

BP-14 Final Rate Proposal

**Power Risk and Market Price Study
Documentation**

BP-14-FS-BPA-04A

July 2013



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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	U.S. Army Corps of Engineers
Commission	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	Intercontinental Exchange
<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
TRAM	Transmission Risk Analysis Model
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

	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																																
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			
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			
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	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			
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	1.00	0.00	0.00			
9	CISO	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			
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	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	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			
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	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			
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	0.00	1.00	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	0.00	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	0.03			
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	0.00	0.01	0.03	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	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	0.00	1.00	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	0.00	0.00	0.85	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	0.60	0.40	0.00	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	1.00	0.00	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			
25	SPR	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	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			
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			
28	TID	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	1.00	0.00	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	0.00	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	0.11		
31	WALC	0.00	0.93	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	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	0.00	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		

Table 2: Control Area Load Forecast (MWh)

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

Table 2 (cont.): Control Area Load Forecast (MWh)

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

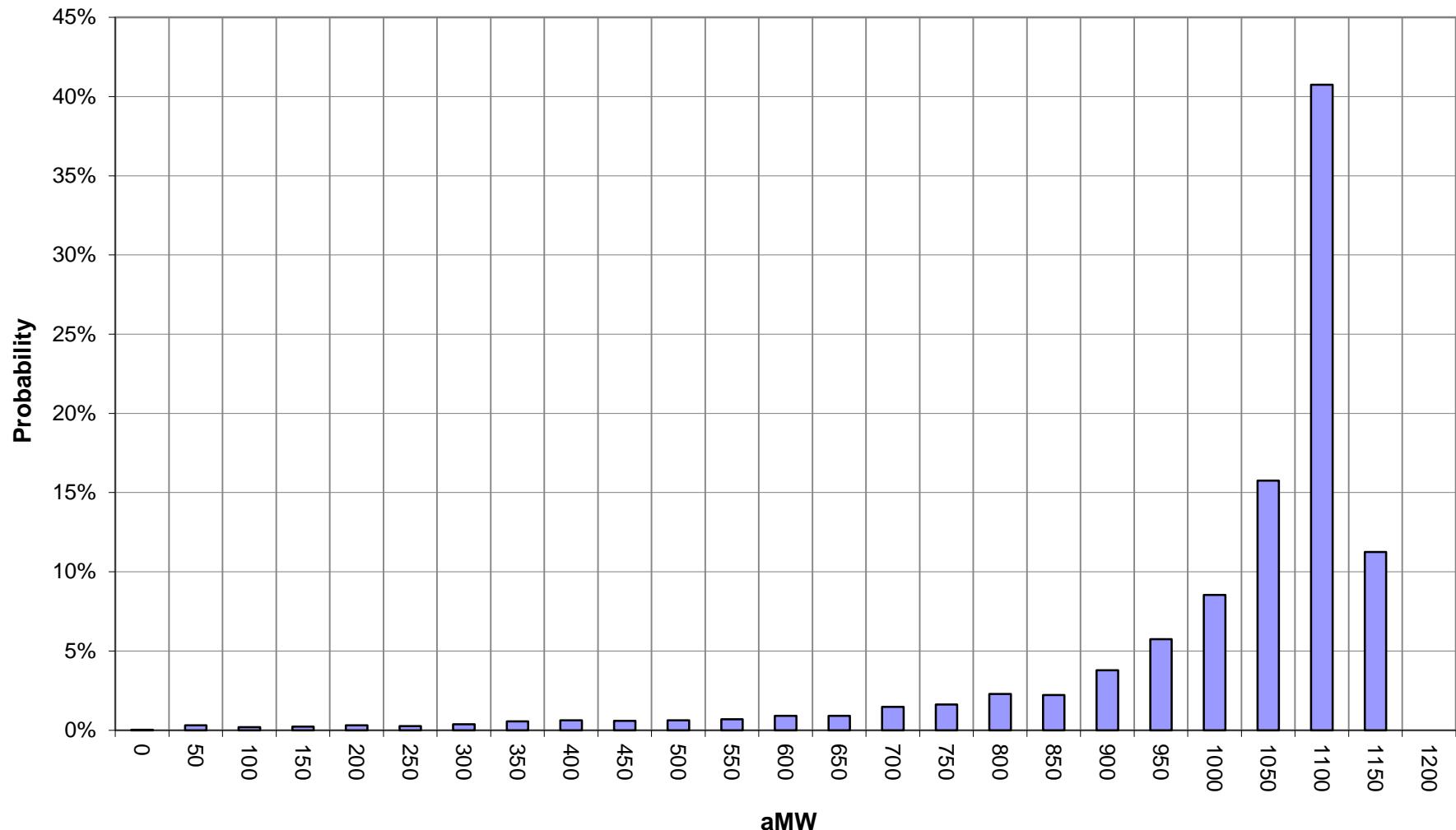


Figure 2: WECC Renewable Resource Additions

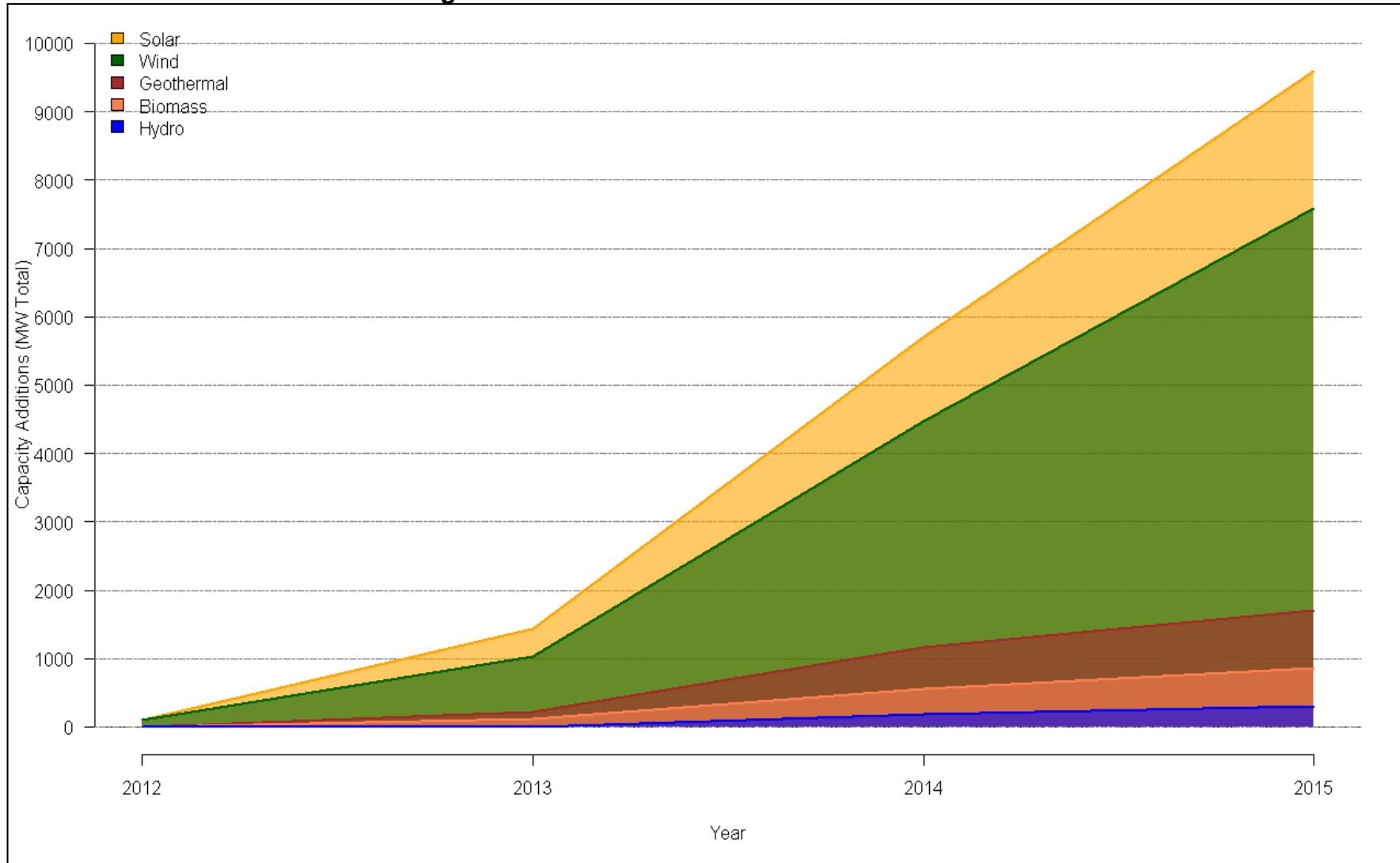


Figure 3: HLH Market Prices for FY 2014 - 2015

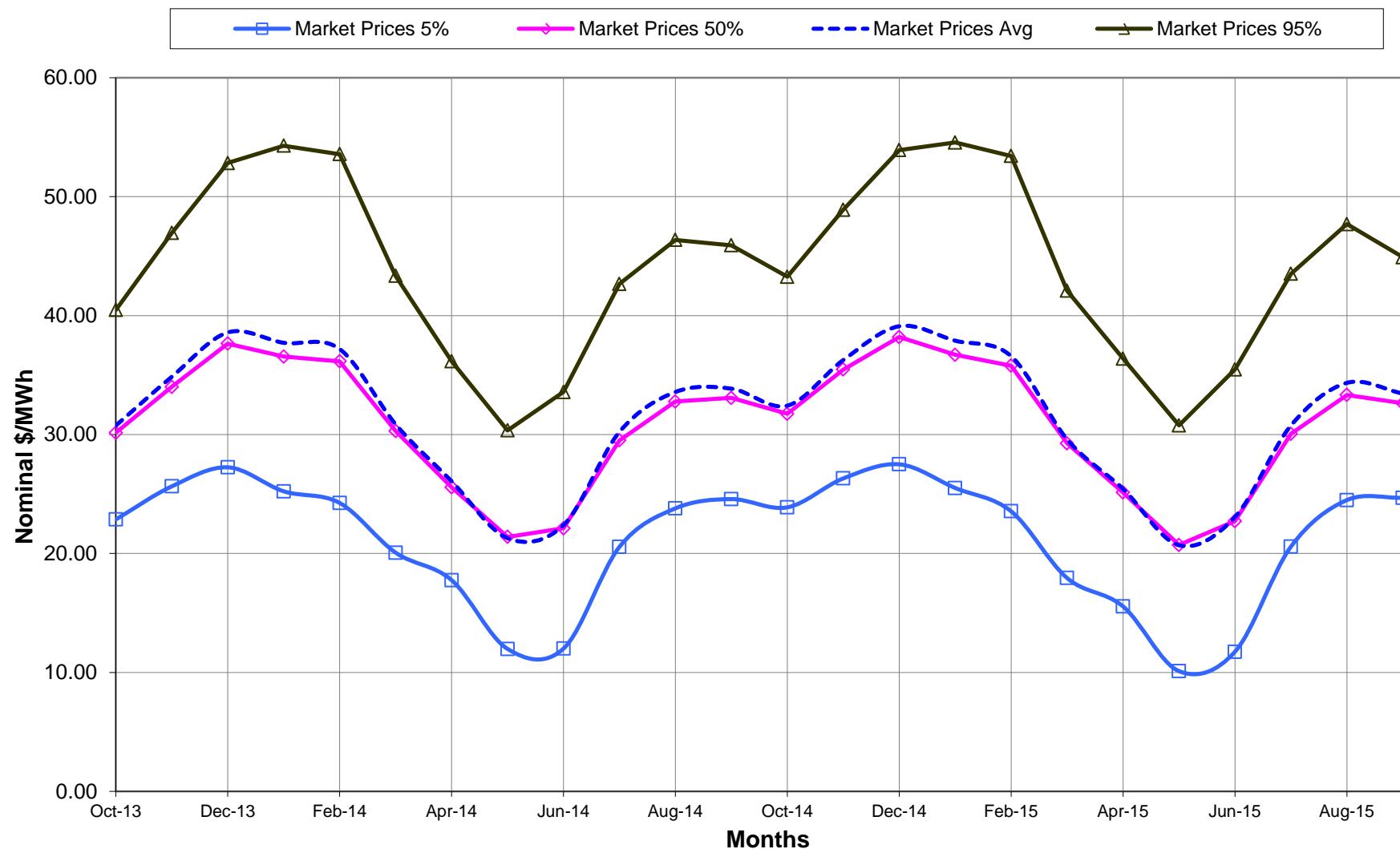


Figure 4: LLH Market Prices for FY 2014 - 2015

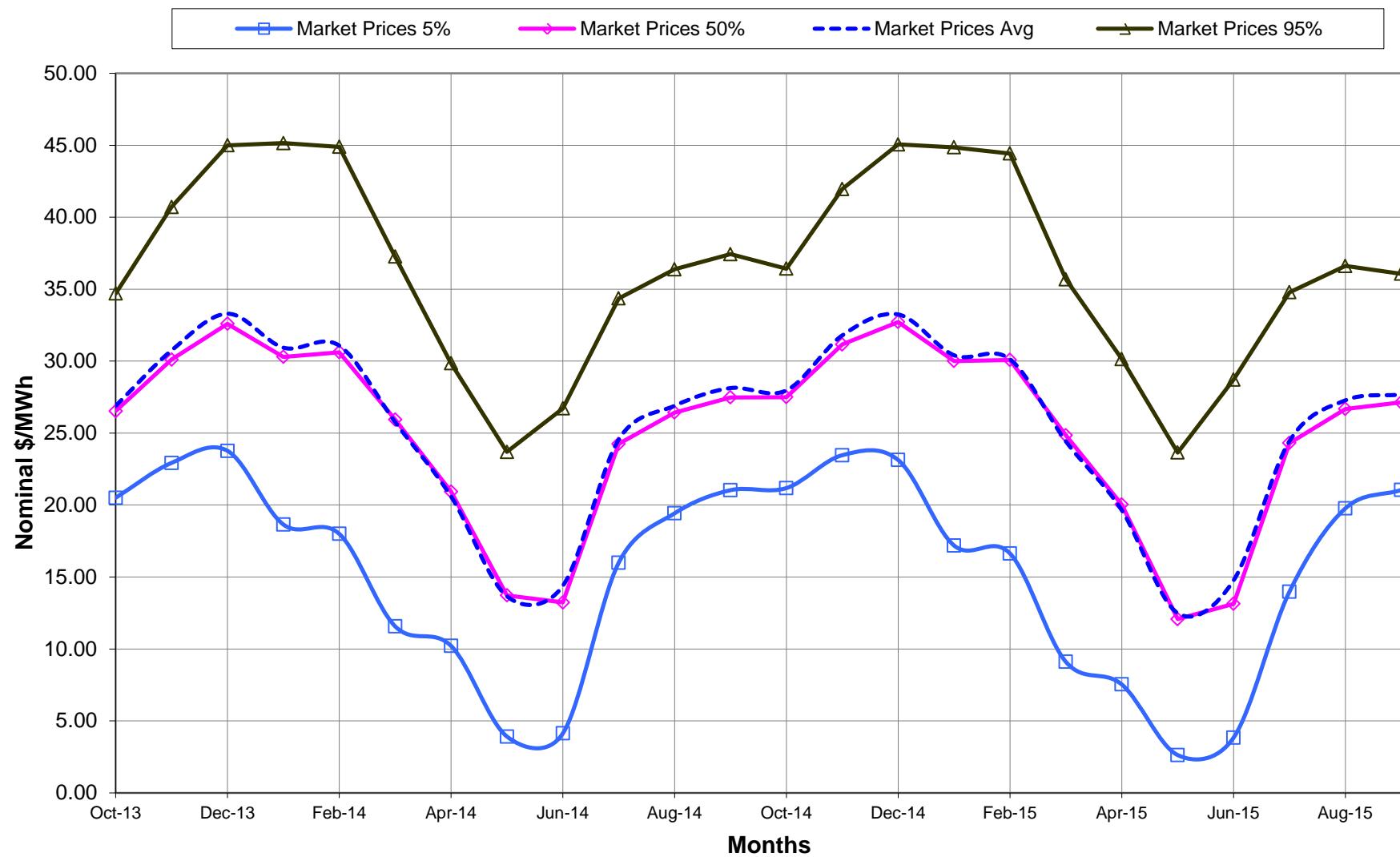


Figure 5: HLH Market Prices for the Critical Water Run

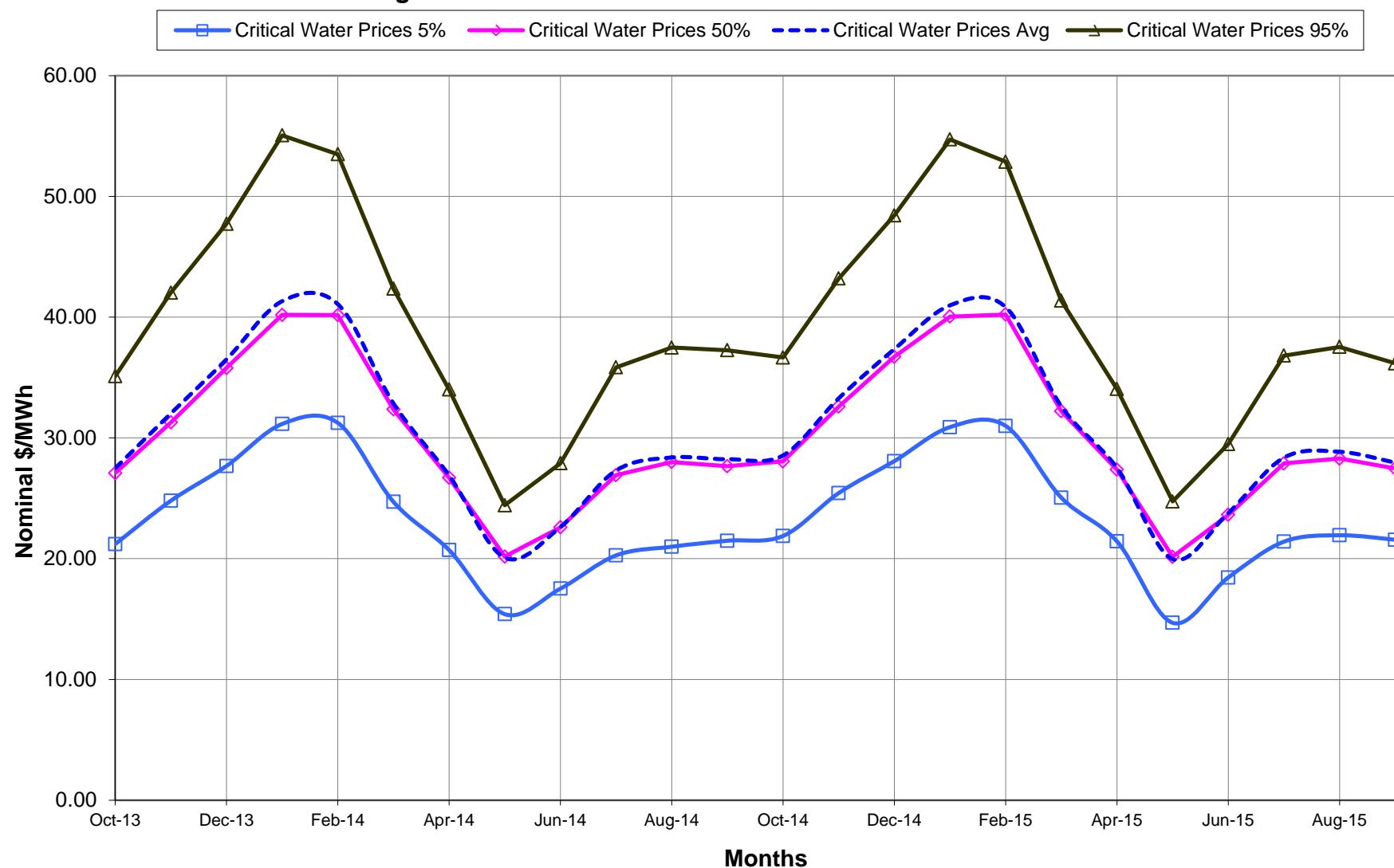
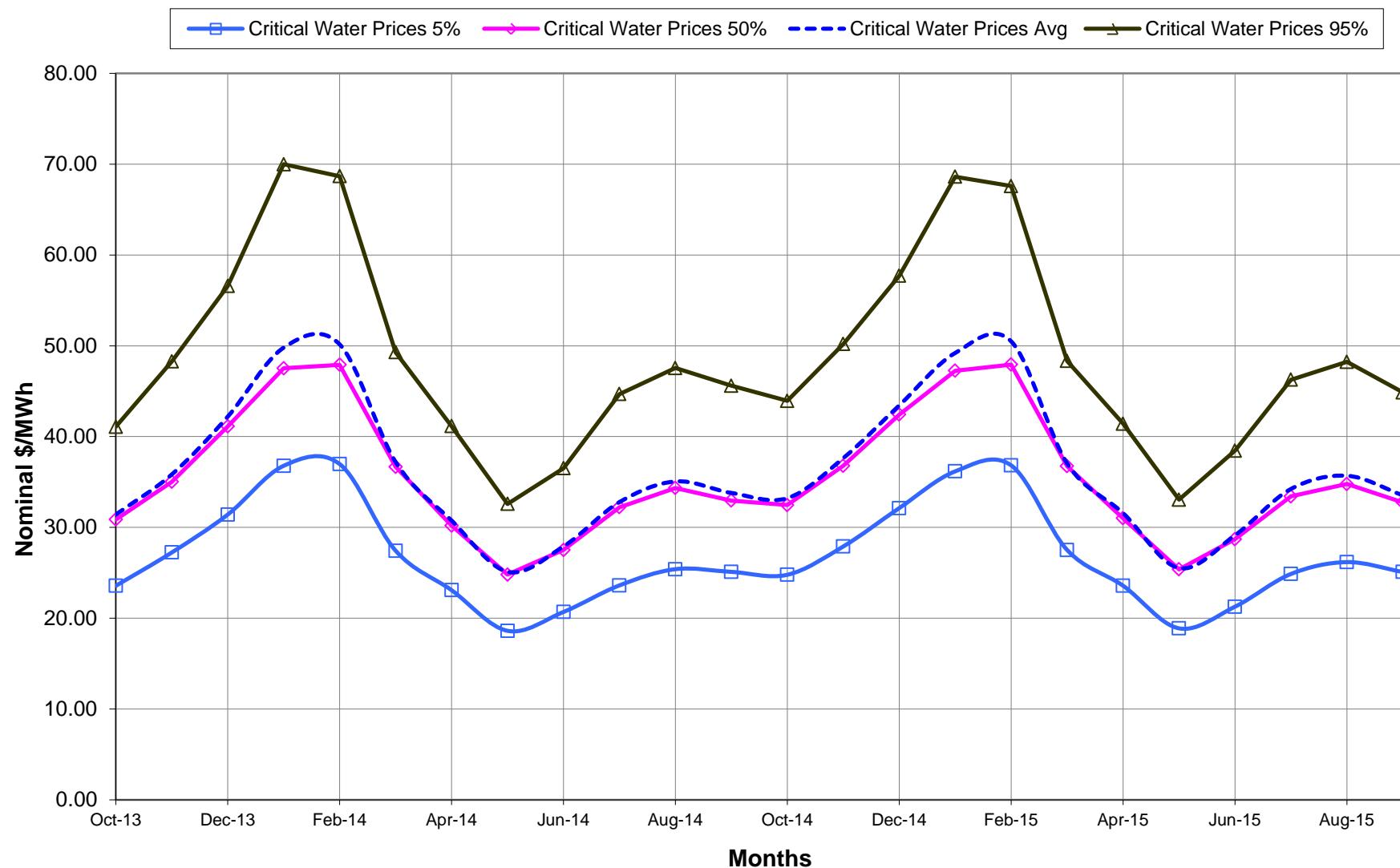


Figure 6: LLH Market Prices for the Critical Water Run



	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Table 3: Federal Hydro Generation (aMW) with Hydro Independents for FY 2014													
2														
3														
4	Water Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Wtd Avg.
5	1929	5,927	7,277	7,206	7,025	6,394	6,151	6,496	9,059	9,125	7,228	6,538	6,200	7,055
6	1930	5,538	7,102	7,239	5,275	6,566	5,959	7,102	8,842	7,144	8,346	6,820	6,193	6,846
7	1931	5,309	7,430	7,113	5,407	5,296	5,236	5,729	9,617	7,475	7,888	6,802	5,339	6,565
8	1932	5,175	6,649	7,088	4,954	4,689	8,144	12,156	13,430	13,049	8,456	7,816	6,719	8,207
9	1933	5,714	6,714	7,484	10,294	10,280	9,377	9,152	11,484	14,085	11,302	9,297	6,333	9,287
10	1934	6,775	10,325	13,603	14,593	13,653	11,483	12,620	12,163	10,388	8,793	6,696	5,848	10,561
11	1935	5,396	6,400	7,922	9,720	9,136	8,421	8,685	10,546	9,602	9,794	7,799	5,515	8,245
12	1936	5,689	7,211	7,168	5,861	5,580	6,580	9,146	13,267	11,954	8,328	6,801	5,512	7,769
13	1937	5,648	7,574	7,314	5,768	5,618	6,133	6,158	10,163	8,168	7,918	6,386	6,171	6,928
14	1938	5,461	6,625	8,172	9,417	8,892	9,686	11,726	12,162	11,256	9,645	7,095	6,213	8,861
15	1939	5,886	7,113	7,171	7,349	6,892	7,167	9,727	11,758	8,613	8,045	6,250	5,691	7,643
16	1940	5,943	7,848	8,114	6,966	6,887	8,681	9,890	11,199	9,891	7,466	6,119	5,964	7,917
17	1941	5,778	6,840	7,723	6,684	6,513	5,943	6,836	9,855	9,391	8,139	6,786	6,785	7,277
18	1942	5,202	7,240	9,084	9,469	7,044	6,480	8,092	10,452	12,092	10,569	7,838	7,143	8,400
19	1943	5,732	6,621	8,050	10,504	9,870	9,933	12,955	12,236	13,098	9,195	7,801	5,915	9,318
20	1944	5,719	7,377	7,176	7,149	6,609	5,839	6,743	8,409	6,363	7,405	6,501	5,975	6,775
21	1945	5,506	7,115	6,497	5,827	5,699	5,581	4,809	11,443	11,703	7,079	7,080	6,125	7,046
22	1946	5,551	7,038	8,092	9,294	8,896	9,296	11,948	12,466	11,986	9,977	8,571	6,411	9,126
23	1947	5,671	7,356	11,586	12,562	11,946	10,553	9,657	12,306	12,500	10,163	7,559	6,125	9,824
24	1948	8,525	9,260	9,750	12,379	10,218	8,643	10,839	13,693	13,603	11,032	9,643	6,736	10,364
25	1949	6,014	7,273	8,128	9,443	7,315	11,130	11,597	13,283	12,066	7,205	6,154	5,445	8,762
26	1950	5,680	7,145	7,909	12,057	10,672	11,828	11,641	12,365	12,772	10,226	9,564	6,423	9,854
27	1951	6,904	9,692	11,773	13,894	13,391	13,100	12,059	12,403	11,958	10,752	9,227	6,369	10,950
28	1952	7,927	8,364	9,877	11,548	10,499	10,257	12,348	13,305	12,495	9,858	8,010	5,512	9,999
29	1953	5,636	7,237	7,184	7,470	9,827	8,245	8,708	12,151	13,789	10,713	8,306	6,268	8,784
30	1954	5,907	7,676	9,189	11,639	11,147	10,300	10,041	12,443	12,563	11,833	9,956	9,197	10,152
31	1955	6,083	8,475	8,590	8,028	6,358	5,672	7,746	11,261	13,703	12,033	9,073	5,982	8,598
32	1956	6,270	9,155	11,682	13,846	13,321	11,813	12,410	12,952	13,395	10,932	9,121	6,256	10,916
33	1957	6,226	7,208	9,295	9,513	7,442	9,788	11,213	14,112	14,302	9,529	7,433	6,069	9,356
34	1958	5,813	7,396	7,771	9,752	9,104	9,369	10,320	13,007	13,038	9,026	7,263	5,908	8,977
35	1959	5,790	8,294	10,916	13,226	12,253	10,757	10,407	11,536	13,133	9,871	9,591	9,190	10,400
36	1960	9,455	10,441	10,723	11,135	9,039	9,374	12,629	11,591	12,037	9,526	7,391	5,756	9,929
37	1961	5,930	7,396	8,334	10,379	10,046	10,466	10,095	12,476	13,414	9,243	7,434	5,777	9,243
38	1962	5,705	7,375	7,638	9,708	9,193	7,566	12,307	12,289	12,686	7,157	7,292	5,756	8,710
39	1963	6,324	8,562	10,456	10,145	9,043	7,811	8,681	11,507	12,761	9,896	7,614	6,413	9,101
40	1964	5,675	6,993	8,252	8,612	7,852	7,339	9,741	12,121	13,680	11,674	9,436	7,120	9,047
41	1965	6,797	8,116	11,881	14,987	14,118	12,443	11,166	12,761	12,507	9,797	9,290	5,894	10,801
42	1966	6,164	7,758	8,652	9,552	8,549	6,730	10,872	10,939	10,354	9,841	7,560	5,948	8,575
43	1967	5,668	7,029	8,721	11,901	12,060	11,509	7,493	11,421	12,713	10,631	8,460	6,259	9,479
44	1968	5,982	7,781	8,681	10,740	10,754	9,801	7,773	9,409	12,489	10,228	8,768	7,753	9,169

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Table 3: Federal Hydro Generation (aMW) with Hydro Independents for FY 2014													
2														
3														
4	Water Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Wtd Avg.
45	1969	6,940	9,258	9,906	13,268	13,200	10,384	11,984	12,571	12,216	10,117	8,317	6,128	10,339
46	1970	5,869	7,509	7,557	9,561	8,928	8,463	8,550	11,681	13,246	8,484	7,109	5,822	8,560
47	1971	5,716	7,244	7,940	13,596	13,907	12,590	11,726	12,975	13,145	11,745	9,754	6,871	10,582
48	1972	6,288	7,515	9,095	13,136	13,579	13,996	11,878	13,239	13,259	11,624	9,806	7,536	10,899
49	1973	6,213	7,505	8,606	9,636	7,426	6,687	5,909	9,538	9,736	7,672	6,410	6,044	7,620
50	1974	5,421	6,949	9,253	15,428	14,857	12,801	12,064	12,451	12,849	12,014	9,814	6,891	10,879
51	1975	5,628	7,316	7,986	9,512	10,083	9,845	8,603	11,873	13,456	12,393	9,122	6,885	9,389
52	1976	7,130	9,591	12,983	12,974	12,639	11,862	12,384	13,092	12,633	11,066	10,304	9,791	11,363
53	1977	6,288	7,385	7,214	7,077	7,046	6,143	6,322	7,849	6,084	7,058	6,420	5,530	6,703
54	1978	4,629	6,323	10,075	8,984	8,602	8,711	10,975	12,032	10,293	9,766	7,282	7,867	8,796
55	1979	6,333	7,402	7,513	8,381	6,509	8,860	8,502	13,057	9,017	7,248	6,147	5,648	7,899
56	1980	5,667	7,333	6,853	7,561	7,165	6,602	9,994	13,605	12,717	7,897	6,900	6,145	8,203
57	1981	5,839	7,286	11,070	11,698	9,140	7,871	8,396	13,128	14,074	10,567	9,379	6,497	9,588
58	1982	5,817	7,804	9,468	11,347	13,641	13,245	11,130	12,803	13,258	10,791	9,791	8,072	10,577
59	1983	7,000	7,916	9,833	12,002	11,359	12,774	10,576	12,467	12,565	10,740	9,603	6,739	10,298
60	1984	6,049	9,945	9,759	11,219	10,887	10,585	12,785	12,596	13,938	11,165	8,316	6,686	10,317
61	1985	6,128	7,909	8,559	8,975	8,427	8,229	10,637	12,694	10,255	5,988	5,629	5,706	8,256
62	1986	5,606	8,813	8,657	10,052	11,018	14,061	11,658	11,194	12,415	8,956	7,197	5,896	9,614
63	1987	5,628	7,235	8,673	7,920	5,900	7,897	7,944	11,963	9,792	7,617	5,723	5,775	7,686
64	1988	5,430	7,050	6,796	5,834	5,694	5,951	7,413	9,666	9,623	8,452	6,424	6,145	7,045
65	1989	5,116	6,626	7,803	7,176	6,624	7,651	11,247	11,856	9,858	7,445	6,351	5,831	7,802
66	1990	5,538	7,490	8,451	10,237	10,497	9,748	11,299	11,514	12,230	9,333	8,502	5,906	9,218
67	1991	5,379	9,653	10,118	11,096	11,892	10,386	10,475	12,284	11,868	10,913	9,278	6,022	9,936
68	1992	5,571	7,319	7,295	7,202	6,550	6,860	7,242	10,943	9,105	7,093	5,853	5,943	7,252
69	1993	5,275	7,089	7,496	5,607	5,492	7,406	8,084	11,543	10,657	8,899	6,917	6,242	7,571
70	1994	5,408	7,711	7,432	5,977	5,620	6,145	7,098	10,667	9,874	8,235	6,428	6,130	7,235
71	1995	5,141	6,602	6,934	7,192	9,606	9,933	9,566	10,875	12,655	9,144	7,275	6,993	8,478
72	1996	6,393	10,817	14,678	15,057	13,962	13,970	12,308	12,534	13,249	11,496	9,504	5,936	11,651
73	1997	5,852	7,762	9,845	14,927	14,961	14,265	12,698	13,049	13,658	11,674	9,792	7,786	11,335
74	1998	8,784	9,068	9,347	9,120	9,237	8,184	9,063	13,674	13,689	9,734	7,876	6,112	9,493
75	1999	5,775	6,923	9,152	12,833	12,879	12,412	10,978	12,395	13,717	11,467	9,952	7,240	10,465
76	2000	6,007	10,017	10,546	10,372	9,758	9,539	12,292	11,494	10,286	9,275	7,278	5,847	9,387
77	2001	5,785	7,239	7,233	7,086	6,753	6,023	6,456	8,957	5,657	7,521	6,247	5,448	6,706
78	2002	4,504	6,495	7,134	6,523	6,905	6,500	11,081	10,484	12,771	10,819	8,162	6,149	8,126
79	2003	5,440	7,574	7,375	6,353	6,367	9,278	9,481	10,727	12,409	7,566	5,994	5,581	7,847
80	2004	5,748	7,465	8,331	7,197	6,275	6,855	9,039	11,397	10,677	7,843	6,565	6,445	7,826
81	2005	6,016	7,371	9,039	9,220	7,771	7,233	7,455	11,634	10,978	8,154	6,711	6,152	8,149
82	2006	5,339	7,365	8,335	10,858	10,420	9,804	12,628	13,184	12,354	9,118	6,927	5,885	9,340
83	2007	5,479	7,593	8,258	10,312	7,934	11,393	10,174	11,702	10,084	9,561	6,507	5,504	8,719
84	2008	5,755	7,296	7,527	7,854	6,640	7,981	7,717	13,287	14,273	10,147	7,989	5,846	8,539
85	80 WY Average	5,950	7,716	8,742	9,680	9,185	9,121	9,819	11,782	11,649	9,419	7,784	6,349	8,931
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	Table 4: Federal Hydro Generation (aMW) with Hydro Independents for FY 2015													
2														
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	6,615	5,753	6,931
6	1930	5,654	7,285	7,298	6,168	6,906	6,313	7,300	8,802	6,106	8,356	6,763	5,414	6,867
7	1931	5,610	7,447	7,385	5,745	5,427	5,792	6,497	9,619	7,502	7,638	6,578	5,256	6,719
8	1932	5,206	6,668	7,230	5,070	4,921	8,146	12,110	13,257	12,976	8,389	7,805	6,084	8,167
9	1933	5,800	6,720	8,042	10,253	10,297	9,452	9,121	11,478	13,921	11,307	9,313	6,094	9,312
10	1934	6,610	10,318	13,699	14,591	13,656	11,513	12,411	11,955	10,276	8,615	6,458	5,295	10,433
11	1935	5,734	6,290	8,589	9,746	9,726	9,528	8,142	10,702	9,542	9,940	8,075	5,388	8,452
12	1936	5,577	7,132	7,231	6,550	6,017	6,604	9,386	12,485	11,685	8,076	6,754	5,339	7,743
13	1937	5,577	7,486	7,333	6,306	5,623	6,084	6,213	9,754	7,738	7,478	6,644	5,266	6,803
14	1938	5,795	6,863	9,034	9,154	8,677	10,154	11,346	11,877	11,818	9,303	6,869	5,967	8,905
15	1939	5,865	7,112	7,190	7,723	7,635	7,639	9,280	11,548	7,660	7,763	6,384	5,453	7,606
16	1940	5,994	7,620	8,914	7,712	6,632	10,802	9,020	10,722	8,276	7,641	6,351	5,229	7,924
17	1941	5,772	7,007	8,605	6,760	6,693	6,564	6,913	9,827	7,991	8,406	6,629	5,372	7,220
18	1942	5,655	7,846	9,188	9,095	8,071	8,121	8,363	10,219	10,698	10,482	7,732	6,579	8,509
19	1943	5,840	6,618	8,383	10,278	10,427	10,177	12,692	11,870	12,998	9,193	7,780	5,610	9,311
20	1944	5,477	7,293	7,184	7,172	6,838	6,131	6,710	8,120	5,991	7,176	6,324	4,945	6,616
21	1945	5,705	7,210	7,176	5,859	6,289	6,125	4,947	11,279	11,665	6,864	7,023	5,461	7,139
22	1946	5,551	7,041	8,950	9,294	9,059	9,213	11,810	12,218	12,004	9,974	8,498	6,084	9,141
23	1947	5,480	7,491	11,802	12,003	11,579	11,313	9,650	12,249	12,449	10,275	7,716	5,960	9,826
24	1948	8,337	9,251	9,993	12,376	10,435	8,957	10,840	13,332	13,373	11,122	9,650	7,055	10,396
25	1949	5,833	7,264	8,391	9,220	8,099	11,164	11,345	12,674	12,127	7,055	6,205	5,155	8,713
26	1950	5,638	7,141	8,413	11,774	11,557	11,700	11,532	12,185	12,550	10,319	9,516	6,202	9,869
27	1951	6,709	9,684	11,988	14,028	13,896	12,596	11,842	12,079	11,401	10,962	9,323	6,145	10,875
28	1952	7,754	8,356	10,119	11,548	10,249	10,257	12,376	12,937	12,465	9,719	7,499	5,299	9,881
29	1953	5,480	6,928	7,315	9,440	8,721	8,545	8,636	11,938	13,552	10,785	7,816	6,044	8,766
30	1954	5,713	7,667	9,439	11,216	11,036	10,328	10,025	12,096	12,466	11,790	9,981	9,002	10,058
31	1955	5,902	8,466	8,851	8,046	7,414	6,704	8,086	10,989	13,375	11,995	9,090	5,737	8,730
32	1956	6,097	9,146	11,898	13,834	13,263	11,713	12,247	12,549	13,232	11,047	9,140	6,034	10,837
33	1957	6,030	7,200	9,539	9,650	7,846	9,782	11,048	13,610	14,179	9,775	7,441	5,783	9,333
34	1958	5,718	7,391	7,989	9,979	9,342	9,440	10,353	12,569	12,805	8,829	7,087	5,742	8,932
35	1959	5,831	8,051	11,134	13,222	12,238	10,724	10,409	11,442	12,981	9,720	9,617	8,996	10,351
36	1960	9,308	10,434	10,941	11,135	8,934	9,392	12,488	11,505	11,966	9,722	7,514	5,605	9,918
37	1961	5,764	7,322	8,596	10,365	10,538	10,321	9,689	12,243	13,279	9,476	7,594	5,566	9,221
38	1962	5,562	7,373	7,993	9,692	9,316	7,129	12,375	12,072	12,532	7,236	7,246	5,524	8,657
39	1963	6,215	8,478	10,696	11,009	9,506	8,875	8,270	11,045	10,953	9,854	7,588	6,195	9,060
40	1964	5,533	6,997	8,446	8,597	7,738	7,149	9,738	11,929	13,518	11,740	9,461	6,884	8,984
41	1965	6,618	8,107	12,098	15,058	14,053	12,171	11,035	12,407	12,481	10,338	9,303	5,671	10,767
42	1966	5,980	7,741	8,911	9,536	8,534	7,193	10,929	10,347	10,315	9,847	7,790	5,764	8,573
43	1967	5,529	7,025	8,897	12,213	11,660	10,996	7,574	11,162	12,727	10,816	8,606	6,036	9,430
44	1968	5,790	7,768	8,942	11,200	10,053	10,065	7,773	9,402	12,366	10,186	8,804	7,539	9,153

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Table 4: Federal Hydro Generation (aMW) with Hydro Independents for FY 2015													
2														
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	10,403	11,582	12,379	12,140	10,234	8,209	5,929	10,268
46	1970	5,743	7,509	7,784	10,086	9,278	8,791	8,230	11,210	13,080	8,757	6,675	5,659	8,560
47	1971	5,537	7,239	8,112	13,538	13,892	12,554	11,670	12,846	13,147	11,675	9,779	6,649	10,535
48	1972	6,092	7,506	9,356	13,124	13,579	13,589	11,671	12,933	13,111	11,637	9,832	7,326	10,799
49	1973	6,022	7,496	8,868	9,838	8,075	6,662	5,909	9,500	7,827	7,568	6,450	5,339	7,467
50	1974	5,677	6,634	10,387	15,424	14,828	12,870	11,587	12,162	12,685	11,986	9,784	6,994	10,901
51	1975	5,408	7,309	8,253	9,434	10,117	9,643	8,602	11,552	13,370	12,443	9,274	6,649	9,335
52	1976	6,951	9,583	13,196	12,974	12,598	11,784	12,303	12,814	12,342	11,346	10,330	9,597	11,311
53	1977	6,108	7,379	7,216	7,094	7,141	6,488	6,292	7,897	5,182	7,113	6,290	4,505	6,562
54	1978	5,069	6,408	9,857	9,556	9,461	9,168	10,926	11,741	10,288	10,363	7,241	6,971	8,919
55	1979	6,153	7,402	7,945	8,950	6,666	8,975	8,496	12,309	8,532	6,882	6,218	5,628	7,859
56	1980	5,643	7,320	6,871	8,349	7,513	6,552	10,041	13,373	12,674	7,940	6,720	5,965	8,245
57	1981	5,760	7,285	11,158	11,614	10,611	9,321	7,803	11,531	13,831	10,549	9,406	6,505	9,614
58	1982	5,682	7,744	9,711	11,334	13,810	13,306	11,139	12,481	13,135	11,121	9,816	7,860	10,575
59	1983	6,821	7,908	10,076	11,967	11,415	12,615	10,346	12,017	12,163	11,220	9,770	6,502	10,236
60	1984	5,868	9,937	10,002	11,162	11,005	10,585	12,517	12,485	13,694	11,166	8,991	6,497	10,316
61	1985	5,941	7,901	8,821	8,936	8,385	8,191	10,569	12,410	9,778	6,006	5,759	5,408	8,171
62	1986	6,432	8,966	8,805	9,974	11,043	13,660	11,608	11,173	12,359	8,986	7,145	5,712	9,643
63	1987	5,460	7,225	8,934	8,564	6,494	8,663	7,947	10,950	9,590	7,315	6,028	5,136	7,704
64	1988	5,517	7,163	6,824	6,384	5,694	6,403	7,540	9,561	7,914	8,663	6,663	5,164	6,968
65	1989	5,458	6,872	8,557	7,004	6,607	7,942	11,249	11,813	9,811	6,918	6,463	5,478	7,852
66	1990	5,615	7,659	9,324	10,387	10,101	9,705	11,147	11,569	12,224	9,116	8,307	5,676	9,229
67	1991	5,189	9,628	10,380	11,584	11,045	10,213	10,159	12,144	12,135	11,035	9,303	5,828	9,882
68	1992	5,380	7,311	7,644	8,023	6,579	8,447	6,985	9,207	7,105	7,147	6,074	4,866	7,073
69	1993	5,597	7,100	7,809	6,331	5,495	7,433	8,150	11,529	10,681	8,287	7,146	5,554	7,607
70	1994	5,537	7,722	7,676	6,458	6,678	6,219	7,185	10,736	9,392	8,088	6,484	5,454	7,306
71	1995	5,408	6,615	7,920	7,353	10,502	10,612	8,423	10,498	12,254	9,435	7,146	6,089	8,506
72	1996	6,956	10,810	14,695	15,057	13,991	13,743	11,981	12,095	13,194	11,527	9,532	5,898	11,616
73	1997	5,659	7,752	10,089	14,967	14,832	14,065	12,442	12,684	13,450	11,725	9,862	7,614	11,242
74	1998	8,636	9,059	9,606	9,227	9,527	8,343	8,657	12,804	13,348	9,832	8,531	5,886	9,456
75	1999	5,635	6,835	9,474	12,930	12,726	12,700	10,711	12,167	13,600	11,512	9,905	7,085	10,430
76	2000	5,897	9,942	10,786	10,380	9,876	9,411	12,112	11,083	10,445	9,653	7,214	5,642	9,364
77	2001	5,663	7,233	7,235	7,123	6,812	6,503	6,605	8,872	4,765	7,267	6,204	4,345	6,559
78	2002	4,983	6,579	8,263	7,010	7,098	6,986	10,553	10,516	12,697	10,820	7,762	5,684	8,248
79	2003	5,257	7,579	7,408	6,608	6,667	9,889	9,481	10,704	12,419	7,073	5,947	5,068	7,842
80	2004	5,770	7,380	9,291	7,232	6,258	8,566	8,532	10,759	10,623	6,976	6,370	6,924	7,898
81	2005	5,880	7,363	9,298	9,205	8,622	7,308	7,455	11,409	10,612	7,818	6,801	5,668	8,120
82	2006	5,632	7,358	8,674	10,843	10,370	9,825	12,321	12,977	12,389	8,811	6,929	5,374	9,282
83	2007	5,122	7,760	8,852	10,441	8,272	11,433	10,146	11,504	9,975	9,561	6,562	4,934	8,722
84	2008	5,820	7,224	8,139	8,014	7,730	7,335	7,677	12,878	14,096	10,181	7,874	5,693	8,561
85	80 WY Average	5,922	7,718	9,056	9,843	9,377	9,350	9,699	11,479	11,336	9,392	7,792	5,991	8,911
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	Table 5: Heavy-Load Hydro Generation Ratios for FY 2014												
2	Water Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep
3	1929	1.163	1.157	1.195	1.177	1.157	1.167	1.121	1.134	1.172	1.214	1.194	1.166
4	1930	1.153	1.163	1.198	1.149	1.140	1.164	1.118	1.142	1.198	1.103	1.173	1.175
5	1931	1.144	1.160	1.199	1.156	1.137	1.158	1.088	1.132	1.229	1.105	1.180	1.152
6	1932	1.141	1.156	1.191	1.119	1.097	1.122	1.055	1.031	1.045	1.160	1.171	1.176
7	1933	1.155	1.141	1.184	1.212	1.188	1.130	1.113	1.050	1.045	0.997	1.078	1.176
8	1934	1.175	1.158	1.081	1.057	1.039	1.124	1.008	1.002	1.072	1.070	1.221	1.181
9	1935	1.155	1.146	1.201	1.211	1.201	1.171	1.117	1.078	1.172	1.041	1.141	1.154
10	1936	1.158	1.162	1.195	1.162	1.139	1.150	1.108	1.057	1.070	1.113	1.175	1.152
11	1937	1.154	1.163	1.197	1.166	1.140	1.166	1.123	1.124	1.197	1.140	1.200	1.171
12	1938	1.147	1.149	1.202	1.228	1.166	1.153	1.065	1.006	1.149	1.076	1.211	1.174
13	1939	1.159	1.158	1.192	1.179	1.159	1.147	1.139	1.063	1.210	1.132	1.200	1.158
14	1940	1.163	1.159	1.198	1.177	1.149	1.145	1.123	1.100	1.153	1.160	1.204	1.168
15	1941	1.161	1.151	1.193	1.168	1.153	1.164	1.133	1.117	1.199	1.130	1.197	1.168
16	1942	1.139	1.138	1.208	1.211	1.153	1.152	1.131	1.121	1.123	1.049	1.157	1.165
17	1943	1.161	1.146	1.197	1.201	1.155	1.140	1.019	1.001	1.035	1.124	1.207	1.160
18	1944	1.151	1.155	1.190	1.179	1.162	1.171	1.113	1.147	1.178	1.207	1.188	1.167
19	1945	1.153	1.157	1.190	1.160	1.137	1.164	1.088	1.106	1.151	1.201	1.172	1.164
20	1946	1.147	1.150	1.195	1.208	1.159	1.141	1.062	0.985	1.128	1.070	1.137	1.166
21	1947	1.146	1.145	1.198	1.111	1.163	1.158	1.112	1.071	1.089	1.040	1.183	1.166
22	1948	1.188	1.166	1.226	1.159	1.155	1.163	1.073	0.987	1.027	1.013	1.080	1.166
23	1949	1.163	1.153	1.200	1.190	1.143	1.154	1.072	1.038	1.123	1.217	1.198	1.153
24	1950	1.154	1.151	1.197	1.102	1.182	1.148	1.089	1.009	1.032	1.123	1.092	1.165
25	1951	1.169	1.164	1.147	1.088	1.137	1.072	1.057	0.987	1.139	1.012	1.080	1.164
26	1952	1.178	1.152	1.228	1.169	1.208	1.113	1.064	0.988	1.130	1.077	1.168	1.154
27	1953	1.146	1.160	1.194	1.166	1.170	1.165	1.114	1.016	1.036	1.068	1.166	1.165
28	1954	1.160	1.157	1.224	1.128	1.179	1.152	1.102	0.999	1.031	0.995	1.063	1.184
29	1955	1.164	1.164	1.215	1.198	1.159	1.161	1.126	1.108	1.037	0.990	1.103	1.155
30	1956	1.170	1.167	1.177	1.118	1.089	1.123	1.036	0.984	1.036	1.008	1.094	1.162
31	1957	1.161	1.150	1.222	1.226	1.153	1.157	1.092	1.019	1.034	1.076	1.196	1.170
32	1958	1.151	1.156	1.188	1.189	1.165	1.179	1.110	1.044	1.083	1.087	1.195	1.168
33	1959	1.155	1.151	1.211	1.130	1.130	1.122	1.088	1.006	1.034	1.111	1.078	1.190
34	1960	1.164	1.160	1.177	1.174	1.208	1.176	1.017	1.053	1.134	1.068	1.186	1.169
35	1961	1.164	1.157	1.202	1.164	1.198	1.160	1.099	1.006	1.033	1.071	1.186	1.162
36	1962	1.158	1.156	1.192	1.229	1.188	1.165	1.054	1.018	1.074	1.205	1.209	1.162
37	1963	1.159	1.159	1.211	1.211	1.175	1.170	1.161	1.113	1.111	1.064	1.164	1.166
38	1964	1.150	1.152	1.202	1.216	1.182	1.158	1.103	1.066	1.033	1.003	1.087	1.169
39	1965	1.174	1.157	1.189	1.071	1.080	1.116	1.057	0.985	1.106	1.096	1.108	1.159
40	1966	1.164	1.155	1.209	1.227	1.187	1.158	1.073	1.085	1.160	1.035	1.161	1.163
41	1967	1.156	1.153	1.214	1.120	1.128	1.098	1.128	1.054	1.030	1.037	1.140	1.174
42	1968	1.158	1.152	1.212	1.170	1.196	1.175	1.151	1.140	1.108	1.024	1.122	1.172

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Table 5: Heavy-Load Hydro Generation Ratios for FY 2014												
2													
3													
4	Water Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep
45	1969	1.173	1.165	1.222	1.137	1.083	1.129	1.032	0.989	1.118	1.027	1.132	1.170
46	1970	1.157	1.157	1.193	1.202	1.177	1.170	1.134	1.093	1.088	1.174	1.192	1.151
47	1971	1.148	1.146	1.189	1.115	1.100	1.121	1.071	0.985	1.034	1.010	1.071	1.177
48	1972	1.153	1.150	1.213	1.108	1.098	1.037	1.044	0.985	1.028	0.997	1.070	1.192
49	1973	1.153	1.146	1.215	1.225	1.162	1.164	1.126	1.134	1.174	1.164	1.204	1.167
50	1974	1.144	1.128	1.206	1.031	1.036	1.091	1.036	0.985	1.030	0.994	1.076	1.182
51	1975	1.149	1.156	1.193	1.239	1.197	1.165	1.114	1.016	1.058	1.007	1.126	1.167
52	1976	1.154	1.168	1.120	1.152	1.110	1.124	1.050	0.985	1.116	1.007	1.057	1.150
53	1977	1.160	1.153	1.200	1.183	1.164	1.177	1.122	1.152	1.214	1.167	1.187	1.153
54	1978	1.119	1.142	1.231	1.181	1.155	1.152	1.088	1.015	1.146	1.103	1.188	1.189
55	1979	1.170	1.158	1.197	1.208	1.148	1.179	1.136	1.056	1.215	1.212	1.199	1.157
56	1980	1.156	1.160	1.191	1.172	1.154	1.152	1.089	0.991	1.103	1.195	1.194	1.168
57	1981	1.162	1.153	1.160	1.125	1.193	1.173	1.127	1.022	1.035	1.011	1.072	1.180
58	1982	1.157	1.156	1.227	1.169	1.103	1.092	1.098	0.989	1.029	1.124	1.082	1.192
59	1983	1.159	1.151	1.235	1.151	1.178	1.098	1.100	1.055	1.120	1.059	1.088	1.166
60	1984	1.148	1.167	1.225	1.215	1.183	1.116	1.055	1.081	1.071	1.048	1.165	1.160
61	1985	1.142	1.145	1.207	1.209	1.179	1.146	1.107	1.054	1.173	1.185	1.206	1.140
62	1986	1.136	1.152	1.206	1.224	1.105	1.060	1.098	1.108	1.129	1.096	1.171	1.151
63	1987	1.146	1.144	1.207	1.192	1.142	1.179	1.159	1.056	1.131	1.154	1.189	1.161
64	1988	1.148	1.159	1.188	1.164	1.140	1.162	1.139	1.138	1.169	1.097	1.203	1.171
65	1989	1.138	1.150	1.187	1.172	1.151	1.126	1.077	1.070	1.184	1.208	1.194	1.156
66	1990	1.147	1.149	1.199	1.200	1.183	1.160	1.083	1.032	1.051	1.088	1.134	1.160
67	1991	1.146	1.166	1.199	1.172	1.136	1.127	1.086	1.025	1.116	1.002	1.078	1.159
68	1992	1.149	1.154	1.183	1.173	1.150	1.156	1.160	1.085	1.164	1.215	1.192	1.165
69	1993	1.150	1.161	1.196	1.167	1.137	1.154	1.109	1.103	1.187	1.145	1.190	1.154
70	1994	1.142	1.160	1.195	1.164	1.139	1.163	1.146	1.115	1.141	1.132	1.195	1.168
71	1995	1.140	1.157	1.190	1.168	1.168	1.182	1.130	1.119	1.125	1.154	1.212	1.170
72	1996	1.160	1.158	1.049	1.053	1.099	1.044	1.044	1.003	1.084	1.004	1.077	1.165
73	1997	1.158	1.155	1.235	1.066	1.039	1.040	1.029	0.981	1.026	1.003	1.077	1.178
74	1998	1.179	1.164	1.215	1.215	1.201	1.168	1.147	1.033	1.053	1.099	1.157	1.153
75	1999	1.145	1.145	1.220	1.123	1.117	1.118	1.080	1.041	1.041	1.004	1.069	1.197
76	2000	1.155	1.167	1.190	1.197	1.205	1.168	1.047	1.090	1.180	1.077	1.155	1.160
77	2001	1.152	1.155	1.190	1.178	1.162	1.167	1.114	1.143	1.202	1.156	1.193	1.153
78	2002	1.105	1.150	1.190	1.162	1.144	1.148	1.091	1.116	1.043	1.010	1.158	1.171
79	2003	1.146	1.159	1.196	1.159	1.140	1.177	1.162	1.122	1.117	1.186	1.196	1.154
80	2004	1.164	1.155	1.196	1.176	1.148	1.152	1.150	1.107	1.156	1.177	1.197	1.157
81	2005	1.166	1.157	1.217	1.227	1.177	1.167	1.155	1.111	1.128	1.143	1.180	1.161
82	2006	1.147	1.157	1.194	1.210	1.203	1.153	1.041	0.996	1.109	1.087	1.219	1.165
83	2007	1.145	1.145	1.205	1.196	1.177	1.140	1.084	1.083	1.157	1.054	1.177	1.154
84	2008	1.160	1.153	1.189	1.195	1.150	1.168	1.119	1.042	1.039	1.078	1.170	1.159

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Table 6: Heavy-Load Hydro Generation Ratios for FY 2015												
2	Water Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep
3	1929	1.152	1.221	1.146	1.184	1.166	1.173	1.126	1.178	1.103	1.213	1.195	1.152
4	1930	1.151	1.229	1.147	1.172	1.157	1.175	1.128	1.180	1.115	1.140	1.179	1.152
5	1931	1.151	1.229	1.149	1.169	1.140	1.172	1.124	1.175	1.160	1.163	1.176	1.145
6	1932	1.136	1.218	1.142	1.124	1.101	1.132	1.056	1.076	1.002	1.205	1.171	1.164
7	1933	1.154	1.203	1.149	1.220	1.195	1.138	1.121	1.092	1.003	1.037	1.079	1.168
8	1934	1.168	1.219	1.032	1.057	1.038	1.117	1.023	1.054	1.032	1.118	1.232	1.162
9	1935	1.161	1.203	1.168	1.211	1.216	1.150	1.142	1.112	1.104	1.066	1.136	1.148
10	1936	1.147	1.227	1.147	1.169	1.153	1.163	1.116	1.106	1.050	1.171	1.173	1.145
11	1937	1.145	1.229	1.148	1.176	1.146	1.172	1.134	1.176	1.125	1.222	1.192	1.144
12	1938	1.155	1.217	1.174	1.226	1.179	1.167	1.078	1.052	1.081	1.126	1.210	1.166
13	1939	1.154	1.222	1.142	1.195	1.179	1.169	1.139	1.106	1.154	1.196	1.201	1.150
14	1940	1.160	1.225	1.168	1.197	1.154	1.149	1.166	1.159	1.158	1.181	1.201	1.146
15	1941	1.157	1.220	1.165	1.174	1.159	1.171	1.149	1.157	1.150	1.148	1.190	1.143
16	1942	1.152	1.214	1.165	1.208	1.187	1.182	1.137	1.158	1.103	1.096	1.151	1.154
17	1943	1.159	1.207	1.157	1.184	1.178	1.152	1.020	1.053	0.994	1.159	1.204	1.149
18	1944	1.137	1.217	1.142	1.185	1.171	1.175	1.117	1.190	1.101	1.243	1.205	1.123
19	1945	1.155	1.225	1.143	1.169	1.148	1.171	1.096	1.153	1.095	1.234	1.186	1.144
20	1946	1.140	1.213	1.165	1.214	1.161	1.149	1.067	1.026	1.068	1.110	1.142	1.157
21	1947	1.135	1.213	1.137	1.135	1.186	1.131	1.121	1.107	1.024	1.067	1.172	1.158
22	1948	1.191	1.228	1.179	1.163	1.200	1.171	1.079	1.035	0.988	1.049	1.079	1.181
23	1949	1.155	1.217	1.157	1.201	1.174	1.141	1.093	1.097	1.064	1.243	1.195	1.139
24	1950	1.147	1.214	1.161	1.129	1.167	1.156	1.093	1.057	0.993	1.149	1.092	1.155
25	1951	1.167	1.227	1.090	1.082	1.099	1.100	1.062	1.037	1.087	1.047	1.097	1.155
26	1952	1.175	1.217	1.181	1.173	1.212	1.124	1.055	1.029	1.074	1.117	1.182	1.141
27	1953	1.134	1.221	1.144	1.215	1.151	1.181	1.120	1.068	0.994	1.102	1.179	1.156
28	1954	1.148	1.223	1.182	1.145	1.192	1.140	1.109	1.062	0.993	1.034	1.063	1.195
29	1955	1.155	1.232	1.172	1.205	1.181	1.184	1.142	1.150	1.003	1.030	1.111	1.145
30	1956	1.163	1.232	1.118	1.121	1.091	1.132	1.039	1.027	0.995	1.044	1.094	1.152
31	1957	1.155	1.215	1.182	1.228	1.173	1.163	1.100	1.071	0.992	1.104	1.181	1.159
32	1958	1.143	1.219	1.145	1.192	1.174	1.182	1.116	1.088	1.028	1.132	1.213	1.161
33	1959	1.153	1.212	1.149	1.134	1.135	1.130	1.090	1.048	0.993	1.163	1.078	1.185
34	1960	1.171	1.223	1.116	1.180	1.211	1.182	1.018	1.102	1.079	1.096	1.173	1.163
35	1961	1.153	1.222	1.161	1.170	1.198	1.178	1.123	1.059	0.993	1.092	1.171	1.155
36	1962	1.147	1.220	1.151	1.235	1.196	1.168	1.060	1.069	1.026	1.237	1.191	1.151
37	1963	1.156	1.221	1.146	1.142	1.179	1.169	1.146	1.154	1.100	1.107	1.162	1.158
38	1964	1.140	1.214	1.159	1.222	1.186	1.168	1.108	1.116	0.993	1.042	1.086	1.158
39	1965	1.169	1.223	1.130	1.069	1.082	1.124	1.058	1.027	1.049	1.107	1.107	1.149
40	1966	1.156	1.220	1.168	1.233	1.196	1.178	1.073	1.154	1.104	1.070	1.136	1.156
41	1967	1.145	1.215	1.170	1.111	1.164	1.118	1.138	1.105	0.989	1.066	1.123	1.166
42	1968	1.149	1.217	1.170	1.155	1.188	1.179	1.155	1.187	1.058	1.063	1.118	1.161

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Table 6: Heavy-Load Hydro Generation Ratios for FY 2015												
2	Water Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep
45	1969	1.168	1.226	1.172	1.141	1.089	1.135	1.035	1.036	1.062	1.055	1.146	1.164
46	1970	1.148	1.221	1.148	1.223	1.198	1.180	1.138	1.144	1.041	1.176	1.204	1.143
47	1971	1.137	1.211	1.146	1.121	1.102	1.126	1.068	1.027	0.992	1.055	1.071	1.168
48	1972	1.147	1.216	1.171	1.112	1.099	1.059	1.048	1.026	0.989	1.034	1.070	1.181
49	1973	1.147	1.211	1.174	1.235	1.186	1.175	1.131	1.170	1.136	1.214	1.189	1.140
50	1974	1.149	1.193	1.185	1.028	1.040	1.088	1.039	1.026	0.991	1.034	1.074	1.184
51	1975	1.135	1.219	1.150	1.242	1.199	1.171	1.122	1.090	1.017	1.039	1.108	1.156
52	1976	1.149	1.230	1.067	1.155	1.115	1.133	1.053	1.030	1.074	1.042	1.059	1.164
53	1977	1.151	1.218	1.150	1.188	1.175	1.187	1.127	1.189	1.101	1.200	1.180	1.102
54	1978	1.132	1.206	1.179	1.203	1.163	1.165	1.090	1.085	1.080	1.109	1.185	1.170
55	1979	1.164	1.222	1.156	1.221	1.160	1.185	1.142	1.124	1.155	1.244	1.196	1.155
56	1980	1.149	1.223	1.138	1.202	1.171	1.164	1.092	1.040	1.051	1.227	1.198	1.160
57	1981	1.155	1.218	1.112	1.134	1.201	1.148	1.140	1.141	0.994	1.050	1.070	1.183
58	1982	1.147	1.221	1.186	1.175	1.089	1.095	1.098	1.061	0.989	1.147	1.079	1.181
59	1983	1.154	1.216	1.189	1.156	1.178	1.104	1.105	1.104	1.066	1.064	1.074	1.153
60	1984	1.140	1.229	1.184	1.220	1.185	1.122	1.074	1.119	1.032	1.090	1.130	1.148
61	1985	1.137	1.212	1.166	1.216	1.186	1.160	1.116	1.096	1.121	1.213	1.209	1.119
62	1986	1.159	1.216	1.163	1.231	1.109	1.062	1.100	1.153	1.076	1.129	1.169	1.142
63	1987	1.136	1.209	1.166	1.220	1.155	1.197	1.168	1.147	1.085	1.226	1.193	1.131
64	1988	1.145	1.226	1.138	1.166	1.148	1.174	1.148	1.181	1.151	1.125	1.190	1.131
65	1989	1.146	1.215	1.157	1.173	1.156	1.138	1.084	1.112	1.120	1.242	1.195	1.143
66	1990	1.145	1.214	1.169	1.189	1.209	1.153	1.084	1.075	1.001	1.137	1.151	1.151
67	1991	1.131	1.231	1.130	1.125	1.191	1.131	1.100	1.092	1.046	1.040	1.075	1.151
68	1992	1.135	1.218	1.132	1.201	1.157	1.172	1.138	1.183	1.165	1.241	1.194	1.115
69	1993	1.156	1.226	1.147	1.171	1.150	1.164	1.117	1.155	1.122	1.223	1.189	1.133
70	1994	1.142	1.227	1.148	1.171	1.171	1.172	1.155	1.157	1.103	1.183	1.193	1.143
71	1995	1.145	1.219	1.149	1.180	1.189	1.147	1.139	1.170	1.082	1.165	1.215	1.153
72	1996	1.167	1.220	1.007	1.054	1.099	1.047	1.046	1.051	1.026	1.044	1.074	1.166
73	1997	1.146	1.218	1.192	1.064	1.043	1.036	1.034	1.022	0.988	1.037	1.074	1.168
74	1998	1.186	1.226	1.173	1.225	1.213	1.183	1.153	1.089	1.033	1.122	1.136	1.143
75	1999	1.136	1.207	1.182	1.123	1.127	1.119	1.095	1.093	0.997	1.043	1.071	1.191
76	2000	1.147	1.232	1.129	1.200	1.211	1.173	1.056	1.143	1.112	1.089	1.150	1.152
77	2001	1.143	1.220	1.142	1.184	1.168	1.170	1.122	1.189	1.068	1.224	1.206	1.093
78	2002	1.121	1.213	1.150	1.174	1.152	1.155	1.097	1.163	0.998	1.050	1.169	1.158
79	2003	1.131	1.227	1.146	1.168	1.154	1.191	1.166	1.167	1.062	1.244	1.192	1.126
80	2004	1.159	1.221	1.169	1.181	1.151	1.175	1.178	1.169	1.102	1.237	1.190	1.155
81	2005	1.158	1.221	1.175	1.233	1.211	1.179	1.159	1.157	1.086	1.210	1.178	1.140
82	2006	1.152	1.220	1.154	1.215	1.207	1.160	1.050	1.039	1.043	1.136	1.171	1.142
83	2007	1.124	1.213	1.171	1.194	1.198	1.147	1.093	1.132	1.105	1.098	1.188	1.118
84	2008	1.158	1.219	1.157	1.206	1.184	1.168	1.123	1.095	0.999	1.116	1.175	1.154

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Table 7: Federal Hydro Generation Adjustment for Stand Ready & Deployment Losses, Light-Load-Hours for FY 2014													
2	312	321	344	328	288	327	304	328	320	328	328	328	320	
3	Water Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Wtd Avg.
4	1929	96	237	222	210	115	28	13	118	10	28	27	18	94
5	1930	96	260	197	-12	62	-7	11	208	11	422	150	17	120
6	1931	96	236	230	-12	-8	-13	8	368	181	422	277	14	153
7	1932	96	201	176	-10	-8	16	-48	-22	-15	420	540	8	116
8	1933	97	85	181	169	212	270	267	139	-29	-12	96	14	123
9	1934	142	55	-88	-65	-84	-12	-46	-8	-14	102	155	16	13
10	1935	97	99	201	191	119	178	349	73	171	-11	569	16	171
11	1936	96	251	233	-12	-9	55	14	-7	-12	128	131	17	76
12	1937	97	223	229	36	1	11	7	372	12	506	27	15	131
13	1938	96	134	172	85	159	54	160	109	268	154	133	15	128
14	1939	97	232	160	247	194	57	414	-8	348	56	27	15	151
15	1940	97	209	192	206	77	18	297	76	10	410	28	21	137
16	1941	96	175	181	121	72	11	68	218	349	57	50	1	117
17	1942	96	132	138	103	98	51	14	272	-14	10	400	4	110
18	1943	97	99	94	60	134	39	44	36	71	-12	173	35	72
19	1944	96	225	148	244	167	-11	13	130	1	139	28	23	101
20	1945	97	237	118	-12	-7	-12	10	340	205	28	144	35	100
21	1946	96	142	150	165	206	7	120	99	9	95	340	29	121
22	1947	97	133	223	-50	152	185	310	62	-14	-13	293	14	116
23	1948	500	219	141	91	92	118	256	-6	-47	-11	120	9	122
24	1949	96	182	202	177	64	161	181	-45	-16	29	28	34	91
25	1950	96	163	170	-16	136	178	341	148	107	-18	153	11	121
26	1951	90	213	-6	-82	16	-81	47	77	69	-11	322	12	55
27	1952	175	206	135	129	54	133	292	-8	47	133	89	37	118
28	1953	96	249	200	63	195	155	249	16	-19	132	126	14	122
29	1954	97	232	114	-13	161	169	260	65	-38	-15	71	270	113
30	1955	95	214	121	186	137	-14	67	286	-53	-22	348	16	116
31	1956	95	201	161	-88	-88	285	169	104	-35	-11	298	12	94
32	1957	95	168	121	98	104	51	267	-21	-20	131	252	17	105
33	1958	96	239	154	78	130	177	353	-48	-17	354	245	14	148
34	1959	96	200	187	-88	-33	140	119	152	141	267	110	-27	107
35	1960	143	187	182	108	102	192	-34	23	32	81	235	13	107
36	1961	96	214	168	-7	126	292	277	8	-50	110	405	12	138
37	1962	97	225	204	50	162	137	-31	-8	-19	30	192	16	89
38	1963	95	179	239	177	164	218	243	279	-12	78	398	21	174
39	1964	96	156	182	143	202	159	214	79	-51	-12	151	8	110
40	1965	122	216	-36	-143	88	40	357	118	261	322	300	39	139
41	1966	95	244	144	71	149	49	-14	16	76	-12	524	36	116
42	1967	97	188	145	-12	-30	-9	29	137	84	43	424	19	95
43	1968	97	208	141	165	87	286	184	423	-11	-11	369	87	170

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	
1	Table 7: Federal Hydro Generation Adjustment for Stand Ready & Deployment Losses, Light-Load-Hours for FY 2014														
2	312	321	344	328	288	327	304	328	320	328	328	320	328	320	
3	Water Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Wtd Avg.	
4	1969	116	234	201	-89	-86	226	40	63	-12	-11	406	29	96	
45	1970	97	258	214	152	192	169	242	190	-53	213	97	36	150	
46	1971	96	151	145	-87	95	189	162	111	151	-11	82	11	91	
47	1972	95	202	125	-86	-88	-18	44	159	44	-12	75	-1	46	
48	1973	95	196	176	74	246	91	13	343	160	384	27	24	153	
49	1974	96	79	140	-63	-4	-53	117	118	133	-15	84	11	54	
50	1975	96	242	185	73	64	186	99	148	-21	-11	249	10	111	
51	1976	83	206	-82	100	-70	152	45	117	-14	-11	76	303	76	
52	1977	96	256	222	235	236	36	29	338	7	414	135	15	169	
53	1978	20	91	130	203	122	24	179	145	119	225	75	164	125	
54	1979	96	260	229	143	32	177	178	-9	236	127	19	13	126	
55	1980	96	261	150	208	139	58	262	-50	-15	175	120	38	119	
56	1981	96	204	61	-23	153	192	213	-9	-51	-11	100	13	77	
57	1982	97	244	116	196	81	-96	388	109	121	8	84	94	119	
58	1983	83	227	99	-81	104	34	380	73	146	60	146	11	105	
59	1984	96	284	108	28	117	22	-41	334	-32	39	451	7	119	
60	1985	97	157	171	128	197	152	117	-1	232	29	-1	59	110	
61	1986	96	168	155	65	67	-52	274	334	77	408	196	35	153	
62	1987	98	114	153	199	9	139	151	-12	0	447	6	31	113	
63	1988	97	238	113	-11	-9	-3	11	336	72	397	28	16	109	
64	1989	89	106	214	217	96	43	350	72	335	146	27	16	142	
65	1990	97	192	164	178	156	264	263	-6	-20	181	345	13	152	
66	1991	97	296	14	159	-20	-11	66	1	-11	-12	111	8	58	
67	1992	96	157	105	236	100	105	117	-9	7	166	21	18	93	
68	1993	96	246	222	-12	-2	54	11	255	239	381	28	14	130	
69	1994	98	226	223	-7	-9	15	11	136	8	51	25	17	68	
70	1995	91	179	122	148	158	137	395	263	102	258	27	5	156	
71	1996	95	69	-23	-70	209	-66	56	41	-50	-12	115	30	31	
72	1997	96	211	124	-71	-14	-103	153	148	-38	-12	102	-12	49	
73	1998	140	238	119	147	147	134	377	-45	-49	348	420	33	167	
74	1999	98	112	151	-87	-88	230	158	104	-24	-11	71	1	61	
75	2000	97	99	153	160	133	162	-11	83	360	126	325	16	143	
76	2001	96	222	177	236	210	5	13	313	0	442	26	13	147	
77	2002	34	127	141	75	60	38	265	343	-46	-11	169	30	102	
78	2003	96	232	220	26	64	198	212	264	-13	243	20	16	133	
79	2004	96	235	160	245	47	59	232	184	110	263	28	12	140	
80	2005	95	225	143	49	189	242	97	277	-18	461	28	25	152	
81	2006	96	223	180	182	65	153	12	22	-11	268	126	16	113	
82	2007	96	108	180	146	215	39	24	27	38	29	28	12	78	
83	2008	97	208	166	200	104	74	9	16	-53	231	574	31	140	
84	80 WY Average		102	193	150	78	89	90	145	121	52	136	173	28	113
85	Hours	312	321	344	328	288	327	304	328	320	328	328	320	3848	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Table 8: Federal Hydro Generation Adjustment for Stand Ready & Deployment Losses, Heavy-Load-Hours for FY 2014													
2		432	400	400	416	384	416	416	416	400	416	416	400	
3	Water Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Wtd Avg.
4	1929	-81	-197	-217	-179	-95	-41	-25	-110	-29	-36	-26	-32	-88
5	1930	-82	-216	-188	-10	-58	-12	-25	-180	-27	-303	-136	-27	-105
6	1931	-82	-196	-215	-7	-7	-10	-26	-263	-163	-302	-232	-39	-129
7	1932	-82	-171	-169	-12	-30	-33	-14	14	34	-328	-405	-18	-102
8	1933	-83	-79	-170	-124	-135	-220	-212	-108	-8	43	-61	-28	-99
9	1934	-115	-25	-108	-78	-119	35	-42	15	28	-66	-141	-24	-54
10	1935	-82	-88	-187	-128	-96	-151	-256	-44	-151	37	-445	-44	-137
11	1936	-81	-207	-216	-8	-5	-61	-26	17	30	-79	-125	-39	-67
12	1937	-82	-186	-211	-43	-11	-28	-25	-268	-29	-387	-24	-23	-110
13	1938	-82	-116	-165	-81	-129	-62	-92	-91	-217	-93	-127	-31	-107
14	1939	-82	-193	-154	-205	-147	-66	-323	17	-273	-27	-29	-37	-126
15	1940	-80	-174	-177	-172	-69	-24	-200	-41	19	-327	-30	-33	-109
16	1941	-81	-147	-174	-109	-67	-26	-64	-161	-267	-21	-61	-16	-99
17	1942	-76	-114	-138	-91	-85	-58	-25	-202	28	13	-315	-28	-91
18	1943	-82	-88	-96	-61	-107	-45	-29	-12	-94	0	-157	-45	-68
19	1944	-82	-188	-146	-203	-134	-9	-25	-122	-25	-128	-31	-36	-94
20	1945	-82	-197	-122	-10	-12	-10	-33	-239	-147	-36	-130	-39	-88
21	1946	-82	-123	-148	-146	-165	-18	-65	-177	5	-60	-239	-36	-104
22	1947	-79	-116	-179	-26	-104	-158	-229	-37	29	38	-244	-40	-95
23	1948	-363	-185	-132	-56	-78	-105	-162	9	-14	40	-76	-24	-97
24	1949	-81	-155	-187	-129	-63	-143	-104	-32	37	-37	-38	-46	-81
25	1950	-83	-138	-165	34	-108	-147	-223	-114	-170	37	-107	-34	-101
26	1951	-75	-182	-2	-106	-162	-79	-103	-153	-28	40	-226	-35	-92
27	1952	-135	-173	-127	-70	-49	-86	-275	13	-10	-78	-43	-44	-90
28	1953	-84	-206	-191	-63	-162	-133	-208	1	16	-78	-83	-39	-102
29	1954	-82	-193	-107	40	-102	-112	-208	-51	-46	45	-39	-200	-87
30	1955	-81	-177	-112	-163	-110	-7	-64	-208	-35	43	-251	-40	-100
31	1956	-79	-166	-167	-93	-121	-226	-138	-178	-11	41	-213	-38	-116
32	1957	-81	-142	-114	-93	-84	-55	-176	2	18	-78	-216	-38	-88
33	1958	-83	-199	-151	-79	-113	-165	-253	-26	36	-253	-211	-40	-129
34	1959	-83	-167	-159	-92	1	-82	-63	-117	-117	-185	-65	38	-91
35	1960	-72	-132	-140	-57	-83	-164	-10	-4	3	-50	-204	-39	-79
36	1961	-81	-179	-158	26	-108	-234	-181	8	-34	-71	-318	-39	-114
37	1962	-82	-189	-194	-61	-132	-122	-16	19	21	-36	-173	-41	-83
38	1963	-80	-150	-197	-129	-127	-183	-193	-209	19	-45	-313	-31	-137
39	1964	-83	-133	-169	-124	-163	-136	-182	-52	-32	41	-99	-17	-95
40	1965	-97	-180	-56	-186	-54	-18	-248	-181	-275	-226	-210	-49	-149
41	1966	-81	-202	-134	-76	-118	-56	40	13	-37	40	-394	-39	-87
42	1967	-83	-159	-138	40	26	26	-41	-119	-123	-17	-307	-33	-78
43	1968	-82	-175	-135	-99	-72	-232	-155	-347	21	40	-264	-98	-134

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Table 8: Federal Hydro Generation Adjustment for Stand Ready & Deployment Losses, Heavy-Load-Hours for FY 2014													
2		432	400	400	416	384	416	416	416	400	416	416	400	
3	Water Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Wtd Avg.
4	1969	-92	-197	-171	-86	-123	-186	-109	-41	23	40	-291	-38	-106
45	1970	-82	-213	-212	-138	-152	-143	-192	-135	-23	-188	-95	-48	-135
46	1971	-85	-130	-143	-94	-226	-125	-92	-161	-203	40	-50	-22	-106
47	1972	-81	-170	-119	-111	-84	17	-18	-145	-152	42	-44	-22	-73
48	1973	-82	-174	-164	-70	-191	-92	-25	-255	-105	-308	-25	-36	-127
49	1974	-84	-75	-149	-76	-4	-102	-142	-103	-220	44	-51	-20	-82
50	1975	-82	-202	-178	-67	-57	-161	-91	-116	12	40	-168	-22	-91
51	1976	-72	-165	-94	-213	-41	-107	-102	-93	36	41	-45	-220	-90
52	1977	-81	-212	-219	-195	-186	-47	-35	-281	-29	-321	-130	-41	-148
53	1978	-30	-84	-132	-175	-92	-32	-106	-114	-116	-146	-76	-155	-104
54	1979	-76	-215	-222	-124	-37	-153	-150	21	-204	-124	-27	-37	-112
55	1980	-83	-216	-146	-176	-109	-64	-177	-45	30	-159	-117	-38	-108
56	1981	-81	-172	-37	31	-126	-164	-172	21	-30	40	-64	-23	-64
57	1982	-82	-202	-109	-118	-216	-98	-298	-174	-181	19	-51	-98	-133
58	1983	-71	-190	-100	-69	-185	-372	-254	-37	-177	-33	-99	-27	-134
59	1984	-81	-223	-105	-47	-88	-36	-27	-234	-4	-14	-355	-34	-104
60	1985	-83	-134	-161	-112	-156	-135	-102	15	-170	-45	-20	-26	-93
61	1986	-83	-142	-149	-70	-113	-34	-223	-251	-36	-298	-175	-46	-135
62	1987	-84	-101	-144	-178	-22	-121	-129	18	11	-350	-27	-38	-98
63	1988	-82	-199	-116	-8	-3	-15	-23	-263	-29	-285	-32	-27	-91
64	1989	-79	-94	-200	-184	-78	-47	-234	-47	-283	-135	-32	-41	-121
65	1990	-84	-170	-154	-110	-100	-214	-179	17	31	-114	-241	-39	-113
66	1991	-83	-230	20	-87	10	33	-43	14	20	41	-72	-34	-35
67	1992	-82	-133	-108	-197	-83	-98	-102	25	23	-155	-33	-32	-81
68	1993	-81	-205	-213	-6	-14	-58	-24	-219	-209	-304	-35	-40	-117
69	1994	-88	-189	-208	-14	-5	-31	-26	-92	11	-12	-25	-27	-59
70	1995	-80	-150	-124	-128	-125	-116	-302	-223	-58	-226	-28	-17	-132
71	1996	-81	-35	16	-75	-133	-51	-112	-34	-21	41	-69	-46	-50
72	1997	-83	-177	-115	-58	14	-119	-90	-207	-52	41	-59	-21	-78
73	1998	-74	-191	-116	-139	-119	-115	-289	-42	-30	-247	-327	-40	-145
74	1999	-88	-99	-142	-91	-84	-267	-88	-80	5	41	-40	-25	-80
75	2000	-82	-60	-107	-112	-110	-141	-50	-49	-276	-83	-267	-41	-115
76	2001	-83	-186	-172	-197	-167	-21	-24	-276	-31	-347	-26	-37	-130
77	2002	-35	-111	-139	-74	-56	-50	-172	-261	-15	40	-104	-37	-85
78	2003	-82	-193	-206	-41	-59	-168	-171	-204	28	-210	-33	-41	-115
79	2004	-80	-196	-153	-204	-51	-64	-186	-130	-61	-224	-30	-37	-118
80	2005	-80	-188	-134	-61	-156	-204	-84	-203	19	-358	-29	-37	-126
81	2006	-83	-186	-167	-149	-66	-132	-74	-19	19	-183	-121	-38	-100
82	2007	-82	-95	-180	-114	-170	-16	7	5	-2	-2	-28	-41	-59
83	2008	-81	-175	-161	-176	-83	-72	-25	-28	-35	-154	-431	-38	-122
85	80 WY Average	-85	-161	-147	-94	-93	-95	-118	-102	-56	-92	-135	-41	-102
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	Table 9: Federal Hydro Generation Adjustment for Stand Ready & Deployment Losses, Flat Energy for FY 2014													
2	Water Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Wtd Avg.
3	1929	-8	-5	-16	-9	-12	-13	-11	-69	45	-21	-3	-6	-11
4	1930	-9	-7	-12	-12	-8	-12	-12	-103	84	-177	109	63	-8
5	1931	-10	-5	-11	-10	-9	-12	-16	-146	59	-85	178	-23	-8
6	1932	-10	-6	-12	-13	-13	-12	-28	-10	4	-44	-90	148	-8
7	1933	-9	-7	-9	-13	11	-6	-12	68	48	11	-32	22	6
8	1934	-9	10	-106	-75	-106	15	-45	-13	13	-38	-44	66	-27
9	1935	-9	-6	-9	11	-5	-7	-3	139	-71	102	-264	259	11
10	1936	-8	-6	-9	-11	-8	-12	-11	24	14	-53	-17	44	-5
11	1937	-9	-7	-9	-16	-8	-13	-14	-149	149	-8	2	-1	-7
12	1938	-9	-6	-12	-9	-8	-10	12	12	-87	76	-16	52	0
13	1939	-9	-6	-11	-9	-6	-13	-20	95	-162	128	11	-11	0
14	1940	-7	-6	-8	-7	-8	-13	4	117	34	-189	169	-6	7
15	1941	-9	-12	-17	-10	-10	-11	-10	-31	17	39	25	1	-2
16	1942	-9	-7	-17	-8	-8	-12	-10	-102	137	-3	-175	183	-4
17	1943	-9	-6	-10	-10	-5	-9	2	13	-41	27	-100	64	-7
18	1944	-9	-5	-12	-9	-7	-12	-10	-67	49	-78	49	-8	-10
19	1945	-9	-5	-15	-12	-11	-14	-18	-132	81	62	-66	53	-8
20	1946	-9	-6	-12	-10	-7	-12	1	-50	47	-35	-63	107	-5
21	1947	-6	-7	0	-92	0	-11	-4	136	38	16	-148	124	4
22	1948	-3	-12	-13	5	-7	-9	15	107	-22	-5	-22	16	4
23	1949	-8	-13	-8	14	-10	-10	16	46	0	-26	-10	-13	-2
24	1950	-10	-6	-17	-1	-7	-5	4	76	-43	72	-44	27	4
25	1951	-7	-12	-6	-97	-87	-81	-40	-64	17	47	-124	123	-28
26	1952	-6	-6	-8	18	-7	10	-36	121	0	-30	41	9	9
27	1953	-10	-7	-12	-7	-8	-8	-16	128	10	-48	-4	46	5
28	1954	-9	-5	-7	16	5	5	-13	109	12	7	-27	-80	1
29	1955	-9	-4	-7	-10	-6	-13	-10	-64	93	-1	-83	68	-4
30	1956	-8	-4	-20	-93	-108	-3	-9	-23	31	7	-51	37	-20
31	1957	-9	-6	-6	-15	-6	-13	6	100	0	-48	-78	104	2
32	1958	-10	-6	-12	-11	-12	-15	0	141	0	-141	24	101	5
33	1959	-10	-6	0	-92	-15	15	9	-17	4	-50	95	-57	-10
34	1960	19	11	9	16	-7	-8	-21	-9	7	-13	-89	96	1
35	1961	-8	-6	-8	12	-6	2	13	118	-23	-58	-144	181	6
36	1962	-8	-6	-12	-13	-7	-12	-33	-12	9	-28	-91	75	-12
37	1963	-8	-5	10	-14	-8	-9	-12	-10	135	-34	-140	173	6
38	1964	-10	-6	-10	-7	-8	-9	-17	83	2	0	-28	24	1
39	1965	-14	-4	-50	-93	8	8	6	79	-66	-14	88	11	-3
40	1966	-9	-7	-7	-12	-5	-11	17	8	-17	53	-18	2	0
41	1967	-9	-12	-8	17	19	11	-13	-36	-9	18	-92	114	0
42	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	Table 9: Federal Hydro Generation Adjustment for Stand Ready & Deployment Losses, Flat Energy for FY 2014													
2														
3	Water Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Wtd Avg.
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	80 WY Average	-8	-6	-12	-21	-17	-16	-9	6	22	-30	-4	39	-5
86	Hours	744	721	744	744	672	743	720	744	720	744	720	8760	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Table 10: Federal Hydro Generation Adjustment for													
2	Stand Ready & Deployment Losses, Light-Load-Hours for FY 2015													
3														
4	Water Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Wtd Avg.
5	1929	92	222	232	223	208	26	16	8	9	27	27	11	92
6	1930	92	227	218	89	97	12	45	166	-1	432	118	9	128
7	1931	92	220	224	10	-10	-17	1	348	221	125	147	10	117
8	1932	91	192	204	-11	-7	13	-50	-22	-14	386	536	28	115
9	1933	92	80	206	160	206	300	238	133	-33	-12	43	28	120
10	1934	111	56	-92	-66	-85	-11	-46	-9	-15	143	24	11	3
11	1935	92	82	125	197	69	184	154	45	129	-11	197	16	107
12	1936	92	237	237	85	29	52	76	-1	-12	543	107	33	125
13	1937	93	220	235	145	0	8	1	394	10	259	26	31	123
14	1938	92	160	122	113	189	112	379	101	327	330	26	31	163
15	1939	92	218	174	210	225	45	180	-8	23	393	27	14	132
16	1940	92	221	131	198	44	214	193	340	213	529	27	34	189
17	1941	92	189	126	137	110	47	79	212	11	230	28	49	111
18	1942	90	184	155	146	220	216	-2	334	347	36	349	11	175
19	1943	91	90	137	85	167	68	43	33	75	-13	166	51	82
20	1944	92	193	154	234	220	4	6	60	1	24	27	52	89
21	1945	92	236	225	-12	27	9	3	323	249	25	107	41	112
22	1946	91	134	150	161	184	4	119	94	-6	95	343	8	115
23	1947	91	143	59	-8	87	253	300	46	-15	-11	380	9	111
24	1948	463	207	205	92	59	165	242	-4	-47	-11	29	-5	116
25	1949	91	170	175	146	102	147	339	35	-17	29	27	53	108
26	1950	92	152	166	-8	163	161	361	140	113	97	167	7	133
27	1951	87	202	-47	-83	-89	-48	48	76	311	-11	152	8	51
28	1952	148	195	191	128	71	133	139	-7	34	134	325	51	129
29	1953	92	207	224	150	48	188	203	13	-21	108	382	14	136
30	1954	92	219	151	-12	153	161	249	63	-25	-22	16	74	93
31	1955	92	197	150	182	212	170	145	317	-56	-19	289	37	145
32	1956	91	185	40	-87	-91	254	170	96	-38	-11	267	30	78
33	1957	90	156	114	157	175	60	374	-11	-21	60	259	14	118
34	1958	92	225	186	183	169	157	355	-10	-19	426	153	9	160
35	1959	91	173	13	-90	-22	135	119	143	145	307	56	-38	87
36	1960	129	180	93	107	110	188	-36	25	43	20	306	9	99
37	1961	92	191	143	-8	136	231	359	10	-54	36	551	15	142
38	1962	92	211	234	57	148	68	-52	-8	-20	28	173	31	81
39	1963	90	178	125	-12	165	179	114	310	157	89	384	35	152
40	1964	92	146	164	144	215	120	216	94	-55	-13	97	10	102
41	1965	92	205	88	-143	119	239	328	110	286	123	273	56	147
42	1966	92	230	122	78	149	145	-14	160	87	-12	133	10	99
43	1967	92	175	127	-23	88	-13	39	128	91	-13	395	32	94
44	1968	92	195	120	-15	147	156	177	401	-12	-11	336	-4	134

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Table 10: Federal Hydro Generation Adjustment for													
2	Stand Ready & Deployment Losses, Light-Load-Hours for FY 2015													
3														
4	Water Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Wtd Avg.
45	1969	87	221	16	-89	-87	241	46	59	-13	-11	439	11	79
46	1970	92	244	231	88	149	199	165	318	-28	442	26	46	167
47	1971	92	139	171	-90	99	186	123	106	155	-11	28	19	84
48	1972	91	189	101	-88	-89	-18	43	149	8	-13	21	2	35
49	1973	92	183	145	48	190	89	6	339	12	331	27	34	127
50	1974	93	80	92	-64	-5	-40	156	115	135	-16	31	10	49
51	1975	84	225	209	81	70	162	95	138	-15	-11	405	20	124
52	1976	83	193	-86	99	-67	207	43	103	55	-12	22	377	86
53	1977	92	240	230	225	217	134	15	364	-3	461	55	57	177
54	1978	72	85	155	177	191	70	165	138	110	142	55	9	113
55	1979	92	245	220	91	41	197	174	58	52	27	20	10	103
56	1980	92	247	155	200	190	52	213	-50	-18	198	24	10	109
57	1981	92	192	18	-19	114	295	26	183	-53	-11	45	10	76
58	1982	92	230	137	182	-32	-124	421	106	129	316	30	-10	123
59	1983	83	214	100	-81	103	42	323	81	343	-11	44	26	103
60	1984	93	268	101	43	173	18	-6	322	22	39	271	4	115
61	1985	91	146	144	130	200	144	96	4	363	28	4	80	117
62	1986	90	138	143	73	76	-62	265	314	100	400	171	46	148
63	1987	92	105	126	135	91	183	146	23	8	285	10	35	104
64	1988	92	236	130	56	-10	32	5	306	32	273	118	30	112
65	1989	93	133	133	191	93	29	358	74	315	28	26	38	124
66	1990	92	201	206	95	163	249	348	-6	-33	273	266	14	156
67	1991	92	277	189	-39	199	-11	125	14	-19	-12	57	25	74
68	1992	92	145	151	169	99	195	10	335	42	199	16	42	127
69	1993	92	236	207	115	-3	50	14	270	270	63	25	63	119
70	1994	92	212	210	85	212	12	5	106	54	488	26	9	127
71	1995	93	172	222	170	127	223	-12	87	353	419	26	13	158
72	1996	104	71	-23	-69	209	-66	50	60	-53	-12	46	15	26
73	1997	92	198	130	-71	-11	-104	154	231	-45	-12	31	-13	50
74	1998	469	225	182	132	112	150	227	-3	-35	307	288	43	175
75	1999	92	91	129	-89	-95	120	301	97	-25	-11	15	-2	52
76	2000	92	134	128	163	125	143	4	233	258	10	315	31	137
77	2001	93	207	184	245	228	35	6	251	-4	305	25	57	138
78	2002	66	141	173	172	89	57	354	327	-54	-11	473	15	152
79	2003	92	218	235	78	67	136	207	253	-9	27	21	51	116
80	2004	91	216	217	241	46	184	88	292	155	26	27	4	135
81	2005	92	210	207	61	75	228	91	277	-3	288	28	14	133
82	2006	92	207	143	175	72	150	40	26	-17	423	128	34	125
83	2007	78	119	137	172	193	36	26	46	63	29	28	43	80
84	2008	92	185	195	185	234	50	4	48	-57	204	468	33	138
85	80 WY Average	102	184	146	80	101	105	132	136	62	134	146	29	114
86	Hours	312	337	328	328	288	327	304	344	304	328	328	320	3848

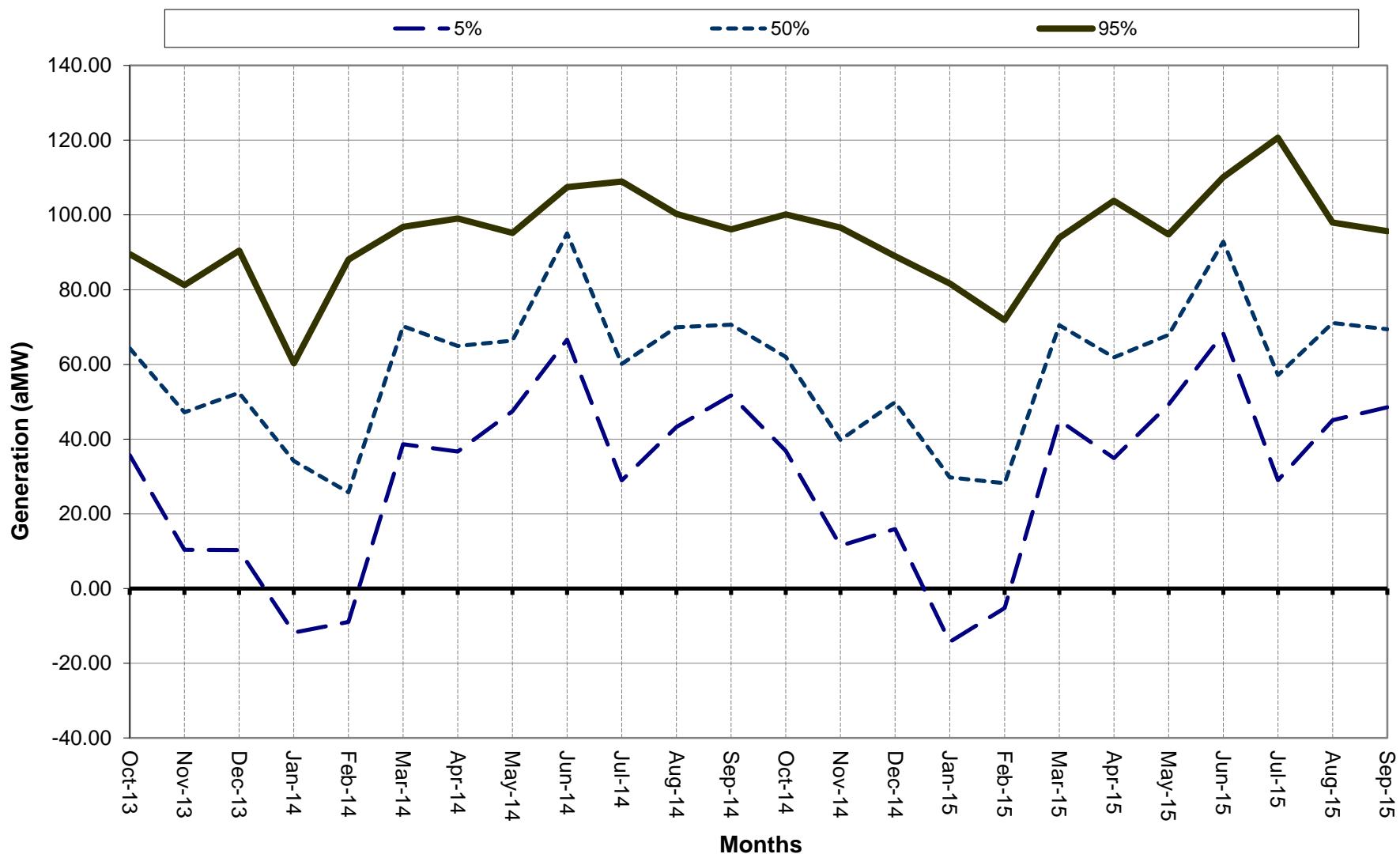
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Table 11: Federal Hydro Generation Adjustment for Stand Ready & Deployment Losses, Heavy-Load-Hours for FY 2015													
2	Water Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Wtd Avg.
3	1929	-83	-205	-210	-189	-166	-43	-33	-28	-30	-46	-28	-40	-91
4	1930	-81	-209	-192	-84	-88	-25	-55	-158	-22	-311	-114	-42	-115
5	1931	-84	-202	-192	-24	-7	-12	-29	-273	-187	-69	-136	-39	-104
6	1932	-83	-179	-182	-15	-10	-32	-20	13	24	-317	-404	-38	-104
7	1933	-83	-83	-178	-124	-135	-242	-198	-115	-9	44	-18	-37	-98
8	1934	-91	-30	-103	-79	-120	35	-37	13	27	-96	-29	-39	-46
9	1935	-80	-84	-113	-127	-62	-134	-140	-16	-114	40	-130	-45	-84
10	1936	-83	-217	-204	-84	-36	-63	-76	12	29	-412	-106	-46	-107
11	1937	-82	-203	-201	-126	-14	-30	-28	-355	-28	-222	-31	-44	-113
12	1938	-81	-150	-110	-103	-159	-110	-251	-104	-229	-234	-28	-39	-133
13	1939	-82	-202	-156	-181	-180	-53	-162	18	-37	-317	-26	-39	-118
14	1940	-79	-204	-114	-174	-46	-175	-167	-262	-171	-403	-28	-47	-156
15	1941	-82	-176	-113	-124	-99	-51	-77	-166	-25	-154	-31	-34	-94
16	1942	-82	-170	-148	-131	-174	-186	-21	-261	-260	-13	-282	-29	-146
17	1943	-81	-91	-128	-81	-138	-71	-29	-12	-91	0	-151	-37	-76
18	1944	-74	-180	-142	-203	-173	-26	-26	-73	-34	-30	-26	-42	-85
19	1945	-84	-216	-201	-9	-37	-27	-23	-250	-167	-36	-105	-42	-99
20	1946	-83	-129	-131	-148	-148	-21	-66	-186	16	-60	-240	-43	-103
21	1947	-77	-136	-25	14	-66	-177	-229	-21	28	40	-302	-42	-83
22	1948	-334	-192	-159	-57	-54	-146	-154	14	-12	41	-6	-12	-90
23	1949	-83	-161	-154	-120	-91	-131	-222	-113	34	-37	-34	-38	-96
24	1950	-84	-143	-146	30	-103	-139	-235	-119	-164	-50	-105	-41	-108
25	1951	-78	-188	-6	-105	-84	-7	-106	-163	-228	41	-101	-41	-88
26	1952	-118	-183	-156	-70	-69	-95	-163	16	1	-77	-268	-29	-101
27	1953	-84	-193	-205	-135	-57	-167	-167	2	16	-68	-304	-41	-117
28	1954	-84	-201	-131	35	-120	-99	-207	-44	-53	33	4	-41	-75
29	1955	-82	-183	-130	-161	-172	-147	-132	-248	-35	49	-203	-46	-123
30	1956	-82	-171	-106	-90	-115	-209	-141	-183	-11	41	-187	-40	-107
31	1957	-82	-147	-100	-147	-135	-63	-248	13	17	-25	-225	-44	-99
32	1958	-83	-206	-167	-160	-137	-142	-256	34	36	-307	-140	-42	-131
33	1959	-83	-163	14	-92	-5	-84	-65	-123	-112	-218	-21	37	-76
34	1960	-58	-140	-63	-56	-89	-163	-13	-8	-4	2	-253	-44	-74
35	1961	-82	-179	-127	24	-106	-188	-253	5	-33	-10	-415	-43	-118
36	1962	-83	-197	-202	-63	-126	-77	-20	19	21	-33	-158	-44	-80
37	1963	-82	-165	-75	35	-140	-152	-107	-263	-144	-54	-305	-41	-124
38	1964	-83	-140	-143	-125	-172	-112	-189	-84	-31	41	-55	-26	-93
39	1965	-78	-189	-195	-182	-78	-162	-238	-188	-273	-69	-189	-43	-157
40	1966	-83	-211	-107	-78	-121	-130	38	-121	-41	40	-86	-37	-77
41	1967	-82	-164	-115	32	-38	26	-53	-122	-122	36	-285	-39	-77
42	1968	-84	-182	-108	41	-121	-97	-156	-360	21	40	-242	-24	-105

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	
1	Table 11: Federal Hydro Generation Adjustment for Stand Ready & Deployment Losses, Heavy-Load-Hours for FY 2015														
2	Water Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Wtd Avg.	
3	45	1969	-73	-204	15	-85	-119	-197	-104	-41	22	40	-319	-41	-92
4	46	1970	-83	-223	-200	-87	-123	-176	-146	-253	-40	-345	-29	-50	-146
5	47	1971	-84	-134	-155	-89	-232	-126	-63	-169	-200	41	-6	-32	-103
6	48	1972	-82	-176	-98	-112	-85	16	-21	-150	-120	45	0	-28	-67
7	49	1973	-85	-182	-129	-59	-159	-91	-26	-274	-27	-273	-28	-48	-114
8	50	1974	-84	-86	-85	-77	-4	15	-87	-100	-207	45	-8	-33	-59
9	51	1975	-68	-209	-184	-76	-58	-143	-92	-118	-2	41	-286	-35	-102
10	52	1976	-75	-170	-91	-214	-36	-149	-103	-91	-15	41	-2	-282	-98
11	53	1977	-83	-220	-212	-194	-174	-120	-30	-329	-26	-361	-70	-27	-153
12	54	1978	-59	-87	-137	-158	-155	-74	-95	-119	-102	-84	-60	-20	-96
13	55	1979	-81	-224	-187	-93	-53	-174	-149	-36	-58	-38	-26	-37	-96
14	56	1980	-83	-225	-141	-179	-150	-64	-154	-47	28	-178	-32	-41	-105
15	57	1981	-82	-179	0	39	-91	-235	-42	-176	-29	41	-19	-24	-66
16	58	1982	-83	-211	-122	-110	-131	-145	-325	-183	-176	-224	-8	-21	-144
17	59	1983	-78	-197	-89	-65	-192	-366	-234	-46	-265	41	-12	-36	-128
18	60	1984	-77	-231	-88	-45	-146	-36	-64	-249	-36	-6	-184	-39	-98
19	61	1985	-72	-140	-128	-117	-160	-132	-92	11	-256	-46	-25	-53	-101
20	62	1986	-80	-132	-128	-75	-113	-36	-215	-261	-49	-291	-155	-49	-132
21	63	1987	-80	-104	-113	-120	-76	-168	-131	-7	11	-241	-28	-46	-92
22	64	1988	-83	-216	-121	-65	-3	-47	-25	-271	-44	-189	-114	-43	-101
23	65	1989	-83	-128	-117	-163	-79	-48	-236	-58	-247	-35	-28	-50	-106
24	66	1990	-84	-186	-170	-47	-111	-205	-230	16	12	-190	-182	-42	-118
25	67	1991	-80	-237	-133	15	-149	32	-68	1	18	41	-22	-37	-50
26	68	1992	-84	-137	-140	-148	-85	-163	-30	-309	-53	-179	-30	-30	-115
27	69	1993	-82	-216	-177	-109	-13	-61	-30	-247	-213	-74	-29	-41	-107
28	70	1994	-84	-196	-182	-88	-168	-32	-26	-67	-23	-376	-27	-41	-108
29	71	1995	-83	-161	-191	-146	-100	-153	-14	-97	-238	-328	-30	-41	-132
30	72	1996	-84	-42	15	-76	-129	-57	-105	-42	-21	41	-21	-42	-47
31	73	1997	-84	-184	-115	-54	14	-121	-90	-315	-46	41	-9	-21	-82
32	74	1998	-337	-198	-153	-119	-96	-133	-185	19	12	-213	-197	-52	-139
33	75	1999	-78	-91	-115	-92	-88	-206	-196	-83	3	41	5	-12	-76
34	76	2000	-82	-98	-87	-113	-114	-128	-53	-174	-179	14	-260	-41	-110
35	77	2001	-87	-193	-167	-206	-181	-49	-26	-233	-32	-256	-27	-35	-123
36	78	2002	-60	-135	-154	-149	-83	-66	-255	-268	-27	41	-361	-39	-130
37	79	2003	-84	-200	-204	-73	-63	-121	-172	-213	28	-38	-34	-35	-100
38	80	2004	-81	-199	-172	-209	-45	-164	-87	-248	-98	-31	-36	-18	-115
39	81	2005	-82	-195	-162	-63	-68	-210	-86	-227	14	-243	-33	-38	-116
40	82	2006	-82	-193	-125	-144	-72	-132	-110	-9	20	-306	-122	-48	-110
41	83	2007	-71	-111	-126	-122	-158	-15	2	-21	-20	-2	-31	-29	-58
42	84	2008	-82	-174	-169	-172	-190	-62	-27	-42	-34	-133	-358	-45	-124
43	85	80 WY Average	-87	-170	-133	-96	-103	-106	-112	-122	-64	-91	-113	-40	-103
44	86	Hours	432	384	416	416	384	416	416	400	416	416	416	400	4912

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Table 12: Federal Hydro Generation Adjustment for													
2	Stand Ready & Deployment Losses, Flat Energy for FY 2015													
3														
4	Water Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Wtd Avg.
5	1929	-10	-6	-15	-8	-6	-13	-12	-11	-14	-14	-4	-17	-11
6	1930	-9	-5	-11	-8	-9	-9	-13	-8	-13	17	-12	-19	-8
7	1931	-10	-5	-9	-9	-8	-14	-16	14	-14	16	-12	-17	-7
8	1932	-10	-6	-12	-13	-9	-13	-32	-3	8	-7	10	-9	-8
9	1933	-10	-7	-8	1	11	-4	-14	0	-19	19	9	-8	-2
10	1934	-6	10	-98	-73	-105	15	-41	3	10	10	-5	-17	-24
11	1935	-8	-7	-8	16	-6	6	-15	12	-11	18	14	-18	0
12	1936	-9	-5	-9	-9	-8	-12	-12	6	12	9	-12	-11	-5
13	1937	-9	-5	-9	-7	-8	-13	-16	-9	-12	-10	-6	-11	-9
14	1938	-9	-5	-8	-8	-10	-12	15	-9	6	15	-4	-8	-3
15	1939	-9	-6	-11	-8	-6	-10	-18	6	-11	-4	-3	-15	-8
16	1940	-7	-5	-6	-10	-8	-4	-15	17	-9	8	-4	-11	-4
17	1941	-9	-6	-8	-9	-9	-8	-11	8	-10	15	-5	3	-4
18	1942	-9	-5	-14	-9	-5	-9	-13	14	-4	9	-4	-11	-5
19	1943	-9	-6	-11	-8	-7	-10	1	9	-21	-6	-11	2	-6
20	1944	-4	-6	-12	-11	-5	-13	-12	-11	-19	-6	-3	0	-9
21	1945	-10	-5	-13	-10	-9	-11	-12	15	8	-9	-12	-5	-6
22	1946	-10	-6	-7	-12	-6	-10	12	-56	7	8	17	-20	-7
23	1947	-7	-5	12	4	0	12	-5	10	10	18	-1	-20	2
24	1948	0	-5	1	9	-6	-9	13	6	-27	18	9	-9	0
25	1949	-10	-6	-9	-3	-8	-9	15	-44	12	-8	-7	2	-6
26	1950	-10	-5	-8	13	11	-7	16	1	-47	15	15	-19	-2
27	1951	-9	-6	-24	-95	-86	-25	-41	-52	0	18	10	-19	-27
28	1952	-6	-6	-3	17	-9	6	-35	5	15	16	-6	7	0
29	1953	-10	-6	-16	-9	-12	-11	-11	7	1	10	-2	-17	-6
30	1954	-11	-5	-6	14	-3	16	-15	5	-41	9	9	10	-1
31	1955	-9	-5	-7	-10	-7	-8	-15	13	-44	19	14	-9	-5
32	1956	-10	-5	-42	-88	-105	-5	-10	-54	-22	18	13	-9	-26
33	1957	-10	-5	-6	-13	-2	-9	15	2	1	13	-11	-18	-4
34	1958	-10	-5	-11	-9	-6	-10	2	14	12	16	-11	-19	-3
35	1959	-10	-6	13	-91	-12	12	13	0	-4	14	13	4	-5
36	1960	21	10	6	16	-4	-8	-23	7	16	10	-7	-20	2
37	1961	-9	-6	-8	10	-2	-4	5	7	-42	10	11	-17	-4
38	1962	-10	-6	-10	-10	-9	-13	-33	6	4	-6	-12	-11	-9
39	1963	-10	-5	13	14	-9	-6	-14	2	-17	9	-1	-7	-2
40	1964	-10	-6	-8	-6	-6	-10	-18	-2	-41	17	12	-10	-7
41	1965	-6	-5	-70	-165	6	14	1	-50	-37	16	15	1	-24
42	1966	-9	-5	-6	-9	-5	-9	16	8	13	17	10	-16	1
43	1967	-9	-6	-8	8	16	8	-14	-6	-32	15	15	-7	-2
44	1968	-10	-6	-8	17	-6	14	-15	-8	7	18	13	-15	0

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Table 12: Federal Hydro Generation Adjustment for Stand Ready & Deployment Losses, Flat Energy for FY 2015													
2														
3	Water Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Wtd Avg.
4	1969	-6	-5	16	-87	-105	-5	-41	5	7	18	15	-18	-16
45	1970	-10	-4	-10	-10	-6	-11	-15	11	-35	2	-5	-7	-8
46	1971	-10	-6	-12	-90	-90	11	15	-42	-50	18	9	-9	-21
47	1972	-9	-6	-10	-101	-86	1	6	-12	-66	19	9	-15	-22
48	1973	-11	-11	-8	-12	-10	-12	-12	9	-11	-7	-4	-12	-8
49	1974	-10	-8	-7	-71	-4	-9	16	0	-62	18	9	-14	-12
50	1975	-4	-6	-11	-7	-3	-9	-13	0	-8	18	19	-10	-3
51	1976	-9	0	-89	-76	-49	8	-41	-1	15	17	9	11	-17
52	1977	-9	-5	-17	-9	-6	-8	-11	-8	-17	1	-15	10	-8
53	1978	-4	-7	-8	-10	-7	-11	14	0	-12	15	-9	-7	-4
54	1979	-8	-5	-8	-12	-12	-11	-13	7	-11	-9	-6	-16	-9
55	1980	-9	-5	-11	-12	-5	-13	1	-48	8	-12	-7	-19	-11
56	1981	-9	-6	8	13	-3	-2	-14	-10	-39	18	9	-9	-3
57	1982	-9	-5	-8	19	-88	-136	-10	-50	-48	14	9	-16	-27
58	1983	-10	-5	-6	-72	-66	-186	1	12	-8	18	13	-8	-26
59	1984	-5	2	-4	-7	-9	-12	-39	15	-12	14	16	-20	-5
60	1985	-4	-6	-8	-8	-6	-10	-13	8	6	-13	-12	6	-5
61	1986	-9	-6	-9	-10	-32	-47	-13	4	14	14	-12	-7	-9
62	1987	-8	-6	-8	-8	-4	-14	-14	7	10	-9	-11	-10	-6
63	1988	-9	-5	-11	-12	-6	-12	-12	-4	-12	15	-12	-11	-8
64	1989	-9	-6	-7	-7	-6	-14	15	3	-9	-7	-5	-10	-5
65	1990	-10	-5	-4	16	6	-5	14	6	-7	14	16	-17	2
66	1991	-8	3	9	-9	0	13	13	7	3	17	12	-9	4
67	1992	-10	-6	-12	-8	-6	-5	-13	-11	-13	-12	-10	2	-9
68	1993	-9	-5	-8	-10	-8	-12	-12	-8	-9	-13	-5	5	-8
69	1994	-10	-5	-9	-12	-5	-13	-13	13	9	5	-4	-19	-5
70	1995	-9	-5	-9	-7	-3	12	-13	-12	11	1	-6	-17	-5
71	1996	-5	11	-2	-73	16	-61	-40	5	-35	17	9	-16	-15
72	1997	-10	-6	-7	-62	3	-113	13	-62	-46	17	8	-17	-24
73	1998	1	0	-5	-8	-7	-8	-11	9	-8	16	17	-10	-1
74	1999	-7	-6	-8	-91	-91	-63	14	0	-9	18	10	-8	-20
75	2000	-9	11	8	9	-12	-9	-29	14	6	13	-7	-9	-1
76	2001	-11	-6	-12	-7	-6	-12	-12	-9	-20	-9	-4	6	-9
77	2002	-7	-6	-10	-7	-10	-12	2	7	-39	18	7	-15	-6
78	2003	-10	-5	-10	-7	-7	-8	-12	2	13	-9	-10	3	-5
79	2004	-9	-5	-1	-11	-6	-11	-13	2	9	-6	-8	-8	-5
80	2005	-9	-6	1	-8	-7	-17	-11	6	6	-9	-6	-15	-6
81	2006	-9	-6	-7	-4	-10	-8	-46	7	5	16	-12	-11	-7
82	2007	-9	-4	-10	8	-7	7	13	10	15	12	-5	3	3
83	2008	-9	-6	-9	-15	-8	-13	-14	-1	-44	15	6	-10	-9
84	80 WY Average	-8	-4	-10	-18	-16	-13	-9	-3	-11	8	1	-10	-8
85	Hours	744	721	744	744	672	743	720	744	720	744	744	720	8760

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	Table 13: Value of PS Wind Generation at Expected Wind Generation for FY 2014													
2														
3														
4														
5														
6	Expected Generation (aMW)	62	46	51	34	30	69	66	68	91	62	71	71	60
7	Contract Prices (\$/MWh)	\$ 31.46	\$ 50.36	\$ 43.35	\$ 70.24	\$ 65.83	\$ 40.14	\$ 34.13	\$ 30.95	\$ 23.03	\$ 27.68	\$ 24.75	\$ 23.45	\$ 38.62
8														
9	Power Purchase Costs for Expected Wind Generation (\$1,000)													
10														
11														
12	Expected Wind Generation Cost (\$000)	\$ 1,961	\$ 2,333	\$ 2,214	\$ 2,398	\$ 1,975	\$ 2,770	\$ 2,238	\$ 2,107	\$ 2,096	\$ 1,703	\$ 1,758	\$ 1,669	\$ 25,221
13														
14														
15	Average, Median, 5th Percentile, and 95th Percentile Spot Market Electricity Prices Estimated by AURORA (\$/MWh)													
16														
17														
18	5%	\$ 21.85	\$ 24.48	\$ 25.73	\$ 22.28	\$ 21.95	\$ 16.66	\$ 14.83	\$ 8.54	\$ 8.62	\$ 18.69	\$ 21.91	\$ 23.01	\$ 21.71
19	50%	\$ 28.65	\$ 32.27	\$ 35.30	\$ 33.81	\$ 33.77	\$ 28.37	\$ 23.46	\$ 18.04	\$ 18.28	\$ 27.16	\$ 29.98	\$ 30.61	\$ 28.56
20	Average	\$ 29.14	\$ 33.03	\$ 36.14	\$ 34.72	\$ 34.57	\$ 28.62	\$ 23.77	\$ 17.93	\$ 18.83	\$ 27.72	\$ 30.63	\$ 31.31	\$ 28.84
21	95%	\$ 37.99	\$ 44.12	\$ 49.01	\$ 50.32	\$ 49.97	\$ 40.65	\$ 33.29	\$ 27.07	\$ 30.32	\$ 39.05	\$ 42.07	\$ 42.24	\$ 37.13
22														
23	Revenues from Expected Wind Generation at Various AURORA Price Percentiles (\$1,000)													
24														
25														
26	5%	\$ 1,014	\$ 818	\$ 978	\$ 566	\$ 442	\$ 854	\$ 700	\$ 433	\$ 565	\$ 855	\$ 1,158	\$ 1,179	\$ 11,461
27	50%	\$ 1,329	\$ 1,078	\$ 1,341	\$ 859	\$ 681	\$ 1,455	\$ 1,107	\$ 914	\$ 1,198	\$ 1,243	\$ 1,585	\$ 1,569	\$ 15,077
28	Average	\$ 1,352	\$ 1,103	\$ 1,373	\$ 882	\$ 697	\$ 1,467	\$ 1,122	\$ 908	\$ 1,234	\$ 1,269	\$ 1,619	\$ 1,605	\$ 15,226
29	95%	\$ 1,762	\$ 1,474	\$ 1,862	\$ 1,278	\$ 1,007	\$ 2,084	\$ 1,571	\$ 1,371	\$ 1,987	\$ 1,787	\$ 2,224	\$ 2,165	\$ 19,599

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Table 14: Value of PS Wind Generation at Expected Wind Generation for FY 2015													
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)	\$ 32.12	\$ 51.42	\$ 44.24	\$ 70.81	\$ 66.17	\$ 40.59	\$ 34.54	\$ 31.35	\$ 23.36	\$ 28.09	\$ 25.09	\$ 23.71	\$ 39.14
8														
9	Power Purchase Costs for Expected Wind Generation (\$1,000)													
10														
11		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Annual
12	Expected Wind Generation Cost (\$000)	\$ 2,003	\$ 2,382	\$ 2,260	\$ 2,418	\$ 1,985	\$ 2,801	\$ 2,264	\$ 2,134	\$ 2,126	\$ 1,728	\$ 1,782	\$ 1,688	\$ 25,571
13														
14														
15	Average, Median, 5th Percentile, and 95th Percentile Spot Market Electricity Prices Estimated by AURORA (\$/MWh)													
16														
17		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Annual
18	5%	\$ 22.74	\$ 25.02	\$ 25.62	\$ 21.82	\$ 20.82	\$ 14.18	\$ 12.33	\$ 6.72	\$ 8.62	\$ 17.91	\$ 22.42	\$ 23.11	\$ 21.13
19	50%	\$ 29.94	\$ 33.47	\$ 35.78	\$ 33.74	\$ 33.31	\$ 27.35	\$ 22.95	\$ 16.83	\$ 19.02	\$ 27.51	\$ 30.38	\$ 30.16	\$ 28.59
20	Average	\$ 30.56	\$ 34.17	\$ 36.52	\$ 34.59	\$ 33.82	\$ 27.33	\$ 22.99	\$ 16.90	\$ 19.56	\$ 27.97	\$ 31.23	\$ 30.88	\$ 28.86
21	95%	\$ 40.28	\$ 45.74	\$ 49.80	\$ 50.19	\$ 49.47	\$ 39.22	\$ 33.50	\$ 27.01	\$ 32.50	\$ 39.63	\$ 42.78	\$ 40.84	\$ 37.37
22														
23	Revenues from Expected Wind Generation at Various AURORA Price Percentiles (\$1,000)													
24														
25		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Annual
26	5%	\$ 1,055	\$ 836	\$ 973	\$ 554	\$ 420	\$ 727	\$ 582	\$ 340	\$ 565	\$ 819	\$ 1,185	\$ 1,184	\$ 11,154
27	50%	\$ 1,389	\$ 1,118	\$ 1,359	\$ 857	\$ 671	\$ 1,402	\$ 1,084	\$ 852	\$ 1,246	\$ 1,259	\$ 1,606	\$ 1,546	\$ 15,091
28	Average	\$ 1,417	\$ 1,141	\$ 1,388	\$ 879	\$ 682	\$ 1,401	\$ 1,085	\$ 856	\$ 1,282	\$ 1,280	\$ 1,650	\$ 1,583	\$ 15,234
29	95%	\$ 1,868	\$ 1,527	\$ 1,892	\$ 1,275	\$ 997	\$ 2,011	\$ 1,581	\$ 1,368	\$ 2,130	\$ 1,814	\$ 2,261	\$ 2,093	\$ 19,726

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

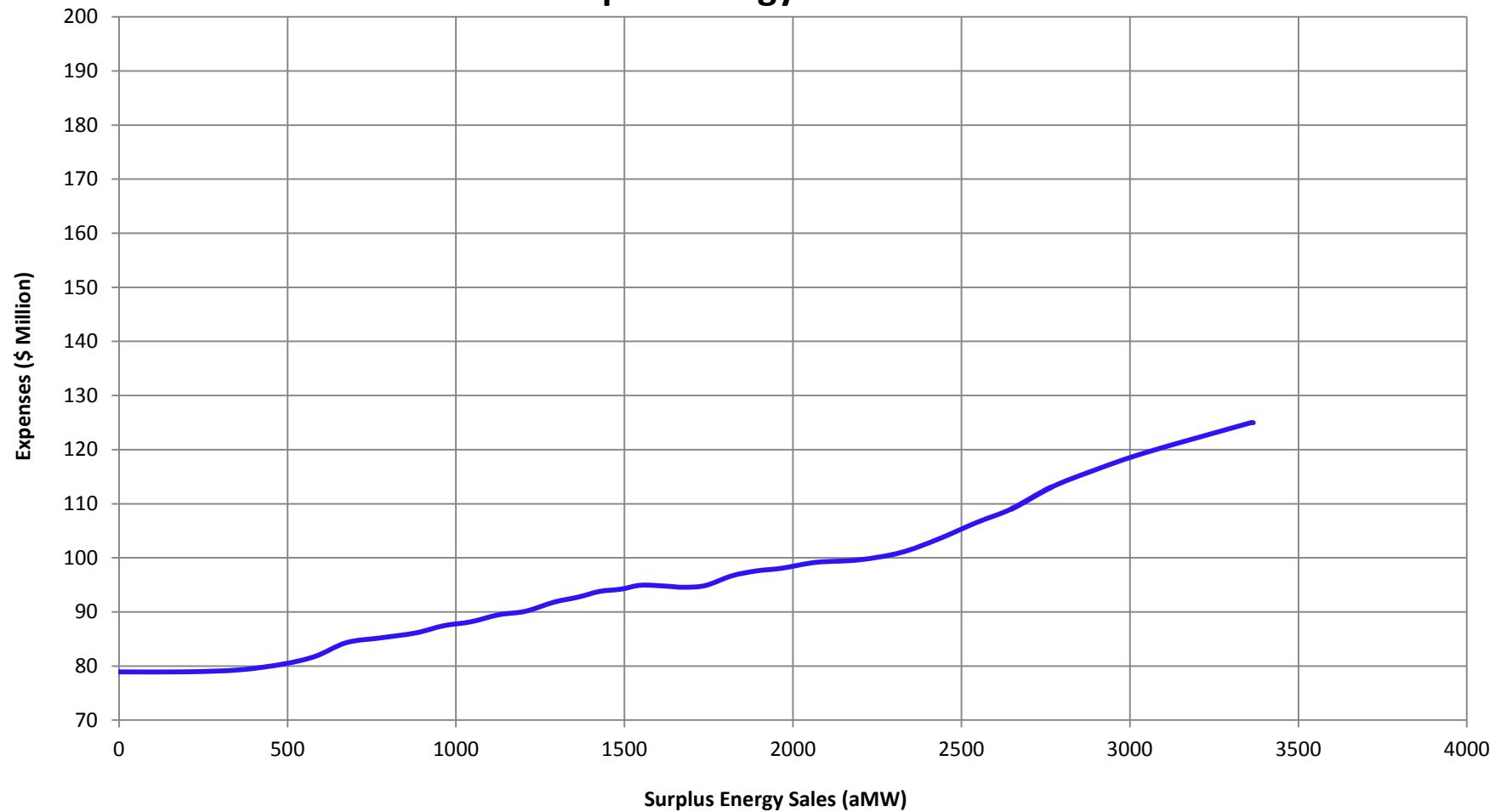


Figure 9: PS Transmission & Ancillary Services Expenses by Amount of Surplus Energy Sales For FY 2015

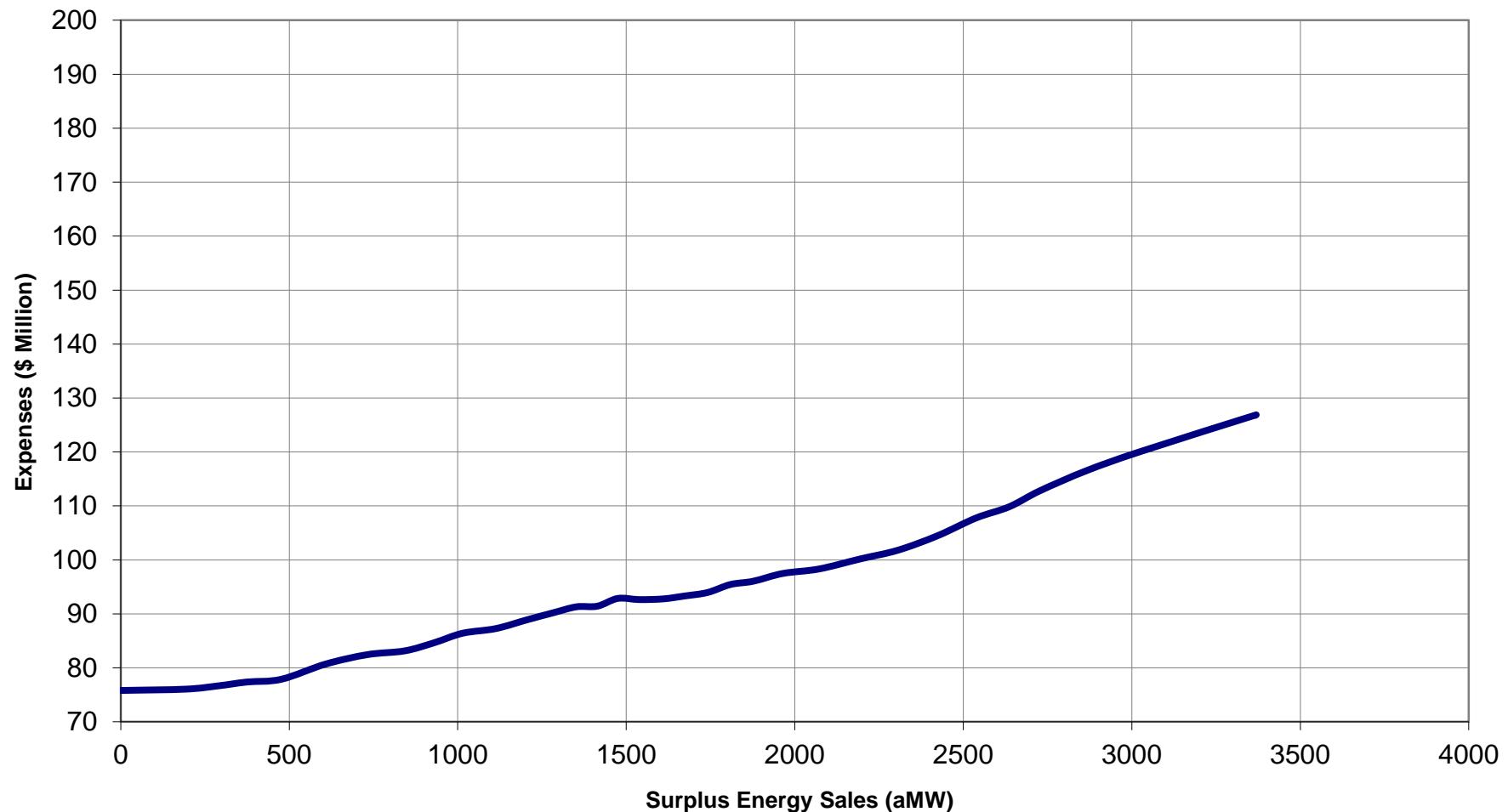


Figure 10: PS Transmission and Ancillary Service Expense Distribution for FY 2014

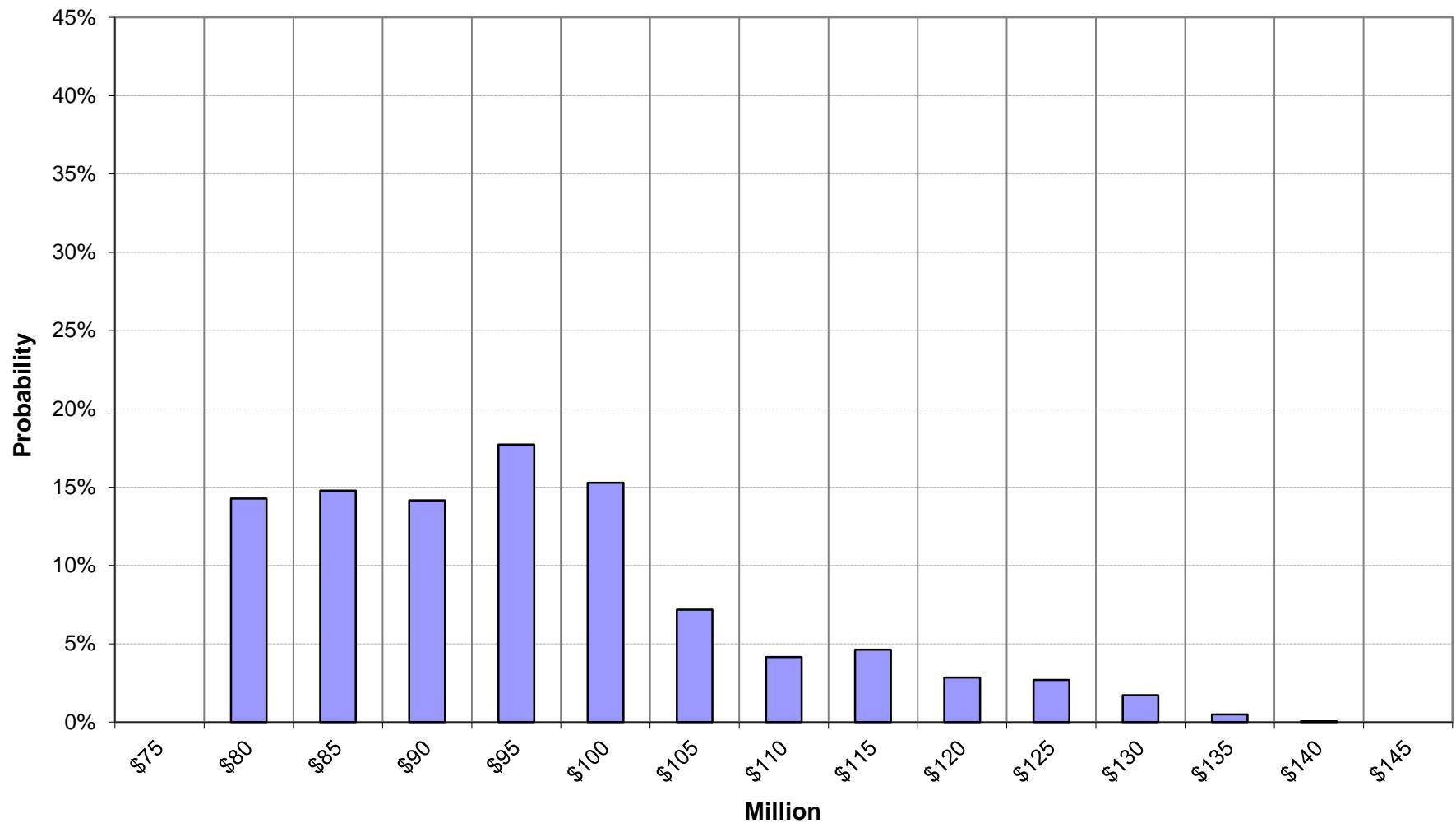
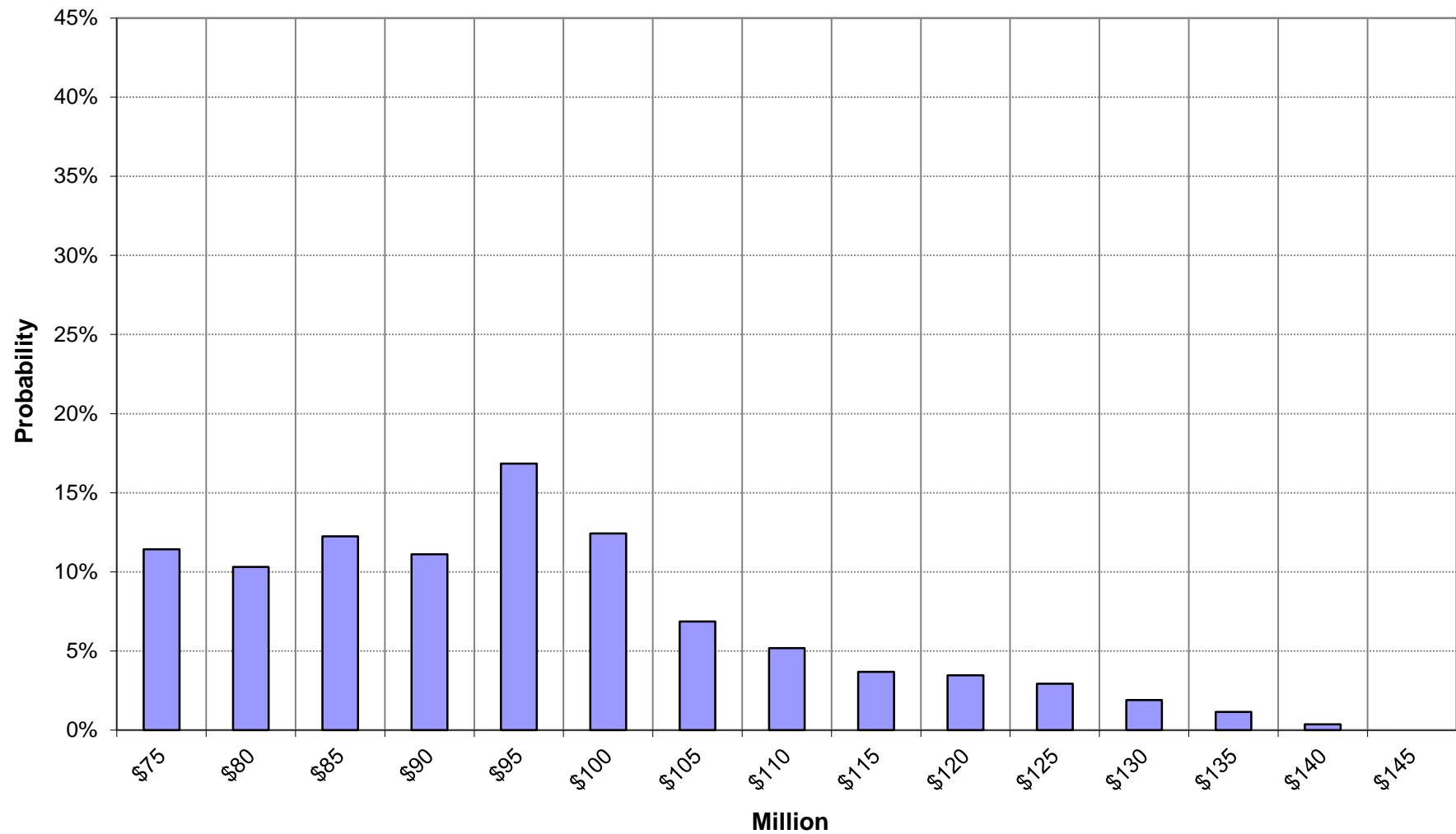


Figure 11: PS Transmission and Ancillary Service Expense Distribution for FY 2015



	A	B	C	D	E	F	G
1	Table 15: 4h10c Credits						
2							
3	4h10c Credits (\$ Million)						
4							
5	Fiscal Year	Purchase Expense	Direct Expense	Pisces	Capital	%	Credit
6	2014	\$ 120	\$ 254	\$ 1.8	60.3	22.3%	\$ 97.2
7	2015	\$ 113	\$ 260	\$ 1.8	41.8	22.3%	\$ 93.0

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

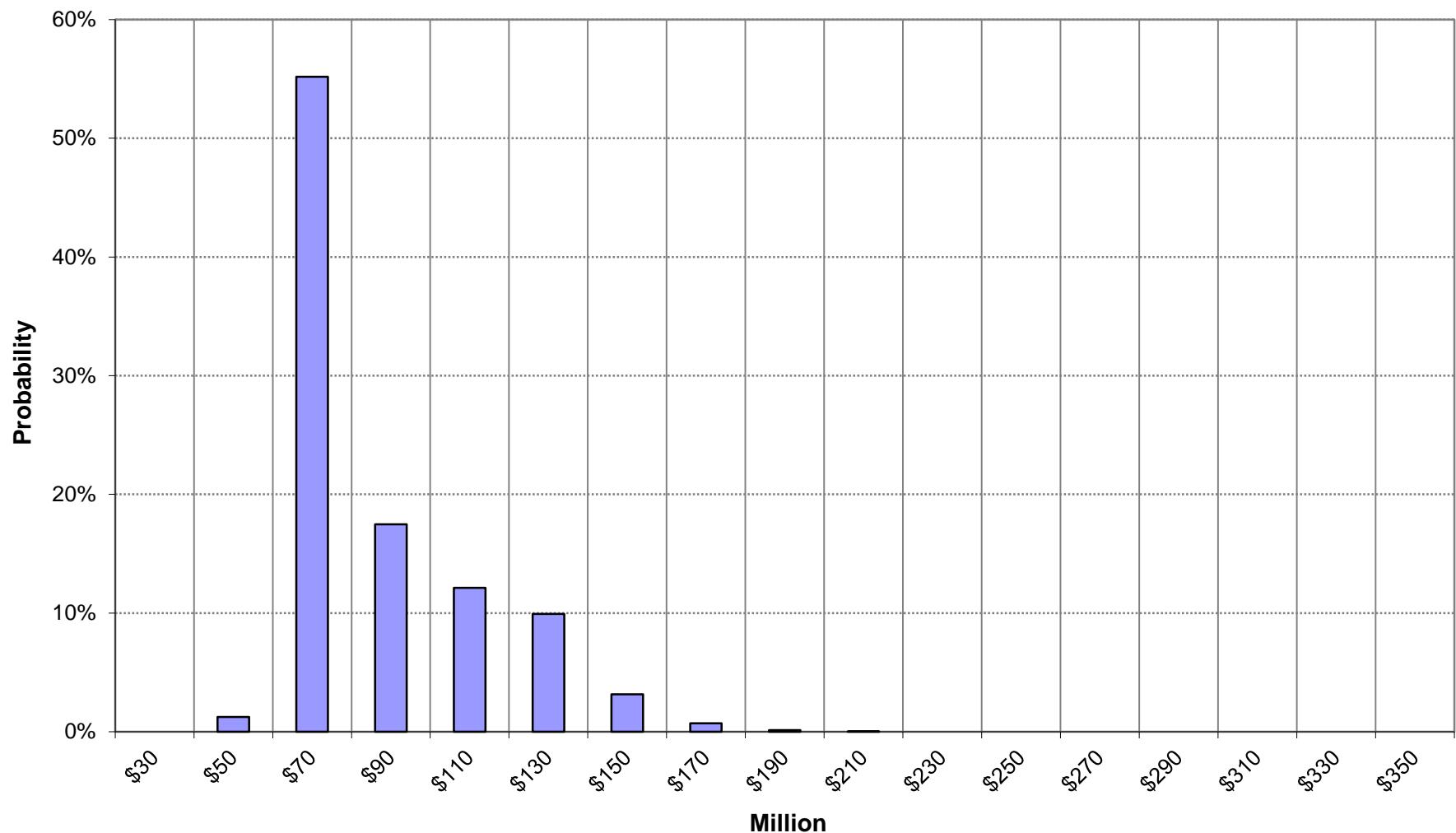
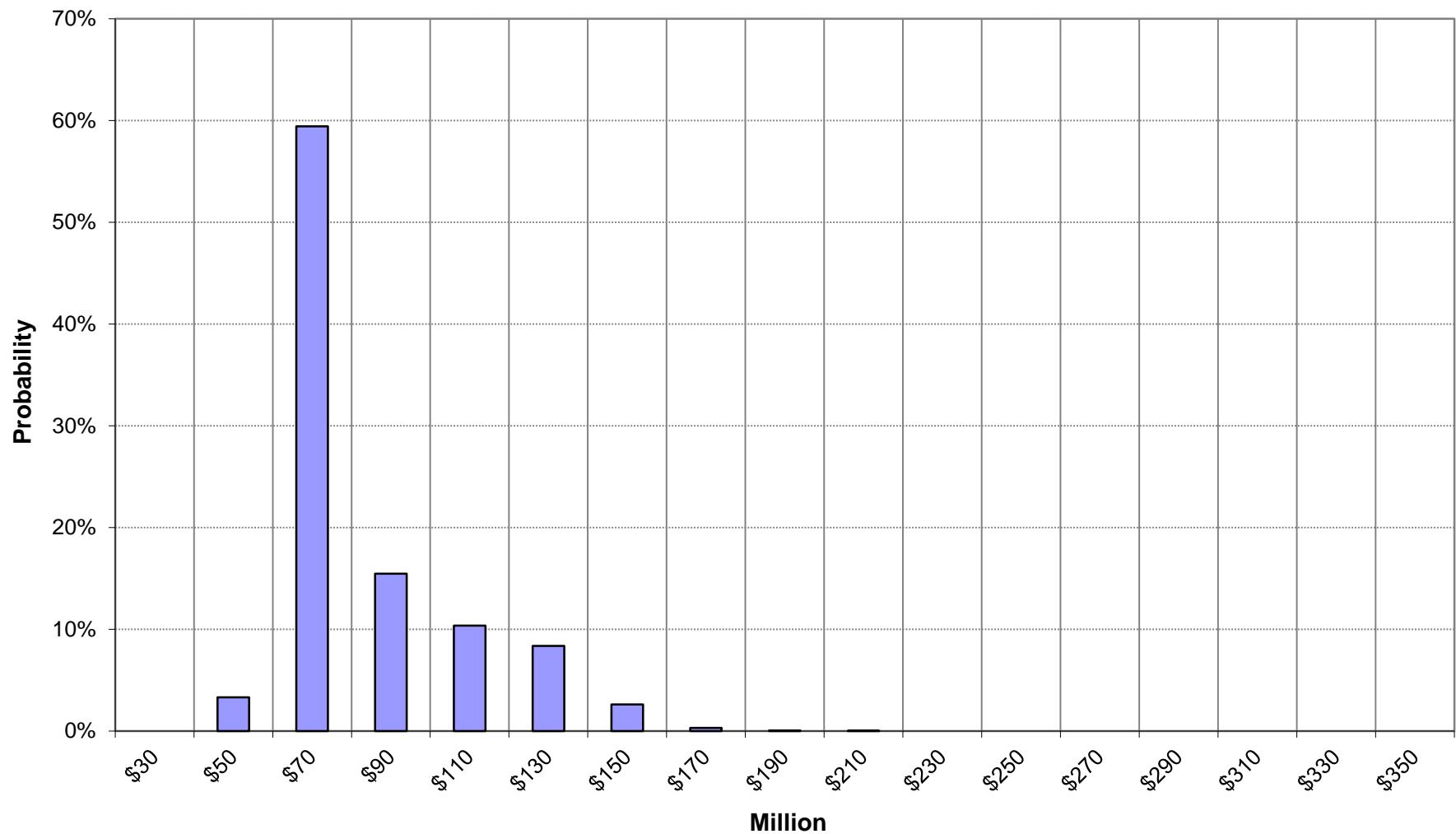


Figure 13: 4(h)(10)(C) Credits Distribution for FY 2015



	A	B	C	D	E
1	Table 16: Augmentation Power Purchases				
2					
3	Price = Average Annual Price for WY 1937 from Risk Analysis				
4	USE FOR RATE CALCs.				
5					
6	FY	MW	Hours	\$/MWh	Exp. (\$ 000)
7	2014	21	8,760	33.47	\$ 6,198
8	2015	318	8,760	34.08	\$ 94,913

	A	B	C	D	E	F	G	H	I
1	Table 17: Augmentation Power Purchases - Risk Analysis								
2									
3	Risk Analysis BP 14								
4									
5	FY	MW	Price	Critical	MW	Price	Market	Total	Delta
6	2014	11	33.47	\$ 3,099	11	28.84	\$ 2,670	\$ 5,769	\$ (429)
7	2015	81	34.08	\$ 24,173	237	28.86	\$ 59,908	\$ 84,081	\$ (10,832)

	A	B	C	D	E	F
1	Table 18: Calculation of Surplus Energy Sales Revenue and Balancing Purchase Expenses Provided to RAM2014, FY 2014					
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	1076	\$ 77,682	\$ 350,417	\$ (272,735)	
4	2	319	\$ 69,869	\$ 315,924	\$ (246,055)	
5	3	1146	\$ 97,547	\$ 307,075	\$ (209,528)	
6	*	*	*	*	*	
7	*	*	*	*	*	
8	*	*	*	*	*	
9	1441	401	\$ 281,693	\$ 13,729	\$ 267,964	160
10	1442	1260	\$ 274,563	\$ 6,433	\$ 268,131	159
11	1443	1011	\$ 291,313	\$ 23,069	\$ 268,244	158
12	*	*	*	*	*	*
13	*	*	*	*	*	*
14	*	*	*	*	*	*
15	1598	144	\$ 304,898	\$ 10,122	\$ 294,776	3
16	1599	2997	\$ 326,862	\$ 32,052	\$ 294,809	2
17	1600	1992	\$ 320,648	\$ 25,756	\$ 294,891	1
18	1601	1766	\$ 315,551	\$ 20,450	\$ 295,101	1
19	1602	1217	\$ 321,814	\$ 26,508	\$ 295,307	2
20	1603	2266	\$ 316,581	\$ 21,233	\$ 295,348	3
21	*	*	*	*	*	*
22	*	*	*	*	*	*
23	*	*	*	*	*	*
24	1758	437	\$ 331,718	\$ 9,003	\$ 322,715	158
25	1759	2993	\$ 335,140	\$ 12,262	\$ 322,878	159
26	1760	21	\$ 350,669	\$ 27,747	\$ 322,922	160
27	*	*	*	*	*	
28	*	*	*	*	*	
29	*	*	*	*	*	
30	3198	1333	\$ 829,046	\$ 18,036	\$ 811,011	
31	3199	1202	\$ 824,535	\$ 11,352	\$ 813,182	
32	3200	1078	\$ 887,604	\$ 6,626	\$ 880,979	
33						
34	Average (3,200 Games)		\$ 342,489	\$ 50,086	\$ 292,404	
35	Median (3,200 Games)		\$ 325,197	\$ 25,566	\$ 294,996	
36						
37	Average to RAM2014 (\$000) (160 Above, 160 Below Median Net Secondary Revenue)		\$ 322,152	\$ 27,021	\$ 295,131	
38						
39						
40						
41	Redispatch of Transmission Exp. (\$000)		\$ 400	\$ 400		
42						
43	Total Median Sales/Purchases to RAM (\$000)		\$ 322,152	\$ 27,421	\$ 294,731	

	A	B	C	D	E	F
1	Table 19: Calculation of Surplus Energy Sales Revenue and Balancing Purchase Expenses Provided to RAM2015, FY 2015					
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	335	\$ 95,042	\$ 324,684	\$ (229,642)	
4	2	2559	\$ 45,359	\$ 247,422	\$ (202,063)	
5	3	810	\$ 99,349	\$ 293,241	\$ (193,892)	
6	*	*	*	*	*	
7	*	*	*	*	*	
8	*	*	*	*	*	
9	1441	2735	\$ 304,508	\$ 15,052	\$ 289,456	160
10	1442	911	\$ 315,047	\$ 25,451	\$ 289,597	159
11	1443	1523	\$ 301,017	\$ 11,328	\$ 289,689	158
12	*	*	*	*	*	*
13	*	*	*	*	*	*
14	*	*	*	*	*	*
15	1598	1663	\$ 370,300	\$ 57,441	\$ 312,859	3
16	1599	3185	\$ 325,365	\$ 12,500	\$ 312,864	2
17	1600	1238	\$ 348,342	\$ 35,216	\$ 313,126	1
18	1601	138	\$ 326,845	\$ 13,507	\$ 313,338	1
19	1602	14	\$ 316,423	\$ 1,972	\$ 314,451	2
20	1603	1656	\$ 343,495	\$ 28,369	\$ 315,126	3
21	*	*	*	*	*	*
22	*	*	*	*	*	*
23	*	*	*	*	*	*
24	1758	1628	\$ 376,813	\$ 38,985	\$ 337,828	158
25	1759	745	\$ 353,554	\$ 15,714	\$ 337,840	159
26	1760	119	\$ 343,009	\$ 5,109	\$ 337,900	160
27	*	*	*	*	*	
28	*	*	*	*	*	
29	*	*	*	*	*	
30	3198	2796	\$ 845,115	\$ -	\$ 845,115	
31	3199	824	\$ 853,210	\$ -	\$ 853,210	
32	3200	2928	\$ 882,475	\$ -	\$ 882,475	
33						
34	Average (3,200 Games)		\$ 347,955	\$ 45,443	\$ 302,513	
35	Median (3,200 Games)		\$ 341,570	\$ 23,504	\$ 313,232	
36						
37	Average to RAM2015 (\$000) (160 Above, 160 Below Median Net Secondary Revenue)		\$ 340,317	\$ 26,320	\$ 313,998	
38						
39						
40						
41	Redispatch of Transmission Exp. (\$000)		\$ 400	\$ 400		
42						
43	Total Median Sales/Purchases to RAM (\$000)		\$ 340,317	\$ 26,720	\$ 313,598	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Table 20: Secondary Sales													
2														
3														
4														
5		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Annual Stats
6	Monthly Hours	744	721	744	744	672	743	720	744	720	744	744	720	8,760
7	Surplus Sales Total (aMW)	294	556	592	1,413	1,404	1,924	2,546	4,091	4,039	1,878	862	339	1,661
8	Surplus Sales Revenue Total (\$000)	\$ 3,055	\$ 5,804	\$ 5,403	\$ 25,917	\$ 22,803	\$ 38,044	\$ 47,012	\$ 52,848	\$ 54,697	\$ 42,597	\$ 17,483	\$ 6,489	\$ 322,152
9														
10														
11	Committed Sales (aMW)													
12	Committed Sales Revenue													
13														
14	Total Surplus Sales aMW	294	556	592	1,413	1,404	1,924	2,546	4,091	4,039	1,878	862	339	1,661
15	Total Surplus Sales Revenue (\$000)	\$ 3,055	\$ 5,804	\$ 5,403	\$ 25,917	\$ 22,803	\$ 38,044	\$ 47,012	\$ 52,848	\$ 54,697	\$ 42,597	\$ 17,483	\$ 6,489	\$ 322,152
16														
17														
18														
19														
20		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Annual Stats
21	Monthly Hours	744	721	744	744	672	743	720	744	720	744	744	720	8,760
22	Surplus Sales Total (aMW)	402	480	780	1,494	1,529	2,106	2,544	3,711	3,354	1,985	1,098	354	1,654
23	Surplus Sales Revenue Total (\$000)	\$ 6,239	\$ 5,736	\$ 12,098	\$ 28,197	\$ 28,179	\$ 40,559	\$ 44,067	\$ 46,400	\$ 50,961	\$ 47,174	\$ 24,796	\$ 5,911	\$ 340,317
24														
25														
26	Committed Sales (aMW)													
27	Committed Sales Revenue													
28														
29	Total Surplus Sales aMW	402	480	780	1,494	1,529	2,106	2,544	3,711	3,354	1,985	1,098	354	1,654
30	Total Surplus Sales Revenue (\$000)	\$ 6,239	\$ 5,736	\$ 12,098	\$ 28,197	\$ 28,179	\$ 40,559	\$ 44,067	\$ 46,400	\$ 50,961	\$ 47,174	\$ 24,796	\$ 5,911	\$ 340,317

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1														
2														
3														
4														
5		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Annual Stats
6	Monthly Hours	744	721	744	744	672	743	720	744	720	744	744	720	8,760
7	Balancing Purchases (aMW)	178	127	335	416	391	100	51	0	2	27	81	180	156
8	Purchase Expense Total (\$000)	\$ 4,578	\$ 4,813	\$ 7,600	\$ 2,810	\$ 2,578	\$ 575	\$ 23	\$ -	\$ -	\$ 207	\$ 663	\$ 3,175	\$ 27,021
9														
10														
11	Transmission re-dispatch for Gen Inputs adjustment	\$ 33	\$ 33	\$ 33	\$ 33	\$ 33	\$ 33	\$ 33	\$ 33	\$ 33	\$ 33	\$ 33	\$ 33	\$ 400
12														
13	Total Balancing Purchases aMW	178	127	335	416	391	100	51	-	2	27	81	180	156
14	Total Purchase Expense (\$000)	\$ 4,611	\$ 4,846	\$ 7,633	\$ 2,843	\$ 2,612	\$ 608	\$ 56	\$ 33	\$ 33	\$ 240	\$ 697	\$ 3,208	\$ 27,421
15														
16														
17														
18														
19		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Annual Stats
20	Monthly Hours	744	721	744	744	672	743	720	744	720	744	744	720	8,760
21	Balancing Purchases (aMW)	126	119	268	301	323	56	42	0	65	64	84	313	145
22	Purchase Expense (\$000)	\$ 2,743	\$ 4,732	\$ 5,872	\$ 1,335	\$ 3,079	\$ 557	\$ 42	\$ -	\$ -	\$ 396	\$ 1,269	\$ 6,294	\$ 26,320
23														
24														
25	Transmission re-dispatch for Gen Inputs adjustment	\$ 33	\$ 33	\$ 33	\$ 33	\$ 33	\$ 33	\$ 33	\$ 33	\$ 33	\$ 33	\$ 33	\$ 33	\$ 400
26														
27	Total Balancing Purchases aMW	126	119	268	301	323	56	42	-	65	64	84	313	145
28	Total Purchase Expense (\$000)	\$ 2,777	\$ 4,766	\$ 5,905	\$ 1,368	\$ 3,113	\$ 591	\$ 75	\$ 33	\$ 33	\$ 430	\$ 1,302	\$ 6,327	\$ 26,720

	A	B	C
1	Table 22: Annual Secondary Sales and Balancing Purchases		
2		FY 2014	FY 2015
3	Monthly Hours	8,760	8,760
4	Surplus Sales Total (aMW)	1,661	1,654
5	Surplus Sales Revenue Total (\$000)	\$ 322,152	\$ 340,317
6			
7	Balancing Purchases (aMW)	156	145
8	Purchase Expense Total (\$000)	\$ 27,021	\$ 26,320
9	Transmission re-dispatch for Gen Inputs adjustment	\$ 400	\$ 400
10			
11	Total Balancing Purchases aMW	1,505	1,508
12	Total Purchase Expense (\$000)	\$ 27,421	\$ 26,720

Figure 14: CGS O&M Distributions

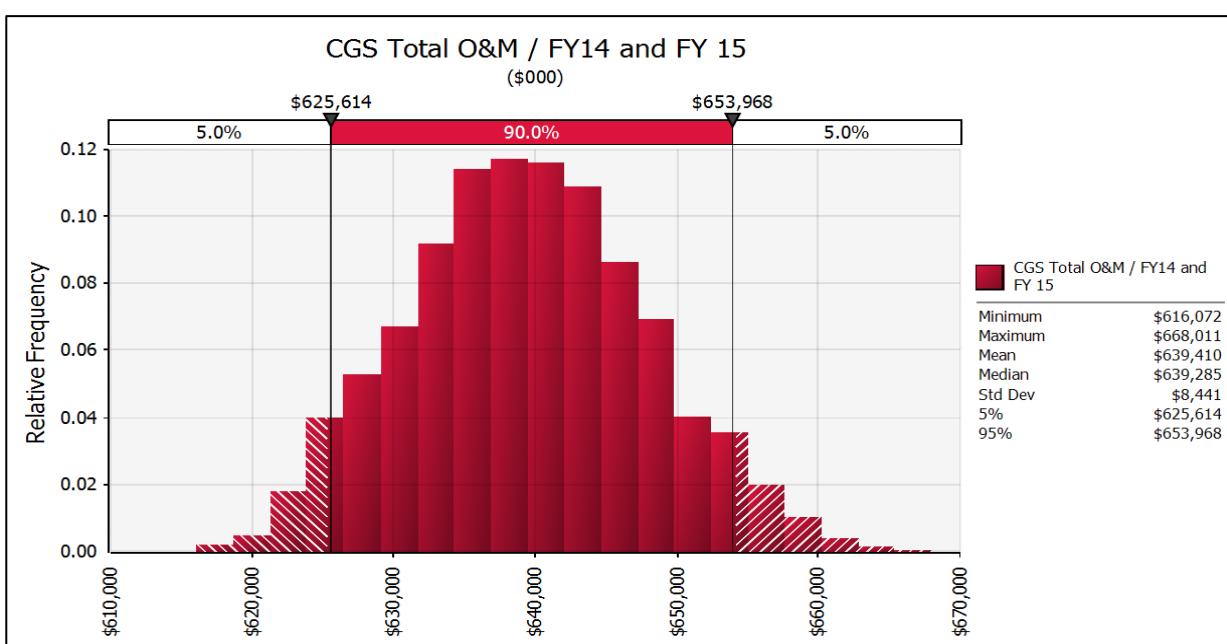
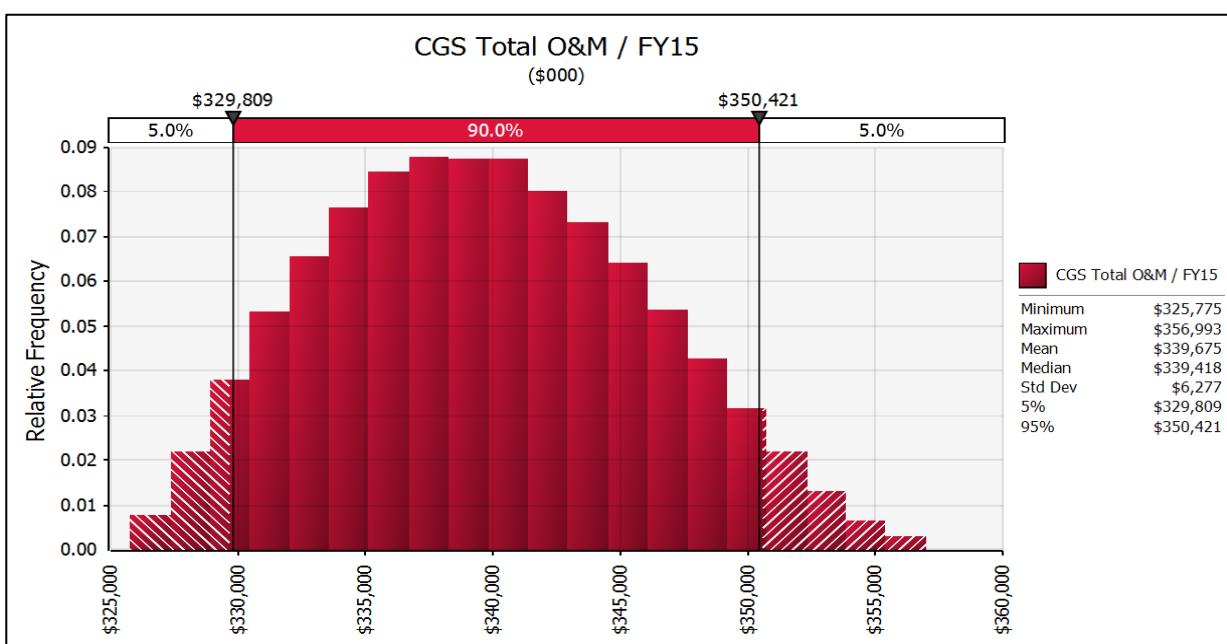
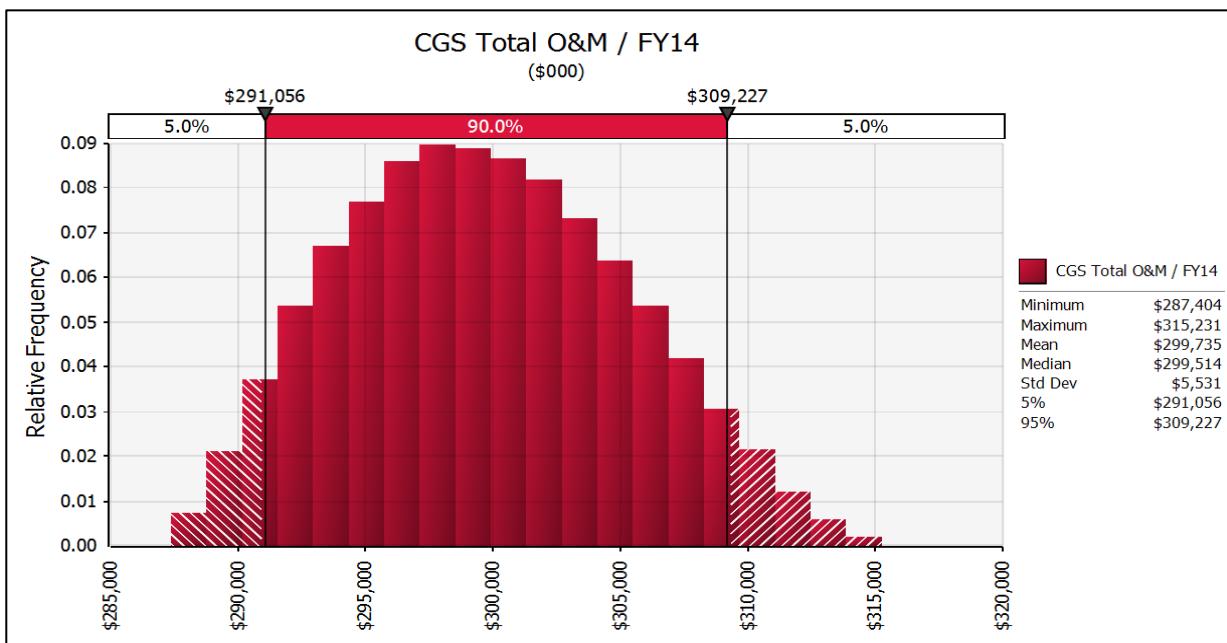


Figure 15: Corps of Engineers (COE) and Bureau of Reclamation (Reclamation) O&M Distributions

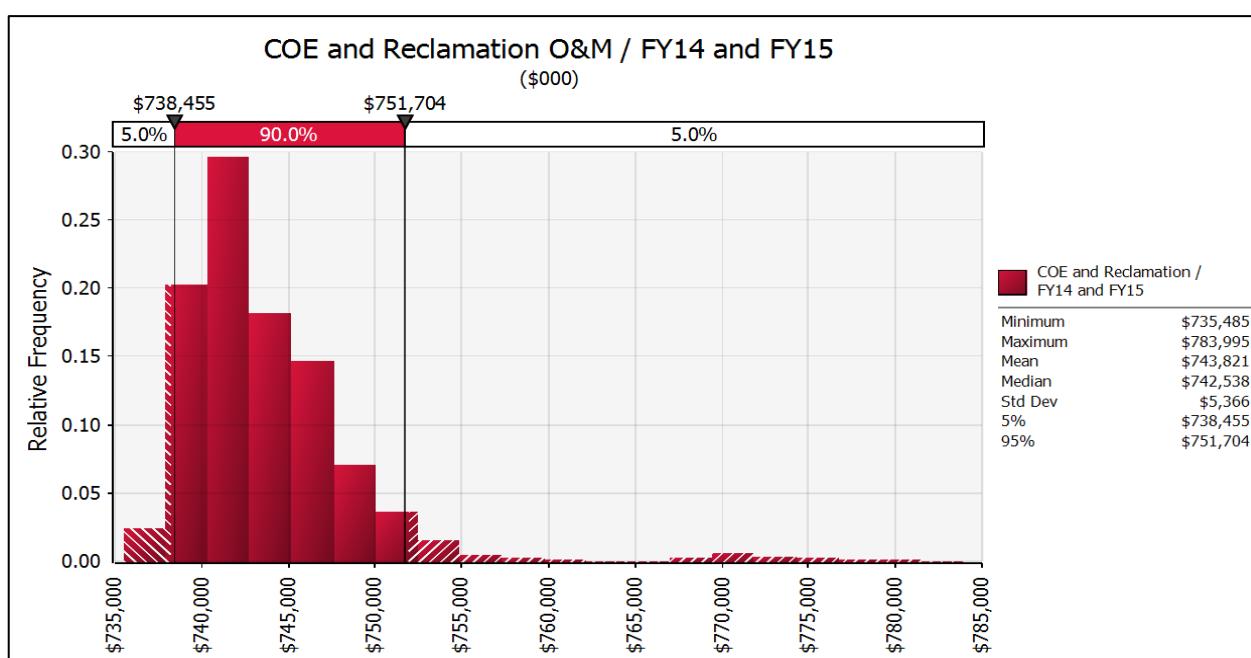
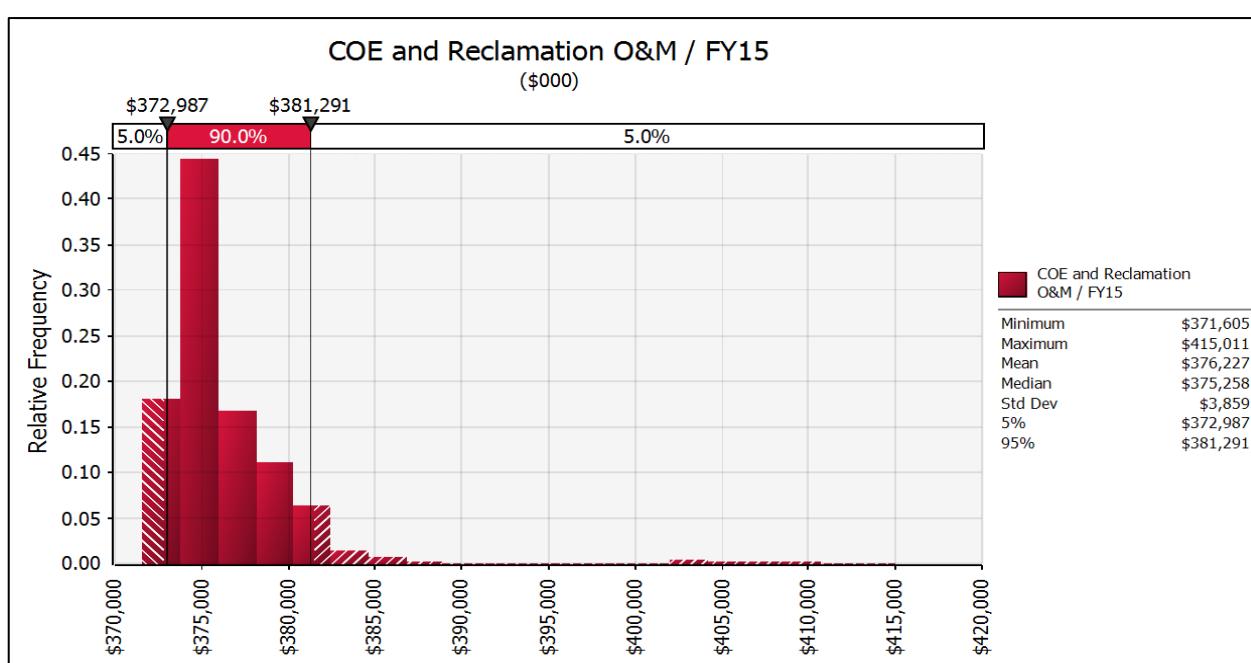
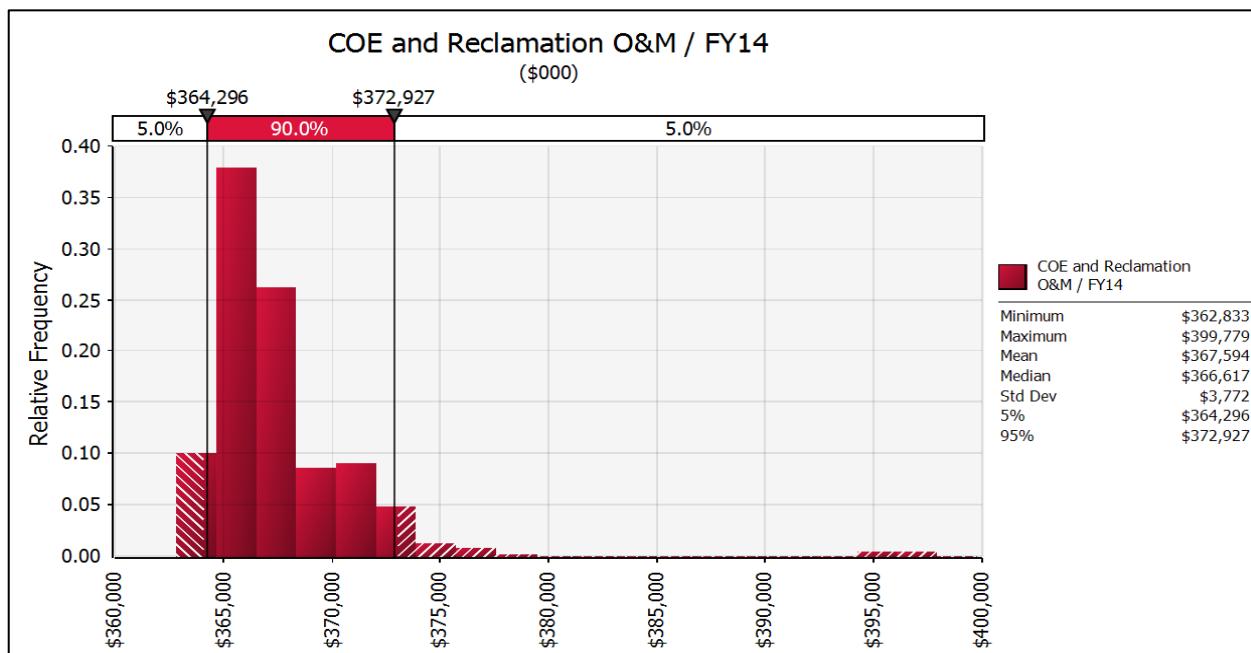


Figure 16: Conservation Acquisition Expense Distributions

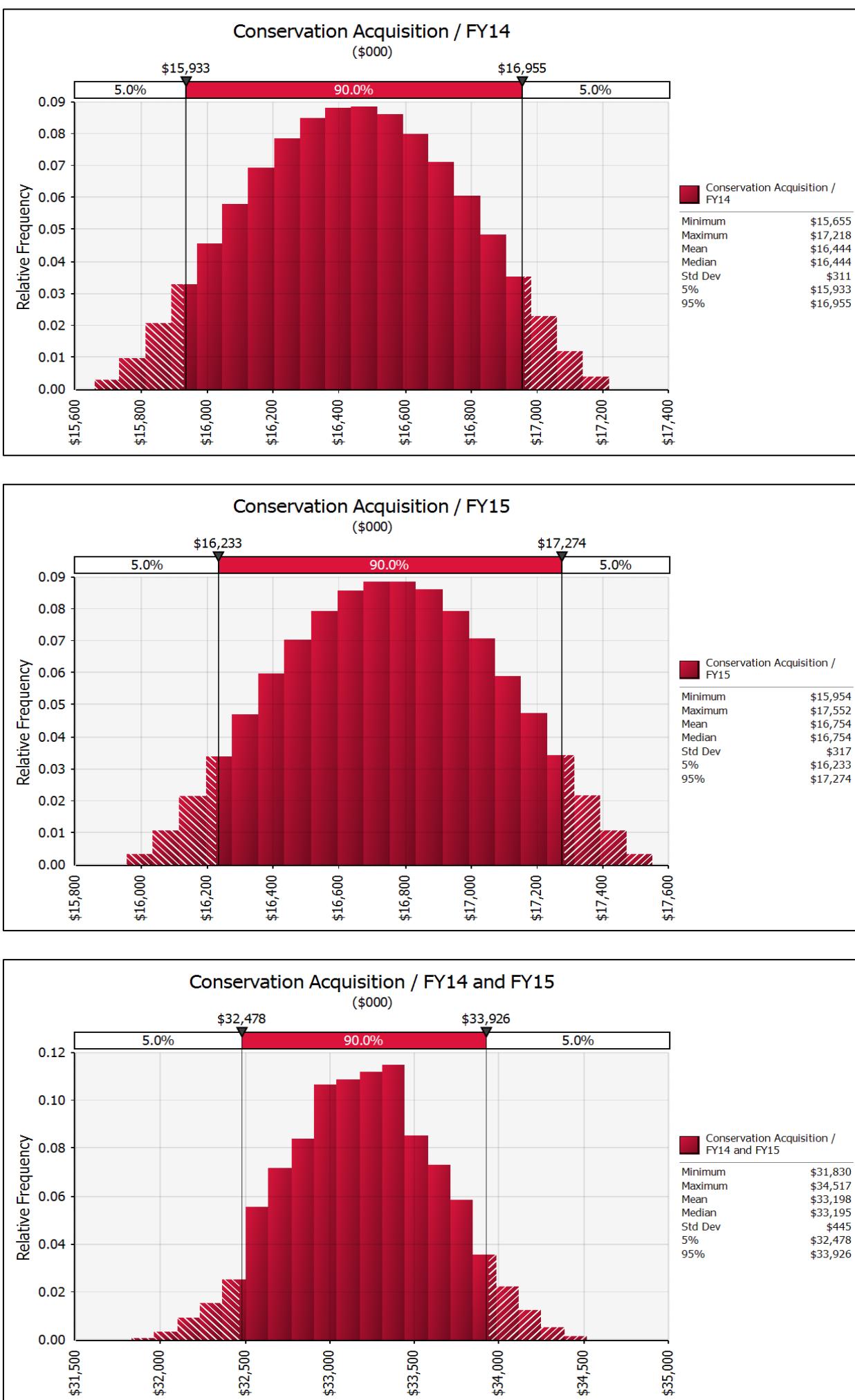


Figure 17: Spokane Settlement Payment Distributions

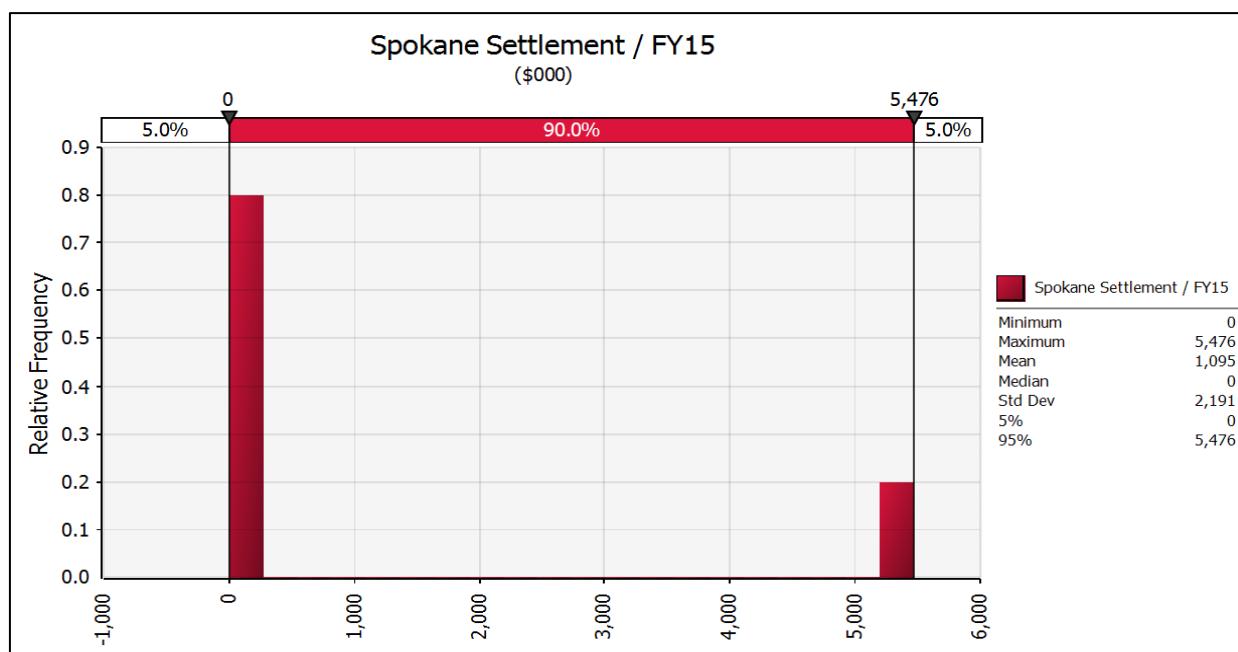


Figure 18: Third-Party GTA Wheeling Expense

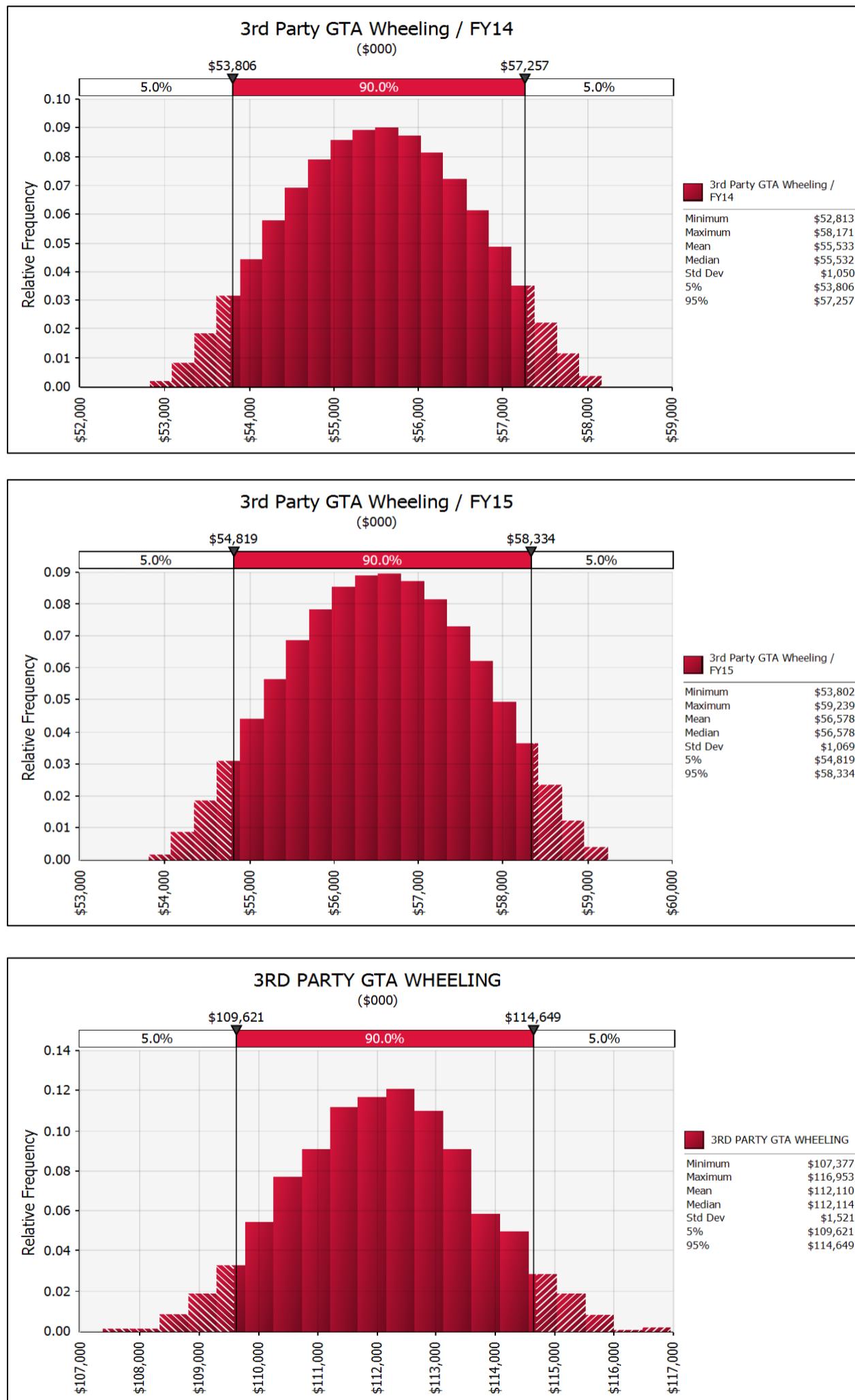


Figure 19: Internal Operations Expense Distributions

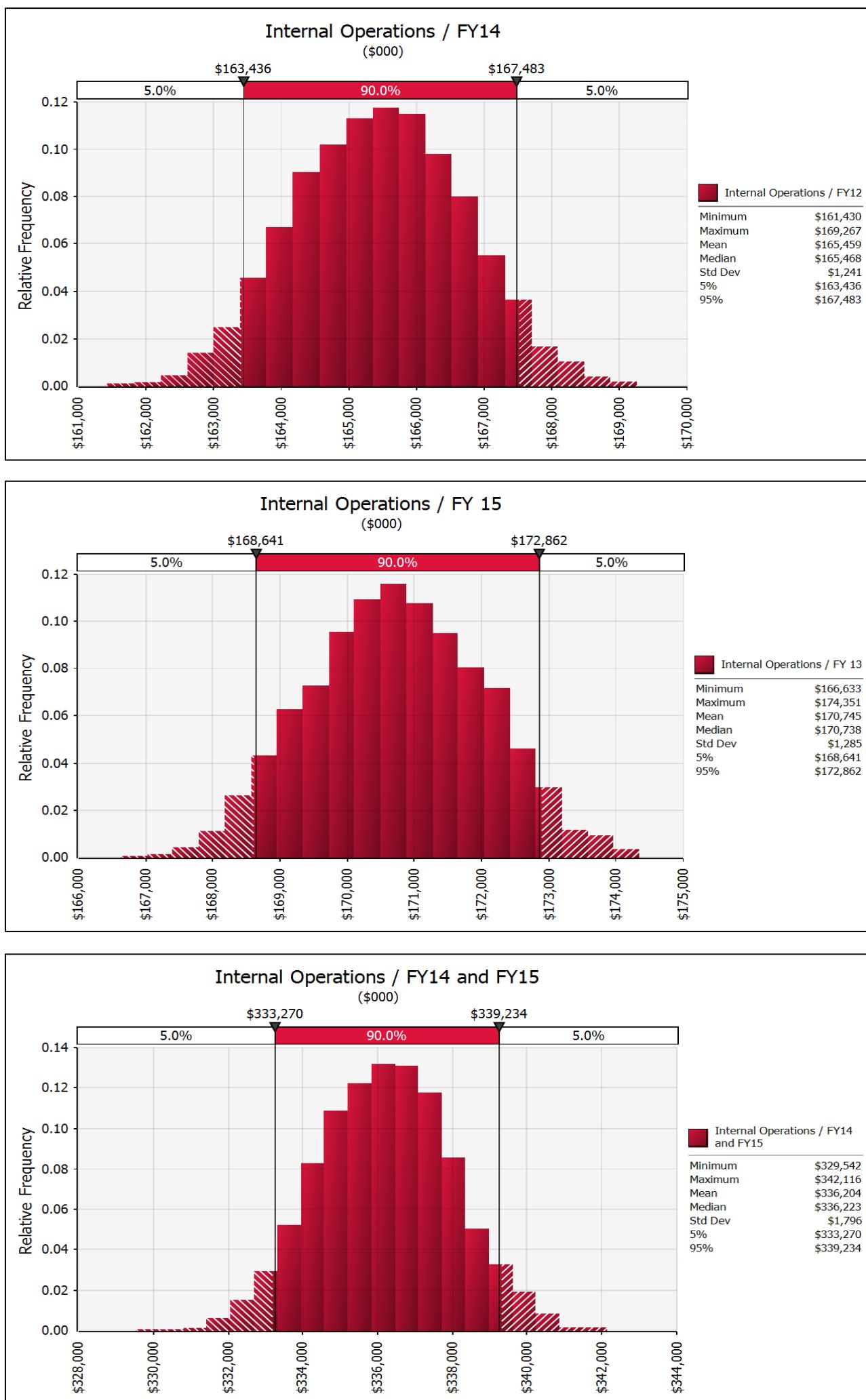


Figure 20: F&W Direct Program Cost Distributions

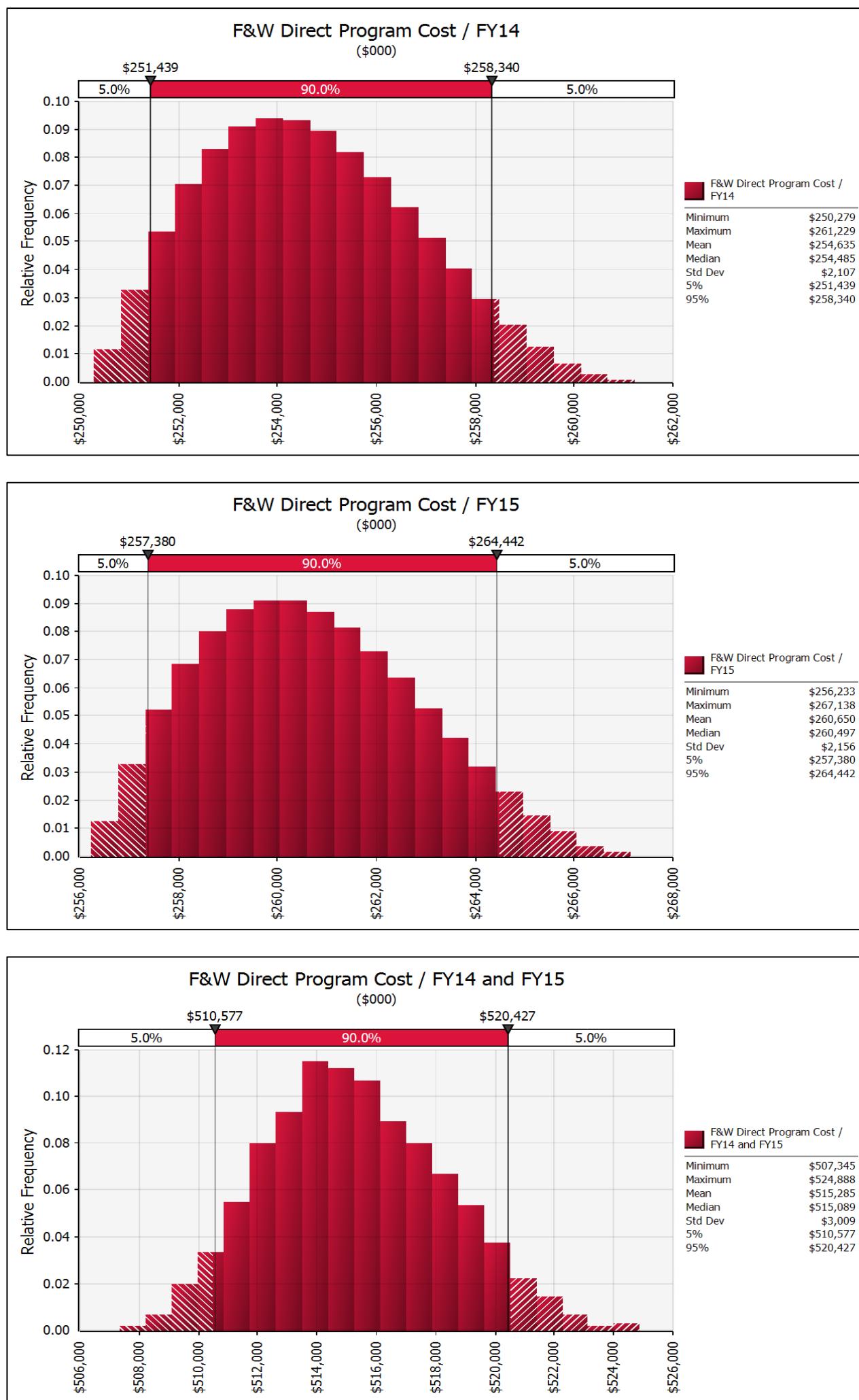


Figure 21: Lower Snake River Hatcheries Expense Distributions

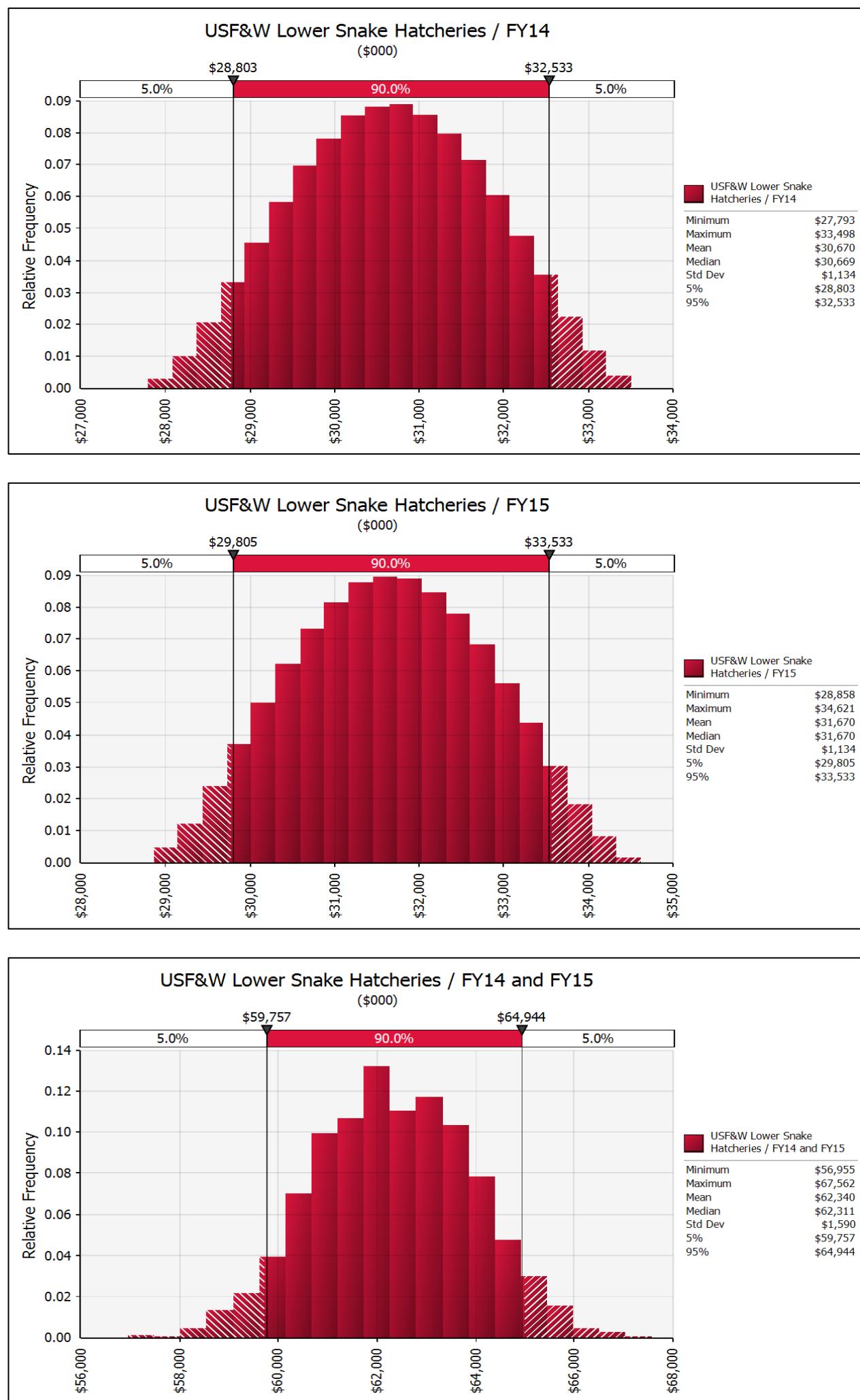


Figure 22: Leavenworth Complex O&M Expense Distributions

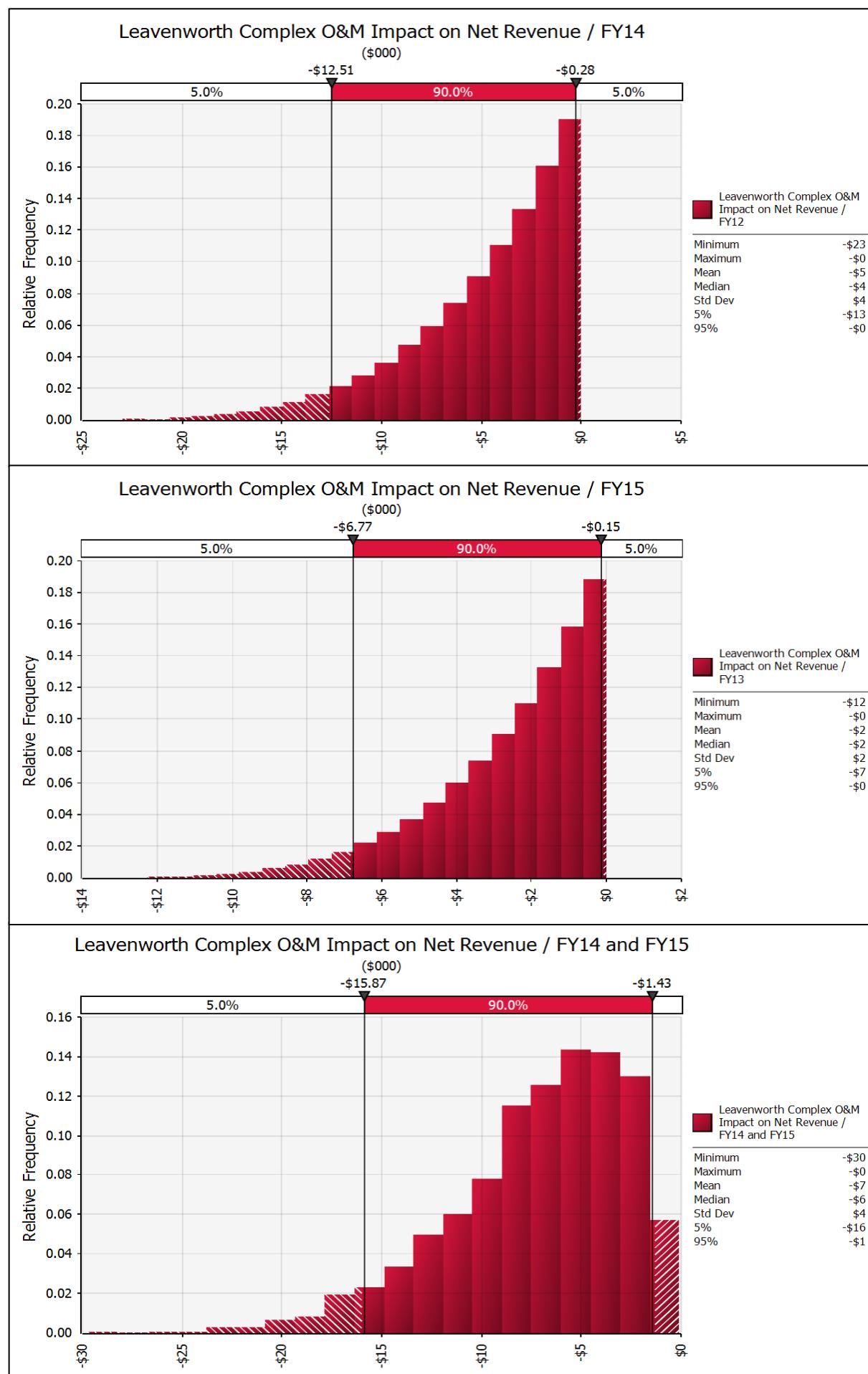


Figure 23: Fish Passage Facilities Expense Distributions

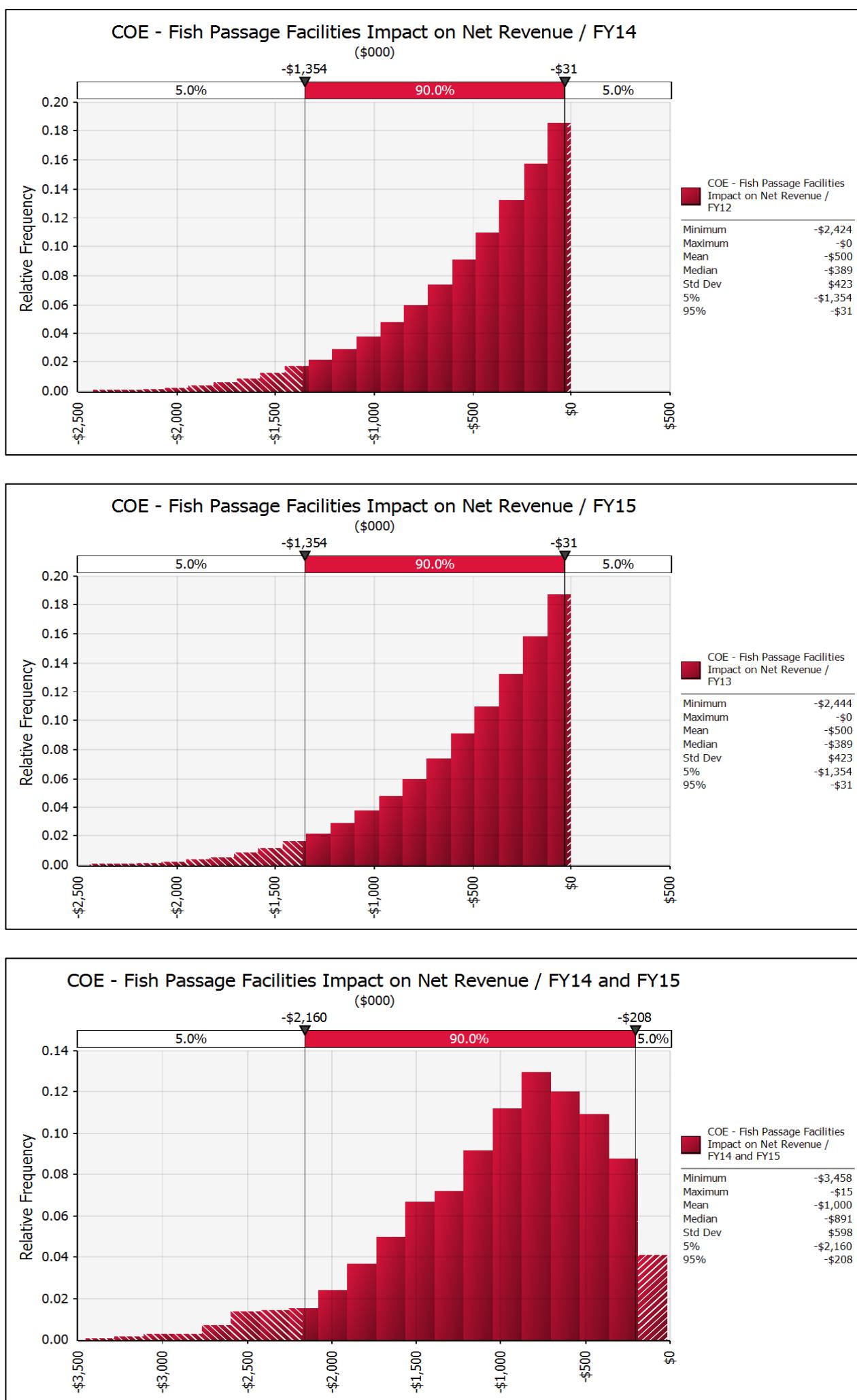
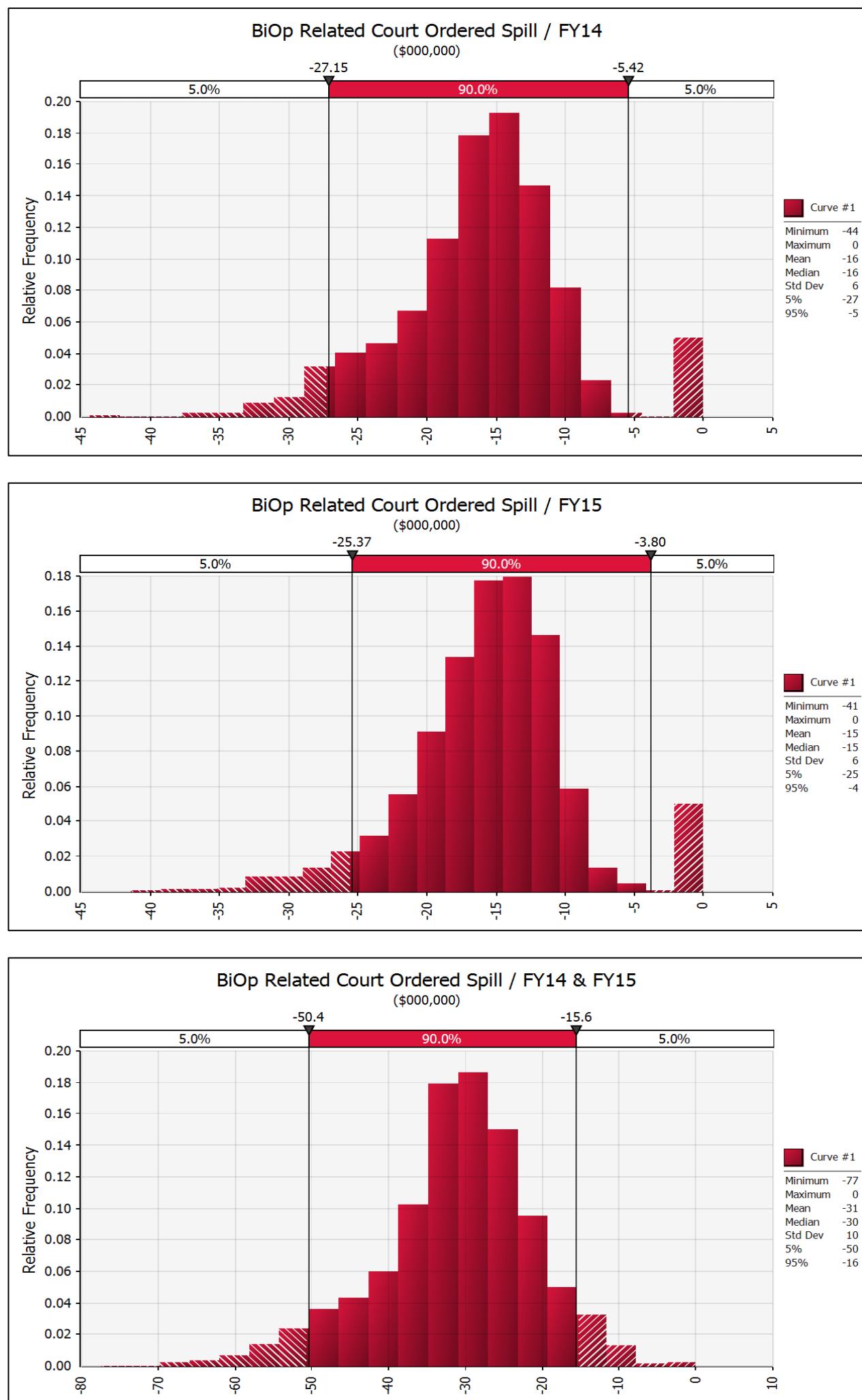


Figure 24: BiOp Related Court Ordered Spill Revenue Distributions



	A	B	C	D	E	F																																			
1	Table 23: Interest Rate Forecasts																																								
2																																									
3	Lewis County																																								
4	<table> <thead> <tr> <th>Average</th><th>Principal</th><th>Low</th><th>Trend</th><th>High</th></tr> <tr> <th>Maturity</th><th></th><th></th><th></th><th></th></tr> </thead> <tbody> <tr> <td>2013 12 years</td><td>83,310</td><td>2.26</td><td>2.46</td><td>3.41</td></tr> <tr> <td>2014</td><td></td><td></td><td></td><td></td></tr> <tr> <td>2015</td><td></td><td></td><td></td><td></td></tr> </tbody> </table>						Average	Principal	Low	Trend	High	Maturity					2013 12 years	83,310	2.26	2.46	3.41	2014					2015														
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9	Energy Northwest - CGS Ext and New Money																																								
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20																																									
21																																									

Figure 25: Federal and Non-Federal Interest Expense Distributions

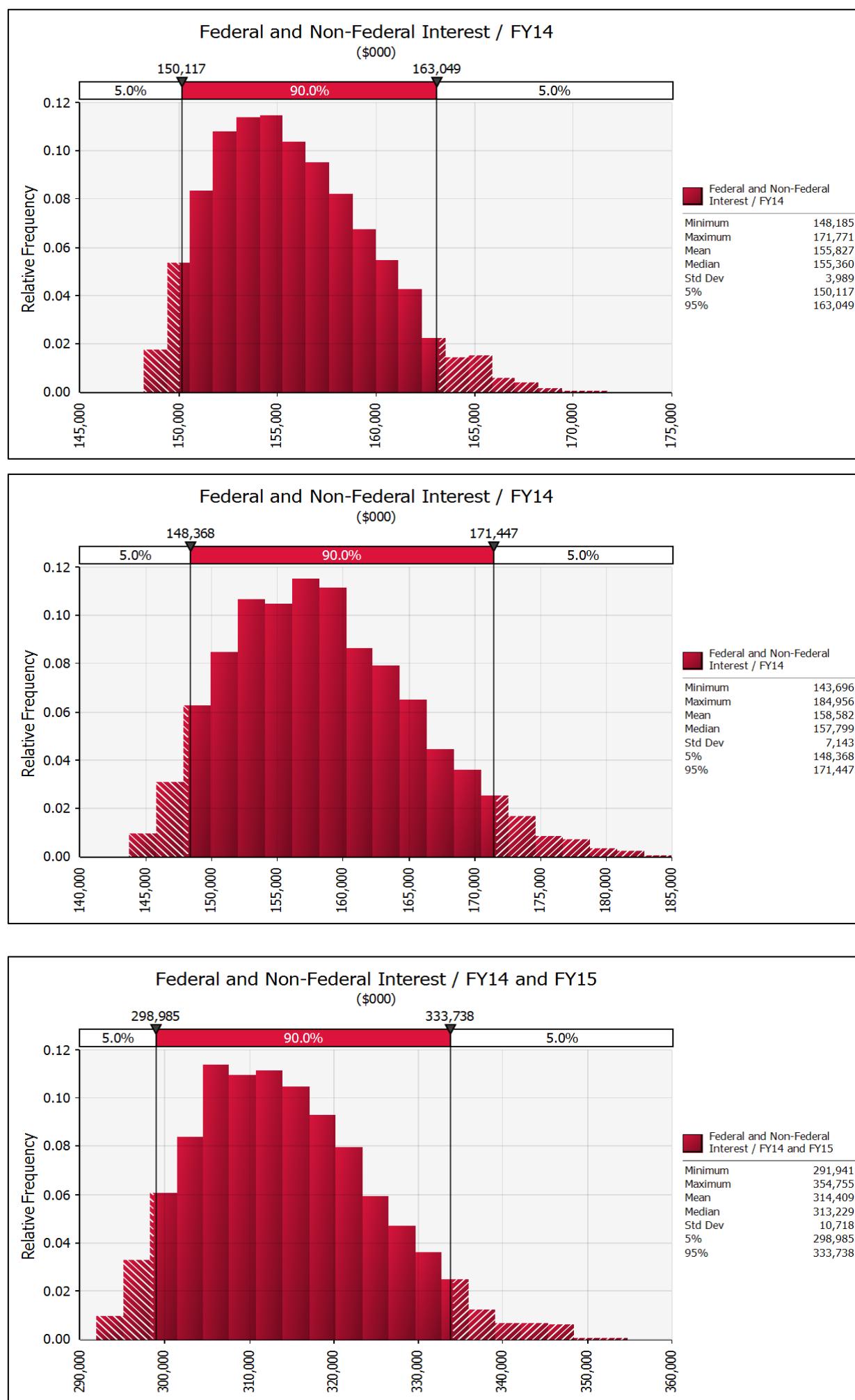


Figure 26: Federal Appropriations Expense Distributions

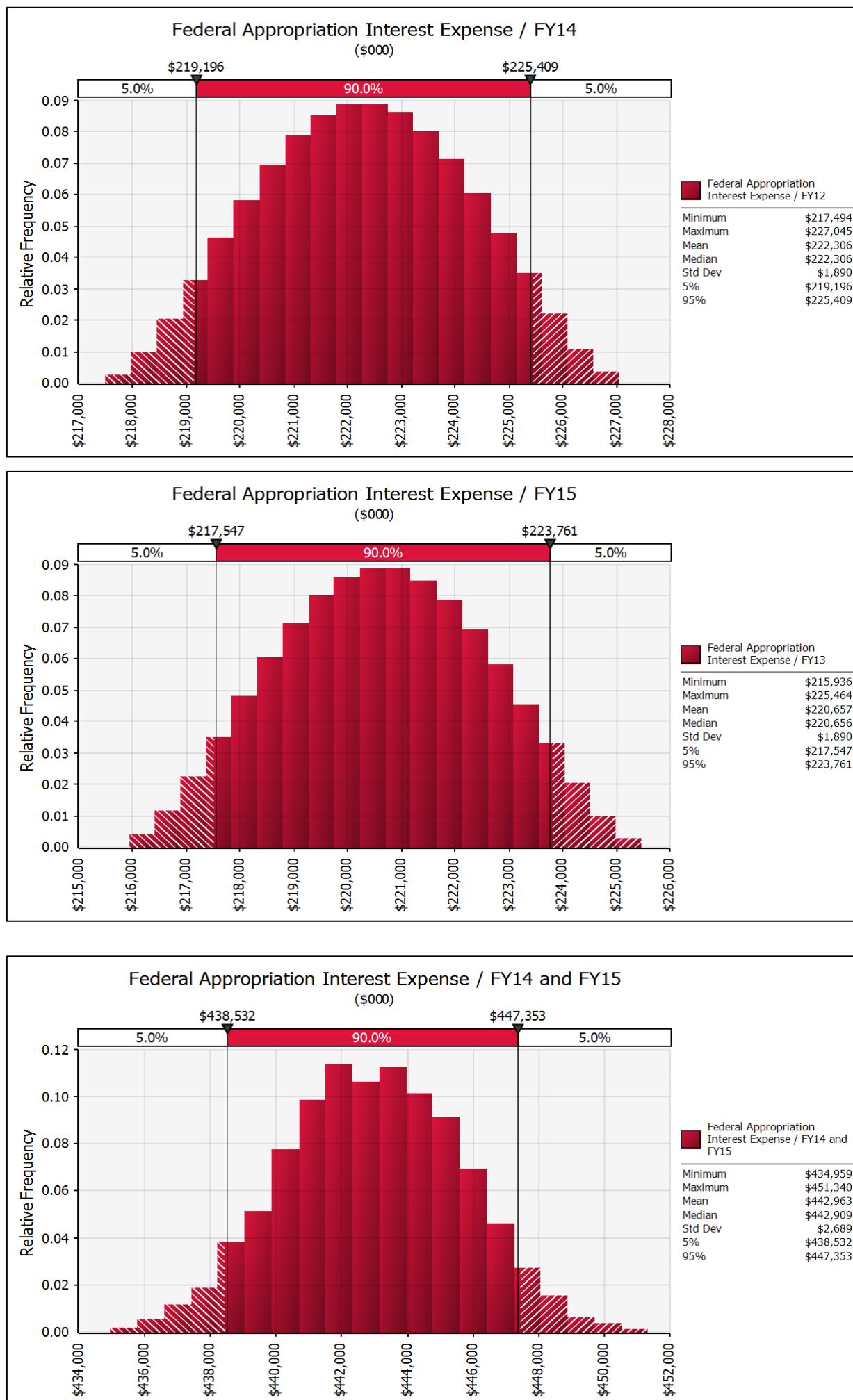


Figure 27: CGS Refueling Outage Duration Distributions

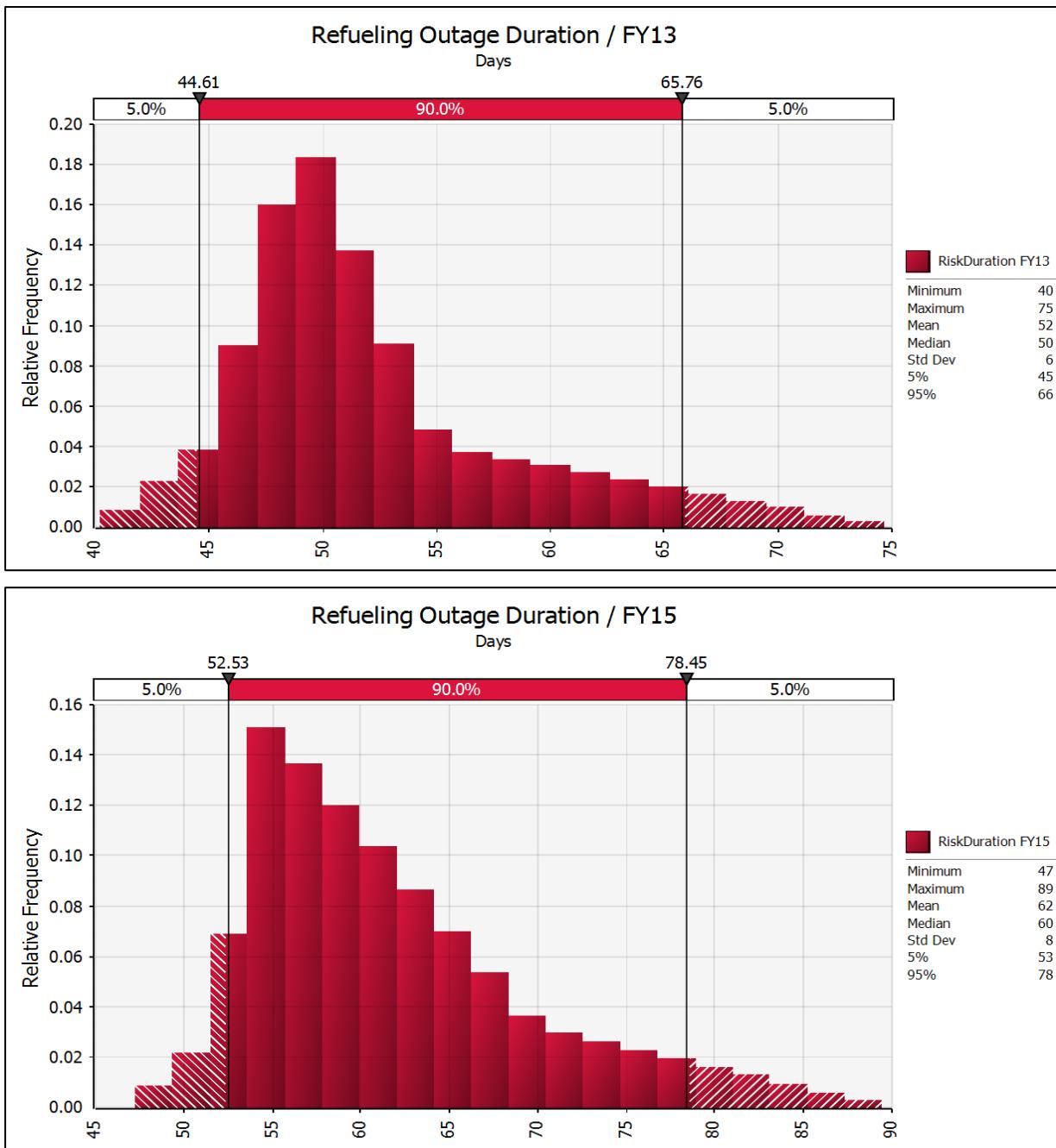


Figure 28: CGS Refueling Outage Revenue Impact Distributions

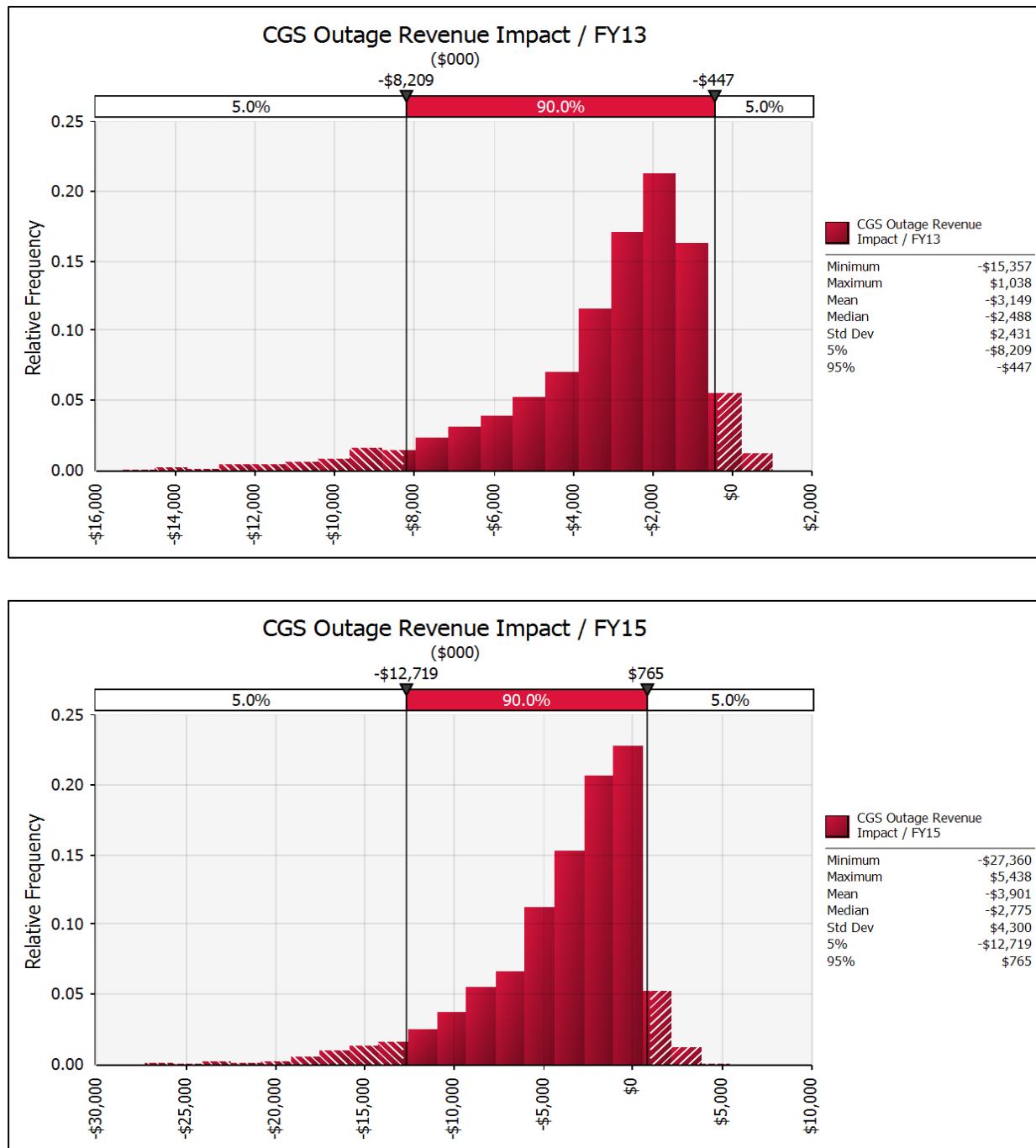


Figure 29: Variable Energy Resource Balancing Services (VERBS) Revenue Distributions

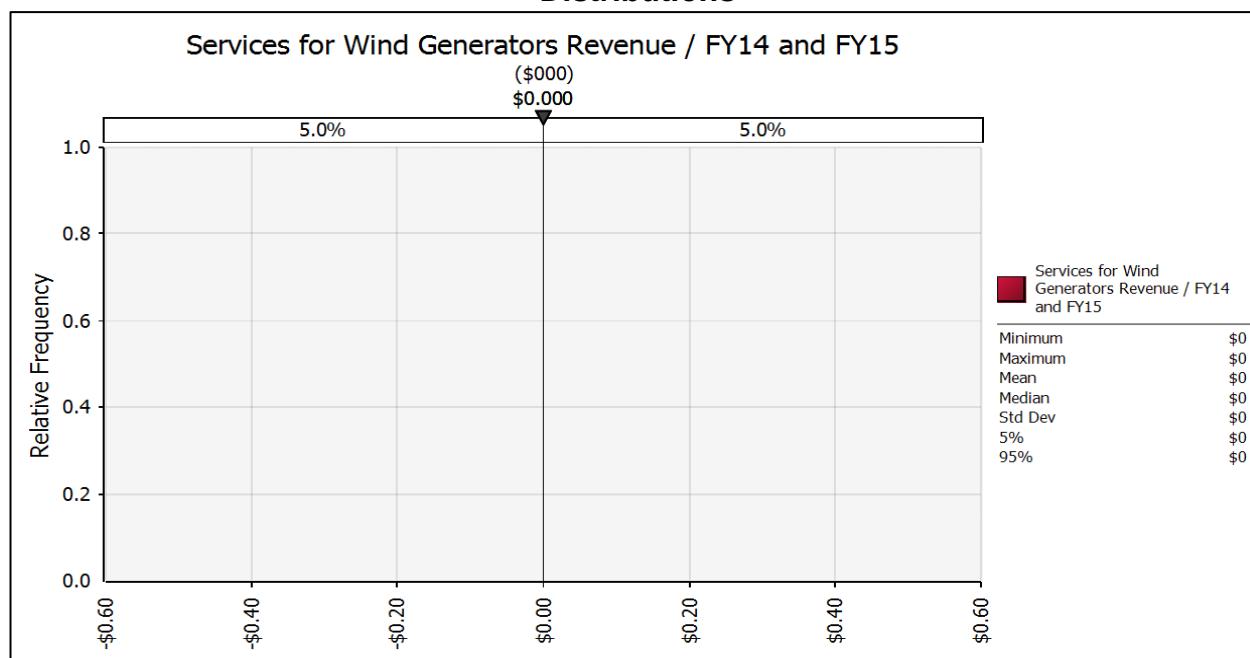


Figure 30: Operating Reserve Revenue Distributions

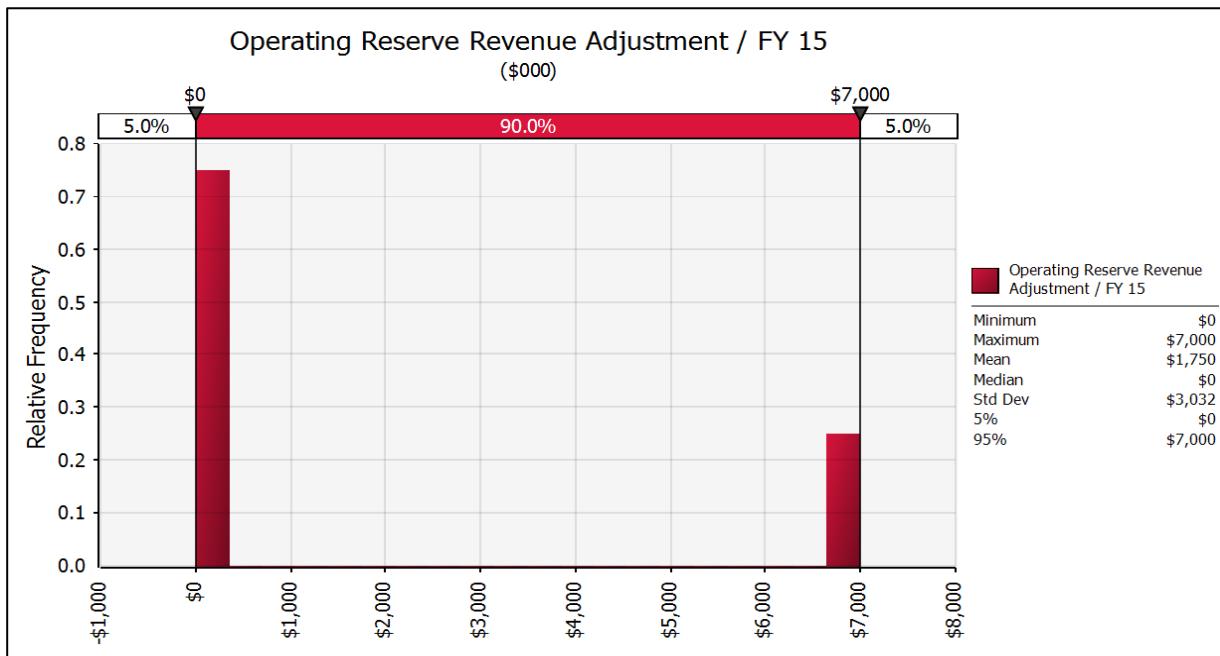
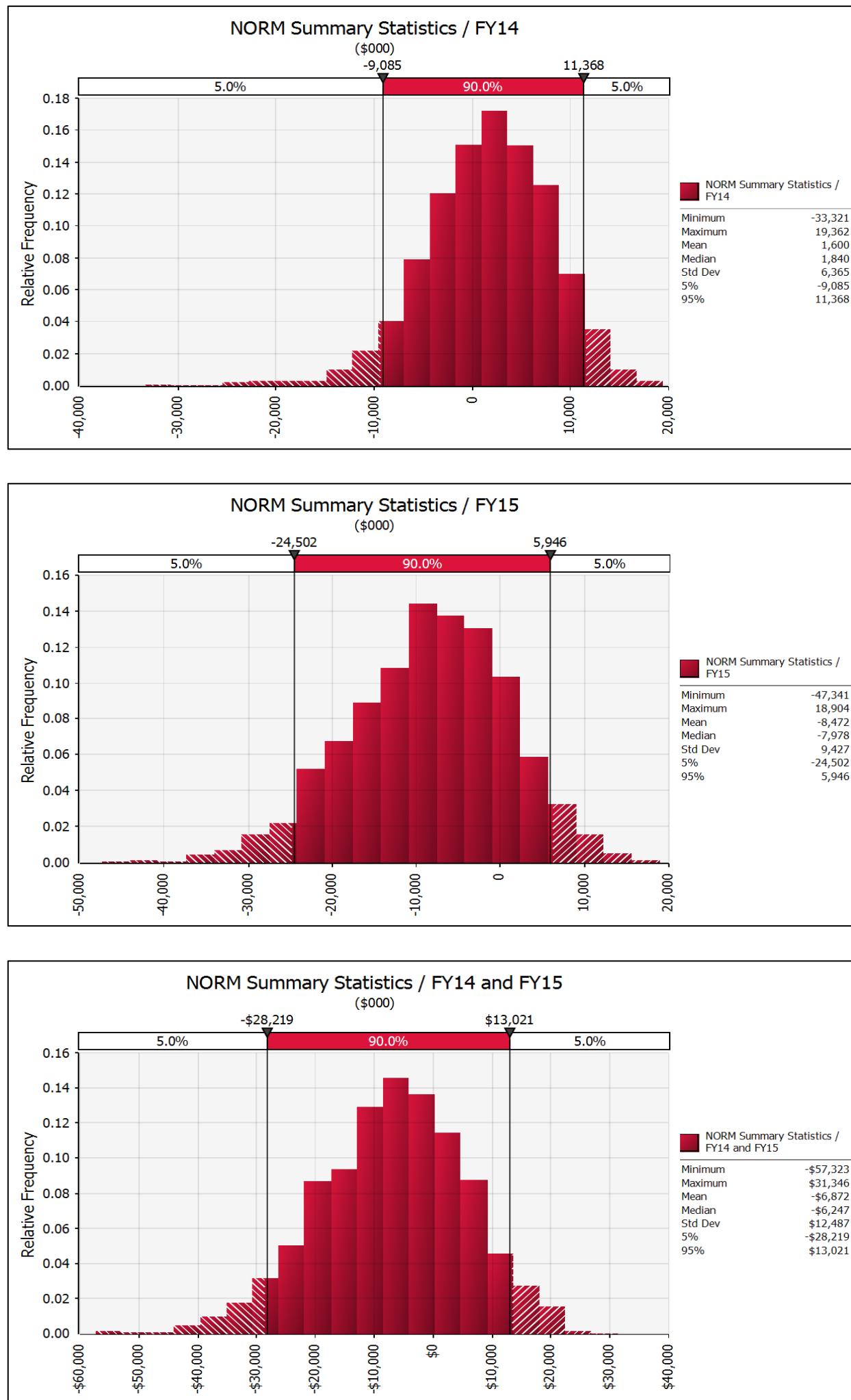
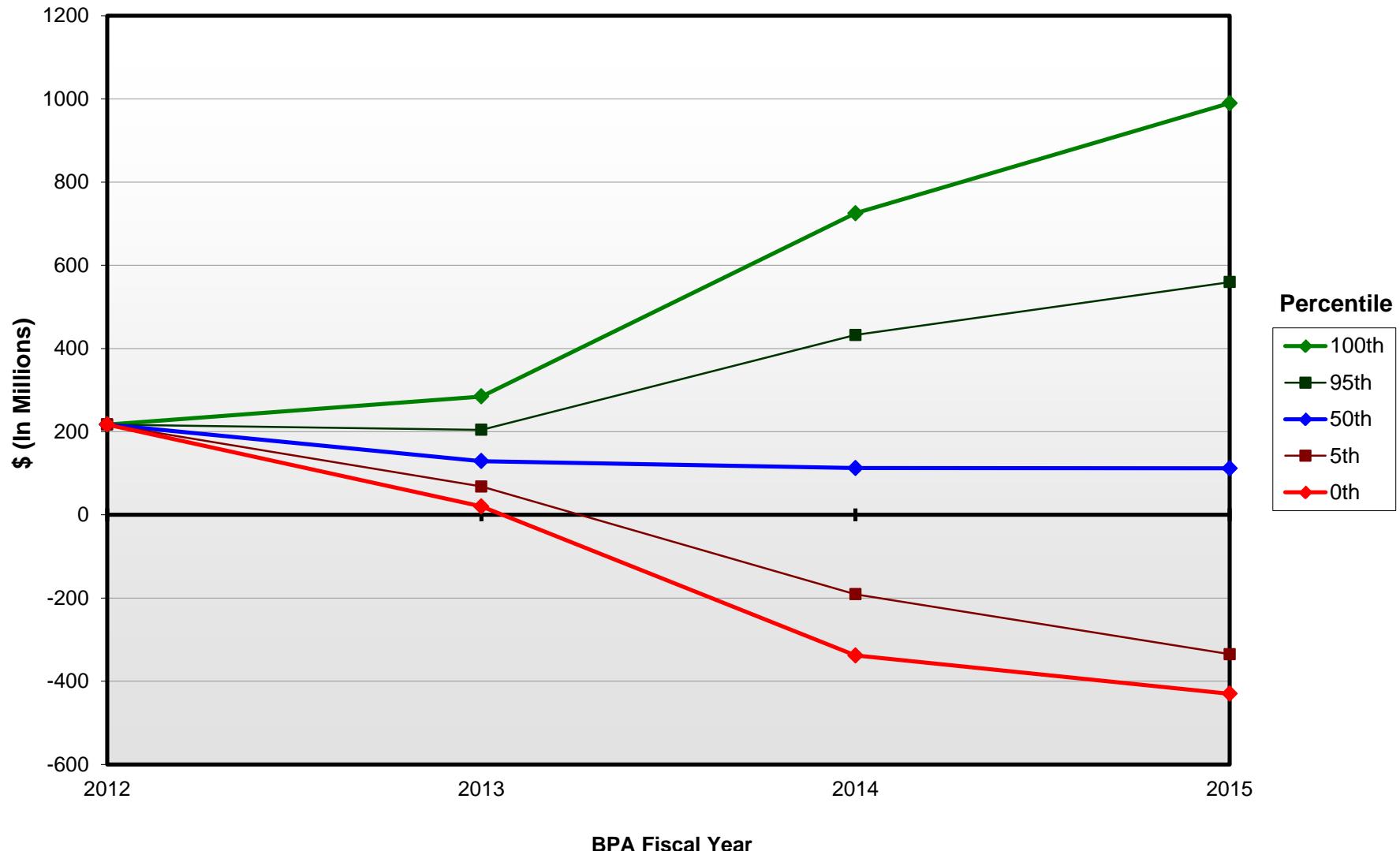


Figure 31: NORM Output Summary Distributions



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S														
1	Figure 32: ToolKit "Main" Sheet																																
2	ToolKit v. 4.9, (09-28-2012)				Study title: FS Final PS reserves																												
3	Time of run: 11:58:58 AM on 6/24/2013					2 -yr TPP = 99.59%		Run Type: PS-only run																									
4																																	
5	Input Files	PS NORM TS (or Split)	http://internal.bpa.gov/sites/risk-mgmt/DBE/Documents/Risk_Models/ToolKit/13-05_May/28 Updating_For_Final/RM_BP14FP_ID94.xlsx http://internal.bpa.gov/sites/risk-mgmt/DBE/Documents/Risk_Models/ToolKit/13-05_May/28 Updating_For_Final/NORM-Output_BP14_FSDraft.xls														Split Percentile																
6																																	
7																																	
8	PS Only (no TS)	Start in TK Year	Stop in TK Year	Start TPP in TK Yr	Starting Iteration	No. of Iterations	Deferral Logic	Enable NFB Adj	Ask For PNRR Adj	Sec 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 Resrv Bal	TS Strt Rsrv Bal	PS Starting ANR	TS Liq Res	Gross Treas Facility	Treas Facil LiqRes	Net Treas Facility	TS to PS Res Allocation	"Small" Def. Size	Starting PNRR Adj	Sec Rebate Description																						
11	217.0		0.00	0	20	750	320	430	\$200	0	n/a																						
12																																	
13																																	
14																																	
15	TK Year	Fiscal Year	Probabilistic?	BPA Fund Int. Rates		Treas Facil	Treasury Pmt Sched		Interest Credit Sched		Other Cash Only Adj	Cash Lag for PNRR	PS Cash Tmg Adj	TS Cash Tmg Adj																			
16		1 2013	TRUE	IOC	Tr.Specials	Int Rate	Amort	Interest	PS	TS	0.0	0.0	13.0	0.0																			
17		2 2014	TRUE	1.52%	1.52%	0.33%	193.0	276.0	15.67																								
18		3 2015	TRUE	1.39%	1.39%	0.56%	159.2	284.9	15.85																								
19																																	
20	Year	Fiscal Year	Div. Dist.		CRAC				PNRR				Other Misc Adjustements to Cash and NR					ANR Thresholds															
21		1 2013	Threshold	Lim/Year	Threshold	Lim/Year	Rev Basis	Type	Shape	Risk Mod	Calc'd in TK	Sum						DDC CRAC															
22		2 2014	606.6	1,000	-143.4	300	StepA	0.0	0	0							750 0																
23		3 2015	564.5	1,000	-185.5	300	StepA	1.0	0	0							750 0																
24																																	
25																																	
26	Outputs		PS Starting Reserves 217.0																Approx PF rates (avg not block)														
27	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																
28	1 2013	0	0	100.0%	n/a	n/a	n/a	0.0	n/a	n/a	131.5	-	(54.0)	0	not implemented	not implemented	not implemented	Net Liquidity															
29	2 2014	0	-	100.0%	-	100.0%	0.00	n/a	n/a	147.23	(33.9)	(61.9)	0	not implemented	not implemented	not implemented	561.5 131.5																
30	3 2015	13	13	99.6%	13	99.6%	0.13	31.6	31.6	176.88	(67.4)	(67.9)	0	not implemented	not implemented	not implemented	543.4 113.37																
31	2 -yr Total	13	13	n/a	n/a	n/a	0.1	n/a	n/a	n/a	n/a	n/a	0.0						539.5 109.53														
32	2 -yr Avg.	7	7	n/a	n/a	n/a	0.1	31.6	31.6	n/a	n/a	n/a	0.0																				
33																																	
34	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																		
35	1 2013	0	n/a	0.0		0%	0	n/a	0.0	0	n/a	0.0	0	0%	0%																		
36	2 2014	0	n/a	0.0		0%	0	n/a	0.0	0	n/a	0.0	0	0%	0%																		
37	3 2015	0	n/a	0.0		0%	983	96.3	29.6	484	8.8	1.3	0	31%	15%																		
38	2 -yr Total	0	n/a	0.0		n/a	983	n/a	29.6	484	n/a	1.3	0	n/a	n/a																		
39	2 -yr Avg.	0	n/a	0.0		0%	492	96.3	14.8	242	8.8	0.7	0	15%	8%																		
40																																	
41	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																						

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	Table 24: PS End of Year Balances												
2	(Values in Millions)												
3													
4													
5	EOY Reserves Balance						Treasury Note Balance						
6		2012	2013	2014	2015		2012	2013	2014	2015			
7													
8	100%	217	284	725	990								
9	95%	217	204	432	560								
10	75%	217	157	253	318								
11	50%	217	129	112	112								
12	25%	217	103	0	0								
13	5%	217	68	0	0								
14	0%	217	20	0	0								
15													
16													
17	Available Liquidity						Net Reserves						
18		2012	2013	2014	2015		2012	2013	2014	2015			
19	Avg	647	561	543	540								
20	stdev	0	41	192	275								
21													
22	100%	647	714	1155	1420								
23	95%	647	634	862	990								
24	75%	647	587	683	748								
25	50%	647	559	542	542								
26	25%	647	533	398	324								
27	5%	647	498	239	95								
28	0%	647	450	92	0								
29													
30													
31	EOY Accumulated Net Revenue						Net Revenue						
32		2012	2013	2014	2015		2013	2014	2015				
33	Avg	0	-54	-62	-68								
34	stdev	0	41	192	272								
35													
36	100%	0	99	553	810								
37	95%	0	19	257	380								
38	75%	0	-29	78	140								
39	50%	0	-56	-63	-66								
40	25%	0	-83	-208	-285								
41	5%	0	-116	-366	-504								
42	0%	0	-163	-514	-676								

