	318	130	255	402	370	140	37	0	4	54	109	216	169
8	<b>Purchase Expense Total (\$000)</b>	<b>\$ 7,846</b>	<b>\$ 4,077</b>	<b>\$ 5,550</b>	<b>\$ 3,830</b>	<b>\$ 2,690</b>	<b>\$ 1,304</b>	<b>\$ 1</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 618</b>	<b>\$ 1,659</b>	<b>\$ 4,051</b>	<b>\$ 31,625</b>
9														
10	Committed Purchases (aMW)													
11	<b>Committed Purchase Expense</b>													
12														
13	Total Balancing Purchases aMW	318	130	255	402	370	140	37	-	4	54	109	216	169
14	<b>Total Purchase Expense (\$000)</b>	<b>\$ 7,846</b>	<b>\$ 4,077</b>	<b>\$ 5,550</b>	<b>\$ 3,830</b>	<b>\$ 2,690</b>	<b>\$ 1,304</b>	<b>\$ 1</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 618</b>	<b>\$ 1,659</b>	<b>\$ 4,051</b>	<b>\$ 31,625</b>
15														
16	<b>Balancing Purchases FY 2015</b>													
17														
18														
19		<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Annual Stats</b>
20	Monthly Hours	744	721	744	744	672	743	720	744	720	744	744	720	8,760
21	Balancing Purchases (aMW)	225	201	151	288	263	71	13	0	56	80	72	294	142
22	<b>Purchase Expense (\$000)</b>	<b>\$ 6,092</b>	<b>\$ 6,389</b>	<b>\$ 2,639</b>	<b>\$ 2,506</b>	<b>\$ 1,480</b>	<b>\$ 383</b>	<b>\$ 1</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 511</b>	<b>\$ 907</b>	<b>\$ 6,071</b>	<b>\$ 26,978</b>
23														
24	Committed Purchases (aMW)													
25	<b>Committed Purchase Expense</b>													
26														
27	Total Balancing Purchases aMW	225	201	151	288	263	71	13	-	56	80	72	294	142
28	<b>Total Purchase Expense (\$000)</b>	<b>\$ 6,092</b>	<b>\$ 6,389</b>	<b>\$ 2,639</b>	<b>\$ 2,506</b>	<b>\$ 1,480</b>	<b>\$ 383</b>	<b>\$ 1</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 511</b>	<b>\$ 907</b>	<b>\$ 6,071</b>	<b>\$ 26,978</b>

	A	B	C
1	<b>Table 22: Annual Secondary Sales and Balancing Purchases</b>		
2		<b>FY 2014</b>	<b>FY 2015</b>
3	<b>Monthly Hours</b>	<b>8,760</b>	<b>8,760</b>
4	Surplus Sales Total (aMW)	1,696	1,684
5	<b>Surplus Sales Revenue Total (\$000)</b>	<b>\$ 328,744</b>	<b>\$ 340,638</b>
6			
7			
8	Committed Sales (aMW)	-	
9	<b>Committed Sales Revenue</b>	<b>\$ -</b>	
10			
11			
12	Total Surplus Sales aMW	1,696	1,684
13	<b>Total Surplus Sales Revenue (\$000)</b>	<b>\$ 328,744</b>	<b>\$ 340,638</b>
14			
15			
16	Balancing Purchases (aMW)	169	142
17	<b>Purchase Expense Total (\$000)</b>	<b>\$ 31,625</b>	<b>\$ 26,978</b>
18			
19	<b>Committed Purchases (aMW)</b>	<b>-</b>	<b>-</b>
20	<b>Committed Purchase Expense</b>	<b>\$ -</b>	<b>\$ -</b>
21			
22	Total Balancing Purchases aMW	169	142
23	<b>Total Purchase Expense (\$000)</b>	<b>\$ 31,625</b>	<b>\$ 26,978</b>

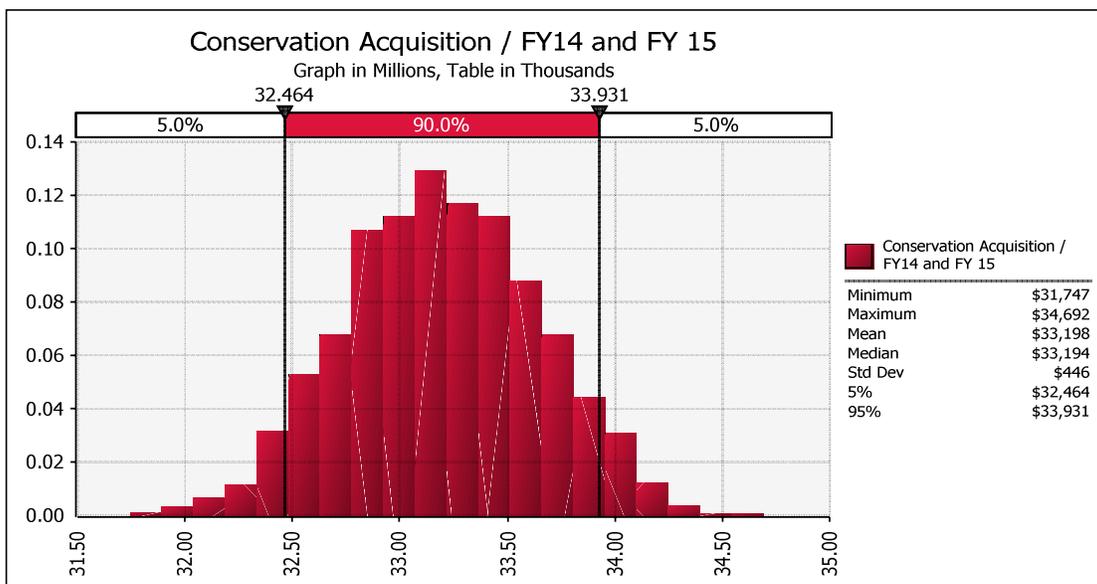
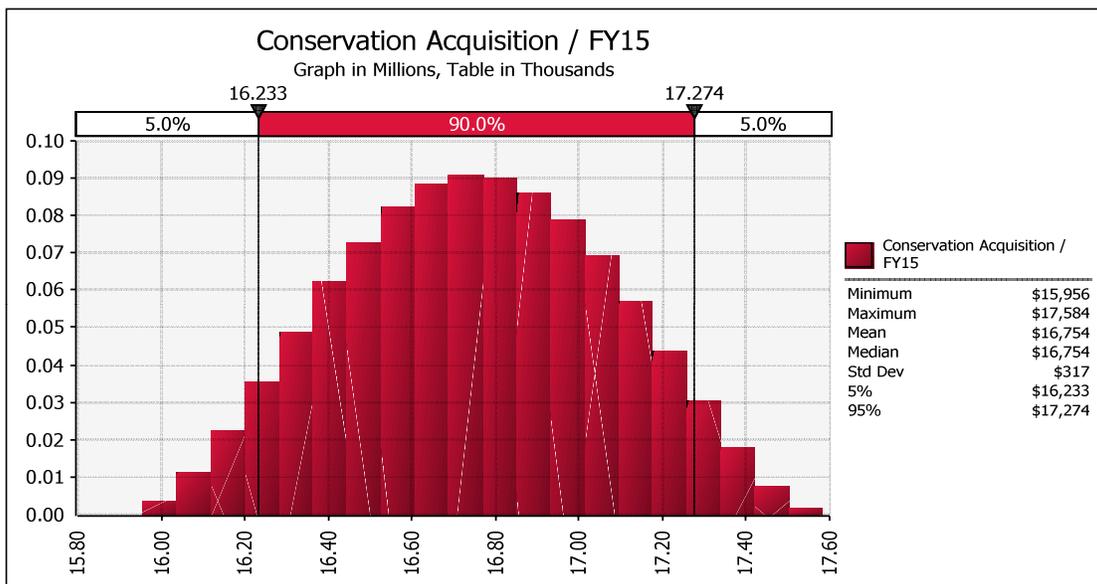
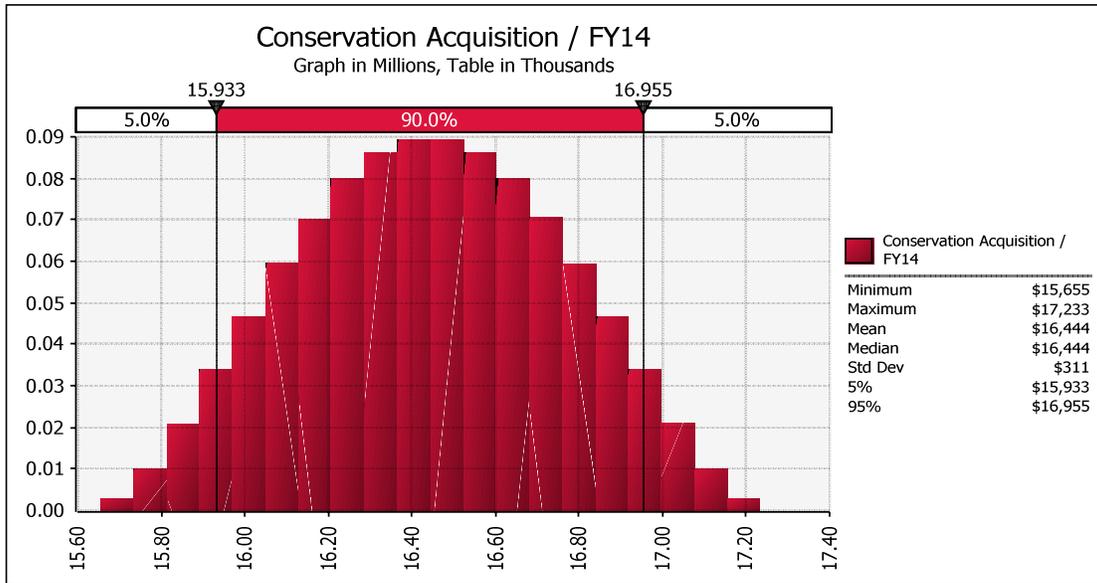
**Figure 14: CGS O&M Distributions**



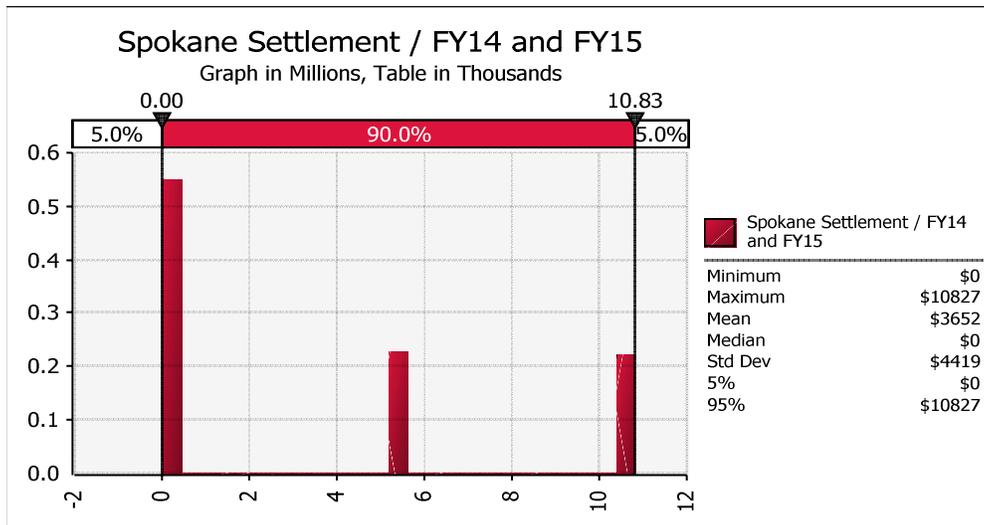
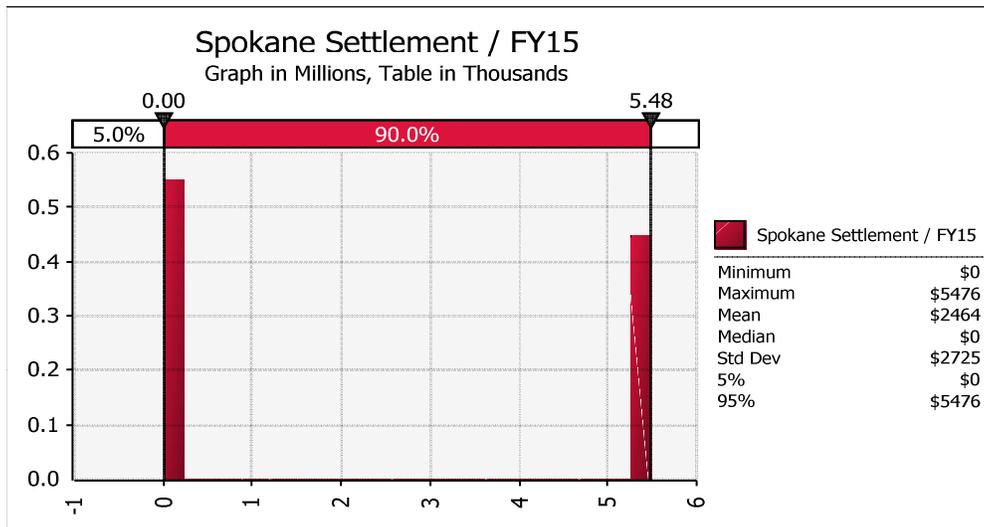
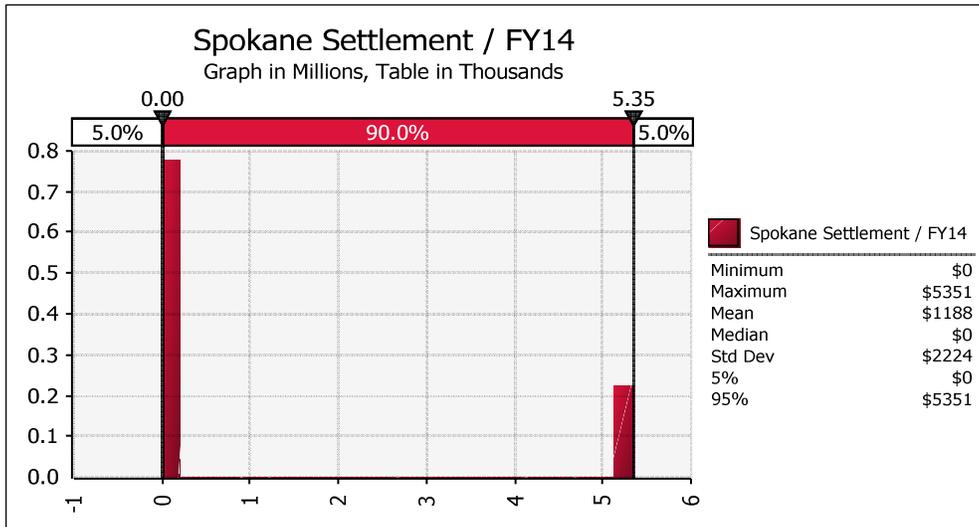
**Figure 15: Corps of Engineers (COE) and Bureau of Reclamation (Reclamation) O&M Distributions**



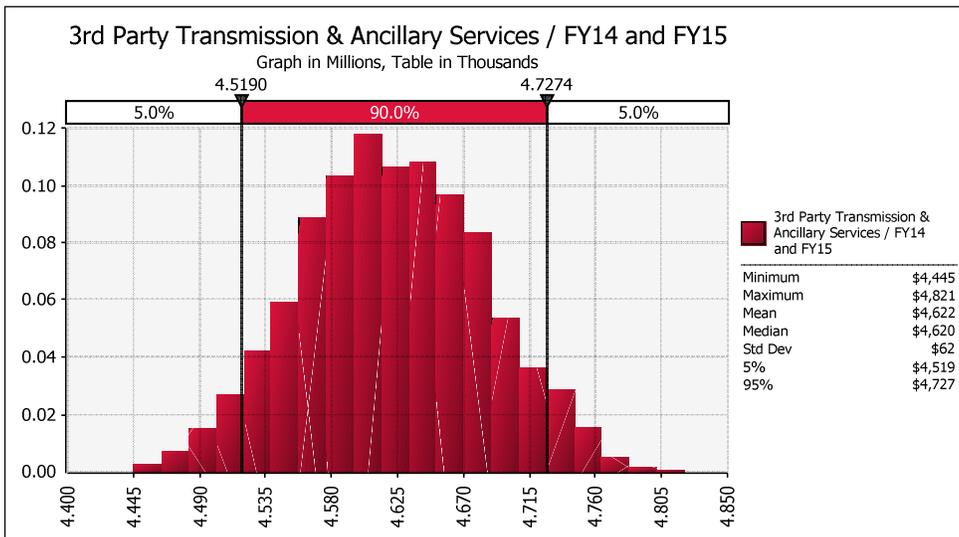
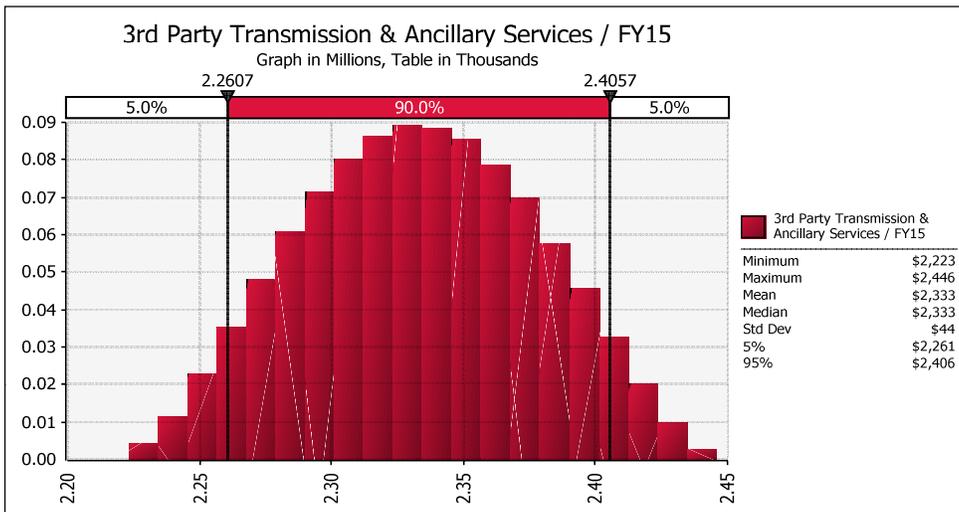
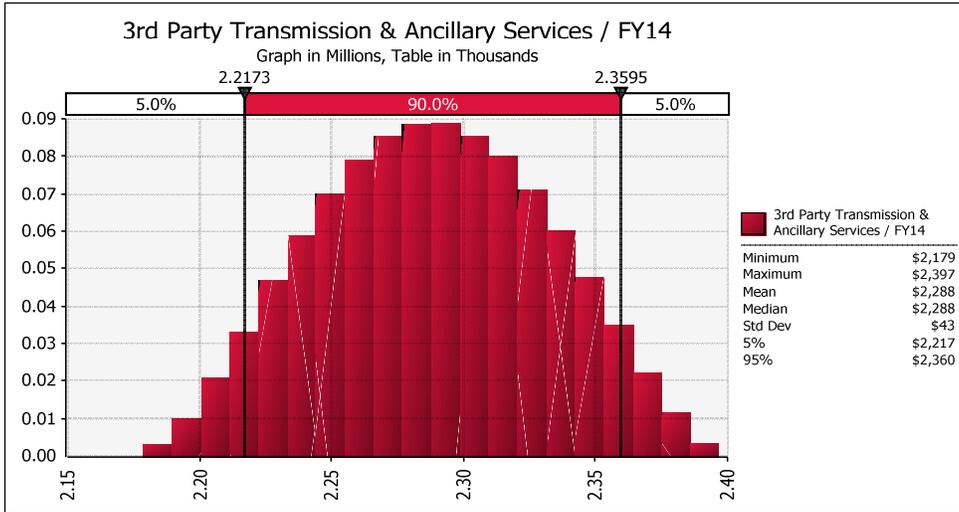
**Figure 16: Conservation Acquisition Expense Distributions**



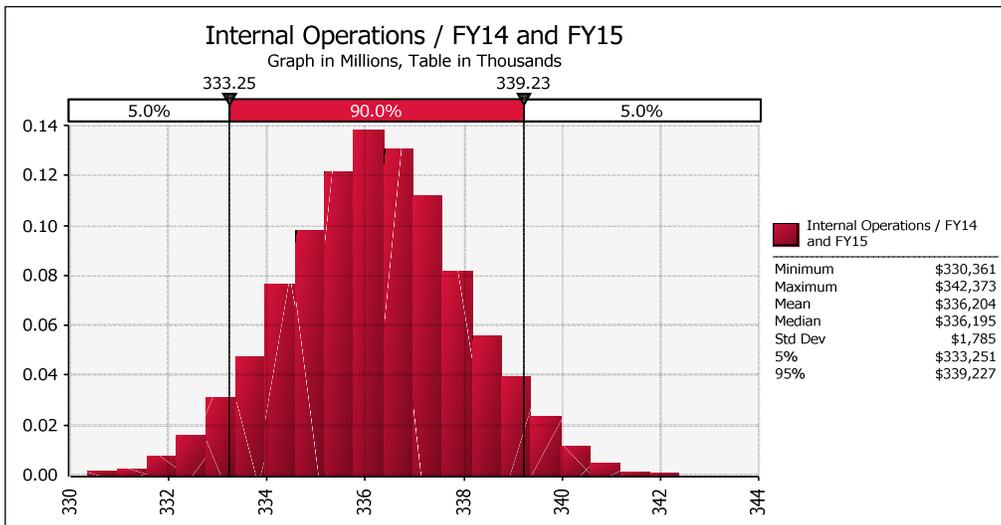
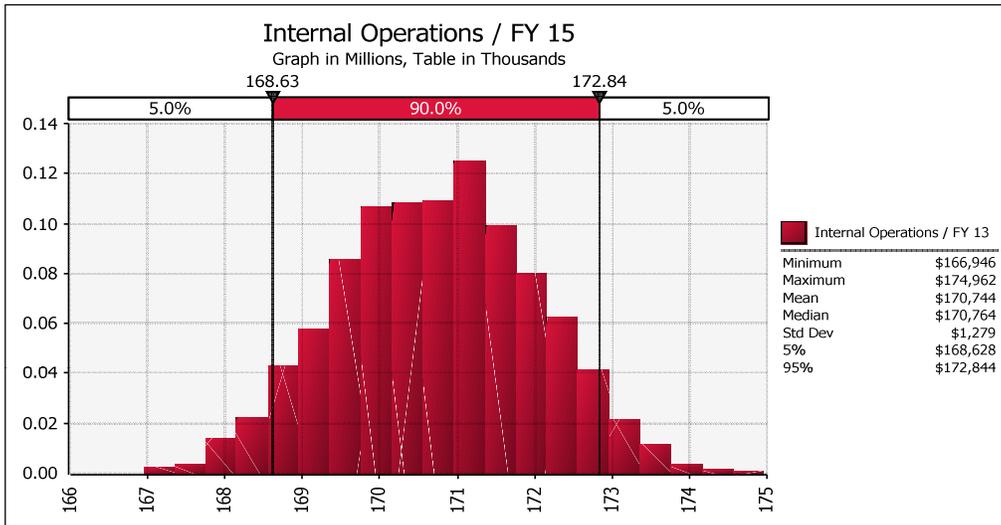
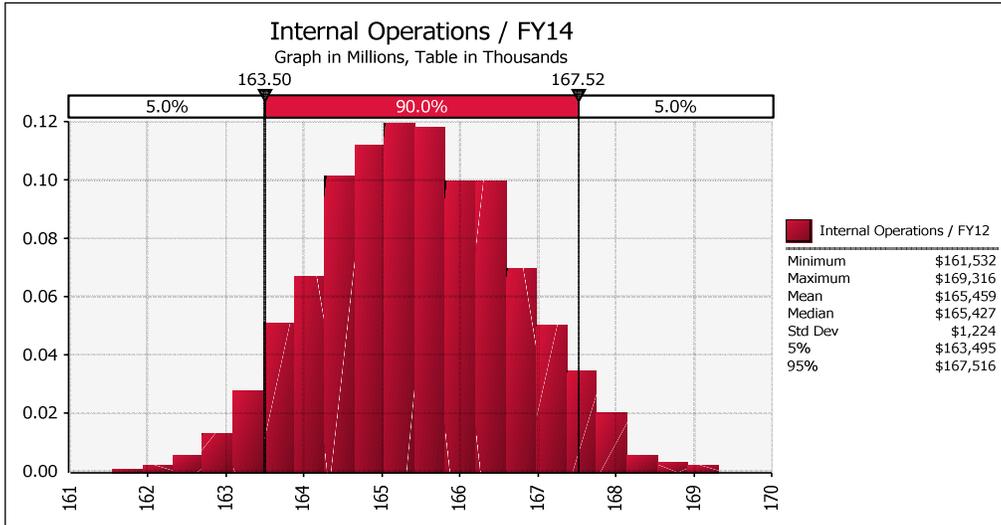
**Figure 17: Spokane Settlement Payment Distributions**



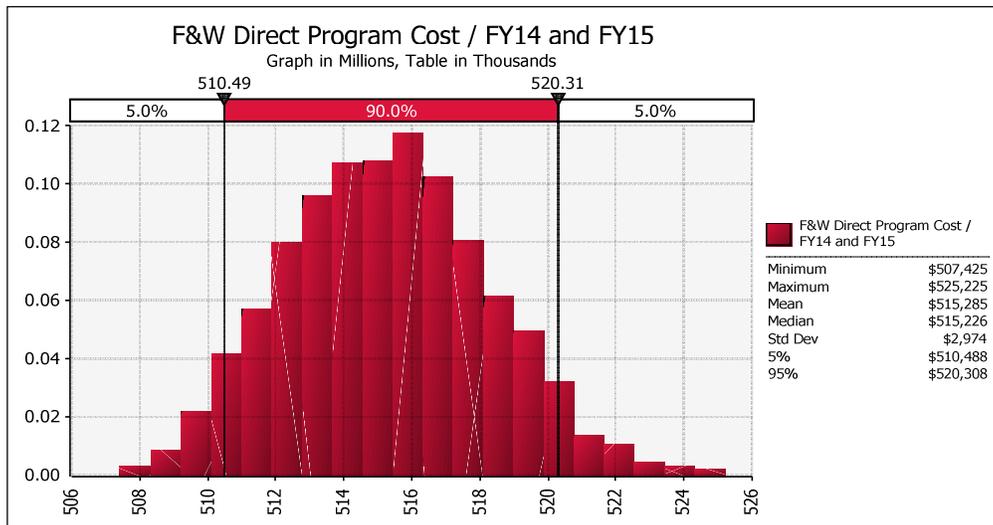
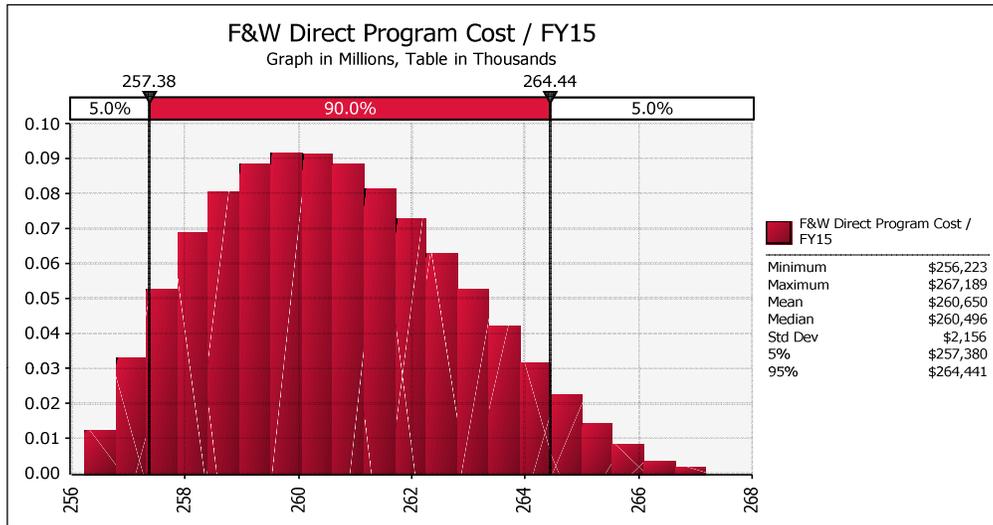
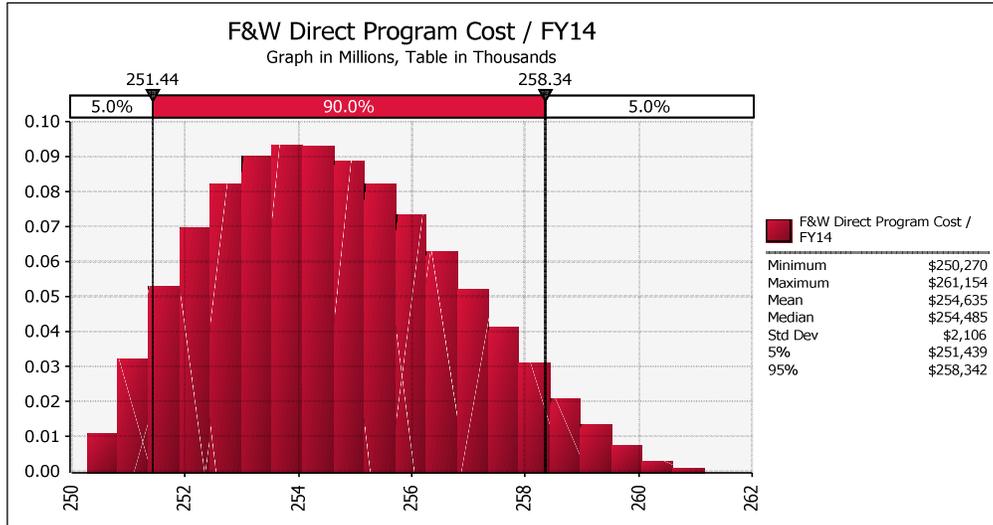
**Figure 18: Third-Party GTA Wheeling Expense Distributions**



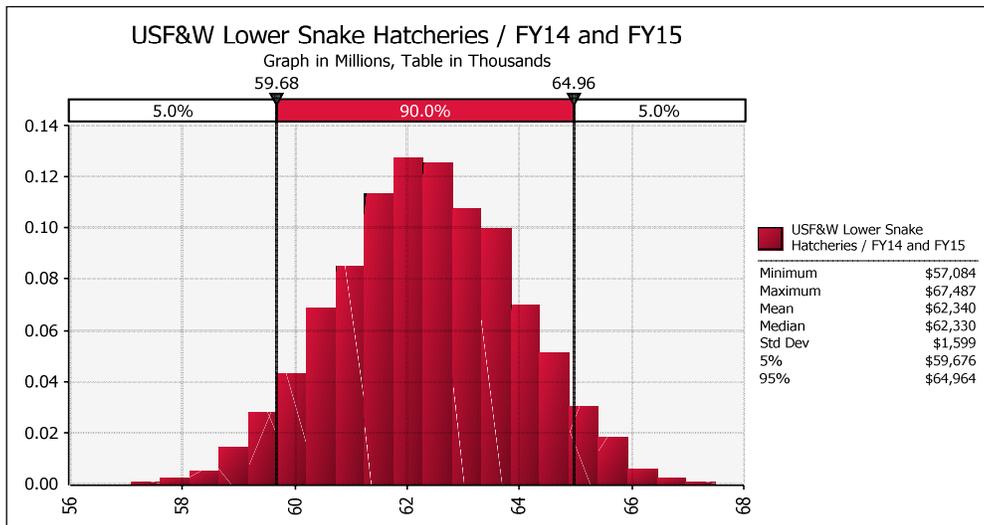
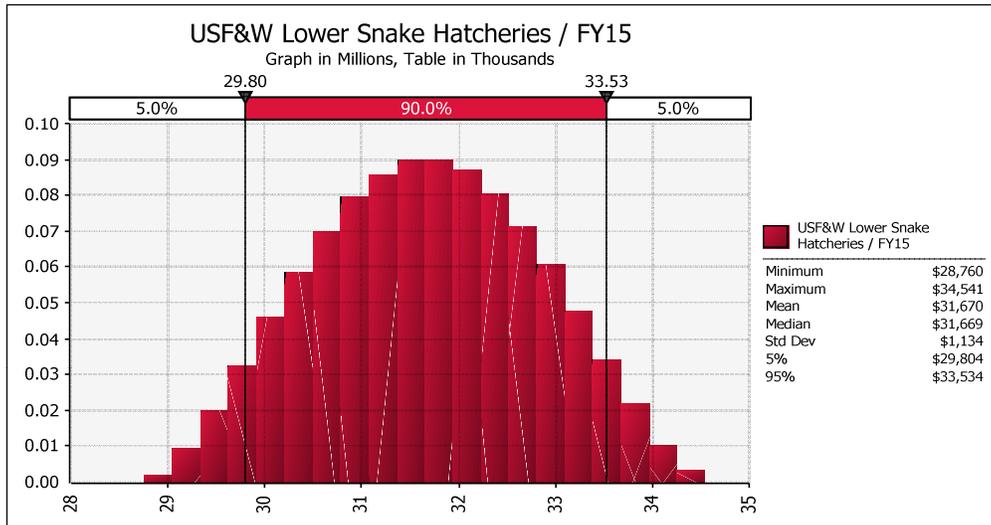
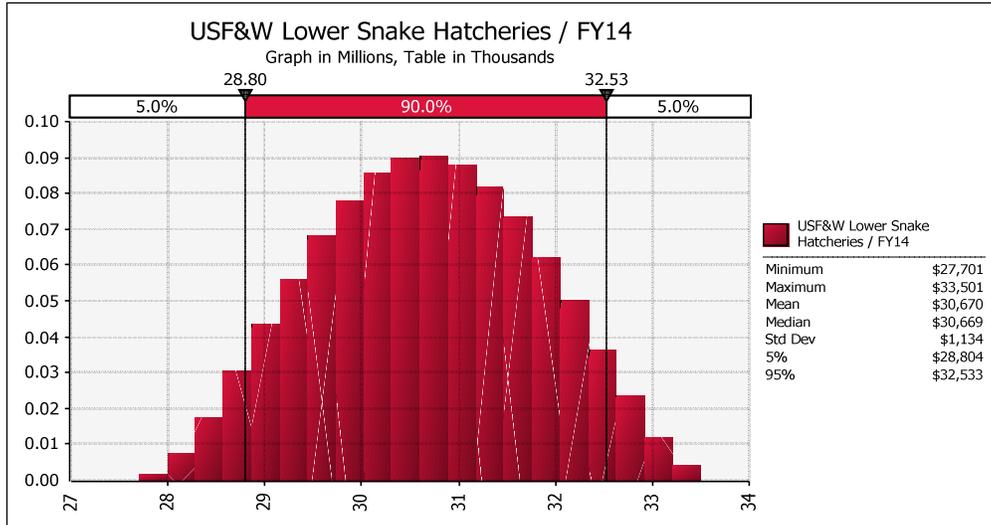
**Figure 19: Internal Operations Expense Distributions**



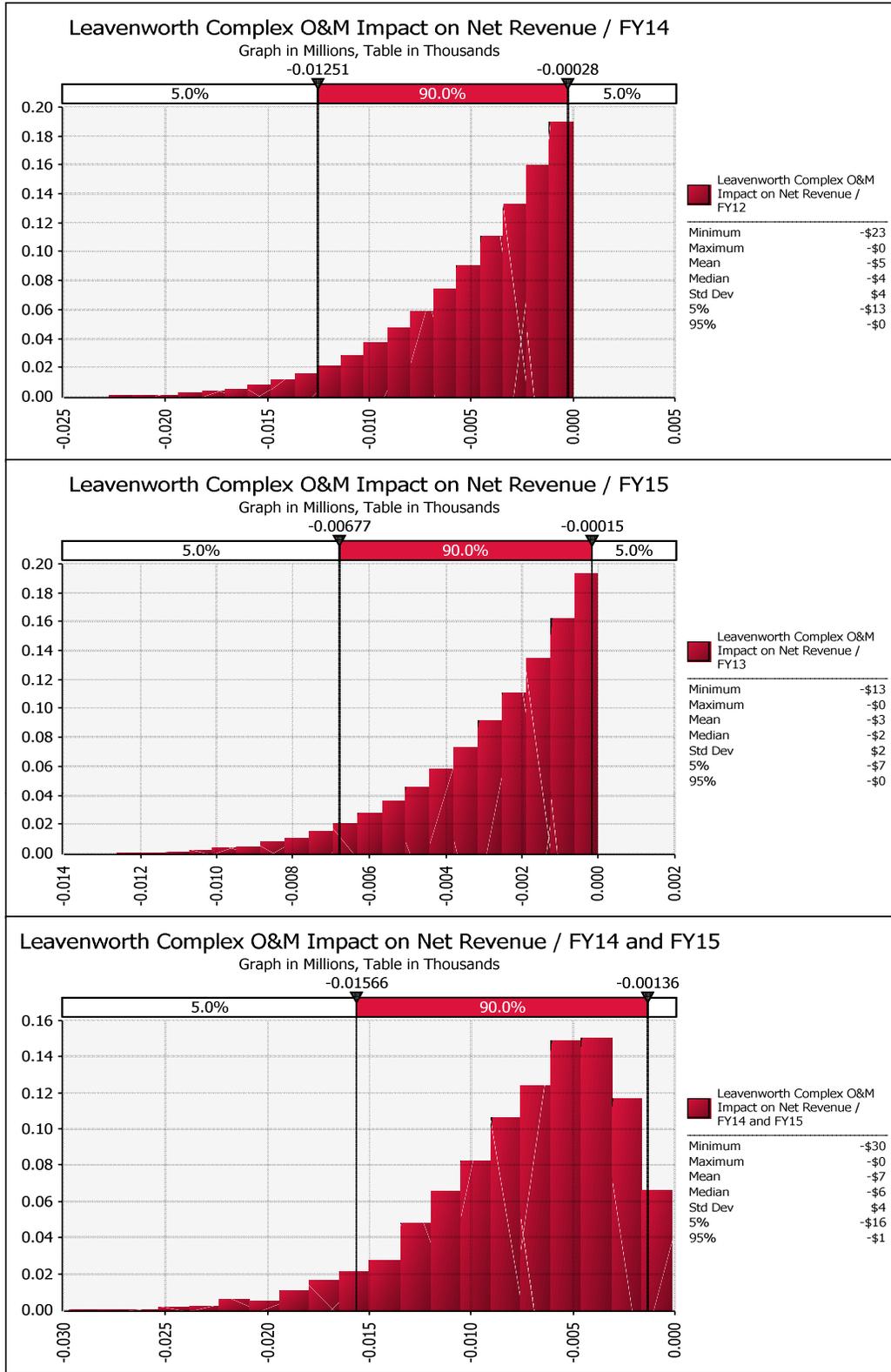
**Figure 20: F&W Direct Program Cost Distributions**



**Figure 21: Lower Snake River Hatcheries Expense Distributions**



**Figure 22: Leavenworth Complex O&M Expense Distributions**



**Figure 23: Fish Passage Facilities Expense Distributions**

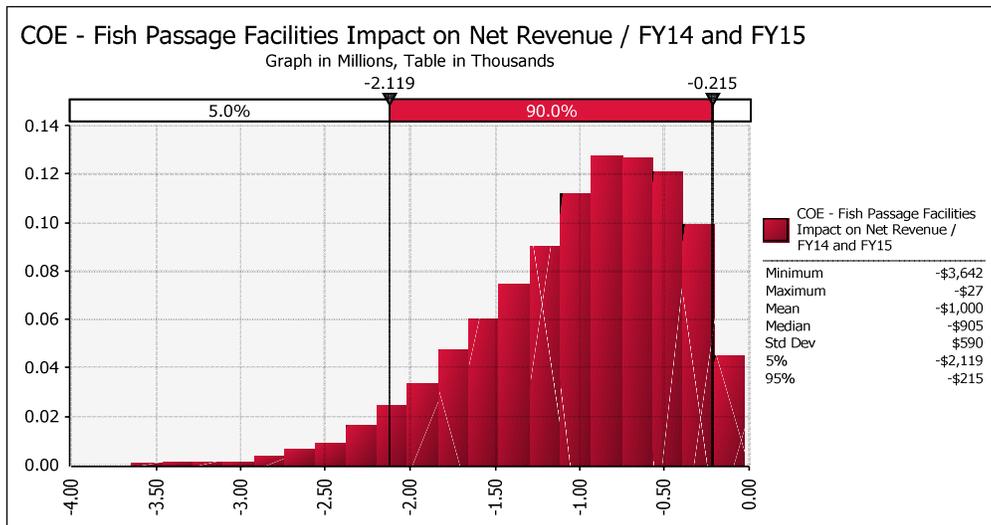
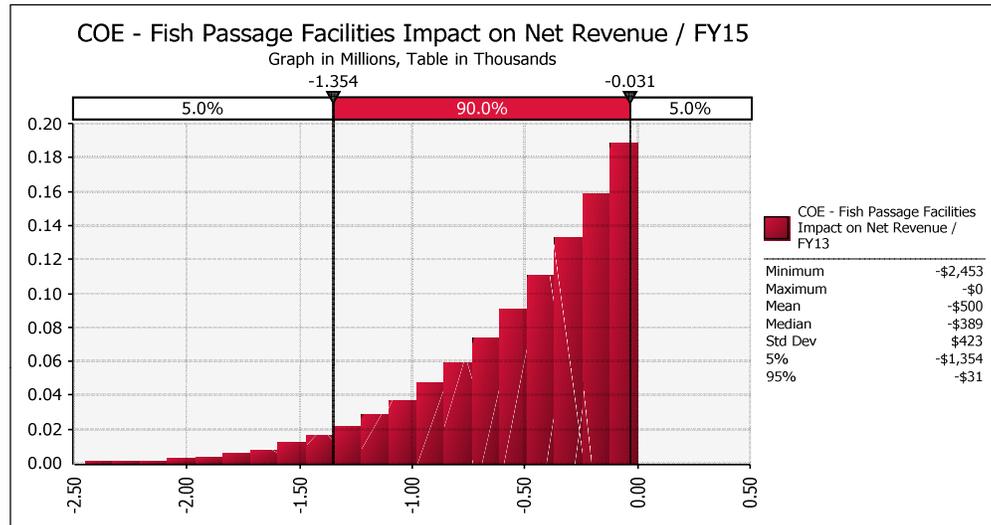
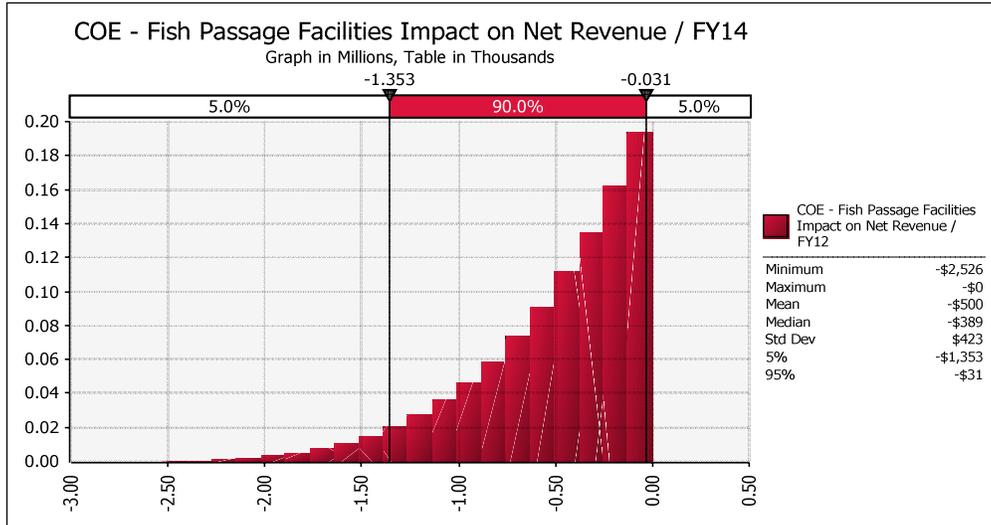
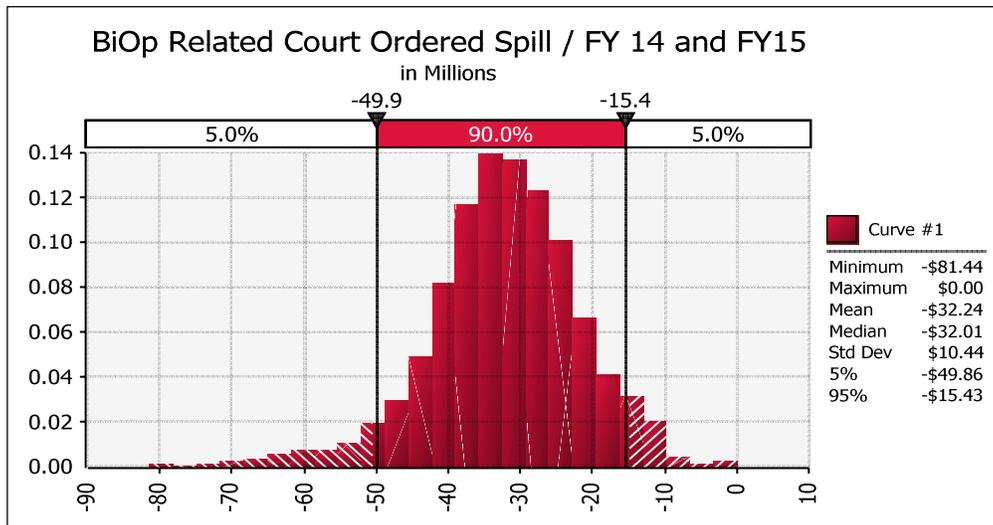
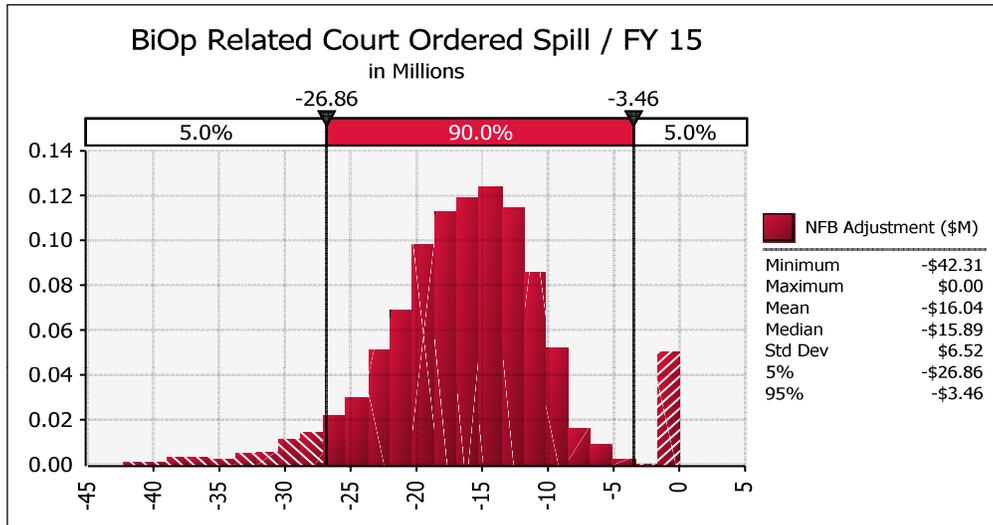
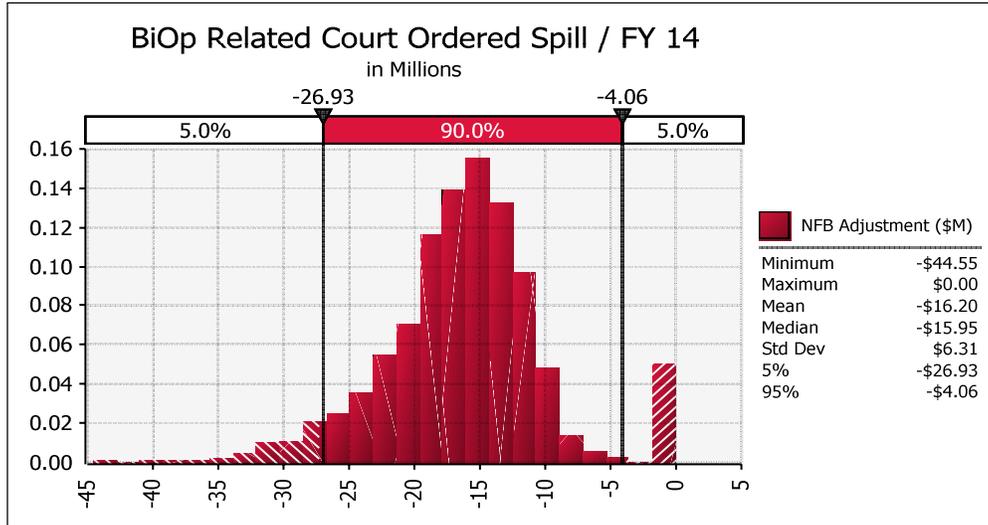
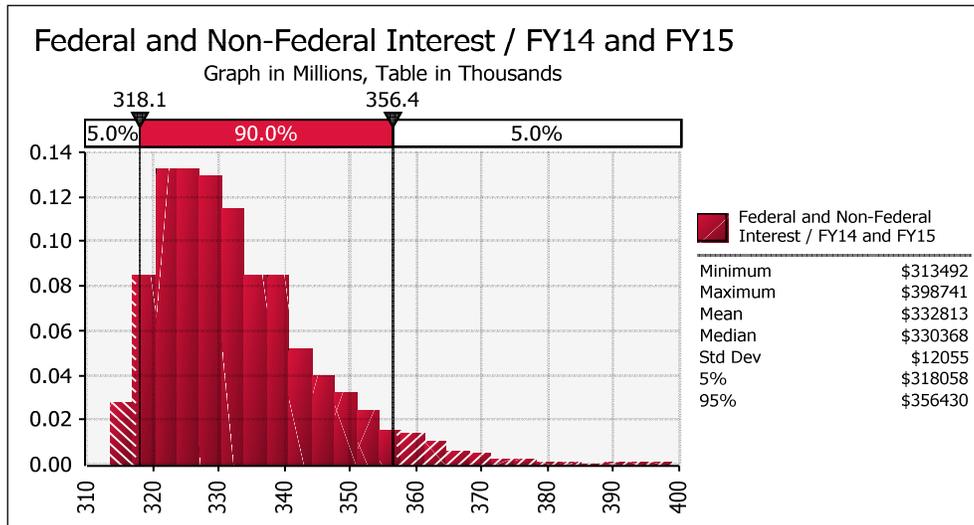
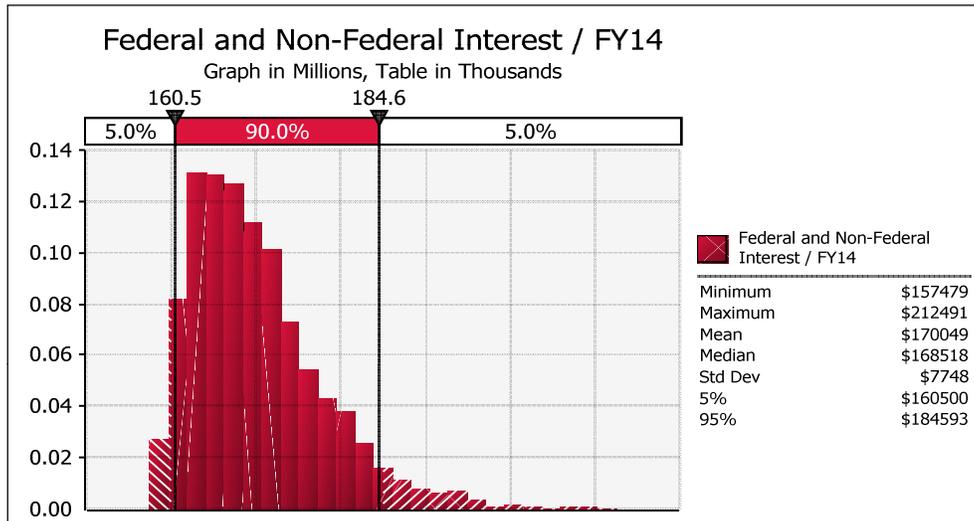
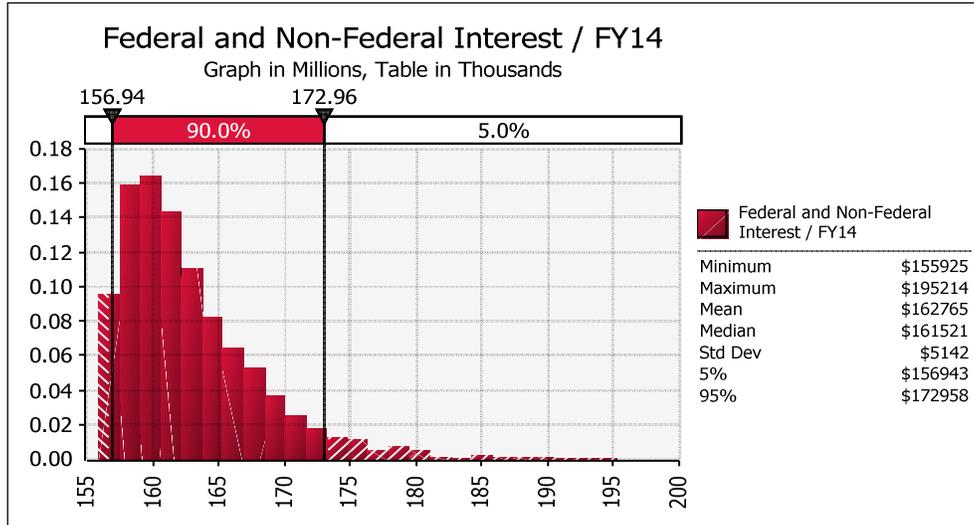


Figure 24: BiOp Related Court Ordered Spill Revenue Distributions

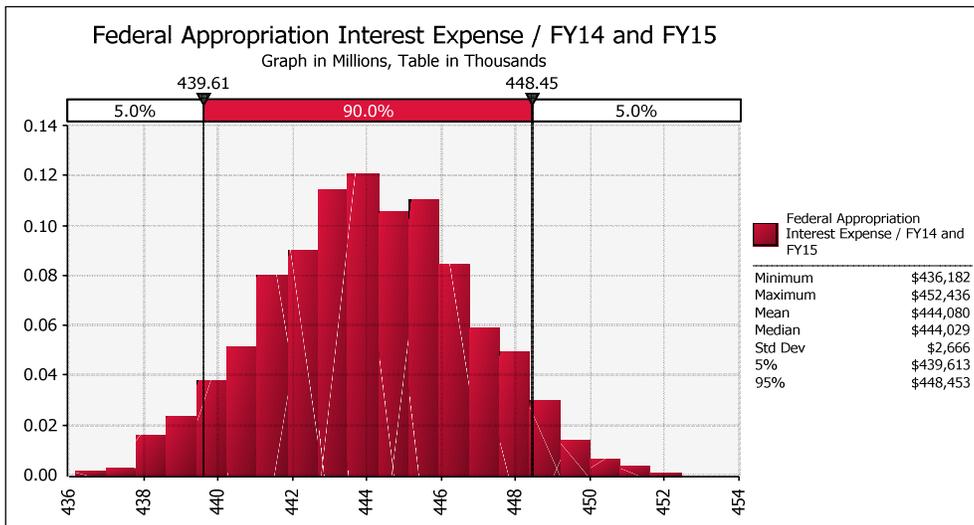
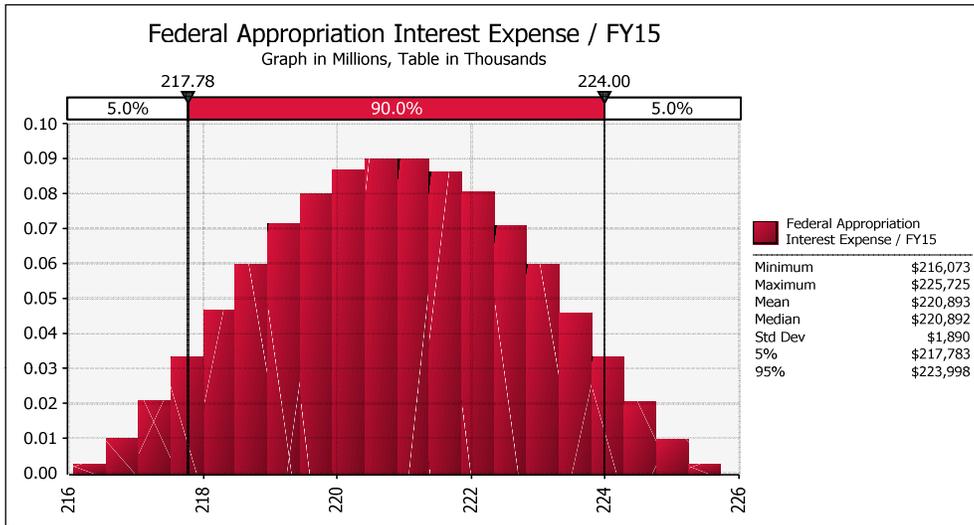
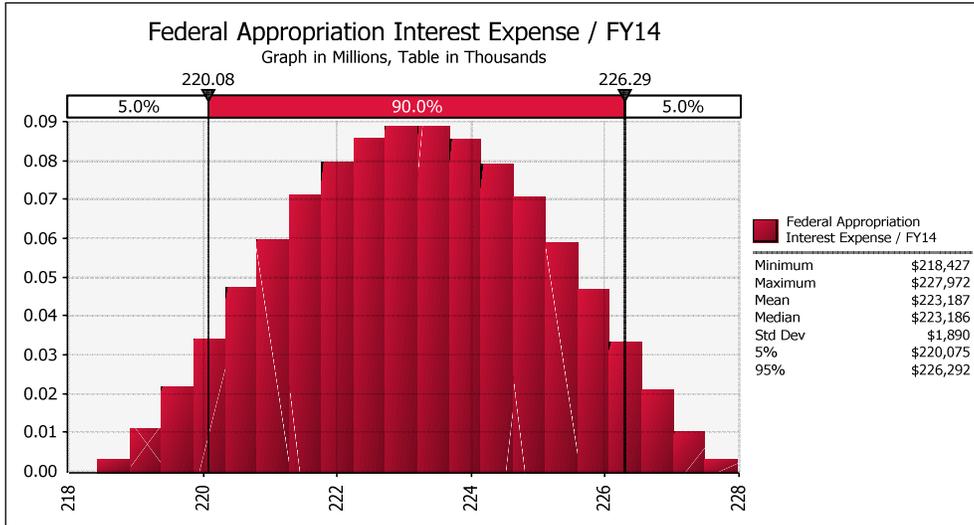


	A	B	C	D	E	F
1	<b>Table 23: Interest Rate Forecasts</b>					
2						
3	<b>Lewis County</b>					
4	<b>Average</b>					
		<b>Maturity</b>	<b>Principal</b>	<b>Low</b>	<b>Trend</b>	<b>High</b>
5	<b>2013</b>	12 years	86,125,000	2.79	2.99	3.94
6	<b>2014</b>					
7	<b>2015</b>					
8						
9	<b>Energy Northwest - CGS Ext and New Money</b>					
10	<b>Average</b>					
		<b>Maturity</b>	<b>Principal</b>	<b>Low</b>	<b>Trend</b>	<b>High</b>
11	<b>2013</b>	14 years	90,698,000	2.93	3.13	4.07
12	<b>2014</b>	23 years	47,905,000	4.94	5.43	6.88
13	<b>2014</b>	14 years	62,745,000	3.25	3.61	4.78
14	<b>2015</b>	22 years	133,900,000	5.07	5.75	7.71
15	<b>2015</b>	15 years	63,520,000	3.46	3.98	5.45
16						
17	<b>BPA</b>					
18	<b>Average</b>					
		<b>Maturity</b>	<b>Principal</b>	<b>Low</b>	<b>Trend</b>	<b>High</b>
19	<b>2013</b>	24 years	501,000,000	4.05	4.26	5.19
20	<b>2014</b>	24 years	491,000,000	4.19	4.58	5.73
21	<b>2015</b>	24 years	486,000,000	4.64	5.21	6.85

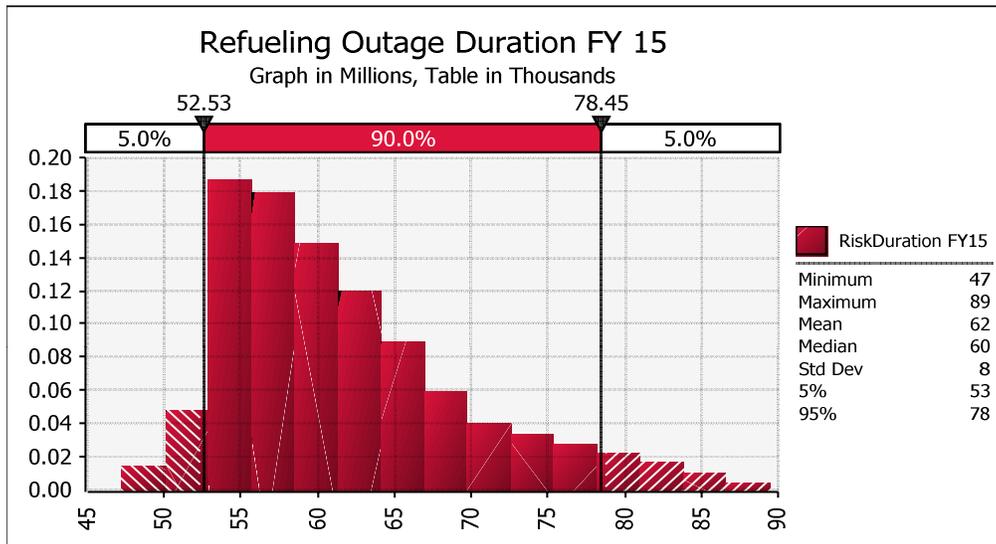
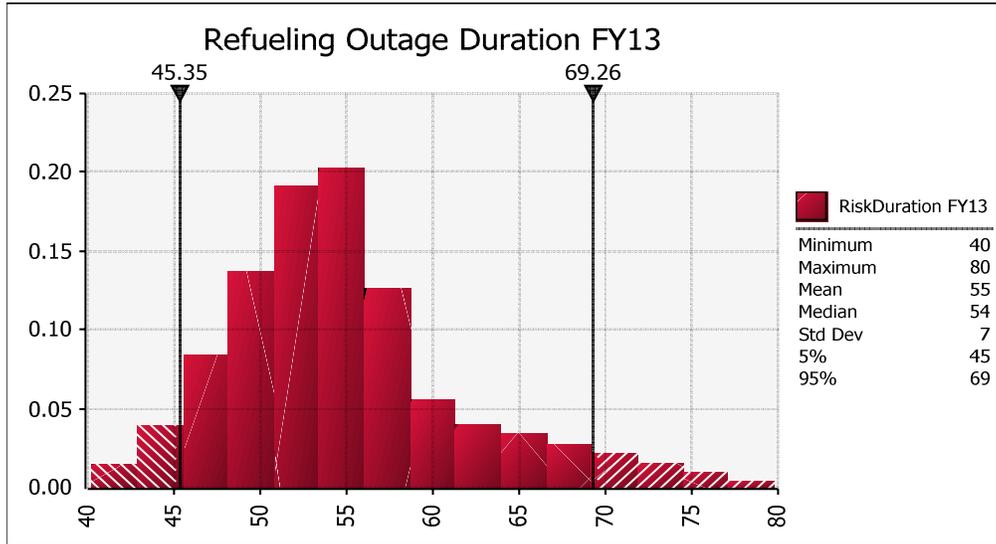
**Figure 25: Federal and Non-Federal Interest Expense Distributions**



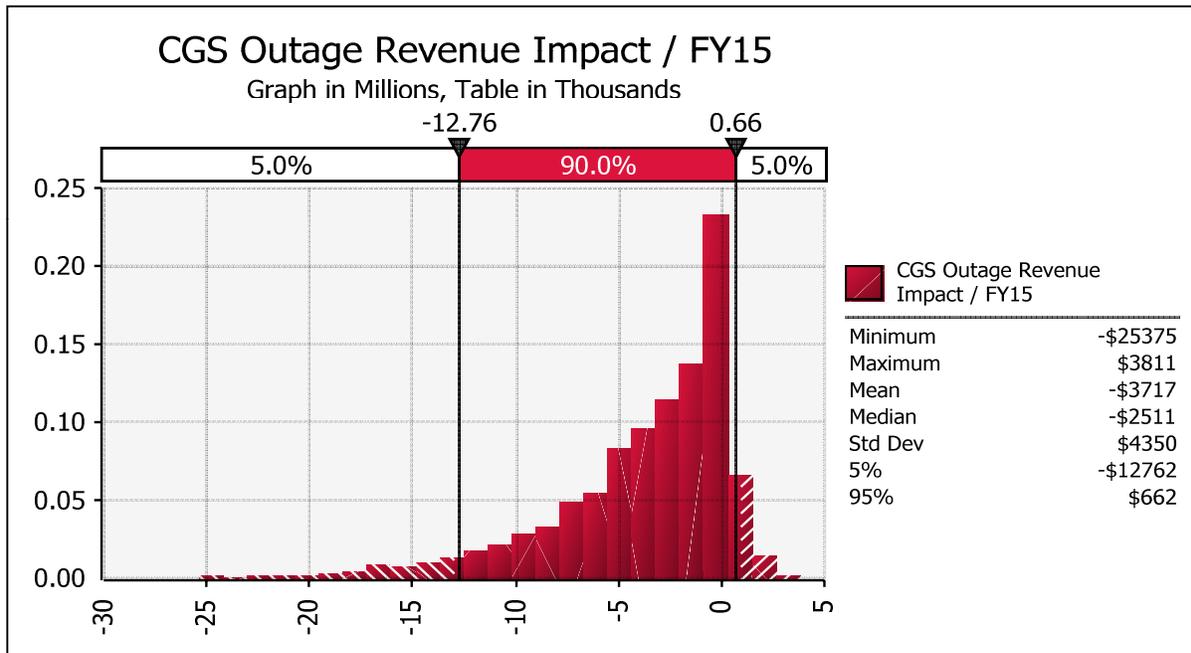
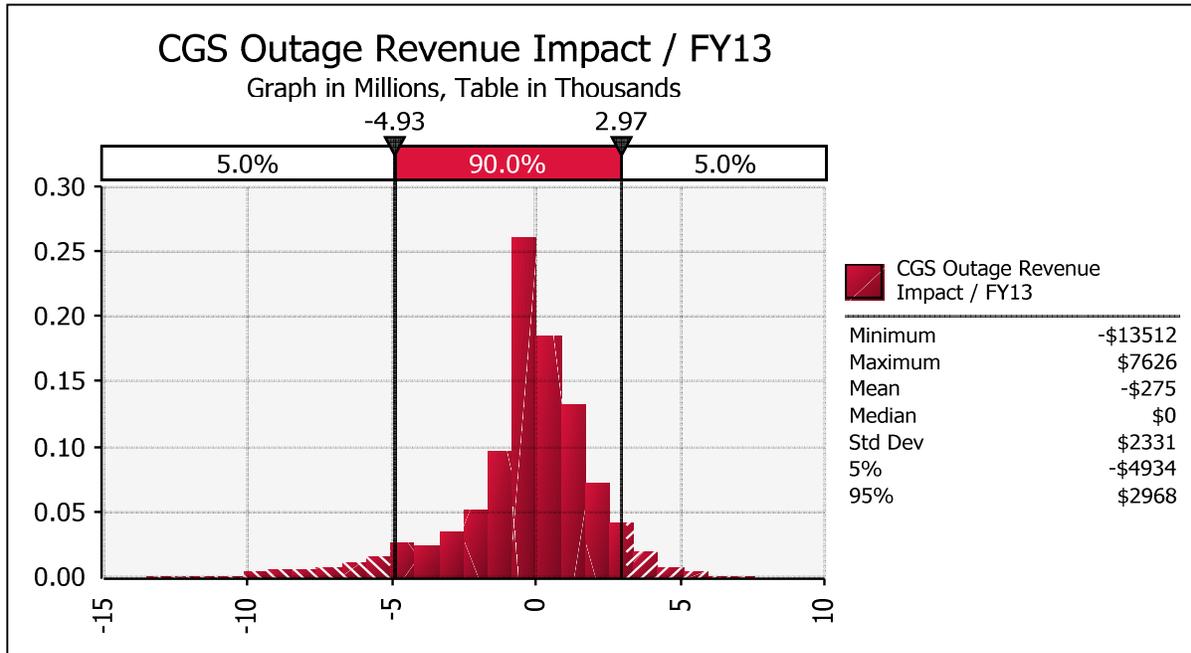
**Figure 26: Federal Appropriations Expense Distributions**



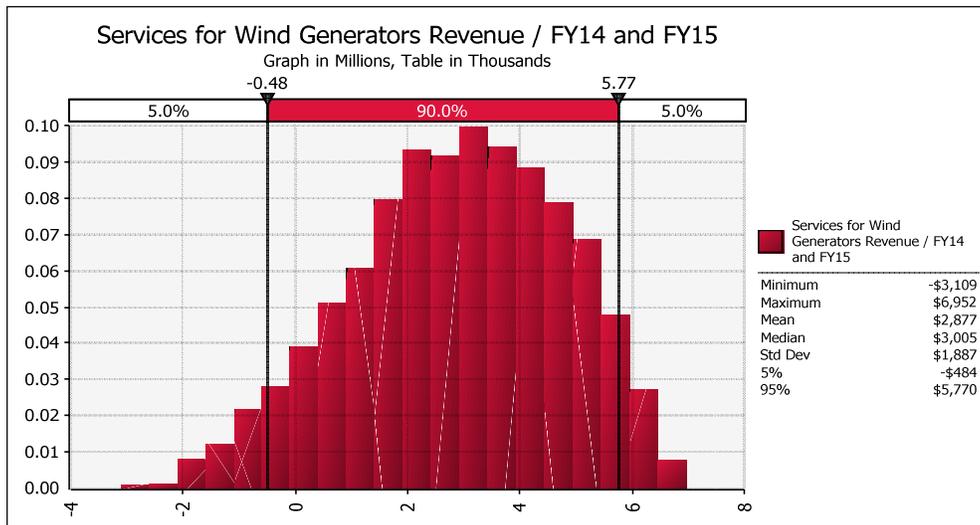
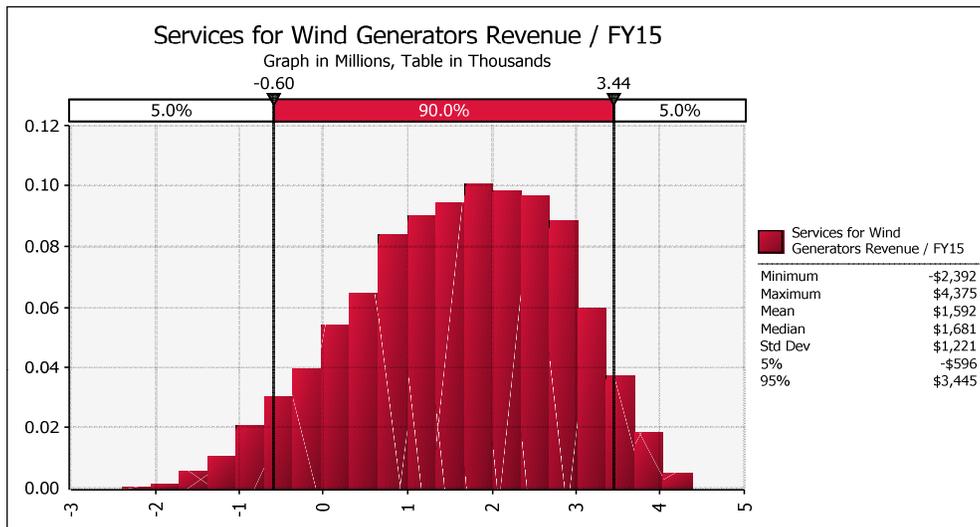
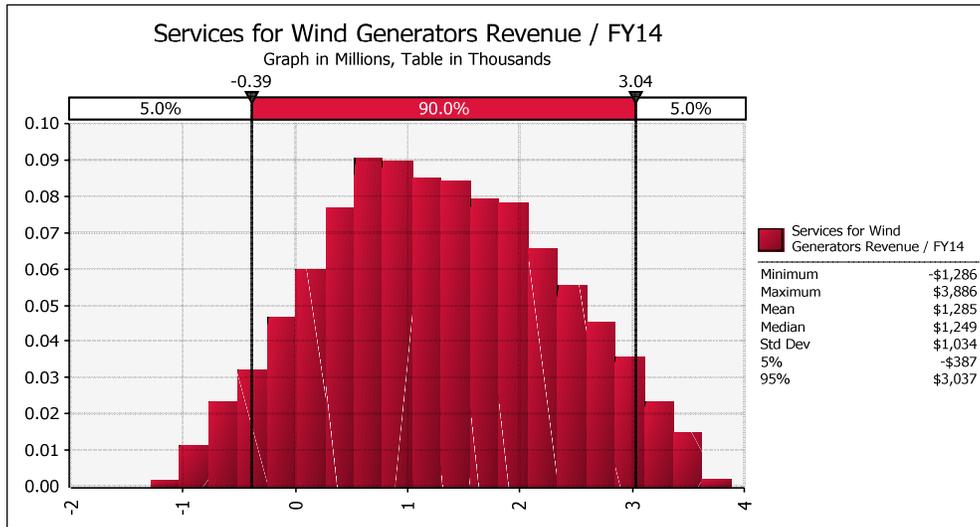
**Figure 27: CGS Refueling Outage Duration Distributions**



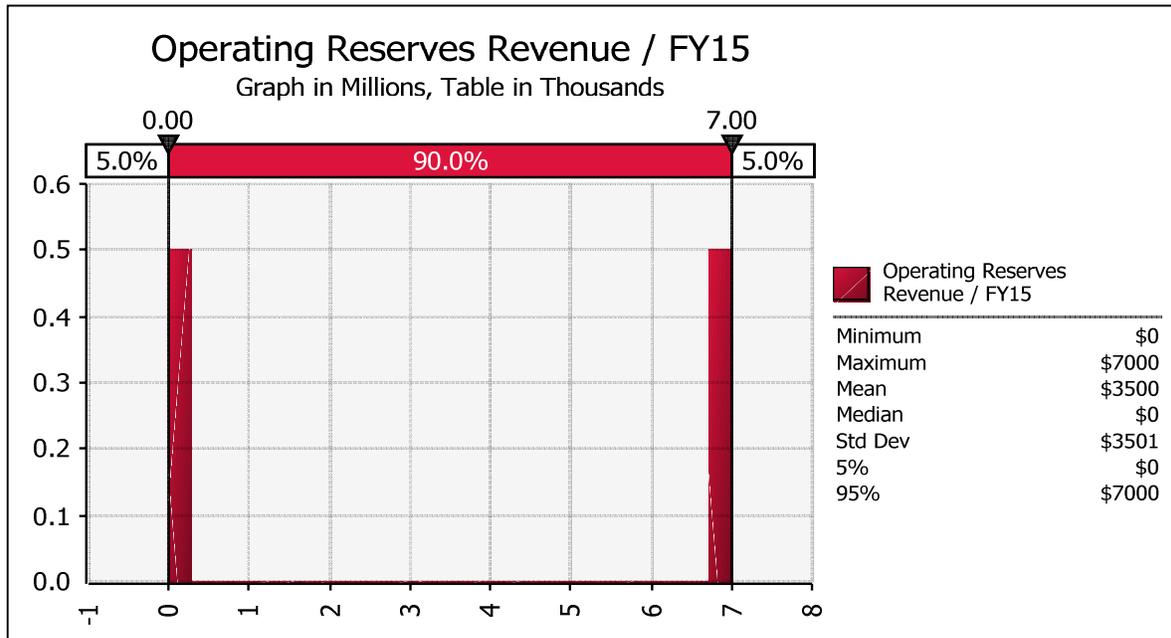
**Figure 28: CGS Refueling Outage Revenue Impact Distributions**



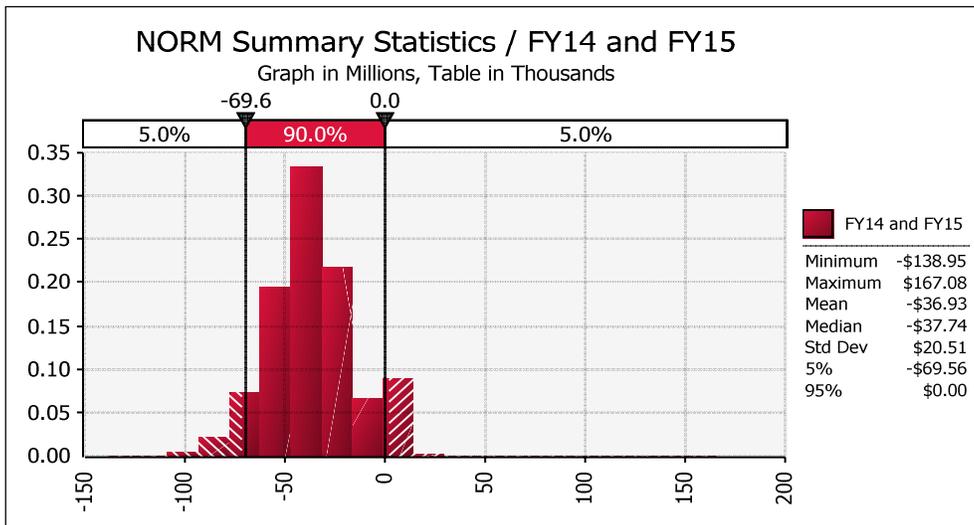
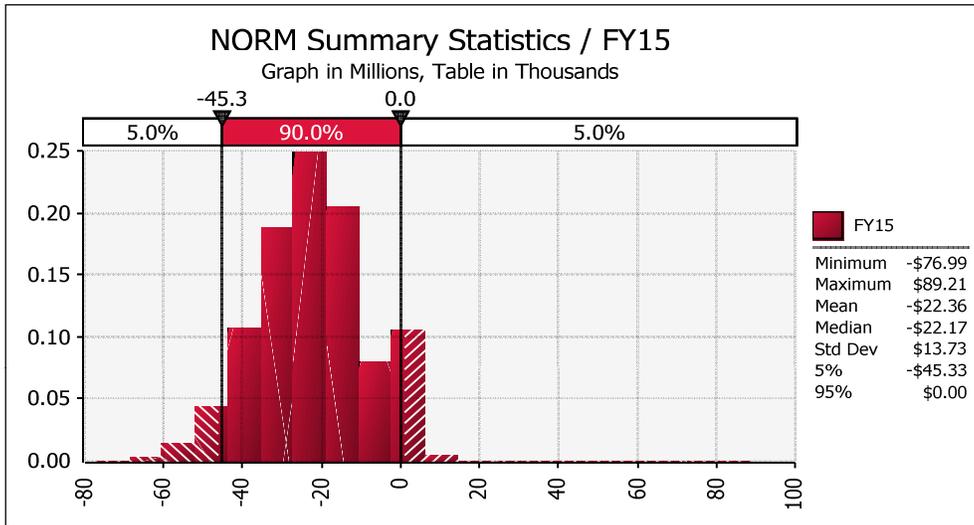
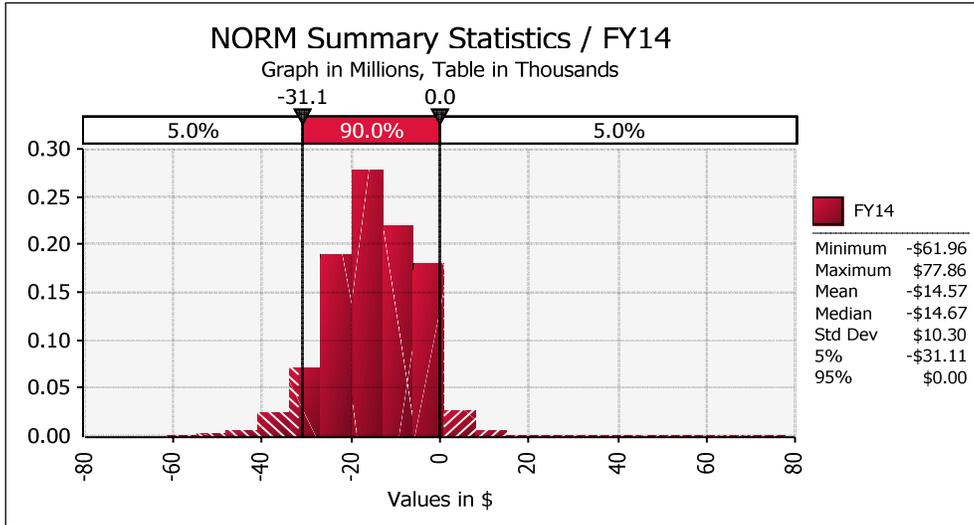
**Figure 29: Variable Energy Resource Balancing Services (VERBS) Revenue Distributions**



**Figure 30: Operating Reserve Revenue Distributions**

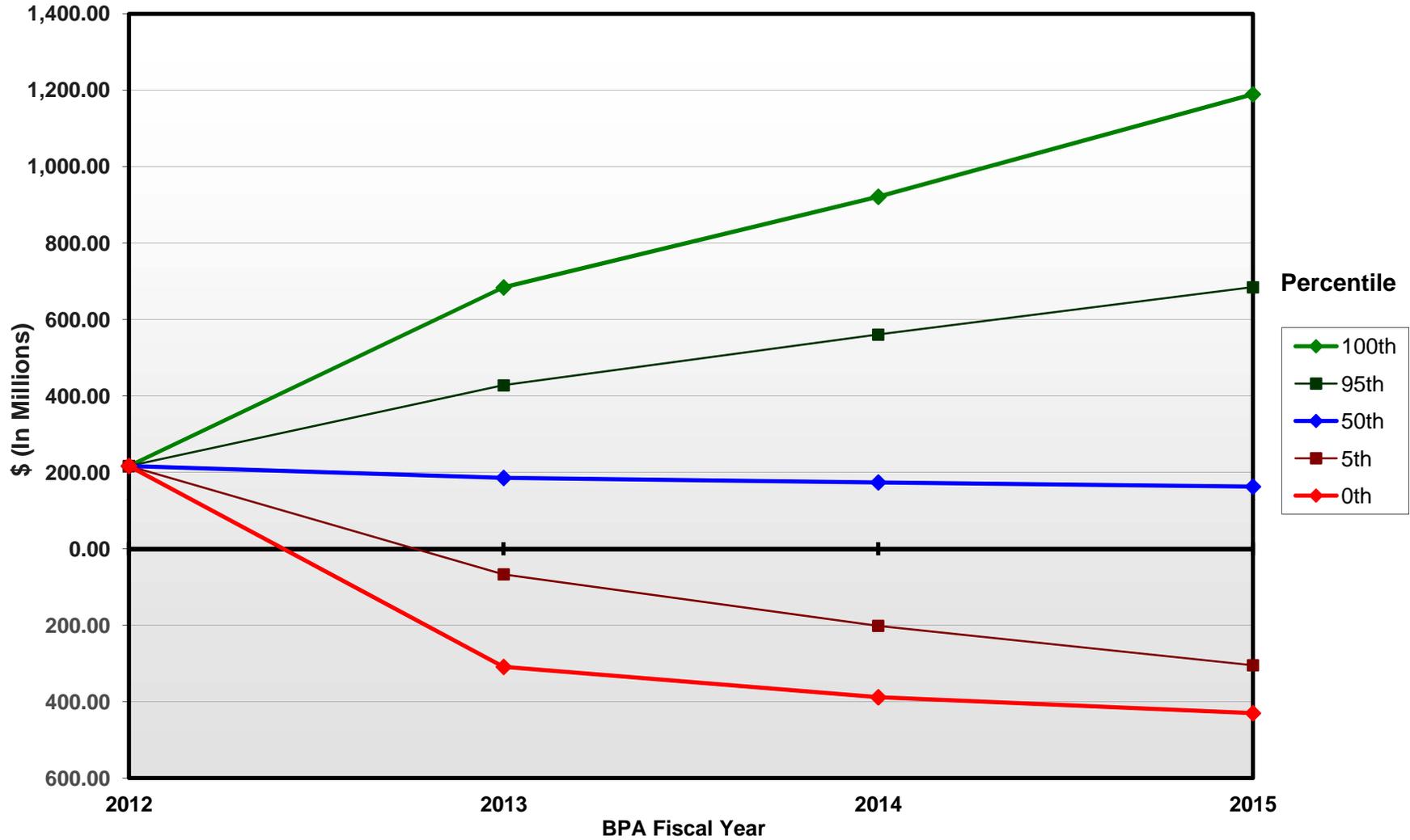


**Figure 31: NORM Output Summary Distributions**



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R		
1	<b>Figure 32: ToolKit "Main" Sheet</b>																			
2	<b>ToolKit v. 4.9, (09-28-2012)</b>			Study title: <b>Final IP with NFB on   PS reserves</b>																
3	Time of run: 12:46:45 PM on 10/26/2012			2 -yr TPP = 99.25%		Run Type: PS-only run														
4																				
5	<b>Input Files</b>	PS	http://internal.bpa.gov/sites/risk-mgmt/DBE/Documents/Risk_Models/ToolKit/12-10_Oct/24_IP_FINAL/NFB/RM_BP14Initial_Final_ID61_20121019.xls													Split Percentile				
6		NORM	http://internal.bpa.gov/sites/risk-mgmt/DBE/Documents/Risk_Models/ToolKit/12-10_Oct/24_IP_FINAL/NFB/NORM-Output_BP14_IP_NFBSPILL95.xls																	
7		TS (or Split)																		
8	PS Only (no TS)	Start in TK Yr	Stop in TK Yr	Start TPP in TK Yr	Starting Iteration	No. of Iterations	Deferral Logic	Enable NFB Adj	Ask For PNR Adj	Sec Rev Rebate	AutoPrint Res Grph	AutoPrint This Page	CRAC Stats							
9	TRUE	1	3	2	1	3,200	Hybrid	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE							
10	PS Starting Rsv Res Bal	TS Strt Rsv Bal	PS Starting ANR	PS Cash Liq Res	TS Liq Res	Gross Treas Facility	Treas Facil Liq Res	Net Treas Facility	TS to PS Res Allocation		"Small" Def. Size	Starting PNR Adj	Sec Rev Rebate Description							
11	217.0		0.00	0	20	750	320	430	0		\$200	0	n/a							
15	TK Year	Fiscal Year	Probabilistic?	BPA Fund Int. Rates		Treas Facil Int Rate	Treasury Pmt Sched		Interest Credit Sched		Other Cash Only Adj	Cash Lag for PNR	PS Cash Tmg Adj	TS Cash Tmg Adj	Reserves Thresholds					
16				IOC	Tr.Specials		Amort	Interest	PS	TS					DDC	CRAC				
17	1	2013	TRUE	1.52%	1.52%	0.56%	193.0	276.0	11.50		0.0	0.0	4.9	0.0	750	0				
18	2	2014	TRUE	1.52%	1.52%	1.64%	174.7	292.1	6.45		0.0	0.0	4.0	0.00	750	0				
19	3	2015	TRUE	2.60%	2.60%	3.42%	179.2	305.6	11.21		0.0	0.0	7.1	0.00	750	0				
23	Year	Fiscal Year	Div. Dist.		CRAC		PNRR		Other Misc Adjustments to Cash and NR											
24			Threshold	Lim/Year	Threshold	Lim/Year	Rev Basis	Type	Shape	Risk Mod	Calc'd in TK	Sum								
25	1	2013	606.6	1,000	-143.4	300	StepA	0.0		0	0									
26	2	2014	547.1	1,000	-202.9	300	StepA	1.0		0	0									
27	3	2015	554.5	1,000	-195.5	300	StepA	1.0		0	0									
32	<b>Outputs</b>		PS Starting Reserves	217.0														Approx PF rates (avg not block)		
33	ToolKit Year	Fiscal Year	No. of Deferrals	"Small" Deferrals	1-year Probab.	Cumul. Deferrals	Cumul. Probab.	Avg. Def. per Year	Avg. Def. per Def.	Avg. 1st Def./Def.	Avg. End. Reserves	Avg. End. Tr Note Bal	Avg. End. ANR	PNRR Added	Base	After PNRR	After Var.Rates	Net Liquidity		
34	1	2013	0	0	100.0%	n/a	n/a	0.0	n/a	n/a	190.3	(8.8)	(21.5)	0	not implemented	not implemented	not implemented	611.5		
35	2	2014	0	-	100.0%	-	100.0%	0.00	n/a	n/a	203.96	(28.2)	(19.7)	0	implemented	implemented	implemented	605.8		
36	3	2015	24	23	99.3%	24	99.3%	0.29	38.4	38.4	224.17	(56.2)	(23.8)	0				598.0		
41	2	-yr Total	24	23	n/a	n/a	n/a	0.3	n/a	n/a	n/a	n/a	n/a	0.0						
42	2	-yr Avg.	12	12	n/a	n/a	n/a	0.1	38.4	38.4	n/a	n/a	n/a	0.0						
43	ToolKit Year	Fiscal Year	No. of DDCs	Avg. DDC per each	Avg. DDC per Year	DDC Frequency	No. of CRACs	Avg CRAC per each	Avg CRAC per Year	No. of NFB Access	Avg NFB per each	Avg NFB per Year	Ann.Lim. Reached	CRAC Frequency	NFB Rec. Frequency					
44	1	2013	0	n/a	0.0	0%	0	n/a	0.0	0	n/a	0.0	0	0%	0%					
45	2	2014	0	n/a	0.0	0%	393	65.6	8.1	93	7.9	0.2	0	12%	3%					
46	3	2015	19	60.4	0.4	1%	764	97.5	23.3	348	8.2	0.9	0	24%	11%					
51	2	-yr Total	19	n/a	0.4	n/a	1157	n/a	31.3	441	n/a	1.1	0	n/a	n/a					
52	2	-yr Avg.	10	60.4	0.2	0%	579	86.7	15.7	221	8.1	0.6	0	18%	7%					
53	ToolKit Year	Fiscal Year	NORM Inputs	PBL Inputs	TBL Inputs	A-T-C Totals	Ave. Reb. per each	Ave Reb. per Year	PF share of Rebate	IOU Share of Rebate	No. of Rebates	Ave. Re-bate Rate	PS Int Credit	TBL Int Credit						
54	1	2013	-1.4	-17.4		-16.2							5.76							
55	2	2014	-15.9	9.5		-6.4							4.86							
56	3	2015	-24.5	-2.5		-3.9							8.17							
61	2	-yr Total	-40.4	7.0		-10.4							13.0							
62	2	-yr Avg.	-20.2	3.5		-5.2							6.5							

**Figure 33: Power Services End of Year Net Reserves**  
 (Reserves Available For Risk Attributed to Power Less Liquidity Borrowing)



	A	B	C	D	E	F	G	H	I	J	K	L
1	<b>Table 24: PS End of Year Balances</b>											
2	(Values in Millions)											
3	<b>EOY Reserves Balance</b>					<b>Treasury Note Balance</b>						
4		2012	2013	2014	2015		2012	2013	2014	2015		
5	<b>Avg</b>	217	190	204	224	<b>Avg</b>	0	-9	-28	-56		
6	<b>stdev</b>	0	140	190	236	<b>stdev</b>	0	32	67	104		
7												
8	<b>100%</b>	217	684	921	1190	<b>100%</b>	0	0	0	0		
9	<b>95%</b>	217	428	561	685	<b>95%</b>	0	0	0	0		
10	<b>75%</b>	217	292	332	384	<b>75%</b>	0	0	0	0		
11	<b>50%</b>	217	186	174	163	<b>50%</b>	0	0	0	0		
12	<b>25%</b>	217	66	8	0	<b>25%</b>	0	0	0	-70		
13	<b>5%</b>	217	0	0	0	<b>5%</b>	0	-67	-202	-305		
14	<b>0%</b>	217	0	0	0	<b>0%</b>	0	-309	-388	-430		
15												
16												
17	<b>Available Liquidity</b>					<b>Net Reserves</b>						
18		2012	2013	2014	2015		2012	2013	2014	2015		
19	<b>Avg</b>	647	611	606	598	<b>Avg</b>	217	181	176	168		
20	<b>stdev</b>	0	155	228	303	<b>stdev</b>	0	155	228	303		
21												
22	<b>100%</b>	647	1114	1351	1620	<b>100%</b>	217	684	921	1190		
23	<b>95%</b>	647	858	991	1115	<b>95%</b>	217	428	561	685		
24	<b>75%</b>	647	722	762	814	<b>75%</b>	217	292	332	384		
25	<b>50%</b>	647	616	604	593	<b>50%</b>	217	186	174	163		
26	<b>25%</b>	647	496	438	360	<b>25%</b>	217	66	8	-70		
27	<b>5%</b>	647	363	228	125	<b>5%</b>	217	-67	-202	-305		
28	<b>0%</b>	647	121	42	0	<b>0%</b>	217	-309	-388	-430		
29												
30												
31	<b>EOY Accumulated Net Revenue</b>					<b>Net Revenue</b>						
32		2012	2013	2014	2015		2013	2014	2015			
33	<b>Avg</b>	0	-21	-20	-24	<b>Avg</b>	-21	2	-4			
34	<b>stdev</b>	0	154	227	300	<b>stdev</b>	154	178	180			
35												
36	<b>100%</b>	0	478	722	986	<b>100%</b>	478	570	496			
37	<b>95%</b>	0	225	363	488	<b>95%</b>	225	298	284			
38	<b>75%</b>	0	90	136	188	<b>75%</b>	90	133	129			
39	<b>50%</b>	0	-17	-22	-31	<b>50%</b>	-17	-3	-2			
40	<b>25%</b>	0	-137	-185	-260	<b>25%</b>	-137	-132	-136			
41	<b>5%</b>	0	-269	-394	-489	<b>5%</b>	-269	-282	-312			
42	<b>0%</b>	0	-508	-566	-836	<b>0%</b>	-508	-438	-487			



