BP-22 Rate Proceeding

Final Proposal

Power and Transmission Risk Study Documentation

BP-22-FS-BPA-05A

July 2021

POWER AND TRANSMISSION RISK STUDY DOCUMENTATION

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COMMONLY USED ACRONYMS AND SHORT FORMS

AAC	Anticipated Accumulation of Cash
ACNR	Accumulated Calibrated Net Revenue
ACS	Ancillary and Control Area Services
AF	Advance Funding
AFUDC	Allowance for Funds Used During Construction
aMW	average megawatt(s)
ANR	Accumulated Net Revenues
ASC	Average System Cost
BAA	Balancing Authority Area
BiOp	Biological Opinion
BPA	Bonneville Power Administration
BPAP	Bonneville Power Administration Power
BPAT	Bonneville Power Administration Transmission
Bps	basis points
Btu	British thermal unit
CAISO	California Independent System Operator
CIP	Capital Improvement Plan
CIR	Capital Investment Review
CDQ	Contract Demand Quantity
CGS	Columbia Generating Station
CHWM	Contract High Water Mark
CNR	Calibrated Net Revenue
COB	California-Oregon border
COE	U.S. Army Corps of Engineers
COI	California-Oregon Intertie
Commission	Federal Energy Regulatory Commission
Corps	U.S. Army Corps of Engineers
COSA	Cost of Service Analysis
COU	consumer-owned utility
Council	Northwest Power and Conservation Council (see also “NPCC”)
COVID-19	coronavirus disease 2019
CP	Coincidental Peak
CRAC	Cost Recovery Adjustment Clause
CRFM	Columbia River Fish Mitigation
CSP	Customer System Peak
CT	combustion turbine
CWIP	Construction Work in Progress
CY	calendar year (January through December)
DD	Dividend Distribution
DDC	Dividend Distribution Clause
dec	decrease, decrement, or decremental
DERBS	Dispatchable Energy Resource Balancing Service
DFS	Diurnal Flattening Service
DNR	Designated Network Resource

DOE	Department of Energy
DOI	Department of Interior
DSI	direct-service industrial customer or direct-service industry
DSO	Dispatcher Standing Order
EE	Energy Efficiency
EESC	EIM Entity Scheduling Coordinator
EIM	Energy imbalance market
EIS	Environmental Impact Statement
EN	Energy Northwest, Inc.
ESA	Endangered Species Act
ESS	Energy Shaping Service
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
FERC	Federal Energy Regulatory Commission
FMM-IIE	Fifteen Minute Market – Instructed Imbalance Energy
FOIA	Freedom of Information Act
FORS	Forced Outage Reserve Service
FPS	Firm Power and Surplus Products and Services
FPT	Formula Power Transmission
FRP	Financial Reserves Policy
F&W	Fish & Wildlife
FY	fiscal year (October through September)
G&A	general and administrative (costs)
GARD	Generation and Reserves Dispatch (computer model)
GDP	Gross Domestic Product
GMS	Grandfathered Generation Management Service
GSP	Generation System Peak
GSR	Generation Supplied Reactive
GRSPs	General Rate Schedule Provisions
GTA	General Transfer Agreement
GWh	gigawatthour
HLH	Heavy Load Hour(s)
HOSS	Hourly Operating and Scheduling Simulator (computer model)
HYDSIM	Hydrosystem Simulator (computer model)
Hz	Hertz
IE	Eastern Intertie
IIE	Instructed Imbalance Energy
IM	Montana Intertie
inc	increase, increment, or incremental
IOU	investor-owned utility
IP	Industrial Firm Power
IPR	Integrated Program Review
IR	Integration of Resources

IRD	Irrigation Rate Discount
IRM	Irrigation Rate Mitigation
IRPL	Incremental Rate Pressure Limiter
IS	Southern Intertie
kcfs	thousand cubic feet per second
KSI	key strategic initiative
kW	kilowatt
kWh	kilowatthour
LAP	Load Aggregation Point
LDD	Low Density Discount
LGIA	Large Generator Interconnection Agreement
LLH	Light Load Hour(s)
LMP	Locational Marginal Price
LPP	Large Project Program
LT	long term
LTF	Long-term Firm
Maf	million acre-feet
Mid-C	Mid-Columbia
MMBtu	million British thermal units
MNR	Modified Net Revenue
MRNR	Minimum Required Net Revenue
MW	megawatt
MWh	megawatthour
NCP	Non-Coincidental Peak
NEPA	National Environmental Policy Act
NERC	North American Electric Reliability Corporation
NFB	**N**ational Marine Fisheries Service (NMFS) **F**ederal Columbia River Power System (FCRPS) **B**iological Opinion (BiOp)
NLSL	New Large Single Load
NMFS	National Marine Fisheries Service
NOAA Fisheries	National Oceanographic and Atmospheric Administration Fisheries
NOB	Nevada-Oregon border
NORM	Non-Operating Risk Model (computer model)
NP-15	North of Path 15
NPCC	Northwest Power and Conservation Council
NPV	net present value
NR	New Resource Firm Power
NRFS	NR Resource Flattening Service
NRU	Northwest Requirements Utilities
NT	Network Integration
NTSA	Non-Treaty Storage Agreement
NUG	non-utility generation
NWPA	Northwest Power Act/Pacific Northwest Electric Power Planning and Conservation Act
NWPP	Northwest Power Pool

O&M	operations and maintenance
OATI	Open Access Technology International, Inc.
OATT	Open Access Transmission Tariff
OCBR	Operational Controls for Balancing Reserves
OS	Oversupply
OY	operating year (August through July)
PDCI	Pacific DC Intertie
PF	Priority Firm Power
PFp	Priority Firm Public
PFx	Priority Firm Exchange
PMA	Power Marketing Administration
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
POR	point of receipt
PPC	Public Power Council
PRSC	Participating Resource Scheduling Coordinator
PS	Power Services
PSC	power sales contract
PSW	Pacific Southwest
PTP	Point-to-Point
PUD	public or people's utility district
RAM	Rate Analysis Model (computer model)
RBC	Reliability-based control
RCD	Regional Cooperation Debt
RD	Regional Dialogue
RDC	Reserves Distribution Clause
REC	Renewable Energy Certificate
Reclamation	U.S. Bureau of Reclamation
REP	Residential Exchange Program
REPSIA	REP Settlement Implementation Agreement
RevSim	Revenue Simulation Model
RFA	Revenue Forecast Application (database)
RHWM	Rate Period High Water Mark
ROD	Record of Decision
RPSA	Residential Purchase and Sale Agreement
RR	Resource Replacement
RRS	Resource Remarketing Service
RSC	Resource Shaping Charge
RSS	Resource Support Services
RT1SC	RHWM Tier 1 System Capability
RTD-IIE	Real-Time Dispatch – Instructed Imbalance Energy
RTIEO	Real-Time Imbalance Energy Offset
SCD	Scheduling, System Control, and Dispatch Service

SCS	Secondary Crediting Service
SDD	Short Distance Discount
SILS	Southeast Idaho Load Service
Slice	Slice of the System (product)
SMCR	Settlements, Metering, and Client Relations
SP-15	South of Path 15
T1SFCO	Tier 1 System Firm Critical Output
TC	Tariff Terms and Conditions
TCMS	Transmission Curtailment Management Service
TDG	Total Dissolved Gas
TGT	Townsend-Garrison Transmission
TOCA	Tier 1 Cost Allocator
TPP	Treasury Payment Probability
TRAM	Transmission Risk Analysis Model
Transmission System Act	Federal Columbia River Transmission System Act
Treaty	Columbia River Treaty
TRL	Total Retail Load
TRM	Tiered Rate Methodology
TS	Transmission Services
TSS	Transmission Scheduling Service
UAI	Unauthorized Increase
UFE	unaccounted for energy
UFT	Use of Facilities Transmission
UIC	Unauthorized Increase Charge
UIE	Uninstructed Imbalance Energy
ULS	Unanticipated Load Service
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish & Wildlife Service
VER	Variable Energy Resource
VERBS	Variable Energy Resource Balancing Service
VOR	Value of Reserves
VR1-2014	First Vintage Rate of the BP-14 rate period (PF Tier 2 rate)
VR1-2016	First Vintage Rate of the BP-16 rate period (PF Tier 2 rate)
WECC	Western Electricity Coordinating Council
WSPP	Western Systems Power Pool

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	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Table 1:**													
2	**Federal Hydro Generation (aMW) with Hydro Independents**													
3	**for FY 2022**													
4	**Water Year**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**	**July**	**Aug**	**Sep**	**Wtd Avg.**
5	**1929**	5,815	7,116	7,071	7,026	6,798	6,348	4,649	5,511	8,502	6,112	6,641	6,391	**6,494**
6	**1930**	5,327	7,099	6,750	6,652	6,576	5,867	4,664	6,501	6,688	7,308	6,845	6,296	**6,382**
7	**1931**	5,342	7,232	7,129	6,107	6,693	6,447	4,730	6,332	6,602	7,325	6,971	6,099	**6,418**
8	**1932**	5,258	6,745	7,009	7,001	5,362	8,952	9,048	10,392	11,320	8,687	7,567	6,290	**7,816**
9	**1933**	5,689	6,966	9,085	10,900	11,420	8,813	6,493	8,931	13,219	12,111	9,802	6,474	**9,149**
10	**1934**	6,479	10,564	13,862	14,922	14,042	11,114	10,961	10,516	9,661	6,592	6,691	5,891	**10,085**
11	**1935**	5,311	6,307	7,777	10,278	11,221	8,057	5,718	8,456	8,385	9,368	8,110	5,909	**7,895**
12	**1936**	5,569	7,034	7,031	6,386	5,587	6,994	6,645	11,348	10,179	8,463	6,899	6,040	**7,361**
13	**1937**	5,512	7,308	7,040	5,667	5,319	5,815	4,643	6,941	7,693	6,771	6,544	6,067	**6,283**
14	**1938**	5,563	7,425	8,195	10,886	8,389	10,107	9,250	9,937	10,113	9,509	6,430	6,255	**8,508**
15	**1939**	5,683	6,891	6,762	8,251	8,374	7,193	6,312	8,914	7,337	7,720	6,834	6,183	**7,201**
16	**1940**	5,491	7,233	7,109	8,983	8,029	9,141	6,940	8,089	7,292	6,637	6,234	5,854	**7,251**
17	**1941**	5,485	7,587	8,051	7,215	6,385	6,751	5,386	7,110	7,230	7,028	6,868	6,002	**6,764**
18	**1942**	5,540	7,693	10,211	10,473	9,281	6,458	5,649	6,934	10,479	9,906	7,732	6,344	**8,054**
19	**1943**	5,560	6,981	8,138	11,418	11,608	9,469	12,077	9,718	12,300	11,706	7,943	6,049	**9,396**
20	**1944**	5,358	7,154	6,841	6,870	7,554	5,844	4,119	5,805	6,365	6,423	6,600	5,882	**6,228**
21	**1945**	5,389	7,076	7,060	6,372	6,159	6,340	4,379	8,077	10,760	6,606	6,833	6,208	**6,773**
22	**1946**	5,293	7,048	8,217	9,885	8,922	9,637	9,914	10,567	10,351	10,234	8,762	6,321	**8,765**
23	**1947**	5,483	8,079	11,656	12,323	12,581	10,429	7,018	10,234	10,162	9,913	7,650	6,430	**9,318**
24	**1948**	8,455	9,522	9,727	12,415	12,162	8,008	8,101	13,022	13,274	9,863	9,998	6,692	**10,094**
25	**1949**	6,076	7,785	7,576	10,409	8,084	10,395	8,910	11,871	9,134	6,795	5,911	5,761	**8,230**
26	**1950**	5,275	6,988	8,199	12,720	11,087	11,204	9,265	9,231	12,564	13,550	9,852	6,448	**9,696**
27	**1951**	7,071	9,926	11,828	14,163	14,804	11,669	9,681	10,349	9,872	11,797	8,334	6,366	**10,469**
28	**1952**	8,182	8,626	9,860	11,772	11,890	9,109	10,336	12,498	10,040	10,009	7,595	6,010	**9,652**
29	**1953**	5,328	7,329	6,992	8,483	12,783	7,415	4,763	8,674	13,014	11,374	8,304	6,562	**8,388**
30	**1954**	5,781	7,847	9,158	11,988	12,193	9,661	7,235	10,634	11,933	13,132	11,524	8,470	**9,956**
31	**1955**	6,448	8,805	9,059	7,920	8,084	5,852	5,337	8,154	12,697	13,064	9,536	6,391	**8,450**
32	**1956**	6,138	9,344	11,686	14,474	13,432	11,196	11,313	12,251	12,916	11,422	9,324	6,310	**10,805**
33	**1957**	6,164	7,736	9,233	9,630	8,570	9,121	8,860	12,749	13,144	8,709	7,427	6,168	**8,962**
34	**1958**	5,399	7,176	7,681	10,749	10,853	8,530	6,931	11,720	11,804	8,164	7,350	6,253	**8,537**
35	**1959**	5,594	8,620	10,949	13,622	13,621	9,756	7,833	9,008	12,156	11,964	9,629	9,223	**10,144**
36	**1960**	10,253	10,736	10,727	10,836	10,543	8,479	9,609	9,015	10,567	9,621	7,771	6,182	**9,523**
37	**1961**	5,746	7,850	8,346	11,467	10,481	10,495	7,350	10,133	12,515	8,277	7,464	6,132	**8,845**
38	**1962**	5,101	7,355	8,351	9,729	11,354	6,588	8,365	9,286	10,381	8,199	8,017	6,317	**8,230**
39	**1963**	6,098	8,793	10,498	10,316	11,480	7,222	5,608	8,439	10,337	9,442	7,929	6,779	**8,562**
40	**1964**	5,668	7,164	8,276	8,301	9,724	6,438	6,372	9,068	13,245	12,612	9,545	7,319	**8,637**
41	**1965**	6,828	8,378	12,019	14,515	15,375	11,736	8,263	11,307	11,338	10,701	9,878	6,360	**10,540**
42	**1966**	6,042	7,232	8,558	9,374	10,685	7,390	7,178	7,808	9,409	9,166	7,489	6,148	**8,024**
43	**1967**	5,361	7,062	9,125	12,059	13,288	9,590	6,566	8,632	12,607	11,400	8,534	6,474	**9,203**
44	**1968**	5,908	8,250	8,705	11,346	10,731	10,374	4,836	8,032	10,519	9,731	8,721	7,847	**8,743**

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3	**for FY 2022**													
4	**Water Year**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**	**July**	**Aug**	**Sep**	**Wtd Avg.**
45	**1969**	7,047	9,504	9,874	13,439	13,538	9,976	10,840	11,643	10,699	9,978	7,872	6,281	**10,037**
46	**1970**	5,663	7,781	7,729	9,987	11,670	7,775	5,017	9,031	12,745	7,398	7,143	6,258	**8,157**
47	**1971**	5,373	7,172	8,034	13,765	15,056	11,339	9,208	12,467	13,192	11,808	10,174	6,718	**10,334**
48	**1972**	6,164	8,032	9,108	14,040	12,711	13,710	10,135	11,782	12,993	11,981	10,518	6,927	**10,670**
49	**1973**	6,502	7,735	8,602	9,295	8,876	6,735	4,637	7,096	7,213	6,602	6,340	5,823	**7,115**
50	**1974**	5,196	7,562	10,076	15,832	14,850	12,929	11,204	11,245	12,995	13,551	10,630	6,886	**11,063**
51	**1975**	5,600	7,159	7,844	10,296	10,814	9,751	6,172	8,950	13,103	12,372	8,745	6,995	**8,975**
52	**1976**	7,115	9,822	12,973	13,420	13,558	10,958	9,601	12,002	10,807	11,809	12,537	9,025	**11,130**
53	**1977**	6,520	7,094	7,196	7,385	7,797	5,514	4,107	6,243	6,111	6,341	6,683	5,551	**6,374**
54	**1978**	5,028	6,826	8,707	9,601	8,374	9,437	7,779	9,635	10,048	10,501	7,235	7,623	**8,403**
55	**1979**	6,430	7,568	7,311	9,040	7,499	8,215	5,990	9,899	7,872	6,549	6,340	6,219	**7,416**
56	**1980**	5,594	7,044	6,530	8,913	6,877	6,721	6,998	11,805	11,238	8,243	6,581	6,189	**7,733**
57	**1981**	5,524	7,613	10,688	12,029	12,654	7,450	5,076	8,879	12,868	10,984	9,960	6,661	**9,183**
58	**1982**	5,667	8,023	8,882	11,990	14,062	13,480	8,409	10,412	12,806	13,074	10,170	7,761	**10,376**
59	**1983**	7,095	8,173	9,528	12,422	11,526	13,073	7,719	9,093	10,264	12,077	9,408	6,875	**9,773**
60	**1984**	6,063	10,143	9,774	11,970	11,531	10,902	8,642	9,390	12,981	11,537	8,538	6,928	**9,855**
61	**1985**	6,204	8,113	8,567	9,612	9,183	7,343	7,126	8,986	7,710	6,862	5,929	6,093	**7,636**
62	**1986**	6,274	8,752	8,829	10,437	11,809	13,555	9,324	8,826	10,614	8,020	6,982	6,026	**9,103**
63	**1987**	5,257	7,780	8,677	8,524	7,392	7,714	6,549	9,497	7,683	6,065	5,951	5,650	**7,230**
64	**1988**	5,123	7,180	6,767	6,178	6,397	6,365	5,377	6,745	7,452	7,672	6,661	6,137	**6,505**
65	**1989**	5,023	7,512	8,033	7,682	5,691	8,372	8,598	8,990	7,521	7,507	6,329	5,908	**7,275**
66	**1990**	5,449	7,613	9,417	10,583	11,832	9,273	7,820	8,212	11,054	10,683	8,512	6,078	**8,861**
67	**1991**	5,228	10,045	10,110	11,667	12,976	9,508	7,523	9,008	9,996	11,810	9,450	5,903	**9,418**
68	**1992**	5,625	7,374	6,682	8,053	7,539	7,506	5,453	8,082	6,821	6,237	6,469	5,883	**6,809**
69	**1993**	4,909	7,031	7,312	6,717	5,182	7,044	5,705	10,331	9,196	8,117	7,436	6,452	**7,135**
70	**1994**	5,348	7,300	7,369	6,598	7,030	6,460	5,847	7,813	7,060	7,042	6,348	6,124	**6,693**
71	**1995**	5,223	6,915	7,555	8,531	8,738	9,962	5,741	8,777	11,813	8,679	7,425	6,595	**7,992**
72	**1996**	6,830	11,049	15,004	15,355	15,143	13,617	10,062	10,390	12,399	11,992	8,654	6,380	**11,391**
73	**1997**	5,782	7,995	9,958	15,354	15,459	12,889	11,580	12,627	13,173	12,297	10,183	7,687	**11,226**
74	**1998**	9,064	9,107	8,563	9,557	11,330	8,296	5,743	10,913	11,774	10,049	8,780	6,394	**9,122**
75	**1999**	5,578	6,842	9,247	13,423	12,471	13,127	8,447	9,047	11,923	12,542	11,158	6,386	**10,013**
76	**2000**	5,550	9,929	10,559	11,018	10,317	9,583	9,315	9,072	7,289	9,289	7,275	5,835	**8,747**
77	**2001**	5,444	7,003	7,119	7,351	7,547	6,156	4,125	5,923	6,029	6,514	6,549	5,692	**6,284**
78	**2002**	4,851	6,620	7,847	7,306	6,991	7,036	7,848	8,682	11,670	10,911	7,377	6,042	**7,768**
79	**2003**	5,404	7,422	7,087	7,472	7,848	9,251	6,874	7,339	10,404	6,909	6,150	5,744	**7,318**
80	**2004**	5,132	7,847	8,649	8,599	7,919	7,004	6,206	7,137	8,577	7,129	6,444	6,185	**7,231**
81	**2005**	6,321	7,983	9,515	9,568	10,590	7,340	4,814	7,329	8,178	8,126	6,695	6,092	**7,699**
82	**2006**	4,957	8,045	8,610	11,564	13,038	8,748	9,931	11,390	11,192	8,611	6,530	5,790	**9,004**
83	**2007**	5,125	7,624	8,678	10,876	9,285	10,913	7,959	8,818	8,980	8,939	6,331	5,506	**8,252**
84	**2008**	5,146	7,650	7,360	9,249	8,099	7,853	5,298	9,877	13,025	10,166	7,556	6,246	**8,128**
85	**80 WY Average**	**5,869**	**7,876**	**8,774**	**10,232**	**10,159**	**8,911**	**7,326**	**9,320**	**10,345**	**9,430**	**7,927**	**6,409**	**8,541**
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 2:**													
2	**Federal Hydro Generation (aMW) with Hydro Independents**													
3	**for FY 2023**													
4	**Water Year**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**	**July**	**Aug**	**Sep**	**Wtd Avg.**
5	**1929**	5,817	7,117	7,073	7,028	6,800	6,328	4,687	5,448	8,539	6,113	6,642	6,392	**6,494**
6	**1930**	5,327	7,100	6,752	6,654	6,579	5,850	4,703	6,406	6,698	7,309	6,846	6,297	**6,377**
7	**1931**	5,343	7,233	7,130	6,207	6,579	6,409	4,761	6,242	6,600	7,324	6,972	6,100	**6,410**
8	**1932**	5,259	6,746	7,011	7,002	5,364	8,883	9,091	10,361	11,372	8,679	7,569	6,291	**7,816**
9	**1933**	5,690	6,967	9,086	11,069	11,391	8,802	6,480	8,947	13,366	12,113	9,804	6,475	**9,174**
10	**1934**	6,480	10,596	13,676	15,463	14,188	10,958	11,000	10,615	9,638	6,592	6,692	5,892	**10,125**
11	**1935**	5,312	6,308	7,778	10,372	11,125	8,007	5,760	8,371	8,452	9,354	8,111	5,910	**7,892**
12	**1936**	5,570	7,035	7,032	6,433	5,517	6,974	6,699	11,327	10,323	8,464	6,899	6,041	**7,373**
13	**1937**	5,513	7,309	7,041	5,771	5,314	5,792	4,677	6,763	7,700	6,772	6,545	6,068	**6,278**
14	**1938**	5,564	7,426	8,197	10,998	8,391	9,962	9,180	9,850	10,159	9,502	6,432	6,256	**8,496**
15	**1939**	5,684	6,892	6,764	8,253	8,377	7,165	6,368	8,865	7,403	7,720	6,835	6,184	**7,205**
16	**1940**	5,492	7,234	7,111	9,256	7,713	9,049	6,963	7,973	7,287	6,636	6,234	5,856	**7,234**
17	**1941**	5,487	7,588	8,053	7,217	6,574	6,562	5,445	7,015	7,238	7,029	6,869	6,003	**6,760**
18	**1942**	5,542	7,695	10,214	10,567	9,275	6,447	5,702	6,864	10,475	9,899	7,733	6,345	**8,059**
19	**1943**	5,561	6,982	8,140	11,498	11,500	9,415	12,009	9,667	12,331	11,707	7,945	6,051	**9,384**
20	**1944**	5,360	7,155	6,843	6,871	7,556	5,821	4,144	5,734	6,379	6,424	6,601	5,884	**6,224**
21	**1945**	5,390	7,078	7,061	6,480	6,130	6,226	4,417	7,986	10,856	6,609	6,834	6,210	**6,775**
22	**1946**	5,294	7,049	8,219	10,024	8,915	9,603	9,990	10,647	10,465	10,221	8,763	6,322	**8,795**
23	**1947**	5,484	8,081	11,642	12,438	12,568	10,351	7,072	10,164	10,227	9,923	7,652	6,432	**9,325**
24	**1948**	8,456	9,524	9,730	12,476	12,079	7,985	8,110	13,219	14,302	9,852	9,997	6,694	**10,193**
25	**1949**	6,077	7,787	7,578	10,532	8,086	10,243	8,999	11,795	9,162	6,794	5,912	5,763	**8,232**
26	**1950**	5,276	6,989	8,201	12,803	10,986	11,075	9,303	9,165	12,622	13,769	9,851	6,449	**9,706**
27	**1951**	7,072	9,928	11,836	14,246	14,655	11,427	9,748	10,376	9,978	11,721	8,336	6,367	**10,456**
28	**1952**	8,184	8,628	9,862	11,845	11,828	9,060	10,432	12,474	10,178	10,002	7,596	6,011	**9,667**
29	**1953**	5,329	7,331	6,994	8,554	12,622	7,386	4,806	8,571	13,715	11,313	8,305	6,563	**8,427**
30	**1954**	5,782	7,848	9,160	12,072	12,099	9,559	7,208	10,633	12,104	13,251	11,532	8,471	**9,971**
31	**1955**	6,449	8,806	9,061	7,922	8,086	5,845	5,389	8,061	12,915	13,279	9,350	6,392	**8,467**
32	**1956**	6,139	9,345	11,686	14,565	13,246	11,046	11,413	12,623	13,808	11,374	9,326	6,312	**10,895**
33	**1957**	6,165	7,738	9,235	9,632	9,293	8,780	8,493	12,870	13,379	8,702	7,428	6,169	**8,988**
34	**1958**	5,400	7,177	7,683	10,801	10,747	8,483	6,930	11,640	11,859	8,163	7,351	6,255	**8,528**
35	**1959**	5,595	8,622	10,952	13,713	13,592	9,698	7,847	8,897	12,304	11,951	9,630	9,220	**10,147**
36	**1960**	10,255	10,764	10,729	10,995	10,455	8,447	9,703	8,937	10,664	9,619	7,772	6,183	**9,539**
37	**1961**	5,747	7,851	8,347	11,542	10,375	10,326	7,403	10,009	13,341	8,269	7,465	6,134	**8,891**
38	**1962**	5,102	7,356	8,353	9,853	11,264	6,550	8,403	9,253	10,608	8,199	8,018	6,319	**8,250**
39	**1963**	6,099	8,795	10,503	10,318	11,386	7,169	5,642	8,334	10,330	9,434	7,931	6,781	**8,544**
40	**1964**	5,670	7,166	8,278	8,303	9,726	6,418	6,456	8,976	14,045	12,621	9,546	7,321	**8,702**
41	**1965**	6,829	8,379	12,017	14,548	15,284	11,486	8,225	11,230	11,389	10,696	9,880	6,359	**10,509**
42	**1966**	6,044	7,233	8,560	9,377	10,649	7,358	7,247	7,732	9,524	9,167	7,490	6,149	**8,028**
43	**1967**	5,362	7,063	9,127	12,035	13,251	9,608	6,617	8,585	12,945	11,380	8,535	6,476	**9,226**
44	**1968**	5,909	8,252	8,707	11,422	10,625	10,277	4,866	7,948	10,550	9,715	8,723	7,845	**8,730**

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Table 2:**													
2	**Federal Hydro Generation (aMW) with Hydro Independents**													
3	**for FY 2023**													
4	**Water Year**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**	**July**	**Aug**	**Sep**	**Wtd Avg.**
45	**1969**	7,048	9,506	9,878	13,534	13,481	9,823	10,913	11,553	10,758	9,995	7,873	6,282	**10,033**
46	**1970**	5,664	7,783	7,731	9,974	11,570	7,737	5,035	8,932	12,747	7,401	7,145	6,260	**8,139**
47	**1971**	5,375	7,174	8,037	13,801	14,951	11,199	9,235	12,517	14,077	11,863	10,176	6,720	**10,402**
48	**1972**	6,166	8,034	9,110	14,104	12,657	13,568	10,209	12,078	14,213	11,961	10,519	6,929	**10,790**
49	**1973**	6,503	7,736	8,605	9,297	8,878	6,700	4,669	7,003	7,255	6,602	6,341	5,824	**7,112**
50	**1974**	5,197	7,564	10,081	16,547	15,261	12,654	11,205	11,612	13,925	13,786	10,632	6,888	**11,261**
51	**1975**	5,601	7,161	7,846	10,314	10,765	9,653	6,163	8,766	13,312	12,416	8,746	6,996	**8,970**
52	**1976**	7,117	9,824	12,939	13,478	13,391	10,931	9,681	11,921	10,925	11,787	12,541	9,027	**11,125**
53	**1977**	6,521	7,095	7,198	7,387	7,799	5,494	4,134	6,158	6,112	6,342	6,683	5,552	**6,368**
54	**1978**	5,029	6,827	8,711	9,742	8,367	9,418	7,851	9,610	10,011	10,469	7,236	7,625	**8,412**
55	**1979**	6,431	7,569	7,312	9,064	7,455	8,215	6,053	9,784	7,888	6,550	6,341	6,220	**7,412**
56	**1980**	5,595	7,045	6,531	8,916	6,879	6,697	7,054	11,720	11,424	8,239	6,582	6,191	**7,744**
57	**1981**	5,525	7,614	10,691	11,982	12,560	7,372	5,100	8,733	13,268	10,974	9,961	6,662	**9,187**
58	**1982**	5,668	8,024	8,885	12,034	13,902	13,104	8,357	10,402	12,744	12,981	10,172	7,762	**10,319**
59	**1983**	7,097	8,175	9,531	12,350	11,424	12,671	7,724	9,049	10,351	12,065	9,410	6,877	**9,728**
60	**1984**	6,065	10,145	9,776	12,026	11,437	10,709	8,670	9,311	13,160	11,506	8,540	6,930	**9,845**
61	**1985**	6,205	8,116	8,569	9,765	9,185	7,321	7,205	8,985	7,767	6,867	5,930	6,095	**7,659**
62	**1986**	6,276	8,754	8,831	10,882	12,225	12,439	9,386	8,735	10,677	8,012	6,983	6,027	**9,081**
63	**1987**	5,259	7,781	8,679	8,526	7,366	7,707	6,586	9,436	7,678	6,066	5,952	5,651	**7,226**
64	**1988**	5,124	7,181	6,768	6,257	6,313	6,338	5,404	6,647	7,441	7,671	6,661	6,138	**6,496**
65	**1989**	5,023	7,513	8,035	7,806	5,693	8,343	8,605	8,933	7,538	7,509	6,329	5,910	**7,281**
66	**1990**	5,450	7,614	9,419	10,598	11,787	9,212	7,850	8,090	10,971	10,646	8,513	6,079	**8,836**
67	**1991**	5,229	10,047	10,114	11,764	12,924	9,581	7,472	8,901	10,000	11,645	9,451	5,904	**9,402**
68	**1992**	5,626	7,376	6,684	8,054	7,541	7,487	5,512	7,993	6,822	6,238	6,469	5,884	**6,806**
69	**1993**	4,910	7,033	7,314	6,755	5,182	6,996	5,708	10,277	9,277	8,065	7,437	6,453	**7,133**
70	**1994**	5,349	7,302	7,371	6,700	6,913	6,440	5,881	7,723	7,072	7,042	6,348	6,125	**6,688**
71	**1995**	5,224	6,917	7,556	8,534	8,736	9,848	5,781	8,674	11,795	8,680	7,426	6,596	**7,976**
72	**1996**	6,832	11,083	14,882	15,670	15,145	13,156	10,109	10,354	12,312	11,969	8,655	6,382	**11,363**
73	**1997**	5,783	7,996	9,960	15,293	15,614	12,743	11,604	13,245	14,336	12,253	10,185	7,689	**11,367**
74	**1998**	9,066	9,109	8,565	9,965	10,770	8,238	5,755	10,823	11,830	10,029	8,781	6,395	**9,106**
75	**1999**	5,579	6,844	9,249	13,482	12,385	12,841	8,459	9,006	12,066	12,493	11,164	6,387	**9,993**
76	**2000**	5,551	9,931	10,562	11,138	10,252	9,550	9,382	8,993	7,279	9,284	7,276	5,837	**8,748**
77	**2001**	5,445	7,004	7,120	7,353	7,549	6,137	4,158	5,852	6,034	6,515	6,550	5,693	**6,280**
78	**2002**	4,852	6,621	7,849	7,433	6,993	7,000	7,866	8,593	11,709	10,880	7,379	6,043	**7,771**
79	**2003**	5,405	7,423	7,088	7,572	7,735	9,233	6,942	7,274	10,536	6,909	6,151	5,745	**7,327**
80	**2004**	5,133	7,849	8,650	8,601	7,921	6,959	6,239	7,049	8,528	7,129	6,446	6,187	**7,219**
81	**2005**	6,322	7,985	9,518	9,570	10,544	7,292	4,841	7,246	8,197	8,125	6,696	6,094	**7,689**
82	**2006**	4,958	8,047	8,611	11,590	12,944	8,706	9,954	11,308	11,249	8,607	6,531	5,791	**8,995**
83	**2007**	5,126	7,626	8,680	10,925	9,288	10,723	8,039	8,792	9,033	8,932	6,332	5,508	**8,249**
84	**2008**	5,148	7,651	7,362	9,375	8,101	7,832	5,341	9,766	13,184	10,150	7,558	6,247	**8,144**
85	**80 WY Average**	**5,870**	**7,878**	**8,771**	**10,316**	**10,126**	**8,811**	**7,357**	**9,280**	**10,509**	**9,429**	**7,926**	**6,411**	**8,550**
86	**Hours**	**744**	**721**	**744**	**744**	**672**	**743**	**720**	**744**	**720**	**744**	**744**	**720**	**8760**

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Table 3:**													
2	**Heavy-Load Hydro Generation**													
3	**for FY 2022**													
4	**Water Year**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**	**July**	**Aug**	**Sep**	**Wtd Avg.**
5	**1929**	7,139	8,351	7,952	8,861	8,015	7,222	5,247	7,090	10,570	7,576	7,957	7,714	**7,778**
6	**1930**	6,461	8,358	7,606	8,348	7,577	6,672	5,241	8,658	8,410	9,593	8,250	7,614	**7,694**
7	**1931**	6,471	8,482	8,036	7,606	7,893	7,397	5,296	8,459	8,391	9,679	8,498	7,380	**7,766**
8	**1932**	6,381	7,909	7,890	8,774	6,091	10,014	10,453	12,993	12,302	11,335	9,218	7,566	**9,229**
9	**1933**	6,986	8,051	10,449	14,103	12,949	10,351	7,499	11,047	13,651	13,240	11,658	7,778	**10,597**
10	**1934**	8,074	12,394	14,166	16,412	14,517	12,733	11,924	11,720	10,490	8,535	8,180	7,149	**11,296**
11	**1935**	6,469	7,345	8,841	13,362	12,651	9,533	6,694	10,665	10,147	12,148	9,766	7,072	**9,498**
12	**1936**	6,813	8,292	7,911	7,963	6,469	7,847	7,632	13,687	11,078	11,092	8,323	7,249	**8,663**
13	**1937**	6,719	8,591	7,914	7,000	6,113	6,642	5,230	9,097	9,731	8,818	7,878	7,313	**7,561**
14	**1938**	6,813	8,636	9,266	14,156	9,923	11,739	10,258	12,164	11,948	12,323	7,769	7,492	**10,161**
15	**1939**	6,946	8,119	7,589	10,543	10,024	8,131	7,415	11,571	9,286	10,145	8,262	7,434	**8,736**
16	**1940**	6,668	8,453	7,953	11,552	9,521	10,437	8,212	10,886	9,203	8,656	7,481	6,952	**8,791**
17	**1941**	6,678	8,818	9,087	9,062	7,406	7,694	6,298	9,593	9,089	9,107	8,237	7,059	**8,145**
18	**1942**	6,712	8,947	11,845	13,568	11,097	7,291	6,554	9,214	11,488	12,732	9,206	7,525	**9,620**
19	**1943**	6,798	8,041	9,129	14,642	13,543	10,810	13,613	12,029	13,433	13,978	9,595	7,244	**11,012**
20	**1944**	6,486	8,379	7,628	8,643	8,954	6,683	4,556	7,656	7,910	8,217	7,899	7,013	**7,459**
21	**1945**	6,523	8,319	7,897	7,943	7,152	7,213	4,952	10,538	12,028	8,258	8,212	7,427	**8,009**
22	**1946**	6,377	8,206	9,240	12,524	10,472	11,070	11,047	12,444	11,234	12,852	10,742	7,538	**10,275**
23	**1947**	6,626	9,316	13,364	14,909	14,498	11,986	8,226	13,164	11,233	12,600	9,328	7,694	**11,010**
24	**1948**	10,469	11,090	11,205	15,582	13,964	9,245	9,289	14,696	13,295	12,670	11,922	7,994	**11,715**
25	**1949**	7,514	9,089	8,538	13,033	9,616	12,031	10,163	14,659	10,877	8,733	6,983	6,892	**9,801**
26	**1950**	6,389	8,145	9,244	15,238	13,211	12,898	10,330	11,821	13,191	13,949	11,716	7,706	**11,108**
27	**1951**	8,627	11,528	13,253	16,300	15,874	13,059	10,783	12,496	11,402	13,285	10,154	7,575	**11,958**
28	**1952**	10,045	10,061	11,402	14,914	13,720	10,434	11,772	14,657	11,774	12,786	9,230	7,223	**11,432**
29	**1953**	6,423	8,588	7,855	10,611	14,661	8,511	5,442	11,452	13,194	13,762	10,033	7,861	**9,789**
30	**1954**	7,105	9,124	10,517	14,865	13,855	11,191	8,217	12,410	12,063	13,568	12,622	10,030	**11,237**
31	**1955**	7,991	10,375	10,392	10,117	9,739	6,726	6,121	10,931	13,110	13,799	11,210	7,629	**9,796**
32	**1956**	7,593	10,874	13,357	16,617	15,023	12,567	12,027	13,548	13,096	13,258	11,228	7,502	**12,162**
33	**1957**	7,592	9,031	10,585	12,391	10,132	10,171	9,936	14,898	13,434	11,377	9,071	7,407	**10,456**
34	**1958**	6,495	8,423	8,597	13,646	13,092	9,903	8,065	14,602	12,565	10,715	8,994	7,533	**10,150**
35	**1959**	6,818	9,975	12,706	16,108	14,807	11,165	9,008	11,264	12,694	13,393	11,650	10,860	**11,634**
36	**1960**	12,612	12,596	12,305	13,945	12,408	9,869	11,180	11,464	11,807	12,326	9,513	7,431	**11,398**
37	**1961**	7,062	9,127	9,456	14,082	12,659	12,281	8,637	11,900	12,511	10,854	9,160	7,408	**10,377**
38	**1962**	6,151	8,592	9,499	12,529	13,175	7,435	9,566	11,479	11,758	10,723	9,776	7,621	**9,792**
39	**1963**	7,439	10,251	12,260	13,327	13,433	8,290	6,551	11,170	11,807	12,228	9,590	8,080	**10,296**
40	**1964**	6,907	8,319	9,366	10,720	11,574	7,261	7,414	11,470	13,586	13,865	11,477	8,677	**9,997**
41	**1965**	8,474	9,835	13,615	16,928	16,261	13,140	9,516	13,091	12,888	13,395	11,791	7,494	**12,139**
42	**1966**	7,374	8,485	9,640	12,160	12,516	8,582	8,544	10,520	10,633	11,908	9,151	7,387	**9,680**
43	**1967**	6,486	8,227	10,487	14,871	14,472	11,123	7,509	10,962	12,830	13,282	10,410	7,784	**10,639**
44	**1968**	7,202	9,627	9,861	14,163	12,942	11,980	5,434	10,695	11,567	12,440	10,434	9,226	**10,407**

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Table 3:**													
2	**Heavy-Load Hydro Generation**													
3	**for FY 2022**													
4	**Water Year**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**	**July**	**Aug**	**Sep**	**Wtd Avg.**
45	**1969**	8,682	11,094	11,382	16,315	14,814	11,336	11,700	14,158	11,769	12,587	9,638	7,616	**11,682**
46	**1970**	6,915	9,123	8,745	12,731	13,523	8,902	5,582	11,943	13,599	9,215	8,590	7,423	**9,622**
47	**1971**	6,417	8,299	9,015	16,517	15,853	13,003	10,382	14,539	13,485	13,679	11,934	8,041	**11,696**
48	**1972**	7,477	9,292	10,336	16,481	14,970	14,071	11,271	12,953	13,008	13,412	12,233	8,246	**11,927**
49	**1973**	7,895	9,009	9,755	12,040	10,630	7,747	5,242	9,541	9,024	8,493	7,634	6,937	**8,606**
50	**1974**	6,225	8,631	11,554	17,294	15,328	14,123	12,457	12,504	13,204	13,952	12,300	8,274	**12,101**
51	**1975**	6,812	8,387	8,834	13,348	12,783	11,337	7,080	11,586	13,957	14,171	10,495	8,295	**10,535**
52	**1976**	8,633	11,531	14,005	16,187	14,934	12,456	10,776	14,205	12,237	13,314	13,147	10,665	**12,611**
53	**1977**	7,973	8,292	8,029	9,305	9,273	6,273	4,538	8,328	7,763	8,220	8,071	6,558	**7,673**
54	**1978**	6,050	7,944	9,740	12,115	9,719	10,846	9,228	11,563	11,944	13,274	8,728	9,054	**9,973**
55	**1979**	7,951	8,888	8,258	11,623	8,909	9,475	7,128	12,826	9,898	8,404	7,605	7,488	**8,993**
56	**1980**	6,838	8,263	7,293	11,420	7,931	7,636	8,254	13,792	12,300	10,773	7,944	7,366	**9,101**
57	**1981**	6,721	8,889	12,333	14,406	14,006	8,643	5,893	11,657	12,948	13,033	11,746	8,024	**10,624**
58	**1982**	6,953	9,421	10,119	14,774	15,814	14,576	9,507	12,761	14,070	14,319	12,061	9,195	**11,907**
59	**1983**	8,670	9,558	10,976	15,068	13,671	14,153	8,629	11,701	11,973	13,696	11,326	8,186	**11,421**
60	**1984**	7,334	11,894	11,245	15,304	13,388	12,343	10,071	12,210	14,246	13,839	10,328	8,171	**11,637**
61	**1985**	7,497	9,325	9,666	12,201	10,973	8,419	8,264	11,546	9,290	8,966	7,083	7,118	**9,135**
62	**1986**	7,669	10,172	9,975	13,332	13,229	14,558	10,986	11,721	11,926	10,490	8,457	7,120	**10,760**
63	**1987**	6,299	8,996	9,755	10,940	8,766	8,998	7,867	11,494	9,538	7,734	7,099	6,709	**8,642**
64	**1988**	6,154	8,400	7,588	7,713	7,482	7,254	6,292	9,087	9,472	10,170	8,080	7,417	**7,891**
65	**1989**	6,042	8,758	9,020	9,638	6,549	9,410	9,784	11,433	9,315	9,881	7,560	7,028	**8,675**
66	**1990**	6,612	8,885	10,802	13,518	13,423	10,800	9,181	10,707	11,904	12,814	10,236	7,254	**10,456**
67	**1991**	6,335	11,786	11,703	14,690	14,041	11,054	8,503	11,288	11,293	13,216	11,289	6,991	**10,952**
68	**1992**	6,881	8,573	7,440	10,203	8,907	8,709	6,447	10,738	8,676	7,954	7,735	7,026	**8,233**
69	**1993**	5,887	8,289	8,281	8,423	5,952	7,996	6,613	13,422	11,186	10,316	8,758	7,652	**8,535**
70	**1994**	6,486	8,603	8,297	8,305	8,289	7,364	6,995	10,508	8,982	9,163	7,629	7,388	**8,126**
71	**1995**	6,331	8,128	8,499	10,842	10,098	11,688	6,648	11,622	12,819	11,042	8,940	7,853	**9,507**
72	**1996**	8,437	12,851	14,872	17,042	16,080	14,465	11,332	12,694	13,759	13,474	10,493	7,618	**12,695**
73	**1997**	7,091	9,254	11,527	17,520	15,830	14,013	12,387	13,714	13,187	13,657	11,907	9,106	**12,370**
74	**1998**	11,226	10,691	9,648	12,366	13,129	9,615	6,748	13,990	12,953	12,870	10,530	7,542	**10,878**
75	**1999**	6,724	7,913	10,585	15,951	14,623	14,311	9,370	11,669	13,277	13,684	12,508	7,618	**11,477**
76	**2000**	6,759	11,697	12,251	14,065	12,443	11,144	10,429	11,453	8,862	12,006	8,863	6,956	**10,516**
77	**2001**	6,571	8,219	7,958	9,227	8,992	7,006	4,604	7,813	7,603	8,433	7,873	6,803	**7,549**
78	**2002**	5,751	7,782	8,811	9,071	8,051	7,970	9,029	10,942	12,470	13,102	8,804	7,242	**9,049**
79	**2003**	6,565	8,734	7,985	9,399	9,310	10,797	8,108	9,809	11,694	8,968	7,320	6,859	**8,766**
80	**2004**	6,199	9,191	9,786	10,970	9,378	7,998	7,426	9,536	10,563	9,221	7,587	7,240	**8,711**
81	**2005**	7,821	9,379	11,002	12,379	12,185	8,523	5,487	9,612	10,096	10,633	8,036	7,240	**9,302**
82	**2006**	5,953	9,436	9,704	14,823	14,492	10,124	11,096	14,296	12,098	11,285	7,928	6,885	**10,596**
83	**2007**	6,158	8,777	9,846	13,705	11,285	12,661	9,476	11,474	10,440	11,708	7,595	6,500	**9,921**
84	**2008**	6,199	8,936	8,256	11,863	9,609	9,039	6,059	12,750	13,511	13,012	9,168	7,484	**9,604**
85	**80 WY Average**	**7,151**	**9,196**	**9,910**	**12,690**	**11,633**	**10,127**	**8,359**	**11,656**	**11,526**	**11,517**	**9,473**	**7,646**	**10,021**
86	**Hours**	**416**	**400**	**416**	**400**	**384**	**432**	**416**	**400**	**416**	**400**	**432**	**400**	**4928**

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Table 3a:**													
2	**Light-Load Hydro Generation**													
3	**for FY 2022**													
4	**Water Year**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**	**July**	**Aug**	**Sep**	**Wtd Avg.**
5	**1929**	4,137	5,577	5,954	4,892	5,176	5,134	3,830	3,674	5,673	4,410	4,819	4,736	**4,813**
6	**1930**	3,887	5,531	5,664	4,681	5,242	4,748	3,875	3,993	4,331	4,650	4,900	4,649	**4,665**
7	**1931**	3,910	5,675	5,978	4,363	5,092	5,128	3,954	3,860	4,153	4,586	4,857	4,498	**4,656**
8	**1932**	3,834	5,295	5,892	4,938	4,390	7,476	7,125	7,367	9,975	5,608	5,282	4,694	**5,962**
9	**1933**	4,044	5,614	7,355	7,175	9,382	6,675	5,116	6,471	12,627	10,799	7,233	4,843	**7,243**
10	**1934**	4,457	8,284	13,476	13,191	13,408	8,866	9,645	9,115	8,526	4,333	4,630	4,319	**8,474**
11	**1935**	3,842	5,013	6,426	6,691	9,315	6,008	4,384	5,886	5,973	6,135	5,816	4,456	**5,797**
12	**1936**	3,991	5,467	5,915	4,552	4,410	5,809	5,293	8,629	8,949	5,406	4,926	4,529	**5,651**
13	**1937**	3,982	5,710	5,931	4,116	4,260	4,665	3,840	4,434	4,903	4,390	4,696	4,510	**4,611**
14	**1938**	3,977	5,917	6,838	7,083	6,343	7,841	7,871	7,347	7,601	6,237	4,577	4,709	**6,343**
15	**1939**	4,082	5,359	5,712	5,586	6,174	5,889	4,801	5,824	4,670	4,902	4,858	4,619	**5,194**
16	**1940**	3,998	5,712	6,040	5,996	6,041	7,340	5,200	4,838	4,677	4,289	4,506	4,483	**5,237**
17	**1941**	3,973	6,053	6,738	5,068	5,024	5,442	4,139	4,223	4,687	4,610	4,972	4,681	**4,956**
18	**1942**	4,055	6,131	8,138	6,873	6,860	5,300	4,410	4,283	9,099	6,619	5,692	4,867	**6,003**
19	**1943**	3,990	5,660	6,881	7,670	9,027	7,607	9,975	7,031	10,750	9,064	5,657	4,555	**7,274**
20	**1944**	3,929	5,628	5,844	4,808	5,688	4,679	3,520	3,654	4,250	4,338	4,802	4,469	**4,616**
21	**1945**	3,951	5,528	5,997	4,544	4,835	5,128	3,595	5,216	9,026	4,685	4,923	4,685	**5,152**
22	**1946**	3,919	5,604	6,919	6,816	6,856	7,647	8,363	8,384	9,142	7,191	6,021	4,799	**6,780**
23	**1947**	4,032	6,536	9,490	9,317	10,025	8,266	5,365	6,826	8,697	6,790	5,328	4,851	**7,098**
24	**1948**	5,900	7,569	7,853	8,733	9,758	6,290	6,475	11,075	13,244	6,601	7,333	5,065	**7,960**
25	**1949**	4,252	6,161	6,357	7,358	6,041	8,122	7,195	8,629	6,749	4,542	4,427	4,347	**6,171**
26	**1950**	3,862	5,545	6,874	9,793	8,254	8,851	7,809	6,219	11,707	13,086	7,270	4,875	**7,832**
27	**1951**	5,097	7,929	10,021	11,677	13,378	9,737	8,174	7,853	7,778	10,066	5,815	4,854	**8,502**
28	**1952**	5,819	6,837	7,903	8,119	9,451	7,268	8,370	9,989	7,668	6,781	5,331	4,493	**7,317**
29	**1953**	3,939	5,762	5,898	6,008	10,279	5,893	3,834	5,444	12,766	8,598	5,909	4,938	**6,545**
30	**1954**	4,101	6,255	7,433	8,643	9,977	7,536	5,892	8,570	11,755	12,624	10,005	6,519	**8,258**
31	**1955**	4,490	6,849	7,370	5,365	5,878	4,638	4,263	4,926	12,133	12,209	7,219	4,843	**6,678**
32	**1956**	4,293	7,438	9,567	11,982	11,311	9,292	10,337	10,742	12,670	9,288	6,688	4,820	**9,003**
33	**1957**	4,354	6,123	7,518	6,419	6,486	7,663	7,387	10,251	12,747	5,608	5,152	4,619	**6,997**
34	**1958**	4,009	5,622	6,518	7,381	7,867	6,622	5,379	8,368	10,764	5,198	5,073	4,654	**6,423**
35	**1959**	4,040	6,932	8,720	10,731	12,039	7,799	6,226	6,384	11,420	10,302	6,829	7,177	**8,176**
36	**1960**	7,261	8,419	8,724	7,222	8,056	6,547	7,459	6,167	8,870	6,477	5,359	4,620	**7,067**
37	**1961**	4,078	6,258	6,938	8,427	7,577	8,016	5,589	8,079	12,520	5,280	5,117	4,538	**6,832**
38	**1962**	3,769	5,813	6,895	6,474	8,927	5,412	6,722	6,737	8,497	5,263	5,581	4,688	**6,183**
39	**1963**	4,397	6,976	8,264	6,814	8,876	5,739	4,317	5,264	8,327	6,202	5,630	5,153	**6,294**
40	**1964**	4,098	5,726	6,895	5,490	7,257	5,294	4,945	6,274	12,778	11,155	6,869	5,622	**6,845**
41	**1965**	4,740	6,561	9,994	11,709	14,193	9,786	6,549	9,233	9,217	7,569	7,230	4,941	**8,430**
42	**1966**	4,354	5,670	7,185	6,136	8,245	5,734	5,309	4,655	7,734	5,978	5,188	4,599	**5,858**
43	**1967**	3,934	5,609	7,397	8,789	11,709	7,460	5,276	5,922	12,303	9,212	5,936	4,837	**7,309**
44	**1968**	4,268	6,534	7,239	8,070	7,783	8,142	4,017	4,936	9,085	6,581	6,350	6,124	**6,563**

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Table 3a:**													
2	**Light-Load Hydro Generation**													
3	**for FY 2022**													
4	**Water Year**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**	**July**	**Aug**	**Sep**	**Wtd Avg.**
45	**1969**	4,972	7,523	7,961	10,094	11,836	8,088	9,663	8,720	9,235	6,944	5,428	4,612	**7,872**
46	**1970**	4,075	6,109	6,440	6,796	9,199	6,211	4,245	5,645	11,578	5,285	5,140	4,802	**6,234**
47	**1971**	4,049	5,768	6,791	10,565	13,992	9,027	7,601	10,059	12,791	9,632	7,738	5,064	**8,529**
48	**1972**	4,499	6,463	7,551	11,202	9,698	13,210	8,580	10,422	12,973	10,318	8,142	5,278	**8,998**
49	**1973**	4,736	6,146	7,140	6,102	6,537	5,330	3,808	4,253	4,735	4,403	4,547	4,431	**5,166**
50	**1974**	3,890	6,229	8,202	14,131	14,212	11,270	9,489	9,781	12,709	13,086	8,317	5,152	**9,669**
51	**1975**	4,063	5,630	6,587	6,748	8,189	7,548	4,931	5,885	11,934	10,281	6,322	5,368	**6,926**
52	**1976**	5,189	7,692	11,664	10,203	11,723	8,877	7,992	9,440	8,850	10,059	11,691	6,975	**9,168**
53	**1977**	4,677	5,601	6,139	5,153	5,830	4,459	3,516	3,817	3,851	4,156	4,761	4,291	**4,675**
54	**1978**	3,731	5,432	7,396	6,676	6,580	7,480	5,797	7,393	7,453	7,276	5,166	5,834	**6,344**
55	**1979**	4,500	5,923	6,109	6,036	5,620	6,465	4,432	6,496	5,099	4,392	4,588	4,632	**5,354**
56	**1980**	4,016	5,524	5,561	5,999	5,472	5,451	5,281	9,495	9,785	5,301	4,693	4,718	**5,937**
57	**1981**	4,006	6,022	8,602	9,264	10,852	5,793	3,958	5,648	12,758	8,602	7,486	4,957	**7,284**
58	**1982**	4,036	6,280	7,314	8,752	11,726	11,958	6,907	7,680	11,075	11,627	7,553	5,968	**8,356**
59	**1983**	5,098	6,447	7,692	9,346	8,666	11,573	6,473	6,060	7,927	10,194	6,754	5,236	**7,605**
60	**1984**	4,451	7,961	7,908	8,094	9,055	8,899	6,685	6,110	11,251	8,860	6,060	5,374	**7,516**
61	**1985**	4,564	6,604	7,172	6,602	6,795	5,847	5,569	6,010	5,548	4,416	4,333	4,812	**5,673**
62	**1986**	4,506	6,982	7,376	7,071	9,916	12,161	7,049	5,460	8,819	5,147	4,941	4,658	**6,928**
63	**1987**	3,937	6,264	7,310	5,714	5,561	5,930	4,744	7,176	5,145	4,126	4,362	4,326	**5,381**
64	**1988**	3,817	5,659	5,724	4,392	4,951	5,131	4,124	4,022	4,689	4,766	4,695	4,538	**4,693**
65	**1989**	3,730	5,960	6,781	5,408	4,546	6,931	6,976	6,150	5,065	4,747	4,623	4,509	**5,441**
66	**1990**	3,974	6,028	7,661	7,171	9,711	7,152	5,957	5,311	9,891	8,206	6,125	4,608	**6,767**
67	**1991**	3,823	7,875	8,091	8,152	11,556	7,359	6,182	6,358	8,221	10,176	6,904	4,544	**7,399**
68	**1992**	4,033	5,881	5,722	5,552	5,715	5,835	4,092	4,992	4,281	4,240	4,715	4,454	**4,947**
69	**1993**	3,668	5,464	6,084	4,732	4,155	5,722	4,462	6,736	6,472	5,561	5,606	4,951	**5,302**
70	**1994**	3,903	5,677	6,192	4,613	5,350	5,204	4,276	4,679	4,430	4,576	4,574	4,543	**4,821**
71	**1995**	3,818	5,404	6,357	5,845	6,925	7,563	4,500	5,470	10,435	5,932	5,328	5,022	**6,007**
72	**1996**	4,793	8,804	15,170	13,394	13,894	12,439	8,324	7,711	10,537	10,269	6,106	4,834	**9,653**
73	**1997**	4,121	6,425	7,967	12,835	14,965	11,327	10,477	11,363	13,155	10,715	7,797	5,913	**9,694**
74	**1998**	6,323	7,133	7,187	6,292	8,930	6,464	4,367	7,335	10,161	6,769	6,356	4,959	**6,822**
75	**1999**	4,124	5,508	7,550	10,483	9,600	11,484	7,183	5,998	10,071	11,214	9,289	4,846	**8,080**
76	**2000**	4,017	7,726	8,414	7,475	7,483	7,414	7,791	6,303	5,137	6,130	5,076	4,434	**6,431**
77	**2001**	4,014	5,487	6,054	5,170	5,620	4,974	3,468	3,725	3,874	4,283	4,716	4,303	**4,627**
78	**2002**	3,710	5,172	6,625	5,254	5,578	5,737	6,231	6,055	10,576	8,363	5,402	4,543	**6,083**
79	**2003**	3,932	5,786	5,948	5,231	5,898	7,103	5,186	4,467	8,639	4,514	4,529	4,351	**5,421**
80	**2004**	3,779	6,174	7,207	5,843	5,974	5,623	4,538	4,347	5,858	4,696	4,862	4,866	**5,293**
81	**2005**	4,419	6,244	7,628	6,299	8,464	5,698	3,892	4,674	5,554	5,211	4,839	4,658	**5,603**
82	**2006**	3,694	6,312	7,222	7,774	11,100	6,835	8,337	8,010	9,954	5,502	4,594	4,421	**6,914**
83	**2007**	3,816	6,187	7,196	7,587	6,619	8,485	5,882	5,728	6,983	5,720	4,581	4,265	**6,068**
84	**2008**	3,812	6,046	6,224	6,210	6,085	6,206	4,256	6,536	12,359	6,857	5,325	4,698	**6,191**
85	**80 WY Average**	**4,242**	**6,230**	**7,333**	**7,374**	**8,193**	**7,222**	**5,913**	**6,604**	**8,729**	**7,003**	**5,786**	**4,863**	**6,595**
86	**Hours**	**328**	**321**	**328**	**344**	**288**	**311**	**304**	**344**	**304**	**344**	**312**	**320**	**3856**

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Table 4:**													
2	**Heavy-Load Hydro Generation**													
3	**for FY 2023**													
4	**Water Year**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**	**July**	**Aug**	**Sep**	**Wtd Avg.**
5	**1929**	7,177	8,418	8,278	8,594	8,006	7,193	5,523	6,747	10,561	7,582	7,953	7,728	**7,811**
6	**1930**	6,497	8,427	7,910	8,076	7,585	6,649	5,474	8,255	8,334	9,591	8,247	7,625	**7,711**
7	**1931**	6,505	8,546	8,366	7,487	7,744	7,360	5,535	8,037	8,246	9,682	8,491	7,384	**7,776**
8	**1932**	6,412	7,975	8,211	8,500	6,104	9,912	10,862	12,485	12,749	11,340	9,215	7,575	**9,296**
9	**1933**	7,021	8,097	10,779	13,970	13,145	10,320	7,747	10,862	14,157	13,542	11,706	7,785	**10,746**
10	**1934**	8,136	12,501	14,793	16,763	15,019	12,599	12,467	11,743	10,843	8,541	8,168	7,158	**11,534**
11	**1935**	6,503	7,382	9,177	13,121	12,853	9,460	6,991	10,357	10,194	12,240	9,785	7,076	**9,567**
12	**1936**	6,849	8,362	8,239	7,772	6,357	7,804	7,983	13,495	11,623	11,111	8,318	7,259	**8,762**
13	**1937**	6,751	8,662	8,241	6,901	6,123	6,622	5,473	8,595	9,698	8,816	7,868	7,319	**7,589**
14	**1938**	6,845	8,705	9,620	13,930	9,923	11,508	10,606	11,743	12,010	12,344	7,762	7,502	**10,196**
15	**1939**	6,981	8,172	7,904	10,233	10,020	8,077	7,747	11,037	9,336	10,143	8,256	7,438	**8,756**
16	**1940**	6,701	8,522	8,273	11,566	9,105	10,317	8,518	10,331	9,247	8,655	7,472	6,957	**8,797**
17	**1941**	6,717	8,888	9,446	8,775	7,623	7,468	6,609	9,040	9,037	9,107	8,243	7,068	**8,163**
18	**1942**	6,753	8,995	12,232	13,307	11,083	7,266	6,843	8,812	11,893	12,759	9,210	7,535	**9,696**
19	**1943**	6,833	8,074	9,477	14,307	13,408	10,709	14,071	11,675	13,883	14,345	9,602	7,254	**11,115**
20	**1944**	6,516	8,427	7,944	8,364	8,954	6,656	4,759	7,276	7,795	8,215	7,890	7,019	**7,468**
21	**1945**	6,558	8,382	8,220	7,831	7,106	7,072	5,214	10,138	12,542	8,263	8,207	7,438	**8,079**
22	**1946**	6,408	8,253	9,581	12,310	10,469	10,988	11,540	12,335	11,738	13,086	10,727	7,548	**10,413**
23	**1947**	6,660	9,362	13,921	14,961	14,534	11,850	8,573	12,462	11,703	12,799	9,329	7,705	**11,124**
24	**1948**	10,547	11,120	11,533	15,531	13,901	9,196	9,626	14,687	14,339	12,696	11,972	7,998	**11,899**
25	**1949**	7,565	9,156	8,868	12,727	9,626	11,788	10,583	13,976	11,145	8,733	6,971	6,900	**9,827**
26	**1950**	6,419	8,193	9,617	15,104	13,090	12,671	10,761	11,213	13,563	14,327	11,742	7,718	**11,194**
27	**1951**	8,686	11,532	13,951	16,277	16,042	12,721	11,266	12,142	11,735	13,491	10,147	7,585	**12,100**
28	**1952**	10,099	10,105	11,726	14,794	13,653	10,340	12,345	14,384	12,148	12,901	9,251	7,232	**11,551**
29	**1953**	6,453	8,658	8,173	10,402	14,619	8,467	5,691	10,799	14,066	14,023	10,039	7,870	**9,897**
30	**1954**	7,140	9,194	10,829	14,857	13,978	11,035	8,484	12,243	12,553	13,829	12,709	10,050	**11,384**
31	**1955**	8,050	10,415	10,736	9,820	9,736	6,727	6,386	10,305	13,682	14,283	11,153	7,639	**9,896**
32	**1956**	7,637	10,899	13,945	16,744	14,869	12,312	12,681	13,909	14,218	13,532	11,234	7,513	**12,437**
33	**1957**	7,645	9,097	10,882	12,004	11,112	9,680	9,819	14,701	13,937	11,379	9,093	7,417	**10,547**
34	**1958**	6,524	8,474	8,927	13,305	12,953	9,836	8,338	13,935	12,937	10,720	9,018	7,544	**10,177**
35	**1959**	6,854	10,001	13,183	16,425	15,141	11,054	9,368	10,735	13,280	13,668	11,657	10,871	**11,820**
36	**1960**	12,659	12,695	12,911	13,786	12,314	9,798	11,672	11,025	12,236	12,507	9,500	7,439	**11,529**
37	**1961**	7,098	9,190	9,822	13,773	12,555	12,034	9,027	11,659	13,352	10,867	9,161	7,419	**10,482**
38	**1962**	6,183	8,635	9,859	12,289	13,104	7,382	9,958	11,161	12,322	10,726	9,778	7,634	**9,887**
39	**1963**	7,488	10,282	12,716	12,973	13,343	8,225	6,795	10,710	12,124	12,243	9,600	8,095	**10,346**
40	**1964**	6,944	8,356	9,727	10,410	11,582	7,236	7,747	11,002	14,750	14,173	11,505	8,674	**10,155**
41	**1965**	8,538	9,903	14,224	17,072	16,785	12,788	9,804	12,891	13,040	13,583	11,834	7,504	**12,304**
42	**1966**	7,423	8,540	10,032	11,796	12,492	8,539	8,891	9,967	11,060	11,916	9,164	7,397	**9,742**
43	**1967**	6,519	8,272	10,823	15,045	14,789	11,091	7,819	10,458	13,536	13,563	10,393	7,796	**10,813**
44	**1968**	7,247	9,681	10,229	13,800	12,827	11,823	5,701	10,124	11,964	12,513	10,446	9,226	**10,444**

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Table 4:**													
2	**Heavy-Load Hydro Generation**													
3	**for FY 2023**													
4	**Water Year**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**	**July**	**Aug**	**Sep**	**Wtd Avg.**
45	**1969**	8,739	11,112	11,732	16,532	15,000	11,123	12,317	13,560	12,219	12,849	9,645	7,629	**11,834**
46	**1970**	6,951	9,192	9,072	12,341	13,438	8,841	5,809	11,331	13,987	9,227	8,600	7,432	**9,651**
47	**1971**	6,447	8,340	9,352	16,303	16,230	12,760	10,754	14,363	14,565	14,123	11,982	8,055	**11,909**
48	**1972**	7,525	9,345	10,687	16,480	15,007	14,379	11,760	13,293	14,263	13,699	12,282	8,258	**12,238**
49	**1973**	7,949	9,057	10,109	11,681	10,636	7,701	5,495	9,025	8,999	8,488	7,629	6,944	**8,617**
50	**1974**	6,254	8,669	11,909	17,460	15,823	13,795	12,909	12,778	14,152	14,372	12,359	8,286	**12,381**
51	**1975**	6,844	8,432	9,159	12,977	12,737	11,190	7,343	10,800	14,448	14,594	10,499	8,299	**10,591**
52	**1976**	8,680	11,538	14,856	16,425	14,997	12,373	11,295	13,884	12,592	13,607	13,275	10,697	**12,831**
53	**1977**	8,028	8,336	8,353	9,012	9,275	6,255	4,769	7,930	7,585	8,208	8,058	6,564	**7,679**
54	**1978**	6,083	7,988	10,043	11,899	9,724	10,791	9,619	11,359	11,927	13,391	8,729	9,057	**10,040**
55	**1979**	8,006	8,954	8,577	11,291	8,847	9,439	7,417	12,147	9,901	8,408	7,594	7,497	**8,994**
56	**1980**	6,870	8,326	7,588	11,091	7,937	7,596	8,581	13,624	12,746	10,776	7,948	7,379	**9,187**
57	**1981**	6,755	8,949	12,940	14,617	14,270	8,555	6,132	10,955	13,505	13,313	11,806	8,032	**10,787**
58	**1982**	6,989	9,492	10,444	14,352	15,963	14,334	9,795	12,423	14,101	14,541	12,071	9,195	**11,957**
59	**1983**	8,726	9,609	11,289	14,651	13,529	13,693	8,964	11,276	12,093	14,043	11,341	8,197	**11,443**
60	**1984**	7,373	11,906	11,562	14,944	13,259	12,148	10,428	11,648	14,721	14,142	10,334	8,180	**11,700**
61	**1985**	7,548	9,366	10,053	11,994	10,957	8,375	8,620	11,162	9,349	8,965	7,069	7,135	**9,187**
62	**1986**	7,721	10,203	10,377	13,217	13,854	13,709	11,421	11,120	12,380	10,485	8,453	7,129	**10,828**
63	**1987**	6,326	9,048	10,155	10,608	8,730	8,976	8,144	11,368	9,564	7,719	7,083	6,714	**8,692**
64	**1988**	6,185	8,467	7,900	7,570	7,367	7,234	6,539	8,619	9,409	10,174	8,081	7,428	**7,907**
65	**1989**	6,079	8,828	9,381	9,472	6,539	9,337	10,147	10,931	9,316	9,889	7,547	7,039	**8,713**
66	**1990**	6,644	8,945	11,128	13,500	13,510	10,701	9,511	10,149	12,211	13,067	10,241	7,262	**10,553**
67	**1991**	6,368	11,808	12,156	14,748	14,376	11,076	8,770	10,809	11,555	13,320	11,327	6,997	**11,081**
68	**1992**	6,914	8,624	7,744	9,896	8,913	8,677	6,710	10,286	8,541	7,940	7,731	7,032	**8,238**
69	**1993**	5,922	8,345	8,624	8,197	5,981	7,911	6,833	12,838	11,209	10,251	8,785	7,665	**8,547**
70	**1994**	6,519	8,664	8,642	8,172	8,163	7,346	7,227	10,009	8,912	9,161	7,614	7,396	**8,139**
71	**1995**	6,363	8,173	8,836	10,516	10,111	11,470	6,930	11,113	13,194	11,038	8,947	7,856	**9,543**
72	**1996**	8,495	12,952	15,791	17,336	16,521	14,066	11,797	12,290	13,922	13,751	10,506	7,626	**12,896**
73	**1997**	7,126	9,314	11,853	17,540	16,563	13,898	12,915	14,134	14,391	13,891	11,932	9,106	**12,697**
74	**1998**	11,301	10,740	10,035	12,590	12,609	9,514	6,972	13,357	13,493	12,880	10,518	7,552	**10,939**
75	**1999**	6,756	7,936	10,910	15,740	14,567	14,044	9,729	11,108	13,632	13,952	12,618	7,629	**11,548**
76	**2000**	6,793	11,738	12,776	13,763	12,340	11,057	10,882	10,984	8,842	12,047	8,865	6,965	**10,564**
77	**2001**	6,601	8,259	8,284	8,937	8,995	6,976	4,835	7,429	7,455	8,431	7,857	6,810	**7,556**
78	**2002**	5,786	7,837	9,156	8,924	8,060	7,918	9,349	10,591	12,914	13,369	8,804	7,254	**9,158**
79	**2003**	6,597	8,797	8,317	9,255	9,160	10,752	8,460	9,428	12,233	8,966	7,303	6,865	**8,847**
80	**2004**	6,238	9,268	10,173	10,650	9,380	7,931	7,719	9,143	10,531	9,219	7,573	7,252	**8,740**
81	**2005**	7,876	9,439	11,317	12,048	12,293	8,468	5,726	9,207	10,196	10,644	8,021	7,248	**9,342**
82	**2006**	5,989	9,509	10,074	14,508	14,630	10,065	11,534	13,628	12,549	11,294	7,931	6,891	**10,673**
83	**2007**	6,185	8,827	10,232	13,418	11,272	12,357	9,899	10,906	10,754	11,713	7,589	6,506	**9,958**
84	**2008**	6,231	9,000	8,585	11,624	9,614	8,992	6,331	12,151	14,058	13,051	9,168	7,496	**9,672**
85	**80 WY Average**	**7,191**	**9,248**	**10,294**	**12,525**	**11,686**	**10,005**	**8,696**	**11,258**	**11,875**	**11,635**	**9,482**	**7,656**	**10,111**
86	**Hours**	**416**	**400**	**416**	**400**	**384**	**432**	**416**	**400**	**416**	**400**	**432**	**400**	**4912**

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Table 4a:**													
2	**Light-Load Hydro Generation**													
3	**for FY 2023**													
4	**Water Year**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**	**July**	**Aug**	**Sep**	**Wtd Avg.**
5	**1929**	4,091	5,497	5,544	5,206	5,191	5,125	3,544	3,938	5,771	4,405	4,826	4,721	**4,814**
6	**1930**	3,844	5,447	5,282	5,000	5,237	4,740	3,648	4,256	4,460	4,655	4,906	4,637	**4,675**
7	**1931**	3,869	5,598	5,562	4,719	5,026	5,089	3,703	4,153	4,348	4,582	4,868	4,495	**4,666**
8	**1932**	3,797	5,215	5,489	5,260	4,378	7,454	6,669	7,891	9,487	5,586	5,288	4,686	**5,926**
9	**1933**	4,002	5,559	6,940	7,695	9,052	6,692	4,746	6,722	12,283	10,451	7,169	4,836	**7,167**
10	**1934**	4,381	8,223	12,258	13,951	13,081	8,679	8,993	9,303	7,988	4,325	4,648	4,310	**8,327**
11	**1935**	3,801	4,970	6,004	7,176	8,821	5,987	4,074	6,062	6,068	5,998	5,792	4,454	**5,755**
12	**1936**	3,946	5,381	5,501	4,876	4,398	5,822	4,942	8,806	8,542	5,386	4,936	4,519	**5,600**
13	**1937**	3,943	5,624	5,519	4,456	4,236	4,639	3,586	4,633	4,966	4,397	4,712	4,504	**4,605**
14	**1938**	3,938	5,833	6,393	7,588	6,348	7,815	7,227	7,648	7,626	6,199	4,590	4,700	**6,327**
15	**1939**	4,040	5,297	5,318	5,951	6,186	5,898	4,481	6,339	4,758	4,904	4,868	4,616	**5,225**
16	**1940**	3,959	5,630	5,638	6,570	5,858	7,288	4,836	5,231	4,603	4,288	4,521	4,479	**5,238**
17	**1941**	3,926	5,969	6,287	5,405	5,175	5,304	3,852	4,661	4,776	4,612	4,966	4,673	**4,970**
18	**1942**	4,006	6,076	7,654	7,380	6,866	5,309	4,140	4,599	8,535	6,574	5,689	4,858	**5,969**
19	**1943**	3,948	5,621	6,446	8,232	8,956	7,617	9,188	7,331	10,208	8,639	5,651	4,546	**7,173**
20	**1944**	3,893	5,570	5,448	5,136	5,692	4,662	3,302	3,939	4,442	4,341	4,817	4,464	**4,637**
21	**1945**	3,909	5,452	5,591	4,910	4,829	5,052	3,327	5,483	8,548	4,686	4,933	4,675	**5,109**
22	**1946**	3,881	5,549	6,492	7,366	6,843	7,678	7,868	8,683	8,722	6,890	6,044	4,790	**6,730**
23	**1947**	3,993	6,484	8,752	9,505	9,948	8,270	5,018	7,491	8,208	6,579	5,329	4,841	**7,027**
24	**1948**	5,804	7,536	7,443	8,924	9,650	6,304	6,036	11,512	14,251	6,545	7,263	5,064	**8,014**
25	**1949**	4,189	6,081	5,941	7,979	6,034	8,098	6,831	9,260	6,449	4,539	4,446	4,340	**6,194**
26	**1950**	3,827	5,489	6,405	10,126	8,181	8,859	7,306	6,784	11,335	13,121	7,233	4,863	**7,807**
27	**1951**	5,026	7,929	9,152	11,886	12,806	9,629	7,673	8,322	7,572	9,663	5,828	4,845	**8,357**
28	**1952**	5,754	6,787	7,498	8,416	9,395	7,283	7,816	10,254	7,482	6,632	5,305	4,485	**7,261**
29	**1953**	3,904	5,677	5,498	6,404	9,958	5,885	3,595	5,979	13,235	8,162	5,905	4,930	**6,551**
30	**1954**	4,060	6,172	7,043	8,833	9,593	7,510	5,463	8,762	11,490	12,579	9,901	6,498	**8,166**
31	**1955**	4,418	6,802	6,936	5,714	5,886	4,620	4,026	5,452	11,866	12,110	6,853	4,834	**6,643**
32	**1956**	4,240	7,410	8,821	12,031	11,082	9,288	9,678	11,126	13,247	8,864	6,684	4,810	**8,927**
33	**1957**	4,289	6,044	7,146	6,874	6,869	7,530	6,677	10,740	12,615	5,589	5,124	4,610	**6,999**
34	**1958**	3,975	5,561	6,105	7,890	7,807	6,604	5,003	8,972	10,384	5,191	5,044	4,643	**6,423**
35	**1959**	3,998	6,905	8,124	10,559	11,527	7,813	5,764	6,759	10,969	9,953	6,823	7,157	**8,012**
36	**1960**	7,206	8,359	7,962	7,749	7,977	6,570	7,008	6,509	8,512	6,261	5,380	4,612	**6,999**
37	**1961**	4,035	6,183	6,477	8,948	7,468	7,953	5,182	8,091	13,325	5,248	5,118	4,527	**6,859**
38	**1962**	3,731	5,763	6,443	7,021	8,811	5,396	6,276	7,034	8,263	5,262	5,582	4,674	**6,160**
39	**1963**	4,338	6,942	7,695	7,231	8,775	5,701	4,065	5,571	7,875	6,169	5,619	5,137	**6,244**
40	**1964**	4,053	5,683	6,441	5,853	7,251	5,281	4,690	6,619	13,080	10,817	6,834	5,630	**6,846**
41	**1965**	4,661	6,480	9,217	11,614	13,282	9,678	6,066	9,299	9,131	7,339	7,174	4,927	**8,218**
42	**1966**	4,295	5,605	6,692	6,563	8,192	5,717	4,997	5,132	7,422	5,969	5,173	4,588	**5,841**
43	**1967**	3,895	5,556	6,975	8,536	11,200	7,549	4,973	6,406	12,137	8,841	5,962	4,825	**7,201**
44	**1968**	4,213	6,471	6,778	8,658	7,689	8,130	3,722	5,419	8,616	6,461	6,336	6,120	**6,543**

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Table 4a:**													
2	**Light-Load Hydro Generation**													
3	**for FY 2023**													
4	**Water Year**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**	**July**	**Aug**	**Sep**	**Wtd Avg.**
45	**1969**	4,903	7,505	7,526	10,048	11,456	8,018	8,991	9,218	8,759	6,675	5,420	4,599	**7,734**
46	**1970**	4,032	6,026	6,030	7,223	9,079	6,202	3,976	6,143	11,051	5,278	5,130	4,795	**6,210**
47	**1971**	4,014	5,722	6,368	10,892	13,245	9,030	7,157	10,371	13,411	9,235	7,676	5,051	**8,477**
48	**1972**	4,442	6,401	7,110	11,342	9,525	12,443	8,086	10,665	14,145	9,941	8,078	5,267	**8,942**
49	**1973**	4,670	6,092	6,697	6,526	6,534	5,309	3,538	4,651	4,867	4,408	4,557	4,425	**5,190**
50	**1974**	3,856	6,188	7,763	15,485	14,510	11,068	8,874	10,256	13,615	13,105	8,241	5,140	**9,832**
51	**1975**	4,025	5,577	6,181	7,216	8,136	7,519	4,548	6,401	11,759	9,883	6,320	5,368	**6,900**
52	**1976**	5,133	7,688	10,508	10,052	11,249	8,929	7,471	9,639	8,643	9,672	11,526	6,940	**8,948**
53	**1977**	4,611	5,550	5,732	5,497	5,831	4,438	3,266	4,097	4,096	4,171	4,781	4,287	**4,696**
54	**1978**	3,691	5,381	7,022	7,234	6,558	7,511	5,431	7,575	7,390	7,072	5,169	5,834	**6,333**
55	**1979**	4,433	5,843	5,708	6,475	5,600	6,516	4,186	7,037	5,135	4,390	4,605	4,624	**5,392**
56	**1980**	3,978	5,449	5,190	6,386	5,469	5,449	4,963	9,507	9,613	5,288	4,690	4,706	**5,902**
57	**1981**	3,964	5,951	7,838	8,919	10,279	5,730	3,688	6,148	12,945	8,254	7,406	4,950	**7,146**
58	**1982**	3,992	6,196	6,907	9,338	11,155	11,396	6,389	8,050	10,888	11,167	7,544	5,972	**8,228**
59	**1983**	5,030	6,388	7,300	9,673	8,617	11,251	6,028	6,459	7,967	9,764	6,737	5,226	**7,540**
60	**1984**	4,406	7,951	7,511	8,634	9,008	8,709	6,265	6,594	11,023	8,442	6,057	5,368	**7,476**
61	**1985**	4,503	6,557	6,687	7,174	6,822	5,857	5,268	6,454	5,603	4,428	4,354	4,795	**5,710**
62	**1986**	4,444	6,948	6,871	8,167	10,053	10,675	6,600	5,963	8,345	5,137	4,949	4,650	**6,850**
63	**1987**	3,905	6,203	6,808	6,104	5,548	5,944	4,453	7,190	5,096	4,144	4,386	4,322	**5,355**
64	**1988**	3,779	5,579	5,333	4,729	4,907	5,093	3,851	4,354	4,748	4,762	4,695	4,527	**4,695**
65	**1989**	3,684	5,875	6,327	5,869	4,564	6,963	6,497	6,611	5,104	4,741	4,643	4,498	**5,454**
66	**1990**	3,936	5,957	7,253	7,224	9,489	7,143	5,577	5,696	9,273	7,831	6,120	4,601	**6,645**
67	**1991**	3,784	7,853	7,523	8,295	10,988	7,505	5,697	6,682	7,873	9,698	6,854	4,539	**7,259**
68	**1992**	3,993	5,821	5,340	5,912	5,712	5,834	3,872	5,327	4,470	4,260	4,723	4,447	**4,977**
69	**1993**	3,626	5,397	5,652	5,078	4,117	5,726	4,169	7,299	6,633	5,523	5,571	4,938	**5,328**
70	**1994**	3,865	5,603	5,758	4,989	5,248	5,183	4,039	5,066	4,555	4,578	4,596	4,535	**4,836**
71	**1995**	3,780	5,351	5,933	6,229	6,901	7,594	4,207	5,837	9,879	5,938	5,322	5,022	**5,976**
72	**1996**	4,722	8,753	13,729	13,733	13,310	11,891	7,798	8,103	10,109	9,897	6,092	4,828	**9,407**
73	**1997**	4,079	6,355	7,560	12,682	14,348	11,138	9,810	12,211	14,261	10,348	7,767	5,917	**9,670**
74	**1998**	6,232	7,077	6,702	6,913	8,318	6,466	4,091	7,876	9,553	6,713	6,375	4,950	**6,767**
75	**1999**	4,088	5,483	7,143	10,857	9,475	11,169	6,720	6,562	9,923	10,798	9,152	4,836	**8,008**
76	**2000**	3,976	7,679	7,753	8,086	7,469	7,458	7,330	6,679	5,141	6,071	5,075	4,426	**6,429**
77	**2001**	3,979	5,441	5,645	5,512	5,620	4,971	3,232	4,018	4,090	4,287	4,741	4,297	**4,652**
78	**2002**	3,669	5,107	6,191	5,700	5,571	5,725	5,836	6,271	10,060	7,987	5,404	4,530	**6,001**
79	**2003**	3,893	5,710	5,530	5,614	5,836	7,123	4,865	4,769	8,213	4,518	4,555	4,346	**5,388**
80	**2004**	3,731	6,080	6,718	6,219	5,976	5,610	4,215	4,613	5,787	4,699	4,885	4,856	**5,277**
81	**2005**	4,351	6,173	7,236	6,688	8,212	5,658	3,630	4,965	5,461	5,195	4,861	4,650	**5,580**
82	**2006**	3,650	6,225	6,756	8,195	10,696	6,817	7,792	8,612	9,470	5,482	4,592	4,416	**6,854**
83	**2007**	3,783	6,130	6,711	8,026	6,642	8,455	5,493	6,334	6,677	5,698	4,591	4,260	**6,067**
84	**2008**	3,774	5,971	5,811	6,760	6,085	6,220	3,988	6,992	11,988	6,777	5,327	4,686	**6,192**
85	**80 WY Average**	**4,194**	**6,171**	**6,841**	**7,749**	**8,046**	**7,153**	**5,523**	**6,981**	**8,640**	**6,863**	**5,771**	**4,854**	**6,557**
86	**Hours**	**328**	**321**	**328**	**344**	**288**	**311**	**304**	**344**	**304**	**344**	**312**	**320**	**3848**

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Table 5:**													
2	**Federal Hydro Generation Adjustment for**													
3	**Stand Ready & Deployment Losses, Light-Load-Hours for FY 2022**													
4	**Water Year**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**	**July**	**Aug**	**Sep**	**Wtd Avg.**
5	**1929**	39	21	19	11	13	135	40	29	-10	130	22	161	**51**
6	**1930**	27	-2	52	176	3	44	1	21	-26	21	-20	119	**36**
7	**1931**	58	7	27	38	15	119	8	138	-8	14	69	102	**50**
8	**1932**	22	10	108	18	56	58	-26	45	55	15	10	101	**39**
9	**1933**	26	56	-13	113	400	4	53	29	113	631	86	99	**133**
10	**1934**	12	84	94	538	973	110	213	219	298	50	1	190	**226**
11	**1935**	81	83	54	-3	337	28	-39	32	27	-20	-19	127	**55**
12	**1936**	37	16	13	-14	22	26	-29	53	223	-17	18	135	**39**
13	**1937**	73	-2	-8	226	48	15	79	35	-10	54	9	116	**54**
14	**1938**	-25	11	15	-24	93	16	-5	81	25	-5	44	113	**27**
15	**1939**	66	12	96	98	3	13	-24	-2	78	23	31	129	**44**
16	**1940**	81	7	-21	-15	75	68	-50	-17	-10	84	28	135	**30**
17	**1941**	108	0	3	29	38	75	11	-29	19	49	3	127	**36**
18	**1942**	160	20	-16	-23	293	4	32	20	69	3	-61	101	**48**
19	**1943**	58	106	7	-17	370	40	17	-26	154	45	32	136	**73**
20	**1944**	57	8	19	-19	-1	4	139	2	7	97	9	138	**38**
21	**1945**	40	16	-1	80	79	13	93	-8	54	118	27	133	**53**
22	**1946**	10	4	15	11	98	12	16	55	37	31	-3	127	**34**
23	**1947**	66	10	20	-7	327	15	16	2	93	7	46	125	**57**
24	**1948**	-1	-18	-14	97	332	9	-5	60	127	-2	47	98	**58**
25	**1949**	22	21	71	-15	156	45	-10	101	-15	85	82	136	**56**
26	**1950**	55	10	40	12	317	19	-10	4	78	656	-13	112	**108**
27	**1951**	84	-18	-8	699	191	131	-10	24	83	392	-26	126	**144**
28	**1952**	18	13	-15	3	346	5	-10	81	-35	-2	1	144	**44**
29	**1953**	20	14	9	44	535	-22	69	21	142	16	-61	124	**71**
30	**1954**	98	4	-20	-3	393	10	-59	66	244	659	602	-39	**162**
31	**1955**	-16	-8	0	24	67	211	73	7	220	660	120	126	**125**
32	**1956**	61	-5	-26	-13	364	-20	-11	74	293	-8	119	189	**81**
33	**1957**	40	16	-20	-15	13	-30	-10	77	239	13	32	130	**40**
34	**1958**	55	20	15	59	394	16	23	1	252	-40	49	126	**76**
35	**1959**	84	-1	-9	58	359	16	-13	194	138	430	28	-9	**107**
36	**1960**	0	84	-19	-7	329	15	-82	-33	-10	-1	10	124	**31**
37	**1961**	80	3	12	-5	339	-3	10	198	240	-34	-29	128	**75**
38	**1962**	43	18	100	16	330	12	-10	30	53	-54	-51	127	**48**
39	**1963**	5	43	33	6	409	51	62	14	17	12	-61	101	**54**
40	**1964**	18	16	56	-25	-41	49	-19	32	145	508	-12	80	**70**
41	**1965**	16	47	97	119	189	48	109	18	-12	15	-3	134	**64**
42	**1966**	178	16	-21	-12	145	41	18	-6	131	-2	-52	163	**48**
43	**1967**	6	78	-16	8	412	-2	48	-25	127	184	-9	95	**72**
44	**1968**	115	3	80	35	341	-12	58	71	62	-5	89	148	**79**

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Table 5:**													
2	**Federal Hydro Generation Adjustment for**													
3	**Stand Ready & Deployment Losses, Light-Load-Hours for FY 2022**													
4	**Water Year**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**	**July**	**Aug**	**Sep**	**Wtd Avg.**
45	**1969**	31	-18	-15	-8	523	18	-95	51	273	-7	-11	193	**73**
46	**1970**	110	4	9	-18	322	-13	32	-3	-35	54	21	147	**50**
47	**1971**	17	14	5	40	162	-2	-10	117	164	-13	85	110	**56**
48	**1972**	39	12	-20	138	178	8	-25	-9	72	543	150	96	**101**
49	**1973**	177	11	3	-7	161	95	473	-2	64	71	18	128	**96**
50	**1974**	59	-1	-1	539	969	-8	0	-32	78	641	148	88	**205**
51	**1975**	58	39	16	-8	180	5	-59	27	68	187	-28	92	**48**
52	**1976**	86	-38	20	62	596	-2	2	11	18	478	1,665	6	**237**
53	**1977**	111	10	15	57	2	139	94	17	21	49	56	134	**59**
54	**1978**	233	11	11	6	70	12	-11	32	16	15	10	65	**39**
55	**1979**	9	-4	14	-27	28	12	-58	-3	81	94	50	125	**27**
56	**1980**	-19	12	63	57	-21	-27	3	92	94	-46	47	127	**32**
57	**1981**	41	1	93	439	562	70	8	79	227	208	81	95	**157**
58	**1982**	48	18	33	50	188	-26	9	-16	-5	352	50	138	**71**
59	**1983**	74	43	11	-8	368	65	41	41	21	82	-10	93	**66**
60	**1984**	84	-33	-18	24	345	94	72	46	-38	-15	17	113	**55**
61	**1985**	57	21	-8	82	66	8	-36	48	23	66	120	147	**50**
62	**1986**	42	11	-20	-6	401	6	-5	29	38	24	-7	144	**51**
63	**1987**	64	10	56	48	10	13	-27	67	-36	95	58	127	**42**
64	**1988**	41	15	40	-3	27	115	94	48	-14	-35	-16	125	**36**
65	**1989**	31	20	106	10	100	45	106	-31	17	49	39	131	**51**
66	**1990**	116	11	-13	52	459	5	-13	63	234	15	21	128	**86**
67	**1991**	76	19	67	163	338	-22	9	-23	136	465	4	129	**114**
68	**1992**	62	5	61	-18	14	90	120	-16	48	104	43	128	**53**
69	**1993**	55	3	-8	17	5	29	70	26	75	71	66	142	**46**
70	**1994**	116	9	15	68	1	83	10	25	-14	41	16	125	**42**
71	**1995**	54	17	18	-19	302	10	2	10	-3	28	20	117	**44**
72	**1996**	14	67	385	484	219	573	33	89	-43	365	-23	120	**193**
73	**1997**	30	16	-20	-3	342	11	30	60	164	461	45	50	**98**
74	**1998**	-1	-19	32	70	365	93	47	2	72	11	-3	143	**64**
75	**1999**	70	80	-18	-5	396	14	7	4	22	660	315	113	**138**
76	**2000**	64	91	135	0	432	11	-8	-22	24	-3	65	133	**73**
77	**2001**	70	9	4	8	-2	39	154	39	-28	60	-1	137	**41**
78	**2002**	262	17	0	70	-1	25	84	40	208	-21	-11	127	**66**
79	**2003**	125	3	13	8	-4	18	32	-21	83	46	76	140	**43**
80	**2004**	82	9	-20	-19	11	41	42	-7	-21	51	52	100	**27**
81	**2005**	72	16	-14	-9	458	50	62	-32	-9	-26	18	134	**55**
82	**2006**	87	33	15	114	363	14	28	25	263	39	29	147	**93**
83	**2007**	19	10	38	33	282	-2	26	36	72	-2	56	148	**57**
84	**2008**	122	2	12	-17	7	12	42	70	239	-17	154	129	**62**
85	**80 WY Average**	**61**	**17**	**24**	**60**	**230**	**39**	**27**	**33**	**80**	**126**	**58**	**120**	**72**
86	**Hours**	**328**	**321**	**328**	**344**	**288**	**311**	**304**	**344**	**304**	**344**	**312**	**320**	**3848**

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Table 6:**													
2	**Federal Hydro Generation Adjustment for**													
3	**Stand Ready & Deployment Losses, Heavy-Load-Hours for FY 2022**													
4	**Water Year**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**	**July**	**Aug**	**Sep**	**Wtd Avg.**
5	**1929**	-52	-45	-47	-46	-42	-49	-110	-97	-20	-256	-71	-114	**-79**
6	**1930**	-50	-16	-51	-46	-48	-43	-108	-64	-46	-64	-48	-298	**-73**
7	**1931**	-48	-34	-24	-53	-40	-71	-124	-100	-31	-28	-34	-258	**-70**
8	**1932**	-65	-47	-47	-49	-112	-104	-23	-15	-32	-41	-56	-254	**-70**
9	**1933**	-66	-68	-9	-22	-12	-32	-82	-24	-104	-188	-137	-241	**-82**
10	**1934**	-45	-23	-92	-18	-33	-46	-31	-160	-201	-112	-92	-187	**-87**
11	**1935**	-51	-47	-23	0	0	-38	-55	-25	-50	-12	-41	-225	**-47**
12	**1936**	-67	-41	-48	-64	-54	-49	-66	-13	-165	-36	-66	-256	**-77**
13	**1937**	-47	-16	-37	-90	-66	-52	-143	-62	-11	-115	-103	-287	**-85**
14	**1938**	-39	-51	-44	0	-11	-48	-23	-29	-31	-16	-136	-275	**-59**
15	**1939**	-58	-50	-54	-14	-17	-48	-56	-8	-24	-33	-134	-267	**-64**
16	**1940**	-50	-33	-28	0	-80	-60	-62	0	-13	-83	-128	-197	**-61**
17	**1941**	-69	-40	-21	-40	-50	-66	-111	-60	-42	-110	-55	-268	**-77**
18	**1942**	-90	-46	-24	0	-70	-82	-108	-60	-95	-30	-53	-252	**-76**
19	**1943**	-38	-70	-53	0	-40	-54	-36	0	-172	-6	-66	-279	**-68**
20	**1944**	-90	-52	-51	-21	-40	-65	-216	-70	-50	-102	-103	-212	**-90**
21	**1945**	-51	-39	-40	-60	-78	-60	-177	-45	-50	-132	-126	-241	**-91**
22	**1946**	-72	-48	-44	-24	-25	-45	-35	-39	-43	-32	-26	-268	**-58**
23	**1947**	-70	-48	-17	0	0	-22	-53	-1	-85	-32	-68	-70	**-39**
24	**1948**	-28	-11	-11	-16	0	-43	-23	0	-152	-27	-63	-240	**-51**
25	**1949**	-57	-45	-37	0	-42	-43	-34	-28	-11	-87	-195	-281	**-72**
26	**1950**	-72	-50	-12	0	0	-25	-33	0	-107	-183	-19	-273	**-64**
27	**1951**	-60	-12	-2	-32	-30	-44	-26	0	-48	-107	-53	-76	**-41**
28	**1952**	-47	-22	-12	0	0	-46	-26	-82	0	-23	-51	-335	**-54**
29	**1953**	-74	-41	-51	-92	-15	-41	-129	-26	-175	-24	-52	-61	**-66**
30	**1954**	-65	-35	-26	0	-22	-21	-56	-7	-194	-187	-169	-71	**-72**
31	**1955**	-40	-17	-11	-24	-14	-65	-142	-40	-202	-187	-94	-219	**-88**
32	**1956**	-57	-15	0	0	0	-9	-20	-10	-184	0	-92	-187	**-48**
33	**1957**	-67	-49	-26	0	-42	-40	-30	-90	-195	-29	-66	-278	**-76**
34	**1958**	-71	-46	-45	-15	-35	-46	-58	-3	-165	-31	-68	-220	**-67**
35	**1959**	-55	-16	-7	-18	0	-21	-21	-38	-163	-116	-55	-38	**-46**
36	**1960**	-13	-12	0	0	0	-47	0	-4	0	-20	-56	-61	**-18**
37	**1961**	-48	-37	-31	0	0	-10	-38	-65	-195	-56	-60	-250	**-66**
38	**1962**	-64	-47	-20	-18	0	-62	-34	-22	-34	-28	-52	-225	**-50**
39	**1963**	-49	-10	-24	0	-37	-53	-115	-42	-10	-50	-56	-253	**-58**
40	**1964**	-61	-48	-14	0	0	-61	-78	-25	-177	-147	-19	-204	**-70**
41	**1965**	-47	-9	-87	0	-19	-7	-87	-18	-28	-46	-16	-254	**-51**
42	**1966**	-47	-38	-27	0	0	-54	-57	-9	-32	-35	-54	-113	**-39**
43	**1967**	-51	-50	-15	0	-33	-10	-73	0	-152	0	-42	-247	**-56**
44	**1968**	-56	-37	-21	-26	0	-6	-152	-27	-29	-25	-85	-138	**-51**

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Table 6:**													
2	**Federal Hydro Generation Adjustment for**													
3	**Stand Ready & Deployment Losses, Heavy-Load-Hours for FY 2022**													
4	**Water Year**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**	**July**	**Aug**	**Sep**	**Wtd Avg.**
45	**1969**	-48	-12	-6	0	0	-16	0	-53	-173	-26	-47	-189	**-47**
46	**1970**	-50	-36	-20	0	0	-42	-117	-9	0	-115	-65	-292	**-62**
47	**1971**	-72	-53	-19	-33	-5	-6	-19	-49	-190	-37	-137	-291	**-76**
48	**1972**	-51	-44	-26	-27	-2	-28	0	0	-96	-115	-179	-250	**-69**
49	**1973**	-65	-46	-41	0	0	-63	-200	-56	-63	-135	-64	-249	**-82**
50	**1974**	-50	-68	-27	-19	-36	-25	-28	-3	-78	-186	-178	-227	**-77**
51	**1975**	-97	-50	-43	0	-2	-40	-57	-7	-36	-63	-52	-230	**-56**
52	**1976**	-57	-1	-24	-22	0	-6	-32	0	-15	-155	-136	-52	**-42**
53	**1977**	-50	-44	-45	-42	-28	-53	-182	-58	-34	-109	-69	-254	**-80**
54	**1978**	-98	-50	-50	-28	-42	-62	-27	-6	-49	-46	-56	-34	**-46**
55	**1979**	-50	-31	-46	0	-52	-43	-55	-18	-24	-105	-149	-74	**-54**
56	**1980**	-40	-44	-55	-13	-64	-64	-39	-70	-119	-28	-139	-267	**-79**
57	**1981**	-56	-38	-17	-33	-26	-60	-110	-47	-204	-66	-135	-244	**-87**
58	**1982**	-56	-19	-34	-31	-48	0	-36	0	-1	-159	-61	-134	**-48**
59	**1983**	-57	-34	-32	0	-25	-81	-67	-39	-45	-62	-31	-233	**-59**
60	**1984**	-61	0	-22	-8	0	-43	-82	-39	0	0	-54	-276	**-49**
61	**1985**	-91	-45	-31	-20	-19	-58	-64	-58	-50	-88	-116	-294	**-78**
62	**1986**	-67	-18	-27	0	-28	-15	-31	-44	-24	-38	-89	-344	**-60**
63	**1987**	-110	-48	-14	-12	-48	-43	-66	-69	0	-94	-156	-228	**-74**
64	**1988**	-67	-40	-56	-53	-60	-77	-130	-77	-26	-28	-52	-73	**-62**
65	**1989**	-66	-46	-98	-48	-143	-97	-88	-2	-49	-109	-147	-296	**-99**
66	**1990**	-58	-46	-7	-32	-16	-40	-30	-50	-170	-45	-46	-242	**-65**
67	**1991**	-61	-12	-64	-24	0	-4	-37	-1	-89	-119	-28	-265	**-58**
68	**1992**	-72	-48	-27	-19	-41	-64	-142	-6	-61	-206	-135	-254	**-90**
69	**1993**	-57	-36	-37	-51	-71	-59	-140	-10	-64	-136	-177	-316	**-96**
70	**1994**	-57	-32	-21	-85	-28	-54	-66	-25	-24	-52	-64	-72	**-48**
71	**1995**	-41	-48	-48	-20	-55	-21	-102	-35	-16	-36	-64	-290	**-64**
72	**1996**	-51	-16	-73	0	-41	0	-44	-37	0	-91	-11	-308	**-55**
73	**1997**	-51	-39	-26	0	-10	0	-44	0	-189	-119	-61	-95	**-53**
74	**1998**	-28	-14	-11	-74	-6	-63	-111	0	-70	-51	-26	-332	**-65**
75	**1999**	-95	-68	-23	0	-51	-13	-46	-10	-24	-187	-197	-277	**-83**
76	**2000**	-59	-24	-97	-6	-70	-45	-29	0	-56	-24	-33	-240	**-56**
77	**2001**	-65	-51	-48	-25	-41	-38	-221	-79	-62	-129	-87	-244	**-91**
78	**2002**	-98	-48	-30	-86	-69	-71	-87	-33	-180	0	-83	-233	**-85**
79	**2003**	-47	-37	-48	-52	-43	-45	-86	-64	-81	-95	-182	-291	**-90**
80	**2004**	-67	-22	-25	-21	-72	-59	-82	-46	-4	-119	-153	-248	**-76**
81	**2005**	-62	-36	-11	-3	-14	-29	-153	-56	-7	-53	-67	-250	**-62**
82	**2006**	-67	-35	-29	-23	-8	-47	-26	-11	-196	-48	-125	-288	**-76**
83	**2007**	-73	-51	-12	-15	-72	-9	-60	-23	-75	-35	-153	-305	**-74**
84	**2008**	-57	-38	-50	-18	-33	-46	-110	-38	-194	-24	-125	-269	**-84**
85	**80 WY Average**	**-60**	**-37**	**-33**	**-22**	**-31**	**-43**	**-74**	**-33**	**-79**	**-77**	**-86**	**-223**	**-66**
86	**Hours**	**416**	**400**	**416**	**400**	**384**	**432**	**416**	**400**	**416**	**400**	**432**	**400**	**4912**

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Table 7:**													
2	**Federal Hydro Generation Adjustment for**													
	Stand Ready & Deployment Losses, Flat Energy for FY 2022													
4	**Water Year**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**	**July**	**Aug**	**Sep**	**Wtd Avg.**
5	**1929**	-12	-16	-18	-20	-19	28	-47	-39	-16	-77	-32	8	**-22**
6	**1930**	-16	-10	-6	56	-26	-6	-62	-24	-37	-24	-36	-113	**-25**
7	**1931**	-1	-16	-2	-11	-17	9	-68	10	-21	-9	9	-98	**-18**
8	**1932**	-27	-22	22	-18	-40	-36	-24	13	5	-15	-28	-96	**-22**
9	**1933**	-25	-13	-10	41	165	-17	-25	0	-13	191	-44	-90	**13**
10	**1934**	-20	25	-10	239	398	19	72	15	10	-37	-53	-20	**51**
11	**1935**	7	11	11	-2	145	-10	-48	1	-18	-16	-32	-69	**-2**
12	**1936**	-21	-15	-21	-41	-22	-18	-50	18	-1	-27	-31	-83	**-26**
13	**1937**	6	-10	-24	56	-17	-24	-49	-17	-11	-37	-56	-108	**-24**
14	**1938**	-33	-23	-18	-11	33	-21	-16	22	-8	-11	-61	-103	**-21**
15	**1939**	-4	-23	12	38	-9	-23	-43	-5	19	-7	-65	-91	**-17**
16	**1940**	8	-15	-24	-7	-14	-6	-57	-8	-12	-6	-63	-50	**-21**
17	**1941**	9	-22	-10	-9	-13	-7	-59	-46	-16	-37	-31	-93	**-28**
18	**1942**	20	-17	-21	-10	86	-46	-49	-23	-26	-15	-57	-95	**-22**
19	**1943**	4	8	-27	-8	136	-15	-14	-12	-34	17	-25	-95	**-6**
20	**1944**	-25	-25	-20	-20	-23	-36	-66	-36	-26	-10	-56	-56	**-33**
21	**1945**	-11	-15	-23	5	-11	-30	-63	-28	-6	-16	-62	-74	**-28**
22	**1946**	-36	-25	-18	-8	27	-21	-14	4	-9	-3	-16	-93	**-18**
23	**1947**	-10	-22	-1	-3	140	-6	-23	0	-10	-14	-20	17	**3**
24	**1948**	-16	-14	-12	36	142	-21	-15	28	-34	-15	-17	-90	**-3**
25	**1949**	-22	-16	11	-7	43	-6	-24	32	-13	-8	-79	-95	**-16**
26	**1950**	-16	-23	11	6	136	-7	-24	2	-29	205	-17	-102	**11**
27	**1951**	3	-15	-4	306	65	29	-19	11	7	123	-42	14	**40**
28	**1952**	-18	-7	-14	1	148	-24	-20	-7	-15	-13	-29	-122	**-11**
29	**1953**	-32	-17	-25	-29	221	-33	-45	-4	-41	-5	-56	21	**-5**
30	**1954**	7	-18	-23	-1	156	-8	-57	27	-9	204	154	-57	**31**
31	**1955**	-29	-13	-6	-2	21	50	-51	-19	-24	204	-4	-65	**6**
32	**1956**	-5	-11	-11	-6	156	-13	-16	29	17	-4	-4	-20	**8**
33	**1957**	-20	-20	-23	-7	-19	-36	-21	-13	-12	-9	-25	-97	**-25**
34	**1958**	-16	-17	-19	19	149	-20	-24	-1	11	-35	-19	-66	**-4**
35	**1959**	6	-9	-8	17	154	-6	-18	70	-35	137	-20	-25	**21**
36	**1960**	-8	31	-8	-3	141	-21	-35	-17	-4	-11	-28	21	**4**
37	**1961**	9	-19	-12	-2	145	-7	-18	57	-11	-46	-47	-82	**-4**
38	**1962**	-17	-18	33	-2	141	-31	-24	2	2	-40	-51	-69	**-7**
39	**1963**	-25	14	1	3	154	-9	-40	-16	1	-21	-58	-96	**-9**
40	**1964**	-26	-20	17	-12	-18	-15	-53	1	-41	156	-16	-78	**-8**
41	**1965**	-19	16	-6	55	70	16	-4	-1	-22	-17	-10	-81	**-1**
42	**1966**	52	-14	-24	-6	62	-14	-25	-8	36	-20	-53	10	**-1**
43	**1967**	-26	7	-15	4	158	-7	-22	-12	-34	85	-28	-95	**0**
44	**1968**	19	-19	24	2	146	-9	-63	19	9	-16	-12	-11	**7**

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Table 7:**													
2	**Federal Hydro Generation Adjustment for**													
	Stand Ready & Deployment Losses, Flat Energy for FY 2022													
4	**Water Year**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**	**July**	**Aug**	**Sep**	**Wtd Avg.**
45	**1969**	-13	-15	-10	-4	224	-1	-40	-5	15	-17	-32	-19	**5**
46	**1970**	21	-18	-7	-8	138	-30	-54	-6	-15	-37	-29	-97	**-13**
47	**1971**	-33	-24	-9	1	67	-4	-16	28	-40	-26	-44	-112	**-18**
48	**1972**	-12	-19	-24	49	75	-13	-10	-4	-25	189	-41	-96	**6**
49	**1973**	42	-21	-22	-3	69	3	84	-31	-9	-40	-29	-82	**-4**
50	**1974**	-2	-38	-16	239	395	-18	-16	-16	-12	196	-41	-87	**47**
51	**1975**	-29	-10	-17	-4	76	-21	-58	9	8	52	-42	-87	**-11**
52	**1976**	6	-17	-5	17	256	-4	-18	5	-1	138	619	-27	**80**
53	**1977**	21	-20	-19	4	-15	27	-65	-23	-11	-36	-17	-81	**-19**
54	**1978**	48	-23	-23	-12	6	-31	-20	12	-22	-18	-28	10	**-9**
55	**1979**	-24	-19	-20	-13	-18	-20	-56	-11	20	-13	-65	15	**-19**
56	**1980**	-30	-19	-3	19	-46	-48	-22	5	-29	-36	-61	-92	**-30**
57	**1981**	-13	-21	32	185	226	-5	-60	11	-22	61	-44	-93	**20**
58	**1982**	-10	-3	-5	6	53	-11	-17	-7	-3	78	-15	-13	**4**
59	**1983**	1	0	-13	-4	143	-20	-22	-2	-17	5	-22	-88	**-4**
60	**1984**	3	-15	-20	7	148	14	-17	0	-16	-7	-24	-103	**-3**
61	**1985**	-25	-15	-20	27	17	-30	-52	-9	-19	-17	-17	-98	**-22**
62	**1986**	-19	-5	-24	-3	156	-6	-20	-10	2	-9	-55	-127	**-11**
63	**1987**	-34	-22	17	16	-23	-19	-49	-6	-15	-7	-66	-70	**-23**
64	**1988**	-19	-16	-14	-30	-22	3	-35	-19	-21	-31	-37	15	**-19**
65	**1989**	-23	-16	-8	-22	-39	-38	-6	-15	-21	-36	-69	-106	**-33**
66	**1990**	19	-20	-10	7	188	-21	-23	3	0	-17	-18	-78	**1**
67	**1991**	0	2	-6	63	145	-12	-17	-11	6	151	-14	-90	**17**
68	**1992**	-13	-25	12	-19	-17	1	-31	-11	-15	-62	-60	-84	**-27**
69	**1993**	-8	-19	-24	-19	-38	-22	-51	7	-5	-40	-75	-112	**-34**
70	**1994**	19	-14	-5	-14	-15	3	-34	-2	-20	-9	-30	16	**-9**
71	**1995**	1	-19	-19	-20	98	-8	-58	-14	-10	-6	-29	-109	**-17**
72	**1996**	-22	21	129	224	71	240	-12	21	-18	119	-16	-117	**54**
73	**1997**	-15	-15	-23	-1	141	4	-13	28	-40	149	-17	-30	**13**
74	**1998**	-16	-16	8	-8	153	2	-45	1	-10	-23	-16	-121	**-8**
75	**1999**	-22	-3	-21	-2	141	-2	-24	-3	-5	205	18	-104	**14**
76	**2000**	-5	27	5	-3	145	-21	-20	-10	-22	-14	8	-74	**1**
77	**2001**	-5	-24	-25	-10	-25	-6	-63	-24	-47	-42	-51	-74	**-33**
78	**2002**	61	-19	-17	-14	-40	-31	-15	1	-16	-10	-53	-73	**-19**
79	**2003**	29	-19	-21	-24	-26	-19	-36	-44	-12	-30	-74	-99	**-31**
80	**2004**	-1	-8	-23	-20	-37	-17	-29	-28	-11	-40	-67	-93	**-31**
81	**2005**	-3	-13	-12	-6	188	4	-63	-45	-8	-41	-31	-80	**-10**
82	**2006**	1	-5	-9	41	151	-21	-3	6	-2	-8	-61	-95	**-1**
83	**2007**	-33	-24	10	7	80	-6	-24	4	-13	-20	-65	-104	**-16**
84	**2008**	22	-20	-22	-18	-16	-21	-46	12	-12	-21	-8	-92	**-20**
85	**80 WY Average**	**-7**	**-13**	**-8**	**16**	**81**	**-9**	**-31**	**-2**	**-12**	**17**	**-25**	**-70**	**-6**
86	**Hours**	**744**	**721**	**744**	**744**	**672**	**743**	**720**	**744**	**720**	**744**	**744**	**720**	**8760**

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Table 8:**													
2	**Federal Hydro Generation Adjustment for**													
3	**Stand Ready & Deployment Losses, Light-Load-Hours for FY 2023**													
4	**Water Year**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**	**July**	**Aug**	**Sep**	**Wtd Avg.**
5	**1929**	143	16	54	51	13	10	70	73	17	123	24	100	**59**
6	**1930**	38	73	74	49	21	0	87	-34	75	-4	17	95	**40**
7	**1931**	15	75	-5	-6	11	92	14	24	78	13	55	93	**38**
8	**1932**	25	16	145	35	201	14	22	5	205	50	62	110	**72**
9	**1933**	150	-3	89	-3	222	46	65	-39	91	728	-73	108	**117**
10	**1934**	14	-11	509	646	563	-5	104	423	284	32	0	108	**223**
11	**1935**	62	37	-4	-3	198	67	39	-31	-15	-20	48	153	**42**
12	**1936**	110	88	16	53	217	23	-33	-4	259	11	19	127	**72**
13	**1937**	64	-6	-9	167	145	44	72	-9	17	48	20	113	**55**
14	**1938**	75	28	-9	-20	38	26	-4	-19	69	-2	59	113	**28**
15	**1939**	132	6	105	25	-8	63	-56	-27	14	-62	-2	112	**25**
16	**1940**	64	49	68	44	0	17	12	65	-15	23	37	148	**44**
17	**1941**	96	59	-2	43	92	104	-56	47	-16	33	40	128	**48**
18	**1942**	8	15	65	-30	-7	46	137	8	87	-4	81	126	**43**
19	**1943**	95	51	53	80	198	33	30	66	68	-11	2	134	**66**
20	**1944**	11	0	9	141	59	47	55	44	-24	80	39	131	**50**
21	**1945**	14	78	104	23	-7	111	103	18	-10	108	20	158	**61**
22	**1946**	43	15	82	1	28	15	-31	179	373	21	45	144	**76**
23	**1947**	15	48	-44	79	285	95	61	-35	60	-38	93	119	**58**
24	**1948**	-7	30	72	7	206	11	10	23	160	-3	1	113	**50**
25	**1949**	76	91	101	-3	13	64	-10	49	50	72	123	132	**64**
26	**1950**	8	13	-5	-2	206	-2	-9	-28	68	686	-19	152	**91**
27	**1951**	34	5	93	792	234	5	12	82	-12	576	-5	162	**172**
28	**1952**	43	-4	55	32	192	6	-43	-9	152	-16	40	129	**46**
29	**1953**	6	33	101	25	321	57	31	-31	141	70	57	118	**74**
30	**1954**	95	109	17	34	202	21	54	178	590	674	358	-6	**194**
31	**1955**	7	-19	99	-19	-7	24	78	41	102	645	-19	150	**94**
32	**1956**	26	-19	-23	345	301	119	29	10	114	185	49	129	**105**
33	**1957**	49	57	-21	-27	20	20	-1	27	83	34	72	130	**36**
34	**1958**	8	11	59	-5	178	13	34	53	450	13	37	120	**78**
35	**1959**	48	-5	-36	160	351	73	9	-39	10	597	-19	-48	**93**
36	**1960**	36	-10	12	-13	87	17	-17	-31	3	-55	14	117	**12**
37	**1961**	115	62	4	42	155	-22	6	123	152	27	10	121	**66**
38	**1962**	10	11	37	-5	202	23	-10	37	-11	-60	28	116	**30**
39	**1963**	32	2	-29	-3	238	-9	47	15	7	-3	83	98	**37**
40	**1964**	46	67	0	19	-9	23	78	49	96	701	65	90	**106**
41	**1965**	47	2	-47	441	174	-14	70	262	16	-46	-19	130	**87**
42	**1966**	84	16	-20	36	45	36	97	77	-17	-4	-45	117	**35**
43	**1967**	32	92	58	36	240	-2	78	36	28	396	39	100	**95**
44	**1968**	134	-4	4	9	176	-9	61	-4	162	-20	-8	56	**44**

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Table 8:**													
2	**Federal Hydro Generation Adjustment for**													
3	**Stand Ready & Deployment Losses, Light-Load-Hours for FY 2023**													
4	**Water Year**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**	**July**	**Aug**	**Sep**	**Wtd Avg.**
45	**1969**	36	-2	-36	175	252	31	-35	1	96	-11	-32	115	**48**
46	**1970**	23	-5	-5	23	199	18	30	6	52	93	8	130	**46**
47	**1971**	48	15	60	266	84	-22	-10	-3	67	10	-19	117	**52**
48	**1972**	8	61	-20	216	158	322	-39	53	14	497	-35	104	**114**
49	**1973**	64	39	-2	-1	-27	26	97	24	16	60	32	143	**40**
50	**1974**	41	14	-11	662	572	32	73	-28	-8	676	-17	90	**177**
51	**1975**	33	33	97	42	53	-9	-58	-28	11	95	27	101	**34**
52	**1976**	69	67	211	339	203	30	7	10	-15	487	676	-29	**174**
53	**1977**	9	79	-9	1	18	195	49	13	21	21	48	127	**47**
54	**1978**	7	17	96	-3	-8	19	-38	71	18	-5	42	72	**25**
55	**1979**	14	-8	104	-18	9	14	-28	-26	-6	68	49	110	**24**
56	**1980**	71	-20	5	-9	58	17	10	53	3	-61	39	131	**24**
57	**1981**	67	82	14	2	242	6	69	-38	345	99	-5	92	**78**
58	**1982**	42	10	-1	19	29	136	16	-23	0	600	1	53	**76**
59	**1983**	8	17	-20	155	168	330	68	11	58	361	20	103	**107**
60	**1984**	139	64	13	15	229	241	61	13	150	-23	-5	125	**82**
61	**1985**	26	14	-1	-17	-8	36	-54	-34	46	40	123	145	**26**
62	**1986**	37	-5	-20	-19	204	439	16	46	-13	-62	2	136	**60**
63	**1987**	20	41	0	-4	33	5	-39	-2	64	87	73	126	**34**
64	**1988**	30	95	17	-13	216	41	8	-17	17	16	11	106	**42**
65	**1989**	43	-20	-1	47	54	14	9	-33	76	-8	53	130	**29**
66	**1990**	23	16	-36	0	202	32	9	50	475	37	21	157	**79**
67	**1991**	6	-28	-17	24	265	-19	9	-19	-14	644	-18	134	**82**
68	**1992**	156	-1	13	-17	13	1	-44	-36	14	88	42	122	**30**
69	**1993**	229	47	-8	31	322	53	33	-34	14	96	37	128	**77**
70	**1994**	48	83	-8	91	22	17	-44	72	17	48	34	104	**41**
71	**1995**	-13	2	-9	0	18	-5	85	-11	167	28	16	119	**32**
72	**1996**	13	-9	891	709	75	538	17	23	-16	536	30	152	**254**
73	**1997**	24	74	-20	317	478	214	-45	9	113	644	-38	63	**154**
74	**1998**	1	-6	-1	-7	177	7	54	42	30	-3	44	131	**37**
75	**1999**	10	39	-1	392	242	31	9	47	153	721	123	147	**163**
76	**2000**	39	-14	-9	-9	84	24	28	-37	-18	-20	39	132	**19**
77	**2001**	8	-1	69	-1	91	59	58	58	-39	41	2	145	**41**
78	**2002**	18	18	0	-2	52	34	32	-19	466	-11	50	140	**62**
79	**2003**	-13	72	80	29	12	2	-40	11	-11	82	69	128	**36**
80	**2004**	51	34	14	14	-1	31	-56	-17	0	95	64	132	**31**
81	**2005**	8	-5	-34	-31	182	19	51	21	33	11	24	126	**32**
82	**2006**	9	14	-21	-7	346	16	-14	-26	252	52	32	129	**61**
83	**2007**	12	16	-1	16	-8	-19	27	-33	-6	-1	54	130	**15**
84	**2008**	9	39	100	-6	-2	21	58	-4	1	-22	19	154	**30**
85	**80 WY Average**	**45**	**27**	**42**	**84**	**139**	**54**	**22**	**23**	**83**	**146**	**40**	**116**	**68**
86	**Hours**	**328**	**321**	**328**	**344**	**288**	**311**	**304**	**344**	**304**	**344**	**312**	**320**	**3848**

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Table 9:**													
2	**Federal Hydro Generation Adjustment for**													
3	**Stand Ready & Deployment Losses, Heavy-Load-Hours for FY 2023**													
4	**Water Year**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**	**July**	**Aug**	**Sep**	**Wtd Avg.**
5	**1929**	-69	-25	-18	-65	-39	-55	-144	-107	-48	-261	-105	-216	**-96**
6	**1930**	-60	-21	-29	-34	-56	-73	-134	-55	-82	-78	-50	-221	**-74**
7	**1931**	-52	-23	-47	-55	-43	-73	-131	-59	-63	-28	-58	-213	**-70**
8	**1932**	-61	-25	-18	-39	-117	-43	-45	-14	-43	-45	-58	-233	**-61**
9	**1933**	-69	-57	-31	0	-11	-41	-85	0	-54	-30	-10	-226	**-51**
10	**1934**	-50	0	-205	0	0	0	-47	-29	0	-120	-44	-226	**-60**
11	**1935**	-70	-49	-46	0	0	-40	-85	0	-28	-7	-60	-118	**-42**
12	**1936**	-69	-30	-56	-78	-82	-52	-76	0	-100	-53	-50	-192	**-69**
13	**1937**	-70	-43	-55	-60	-60	-57	-142	-44	-49	-135	-98	-162	**-81**
14	**1938**	-70	-27	-55	0	-27	-32	-24	-9	-64	-23	-90	-162	**-49**
15	**1939**	-60	-48	-51	-25	-9	-78	-59	0	-42	-52	-41	-239	**-59**
16	**1940**	-70	-16	-47	-8	-38	-52	-55	-58	-28	-115	-69	-121	**-56**
17	**1941**	-48	-17	-39	-43	-59	-70	-59	-57	-60	-124	-62	-153	**-66**
18	**1942**	-67	-26	-43	0	-5	-58	-165	-53	-47	-18	-58	-183	**-61**
19	**1943**	-62	-53	-36	-29	-7	-33	-46	-43	-41	0	-40	-217	**-51**
20	**1944**	-94	-50	-55	-61	-47	-59	-163	-78	-63	-101	-56	-207	**-86**
21	**1945**	-52	-12	-35	-66	-70	-43	-177	-52	0	-229	-99	-118	**-79**
22	**1946**	-63	-53	-26	-29	-42	-44	-28	-17	-100	-31	-51	-122	**-51**
23	**1947**	-84	-38	-7	-61	0	-40	-85	0	-35	-16	-57	-151	**-48**
24	**1948**	-30	-24	-26	-5	0	-41	-34	-12	-122	-31	-31	-164	**-43**
25	**1949**	-69	-31	-34	0	-25	-25	-35	-28	-57	-93	-92	-189	**-57**
26	**1950**	-83	-54	-47	0	0	-11	-31	-10	-32	0	-9	-120	**-33**
27	**1951**	-47	-18	-58	0	0	-8	-24	-46	0	-12	-41	-120	**-31**
28	**1952**	-28	-37	-23	-11	0	-41	-59	0	-119	-26	-51	-162	**-47**
29	**1953**	-72	-14	-35	-41	0	-67	-136	0	-112	-47	-64	-148	**-62**
30	**1954**	-59	-20	-19	0	0	-21	-80	0	-112	0	-53	-96	**-39**
31	**1955**	-46	-9	-27	-23	-6	-56	-151	-54	-84	-1	-8	-121	**-49**
32	**1956**	-41	-10	-1	-26	0	-50	-47	0	-91	0	-47	-162	**-40**
33	**1957**	-70	-40	-16	0	-27	-51	-32	0	-55	-49	-46	-203	**-49**
34	**1958**	-82	-27	-43	0	0	-50	-69	-29	-54	-29	-51	-156	**-50**
35	**1959**	-65	-42	-4	0	-23	-41	-41	0	-7	-10	-9	-26	**-22**
36	**1960**	-34	0	0	0	-7	-45	0	0	-18	-14	-48	-145	**-26**
37	**1961**	-68	-21	-28	-19	0	-5	-48	0	-131	-48	-47	-160	**-48**
38	**1962**	-89	-27	-31	-8	0	-52	-35	-23	-2	-51	-55	-172	**-46**
39	**1963**	-49	-30	0	0	-23	-49	-142	-38	0	-33	-64	-215	**-54**
40	**1964**	-52	-53	-35	-23	-19	-62	-119	-39	-67	-31	-54	-126	**-57**
41	**1965**	-22	-30	-10	0	-62	-8	-86	-11	-39	-15	-10	-169	**-38**
42	**1966**	-69	-25	-27	-27	0	-25	-100	-27	0	-25	-49	-145	**-43**
43	**1967**	-48	-53	-31	-15	-17	-6	-87	-31	0	0	-56	-215	**-46**
44	**1968**	-59	-41	-30	-6	0	0	-161	-9	-27	-8	-34	-71	**-37**

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Table 9:**													
2	**Federal Hydro Generation Adjustment for**													
3	**Stand Ready & Deployment Losses, Heavy-Load-Hours for FY 2023**													
4	**Water Year**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**	**July**	**Aug**	**Sep**	**Wtd Avg.**
45	**1969**	-30	-16	-4	-55	-19	-39	0	0	-55	-23	-36	-168	**-37**
46	**1970**	-48	-41	-47	-24	0	-41	-136	-12	-23	-122	-86	-171	**-63**
47	**1971**	-67	-53	-15	-42	0	0	-32	-8	-46	0	-19	-145	**-35**
48	**1972**	-48	-18	-15	-10	-31	0	0	-47	-9	-4	-16	-235	**-35**
49	**1973**	-70	-31	-38	-7	-3	-31	-145	-46	-50	-74	-61	-122	**-57**
50	**1974**	-55	-38	-16	0	0	-47	-60	0	0	0	-19	-123	**-30**
51	**1975**	-53	-48	-33	-28	-22	-23	-61	-10	0	0	-51	-220	**-46**
52	**1976**	-26	-23	-63	-86	-11	-2	-34	0	0	-6	-75	-30	**-30**
53	**1977**	-26	-25	-55	-30	-9	-74	-135	-40	-61	-108	-53	-135	**-63**
54	**1978**	-80	-52	-46	-40	-55	-41	-52	-44	-34	-28	-62	-74	**-51**
55	**1979**	-50	-45	-35	0	-43	-49	-68	0	-35	-93	-83	-231	**-61**
56	**1980**	-70	-33	-58	-12	-75	-60	-35	-8	-2	-52	-68	-208	**-56**
57	**1981**	-59	-12	0	0	-17	-45	-148	0	-156	0	-26	-207	**-56**
58	**1982**	-51	-40	-37	-12	0	-8	-55	0	0	-21	-34	-74	**-28**
59	**1983**	-46	-46	-15	-83	-11	-57	-86	-50	-64	0	-35	-229	**-60**
60	**1984**	-46	-23	-24	0	-12	-37	-89	-35	-52	0	-46	-182	**-46**
61	**1985**	-70	-26	-42	-21	-5	-65	-56	-4	-67	-88	-83	-282	**-67**
62	**1986**	-62	-37	-15	0	-46	-61	-46	-55	0	-52	-43	-198	**-51**
63	**1987**	-104	-39	-35	-7	-30	-46	-53	0	-63	-190	-97	-127	**-66**
64	**1988**	-70	-32	-52	-62	-82	-49	-95	-55	-47	-27	-44	-216	**-69**
65	**1989**	-62	-33	-39	-59	-108	-49	-39	0	-82	-40	-74	-175	**-63**
66	**1990**	-65	-25	-6	0	0	-22	-36	-40	0	0	-44	-119	**-30**
67	**1991**	-74	0	0	-23	0	0	-42	0	0	-13	-4	-216	**-31**
68	**1992**	-61	-50	-40	-22	-39	-35	-62	0	-59	-197	-69	-164	**-66**
69	**1993**	-47	-43	-46	-65	-129	-92	-137	0	-58	-85	-70	-150	**-77**
70	**1994**	-65	-25	-47	-49	-23	-44	-62	-27	-43	-136	-64	-162	**-62**
71	**1995**	-49	-46	-55	-30	-62	-17	-152	-28	-59	-114	-50	-152	**-68**
72	**1996**	-45	0	-118	-27	-8	0	-44	-19	-4	0	-55	-120	**-37**
73	**1997**	-49	-11	-13	-6	0	-27	0	-12	-91	-14	-20	-78	**-27**
74	**1998**	-11	-10	-37	-10	0	-45	-150	-37	-19	-34	-56	-180	**-49**
75	**1999**	-92	-60	-37	-110	-48	0	-37	-57	-119	-27	-41	-122	**-62**
76	**2000**	-71	0	0	0	0	-25	-46	0	-59	-7	-51	-190	**-38**
77	**2001**	-85	-50	-47	-39	-47	-59	-165	-84	-58	-119	-46	-122	**-77**
78	**2002**	-95	-52	-44	-51	-75	-74	-65	0	0	0	-60	-123	**-53**
79	**2003**	-49	-20	-29	-50	-42	-36	-59	-49	-1	-86	-88	-146	**-54**
80	**2004**	-64	-39	-19	-22	-35	-48	-59	-55	-28	-85	-155	-200	**-68**
81	**2005**	-43	-37	-1	0	0	-20	-131	-57	-35	-29	-104	-184	**-54**
82	**2006**	-86	-39	-26	0	-2	-24	-31	0	-46	-51	-59	-159	**-44**
83	**2007**	-79	-52	-37	-10	-5	-4	-27	0	0	-19	-72	-174	**-40**
84	**2008**	-89	-15	-35	-9	-29	-42	-133	-9	-5	-14	-42	-117	**-45**
85	**80 WY Average**	**-60**	**-31**	**-34**	**-24**	**-26**	**-39**	**-77**	**-24**	**-45**	**-49**	**-54**	**-162**	**-52**
86	**Hours**	**416**	**400**	**416**	**400**	**384**	**432**	**416**	**400**	**416**	**400**	**432**	**400**	**4912**

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Table 10:**													
2	**Federal Hydro Generation Adjustment for**													
3	**Stand Ready & Deployment Losses, Flat Energy for FY 2023**													
4	**Water Year**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**	**July**	**Aug**	**Sep**	**Wtd Avg.**
5	**1929**	24	-7	14	-11	-17	-28	-54	-24	-21	-84	-51	-75	**-28**
6	**1930**	-17	21	17	5	-23	-42	-41	-45	-16	-43	-22	-81	**-24**
7	**1931**	-22	21	-28	-32	-20	-4	-70	-20	-4	-9	-10	-77	**-23**
8	**1932**	-23	-7	54	-5	19	-19	-17	-5	62	-1	-7	-80	**-3**
9	**1933**	28	-33	22	-1	89	-4	-22	-18	7	321	-37	-77	**23**
10	**1934**	-22	-5	110	299	241	-2	17	180	120	-50	-25	-78	**64**
11	**1935**	-12	-11	-27	-1	85	5	-32	-14	-22	-13	-15	3	**-5**
12	**1936**	10	23	-24	-18	46	-20	-58	-2	52	-24	-21	-50	**-8**
13	**1937**	-11	-27	-35	45	28	-15	-52	-28	-21	-51	-49	-40	**-21**
14	**1938**	-6	-3	-35	-9	1	-7	-16	-14	-8	-13	-28	-40	**-15**
15	**1939**	25	-24	18	-2	-9	-19	-58	-12	-18	-57	-25	-83	**-22**
16	**1940**	-11	13	4	16	-22	-23	-27	-1	-22	-51	-24	-1	**-13**
17	**1941**	15	16	-23	-3	6	3	-58	-9	-41	-51	-19	-28	**-16**
18	**1942**	-34	-8	5	-14	-6	-15	-38	-25	10	-11	0	-46	**-15**
19	**1943**	7	-7	3	21	81	-5	-14	7	5	-5	-23	-61	**0**
20	**1944**	-48	-28	-27	32	-2	-15	-71	-22	-47	-17	-16	-57	**-26**
21	**1945**	-23	28	26	-25	-43	21	-59	-20	-4	-73	-49	5	**-18**
22	**1946**	-16	-23	22	-15	-12	-19	-29	74	100	-7	-11	-4	**5**
23	**1947**	-40	1	-23	4	122	16	-23	-16	5	-26	6	-31	**-1**
24	**1948**	-20	0	17	0	88	-19	-15	4	-3	-18	-18	-41	**-3**
25	**1949**	-5	24	26	-1	-9	12	-24	8	-11	-17	-2	-46	**-4**
26	**1950**	-43	-24	-29	-1	88	-7	-22	-18	11	317	-13	1	**21**
27	**1951**	-11	-8	9	366	100	-3	-9	13	-5	260	-26	6	**58**
28	**1952**	3	-22	11	9	82	-21	-52	-4	-5	-21	-13	-33	**-6**
29	**1953**	-38	7	25	-10	138	-15	-66	-14	-5	7	-13	-30	**-2**
30	**1954**	9	38	-3	16	87	-3	-24	82	185	312	120	-56	**64**
31	**1955**	-23	-13	29	-21	-7	-23	-54	-10	-5	298	-12	-1	**14**
32	**1956**	-12	-14	-11	146	129	21	-15	4	-4	85	-7	-33	**24**
33	**1957**	-17	3	-18	-13	-7	-21	-19	12	4	-11	3	-55	**-12**
34	**1958**	-43	-10	2	-2	76	-23	-26	9	159	-9	-14	-34	**6**
35	**1959**	-15	-25	-18	74	137	7	-19	-18	0	271	-13	-36	**28**
36	**1960**	-3	-5	5	-6	34	-19	-7	-14	-9	-33	-22	-29	**-9**
37	**1961**	12	16	-14	9	66	-12	-25	57	-12	-14	-23	-35	**2**
38	**1962**	-46	-10	-1	-7	86	-20	-24	5	-6	-55	-20	-44	**-13**
39	**1963**	-13	-16	-13	-2	89	-32	-62	-13	3	-19	-2	-76	**-14**
40	**1964**	-9	1	-19	-4	-15	-26	-36	1	2	308	-4	-30	**15**
41	**1965**	8	-16	-26	204	39	-10	-20	115	-16	-30	-14	-36	**17**
42	**1966**	-1	-7	-24	2	19	1	-17	21	-7	-16	-47	-29	**-9**
43	**1967**	-13	12	8	9	93	-4	-17	0	12	183	-16	-75	**16**
44	**1968**	26	-25	-15	1	75	-4	-67	-7	53	-13	-23	-15	**-2**

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1	**Table 10:**													
2	**Federal Hydro Generation Adjustment for**													
3	**Stand Ready & Deployment Losses, Flat Energy for FY 2023**													
4	**Water Year**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**	**July**	**Aug**	**Sep**	**Wtd Avg.**
45	**1969**	-1	-10	-18	52	97	-10	-15	1	8	-17	-34	-42	**0**
46	**1970**	-17	-25	-29	-2	85	-17	-66	-4	9	-22	-47	-38	**-15**
47	**1971**	-16	-23	18	100	36	-9	-23	-6	1	5	-19	-28	**3**
48	**1972**	-23	17	-17	95	50	135	-16	-1	1	228	-24	-85	**30**
49	**1973**	-11	0	-22	-4	-13	-7	-43	-14	-22	-12	-22	-4	**-14**
50	**1974**	-13	-15	-14	306	245	-14	-4	-13	-3	313	-18	-28	**61**
51	**1975**	-15	-12	24	4	10	-17	-59	-18	4	44	-18	-77	**-11**
52	**1976**	16	17	58	110	80	12	-17	5	-6	222	240	-29	**59**
53	**1977**	-11	21	-35	-16	3	38	-57	-15	-26	-48	-11	-19	**-15**
54	**1978**	-42	-21	17	-23	-35	-16	-46	9	-12	-17	-18	-9	**-18**
55	**1979**	-22	-29	26	-8	-21	-23	-51	-12	-23	-19	-27	-80	**-24**
56	**1980**	-8	-27	-30	-10	-18	-28	-16	21	0	-56	-23	-57	**-21**
57	**1981**	-3	30	6	1	94	-24	-56	-18	56	46	-17	-74	**3**
58	**1982**	-10	-18	-21	2	12	52	-25	-11	0	266	-19	-17	**18**
59	**1983**	-22	-18	-17	27	66	105	-21	-22	-12	167	-12	-82	**13**
60	**1984**	35	16	-7	7	91	79	-26	-13	33	-11	-29	-45	**10**
61	**1985**	-27	-8	-24	-19	-6	-23	-55	-18	-19	-29	4	-92	**-26**
62	**1986**	-18	-23	-17	-9	61	148	-20	-8	-6	-57	-24	-50	**-2**
63	**1987**	-49	-3	-19	-6	-3	-25	-47	-1	-9	-62	-26	-15	**-22**
64	**1988**	-26	25	-21	-40	46	-12	-51	-38	-20	-7	-21	-73	**-20**
65	**1989**	-16	-27	-22	-10	-38	-23	-19	-15	-15	-25	-21	-40	**-23**
66	**1990**	-26	-7	-20	0	87	0	-17	2	201	17	-17	4	**18**
67	**1991**	-39	-12	-7	-1	114	-8	-21	-9	-6	291	-10	-61	**19**
68	**1992**	35	-28	-17	-20	-17	-20	-54	-16	-28	-65	-23	-37	**-24**
69	**1993**	75	-3	-29	-21	64	-31	-65	-16	-28	-1	-25	-27	**-9**
70	**1994**	-15	23	-30	16	-4	-18	-54	19	-18	-51	-23	-44	**-17**
71	**1995**	-33	-24	-35	-16	-28	-12	-52	-20	36	-49	-22	-31	**-24**
72	**1996**	-19	-4	327	313	28	225	-18	0	-9	248	-19	1	**91**
73	**1997**	-17	27	-16	144	205	74	-19	-2	-5	290	-28	-15	**53**
74	**1998**	-6	-9	-21	-8	76	-23	-64	-1	2	-19	-14	-42	**-11**
75	**1999**	-47	-16	-21	122	77	13	-17	-9	-4	318	28	-2	**37**
76	**2000**	-22	-6	-4	-4	36	-4	-15	-17	-42	-13	-13	-47	**-13**
77	**2001**	-44	-28	4	-22	12	-10	-71	-18	-50	-45	-26	-3	**-25**
78	**2002**	-45	-21	-25	-28	-21	-29	-24	-9	197	-5	-13	-6	**-3**
79	**2003**	-33	21	19	-14	-19	-20	-51	-21	-6	-8	-22	-24	**-15**
80	**2004**	-13	-7	-5	-5	-20	-15	-58	-37	-16	-2	-63	-52	**-24**
81	**2005**	-21	-23	-16	-14	78	-4	-54	-21	-6	-10	-51	-46	**-16**
82	**2006**	-44	-15	-23	-3	147	-7	-24	-12	79	-3	-21	-31	**2**
83	**2007**	-39	-22	-21	2	-6	-10	-4	-15	-3	-11	-19	-39	**-16**
84	**2008**	-45	9	25	-7	-17	-16	-52	-6	-2	-17	-16	3	**-12**
85	**80 WY Average**	**-14**	**-5**	**-1**	**26**	**45**	**0**	**-35**	**-2**	**9**	**41**	**-15**	**-39**	**1**
86	**Hours**	**744**	**721**	**744**	**744**	**672**	**743**	**720**	**744**	**720**	**744**	**744**	**720**	**8760**

Table 11:
Value of PS Wind Generation at Expected Wind Generation for FY 2022

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Annual
Expected Generation (aMW)	**39**	**55**	**42**	**23**	**37**	**43**	**71**	**61**	**61**	**59**	**38**	**43**	**48**
Contract Prices ($/MWh)	**$ 84.31**	**$ 77.67**	**$ 82.30**	**$ 102.31**	**$ 88.88**	**$ 83.09**	**$ 75.11**	**$ 84.45**	**$ 79.16**	**$ 79.01**	**$ 87.34**	**$ 85.74**	**$ 84.13**

Power Purchase Costs for Expected Wind Generation ($1,000)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Annual
Expected Wind Generation Cost ($000)	$ 2,420	$ 3,096	$ 2,580	$ 1,716	$ 2,227	$ 2,647	$ 3,818	$ 3,850	$ 3,453	$ 3,481	$ 2,500	$ 2,631	**$ 34,418**

Average, Median, 5th Percentile, and 95th Percentile Spot Market Electricity Prices Estimated by AURORA ($/MWh)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Annual
5%	$ 18.70	$ 21.57	$ 25.83	$ 16.36	$ 16.28	$ 6.02	$ 4.77	$ -	$ -	$ 10.25	$ 20.92	$ 20.73	$ 18.56
50%	$ 28.81	$ 30.28	$ 35.85	$ 31.68	$ 32.62	$ 28.90	$ 23.50	$ 16.60	$ 14.13	$ 31.36	$ 33.14	$ 29.23	$ 28.05
Average	$ 29.24	$ 30.61	$ 36.40	$ 31.33	$ 32.34	$ 27.54	$ 22.58	$ 15.49	$ 14.16	$ 30.74	$ 33.77	$ 29.57	$ 27.82
95%	$ 41.31	$ 40.96	$ 49.09	$ 44.75	$ 45.88	$ 39.48	$ 35.76	$ 27.79	$ 30.43	$ 49.29	$ 48.12	$ 39.56	$ 36.19

Revenues from Expected Wind Generation at Various AURORA Price Percentiles ($1,000)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Annual
5%	$ 537	$ 860	$ 810	$ 274	$ 408	$ 192	$ 242	$ -	$ -	$ 452	$ 599	$ 636	$ 7,738
50%	$ 827	$ 1,207	$ 1,124	$ 531	$ 817	$ 920	$ 1,194	$ 757	$ 616	$ 1,382	$ 949	$ 897	$ 11,699
Average	$ 839	$ 1,220	$ 1,141	$ 525	$ 810	$ 877	$ 1,148	$ 706	$ 617	$ 1,354	$ 966	$ 907	$ 11,599
95%	$ 1,186	$ 1,633	$ 1,539	$ 750	$ 1,150	$ 1,257	$ 1,818	$ 1,267	$ 1,327	$ 2,172	$ 1,377	$ 1,214	$ 15,090

Table 12:
Value of PS Wind Generation at Expected Wind Generation for FY 2023

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Annual
Expected Generation (aMW)	**25**	**36**	**28**	**15**	**24**	**28**	**46**	**45**	**45**	**44**	**28**	**31**	**33**
Contract Prices ($/MWh)	**$ 114.30**	**$ 97.74**	**$ 109.30**	**$ 157.21**	**$ 123.70**	**$ 109.24**	**$ 89.34**	**$ 89.00**	**$ 90.49**	**$ 90.15**	**$ 108.60**	**$ 105.06**	**$ 107.00**

Power Purchase Costs for Expected Wind Generation ($1,000)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Annual
Expected Wind Generation Cost ($000)	$ 2,149	$ 2,552	$ 2,245	$ 1,727	$ 2,030	$ 2,280	$ 2,975	$ 2,994	$ 2,912	$ 2,931	$ 2,294	$ 2,379	**$ 29,467**

Average, Median, 5th Percentile, and 95th Percentile Spot Market Electricity Prices Estimated by AURORA ($/MWh)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Annual
5%	$ 17.92	$ 21.00	$ 23.95	$ 13.97	$ 14.06	$ 3.03	$ 3.10	$ -	$ -	$ 7.39	$ 18.21	$ 19.37	$ 17.22
50%	$ 28.64	$ 30.15	$ 34.72	$ 29.94	$ 32.26	$ 30.24	$ 23.81	$ 17.91	$ 14.88	$ 29.29	$ 29.80	$ 27.17	$ 27.27
Average	$ 29.14	$ 30.52	$ 35.20	$ 29.45	$ 31.67	$ 28.32	$ 23.15	$ 17.07	$ 14.63	$ 28.62	$ 30.41	$ 27.45	$ 27.13
95%	$ 41.84	$ 41.03	$ 48.07	$ 42.58	$ 45.74	$ 41.54	$ 38.69	$ 30.36	$ 32.43	$ 46.54	$ 44.45	$ 36.47	$ 36.11

Revenues from Expected Wind Generation at Various AURORA Price Percentiles ($1,000)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Annual
5%	$ 337	$ 548	$ 492	$ 153	$ 231	$ 63	$ 103	$ -	$ -	$ 240	$ 385	$ 439	$ 4,980
50%	$ 538	$ 787	$ 713	$ 329	$ 529	$ 631	$ 793	$ 602	$ 479	$ 952	$ 629	$ 615	$ 7,884
Average	$ 548	$ 797	$ 723	$ 324	$ 520	$ 591	$ 771	$ 574	$ 471	$ 930	$ 642	$ 622	$ 7,845
95%	$ 787	$ 1,071	$ 987	$ 468	$ 751	$ 867	$ 1,288	$ 1,021	$ 1,044	$ 1,513	$ 939	$ 826	$ 10,439

	A	B	C	D	E	F	G
1	**Table 13:** **4(h)(10)(C) Credits ($ Million) for FY 2022 and FY 2023**						
2							
3	**Fiscal Year**	**Purchase Expense**	**Direct Expense**	**Pisces**	**Capital**	**%**	**Credit**
4	**2022**	$ 132	$ 248	$ -	43.0	22.3%	$ 94.2
5	**2023**	$ 132	$ 247	$ -	43.0	22.3%	$ 94.2

	A	B	C	D	E
1	**Table 14:** **Augmentation Power Purchases for FY 2022 and FY 2023** **Average Annual Price for WY 1937 from Risk Analysis** **Used for Rate Calculations**				
6	**FY**	**MW**	**Hours**	**$/MWh**	**Exp. ($ 000)**
7	**2022**	0	8,760	34.48	$ -
8	**2023**	0	8,760	34.17	$ -

	A	B	C	D	E
1	**Table 15:** **Firm Surplus Power Sale for FY 2022 and FY 2023** **Firm Surplus Price** **Used for Rate Calculations**				
6	**FY**	**MW**	**Hours**	**$/MWh**	**Rev. ($ 000)**
7	**2022**	152	8,760	32.13	$ 42,638
8	**2023**	20	8,760	30.73	$ 5,456

Tables 16 and 17 are not used in this study.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Table 18:** **Monthly Secondary Energy Sales and Revenues for FY 2022 and FY2023**													
2														
3		**Secondary Energy Sales and Revenues for FY 2022**												
4														
5		**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Total**
6	Hours	744	721	744	744	672	743	720	744	720	744	744	720	8,760
7	Surplus Energy Sales (aMW)	374	955	993	2,270	2,618	1,997	1,410	3,075	3,665	2,499	1,424	596	1,818
8	**Secondary Energy Sales Revenues**	**$ 6,606**	**$ 20,151**	**$ 24,469**	**$ 49,422**	**$ 50,005**	**$ 32,530**	**$ 15,326**	**$ 29,387**	**$ 29,378**	**$ 52,327**	**$ 34,109**	**$ 11,723**	**$ 355,433**
9														
10	Forward Sales (aMW)	206	206	206	0	0	0	0	0	0	0	0	0	52
11	**Forward Sales Revenue ($000)**	**$6,797**	**$6,635**	**$6,929**	**$1,527**	**$1,527**	**$1,527**	**$1,527**	**$1,527**	**$1,527**	**$1,527**	**$1,527**	**$1,527**	**$34,103**
12														
13	**DSI TF Sales Revenue ($000)**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
14														
15	**Extra Regional Sales Revenue Delta ($000)**	**$298**	**$679**	**$734**	**$1,944**	**$1,944**	**$2,056**	**$1,560**	**$2,966**	**$5,306**	**$4,313**	**$2,539**	**$1,000**	**$25,339**
16														
17	**Total Net Secondary Sales**	**$ 13,702**	**$ 27,464**	**$ 32,132**	**$ 52,893**	**$ 53,476**	**$ 36,113**	**$ 18,413**	**$ 33,880**	**$ 36,211**	**$ 58,167**	**$ 38,175**	**$ 14,250**	**$ 414,876**
18														
19		**Secondary Energy Sales and Revenues for FY 2023**												
20														
21		**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Total**
22	Hours	744	721	744	744	672	743	720	744	720	744	744	720	8760
23	Surplus Energy Sales (aMW)	528	1,173	1,224	2,334	2,593	1,958	1,413	2,599	3,349	2,556	1,466	647	1,815
24	**Secondary Energy Sales Revenues**	**$ 9,495**	**$ 24,615**	**$ 29,958**	**$ 46,263**	**$ 47,979**	**$ 31,491**	**$ 14,012**	**$ 25,580**	**$ 24,997**	**$ 48,898**	**$ 31,921**	**$ 11,736**	**$ 346,946**
25														
26	Forward Sales (aMW)	0	0	0	0	0	0	0	0	0	0	0	0	0
27	**Forward Sales Revenue ($000)**	**$1,527**	**$1,527**	**$1,527**	**$1,527**	**$1,527**	**$1,527**	**$1,527**	**$1,527**	**$1,527**	**$1,527**	**$1,527**	**$1,527**	**$18,324**
28														
29	**DSI TF Sales Revenue ($000)**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
30														
31	**Extra Regional Sales Revenue Delta ($000)**	**$456**	**$927**	**$891**	**$2,161**	**$2,019**	**$2,228**	**$1,748**	**$2,858**	**$5,937**	**$5,225**	**$2,714**	**$1,027**	**$28,193**
32														
33	**Total Net Secondary Sales**	**$ 11,478**	**$ 27,069**	**$ 32,376**	**$ 49,951**	**$ 51,526**	**$ 35,246**	**$ 17,287**	**$ 29,965**	**$ 32,462**	**$ 55,650**	**$ 36,162**	**$ 14,291**	**$ 393,462**

Table 19:
Monthly Power Purchases and Expenses for FY 2022 and FY 2023

Power Purchases and Expenses for FY 2022

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Monthly Hours	744	721	744	744	672	743	720	744	720	744	744	720	8,760
Balancing Power Purchases (aMW)	282	55	165	217	142	52	186	24	15	93	103	69	117
Balancing Power Purchases Expenses ($000)	$ 6,264	$ 1,252	$ 4,701	$ 5,445	$ 3,795	$ 1,278	$ 4,179	$ 418	$ 248	$ 2,146	$ 2,472	$ 1,584	$ 33,783
Transmission re-dispatch for Gen Inputs adjustment	**$ 31**	**$ 31**	**$ 31**	**$ 31**	**$ 31**	**$ 31**	**$ 31**	**$ 31**	**$ 31**	**$ 31**	**$ 31**	**$ 31**	**$ 370**
SILS Forward Power Purchases (aMW)	-	38	135	110	73	38	-	-	-	-	-	-	33
SILS Forward Power Purchases Expenses ($000)	**$ -**	**$ 803**	**$ 3,573**	**$ 2,500**	**$ 1,504**	**$ 734**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 9,114**
Total Power Purchases (aMW)	282	92	300	327	215	91	186	24	15	93	103	69	150
Total Power Purchases Expenses ($000)	**$ 6,295**	**$ 2,086**	**$ 8,305**	**$ 7,976**	**$ 5,329**	**$ 2,044**	**$ 4,210**	**$ 449**	**$ 279**	**$ 2,177**	**$ 2,502**	**$ 1,614**	**$ 43,266**

Power Purchases and Expenses for FY 2023

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Monthly Hours	744	721	744	744	672	743	720	744	720	744	744	720	8,760
Balancing Power Purchases (aMW)	166	21	152	150	135	49	193	57	48	86	90	63	101
Balancing Power Purchases Expenses ($000)	**$ 3,872**	**$ 512**	**$ 4,133**	**$ 3,765**	**$ 3,478**	**$ 1,308**	**$ 4,693**	**$ 1,118**	**$ 877**	**$ 1,893**	**$ 1,916**	**$ 1,360**	**$ 28,925**
Transmission re-dispatch for Gen Inputs adjustment	**$ 31**	**$ 31**	**$ 31**	**$ 31**	**$ 31**	**$ 31**	**$ 31**	**$ 31**	**$ 31**	**$ 31**	**$ 31**	**$ 31**	**$ 370**
SILS Forward Power Purchases (aMW)	-	38	135	110	73	38	-	-	-	-	-	-	33
SILS Forward Power Purchases Expenses ($000)	**$ -**	**$ 796**	**$ 3,475**	**$ 2,312**	**$ 1,469**	**$ 742**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 8,793**
Total Power Purchases (aMW)	166	59	287	260	208	88	193	57	48	86	90	63	133
Total Power Purchases Expenses ($000)	**$ 3,903**	**$ 1,339**	**$ 7,638**	**$ 6,107**	**$ 4,977**	**$ 2,081**	**$ 4,724**	**$ 1,149**	**$ 908**	**$ 1,924**	**$ 1,947**	**$ 1,391**	**$ 38,088**

	A	B	C
1	**Table 20:** **Annual Secondary Energy Sales/Revenues and Power Purchases/Expenses for FY 2022 and FY 2023**		
2		**FY 2022**	**FY 2023**
3	**Annual Hours**	**8,760**	**8,760**
4	**Secondary Energy Sales (aMW)**	1,818	1,815
5	**Secondary Energy Revenues ($000)**	**$ 355,433**	**$ 346,946**
6	**Forward Power Sales (aMW)**	52	0
7	**Forward Sales Revenue ($000)**	**$ 34,103**	**$ 18,324**
8			
9	**DSI TF Sales Revenue ($000)**	**$ -**	
10			
11	**Extra Regional Sales Revenue Delta ($000)**	**$ 25,339**	**$ 28,193**
12			
13	**Total Power Sales (aMW)**	**1,870**	**1,815**
14	**Total Power Sales Revenue ($000)**	**$ 414,876**	**$ 393,462**
15			
16	Balancing Power Purchases (aMW)	117	101
17	**Balancing Power Purchases Expenses ($000)**	**$ 33,783**	**$ 28,925**
18	**Transmission Re-dispatch for Gen Inputs Adjustment ($000)**	**$ 370**	**$ 370**
19	**SILS Power Purchases (aMW)**	**33**	**33**
20	**SILS Power Purchases Expenses ($000)**	**$ 9,114**	**$ 8,793**
21			
22	Total Power Purchases (aMW)	150	133
23	**Total Power Purchases Expenses ($000)**	**$ 43,266**	**$ 38,088**

Table 21:
Power Net Revenue to Cash Adjustments ($000)

	A	B	C	D
		FY21	FY22	FY23
1	**Net Revenue**	$ 155,675	$ 136,383	$ 97,467
2	**Non-cash Adj.**	$ 480,438	$ 487,197	$ 482,271
3	**Cash Adj.**	$ (622,434)	$ (554,243)	$ (584,922)
4	**Other**	$ -	$ -	$ -
5	**Accrual to Cash Adj.**	**$ (141,996)**	**$ (67,046)**	**$ (102,651)**
6	**Cash Flow**	$ 13,679	$ 69,337	$ (5,184)

Table 22:
Transmission Net Revenue to Cash Adjustments ($000)

	A	B	C	D
		FY21	FY22	FY23
1	**Net Revenue**	$ (15,340)	$ 40,023	$ 40,012
2	**Non-cash Adj.**	$ 329,238	$ 331,197	$ 335,318
3	**Cash Adj.**	$ (418,217)	$ (371,220)	$ (375,330)
4	**Other**	$ -	$ -	$ -
5	**Accrual to Cash Adj.**	**$ (88,979)**	**$ (40,023)**	**$ (40,012)**
6	**Cash Flow**	$ (104,319)	$ 0	$ (0)

Figure 1: Simulated Total PS Wind Generation for FY 2022-2023

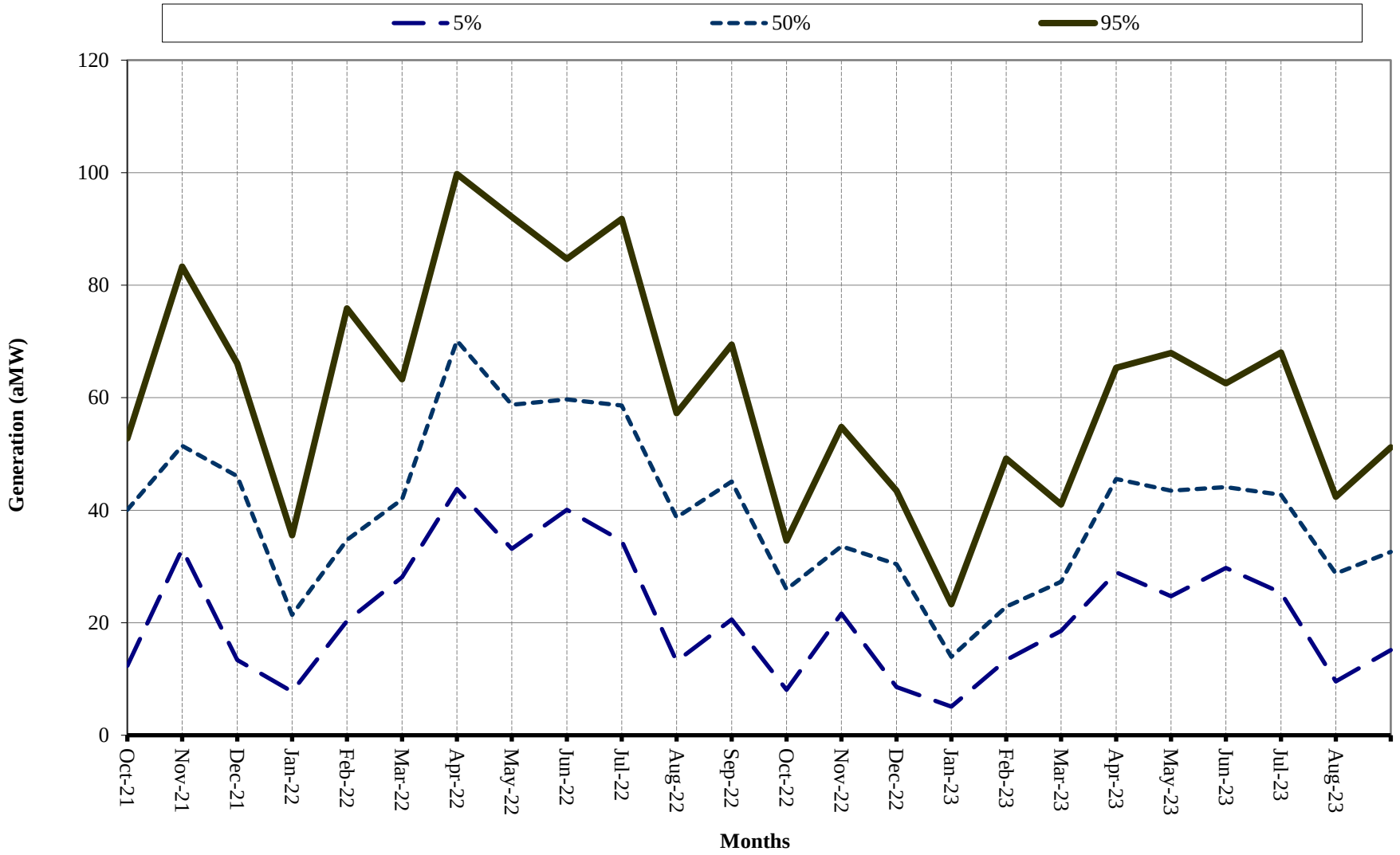


Figure 2: PS Transmission & Ancillary Services Expenses by Amount of Surplus Energy Sales for FY 2022

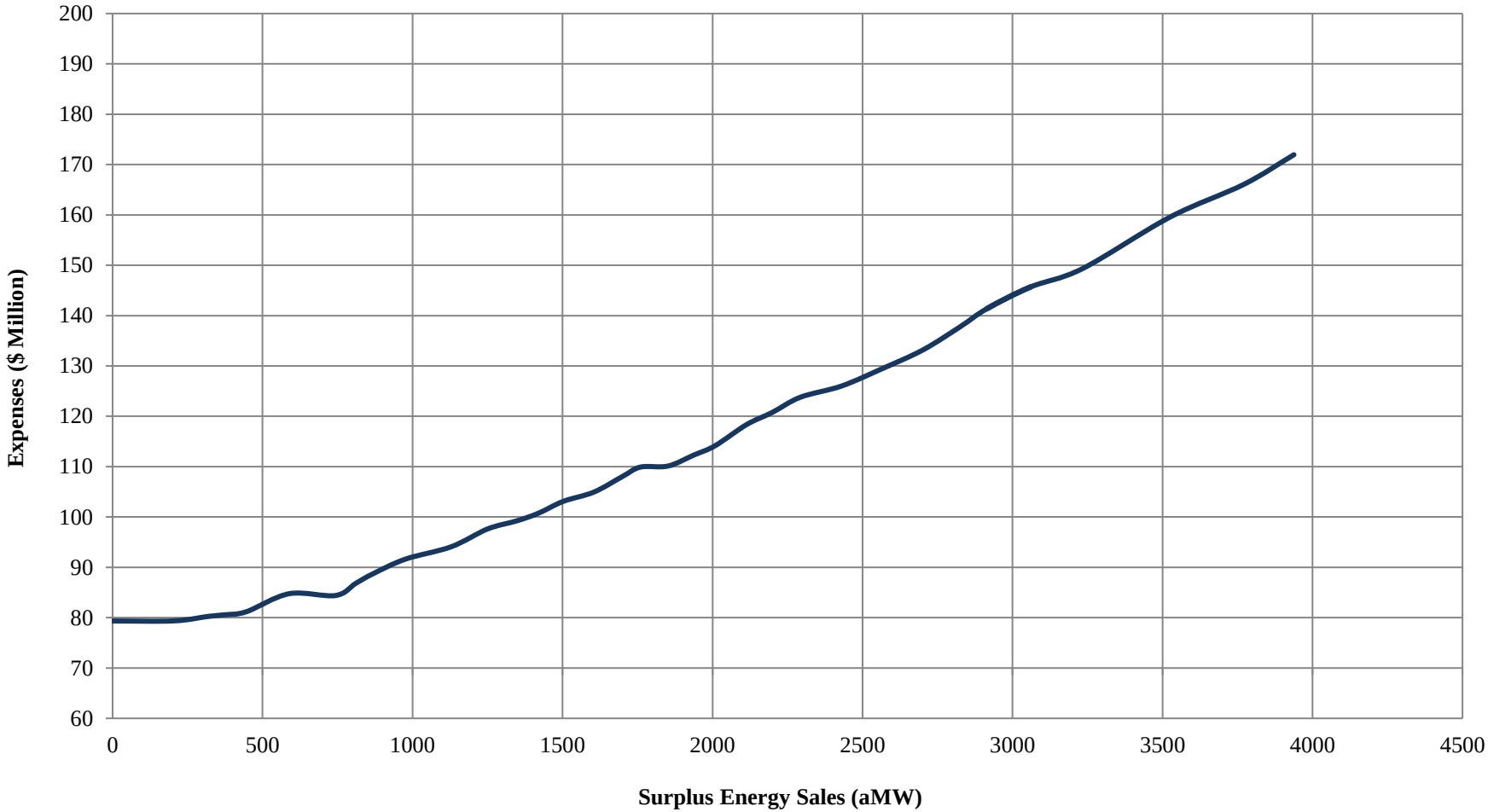


Figure 3: PS Transmission & Ancillary Services Expenses by Amount of Surplus Energy Sales for FY 2023

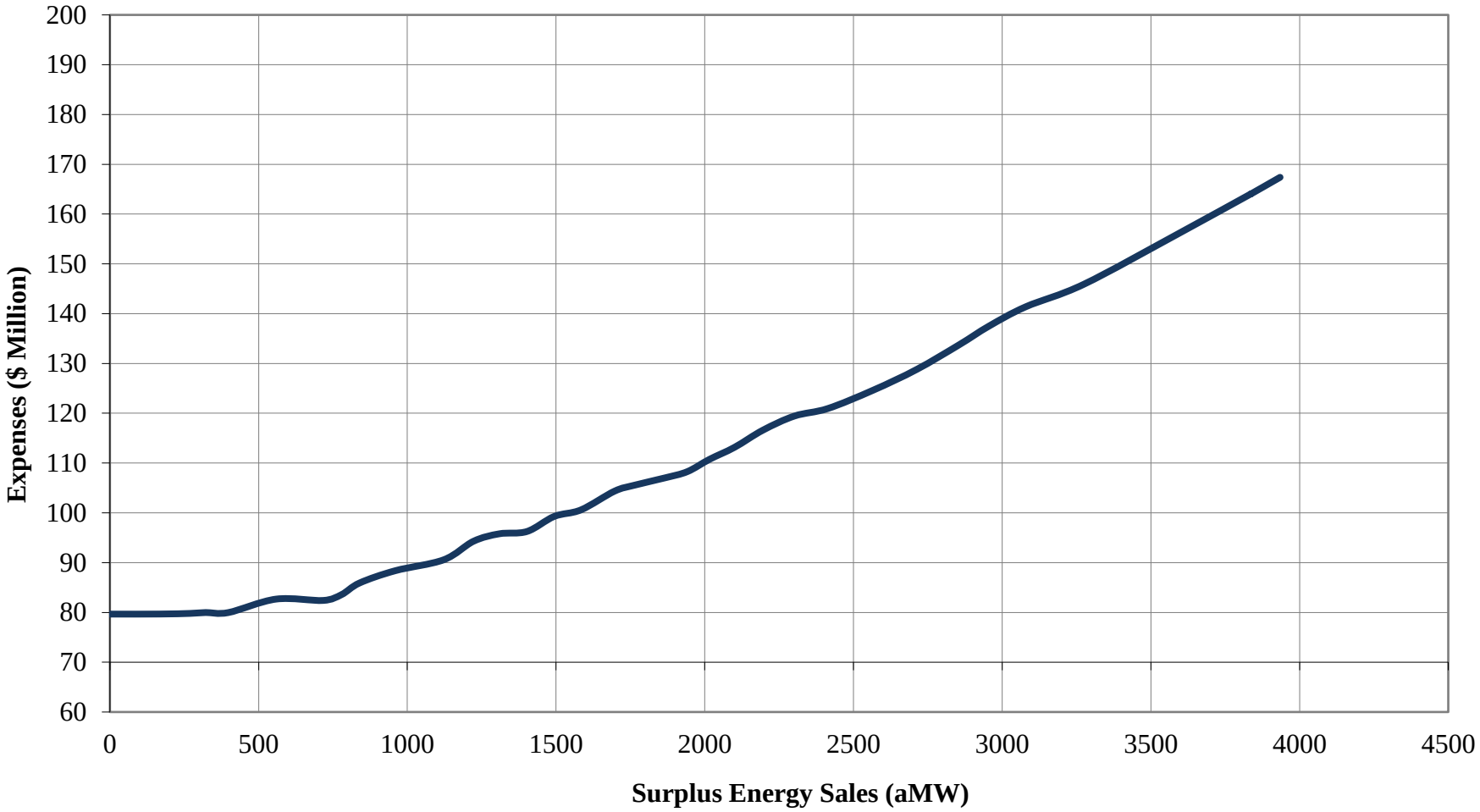


Figure 4: PS Transmission and Ancillary Service Expense Distribution for FY 2022

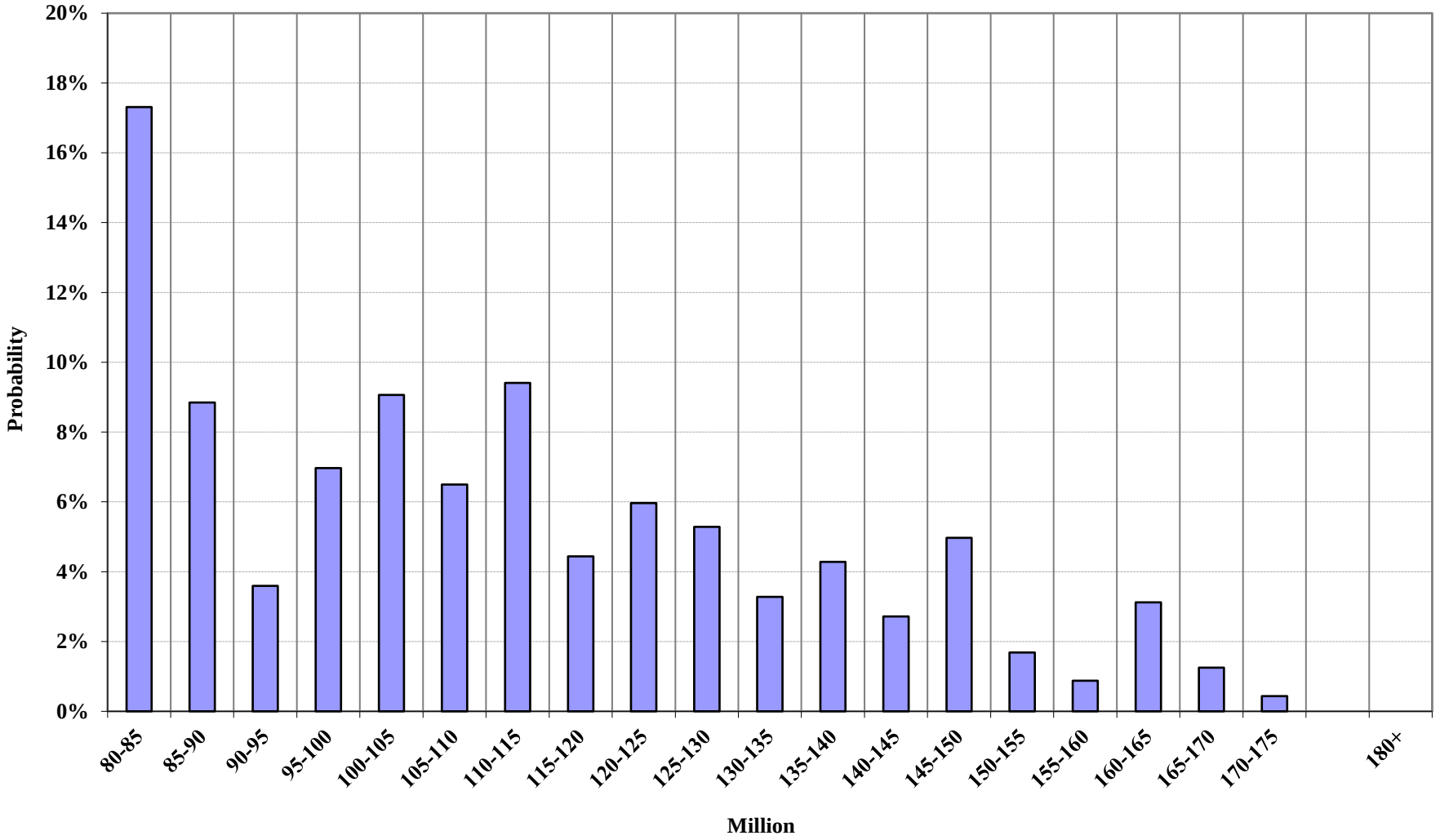


Figure 5: PS Transmission and Ancillary Service Expense Distribution for FY 2023

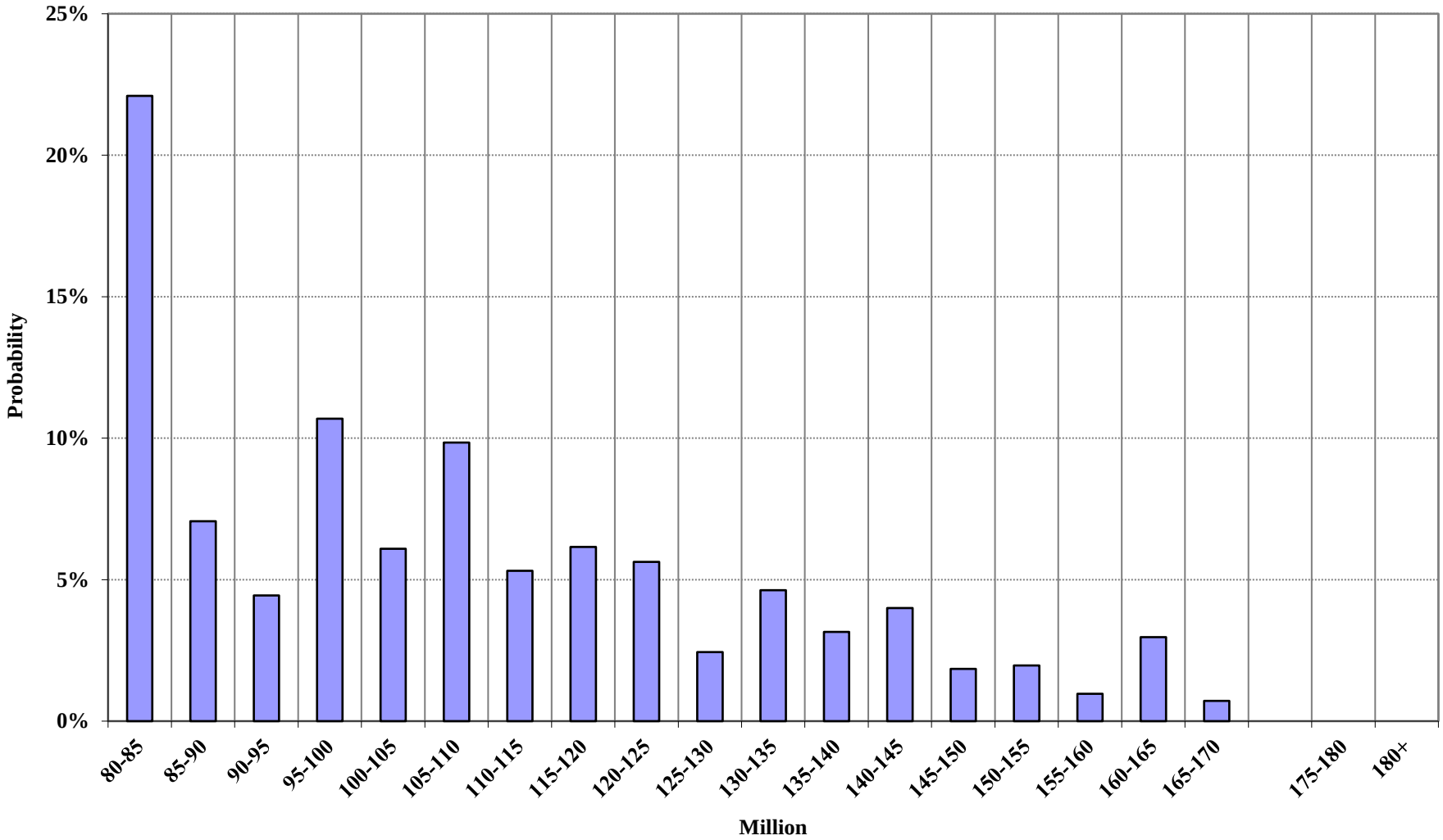


Figure 6: 4(h)(10)(C) Credits Distribution for FY 2022

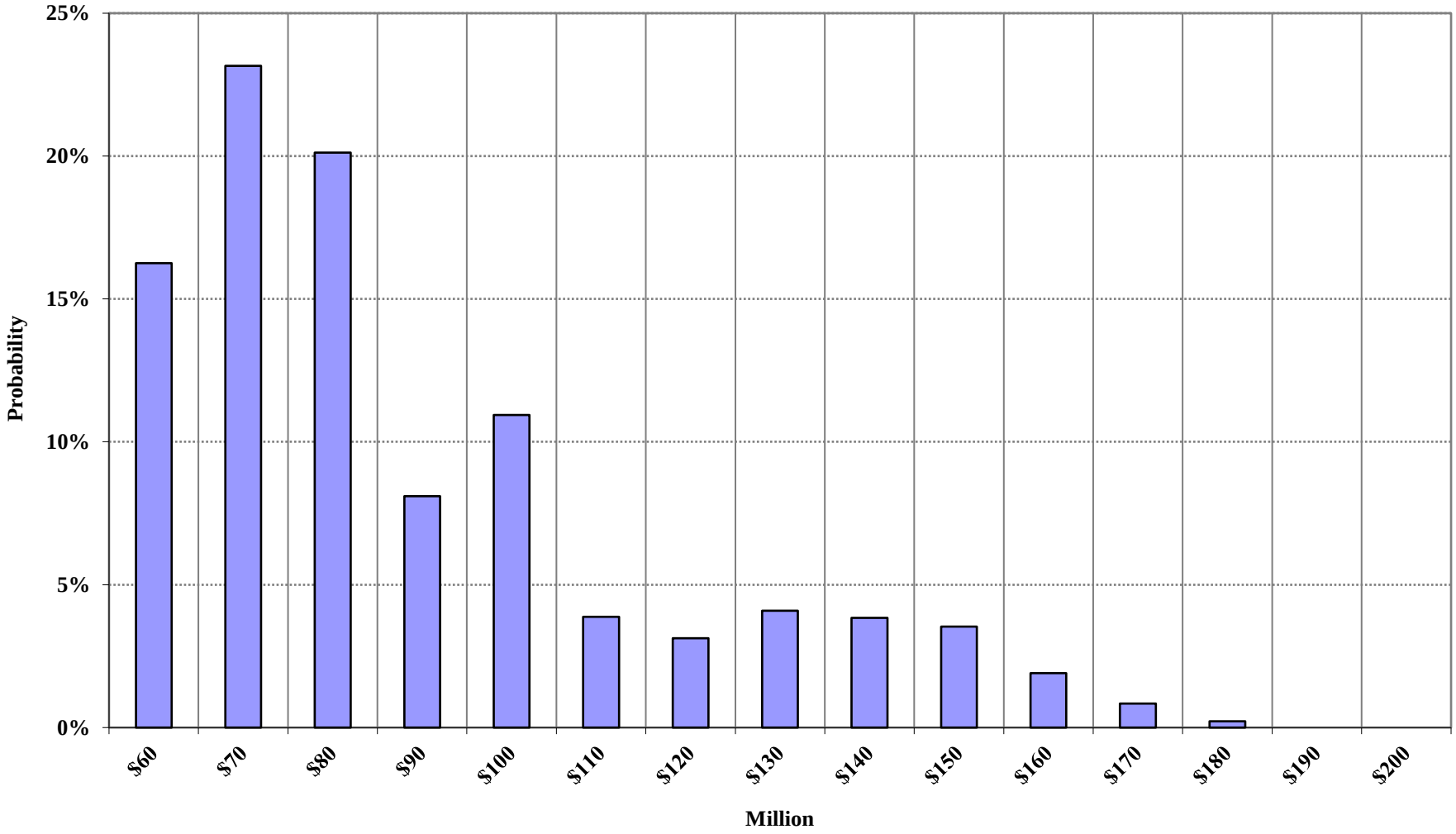


Figure 7: 4(h)(10)(C) Credits Distribution for FY 2023

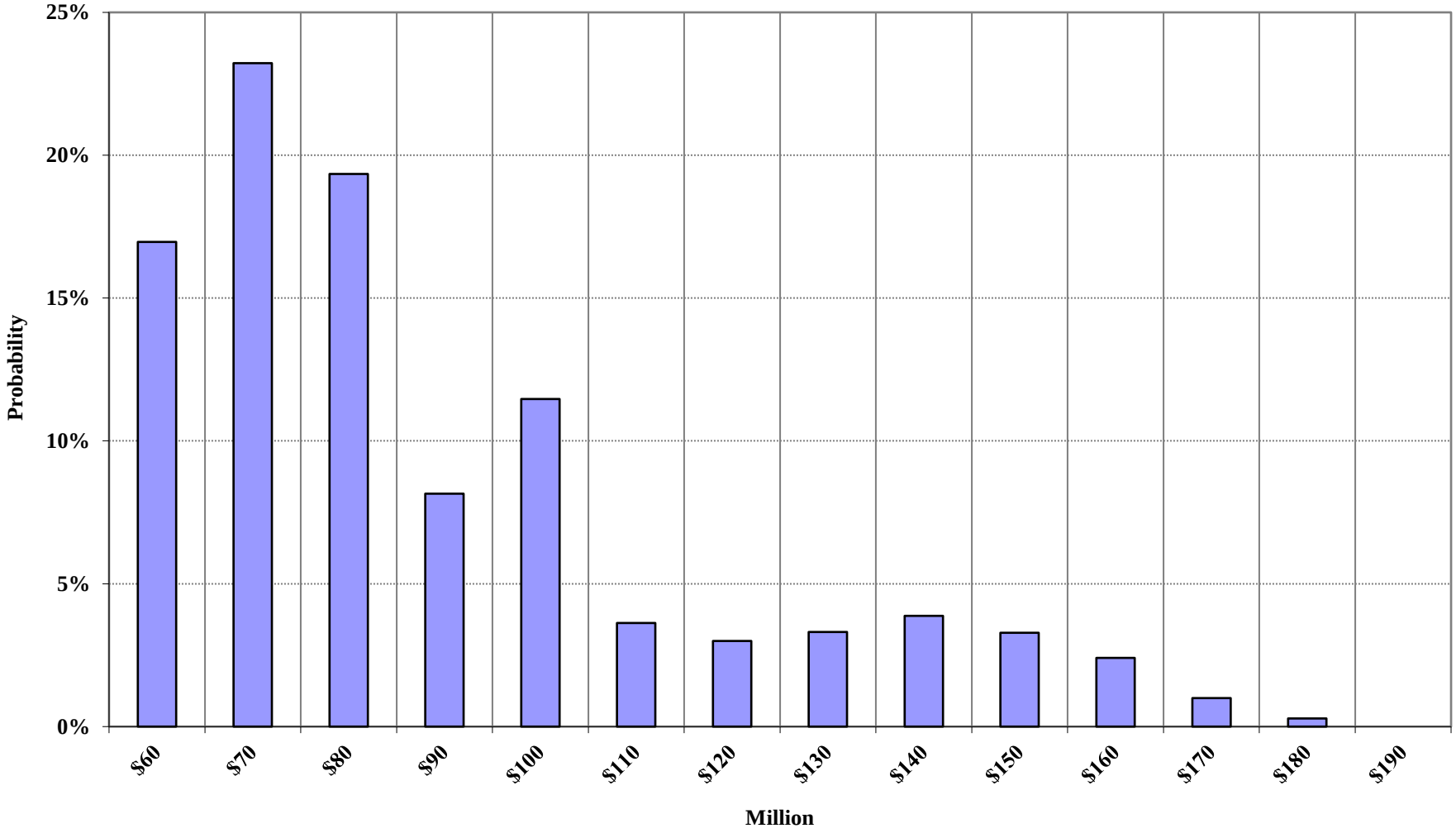
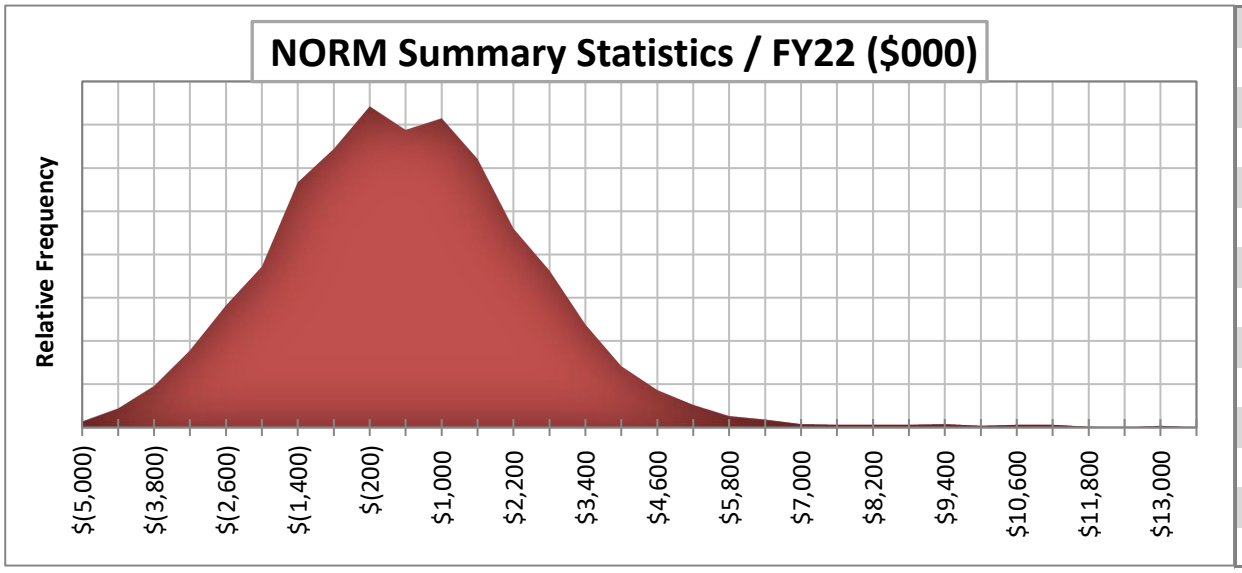
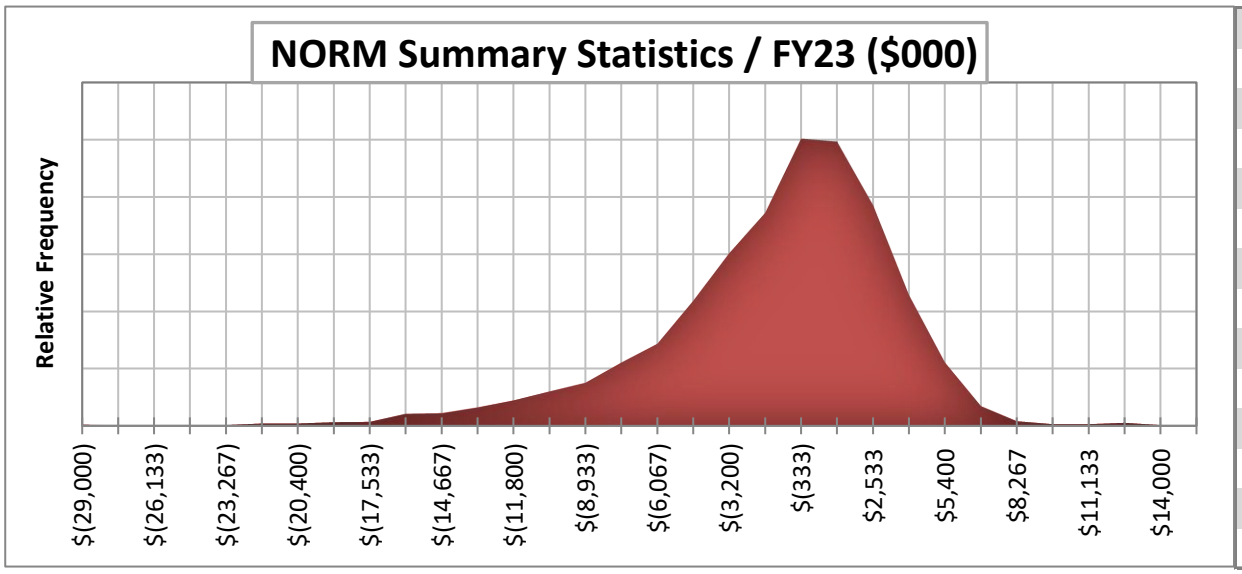


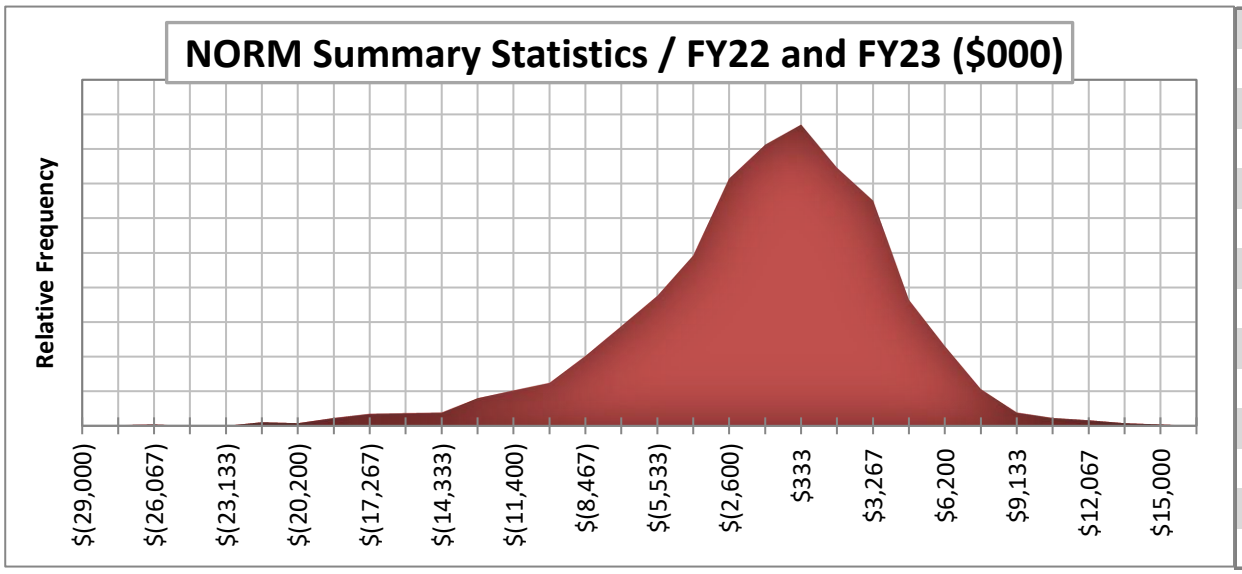
Figure 8:
P-NORM Output Summary Distributions



Minimum	
Maximum	$12,895
Mean	$124
Median	$37
Std Dev	$2,188
5%	-$3,251
95%	$3,698



Minimum	-$29,321
Maximum	$13,608
Mean	-$2,126
Median	-$1,299
Std Dev	$4,785
5%	-$11,461
95%	$4,002



Minimum	-$29,812
Maximum	$14,164
Mean	-$2,002
Median	-$1,413
Std Dev	$5,208
5%	-$11,522
95%	$5,203

Figure 9:
Power Services End of Year Financial Reserves ($ in Millions)

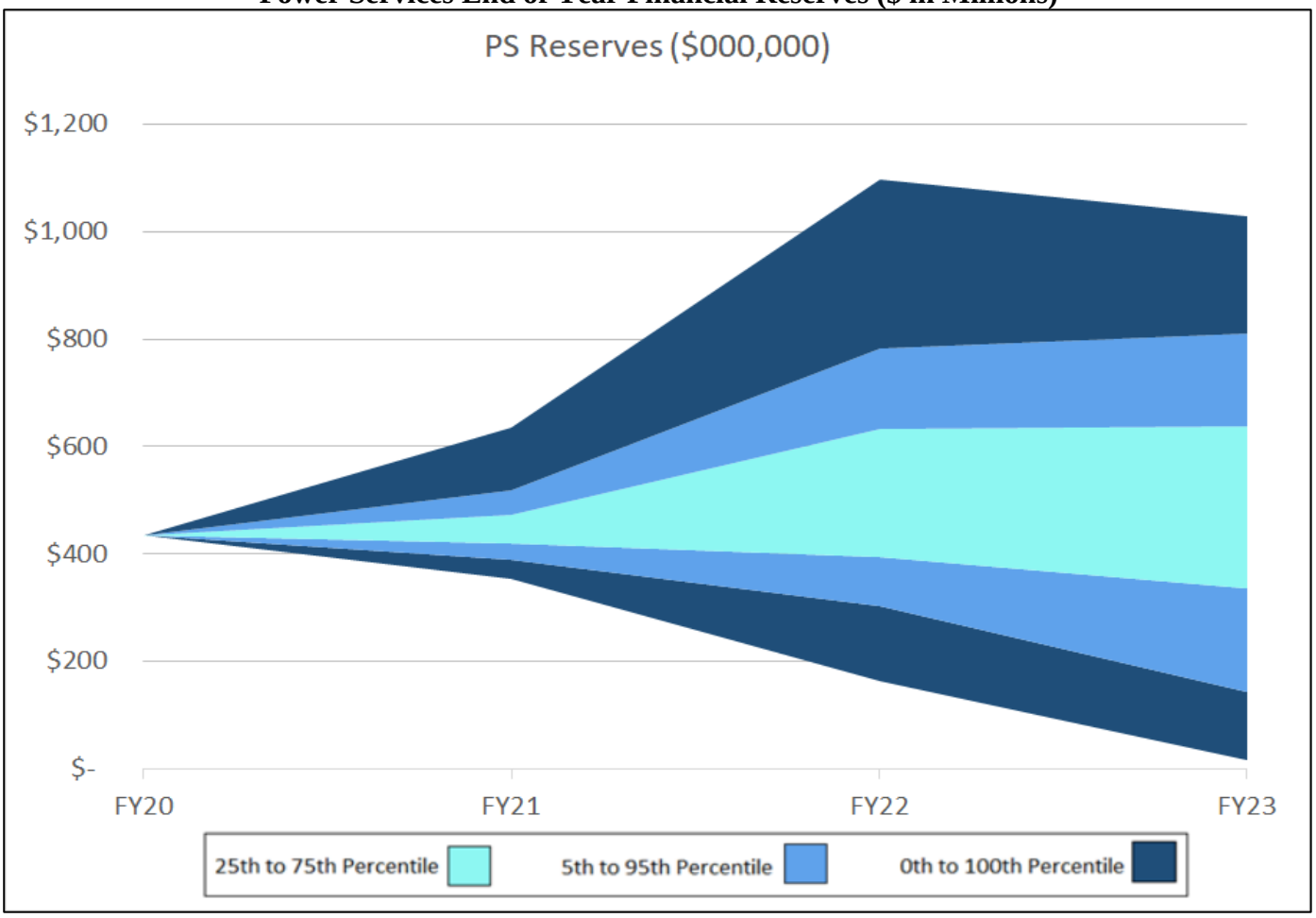


Figure 10:
Power Services ToolKit Inputs

ToolKitXL_BP22IP 12/16/2020

Static and starting Inputs

	PS	TS	
Starting RFR	435.3	272.3	StartRFR
Borrowing Liquidity	750	0	BorrowGross
Agency Liquidity Reliance	0	0	AgencyReli
Agency Liquidity Provided	0	0	AgencyProv
W/in Year Liquidity Borrowing Level	320	0	WinYrBorrow
W/in Year Liquidity RFR Level	0	100	WinYrRFR
De Minimis Threshold	5		DeMin

Input cells are highlighted in yellow.

To update input Monte Carlo simulation data, modify the "P_RM_Input.xls", P_NORM_Input.xls", and T_NORM_Input.xls" files. Model results update in realtime.

Annual Inputs

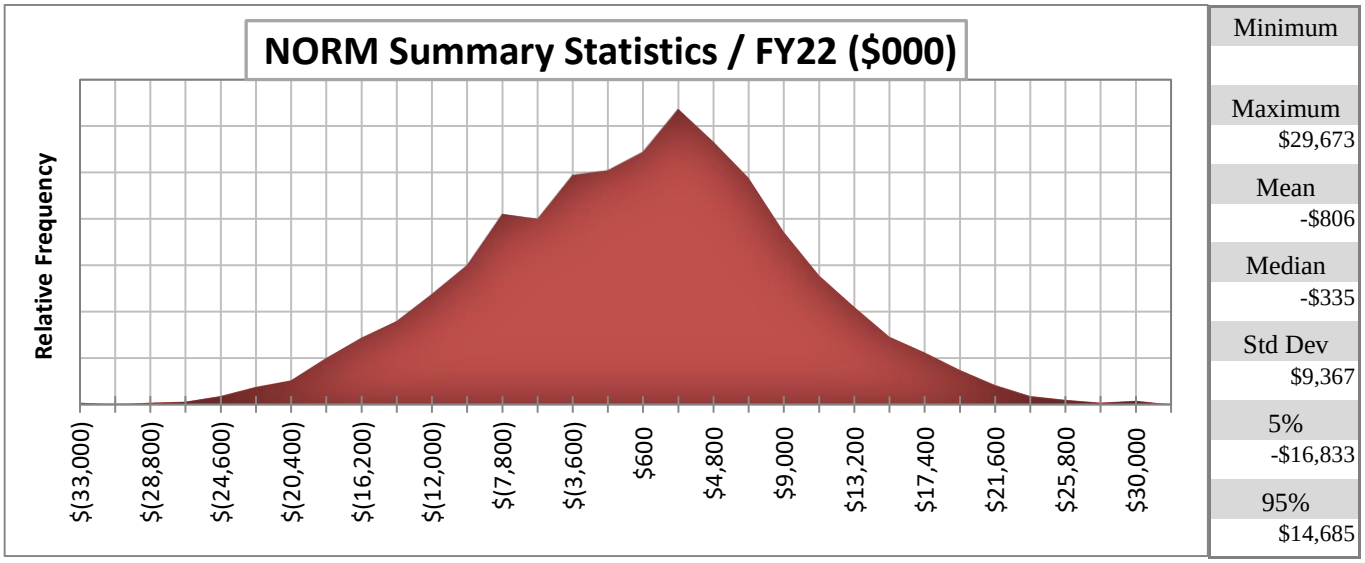
	PS_FY22	PS_FY23	TS_FY22	TS_FY23	
PNRR	0	0	0	0	PNRR
CRAC Threshold	0	0	0	0	CRAC_T
CRAC CAP	300	300	100	100	CRAC_C
FRPS Threshold	302	302	105	105	FRPS_T
FRPS CAP	40	40	15	15	FRPS_C
RDC Threshold	604	604	210	210	RDC_T
FRPS Agency Threshold	611	611	611	611	RDC_TA
RDC CAP	500	500	200	200	RDC_C
Revenue Financing	30	31	40	40	RevFin

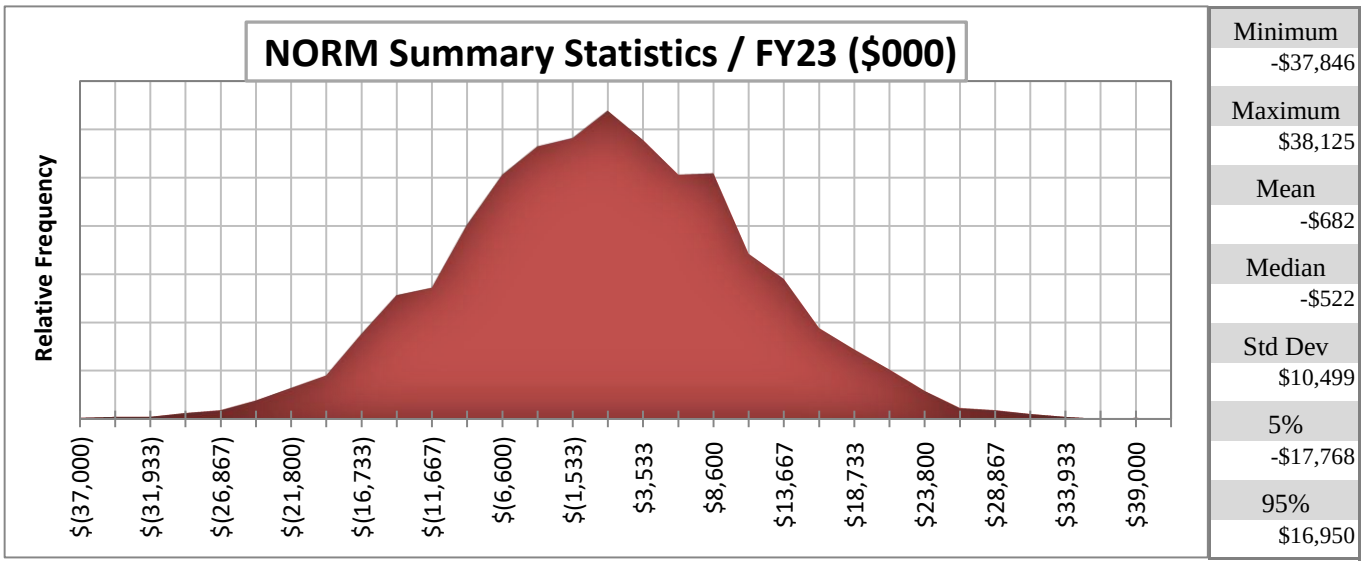
Summary Results

	PS FY21	PS FY22	PS FY23	TS FY21	TS FY22	TS FY23
Two-Year TPP		>99.9%			99.5%	
PNRR for TPP*		$0	$0		$0	$0
CRAC Frequency		0%	0%			0%
Expected Value (EV) CRAC Revenue		$0	$0		$0	$0
RDC Frequency	*NA*	0%	30%	*NA*	1%	4%
EV RDC		$0	$31		$0	$1
FRP Surcharge Frequency		0%	4%		0%	0%
EV Surcharge Revenue		$0	$1		$0	$0
Revenue Financing Adjustment		$2	$6		$0	$2
Treasury Deferral Frequency	0.0%	0.0%	0.0%	0.0%	0.1%	0.4%
EV Treasury Deferral	$0	$0	$0	$0	$0	$0
EV End of Year Financial Reserves	$448	$520	$488	$166	$165	$165
Financial Reserves, 5th percentile	$389	$302	$142	$136	$115	$105
Financial Reserves, 25th percentile	$419	$393	$334	$153	$143	$132
Financial Reserves, 50th percentile	$445	$515	$498	$165	$164	$163
Financial Reserves, 75th percentile	$472	$632	$637	$178	$185	$191
Financial Reserves, 95th percentile	$518	$784	$810	$199	$218	$236
Probability Reserves Fall below $0	0%	0%	0%	0%	0%	0%

**$31 million in PNRR from settlement is embedded in Power Net Revenue*

Figure 11:
T-NORM Output Summary Distributions





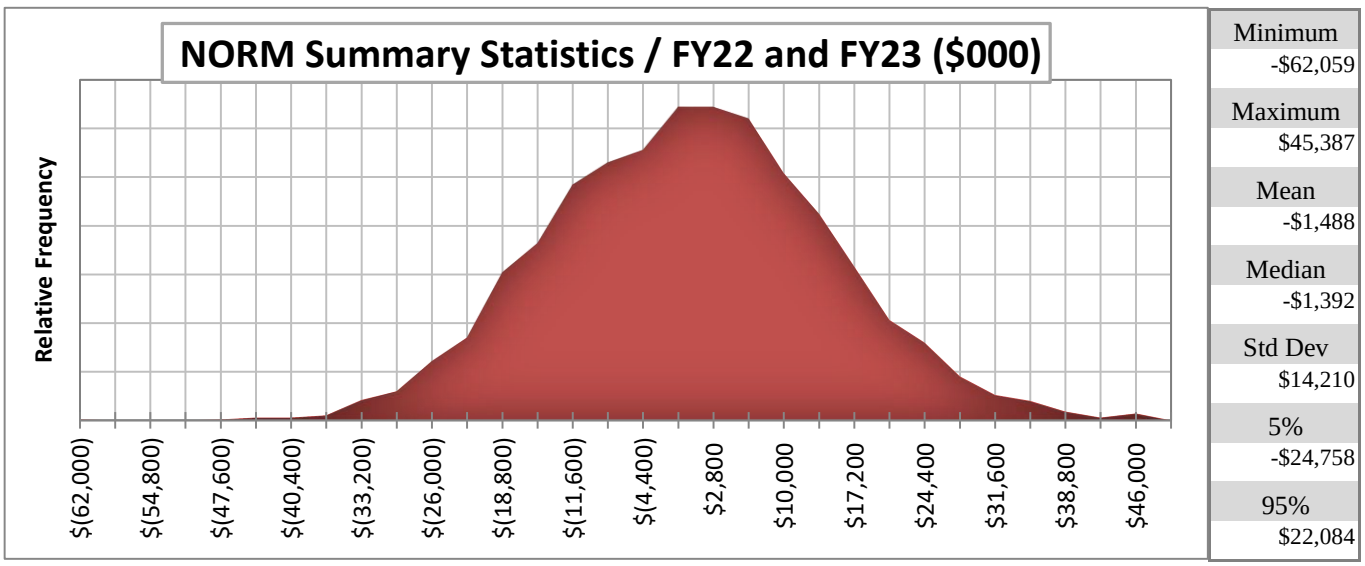


Figure 12:
Transmission Services End of Year Financial Reserves ($ in Millions)

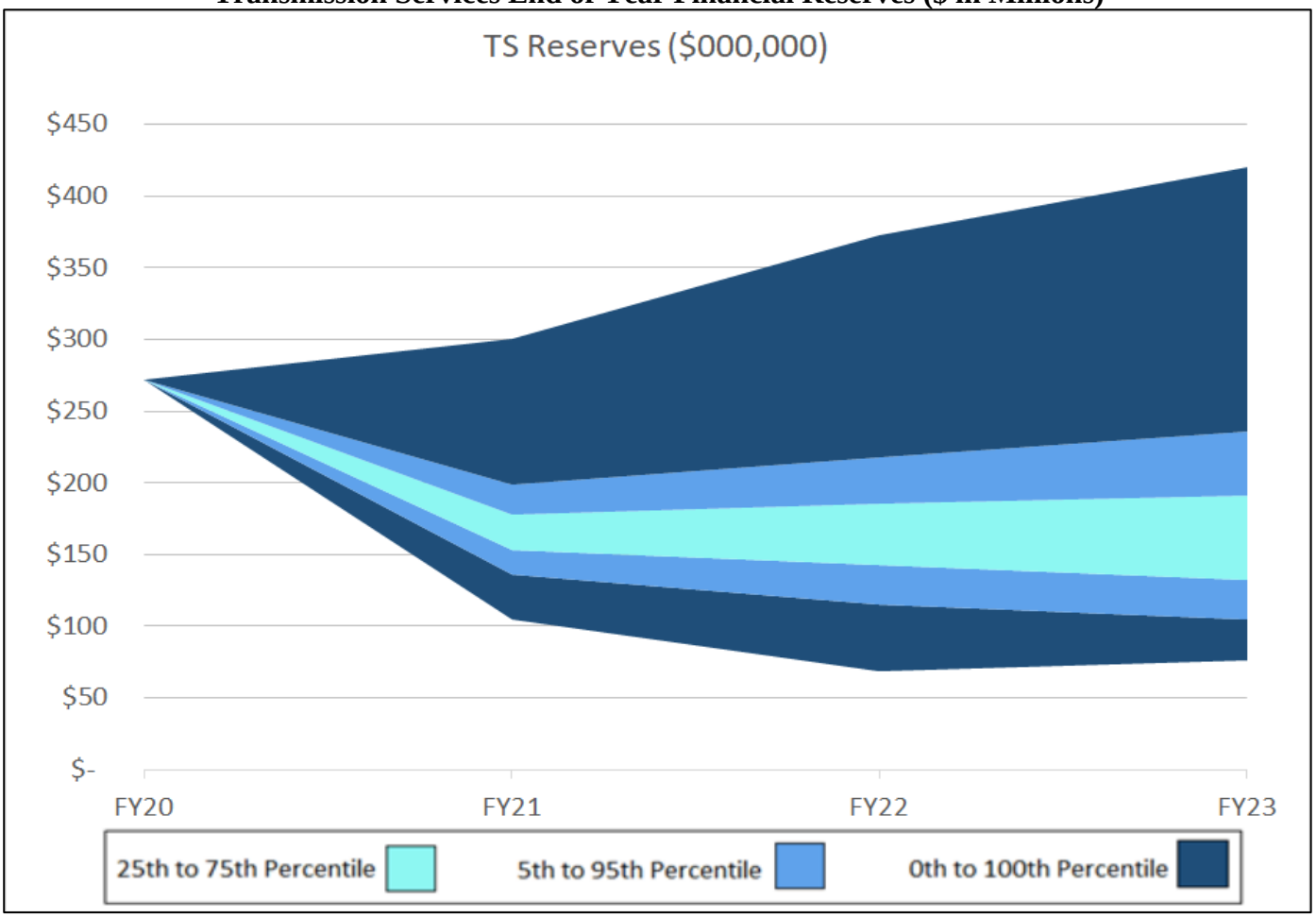


Figure 13:
Transmission Services ToolKit Inputs

ToolKitXL_BP22IP 12/16/2020

Static and starting Inputs

	PS	TS	
Starting RFR	435.3	**272.3**	StartRFR
Borrowing Liquidity	750	**0**	BorrowGross
Agency Liquidity Reliance	0	**0**	AgencyReli
Agency Liquidity Provided	0	**0**	AgencyProv
W/in Year Liquidity Borrowing Level	320	**0**	WinYrBorrow
W/in Year Liquidity RFR Level	0	**100**	WinYrRFR
De Minimis Threshold	**5**		DeMin

Input cells are highlighted in yellow.

To update input Monte Carlo simulation data, modify the "P_RM_Input.xls", P_NORM_Input.xls", and T_NORM_Input.xls" files. Model results update in realtime.

Annual Inputs

	PS_FY22	PS_FY23	TS_FY22	TS_FY23	
PNRR	0	0	**0**	**0**	PNRR
CRAC Threshold	0	0	**0**	**0**	CRAC_T
CRAC CAP	300	300	**100**	**100**	CRAC_C
FRPS Threshold	302	302	**105**	**105**	FRPS_T
FRPS CAP	40	40	**15**	**15**	FRPS_C
RDC Threshold	604	604	**210**	**210**	RDC_T
FRPS Agency Threshold	611	611	**611**	**611**	RDC_TA
RDC CAP	500	500	**200**	**200**	RDC_C
Revenue Financing	30	31	**40**	**40**	RevFin

Summary Results

	PS FY21	PS FY22	PS FY23	TS FY21	TS FY22	TS FY23
Two-Year TPP		>99.9%			99.5%	
PNRR for TPP*		$0	$0		$0	$0
CRAC Frequency		0%	0%		0%	0%
Expected Value (EV) CRAC Revenue		$0	$0		$0	$0
RDC Frequency	*NA*	0%	30%	*NA*	1%	4%
EV RDC		$0	$31		$0	$1
FRP Surcharge Frequency		0%	4%		0%	0%
EV Surcharge Revenue		$0	$1		$0	$0
Revenue Financing Adjustment		$2	$6		$0	$2
Treasury Deferral Frequency	0.0%	0.0%	0.0%	0.0%	0.1%	0.4%
EV Treasury Deferral	$0	$0	$0	$0	$0	$0
EV End of Year Financial Reserves	$448	$520	$488	$166	$165	$165
Financial Reserves, 5th percentile	$389	$302	$142	$136	$115	$105
Financial Reserves, 25th percentile	$419	$393	$334	$153	$143	$132
Financial Reserves, 50th percentile	$445	$515	$498	$165	$164	$163
Financial Reserves, 75th percentile	$472	$632	$637	$178	$185	$191
Financial Reserves, 95th percentile	$518	$784	$810	$199	$218	$236
Probability Reserves Fall below $0	0%	0%	0%	0%	0%	0%

**$31 million in PNRR from settlement is embedded in Power Net Revenue*

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