

Run Name = Replacement/Ins

Present Values as of Noncompliance Date (NCD),	04-Oct-2017
A) On-Time Capital & One-Time Costs	\$24,278
B) Delayed Capital & One-Time Costs	\$18,267
C) Avoided Annually Recurring Costs	\$2,142
D) Initial Economic Benefit (A-B+C)	\$8,153
E) Final Econ. Ben. at Penalty Payment Date,	
<u>31-May-2023</u>	<u>\$12,275</u>

User-Customized Tax Rates

Discount/Compound Rate	7.5%
Discount/Compound Rate Calculated By:	BEN
Compliance Date	28-Apr-2021

Capital Investment:

Cost Estimate	\$38,000
Cost Estimate Date	22-Dec-2022
Cost Index for Inflation	PCI
Consider Future Replacement (Useful Life)	y (15)

One-Time, Nondepreciable Expenditure:

Cost Estimate	\$750
Cost Estimate Date	22-Dec-2022
Cost Index for Inflation	PCI
Tax Deductible?	y

Annually Recurring Costs:

Cost Estimate	\$1,300
Cost Estimate Date	22-Dec-2022
Cost Index for Inflation	PCI

User-Customized Specific Cost Estimates: N/A

On-Time Capital Investment
Delayed Capital Investment
On-Time Nondepreciable Expenditure
<u>Delayed Nondepreciable Expenditure</u>

Discount/Compound Rate Calculation

Notes: (1) Corporate bond yields averaged across all industries (average of Aaa & Baa); Federal Reserve Statistical Release H.15.

(2) User-specified.

(3) Calculated as: (1) * (100%-(2)). [Adjusts for tax-deductibility of interest payments.]

(4) Average corporate debt weight; Standard & Poor's Analysts' Handbook then Kroll U.S. Industry Benchmarking.

(5) Federal Reserve Statistical Release H.15. [Used as a proxy for the risk-free rate in the Capital Asset Pricing Model (CAPM)].

(6) Beta measures risk relative to overall stock market, with a value of 1.00 therefore setting risk at overall market.

(7) Differences of average returns between stock market vs long-term Treasuries, 1926-PriorYear; Ibbotson then Kroll.

(8) Calculated as (6) * (7). [Also equal to (7), since (6) is equal to 1.00 for a company of average risk.]

(9) Calculated as (5) + (8). [Reflects risk-free rate of return plus the company risk premium.]

(10) Calculated as 100% - (4). [Reflects: total financing - debt = equity financing.]

(11) Calculated as (3) * (4) + (9) * (10). [Reflects: (debt cost x debt weight) + (equity cost x equity weight).]

average from: 2017 to: 2021 =										Final rate: 7.5%	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
YEAR	Cost of Debt	Tax Rate	After-Tax Debt Cost	Debt Weight	Long-Term Treasury Notes	Beta	Long-Horizon Risk Prem	Company Risk Premium	Equity Cost	Equity Weight	Rate
1987	9.98%	38.2%	6.17%	42.4%	8.49%	1.00	7.4%	7.4%	15.9%	57.6%	
1988	10.27%	38.2%	6.35%	46.3%	8.91%	1.00	7.2%	7.2%	16.1%	53.7%	
1989	9.72%	38.2%	6.01%	42.7%	8.47%	1.00	7.2%	7.2%	15.7%	57.3%	
1990	9.84%	38.2%	6.08%	46.0%	8.58%	1.00	7.5%	7.5%	16.1%	54.0%	
1991	9.29%	38.2%	5.74%	41.1%	8.00%	1.00	7.2%	7.2%	15.2%	58.9%	
1992	8.56%	38.2%	5.29%	49.3%	7.34%	1.00	7.4%	7.4%	14.7%	50.7%	
1993	7.58%	39.2%	4.61%	44.0%	6.29%	1.00	7.3%	7.3%	13.6%	56.0%	
1994	8.29%	39.2%	5.04%	48.0%	7.49%	1.00	7.2%	7.2%	14.7%	52.0%	
1995	7.90%	39.2%	4.80%	41.3%	6.95%	1.00	7.0%	7.0%	14.0%	58.7%	
1996	7.71%	39.2%	4.69%	37.0%	6.83%	1.00	7.4%	7.4%	14.2%	63.0%	
1997	7.56%	39.2%	4.60%	32.1%	6.69%	1.00	7.5%	7.5%	14.2%	67.9%	
1998	6.88%	39.2%	4.18%	27.8%	5.72%	1.00	7.8%	7.8%	13.5%	72.2%	
1999	7.46%	39.2%	4.54%	26.1%	6.20%	1.00	8.0%	8.0%	14.2%	73.9%	
2000	7.99%	39.2%	4.86%	29.3%	6.23%	1.00	8.1%	8.1%	14.3%	70.7%	
2001	7.52%	39.2%	4.57%	33.5%	5.63%	1.00	7.8%	7.8%	13.4%	66.5%	
2002	7.15%	39.2%	4.35%	41.3%	5.43%	1.00	7.4%	7.4%	12.8%	58.7%	
2003	6.22%	39.2%	3.78%	36.8%	4.96%	1.00	7.0%	7.0%	12.0%	63.2%	
2004	6.01%	39.2%	3.65%	37.3%	5.04%	1.00	7.2%	7.2%	12.2%	62.7%	

2005	5.65%	39.2%	3.44%	35.9%	4.64%	1.00	7.2%	7.2%	11.8%	64.1%	
2006	6.04%	39.2%	3.67%	32.8%	5.00%	1.00	7.1%	7.1%	12.1%	67.2%	
2007	6.02%	39.2%	3.66%	33.7%	4.91%	1.00	7.1%	7.1%	12.0%	66.3%	
2008	6.54%	39.2%	3.98%	45.0%	4.36%	1.00	7.1%	7.1%	11.5%	55.0%	
2009	6.31%	39.2%	3.84%	38.6%	4.11%	1.00	6.5%	6.5%	10.6%	61.4%	
2010	5.49%	39.2%	3.34%	36.7%	4.03%	1.00	6.7%	6.7%	10.7%	63.3%	
2011	5.15%	39.2%	3.13%	37.0%	3.62%	1.00	6.7%	6.7%	10.3%	63.0%	
2012	4.31%	39.2%	2.62%	35.9%	2.54%	1.00	6.6%	6.6%	9.1%	64.1%	
2013	4.67%	39.2%	2.84%	30.9%	3.12%	1.00	6.7%	6.7%	9.8%	69.1%	
2014	4.51%	39.2%	2.74%	30.9%	3.07%	1.00	7.0%	7.0%	10.1%	69.1%	
2015	4.45%	39.2%	2.71%	32.2%	2.55%	1.00	7.0%	7.0%	9.6%	67.8%	
2016	4.20%	39.2%	2.55%	32.0%	2.22%	1.00	6.9%	6.9%	9.1%	68.0%	
2017	4.09%	39.2%	2.49%	29.6%	2.65%	1.00	6.9%	6.9%	9.6%	70.4%	7.5%
2018	4.37%	26.1%	3.23%	29.9%	3.02%	1.00	7.1%	7.1%	10.1%	70.1%	8.0%
2019	3.89%	26.1%	2.87%	26.7%	2.40%	1.00	6.9%	6.9%	9.3%	73.3%	7.6%
2020	3.04%	26.1%	2.25%	29.8%	1.35%	1.00	7.2%	7.2%	8.6%	70.2%	6.7%
2021	3.05%	26.1%	2.25%	26.0%	1.98%	1.00	7.3%	7.3%	9.3%	74.0%	7.5%

Calculations for Specific Cost Estimates

	<u>On-Time</u>	<u>Delayed</u>
Date:	04-Oct-2017	28-Apr-2021
<u>Capital Investment:</u>		
Original Cost Estimate	\$38,000	\$38,000
	÷	÷
<i>PCI Value as of Cost Estimate Date,</i>	839.364	839.364
<i>22-Dec-2022</i>	x	x
<i>PCI Value as of Specific Estimate Date</i>	574.700	677.100
	=	=
Specific Cost Estimate,	\$26,018	\$30,654
reflecting implicit annualized inflation rate of:	7.5%	13.9%
 <u>One-Time, Nondepreciable Expenditure:</u>		
Original Cost Estimate	\$750	\$750
	÷	÷
<i>PCI Value as of Cost Estimate Date,</i>	839.364	839.364
<i>22-Dec-2022</i>	x	x
<i>PCI Value as of Specific Estimate Date</i>	574.700	677.100
	=	=
Specific Cost Estimate,	\$514	\$605
<u>reflecting implicit annualized inflation rate of:</u>	<u>7.5%</u>	<u>13.9%</u>

A) On-Time Capital & One-Time Costs	04-Oct-2017	04-Apr-2018	04-Apr-2019	04-Apr-2020	04-Apr-2021	04-Apr-2022	04-Apr-2023	04-Apr-2024	04-Apr-2025
One-Time, Nondepreciable Expenditure	(514)								
Capital Investment- Initial Installation	(26,018)								
Depreciation- Federal	0	(26,018)	0	0	0	0	0	0	0
Marginal Tax Rate (MTR)- Federal	35.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%
Tax Liability Offset- Federal	180	5,464	0	0	0	0	0	0	0
Depreciation- State (HI)	0	(3,718)	(6,372)	(4,551)	(3,250)	(2,323)	(2,321)	(2,323)	(1,160)
MTR- State (HI), adj. for fed. deductibility	4.2%	5.1%	5.1%	5.1%	5.1%	5.1%	5.1%	5.1%	5.1%
Tax Liability Offset- State (HI)	21	188	322	230	164	117	117	117	59
Net After-Tax Cash Flow	(26,331)	5,652	322	230	164	117	117	117	59
PV Factor: Adjusts Cash Flow to NCD	1.0000	0.9646	0.8973	0.8345	0.7763	0.7221	0.6718	0.6248	0.5812
PV Cash Flow as of NCD	(26,331)	5,452	289	192	128	85	79	73	34
Federal Utilized Depreciation Schedule:		100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
State Utilized Depreciation Schedule:		14.29%	24.49%	17.49%	12.49%	8.93%	8.92%	8.93%	4.46%

<u>Imputed Lease Cost for Interim Period When On-Time (But Not Delayed) Equipment Would Need Replacement</u>					Start Date:	End Date:	Years:	Capital Cost:	Annual Lease:
<i>Applicable Only w/ Default Values of Delayed (Not Avoided) Capital and Considered Future Replacement</i>					04-Oct-2032	28-Apr-2036	3.6	(47,825)	(5,418)
Total Imputed Lease Cost:	(19,504)	x	MTR- Federal/State Combined:		26.1%	=	Net After-Tax Cash Flow:		(14,414)
PV Factor: Adjusts Cash Flow to NCD:	0.2968								
PV Cash Flow as of NCD: (4,278)		+	Initial Install. NPV (see above): (19,999)			=	On-Time Total NPV, Install+Lease: (24,278)		

B) Delayed Capital & One-Time Costs	28-Apr-2021	28-Oct-2021	28-Oct-2022	28-Oct-2023	28-Oct-2024	28-Oct-2025	28-Oct-2026	28-Oct-2027	28-Oct-2028
One-Time, Nondepreciable Expenditure	(605)								
Capital Investment	(30,654)								
Depreciation- Federal	0	(30,654)	0	0	0	0	0	0	0
Marginal Tax Rate (MTR)- Federal	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%
Tax Liability Offset- Federal	127	6,437	0	0	0	0	0	0	0
Depreciation- State (HI)	0	(4,380)	(7,507)	(5,361)	(3,829)	(2,737)	(2,734)	(2,737)	(1,367)
MTR- State (HI), adj. for fed. deductibility	5.1%	5.1%	5.1%	5.1%	5.1%	5.1%	5.1%	5.1%	5.1%
Tax Liability Offset- State (HI)	31	221	380	271	194	138	138	138	69
Net After-Tax Cash Flow	(31,101)	6,659	380	271	194	138	138	138	69
PV Factor: Adjusts Cash Flow to NCD	0.7726	0.7451	0.6931	0.6448	0.5997	0.5578	0.5189	0.4827	0.4489
PV Cash Flow as of NCD	(24,029)	4,961	263	175	116	77	72	67	31
Federal Utilized Depreciation Schedule:		100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
State Utilized Depreciation Schedule:		14.29%	24.49%	17.49%	12.49%	8.93%	8.92%	8.93%	4.46%

PV Cash Flow as of NCD: (18,267)

C) Avoided Annually Recurring Costs*PCI value as of cost estimate date= 839.364*

	<i>PCI mid-point value:</i>	573.200	607.200	604.600	593.600	637.800
Period of Avoided Annual Costs; From:		04-Oct-2017	01-Jan-2018	01-Jan-2019	01-Jan-2020	01-Jan-2021
	To:	31-Dec-2017	31-Dec-2018	31-Dec-2019	31-Dec-2020	28-Apr-2021
Annual Costs Avoided		(216)	(940)	(936)	(922)	(319)
Marginal Tax Rate		39.2%	26.1%	26.1%	26.1%	26.1%
Net After-Tax Cash Flow		(132)	(695)	(692)	(681)	(236)
PV Factor: Adjusts Cash Flow to NCD		0.9913	0.9477	0.8816	0.8200	0.7816
PV Cash Flow as of NCD		(130)	(659)	(610)	(559)	(184)

NPV of Avoided Annual Costs as of NCD: (2,142)
