

**Chelan PUD  
Alcoa Proposed Term Sheet  
Cost to market - valuation  
Three Scenarios**

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This document includes forward-looking projections based on opinions and assumptions. The projections are subject to change based on uncertainties. Actual results may vary.

**Chelan PUD**  
**Alcoa Proposed Term Sheet Valuation**

Scenario: 1 BaseCase

		\$2007						\$ nominal					
		Rate, \$/mwh			\$ millions			Rate, \$/mwh			\$ millions		
Contract yr	Year	Cost	Market	Delta	Cost	Market	Delta	Cost	Market	Delta	Cost	Market	Delta
1	2012	22.94	51.46	28.51	45	100	55	25.96	58.22	32.26	50	113	63
2	2013	23.00	50.05	27.05	51	111	60	26.67	58.04	31.37	59	129	70
3	2014	22.85	49.88	27.03	51	111	60	27.16	59.29	32.13	60	132	71
4	2015	22.74	49.15	26.41	51	109	59	27.70	59.88	32.18	62	133	72
5	2016	22.31	49.47	27.16	50	110	60	27.86	61.78	33.92	62	137	75
6	2017	22.14	50.42	28.28	49	112	63	28.34	64.54	36.20	63	144	80
7	2018	21.52	49.59	28.07	48	110	62	28.24	65.06	36.82	63	145	82
8	2019	21.29	48.96	27.67	47	109	62	28.64	65.85	37.21	64	146	83
9	2020	21.45	49.21	27.76	48	109	62	29.57	67.83	38.26	66	151	85
10	2021	21.25	48.97	27.72	47	109	62	30.02	69.19	39.17	67	154	87
11	2022	21.16	49.55	28.39	47	110	63	30.65	71.77	41.12	68	160	91
12	2023	21.22	50.08	28.86	47	111	64	31.51	74.34	42.84	70	165	95
13	2024	21.29	50.78	29.48	47	113	66	32.40	77.26	44.86	72	172	100
14	2025	21.30	50.54	29.24	47	112	65	33.22	78.82	45.60	74	175	101
15	2026	21.49	50.45	28.96	48	112	64	34.35	80.65	46.30	76	179	103
16	2027	21.38	50.72	29.34	48	113	65	35.04	83.11	48.07	78	185	107
17	2028	21.29	51.24	29.95	47	114	67	35.75	86.06	50.31	80	191	112

**Key metrics**

1st year	22.94	51.46	28.51	45	100	55	25.96	58.22	32.26	50	113	63
Average (17 yrs)	21.80	50.03	28.23	48	110	62	30.18	69.51	39.33	67	154	87
NPV (17 yrs)				537	1,226	689				537	1,226	689
Sum (17 yrs)				818	1,877	1,059				1,134	2,611	1,478

**Notes**

- 1) NPV of delta including capacity reservation payment of \$17.5M = 672
- 2) 25% slice of Rocky Reach and Rock Island
- 3) Output mean 254 aMW, 90% confidence 202 aMW
- 4) Market per Chelan PUD electric price forecast model, assumes no price volatility
- 5) Discount rate 6.0% nominal, inflation 2.5%
- 6) Energy output is net of encroachments and Canadian Entitlement returns
- 7) Capacity / energy exchange not included above
- 8) Includes 25% capital recovery and 2% debt reduction charge

**Chelan PUD**  
**Alcoa Proposed Term Sheet Valuation**

Scenario: 2 HigherMarket

Contract yr	Year	\$2007						\$ nominal					
		Rate, \$/mwh			\$ millions			Rate, \$/mwh			\$ millions		
		Cost	Market	Delta	Cost	Market	Delta	Cost	Market	Delta	Cost	Market	Delta
1	2012	22.94	63.56	40.61	45	123	79	25.96	71.91	45.95	50	140	89
2	2013	23.00	61.85	38.86	51	138	86	26.67	71.73	45.06	59	160	100
3	2014	22.85	61.39	38.54	51	137	86	27.16	72.98	45.82	60	162	102
4	2015	22.74	60.38	37.65	51	134	84	27.70	73.57	45.87	62	164	102
5	2016	22.31	60.43	38.12	50	134	85	27.86	75.47	47.61	62	168	106
6	2017	22.14	61.11	38.97	49	136	87	28.34	78.23	49.89	63	174	111
7	2018	21.52	60.02	38.50	48	133	86	28.24	78.75	50.51	63	175	112
8	2019	21.29	59.14	37.85	47	132	84	28.64	79.54	50.90	64	177	113
9	2020	21.45	59.14	37.69	48	131	84	29.57	81.52	51.95	66	181	116
10	2021	21.25	58.66	37.41	47	130	83	30.02	82.88	52.86	67	184	118
11	2022	21.16	59.01	37.85	47	131	84	30.65	85.46	54.81	68	190	122
12	2023	21.22	59.30	38.08	47	132	85	31.51	88.03	56.53	70	196	126
13	2024	21.29	59.77	38.48	47	133	86	32.40	90.95	58.55	72	202	130
14	2025	21.30	59.32	38.02	47	132	85	33.22	92.51	59.29	74	206	132
15	2026	21.49	59.01	37.52	48	131	83	34.35	94.34	59.99	76	210	133
16	2027	21.38	59.07	37.69	48	131	84	35.04	96.80	61.76	78	215	137
17	2028	21.29	59.39	38.10	47	132	85	35.75	99.75	64.00	80	222	142

**Key metrics**

1st year	22.94	63.56	40.61	45	123	79	25.96	71.91	45.95	50	140	89
Average (17 yrs)	21.80	60.03	38.23	48	132	84	30.18	83.20	53.02	67	184	117
NPV (17 yrs)				537	1,476	939				537	1,476	939
Sum (17 yrs)				818	2,251	1,434				1,134	3,125	1,991

**Notes**

- 1) NPV of delta including capacity reservation payment of \$17.5M = 921
- 2) 25% slice of Rocky Reach and Rock Island
- 3) Output mean 254 aMW, 90% confidence 202 aMW
- 4) Market per Chelan PUD electric price forecast model, assumes no price volatility
- 5) Discount rate 6.0% nominal, inflation 2.5%
- 6) Energy output is net of encroachments and Canadian Entitlement returns
- 7) Capacity / energy exchange not included above
- 8) Includes 25% capital recovery and 2% debt reduction charge

**Chelan PUD**  
**Alcoa Proposed Term Sheet Valuation**

Scenario: 3 LowerMarket  
HighCost

Contract yr	Year	\$2007						\$ nominal					
		Rate, \$/mwh			\$ millions			Rate, \$/mwh			\$ millions		
		Cost	Market	Delta	Cost	Market	Delta	Cost	Market	Delta	Cost	Market	Delta
1	2012	25.91	45.41	19.50	50	88	38	29.32	51.38	22.06	57	100	43
2	2013	26.50	44.15	17.65	59	98	39	30.73	51.20	20.47	68	114	46
3	2014	26.56	44.12	17.56	59	98	39	31.57	52.45	20.88	70	117	46
4	2015	26.67	43.53	16.86	59	97	37	32.49	53.04	20.55	72	118	46
5	2016	26.46	43.99	17.53	59	98	39	33.05	54.94	21.89	73	122	49
6	2017	26.53	45.07	18.55	59	100	41	33.95	57.70	23.74	76	128	53
7	2018	26.18	44.37	18.19	58	99	40	34.35	58.22	23.87	76	129	53
8	2019	26.27	43.88	17.61	58	98	39	35.33	59.01	23.68	79	131	53
9	2020	26.80	44.24	17.45	60	98	39	36.94	60.99	24.05	82	136	53
10	2021	26.89	44.13	17.24	60	98	38	37.99	62.35	24.36	84	139	54
11	2022	27.13	44.83	17.70	60	100	39	39.29	64.93	25.64	87	144	57
12	2023	27.58	45.47	17.89	61	101	40	40.94	67.50	26.56	91	150	59
13	2024	28.06	46.28	18.22	62	103	41	42.70	70.42	27.72	95	157	62
14	2025	28.52	46.15	17.63	63	103	39	44.49	71.98	27.50	99	160	61
15	2026	29.26	46.17	16.91	65	103	38	46.78	73.81	27.03	104	164	60
16	2027	29.57	46.54	16.98	66	103	38	48.45	76.27	27.82	108	170	62
17	2028	29.49	47.17	17.67	66	105	39	49.54	79.22	29.69	110	176	66

**Key metrics**

1st year	25.91	45.41	19.50	50	88	38	29.32	51.38	22.06	57	100	43
Average (17 yrs)	27.32	45.03	17.71	60	99	39	38.11	62.67	24.56	84	139	54
NPV (17 yrs)				666	1,101	435				666	1,101	435
Sum (17 yrs)				1,025	1,689	664				1,432	2,355	922

**Notes**

- 1) NPV of delta including capacity reservation payment of \$17.5M = 418
- 2) 25% slice of Rocky Reach and Rock Island
- 3) Output mean 254 aMW, 90% confidence 202 aMW
- 4) Market per Chelan PUD electric price forecast model, assumes no price volatility
- 5) Discount rate 6.0% nominal, inflation 2.5%
- 6) Energy output is net of encroachments and Canadian Entitlement returns
- 7) Capacity / energy exchange not included above
- 8) Includes 25% capital recovery and 2% debt reduction charge