

INPUTS:

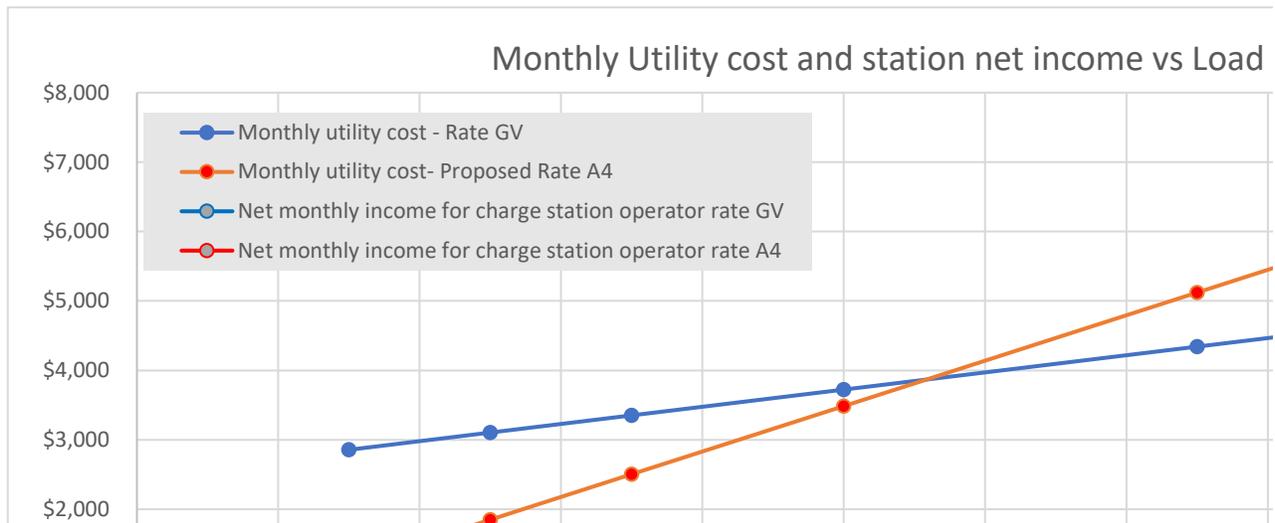
notes

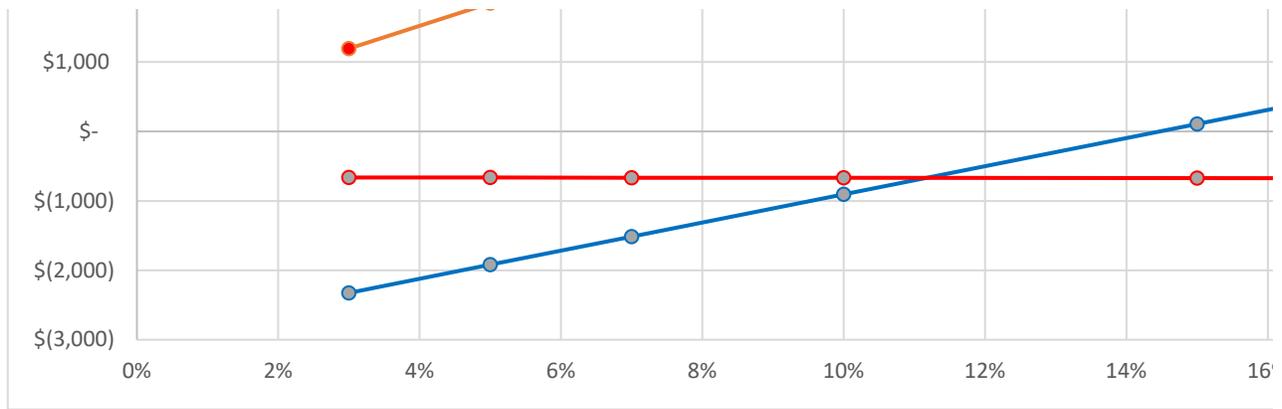
# of chargers per station	2		
peak load per charger	60	kW	
EV charging cost to customer	0.378	\$/kwhr	Matches(\$0.
fixed station operating expense per month	\$450	\$/mo	includes insu
Station capital cost	\$150,000		net of VW se
Station owner annual return (target)	6%		required ROI
station electrical efficiency	95%		

Rate GV	
Fixed Charge monthly	\$ 211
Demand Charge (per kW)	\$ 18
Distribution charge (per kwhr) incl SBC and stranded cost	\$ 0.016
Energy charge (per kwhr) (average through year)	\$ 0.120

Proposed ra	
Fixed Cha	
Demand	
Distributi	
Energy ch	

peak station load (kW) allowing for efficiency losses	126	126	126
Load factor (%)	3%	5%	7%
kwhr per month	2,728	4,547	6,366
Monthly utility cost - Rate GV	\$ 2,856	\$ 3,103	\$ 3,351
Monthly utility cost- Proposed Rate A4	\$ 1,193	\$ 1,848	\$ 2,503
average # of charge sessions per day (15 min)	6	10	13
Gross revenue for charge station operator (month)	\$ 980	\$ 1,633	\$ 2,286
Gross monthly revenue for charge station operator after fixed expense	\$ 530	\$ 1,183	\$ 1,836
Net monthly income for charge station operator rate GV	(\$2,326)	(\$1,920)	(\$1,514)
Net monthly income for charge station operator rate A4	(\$663)	(\$665)	(\$667)
Minimum Annual Required Return on capital investment (ROI)	\$9,000	\$9,000	\$9,000
Annual Revenue Excess/(shortfall) vs required (rate GV)	(\$36,912)	(\$32,042)	(\$27,172)
Annual Revenue Excess/(shortfall) vs required (rate A4)	(\$16,961)	(\$16,981)	(\$17,001)

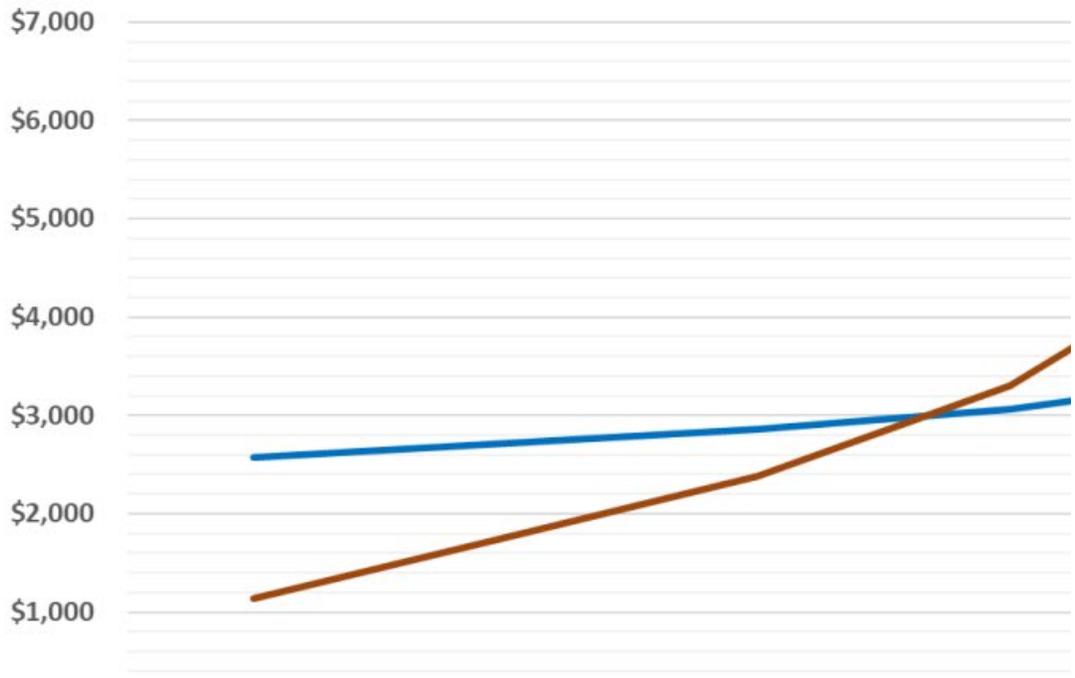




Note: Graph above does not include ANY return on initial capital investment
 Upper series above is same as Eversource graph below though with linear x axis (and minor rounding errors)
 Rate GV breakeven point is approximately 40 years
 This does not account for replacing hardware. VW funding only covers 5 years of warranty + O&M.
 High utilization load factors will inevitably result in heat stressed equipment that will need periodic componer

Figure 3: Rates GV vs. Alternate Rate Design
 Comparison of Monthly Bills at Various Utiliz

MONTHLY BILL



	120 3%	120 5%	120 7%	120 10%
Rate GV	\$2,579	\$2,717	\$2,855	\$3,062
A4 (10% Design Basis)	\$1.140	\$1.760	\$2.379	\$3.308

1. Introduction

2. Method

3. Results

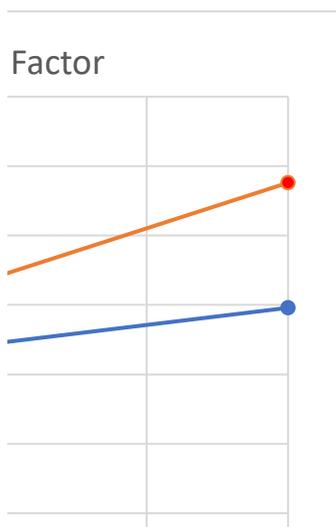
4. Discussion

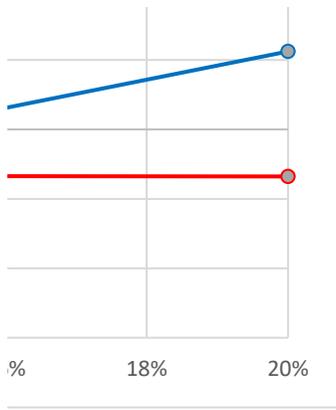
5. Conclusion

42) Electrify America. Evgo, etc. net of transaction fees. **Note: Tesla Superchargers \$0**
 insurance, basic O&M, vandalism (doesn't include parking site license/lease fee or capital
 settlement trust fund grant

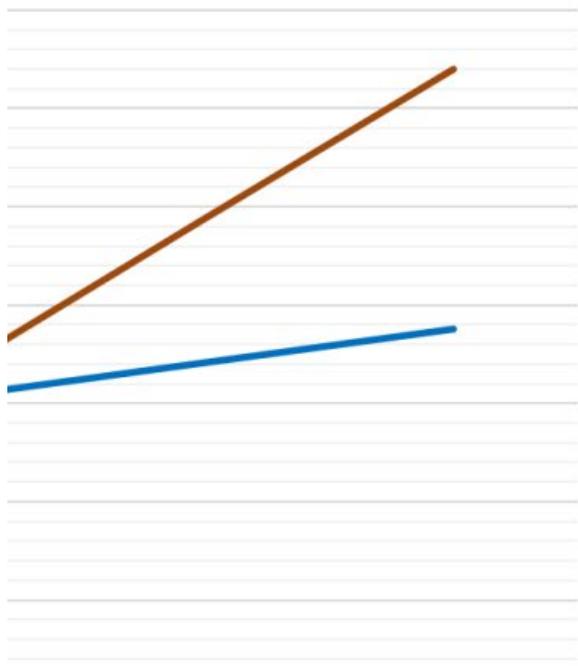
Rate A4	
Large monthly	\$ 211
Charge (per kW)	\$ -
on charge (per kwhr) incl SBC and strand	\$ 0.240
Charge (per kwhr) (average through year)	\$ 0.120

	126	126	126
	10%	15%	20%
	9,095	13,642	18,189
\$	3,722	\$ 4,340	\$ 4,958
\$	3,485	\$ 5,122	\$ 6,759
	19	29	38
\$	3,266	\$ 4,899	\$ 6,532
\$	2,816	\$ 4,449	\$ 6,082
	(\$906)	\$109	\$1,123
	(\$669)	(\$673)	(\$677)
	\$9,000	\$9,000	\$9,000
	(\$19,868)	(\$7,694)	\$4,481
	(\$17,030)	(\$17,079)	(\$17,128)





in (@10%)
ation Levels



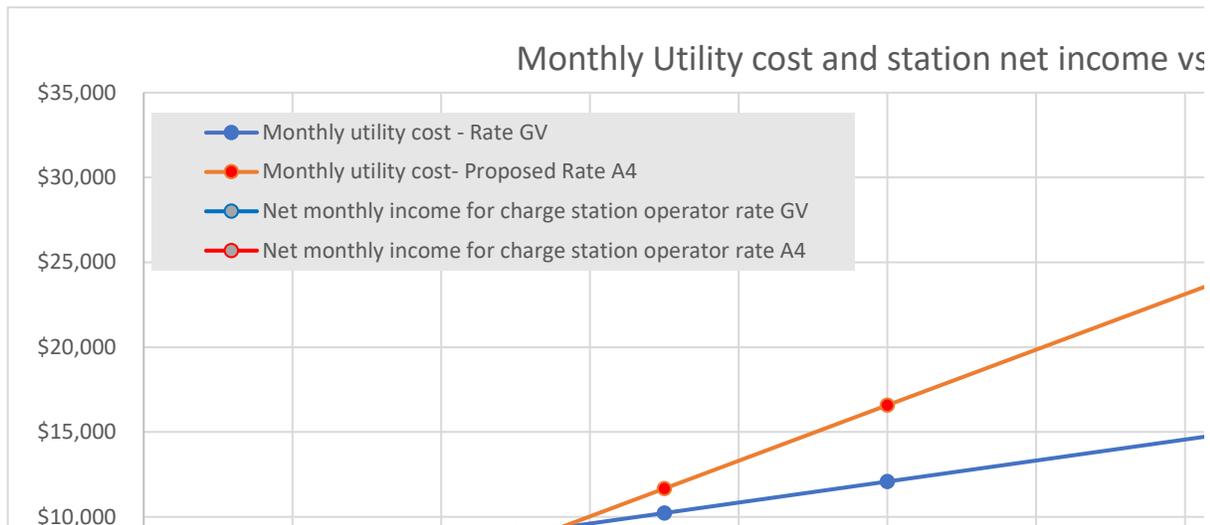
	120	120
	15%	20%
	\$3,408	\$3,754
	\$4.857	\$6.405

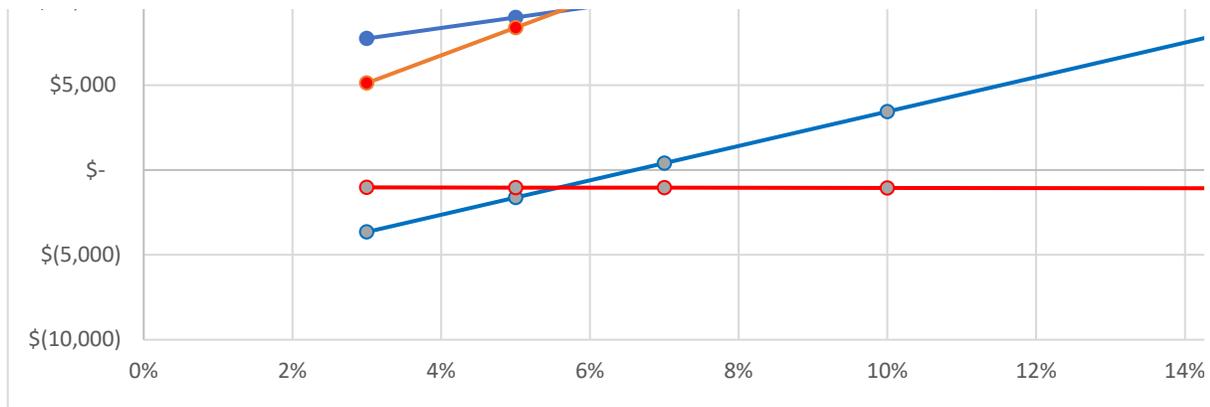
INPUTS:

# of chargers per station	4	
peak load per charger	150	kW
EV charging cost to customer	0.378	\$/kwhr
fixed station operating expense per month	\$800	\$/mo
Station capital cost	\$400,000	
Station owner annual return	6%	
station electrical efficiency	95%	

Rate GV	
Fixed Charge monthly	\$ 211
Demand Charge (per kW)	\$ 9
Distribution charge (per kwhr) incl SBC and stranded cost	\$ 0.016
Energy charge (per kwhr) (average through year)	\$ 0.120

peak station load (kW) allowing for efficiency loss	632	632
Load factor (%)	3%	5%
kwhr per month	13,642	22,737
Monthly utility cost - Rate GV	\$ 7,751	\$ 8,987
Monthly utility cost- Proposed Rate A4	\$ 5,122	\$ 8,396
average # of charge sessions per day (15 min)	12	19
Gross revenue for charge station operator (month)	\$ 4,899	\$ 8,165
Gross monthly revenue for charge station operator after fixed expenses	\$ 4,099	\$ 7,365
Net monthly income for charge station operator rate GV	(\$3,652)	(\$1,623)
Net monthly income for charge station operator rate A4	(\$1,023)	(\$1,031)
Minimum Annual Required Return on capital investment	\$24,000	\$24,000
Annual Revenue Excess/(shortfall) vs required (rate GV)	(\$67,820)	(\$43,471)
Annual Revenue Excess/(shortfall) vs required (rate A4)	(\$36,279)	(\$36,378)





Note: Graph above does not include ANY return on initial capital investment

Proposed rate A4 lowers the annual loss at low utilization, but **neither** rate allows station owner to ache

Assuming the 20% load factor and profitability, the breakeven point if the economics remain the same (Even reducing Rate GV demand charge by 50% results in a break even point over 6 years.

This does not account for replacing hardware. NEVI funding only covers 5 years of warranty + O&M.

High utilization load factors will inevitably result in heat stressed equipment that will need periodic com

notes

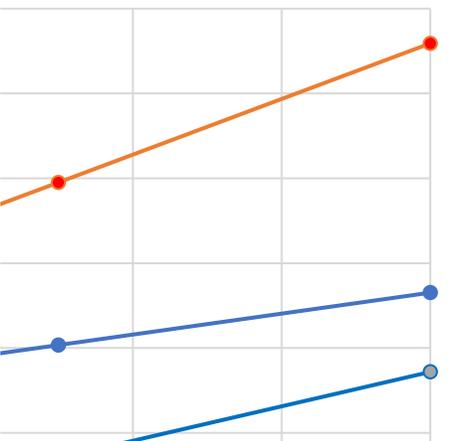
Minimum required to receive the NEVI federal funding
 Minimum required to receive the NEVI federal funding
 Matches(\$0.42) Electrify America, Evgo, etc. net of transaction fees. Note: Tesla Superchargers \$0.
 includes insurance, O&M, vandalism (doesn't include parking site license fee or network fee)
 net of state grant.
 required ROI

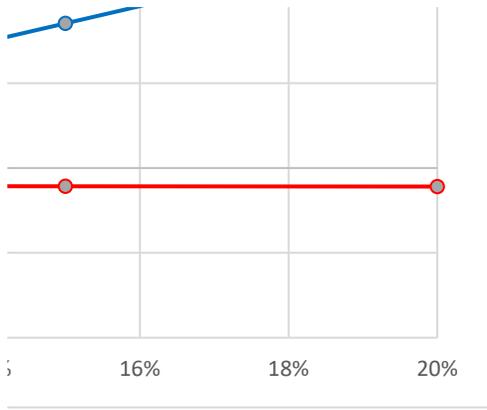
Proposed rate A4	
Fixed Charge monthly	\$ 211
Demand Charge (per kW)	\$ -
Distribution charge (per kwhr) incl SBC and stranded cost	\$ 0.240
Energy charge (per kwhr) (average through year)	\$ 0.120

	632	632	632	632
	7%	10%	15%	20%
	31,832	45,474	68,211	90,947
\$	10,224	\$ 12,080	\$ 15,172	\$ 18,264
\$	11,670	\$ 16,582	\$ 24,767	\$ 32,952
	27	38	58	77
\$	11,431	\$ 16,330	\$ 24,494	\$ 32,659
\$	10,631	\$ 15,530	\$ 23,694	\$ 31,859
	\$406	\$3,450	\$8,523	\$13,595
	(\$1,040)	(\$1,052)	(\$1,072)	(\$1,093)
	\$24,000	\$24,000	\$24,000	\$24,000
	(\$19,123)	\$17,400	\$78,271	\$139,142
	(\$36,476)	(\$36,623)	(\$36,869)	(\$37,114)

Note: Graph above does not include ANY return on initial
 Note: Graph above does not include ANY return on initial

s Load Factor





give positive income, let alone return on initial investment, until ~15% Load factor (>60 charge sessions per day

capital investment
capital investment