

# Garrett Group LLC

4028 Oakdale Farm Circle

Edmond, Oklahoma 73013

Telephone (405) 239-2226 ■ E-mail [mgarrett@garrettgroupllc.com](mailto:mgarrett@garrettgroupllc.com)

---

June 1, 2018

Matt Morris  
Office of the Governor  
101 North Carson Street, Suite 1  
Carson City, NV 89701

RE: Stranded Cost/Benefit Study Workpapers

Dear Mr. Morris:

This material is to fulfill the request by the Governor's Energy Choice Committee that Mr. Mark Garrett supply his workpapers and reference material for the Stranded Cost/Benefit study he conducted for the Nevada Energy Choice Initiative.

Sincerely,

Garrett Group LLC



Mark Garrett

MEG/gjg

# **GARRETT GROUP, LLC**

## **NVE STRANDED COST/BENEFIT ANALYSIS**

**May 9, 2018**

## Stranded Cost/Benefit Analysis for NVE

- I. Stranded Cost/Benefit Overview
- II. Stranded Cost/Benefit Study for 2023 Divestiture
- III. Purchase Power Agreement
- IV. TCJA Benefit for Ratepayers
- V. Why the TCJA is Important
- VI. Residential Customer Benefits Impact

## I. Stranded Cost/Benefit Overview

- Stranded Cost = Above-Market Cost of Utility Generation Assets
- Stranded Cost or Benefit (Gain or Loss on Divestiture)

Utility Generation Assets (Plant)
Less: Accumulated Depreciation
Equals: Plant Net Book Value
Less: Market Sales Price
Equals: Gain or Loss on Divestiture

- Loss on Divestiture = Stranded Cost
- Gain on Divestiture = Stranded Benefit

## "Stranded Cost" in Relation to Total Cost

- Ratepayers are Currently Paying the Total Cost of Generation
- Stranded Costs are a Subset of the Total Cost
- Ratepayers are Already Paying the Stranded Cost

## Why Stranded Costs DO NOT Increase Total Costs

- Upon Divestiture:

Regulated Cost

Less: Market Price

---

Stranded Cost

---

---

- After Divestiture:

Market Price for Power

Plus: Stranded Cost

---

Regulated Cost

---

---

- Whether Net Gain or Net Loss Occurs at Divestiture, Bottom Line is:  
**Stranded Costs Do Not Increase Total Costs for Ratepayers**

## II. Stranded Cost/Benefit Study for 2023 Divestiture

- **Utility Investment**

Plant at 2016 (from last Rate Case)

Less: Accumulated Depreciation 2022

= Net Plant Investment

- **Market Prices**

EIA Regional Prices

Less: Adjustment for Plant Age / Useful Life

= Market Value

- **Stranded Cost / Benefit**

## Conclusions of Stranded Cost/Benefit Study

(IN MILLIONS)

- Potential Stranded Net Benefit in 2023 of \$303 million.

	<u>Stranded Benefit 2023</u>	<u>TCJA Benefit 2023</u>	<u>Total</u>
NPC	\$276	\$625	\$901
SPPC	<u>\$27</u>	<u>\$220</u>	<u>\$247</u>
TOTAL	\$303	\$845	\$1,148

- Cannot Use Current Market Sales--They are NOT Comparable.
- Current Market Sales reflect the fact that all Retail Customers are Captive Customers of NVE.
- Market Sales after Divestiture would change to reflect the fact that Customers no longer would be Captive Customers of NVE.



### III. Purchase Power Agreements

- Our Study assumed that Customers both on and off the system will be responsible for the costs of Purchase Power Agreements.
- This means that there are no stranded costs associated with these agreements.
- Customers responsible prior to 2023 will be responsible after 2023.
- Net Incremental Cost to Consumers = \$0

## IV. Tax Cuts and Job Act (TCJA) Benefits

- Tax Cuts and Jobs Act for Ratepayers' Benefit
- The Tax Rate Change from 35% to 21% Resulted in Excess Accumulated Deferred Income Tax (ADIT) on Utility's Books

● NPC	\$625 M
● SPPC	<u>\$220 M</u>
	<u><u>\$845 M in 2023</u></u>

## V. WHY TCJA IS IMPORTANT

- Customers leaving the system leave behind these benefits.
- The resulting excess ADIT is a Stranded Benefit.
- With divestiture, the excess generation ADIT can be refunded immediately to Ratepayers, rather than over a 30 to 40 year period required under the TCJA.

## VI. RESIDENTIAL CUSTOMER BENEFIT

- If all of the Stranded Plant Benefit from divestiture and 2/3 of the Excess ADIT were amortized over a 3-year period, the Average Residential Customer's utility bill would be REDUCED by \$11.16 per month.
- \$11.16 per month\*
- About 10%
- **Solely from Recoupment of Stranded Benefits\*\***
  - \* Assumes NVE has 1,100,000 residential Customers making up 51% of NVE revenues.
  - \*\* Other benefits include wholesale market savings from regional market participation, consumer product revenues and lower prices from competitive market forces.

**NV ENERGY**  
**2023 NET STRANDED COST/BENEFIT ESTIMATE**  
**COMPANY-OWNED GENERATION**

LN	DESCRIPTION	NPC	SPPC	TOTAL
		Source: NPC W/P (attached) Docket No. 17-06004		
1	NET BOOK VALUE AS OF LAST GENERAL RATE CASE	\$ 2,246,696,980	\$ 678,031,586	\$ 2,924,728,567
2	DEPRECIATION ACCRUAL THRU 2022	\$ (691,883,694)	\$ (331,200,898)	\$(1,023,084,592)
3	NET BOOK VALUE 2023	\$ 1,754,813,286	\$ 396,830,688	\$ 2,151,643,975
4	PROJECTED 2023 NET BOOK VALUE PER KW	\$401	\$289	\$690
5	PROJECTED 2023 MARKET PRICE PER KW	\$464	\$309	\$773
6	PROJECTED 2023 MARKET PRICE OF ASSETS	\$ 2,030,733,384	\$ 424,353,014	\$ 2,455,086,399
7	PROJECTED 2023 NET STRANDED (COST) / BENEFIT	\$ 275,920,098	\$ 27,522,326	\$ 303,442,424
8	EXCESS ADIT	\$ 625,324,278	\$ 219,499,949	\$ 844,824,227
9	TOTAL 2023 NET STRANDED <u>BENEFIT</u> (TO BE RETURNED TO RATEPAYERS)	<u>\$ 901,244,376</u>	<u>\$ 247,022,275</u>	<u>\$ 1,148,266,651</u>

**NEVADA POWER COMPANY  
NET STRANDED COST/BENEFIT ESTIMATE**

**SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENTS, ORIGINAL COST, BOOK RESERVE AND CALCULATED  
ANNUAL DEPRECIATION ACCRUAL RATES AS OF DECEMBER 31, 2016**  
[ SOURCE: Docket No. 17-06004; Staff 014 Attachment 01 ]

LN	ACCOUNT	MW CAPACITY	ORIGINAL COST	BOOK RESERVE	ANNUAL DEPRECIATION AMOUNT	NET BOOK VALUE 2016	NET BOOK VALUE 2023	MARKET PROXY ORIGINAL COST	2023 DEPRECIATED MARKET VALUE	2023 MARKET VALUE DIFFERENTIAL
1	PRODUCTION PLANT									
2	CLARK	1100	756,558,845	347,483,912	24,808,152	409,074,933	260,226,021	876,700,000	301,549,779	41,323,758
3	GOODSPRINGS	5	26,903,510	434,767	1,277,035	26,468,743	18,806,533	5,285,000	3,694,407	(15,112,126)
4	HARRY ALLEN	628	809,427,350	171,535,162	26,551,273	637,892,188	478,584,550	663,796,000	392,478,102	(86,106,448)
5	HIGGINS	530	486,896,757	147,796,515	17,625,187	339,100,242	233,349,120	560,210,000	268,485,071	35,135,951
6	LAS VEGAS GENERATING STATIO	272	228,806,696	107,505,842	9,604,947	121,300,854	63,671,172	216,784,000	60,325,557	(3,345,615)
7	LENZIE	1100	521,096,926	82,687,548	20,916,344	438,409,378	312,911,314	1,162,700,000	698,184,861	385,273,547
8	NAVAJO	[Retired 2019]								
9	NELLIS SOLAR II	15	46,895,808	1,892,201	1,727,166	45,003,608	34,640,612	36,780,000	27,168,349	(7,472,262)
10	PHOTOVOLTAIC SOLAR		1,973,064	870,371	66,817	1,102,693	701,791	1,973,064	701,791	-
11	SILVERHAWK	520	300,165,093	82,845,770	11,118,188	217,319,323	150,610,195	549,640,000	275,786,191	125,175,996
12	SUNPEAK	210	93,073,430	82,048,411	1,618,840	11,025,019	1,311,979	167,370,000	2,359,276	1,047,297
13	TOTAL PRODUCTION PLANT	4,380	3,271,797,478	1,025,100,498	115,313,949	2,246,696,980	1,554,813,286	4,241,238,064	2,030,733,384	475,920,098
14	NET BOOK VALUE 12/31/2016					2,246,696,980			\$464	/ per kW
15	DEPRECIATION ACCRUAL THRU 2022						(691,883,694)			
16	ADDITIONAL CAPITAL MAINTENANCE THROUGH 2022					200,000,000				
17	NET BOOK VALUE 2023					1,754,813,286				
18	NET BOOK VALUE PER KW 2023					\$401				
19	PROJECTED MARKET PRICE PER KW 2023					\$464				
20	PROJECTED MARKET PRICE OF ASSETS IN 2023					2,030,733,384				
21	PROJECTED 2023 STRANDED NET BENEFIT		2018	(2016-2022)	2023	275,920,098				
22	EXCESS ADIT - TCJA		BCF1-06			625,324,278				
			18-02010			625,324,278				
23	TOTAL PROJECTED 2023 STRANDED NET BENEFIT (TO BE RETURNED TO RATEPAYERS)					\$ 901,244,376				

**Recap: EIA Installed Cost / kW**

EIA Jan. 2017	797
NERC Area 19	1,057
AZNM/Southern Nevada	2,006
Technology	Installed \$/kw
Combustion Turbine	797
Combined Cycle	1,057
Wind	2,006
PV	2,452

SIERRA PACIFIC POWER COMPANY  
NET STRANDED COST/BENEFIT ESTIMATE

SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED  
ANNUAL DEPRECIATION RATES AND ACCRUALS AS OF DECEMBER 31, 2015

[Source: Docket No. 16-06006]

LN	ACCOUNT	MW CAPACITY	ORIGINAL COST	BOOK RESERVE	ANNUAL DEPRECIATION AMOUNT	NET BOOK VALUE 12/31/2015	NET BOOK VALUE 2023	MARKET PROXY ORIGINAL COST	2023 DEPRECIATED MARKET VALUE	2023 MARKET VALUE DIFFERENTIAL
1	SPPC PRODUCTION PLANT									
2	CLARK MOUNTAIN	132	58,937,183	39,547,675	2,689,454	19,389,508	563,330	94,776,000	905,883	342,553
3	FT CHURCHILL	226	80,190,081	50,666,098	3,709,281	29,523,983	3,559,016	227,582,000	10,100,601	6,541,585
4	TRACY	753	600,112,459	141,771,137	21,454,025	458,341,322	308,163,147	758,271,000	389,378,981	81,215,834
5	VALMY	261	378,820,945	208,044,172	19,461,654	170,776,773	34,545,195	262,827,000	23,967,550	(10,577,645)
6	TOTAL PRODUCTION PLANT	1372	1,118,060,669	440,029,083	47,314,414	678,031,586	346,830,688	1,343,456,000	424,353,014	77,522,326
7	NET BOOK VALUE 2016					678,031,586			\$309	/
8	DEPRECIATION ACCRUAL THRU 2022					(331,200,898)				per kW
9	ADDITIONAL CAPITAL MAINTENANCE THROUGH 2022					50,000,000				
10	NET BOOK VALUE 2023					396,830,688				
11	NET BOOK VALUE PER KW 2023					\$289				
12	PROJECTED MARKET PRICE PER KW 2023					\$309				
13	PROJECTED MARKET PRICE OF ASSETS IN 2023					424,353,014				
14	PROJECTED 2023 STRANDED BENEFIT		2018	(2018-2022)	2023	27,522,326				
			270,489,284	(55,449,367)	215,039,917					
		BCP-1-06	5,771,806	(1,311,774)	4,460,032					
15	EXCESS ADIT	18-02010	276,261,090	(56,761,141)	219,499,949	219,499,949				
16	TOTAL PROJECTED 2023 STRANDED NET BENEFIT (TO BE RETURNED TO RATEPAYERS)					\$ 247,022,275				

Recap: EIA Installed Cost / kW  
 EIA Jan. 2017  
 NERC Area 21  
 NWPP/Northern Nevada

Technology \_\_\_\_\_ Installed \$/kW  
 Combustion Turbine \_\_\_\_\_ 718  
 Combined Cycle \_\_\_\_\_ 1,007  
 (also used for coal)

**NV ENERGY**  
**2023 NET STRANDED COST/BENEFIT ESTIMATE**  
**COMPANY-OWNED GENERATION**

LN	DESCRIPTION	NPC	SPPC	TOTAL
		Source: NPC W/P (attached) Docket No. 17-06004	Source: SPPC W/P (attached) Docket No. 16-06006	
1	NET BOOK VALUE AS OF LAST GENERAL RATE CASE	\$ 2,246,696,980	\$ 678,031,586	\$ 2,924,728,567
2	DEPRECIATION ACCRUAL THRU 2022	\$ (691,883,694)	\$ (331,200,898)	\$(1,023,084,592)
3	NET BOOK VALUE 2023	\$ 1,754,813,286	\$ 396,830,688	\$ 2,151,643,975
4	PROJECTED 2023 NET BOOK VALUE PER KW	\$401	\$289	\$690
5	PROJECTED 2023 MARKET PRICE PER KW	\$464	\$309	\$773
6	PROJECTED 2023 MARKET PRICE OF ASSETS	\$ 2,030,733,384	\$ 424,353,014	\$ 2,455,086,399
7	PROJECTED 2023 NET STRANDED (COST) / BENEFIT	\$ 275,920,098	\$ 27,522,326	\$ 303,442,424
8	EXCESS ADIT	\$ 625,324,278	\$ 219,499,949	\$ 844,824,227
9	TOTAL 2023 NET STRANDED <u>BENEFIT</u> (TO BE RETURNED TO RATEPAYERS)	<u>\$ 901,244,376</u>	<u>\$ 247,022,275</u>	<u>\$ 1,148,266,651</u>



NEVADA POWER COMPANY  
NET STRANDED COST/BENEFIT ESTIMATE

SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENTS, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUAL RATES AS OF DECEMBER 31, 2016  
[SOURCE: Docket No. 17-06004; Staff 014 Attachment 01]

LN	ACCOUNT	PROBABLE RETIREMENT DATE	SURVIVOR CURVE	NET SALVAGE CAPACITY	MW	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRUALS	ANNUAL DEPRECIATION AMOUNT	NET BOOK VALUE 2016	NET BOOK VALUE 2023	MARKET PROXY ORIGINAL COST	DEPRECIATED MARKET VALUE 2023	MARKET VALUE DIFFERENTIAL 2023	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	
<b>1 PRODUCTION PLANT</b>															
	CLARK COMMON	06-2034	SQUARE	0		1,001,488	552,427	449,061	2,56	25,661	17,5				
	CLARK COMMON	06-2034	75 - L0	(1)		19,060,034	10,107,629	9,143,005	2,97	555,905	16,2				
	CLARK COMMON	06-2034	50 - S1	0		5,029,738	1,873,748	3,155,990	3,78	189,980	16,6				
	CLARK COMMON	06-2034	60 - S1	0		22,152,601	14,882,698	7,269,904	2,09	462,899	15,7				
	CLARK COMMON	06-2034	50 - R2	0		4,735,825	3,373,643	1,362,182	1,74	82,324	16,5				
	CLARK COMMON	06-2034	40 - S0	0		2,150,361	1,179,937	970,444	3,11	60,776	14,5				
	CLARK COMMON	06-2038	75 - L0	(1)		4,086,248	2,569,361	1,557,749	1,94	79,138	19,7				
	CLARK COMMON	06-2038	50 - R0.5	0		13,321,895	8,425,960	4,895,935	1,94	258,533	18,9				
	CLARK COMMON	06-2038	50 - R2	0		546,748	246,879	299,869	2,73	14,902	20,1				
	CLARK PEAKER UNIT	06-2038	SQUARE	0		996	112	884	4,12	41	21,6				
	CLARK PEAKER UNIT	06-2038	75 - L0	(2)		26,116,989	6,757,402	19,881,927	3,82	998,116	19,9				
	CLARK PEAKER UNIT	06-2038	50 - S0	(2)		40,157,231	11,511,314	29,449,062	3,76	1,510,983	19,5				
	CLARK PEAKER UNIT	06-2038	50 - R2	(1)		266,101,398	81,072,735	187,689,677	3,64	9,696,591	19,4				
	CLARK PEAKER UNIT	06-2038	40 - S0	(1)		82,493,481	18,809,484	64,508,952	3,85	3,176,200	20,3				
	CLARK PEAKER UNIT	06-2038	50 - S0	(1)		857,093	187,314	678,350	4,20	36,032	18,8				
	CLARK UNIT 10	06-2034	75 - L0	(13)		882,633	393,320	603,656	4,16	36,756	16,4				
	CLARK UNIT 10	06-2034	50 - S1	(12)		23,026,378	15,638,393	10,151,149	2,78	639,590	16,2				
	CLARK UNIT 10	06-2034	60 - S1	(12)		21,527,945	14,064,333	10,046,965	2,88	619,844	16,2				
	CLARK UNIT 10	06-2034	75 - L0	(12)		7,657,981	4,074,913	4,502,025	3,67	280,846	16,0				
	CLARK UNIT 4	06-2020	75 - L0	(5)		21,953	21,665	1,385	1,83	402	3,4				
	CLARK UNIT 4	06-2020	50 - S0	(5)		247,815	238,022	22,184	2,65	6,562	3,4				
	CLARK UNIT 4	06-2020	50 - R0.5	(5)		6,130,412	6,359,541	77,391	0,37	22,469	3,4				
	CLARK UNIT 4	06-2020	75 - L0	(5)		82,250	61,608	3,755	1,75	1,092	3,4				
	CLARK UNIT 5	06-2034	50 - S0	(17)		1,953,589	1,356,082	776,547	2,58	46,980	16,5				
	CLARK UNIT 5	06-2034	50 - R0.5	(15)		32,468,057	21,017,274	16,309,468	0,96	1,026,504	15,9				
	CLARK UNIT 5	06-2034	50 - R2	(15)		738,463	743,573	105,659	0,87	6,405	16,5				
	CLARK UNIT 6	06-2034	75 - L0	(20)		1,822,810	1,343,529	1,27,442	0,66	8,034	15,9				
	CLARK UNIT 6	06-2034	50 - S0	(18)		1,822,451	1,832,696	317,796	1,13	20,633	15,4				
	CLARK UNIT 6	06-2034	50 - R0.5	(19)		26,772,215	20,256,312	11,334,901	2,66	711,545	15,9				
	CLARK UNIT 6	06-2033	75 - L0	(18)		885,058	734,971	318,249	2,22	19,619	16,2				
	CLARK UNIT 7	06-2033	75 - L0	(17)		1,096,392	1,157,621	125,158	0,76	19,619	15,1				
	CLARK UNIT 7	06-2033	50 - S0	(15)		1,700,458	1,687,536	267,991	1,06	17,962	14,9				
	CLARK UNIT 7	06-2033	50 - R0.5	(15)		31,988,687	20,418,536	16,368,454	3,39	1,095,210	15,1				
	CLARK UNIT 7	06-2033	50 - R2	(14)		1,966,667	1,474,075	394,715	1,38	21,928	15,3				
	CLARK UNIT 8	06-2033	75 - L0	(14)		1,367,647	635,260	923,898	4,36	59,654	15,3				
	CLARK UNIT 8	06-2033	50 - S0	(13)		4,838,442	4,303,322	87,717	1,27	5,821	15,1				
	CLARK UNIT 8	06-2033	50 - R0.5	(13)		41,477,634	28,619,140	18,250,586	2,91	1,206,526	15,1				
	CLARK UNIT 8	06-2033	50 - R2	(13)		642,181	470,644,46	255,020	2,57	16,500	15,5				
	CLARK UNIT 9	06-2033	75 - L0	(12)		1,410,834	958,707	621,426	2,87	40,445	15,4				
	CLARK UNIT 9	06-2033	50 - S1	(11)		20,637,865	13,463,278	9,238,373	2,99	616,358	15,0				
	CLARK UNIT 9	06-2033	60 - S1	(11)		30,784,036	20,892,259	13,278,022	2,80	862,852	15,4				
	CLARK UNIT 9	06-2033	50 - R2	(10)		7,415,991	4,801,915	3,355,676	3,01	222,859	15,1				
	CLARK UNIT 9	06-2033	40 - S0	(8)		944,142	839,956	179,717	1,40	13,176	13,6				
	CLARK				1100	756,556,845	347,483,912	449,557,476		24,808,152	409,074,933	260,226,021	876,700,000	301,549,779	41,323,758
	GOODSPRINGS	06-2040	75 - L0	(4)		11,430,216	1,184,787	10,702,638	4,27	488,285	10,245,429	7,315,719	-	-	(7,315,719)
	GOODSPRINGS	06-2040	50 - R0.5	(3)		12,921,857	(1,096,661)	14,406,174	5,31	685,833	14,018,518	9,903,520	-	-	(9,903,520)
	GOODSPRINGS	06-2040	50 - R2	(4)		2,340,620	332,777	2,101,522	4,02	94,184	2,007,995	1,442,791	-	-	(1,442,791)
	GOODSPRINGS	06-2040	40 - S0	(3)		62,003	5,085	58,778	4,48	2,776	56,918	40,262	-	-	(40,262)
	GOODSPRINGS UNIT	06-2040	SQUARE	0		148,762	8,779	139,984	4,00	5,957	139,984	104,242	-	-	(104,242)
	GOODSPRINGS				5	26,903,510	434,767	27,409,096		1,277,035	26,468,743	18,806,533	5,286,000	3,694,407	(15,112,126)
	HARRY ALLEN COMB	06-2046	SQUARE	0		36,863	3,484	33,379	3,07	1,131	33,379	26,593	-	-	(26,593)
	HARRY ALLEN COMB	06-2046	75 - L0	(3)		43,856,293	8,556,293	36,448,692	3,14	1,372,689	35,137,759	26,901,625	-	-	(26,901,625)
	HARRY ALLEN COMB	06-2046	50 - S0	(3)		142,986,696	23,781,518	121,477,271	3,28	4,690,152	117,188,180	89,047,268	-	-	(89,047,268)
	HARRY ALLEN COMB	06-2046	50 - R0.5	(2)		436,735,117	67,669,318	373,453,151	3,35	14,614,314	369,065,800	281,379,916	-	-	(281,379,916)
	HARRY ALLEN COMB	06-2046	40 - R2	(2)		30,761,607	5,810,715	25,566,124	3,05	937,511	24,950,692	19,325,826	-	-	(19,325,826)
	HARRY ALLEN COMB	06-2046	40 - S0	(1)		34,198,908	7,069,307	27,471,693	3,30	1,127,683	27,129,601	20,363,503	-	-	(20,363,503)
	HARRY ALLEN COMB	06-2046	SQUARE	0		1,166,562	545,573	622,989	1,81	21,118	622,989	496,281	-	-	(496,281)
	HARRY ALLEN COMB	06-2046	75 - L0	(2)		22,261,833	8,297,132	14,288,319	2,42	540,997	14,084,701	10,818,719	-	-	(10,818,719)
	HARRY ALLEN COMB	06-2046	50 - S0	(2)		2,393,439	2,072,435	388,872	0,59	14,156	321,004	236,068	-	-	(236,068)
	HARRY ALLEN COMB	06-2046	50 - R0.5	(2)		14,236,636	2,901,526	13,946,110	3,81	541,851	13,946,110	10,695,004	-	-	(10,695,004)
	HARRY ALLEN COMB	06-2046	50 - R2	(2)		2,958,132	1,506,912	1,389,120	1,74	50,433	1,389,120	1,086,522	-	-	(1,086,522)
	HARRY ALLEN COMB	06-2046	40 - S0	(2)		2,183,223	866,275	1,316,948	2,59	56,638	1,316,948	977,120	-	-	(977,120)



**NEVADA POWER COMPANY  
NET STRANDED COST/BENEFIT ESTIMATE**

**SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENTS, ORIGINAL COST, BOOK RESERVE AND CALCULATED  
ANNUAL DEPRECIATION ACCRUAL RATES AS OF DECEMBER 31, 2016**

[ SOURCE: Docket No. 17-06004; Staff 014 Attachment 01 ]

LN	ACCOUNT	PROBABLE RETIREMENT DATE	SURVIVOR CURVE	NET SALVAGE CAPACITY	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRUALS	DEPRECIATION AMOUNT	NET BOOK VALUE 2016	NET BOOK VALUE 2023	MARKET PROXY ORIGINAL COST	DEPRECIATED MARKET VALUE 2023	MARKET VALUE DIFFERENTIAL	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
8	NAVAJO UNIT 2	12-2019	75 - R2.5	(8)	3,285,334	2,391,305	1,156,856	11.81	894,029	(1,434,835)		-	1,434,835	
	NAVAJO UNIT 2	12-2019	40 - O1	(8)	1,200,321	1,212,372	83,974	2.40	(12,051)	(184,803)		-	184,803	
	NAVAJO UNIT 3	12-2019	75 - L1	(6)	7,856,625	6,812,064	1,515,958	4.60	510,592	(2,018,991)		-	2,018,991	
	NAVAJO UNIT 3	12-2019	75 - R1.5	(5)	46,351,178	30,005,835	18,662,002	13.52	16,345,843	(21,242,473)		-	21,242,473	
	NAVAJO UNIT 3	12-2019	80 - R1	(5)	6,882,343	5,845,284	1,381,195	6.75	464,334	(1,748,923)		-	1,748,923	
	NAVAJO UNIT 3	12-2019	75 - R2.5	(5)	8,323,993	6,216,029	2,324,039	10.18	847,005	(2,974,165)		-	2,974,165	
	NAVAJO UNIT 3	12-2019	40 - O1	(5)	1,003,376	1,024,281	29,264	1.00	(20,904)	(80,934)		-	80,934	
9	NELLIS SOLAR II	06-2045	SQUARE	(9)	46,895,808	1,892,201	49,224,230	3.68	1,727,166	34,640,612	36,780,000	27,168,349	(34,640,612) (7,472,262)	
	PHOTOVOLTAIC SOLU			0	1,973,064	870,371	1,102,693	3.39	66,817	701,791	1,973,064	701,791	(701,791)	
10	SILVERHAWK	06-2039	75 - L0	(3)	29,261,172	7,523,769	22,615,239	3.75	1,096,047	15,161,122		-	(15,161,122)	
	SILVERHAWK	06-2039	50 - R0.5	(2)	97,990,057	34,629,279	65,320,679	3.34	3,274,214	43,715,453		-	(43,715,453)	
	SILVERHAWK	06-2039	50 - R0.5	(2)	154,680,218	34,785,140	122,988,682	3.97	6,141,789	83,044,344		-	(83,044,344)	
	SILVERHAWK	06-2041	40 - S0	(2)	17,941,282	5,939,929	12,406,148	3.51	593,149	8,488,429		-	(8,488,429)	
	SILVERHAWK	06-2041	40 - S0	(2)	292,395	13,653	284,950	4.44	12,989	200,808		-	(200,808)	
					300,165,093	82,846,770	223,615,238	4.44	11,118,188	150,610,195	549,640,000	275,796,191	(125,175,996)	
11	SUNPEAK	06-2026	SQUARE	0	219,906	127,605	92,302	4.42	9,716	34,006		-	(34,006)	
	SUNPEAK	06-2026	75 - L0	(4)	13,549,536	6,025,708	8,065,809	6.51	882,701	2,227,621		-	(2,227,621)	
	SUNPEAK	06-2026	50 - S0	(4)	2,315,021	2,315,021	92,601	0.45	10,475	(62,850)		-	(62,850)	
	SUNPEAK	06-2026	50 - R0.5	(4)	57,039,520	57,039,520	2,281,587	0.45	255,496	(1,532,976)		-	(1,532,976)	
	SUNPEAK	06-2026	50 - R0.5	(4)	12,442,989	9,065,720	3,854,989	3.40	423,294	817,505		-	(817,505)	
	SUNPEAK	06-2026	50 - R2	(4)	5,790,418	5,790,331	271,704	0.52	30,049	(140,207)		-	(140,207)	
	SUNPEAK	06-2026	40 - S0	(3)	1,718,039	1,704,306	63,014	0.41	7,109	(31,121)		-	(31,121)	
					93,307,3430	82,048,411	14,722,000	0.41	1,618,840	1,311,979	167,370,000	2,359,276	(1,047,297)	
12	TOTAL PRODUCTION PLANT				4,380	3,271,797,478	1,025,100,498	2,393,015,288	115,313,949	2,246,696,980	1,554,813,286	4,241,238,064	2,030,733,384	475,920,098
13	NET BOOK VALUE 12/31/2016								2,246,696,980			\$464	/	per kW
14	DEPRECIATION ACCRUAL THRU 2022								(691,883,694)					
15	ADDITIONAL CAPITAL MAINTENANCE THROUGH 2022								200,000,000					
16	NET BOOK VALUE 2023								1,754,813,286					
17	NET BOOK VALUE PER KW 2023								\$401					
18	PROJECTED MARKET PRICE PER KW 2023								\$464					
19	PROJECTED MARKET PRICE OF ASSETS IN 2023								2,030,733,384					
20	PROJECTED 2023 STRANDED NET BENEFIT								275,920,098					
21	EXCESS ADIT - TCJA								625,324,278					
22	TOTAL PROJECTED 2023 STRANDED NET BENEFIT (TO BE RETURNED TO RATEPAYERS)								\$ 901,244,376					
23														

SIERRA PACIFIC POWER COMPANY  
NET STRANDED COST/BENEFIT ESTIMATE

SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED  
ANNUAL DEPRECIATION RATES AND ACCRUALS AS OF DECEMBER 31, 2015

[Source: Docket No. 16-0606]

LN	ACCOUNT	PROBABLE RETIREMENT DATE	SURVIVOR CURVE	NET SALVAGE	MW CAPACITY	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL DEPRECIATION RATE	ANNUAL DEPRECIATION AMOUNT	WMP DEPRECIATION LIFE	NET BOOK VALUE 12/31/2015	NET BOOK VALUE 2023	MARKET PROXY ORIGINAL COST	DEPRECIATED MARKET VALUE 2023	MARKET VALUE DIFFERENTIAL 2023
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1 SPPC PRODUCTION PLANT																
	BRUNSWICK	12-2019	SQUARE	(66)		2,400,198	1,760,886	783,324	3.68	88,434	8.9	458,341,322	308,163,147	758,271,000	389,378,981	81,215,834
	BRUNSWICK	12-2019	SQUARE	(65)		5,063,651	3,889,513	1,477,957	3.32	168,048	8.8					
	BRUNSWICK	12-2019	SQUARE	(65)		9,620,647	6,892,990	3,304,966	4.05	389,245	8.5					
	BRUNSWICK	12-2019	SQUARE	(66)		9,987,582	6,072,336	4,514,501	5.34	533,320	8.5					
	BRUNSWICK	12-2019	SQUARE	(65)		4,325,546	1,678,326	2,906,753	7.60	328,809	8.8					
	BRUNSWICK	12-2019	SQUARE	(65)		3,378,087	193,505	139,437	5.28	16,753	8.3					
	BRUNSWICK	12-2019	SQUARE	(65)		2,370,014	1,742,023	793,892	3.78	89,628	8.9					
	BRUNSWICK	12-2024	SQUARE	(6)		5,022,992	3,863,540	1,511,062	3.42	171,821	8.8					
	BRUNSWICK	12-2024	SQUARE	(6)		10,418,456	7,437,033	3,710,715	4.19	436,958	8.5					
	BRUNSWICK	12-2024	SQUARE	(6)		5,631,145	3,969,027	1,999,986	4.22	237,767	8.4					
	BRUNSWICK	12-2024	SQUARE	(6)		3,443,309	1,820,689	1,063,651	6.19	213,185	8.7					
	BRUNSWICK	12-2024	SQUARE	(6)		336,555	227,807	128,941	4.60	15,486	8.3					
	BRUNSWICK	12-2024	SQUARE	(6)		58,937,183	38,547,675	23,135,115	4.60	2,689,454	8.3	19,389,508	663,330	94,776,000	605,883	342,553
	BRUNSWICK	12-2028	SQUARE	(6)		46,082	16,842	29,450	4.91	2,265	##					
	BRUNSWICK	12-2028	SQUARE	(6)		3,973,283	2,588,325	1,384,969	2.70	107,323	##					
	BRUNSWICK	12-2028	SQUARE	(1)		2,599,302	797,170	1,828,125	5.67	147,322	##					
	BRUNSWICK	12-2028	SQUARE	(1)		147,868	82,242	67,084	3.56	5,270	##					
	BRUNSWICK	12-2028	SQUARE	(1)		1,383,087	508,464	874,623	4.93	68,239	##					
	BRUNSWICK	12-2028	SQUARE	(0)		2,081,169	1,325,809	755,380	2.91	60,666	##					
	BRUNSWICK	12-2025	SQUARE	(19)		2,914,707	2,866,290	602,271	2.13	62,071	9.7					
	BRUNSWICK	12-2025	SQUARE	(18)		20,707,402	11,669,574	13,265,161	6.50	1,345,095	9.9					
	BRUNSWICK	12-2025	SQUARE	(18)		8,048,178	7,014,848	2,482,203	3.16	254,470	9.8					
	BRUNSWICK	12-2025	SQUARE	(18)		1,633,189	1,523,188	371,323	2.45	38,936	9.3					
	BRUNSWICK	12-2025	SQUARE	(17)		921,307	287,965	789,974	8.50	81,958	9.6					
	BRUNSWICK	12-2028	SQUARE	(18)		2,448,286	2,567,952	321,025	1.02	25,076	##					
	BRUNSWICK	12-2028	SQUARE	(17)		18,760,977	8,140,801	13,809,542	5.84	1,094,960	##					
	BRUNSWICK	12-2028	SQUARE	(17)		12,812,584	9,915,453	5,075,271	3.17	405,881	##					
	BRUNSWICK	12-2028	SQUARE	(17)		1,514,744	1,702,325	39,630	0.20	5,689	##					
	BRUNSWICK	12-2028	SQUARE	(16)		197,897	159,261	70,289	2.87	6,070	##					
	BRUNSWICK	12-2028	SQUARE	(15)		80,190,081	50,666,088	41,766,260	2.87	3,709,281	##	28,523,983	3,559,016	227,582,000	10,100,601	6,541,585
	BRUNSWICK	12-2032	SQUARE	(0)		1,427,657	286,245	1,141,412	4.85	69,177	##	1,141,412				
	BRUNSWICK	12-2032	SQUARE	(0)		1,427,657	286,245	1,141,412	4.85	69,177	##	1,141,412				
	BRUNSWICK	12-2043	SQUARE	(0)		203,037	134,593	68,444	1.20	2,445	##					
	BRUNSWICK	12-2028	SQUARE	(1)		4,455,013	2,843,762	1,655,801	2.88	126,762	##					
	BRUNSWICK	12-2028	SQUARE	(1)		2,635,818	790,051	1,872,125	5.77	152,036	##					
	BRUNSWICK	12-2028	SQUARE	(1)		371,594	316,283	59,047	1.29	4,785	##					
	BRUNSWICK	12-2028	SQUARE	(1)		486,005	282,777	203,228	3.33	16,195	##					
	BRUNSWICK	12-2028	SQUARE	(0)		914,768	428,682	486,086	4.29	38,208	##					
	BRUNSWICK	12-2028	SQUARE	(11)		2,321,999	2,263,857	313,562	1.07	24,906	##					
	BRUNSWICK	12-2028	SQUARE	(10)		31,305,325	16,449,602	17,986,256	4.61	1,443,906	##					
	BRUNSWICK	12-2028	SQUARE	(10)		10,771,303	9,997,180	1,851,254	1.41	152,038	##					
	BRUNSWICK	12-2028	SQUARE	(9)		4,265,580	4,271,419	378,074	0.75	31,923	##					
	BRUNSWICK	12-2028	SQUARE	(9)		645,935	606,848	67,221	1.28	8,242	##					
	BRUNSWICK	12-2031	SQUARE	(9)		7,821,487	6,068,448	8,063,235	6.57	513,525	##					
	BRUNSWICK	12-2031	SQUARE	(3)		1,183,473	907,124	311,853	1.71	20,197	##					
	BRUNSWICK	12-2031	SQUARE	(3)		152,110	141,282	15,382	0.70	1,068	##					
	BRUNSWICK	12-2031	SQUARE	(3)		50,505	45,500	25,541,737	4.42	1,737,535	##					
	BRUNSWICK	12-2031	SQUARE	(3)		39,331,448	14,989,655	10,318,359	2.34	676,281	##					
	BRUNSWICK	12-2031	SQUARE	(3)		28,862,919	19,408,448	2,336,682	7.43	164,716	##					
	BRUNSWICK	12-2031	SQUARE	(3)		2,215,753	54,102,629	5,387,134	3.45	1,866,404	##					
	BRUNSWICK	12-2031	SQUARE	(3)		96,005,883	18,219,988	79,666,091	3.14	3,013,070	##					
	BRUNSWICK	12-2031	SQUARE	(3)		252,272,407	30,641,985	226,675,880	3.76	6,480,993	##					
	BRUNSWICK	12-2031	SQUARE	(2)		29,518,078	5,948,384	24,455,226	3.09	911,276	##					
	BRUNSWICK	12-2031	SQUARE	(2)		30,269,893	6,822,653	24,052,628	3.52	1,064,524	##					
	BRUNSWICK	12-2043	SQUARE	(2)		600,112,459	141,711,137	476,747,725	3.52	21,454,025	##	458,341,322	308,163,147	758,271,000	389,378,981	81,215,834
	BRUNSWICK	12-2025	SQUARE	(0)		10,000	10,000	7,041,264	2.92	714,247	9.9					
	BRUNSWICK	12-2025	SQUARE	(6)		24,441,824	18,867,069	3,990,924	4.79	3,990,924	9.7					
	BRUNSWICK	12-2025	SQUARE	(6)		81,162,832	48,484,084	11,648,518	4.88	1,202,377	9.7					
	BRUNSWICK	12-2025	SQUARE	(6)		24,638,579	14,468,804	1,711,538	1.27	181,445	9.4					
	BRUNSWICK	12-2025	SQUARE	(6)		14,300,204	13,448,679	1,711,538	1.27	181,445	9.4					
	BRUNSWICK	12-2025	SQUARE	(6)		3,071,621	2,737,589	518,319	1.77	54,514	9.5					
	BRUNSWICK	12-2025	SQUARE	(6)		307,211	96,862	210,349	6.85	21,035	##					

SIERRA PACIFIC POWER COMPANY  
NET STRANDED COST/BENEFIT ESTIMATE

SUMMARY OF ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED  
ANNUAL DEPRECIATION RATES AND ACCRUALS AS OF DECEMBER 31, 2015

[Source: Docket No. 16-06006]

LN	ACCOUNT	PROBABLE RETIREMENT DATE	SURVIVOR CURVE	NET SALVAGE	MW CAPACITY	ORIGINAL COST	BOOK RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL DEPRECIATION RATE	ANNUAL AMOUNT	MWPO	NET BOOK VALUE	NET BOOK VALUE 2023	MARKET PROXY ORIGINAL COST	DEPRECIATED MARKET VALUE 2023	MARKET VALUE DIFFERENTIAL
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
5	VALVY UNIT 2	12-2025	90 - S1	(4)		43,314,701	22,623,901	22,423,388	5.21	2,256,123	9.9	170,776,773	34,545,195	262,827,000	23,987,550	(10,577,845)
	VALVY UNIT 2	12-2025	55 - S0	(4)		137,572,126	63,808,231	79,266,780	5.96	8,205,129	9.7					
	VALVY UNIT 2	12-2025	65 - L1	(4)		32,317,990	12,126,509	21,484,201	6.83	2,208,255	9.7					
	VALVY UNIT 2	12-2025	60 - S1	(4)		14,173,412	10,328,040	4,412,308	3.23	457,486	9.6					
	VALVY UNIT 2	12-2025	50 - R1.5	(4)		3,510,443	1,046,392	2,604,469	7.65	268,409	9.7					
	WIND	06-2032	SQUARE	0		107,617	22,091	85,526	4.82	5,183	#	85,526				
	WIND					Immaterial	22,091	85,526		5,183						
6	TOTAL PRODUCTION PLANT					1,118,060,699	440,029,883			47,314,414		678,031,586	346,830,688	1,343,456,000	424,353,014	77,522,326
7	NET BOOK VALUE 2016											678,031,586				
8	DEPRECIATION ACCRUAL THRU 2022											(331,200,898)				
9	ADDITIONAL CAPITAL MAINTENANCE THROUGH 2022											50,000,000				
10	NET BOOK VALUE 2023											396,830,688				
11	NET BOOK VALUE PER KW 2023											\$289				
12	PROJECTED MARKET PRICE PER KW 2023											\$309				
13	PROJECTED MARKET PRICE OF ASSETS IN 2023											424,353,014				
14	PROJECTED 2023 STRANDED BENEFIT											27,522,326				
15	EXCESS ADIT											219,499,949				
16	TOTAL PROJECTED 2023 STRANDED NET BENEFIT (TO BE RETURNED TO RATEPAYERS)											\$ 247,022,275				

Recap: EIA Installed Cost / kW

EIA Jan. 2017  
NERC Area 21  
NWP/Northern Nevada

Technology: Installed \$/kW

Combustion Turbine  
Combined Cycle  
(also used for coal) 718  
1,007