
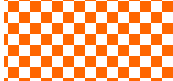
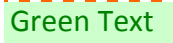

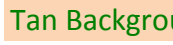

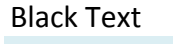
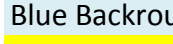

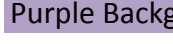


# ACTEW Panel Review - Price Model

## Notes and Assumptions

### Colour Codes

-  Red sheet border indicates an error. Check error flags below to debug.
-  Orange check sheet boarder indicates that the price setting macro needs to be run.
-  Green Text Indicates input data.
-  Dark Green B Indicates cell value selected from a list of options.
-  Tan Backgrou Indicates cell value is set by a macro.
-  Blue Text Indicates notes, assumptions or check calculations.
-  Black Text Calculations and external references.
-  Blue Backrou Indicates a cell with formula different to that in adjacent cells.
-  Any Text Items requiring attention or review.
-  Purple Backg Indicates cells that have been modified for the public version.

[Note \[44\]](#)

[Note \[54\]](#)

### Scenario Options

- Demand Forecast
- WACC Parameters
- Price Path
- Opening RAB Value
- Asset Remaining Economic Life
- 2013 Water Security Capex
- Cardno Capex Adjustment
- Recognising Demand Charged at t-1 Price

- Panel Final Decision
- Panel Draft Decision
- Panel Final Decision
- Panel Final Decision
- Panel Final Decision
- Panel Final Decision - Include
- Panel Final Decision - Include
- ICRC Adjustment

### Notes & Assumptions

- [Note \[1\]](#) Error checks show "0" for no error.
- [Note \[2\]](#) Model convergence checks show "0" when NPV of forecast revenue equals NPV of target revenue.
- [Note \[3\]](#) Not used.
- [Note \[4\]](#) Financial assumptions from [Opex, other expenditure, revenue adjustments and WACC SB 27 Oct 2014.xlsx]
- [Note \[5\]](#) Nil opening tax losses in either ICRC or ACTEW revenue models.

- Note [6] These inputs allow the user to test financeability impact of differences between forecast and actual water sales. For example set an input to -10% to test the impact on revenue and financeability of a 10% reduction in water sales in that year. Note that the inputs are automatically reset to 0% by the "set prices" macro. The sensitivity has no impact on account numbers, billable fixtures, or volume dependent O&M.
- Note [7] 20143/14 charges are from <http://www.actew.com.au/Customer%20Accounts%20and%20Services/Pricing%20and%20your%20Customer%20Contract/Water%20and%20sewerage%20FAQs.aspx>. 2014/15 charges from <http://www.actew.com.au/~//media/Files/ACTEW/Customer%20price%20contracts/2014%20ACT%20Water%20and%20Sewerage%20Schedule%20of%20Charges.sashx>
- Note [8] Operating and maintenance cost assumptions from [Opex, other expenditure, revenue adjustments and WACC SB 27 Oct 2014.xlsx]
- Note [9] Other income assumptions from [Opex, other expenditure, revenue adjustments and WACC SB 27 Oct 2014.xlsx]
- Note [10] Capital expenditure forecast inputs from [Capex and asset lives for forecast capex 17 Oct.xlsx]Pasted Data for Price Model.
- Note [11] Data for financeability tests from ACTEW. See 20140916 Supporting information for Panel review RFI - question 4.xlsx and 20140916 Request for further information - Question 4\_FINAL.pdf.
- Note [12] Moody's makes the following adjustments to depreciation expense for rating purposes:  
1) classify two thirds of the rent expense to depreciation for "capitalised operating leases".
- Note [13] Moody's makes the following adjustments to interest expense for rating purposes:  
1) classify one third of the rent expense to interest expense.  
2) increase interest expense by the amount of capitalised interest during the current period.

- Note [14] Moody's adjusts tax paid for the adjustments made to interest and depreciation expenses identified above.  
1) classify one third of the rent expense to interest expense.  
2) increase interest expense by the amount of capitalised interest during the current period.
- Note [15] FFO = EBITDA - interest expense - income tax paid;  
FFO interest cover = (FFO + interest expense) / interest expense  
=(EBITDA - income tax paid) / interest expense
- Note [16] Moody's makes the following adjustments to net debt for rating purposes:  
1) multiply the current operating lease rental expense by a multiple of between 4 and 10 and add the resulting figure to debt (or if the present value of the minimum lease commitments is higher, add that amount to debt instead).  
A multiplier of 7 has been adopted (as the midpoint of Moody's range).
- Note [17] Net debt is defined as short-term debt plus long-term debt - cash and cash equivalents.
- Note [18] Retained cash flow is (FFO - dividends). For the purposes of metric calculation, dividends are assumed to be paid out as 40% of FFO.
- Note [19] Proportion of annual consumption in each quarter assumed to be constant for all consumption levels. This assumption (and quarterly demand profile) is taken from ICRC's bill impact analysis. See[Pricing\_model\_2013-15\_FINAL.xlsm]11 Customer impacts.
- Note [20] Tier 2 threshold assumed to remain constant throughout the regulatory period. This assumption should not be changed in the model without a consequential change to the tier demand forecasts.
- Note [21] ACTEW provided operating lease obligations for the 2014 year. A flat operating lease rental profile has been assumed in other years.
- Note [22] ACTEW budgets to maintain an operating cash level of \$50m each financial year.

- Note [23] ACTEW has a general debt facility across water, sewerage and energy investments. To approximate a water/sewerage only debt level, total long term debt and interest have been multiplied by the ratio of water and sewerage assets to the total value of non-current assets. [20140916 Supporting information for Panel review RFI - question 4.xlsx ; worksheet "Borrowings, Capex"; in each year - (values in row 40 + values in row 39) divided by values in row 41)
- Note [24] No disposals are forecast. Because the RAB is currently modelled as aggregates of many physical assets, any significant asset disposal would require separate analysis of impact on RAB remaining lives. Therefore no automatic disposals functionality has been included in the model.
- Note [25] Panel Draft Decision forecast from Draft Decision Report, chapter 13 and Cardno forecast model (Modelv5.xls) as at 27 Oct 2014.
- Note [26] ICRC specified a demand forecast for 2013/14 and 2014/15 (see ICRC final report Table 7.4, p118). Constant growth assumed for remaining years.
- Note [27] Not used.
- Note [28] This sheet calculates the theoretical CSO required for ACTEW to charge Uriarra customers the normal sewerage tariff.
- Note [29] In the CSO calculations, we assume that tax losses are immediately usable elsewhere in the business, so Uriarra customers' price includes the value of tax losses.
- Note [30] The price setting macro sets a the Uriarra CSO so that Uriarra customers pay the normal sewerage price.
- Note [31] Assume CSO payments are not taxable income for ACTEW.
- Note [32] Water abstraction charge assumptions from [Opex, other expenditure, revenue adjustments and WACC SB 27 Oct 2014.xlsx]
- Note [33] Uriarra customer count for 2013/14 and 2104/15 from ICRC's model ([Pricing\_model\_2013-15\_FINAL.xlsm]13 Uriarra adjustment). Assumed constant thereafter.
- Note [34] This sheet calculates the theoretical CSO required to compensate ACTEW for constructing the Cotter Dam precinct and discovery trail.
- Note [35] This sheet calculates the theoretical CSO required to compensate ACTEW for greenhouse gas abatement activities associated with construction of the water security projects.
- Note [36] Price setting macro finishes when model convergence variable equals "TRUE".

- Note [37] Opening RAB and remaining life from [Opening RAB values kl 15 Oct 2014.xlsx]Opening RAB Calculations.
- Note [38] Assume opening tax book value is the sum of capital expenditure in the last regulatory period. Value from [Opening RAB values kl 15 Oct 2014.xlsx]Capex in last reg period. Assume tax life equals RAB life.
- Note [39] Uriarra opex from [Opex, other expenditure, revenue adjustments and WACC SB 27 Oct 2014.xlsx]Opex.
- Note [40] The price setting macro sets a the CSO so that total target revenue is zero in each year.
- Note [41] Opening RAB and RAB remaining life for Draft Report from [Opening RAB values kl 15 Oct 2014.xlsx]Inputs for Pricing Model. Opening RAB and RAB remaining life for Final Report from [Opening RAB values and asset lives 10 Feb 2015.xlsx]Inputs for Pricing Model.
- Note [42] Tax values from ACTEW's SOFC PTRMs (ammended by KL and SB). See [Attachment A1 PTRM FY14-FY18 Water\_ammended 18sept2014.xlsm]Input and [Attachment A2 PTRM FY14-FY18 Sewerage\_ammended 18sept2014.xlsm]Input.
- Note [43] ACTEW implied prices from [ACTEW Prices Implied by SOFC and Water Sales Forecasts - ACTEW updates 14Oct2014.xlsm]Implied Prices
- Note [44] The Panel Draft Decision assumes constant nominal water prices over next 3 years. Sewerage price path set with a small P0, then CPI escalation. For the hypothetical prices from 2013/14, the Panel has adopted a smoothed price path for water ( $P_0=X$ ), and a constant real price path for sewerage (set P0 such that  $X=0$ ).
- Note [45] ICRC asset lives for ECD and sewerage assets from [Pricing\_model\_2013-15\_FINAL.xlsm]5b Projected RAB. ICRC life for other water assets from [Att2\_Pricing\_model\_2013-19 depreciation - measures effect of errors.xlsm]5b Forecast RAB Errors Correcte.
- Note [46] Water subvention amounts from Ben McNair email to Katherine Lowe, 10 Oct 2014.
- Note [47] This section calculates simplified financial statements based on regulatory model assumptions. Values do not proport to be forecast actual values for EBIT, cash flows, dividends, etc. The analysis is only used to identify trends and potential issues.

Note [48] "Case 1" sets prices over the full five years of the regulatory period. This represents the price path the Panel might have set if it were making the decision in 2012 (but with updated volume and capex forecasts). This is the "no true up" case.

Note [49] "Case 2" accets ICRC prices for the first two years and sets prices over the remaining three years of the regulatory period to recover the NPV of revenue requirements over the full regulatory period. This is the "true up" case.

Note [50] ICRC's modelling adjusts for the fact that bills in the first quarter of a financial year have consumption pro-rated into financial years, with consumption charged at the rate prevailing in each year. The Panel did not include this adjustment in the draft decision (based on the assumption that Carndo was forecasting quantities in financial years).

Note [51] Cardno briefing note, 18 Feb 2015, p12.

Note [52] This worksheet allocated Carndo's recommended \$10m capex reductions in Year 4 and Year 5 of the regulatory period into Water RAB and Sewer RAB "projects". This methodology is mathematically equivaent to scaling all projects to deliver the required reuction.

Note [53] Water Controllable Opex updated for Final Report. See [Corrected Opex, other expenditure, revenue adjustments and WACC Feb 2015.xlsx]Opex row 4.

Note [54] The Panel Final Decision assumes a PO and then constant real water and sewerage prices over the regulatory period (Case 1) or next 3 years (Case 2). The Case 1 POs for water differ by tariff component so that the 2015/16 price change is the same for all components.

Note [55] Data for calculating the demand in each bill year is from ICRC's model ([Pricing\_model\_2013-15\_FINAL.xlsm]9 Demand forecast).

Note [56]

Note [57]

Note [58]

Note [59]

Note [1] **Error Check Summary**

Water - Existing Assets RAB: check closing RAB 0

Sewer - Existing Assets RAB: check closing RAB 0

Water - Capex RAB: check closing RAB 0

Sewer - Capex RAB: check closing RAB 0

Water - Capex RAB: check total RAB capex = total input capex 0

Sewer - Capex RAB: check total RAB capex = total input capex	0
Water - Existing Assets Tax BV: check closing tax BV	0
Sewer - Existing Assets Tax BV: check closing tax BV	0
Model Error Status	OK

Note [2]

**Model Convergence**

Water - Price Setting: Case1	0
Water - Price Setting: Case2	0
Sewer - Price Setting: Case1	0
Sewer - Price Setting: Case2	0
Uriarra CSO Case 1	0
Uriarra CSO Case 2	0
Cotter Dam Precinct and Discovery Trail CSO	0
Greenhouse Gas Abatement Costs CSO	0
Model Convergence Status for Formating	OK

Note [36]

Model Convergence Status for Macro	TRUE
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<b>Price Path Options</b>	<b>Price Path Code</b>
Set P0 for constant real price	1
Set smoothed price (P0 = X)	2
Set P0 for constant nominal p	3
Custom P0, set X	4
Panel Draft Decision	5
Panel Final Decision	1
Price Path Code Lookup	1

## ACTEW Panel Review - Price Model

### General Inputs

Year Index	0	1	2	3	4	5
Year	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18

### Inflation Assumptions

General Inflation	(%)	2.50%	2.50%	2.50%	2.50%	2.50%
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Note [4]

### Financial Assumptions

Label	Panel Draft Decision					
RAB Inflation Escalation	(%)	2.50%	2.50%	2.50%	2.50%	2.50%
WACC (nominal post-tax)	(%)	7.20%	7.20%	7.20%	7.20%	7.20%
Cost of Debt	(%)	6.48%	6.48%	6.48%	6.48%	6.48%
Corporate Tax Rate	(%)	30.0%	30.0%	30.0%	30.0%	30.0%
Debt Funding (% of RAB)	(%)	60.0%	60.0%	60.0%	60.0%	60.0%
Gamma		0.50	0.50	0.50	0.50	0.50

Note [4]

### Panel WACC parameters

Label	Panel Draft Decision					
RAB Inflation Escalation	(%)	2.50%	2.50%	2.50%	2.50%	2.50%
WACC (nominal post-tax)	(%)	7.20%	7.20%	7.20%	7.20%	7.20%
Cost of Debt	(%)	6.48%	6.48%	6.48%	6.48%	6.48%
Corporate Tax Rate	(%)	30.0%	30.0%	30.0%	30.0%	30.0%
Debt Funding (% of RAB)	(%)	60.0%	60.0%	60.0%	60.0%	60.0%
Gamma		0.50	0.50	0.50	0.50	0.50

### ACTEW SOFC WACC parameters

Label	ACTEW SOFC					
RAB Inflation Escalation	(%)	2.50%	2.50%	2.50%	2.50%	2.50%
WACC (nominal post-tax)	(%)	8.95%	8.95%	8.95%	8.95%	8.95%
Cost of Debt	(%)	7.83%	7.83%	7.83%	7.83%	7.83%
Corporate Tax Rate	(%)	30.0%	30.0%	30.0%	30.0%	30.0%
Debt Funding (% of RAB)	(%)	60.0%	60.0%	60.0%	60.0%	60.0%
Gamma		0.25	0.25	0.25	0.25	0.25

### ICRC WACC Parameters

Label	ICRC					
RAB Inflation Escalation	(%)					
WACC (nominal post-tax)	(%)	4.42%	4.42%	4.42%	4.42%	4.42%

Cost of Debt	(%)	5.50%	5.50%	5.50%	5.50%	5.50%
Corporate Tax Rate	(%)					
Debt Funding (% of RAB)	(%)	60.0%	60.0%	60.0%	60.0%	60.0%
Gamma		0.50	0.50	0.50	0.50	0.50

#### ACTEW Feb 2015 Clontentions

Label	ACTEW Feb 2015					
RAB Inflation Escalation	(%)	2.50%	2.50%	2.50%	2.50%	2.50%
WACC (nominal post-tax)	(%)	7.78%	7.78%	7.78%	7.78%	7.78%
Cost of Debt	(%)	6.48%	6.48%	6.48%	6.48%	6.48%
Corporate Tax Rate	(%)	30.0%	30.0%	30.0%	30.0%	30.0%
Debt Funding (% of RAB)	(%)	60.0%	60.0%	60.0%	60.0%	60.0%
Gamma		0.25	0.25	0.25	0.25	0.25

Label	Offset
Panel Draft Decision	0
ACTEW SOFC	10
ICRC	20
ACTEW Feb 2015	30

Proportion of capital expenditure inflated and depreciated in the year of spend	(%)	50.0%
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#### Note [5] Accumulated Losses for Tax Purposes

Water	(\$)	0
Sewerage	(\$)	0

#### Note [32] Water Abstraction Charges

Rate	(\$/kL)	0.51	0.54	0.54	0.54	0.54
Water Release (as Multiple of Sales)		1.17	1.17	1.17	1.17	1.17
Forecast Sales	(kL)	41,930,000	43,146,339	43,668,110	44,204,654	44,756,513
Forecast Releases	(kL)	49,040,936	50,463,554	51,073,813	51,701,350	52,346,799
Water Abstraction charge	(\$)	25,010,877	27,250,319	27,579,859	27,918,729	28,267,271

#### Note [8] Operations and Maintenance Expenses

Water

Note [53]	Controllable operating expenditure	(\$)	62,754,266	66,153,513	66,913,296	67,949,424	70,332,266
	Water Abstraction charge	(\$)	25,010,877	27,250,319	27,579,859	27,918,729	28,267,271
	Utilities Network Facilities Charge	(\$)	4,100,000	4,517,688	4,738,319	4,967,158	5,091,337
			91,865,144	97,921,520	99,231,474	100,835,311	103,690,874

Sewerage

Controllable operating expenditure	(\$)	67,701,780	69,285,152	70,636,748	73,325,250	76,269,848
Utilities Network Facilities Charge	(\$)	3,390,032	3,721,492	3,890,820	4,067,853	4,252,940
		71,091,812	73,006,644	74,527,569	77,393,102	80,522,788

Note [9] **Other income**

Water

Subvention	(\$)					
Sales to QCC and other income	(\$)					
		-14,454,573	-14,816,669	-15,187,862	-15,568,381	-15,958,464

Sewerage

Subvention	(\$)					
Other income	(\$)					
	(\$)	-10,352,179	-10,612,940	-10,880,331	-11,154,524	-11,435,697

Note [7] **Actual Charges**

Water Supply Charge	(\$/cust)	99.83	100.00	102.56
Tier 1 Price	(\$/kL)	2.43	2.55	2.64
Tier 2 Price	(\$/kL)	4.86	5.10	5.29
Tier 2 Threshold	(kL/day)	0.548	0.548	0.548
Sewerage Charge	(\$/cust)	600.65	492.02	505.41
Sewerage Fixtures	(\$/fixture)	587.42	481.18	494.28

Note [20]

**Scenario and Sensitivity Controls**

Note [6]	Water sales change from forecast	(%)	0%	0%	0%	0%	0%
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**Proportion of Water Security Asset Costs Deferred**

Proportion of Water Security Asset Costs Deferred (%)	0.0%
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Deferred RAB

Opening Value	(\$)	0	0	0	0	0
Interest	(\$)	0	0	0	0	0
Closing Value	(\$)	0	0	0	0	0

## ACTEW Panel Review - Price Model

Note [52]

Cardno Capex Reduction

Year 4 Capital Expenditure	Allocation of Cardno		Useful Life
	Nominal Value	Reduction	
Water	30,948,958	-2,080,841	34
Sewerage	117,783,951	-7,919,159	32
	<u>148,732,910</u>	<u>-10,000,000</u>	

Year 5 Capital Expenditure	Allocation of Cardno		Useful Life
	Nominal Value	Reduction	
Water	45,943,123	-3,754,257	34
Sewerage	76,432,962	-6,245,743	32
	<u>122,376,085</u>	<u>-10,000,000</u>	





Label	ACTEW - Updated					
Forecast water supply charges	Equivalent annual customers	162,951	166,992	171,134	175,378	179,728
Demand at Tier 1 price	(kL)	23,760,000	23,924,167	24,762,008	25,277,492	25,745,104
Demand at Tier 2 price	(kL)	18,170,000	15,622,578	17,789,992	17,267,508	16,796,896
Forecast sewerage supply charges	Equivalent annual customers	162,609	166,678	170,849	175,124	179,506
Forecast fixture charges	Equivalent annual fixtures	60,274	61,597	62,949	64,331	65,743

209,115,746 41,823,149 -5.6%

**Demand Forecast 6**

Note [51]

Label	Panel Final Decision					
Forecast water supply charges	Equivalent annual customers	162,951	166,992	171,134	175,378	179,728
Demand at Tier 1 price	(kL)	23,760,000	24,527,730	25,313,508	26,042,589	26,720,228
Demand at Tier 2 price	(kL)	18,170,000	18,618,609	18,354,602	18,162,065	18,036,285
Forecast sewerage supply charges	Equivalent annual customers	162,609	166,678	170,849	175,124	179,506
Forecast fixture charges	Equivalent annual fixtures	60,274	61,597	62,949	64,331	65,743
			43,146,339	43,668,110	44,204,654	44,756,513

217,705,616 43,541,123 -1.7%

**Forecast Label Lookup**

Label	Offset
Panel Draft Decision	0
Cardno - 95% POE	8
Cardno - 5% POE	16
ACTEW SOFC	24
ICRC	32
ACTEW - Updated	40
Panel Final Decision	48

-2,959,427 -3,039,916 -3,160,999 -3,404,833

## ACTEW Panel Review - Price Model

Adjustment for Prior Year Price

Year Index	0	1	2	3	4	5
Year	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18

Note [50]

### Demand Forecast Modelled

Label	ICRC Adjustment					
Tier 1 Demand Charged at t-1 Price	(%)	11.9%	11.9%	11.9%	11.9%	11.9%
Tier 2 Demand Charged at t-1 Price	(%)	9.4%	9.4%	9.4%	9.4%	9.4%

### Adjustment Option 1

Label	Panel Draft Decision					
Tier 1 Demand Charged at t-1 Price	(%)	0.0%	0.0%	0.0%	0.0%	0.0%
Tier 2 Demand Charged at t-1 Price	(%)	0.0%	0.0%	0.0%	0.0%	0.0%

### Adjustment Option 2

Label	ICRC Adjustment					
Tier 1 Demand Charged at t-1 Price	(%)	11.9%	11.9%	11.9%	11.9%	11.9%
Tier 2 Demand Charged at t-1 Price	(%)	9.4%	9.4%	9.4%	9.4%	9.4%

Note [55]

### Option Label Lookup

Label	Offset
Panel Draft Decision	0
ICRC Adjustment	5

Note [28] **ACTEW Panel Review - Price Model**

Uriarra CSO Calc

Year Index	0	1	2	3	4	5
Year	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
<b>Financial Assumptions</b>						
RAB Inflation Escalation (%)		2.50%	2.50%	2.50%	2.50%	2.50%
WACC (nominal post-tax) (%)		7.20%	7.20%	7.20%	7.20%	7.20%
Cost of Debt (%)		6.48%	6.48%	6.48%	6.48%	6.48%
Corporate Tax Rate (%)		30%	30%	30%	30%	30%
Debt Funding (% of RAB) (%)		60%	60%	60%	60%	60%
Gamma		0.50	0.50	0.50	0.50	0.50
Nominal post-tax discount factor		1.00	0.93	0.87	0.81	0.76

Note [33] **Customers**

	100	100	100	100	100
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Note [37] **Uriarra RAB**

Remaining Life	30	29	28	27	26
Opening Value	4,117,423	4,079,680	4,037,476	3,990,613	3,938,882
Capital Expenditure	0	0	0	0	0
Disposal	0	0	0	0	0
Inflationary Gain	102,936	101,992	100,937	99,765	98,472
Depreciation	-140,679	-144,196	-147,800	-151,495	-155,283
Closing Value	4,079,680	4,037,476	3,990,613	3,938,882	3,882,072
RAB for ROI Calculation	4,117,423	4,079,680	4,037,476	3,990,613	3,938,882

Note [38] **Uriarra Tax BV**

Remaining Life	30	29	28	27	26
Opening Value	3,349,056	3,237,421	3,125,785	3,014,150	2,902,515
Capital Expenditure	0	0	0	0	0
Disposal	0	0	0	0	0
[Not used]					
Depreciation	-111,635	-111,635	-111,635	-111,635	-111,635
Closing Value	3,237,421	3,125,785	3,014,150	2,902,515	2,790,880

**Case 1: Set Prices to Achieve Panel Target Revenue over 5 Years**

**Return on Investment**

Asset Value for ROI Calculation	(\$)	4,117,423	4,079,680	4,037,476	3,990,613	3,938,882
Return on Investment	(\$)	296,454	293,737	290,698	287,324	283,600
less Capital Gain on Assets	(\$)	-102,936	-101,992	-100,937	-99,765	-98,472
less Value of Imputation Credits	(\$)	98,077	99,291	100,514	101,747	102,989
Required ROI from Tariffs	(\$)	291,596	291,036	290,275	289,306	288,117

**Target Revenue Calculation**

**NPV**

Return on Investment	(\$)	1,268,684	291,596	291,036	290,275	289,306	288,117
less Other Income	(\$)	0					
Note [30] less Community Service Obligation Income	(\$)	-2,630,116	-589,327	-595,896	-602,484	-609,089	-615,706
Depreciation	(\$)	488,066	111,635	111,635	111,635	111,635	111,635
Note [39] Operating & Maintenance	(\$)	1,979,752	432,225	443,031	454,106	465,459	477,096
Tax	(\$)	-877,483	-196,154	-198,581	-201,028	-203,494	-205,978
		228,903	49,975	51,224	52,505	53,817	55,163

**Forecast Revenue**

		228,903	49,975	51,224	52,505	53,817	55,163
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Convergence Error		0	0	0	0	0	0
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**Tax Calculation**

Forecast Tariff Revenue		49,975	51,224	52,505	53,817	55,163
Note [31] plus Other Income		0	0	0	0	0
less Tax Depreciation		-111,635	-111,635	-111,635	-111,635	-111,635
less Interest		-159,962	-158,496	-156,856	-155,035	-153,026
less Operating & Maintenance		-432,225	-443,031	-454,106	-465,459	-477,096
less Previous Year Losses						
Taxable Profit		-653,847	-661,937	-670,093	-678,312	-686,594
Note [29] Tax		-196,154	-198,581	-201,028	-203,494	-205,978

**Case 2: Set Prices to Achieve Panel Target Revenue over Remaining 3 Years**

**Return on Investment**

Asset Value for ROI Calculation	(\$)	4,117,423	4,079,680	4,037,476	3,990,613	3,938,882
Return on Investment	(\$)	296,454	293,737	290,698	287,324	283,600
less Capital Gain on Assets	(\$)	-102,936	-101,992	-100,937	-99,765	-98,472

less Value of Imputation Credits	(\$)	98,193	99,393	100,434	101,665	102,905
Required ROI from Tariffs	(\$)	291,712	291,138	290,196	289,224	288,033

#### Target Revenue Calculation

#### NPV

Return on Investment	(\$)	1,268,684	291,596	291,036	290,275	289,306	288,117
less Other Income	(\$)	0	0	0	0	0	0
Note [30] less Community Service Obligation Income	(\$)	-2,630,174	-589,868	-596,374	-602,112	-608,708	-615,316
Depreciation	(\$)	488,066	111,635	111,635	111,635	111,635	111,635
Note [39] Operating & Maintenance	(\$)	1,979,752	432,225	443,031	454,106	465,459	477,096
Tax	(\$)	-877,507	-196,386	-198,786	-200,868	-203,330	-205,811
		228,820	49,202	50,541	53,036	54,362	55,721

#### Forecast Revenue

#### Convergence Error

Forecast Revenue		228,820	49,202	50,541	53,036	54,362	55,721
Convergence Error			0	0	0	0	0

#### Tax Calculation

Forecast Tariff Revenue		49,202	50,541	53,036	54,362	55,721
Note [31] plus Other Income		0	0	0	0	0
less Tax Depreciation		-111,635	-111,635	-111,635	-111,635	-111,635
less Interest		-159,962	-158,496	-156,856	-155,035	-153,026
less Operating & Maintenance		-432,225	-443,031	-454,106	-465,459	-477,096
less Previous Year Losses						
Taxable Profit		-654,620	-662,620	-669,561	-677,768	-686,035
Note [29] Tax		-196,386	-198,786	-200,868	-203,330	-205,811

Note [34]

**ACTEW Panel Review - Price Model**

Discovery Trail CSO Calc

Year Index	0	1	2	3	4	5
Year	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18

**Financial Assumptions**

RAB Inflation Escalation	(%)	2.50%	2.50%	2.50%	2.50%	2.50%
WACC (nominal post-tax)	(%)	7.20%	7.20%	7.20%	7.20%	7.20%
Cost of Debt	(%)	6.48%	6.48%	6.48%	6.48%	6.48%
Corporate Tax Rate	(%)	30%	30%	30%	30%	30%
Debt Funding (% of RAB)	(%)	60%	60%	60%	60%	60%
Gamma		0.50	0.50	0.50	0.50	0.50
Nominal post-tax discount factor		1.00	0.93	0.87	0.81	0.76

Note [37]

**Cotter Dam Precinct and Discovery Trail Opening RAB**

Remaining Life		10	9	8	7	6
Opening Value		10,195,171	9,500,776	8,656,262	7,763,585	6,820,864
Capital Expenditure		103,773	0	0	0	0
Disposal		0	0	0	0	0
Inflationary Gain		257,474	237,519	216,407	194,090	170,522
Depreciation		-1,055,642	-1,082,033	-1,109,084	-1,136,811	-1,165,231
Closing Value		9,500,776	8,656,262	7,763,585	6,820,864	5,826,155
RAB for ROI Calculation		10,247,057	9,500,776	8,656,262	7,763,585	6,820,864

Note [38]

**Cotter Dam Precinct and Discovery Trail Opening Tax BV**

Remaining Life		10	9	8	7	6
Opening Value		9,508,362	8,557,526	7,606,690	6,655,853	5,705,017
Capital Expenditure		0	0	0	0	0
Disposal		0	0	0	0	0
[Not used]						
Depreciation		-950,836	-950,836	-950,836	-950,836	-950,836
Closing Value		8,557,526	7,606,690	6,655,853	5,705,017	4,754,181

**Return on Investment**

Asset Value for ROI Calculation	(\$)	10,247,057	9,500,776	8,656,262	7,763,585	6,820,864
Return on Investment	(\$)	737,788	684,056	623,251	558,978	491,102

less Capital Gain on Assets	(\$)	-257,474	-237,519	-216,407	-194,090	-170,522
less Value of Imputation Credits	(\$)	202,340	197,991	193,070	187,868	182,374
Required ROI from Tariffs	(\$)	682,655	644,528	599,914	552,756	502,955

### Target Revenue Calculation

		NPV					
Return on Investment	(\$)	2,635,467	682,655	644,528	599,914	552,756	502,955
less Other Income	(\$)	0					
less Community Service Obligation Income	(\$)	-5,101,227	-1,228,811	-1,199,381	-1,164,611	-1,127,857	-1,089,043
Depreciation	(\$)	4,157,031	950,836	950,836	950,836	950,836	950,836
Operating & Maintenance	(\$)	0					
Tax	(\$)	-1,691,271	-404,680	-395,982	-386,140	-375,735	-364,748
		0	0	0	0	0	0

### Forecast Revenue

		0	0	0	0	0	0
Convergence Error		0	0	0	0	0	0

### Tax Calculation

Forecast Tariff Revenue		0	0	0	0	0	0
plus Other Income		0	0	0	0	0	0
less Tax Depreciation		-950,836	-950,836	-950,836	-950,836	-950,836	-950,836
less Interest		-398,098	-369,105	-336,296	-301,615	-264,991	
less Operating & Maintenance		0	0	0	0	0	0
less Previous Year Losses							
Taxable Profit		-1,348,934	-1,319,941	-1,287,132	-1,252,451	-1,215,827	
Tax		-404,680	-395,982	-386,140	-375,735	-364,748	

Note [40]

Note [29]

Note [34]

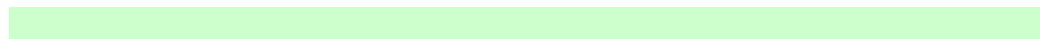
**ACTEW Panel Review - Price Model**

Gas Abatement CSO Calc

Year Index	0	1	2	3	4	5
Year	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18

**Financial Assumptions**

RAB Inflation Escalation	(%)	2.50%	2.50%	2.50%	2.50%	2.50%
WACC (nominal post-tax)	(%)	7.20%	7.20%	7.20%	7.20%	7.20%
Cost of Debt	(%)	6.48%	6.48%	6.48%	6.48%	6.48%
Corporate Tax Rate	(%)	30%	30%	30%	30%	30%
Debt Funding (% of RAB)	(%)	60%	60%	60%	60%	60%
Gamma		0.50	0.50	0.50	0.50	0.50
Nominal post-tax discount factor		1.00	0.93	0.87	0.81	0.76



Note [37]

**Greenhouse Gas Abatement Costs RAB**

Remaining Life		124	123	122	121	120
Opening Value		11,246,416	11,434,851	11,625,679	11,818,902	12,014,520
Capital Expenditure		0	0	0	0	0
Disposal		0	0	0	0	0
Inflationary Gain		281,160	285,871	290,642	295,473	300,363
Depreciation		-92,725	-95,043	-97,419	-99,855	-102,351
Closing Value		11,434,851	11,625,679	11,818,902	12,014,520	12,212,532
RAB for ROI Calculation		11,246,416	11,434,851	11,625,679	11,818,902	12,014,520

Note [38]

**Greenhouse Gas Abatement Costs Tax BV**

Remaining Life		124	123	122	121	120
Opening Value		10,456,994	10,372,880	10,288,766	10,204,653	10,120,539
Capital Expenditure		0	0	0	0	0
Disposal		0	0	0	0	0
[Not used]						
Depreciation		-84,114	-84,114	-84,114	-84,114	-84,114
Closing Value		10,372,880	10,288,766	10,204,653	10,120,539	10,036,426

**Return on Investment**

Asset Value for ROI Calculation	(\$)	11,246,416	11,434,851	11,625,679	11,818,902	12,014,520
Return on Investment	(\$)	809,742	823,309	837,049	850,961	865,045

less Capital Gain on Assets	(\$)	-281,160	-285,871	-290,642	-295,473	-300,363
less Value of Imputation Credits	(\$)	78,156	79,254	80,366	81,492	82,632
Required ROI from Tariffs	(\$)	606,737	616,692	626,773	636,980	647,314

#### Target Revenue Calculation

		NPV					
Return on Investment	(\$)	2,734,634	606,737	616,692	626,773	636,980	647,314
less Other Income	(\$)	0					
less Community Service Obligation Income	(\$)	-2,400,899	-534,540	-542,298	-550,155	-558,110	-566,164
Depreciation	(\$)	367,742	84,114	84,114	84,114	84,114	84,114
Operating & Maintenance	(\$)	0					
Tax	(\$)	-701,478	-156,311	-158,507	-160,731	-162,983	-165,263
		0	0	0	0	0	0

#### Forecast Revenue

		0	0	0	0	0	0
Convergence Error		0	0	0	0	0	0

#### Tax Calculation

Forecast Tariff Revenue		0	0	0	0	0	0
plus Other Income		0	0	0	0	0	0
less Tax Depreciation		-84,114	-84,114	-84,114	-84,114	-84,114	-84,114
less Interest		-436,923	-444,244	-451,658	-459,164	-466,764	-466,764
less Operating & Maintenance		0	0	0	0	0	0
less Previous Year Losses							
Taxable Profit		-521,037	-528,358	-535,771	-543,278	-550,878	-550,878
Tax		-156,311	-158,507	-160,731	-162,983	-165,263	-165,263

Note [40]

Note [29]

## ACTEW Panel Review - Price Model

Water - Existing Assets Input

### Water Assets as at 1 July 2013

Asset Name or Number	Opening Asset RAV	RAB Remaining Life	Opening Tax Value	Tax Remaining Life	Included in RAB?
	(\$)	(years)	(\$)	(years)	(1=yes;0=no)
Water Assets (excluding Water Security	826,314,617	51	1,083,846,375	35	1
801410 ECD-Dams & Weirs	379,422,003	149			1
801410 ECD-Dams or Weirs intake struc	12,775,931	149			1
801410 ECD-Valves	3,436,852	30			1
801410 ECD-Flow Meters	359,732	20			1
801410 ECD-Pressure sensors, transmit	1,591,279	10			1
801416 ECD-Dams & Weirs	9,520,177	149			1
801416 ECD-Dams or Weir intake struct	350,743	149			1
801416 ECD-Valves	94,353	30			1
801416 ECD-Flow Meters	9,876	20			1
801416 ECD-Pressure sensors, transmit	43,686	10			1
801411 M2G-Cathodic protections syste	535,377	19			1
801411 M2G-Valves (Bulk)	2,715,599	29			1
801411 M2G-Valves (Pump)	2,443,090	29			1
801411 M2G-Flow Meters (Bulk)	535,376	19			1
801411 M2G-Flow Meters (Pump)	802,753	19			1
801411 M2G-Water Mains (Bulk)	51,514,894	99			1
801411 M2G-Water Mains (Pump)	9,136,190	99			1
801411 M2G-Telemetry (Pump)	11,519,849	9			1
801411 M2G-Pump Sets (Pump)	56,679,356	24			1
	1,369,801,734				

Note [41]

Note [42]

Note [45]

Opening Asset RAV with No Deferral	RAB Remaining Life	RAB Remaining Life	RAB Remaining Life	RAB Remaining Life	Opening Asset RAV with No Deferral	Opening Asset RAV with No Deferral
	ICRC	ACTEW SOFC	Panel Draft De	Panel Final Decision	Panel Draft De	Panel Final Decision
#####	50	54	51	51	#####	#####
#####	98	54	149	149	#####	#####
12,775,931	98	54	149	149	12,785,436	12,775,931
3,436,852	98	54	30	30	3,439,409	3,436,852
359,732	98	54	20	20	359,999	359,732
1,591,279	98	54	10	10	1,592,463	1,591,279
9,520,177	98	54	149	149	9,527,259	9,520,177
350,743	98	54	149	149	351,004	350,743
94,353	98	54	30	30	94,424	94,353
9,876	98	54	20	20	9,883	9,876
43,686	98	54	10	10	43,719	43,686
535,377	50	54	19	19	536,307	535,377
2,715,599	50	54	29	29	2,720,319	2,715,599
2,443,090	50	54	29	29	2,447,336	2,443,090
535,376	50	54	19	19	536,307	535,376
802,753	50	54	19	19	804,148	802,753
51,514,894	50	54	99	99	51,604,432	51,514,894
9,136,190	50	54	99	99	9,152,069	9,136,190
11,519,849	50	54	9	9	11,539,871	11,519,849
56,679,356	50	54	24	24	56,777,870	56,679,356
Average Life	64	54	80	80		
Opening Depreciation	21,301,676	25,551,047	17,032,116	17,032,116		

# ACTEW Panel Review - Price Model

Water - Capex Input

Pricing Model Capex ID	Pricing Model Capex		ACTEW Capex		Useful Life	Tax Life	Spend Year	Nominal Spend
	Project Reference	RAB	ID	ACTEW Capex Description				
1	1	WaterRAB			60	60	1	165,541
3	1	WaterRAB			60	60	2	508,986
5	1	WaterRAB			60	60	3	105,434
11	2	WaterRAB			15	15	1	98,316
13	2	WaterRAB			15	15	2	4,229
21	3	WaterRAB			60	60	1	273,176
23	3	WaterRAB			60	60	2	1,836,153
25	3	WaterRAB			60	60	3	4,350,000
385	39	WaterRAB			60	60	3	521,847
387	39	WaterRAB			60	60	4	2,677,142
389	39	WaterRAB			60	60	5	11,882,776
391	40	WaterRAB			80	80	1	482,377
393	40	WaterRAB			80	80	2	411,072
395	40	WaterRAB			80	80	3	2,970,694
397	40	WaterRAB			80	80	4	3,054,266
399	40	WaterRAB			80	80	5	3,143,269
401	41	WaterRAB			40	40	1	2,512,265
403	41	WaterRAB			40	40	2	5,316,189
405	41	WaterRAB			40	40	3	1,369,074
415	42	WaterRAB			50	50	3	1,043,694
417	42	WaterRAB			50	50	4	3,212,570
419	42	WaterRAB			50	50	5	4,321,009
423	43	WaterRAB			30	30	2	283,901
425	43	WaterRAB			30	30	3	459,863
427	43	WaterRAB			30	30	4	3,331,926
429	43	WaterRAB			30	30	5	3,429,021
435	44	WaterRAB			80	80	3	3,146,998
437	44	WaterRAB			80	80	4	2,751,190
439	44	WaterRAB			80	80	5	1,301,076
443	45	WaterRAB			40	40	2	200,000
445	45	WaterRAB			40	40	3	610,189
447	45	WaterRAB			40	40	4	2,385,104
449	45	WaterRAB			40	40	5	3,429,021
451	46	WaterRAB			50	50	1	5,388,467
453	46	WaterRAB			50	50	2	848,650
461	47	WaterRAB			80	80	1	6,024,542
463	47	WaterRAB			80	80	2	175,517

Note [10]

477	48	WaterRAB		60	60	4	1,110,642
479	48	WaterRAB		60	60	5	4,614,891
485	49	WaterRAB		80	80	3	535,428
487	49	WaterRAB		80	80	4	2,348,084
489	49	WaterRAB		80	80	5	2,414,141
491	50	WaterRAB		40	40	1	562,930
493	50	WaterRAB		40	40	2	2,565,346
495	50	WaterRAB		40	40	3	2,010,500
503	51	WaterRAB		40	40	2	200,000
505	51	WaterRAB		40	40	3	2,350,581
507	51	WaterRAB		40	40	4	2,180,214
513	52	WaterRAB		40	40	2	200,000
515	52	WaterRAB		40	40	3	2,473,506
517	52	WaterRAB		40	40	4	1,388,303
525	53	WaterRAB		40	40	3	185,668
527	53	WaterRAB		40	40	4	2,110,220
529	53	WaterRAB		40	40	5	1,485,909
531	54	WaterRAB		80	80	1	1,005,028
533	54	WaterRAB		80	80	2	2,020,560
535	54	WaterRAB		80	80	3	330,783
541	55	WaterRAB		30	30	1	3,001,389
543	55	WaterRAB		30	30	2	80,471
551	56	WaterRAB		50	50	1	320,824
553	56	WaterRAB		50	50	2	1,792,618
555	56	WaterRAB		50	50	3	50,000
567	57	WaterRAB		40	40	4	277,661
569	57	WaterRAB		40	40	5	1,857,386
571	58	WaterRAB		60	60	1	127,041
573	58	WaterRAB		60	60	2	490,652
575	58	WaterRAB		60	60	3	432,101
577	58	WaterRAB		60	60	4	444,257
579	58	WaterRAB		60	60	5	457,203
581	59	WaterRAB		80	80	1	327,439
583	59	WaterRAB		80	80	2	1,593,641
595	60	WaterRAB		60	60	3	108,025
597	60	WaterRAB		60	60	4	1,147,332
607	61	WaterRAB		40	40	4	111,064
609	61	WaterRAB		40	40	5	1,041,565
611	62	WaterRAB		40	40	1	389,154
613	62	WaterRAB		40	40	2	711,568
627	63	WaterRAB		40	40	4	416,491
629	63	WaterRAB		40	40	5	585,791
637	64	WaterRAB		50	50	4	138,830
639	64	WaterRAB		50	50	5	857,255
647	65	WaterRAB		80	80	4	194,362
649	65	WaterRAB		80	80	5	685,804

655	66	WaterRAB		40	40	3	270,063
657	66	WaterRAB		40	40	4	277,661
659	66	WaterRAB		40	40	5	328,615
669	67	WaterRAB		40	40	5	714,379
679	68	WaterRAB		60	60	5	714,379
687	69	WaterRAB		40	40	4	171,337
689	69	WaterRAB		40	40	5	540,126
697	70	WaterRAB		30	30	4	654,238
701	71	WaterRAB		60	60	1	643,269
715	72	WaterRAB		40	40	3	614,394
727	73	WaterRAB		40	40	4	111,064
729	73	WaterRAB		40	40	5	457,203
731	74	WaterRAB		40	40	1	35,377
733	74	WaterRAB		40	40	2	481,378
749	75	WaterRAB		80	80	5	470,062
751	76	WaterRAB		40	40	1	20,264
753	76	WaterRAB		40	40	2	372,200
755	76	WaterRAB		40	40	3	46,752
761	77	WaterRAB		40	40	1	323,764
779	78	WaterRAB		40	40	5	307,183
789	79	WaterRAB		40	40	5	307,183
791	80	WaterRAB		100	100	1	6,589
793	80	WaterRAB		100	100	2	150,352
809	81	WaterRAB		50	50	5	142,876
811	82	WaterRAB		10	10	1	142,399
821	83	WaterRAB		5	5	1	24,809
833	84	WaterRAB		15	15	2	215,000
841	85	WaterRAB		5	5	1	575,003
843	85	WaterRAB		5	5	2	419,500
845	85	WaterRAB		5	5	3	450,000
847	85	WaterRAB		5	5	4	450,000
849	85	WaterRAB		5	5	5	450,000
851	86	WaterRAB		5	5	1	495,013
1091	110	WaterRAB		20	20	1	769,424
1093	110	WaterRAB		20	20	2	489,000
1101	111	WaterRAB		30	30	1	-3,149
1111	112	WaterRAB		20	20	1	260,153
1121	113	WaterRAB		40	40	1	9,477
1131	114	WaterRAB		30	30	1	50,836
1141	115	WaterRAB		100	100	1	-50,137
1143	115	WaterRAB		100	100	2	409,479
1151	116	WaterRAB		80	80	1	3,174
1161	117	WaterRAB		10	10	1	160,197
1163	117	WaterRAB		10	10	2	66,824
1171	118	WaterRAB		40	40	1	261,961
1173	118	WaterRAB		40	40	2	-13,278

1181	119	WaterRAB		30	30	1	-532
1191	120	WaterRAB		30	30	1	19,446
1201	121	WaterRAB		30	30	1	3,849
1203	121	WaterRAB		30	30	2	1,120
1205	121	WaterRAB		30	30	3	5,000
1207	121	WaterRAB		30	30	4	5,000
1209	121	WaterRAB		30	30	5	5,000
1211	122	WaterRAB		40	40	1	321,950
1213	122	WaterRAB		40	40	2	10,404
1221	123	WaterRAB		15	15	1	72,851
1233	124	WaterRAB		80	80	2	123,750
1241	125	WaterRAB		40	40	1	41,938
1253	126	WaterRAB		60	60	2	270,000
1263	127	WaterRAB		10	10	2	84,999
1271	128	WaterRAB		15	15	1	102,718
1273	128	WaterRAB		15	15	2	3,455
1281	129	WaterRAB		40	40	1	158,063
1283	129	WaterRAB		40	40	2	79,059
1291	130	WaterRAB		60	60	1	218,416
1303	131	WaterRAB		60	60	2	136,000
1313	132	WaterRAB		60	60	2	235,000
1321	133	WaterRAB		5	5	1	72,039
1323	133	WaterRAB		5	5	2	110,224
1333	134	WaterRAB		20	20	2	500,000
1341	135	WaterRAB		40	40	1	545,129
1343	135	WaterRAB		40	40	2	1,813,374
1353	136	WaterRAB		40	40	2	160,000
1363	137	WaterRAB		40	40	2	810,600
1373	138	WaterRAB		10	10	2	67,500
1383	139	WaterRAB		40	40	2	758,333
	140	WaterRAB		150	150	1	5,513,126
	141	WaterRAB		150	150	1	387,671
	142	WaterRAB		30	30	1	105,225
	143	WaterRAB		20	20	1	11,076
	144	WaterRAB		10	10	1	49,843
	145	WaterRAB		20	20	1	6,122
	146	WaterRAB		30	30	1	30,610
	147	WaterRAB		30	30	1	27,538
	148	WaterRAB		20	20	1	6,122
	149	WaterRAB		20	20	1	9,179
	150	WaterRAB		100	100	1	569,345
	151	WaterRAB		100	100	1	100,974
	152	WaterRAB		10	10	1	137,691
	153	WaterRAB		25	25	1	642,559
	154	WaterRAB		150	150	1	479,571

Note [52]

155	WaterRAB			100	100	1	33,440
156	WaterRAB			80	80	1	257,898
157	WaterRAB			60	60	1	66,462
158	WaterRAB			30	30	1	29,469
159	WaterRAB			30	30	1	29,469
160	WaterRAB			80	80	1	83,461
161	WaterRAB			10	10	1	103,773
162	WaterRAB	Carndo Year 4 Reduction		34	34	4	-2,080,841
163	WaterRAB	Carndo Year 5 Reduction		34	34	5	-3,754,257

Useful Life Useful Life Useful Life Useful Life

Year 4 Capex

Year 5 Capex

ICRC ACTEW SOFC Panel Draft De Panel Final Decision

Value Life Value Life

66	34	60	60	0	0	0	0
66	34	60	60	0	0	0	0
66	34	60	60	0	0	0	0
66	34	15	15	0	0	0	0
66	34	15	15	0	0	0	0
66	34	60	60	0	0	0	0
66	34	60	60	0	0	0	0
66	34	60	60	0	0	0	0
66	34	60	60	0	0	0	0
66	34	60	60	0	0	0	0
66	34	60	60	2,677,142	34	0	0
66	34	60	60	0	0	11,882,776	34
66	34	80	80	0	0	0	0
66	34	80	80	0	0	0	0
66	34	80	80	0	0	0	0
66	34	80	80	3,054,266	34	0	0
66	34	80	80	0	0	3,143,269	34
66	34	40	40	0	0	0	0
66	34	40	40	0	0	0	0
66	34	40	40	0	0	0	0
66	34	50	50	0	0	0	0
66	34	50	50	3,212,570	34	0	0
66	34	50	50	0	0	4,321,009	34
66	34	30	30	0	0	0	0
66	34	30	30	0	0	0	0
66	34	30	30	3,331,926	34	0	0
66	34	30	30	0	0	3,429,021	34
66	34	80	80	0	0	0	0
66	34	80	80	2,751,190	34	0	0
66	34	80	80	0	0	1,301,076	34
66	34	40	40	0	0	0	0
66	34	40	40	0	0	0	0
66	34	40	40	2,385,104	34	0	0
66	34	40	40	0	0	3,429,021	34
66	34	50	50	0	0	0	0
66	34	50	50	0	0	0	0
66	34	80	80	0	0	0	0
66	34	80	80	0	0	0	0

66	34	60	60
66	34	60	60
66	34	80	80
66	34	80	80
66	34	80	80
66	34	40	40
66	34	40	40
66	34	40	40
66	34	40	40
66	34	40	40
66	34	40	40
66	34	40	40
66	34	40	40
66	34	40	40
66	34	40	40
66	34	80	80
66	34	80	80
66	34	80	80
66	34	30	30
66	34	30	30
66	34	50	50
66	34	50	50
66	34	50	50
66	34	40	40
66	34	40	40
66	34	60	60
66	34	60	60
66	34	60	60
66	34	60	60
66	34	60	60
66	34	80	80
66	34	80	80
66	34	60	60
66	34	60	60
66	34	40	40
66	34	40	40
66	34	40	40
66	34	40	40
66	34	40	40
66	34	50	50
66	34	50	50
66	34	80	80
66	34	80	80

1,110,642	34	0	0
0	0	4,614,891	34
0	0	0	0
2,348,084	34	0	0
0	0	2,414,141	34
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
2,180,214	34	0	0
0	0	0	0
0	0	0	0
1,388,303	34	0	0
0	0	0	0
2,110,220	34	0	0
0	0	1,485,909	34
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
277,661	34	0	0
0	0	1,857,386	34
0	0	0	0
0	0	0	0
0	0	0	0
444,257	34	0	0
0	0	457,203	34
0	0	0	0
0	0	0	0
0	0	0	0
1,147,332	34	0	0
111,064	34	0	0
0	0	1,041,565	34
0	0	0	0
0	0	0	0
416,491	34	0	0
0	0	585,791	34
138,830	34	0	0
0	0	857,255	34
194,362	34	0	0
0	0	685,804	34







## ACTEW Panel Review - Price Model

Water - Existing Assets RAB

	Year Index Year	1 2013/14	2 2014/15	3 2015/16	4 2016/17	5 2017/18
<b>Assumptions</b>						
Inflation		2.50%	2.50%	2.50%	2.50%	2.50%
<b>Regulated Asset Base Summary - Existing Water Assets</b>						
Opening Value		1,369,801,734	1,379,892,157	1,389,630,974	1,398,994,300	1,407,957,273
Disposals [not used]		0	0	0	0	0
Inflationary Gain		34,245,043	34,497,304	34,740,774	34,974,858	35,198,932
Depreciation		-24,154,621	-24,758,486	-25,377,448	-26,011,885	-26,662,182
Closing Value		1,379,892,157	1,389,630,974	1,398,994,300	1,407,957,273	1,416,494,023
<b>RAB for Return on Investment Calculation</b>		1,369,801,734	1,379,892,157	1,389,630,974	1,398,994,300	1,407,957,273
Check closing value (should be zero)		0	0	0	0	0
<b>Regulated Asset Base Details - Existing Water Assets</b>						
<b>Opening Remaining Life</b>						
Water Assets (excluding Water Security)		51	50	49	48	47
801410 ECD-Dams & Weirs		149	148	147	146	145
801410 ECD-Dams or Weirs intake structures		149	148	147	146	145
801410 ECD-Valves		30	29	28	27	26
801410 ECD-Flow Meters		20	19	18	17	16
801410 ECD-Pressure sensors, transmitters and meters		10	9	8	7	6
801416 ECD-Dams & Weirs		149	148	147	146	145
801416 ECD-Dams or Weir intake structures		149	148	147	146	145
801416 ECD-Valves		30	29	28	27	26
801416 ECD-Flow Meters		20	19	18	17	16
801416 ECD-Pressure sensors, transmitters and meters		10	9	8	7	6
801411 M2G-Cathodic protections systems		19	18	17	16	15
801411 M2G-Valves (Bulk)		29	28	27	26	25
801411 M2G-Valves (Pump)		29	28	27	26	25
801411 M2G-Flow Meters (Bulk)		19	18	17	16	15
801411 M2G-Flow Meters (Pump)		19	18	17	16	15
801411 M2G-Water Mains (Bulk)		99	98	97	96	95
801411 M2G-Water Mains (Pump)		99	98	97	96	95
801411 M2G-Telemetry (Pump)		9	8	7	6	5
801411 M2G-Pump Sets (Pump)		24	23	22	21	20

**Opening Value**

Water Assets (excluding Water Security)	826,314,617	830,499,283	834,376,735	837,928,998	841,137,389
801410 ECD-Dams & Weirs	379,422,003	386,296,024	393,276,608	400,364,786	407,561,574
801410 ECD-Dams or Weirs intake structures	12,775,931	13,007,394	13,242,444	13,481,118	13,723,449
801410 ECD-Valves	3,436,852	3,404,145	3,367,654	3,327,211	3,282,641
801410 ECD-Flow Meters	359,732	349,975	339,505	328,294	316,309
801410 ECD-Pressure sensors, transmitters and meters	1,591,279	1,462,314	1,325,906	1,181,764	1,029,587
801416 ECD-Dams & Weirs	9,520,177	9,692,655	9,867,807	10,045,658	10,226,235
801416 ECD-Dams or Weir intake structures	350,743	357,098	363,550	370,102	376,755
801416 ECD-Valves	94,353	93,455	92,454	91,343	90,119
801416 ECD-Flow Meters	9,876	9,608	9,320	9,012	8,683
801416 ECD-Pressure sensors, transmitters and meters	43,686	40,145	36,401	32,443	28,265
801411 M2G-Cathodic protections systems	535,377	520,135	503,797	486,316	467,647
801411 M2G-Valves (Bulk)	2,715,599	2,688,164	2,657,659	2,623,950	2,586,893
801411 M2G-Valves (Pump)	2,443,090	2,418,408	2,390,965	2,360,638	2,327,300
801411 M2G-Flow Meters (Bulk)	535,376	520,134	503,795	486,314	467,645
801411 M2G-Flow Meters (Pump)	802,753	779,899	755,401	729,190	701,197
801411 M2G-Water Mains (Bulk)	51,514,894	52,270,319	53,031,318	53,797,698	54,569,253
801411 M2G-Water Mains (Pump)	9,136,190	9,270,165	9,405,129	9,541,047	9,677,882
801411 M2G-Telemetry (Pump)	11,519,849	10,520,165	9,463,298	8,347,012	7,168,997
801411 M2G-Pump Sets (Pump)	56,679,356	55,692,672	54,621,228	53,461,405	52,209,452
Total	1,369,801,734	1,379,892,157	1,389,630,974	1,398,994,300	1,407,957,273

Note [24]

**Disposals**

Water Assets (excluding Water Security)
801410 ECD-Dams & Weirs
801410 ECD-Dams or Weirs intake structures
801410 ECD-Valves
801410 ECD-Flow Meters
801410 ECD-Pressure sensors, transmitters and meters
801416 ECD-Dams & Weirs
801416 ECD-Dams or Weir intake structures
801416 ECD-Valves
801416 ECD-Flow Meters
801416 ECD-Pressure sensors, transmitters and meters
801411 M2G-Cathodic protections systems
801411 M2G-Valves (Bulk)
801411 M2G-Valves (Pump)
801411 M2G-Flow Meters (Bulk)
801411 M2G-Flow Meters (Pump)
801411 M2G-Water Mains (Bulk)
801411 M2G-Water Mains (Pump)
801411 M2G-Telemetry (Pump)

## 801411 M2G-Pump Sets (Pump)

Total	0	0	0	0	0
<b>Inflationary Gain</b>					
Water Assets (excluding Water Security)	20,657,865	20,762,482	20,859,418	20,948,225	21,028,435
801410 ECD-Dams & Weirs	9,485,550	9,657,401	9,831,915	10,009,120	10,189,039
801410 ECD-Dams or Weirs intake structures	319,398	325,185	331,061	337,028	343,086
801410 ECD-Valves	85,921	85,104	84,191	83,180	82,066
801410 ECD-Flow Meters	8,993	8,749	8,488	8,207	7,908
801410 ECD-Pressure sensors, transmitters and meters	39,782	36,558	33,148	29,544	25,740
801416 ECD-Dams & Weirs	238,004	242,316	246,695	251,141	255,656
801416 ECD-Dams or Weir intake structures	8,769	8,927	9,089	9,253	9,419
801416 ECD-Valves	2,359	2,336	2,311	2,284	2,253
801416 ECD-Flow Meters	247	240	233	225	217
801416 ECD-Pressure sensors, transmitters and meters	1,092	1,004	910	811	707
801411 M2G-Cathodic protections systems	13,384	13,003	12,595	12,158	11,691
801411 M2G-Valves (Bulk)	67,890	67,204	66,441	65,599	64,672
801411 M2G-Valves (Pump)	61,077	60,460	59,774	59,016	58,183
801411 M2G-Flow Meters (Bulk)	13,384	13,003	12,595	12,158	11,691
801411 M2G-Flow Meters (Pump)	20,069	19,497	18,885	18,230	17,530
801411 M2G-Water Mains (Bulk)	1,287,872	1,306,758	1,325,783	1,344,942	1,364,231
801411 M2G-Water Mains (Pump)	228,405	231,754	235,128	238,526	241,947
801411 M2G-Telemetry (Pump)	287,996	263,004	236,582	208,675	179,225
801411 M2G-Pump Sets (Pump)	1,416,984	1,392,317	1,365,531	1,336,535	1,305,236
Total	34,245,043	34,497,304	34,740,774	34,974,858	35,198,932
<b>Depreciation</b>					
Water Assets (excluding Water Security)	-16,473,200	-16,885,030	-17,307,155	-17,739,834	-18,183,330
801410 ECD-Dams & Weirs	-2,611,529	-2,676,817	-2,743,738	-2,812,331	-2,882,639
801410 ECD-Dams or Weirs intake structures	-87,936	-90,134	-92,388	-94,697	-97,065
801410 ECD-Valves	-118,629	-121,594	-124,634	-127,750	-130,944
801410 ECD-Flow Meters	-18,750	-19,219	-19,699	-20,192	-20,697
801410 ECD-Pressure sensors, transmitters and meters	-168,747	-172,966	-177,290	-181,722	-186,265
801416 ECD-Dams & Weirs	-65,526	-67,165	-68,844	-70,565	-72,329
801416 ECD-Dams or Weir intake structures	-2,414	-2,475	-2,537	-2,600	-2,665
801416 ECD-Valves	-3,257	-3,338	-3,422	-3,507	-3,595
801416 ECD-Flow Meters	-515	-528	-541	-554	-568
801416 ECD-Pressure sensors, transmitters and meters	-4,633	-4,749	-4,867	-4,989	-5,114
801411 M2G-Cathodic protections systems	-28,626	-29,342	-30,075	-30,827	-31,598
801411 M2G-Valves (Bulk)	-95,325	-97,708	-100,151	-102,655	-105,221
801411 M2G-Valves (Pump)	-85,759	-87,903	-90,101	-92,353	-94,662
801411 M2G-Flow Meters (Bulk)	-28,627	-29,342	-30,076	-30,828	-31,598
801411 M2G-Flow Meters (Pump)	-42,923	-43,996	-45,096	-46,223	-47,379

801411 M2G-Water Mains (Bulk)	-532,448	-545,759	-559,403	-573,388	-587,723
801411 M2G-Water Mains (Pump)	-94,430	-96,790	-99,210	-101,690	-104,233
801411 M2G-Telemetry (Pump)	-1,287,680	-1,319,872	-1,352,869	-1,386,690	-1,421,357
801411 M2G-Pump Sets (Pump)	-2,403,669	-2,463,760	-2,525,354	-2,588,488	-2,653,200

Total	-24,154,621	-24,758,486	-25,377,448	-26,011,885	-26,662,182
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**Closing Value**

Water Assets (excluding Water Security)	830,499,283	834,376,735	837,928,998	841,137,389	843,982,494
801410 ECD-Dams & Weirs	386,296,024	393,276,608	400,364,786	407,561,574	414,867,974
801410 ECD-Dams or Weirs intake structures	13,007,394	13,242,444	13,481,118	13,723,449	13,969,470
801410 ECD-Valves	3,404,145	3,367,654	3,327,211	3,282,641	3,233,763
801410 ECD-Flow Meters	349,975	339,505	328,294	316,309	303,521
801410 ECD-Pressure sensors, transmitters and meters	1,462,314	1,325,906	1,181,764	1,029,587	869,061
801416 ECD-Dams & Weirs	9,692,655	9,867,807	10,045,658	10,226,235	10,409,562
801416 ECD-Dams or Weir intake structures	357,098	363,550	370,102	376,755	383,509
801416 ECD-Valves	93,455	92,454	91,343	90,119	88,777
801416 ECD-Flow Meters	9,608	9,320	9,012	8,683	8,332
801416 ECD-Pressure sensors, transmitters and meters	40,145	36,401	32,443	28,265	23,858
801411 M2G-Cathodic protections systems	520,135	503,797	486,316	467,647	447,741
801411 M2G-Valves (Bulk)	2,688,164	2,657,659	2,623,950	2,586,893	2,546,344
801411 M2G-Valves (Pump)	2,418,408	2,390,965	2,360,638	2,327,300	2,290,821
801411 M2G-Flow Meters (Bulk)	520,134	503,795	486,314	467,645	447,737
801411 M2G-Flow Meters (Pump)	779,899	755,401	729,190	701,197	671,348
801411 M2G-Water Mains (Bulk)	52,270,319	53,031,318	53,797,698	54,569,253	55,345,761
801411 M2G-Water Mains (Pump)	9,270,165	9,405,129	9,541,047	9,677,882	9,815,597
801411 M2G-Telemetry (Pump)	10,520,165	9,463,298	8,347,012	7,168,997	5,926,864
801411 M2G-Pump Sets (Pump)	55,692,672	54,621,228	53,461,405	52,209,452	50,861,488

Total	1,379,892,157	1,389,630,974	1,398,994,300	1,407,957,273	1,416,494,023
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## ACTEW Panel Review - Price Model

Water - Capex RAB

	Year Index	1	2	3	4	5
	Year	2013/14	2014/15	2015/16	2016/17	2017/18
<b>Assumptions</b>						
Inflation		2.50%	2.50%	2.50%	2.50%	2.50%
<b>Regulated Asset Base (Water - Capex) Summary</b>						
Opening Value (nominal)		0	34,605,095	61,437,991	85,648,091	114,255,857
Disposals		0	0	0	0	0
Capex		34,643,404	26,993,825	24,440,593	28,868,117	42,188,866
Inflationary Gain		433,043	1,202,550	1,841,457	2,502,054	3,383,757
Depreciation		-471,352	-1,363,479	-2,071,951	-2,762,405	-3,634,052
Closing Value		34,605,095	61,437,991	85,648,091	114,255,857	156,194,429
<b>RAB for Return on Investment Calculation</b>		17,321,702	48,102,008	73,658,288	100,082,149	135,350,290
Check closing RAB (should be zero)		0	0	0	0	0
Check RAB capex = capex input (should be zero)						0
<b>Regulated Asset Base Details - Water (Capex)</b>						
Opening Remaining Life		0	60	59	58	57
		0	0	60	59	58
		0	0	0	60	59
		0	15	14	13	12
		0	0	15	14	13
		0	60	59	58	57
		0	0	60	59	58
		0	0	0	60	59
		0	0	0	0	60
		0	0	0	0	60
		0	80	79	78	77
		0	0	80	79	78
		0	0	0	80	79
		0	0	0	0	80
		0	40	39	38	37
		0	0	40	39	38
		0	0	0	40	39
		0	0	0	50	49
		0	0	0	0	50
		0	0	0	0	50
		0	0	30	29	28

0	0	0	30	29	28
0	0	0	0	30	29
0	0	0	0	0	30
0	0	0	80	79	78
0	0	0	0	80	79
0	0	0	0	0	80
0	0	40	39	38	37
0	0	0	40	39	38
0	0	0	0	40	39
0	0	0	0	0	40
0	50	49	48	47	46
0	0	50	49	48	47
0	80	79	78	77	76
0	0	80	79	78	77
0	0	0	0	60	59
0	0	0	0	0	60
0	0	0	80	79	78
0	0	0	0	80	79
0	0	0	0	0	80
0	40	39	38	37	36
0	0	40	39	38	37
0	0	0	40	39	38
0	0	40	39	38	37
0	0	0	40	39	38
0	0	0	0	40	39
0	0	40	39	38	37
0	0	0	40	39	38
0	0	0	0	40	39
0	0	0	40	39	38
0	0	0	0	40	39
0	0	0	0	0	40
0	80	79	78	77	76
0	0	80	79	78	77
0	0	0	80	79	78
0	30	29	28	27	26
0	0	30	29	28	27
0	50	49	48	47	46
0	0	50	49	48	47
0	0	0	50	49	48
0	0	0	0	40	39
0	0	0	0	0	40
0	60	59	58	57	56
0	0	60	59	58	57
0	0	0	60	59	58
0	0	0	0	60	59
0	0	0	0	0	60
0	80	79	78	77	76
0	0	80	79	78	77

0	0	0	60	59	58
0	0	0	0	60	59
0	0	0	0	40	39
0	0	0	0	0	40
0	40	39	38	37	36
0	0	40	39	38	37
0	0	0	0	40	39
0	0	0	0	0	40
0	0	0	0	50	49
0	0	0	0	0	50
0	0	0	0	80	79
0	0	0	0	0	80
0	0	0	40	39	38
0	0	0	0	40	39
0	0	0	0	0	40
0	0	0	0	0	40
0	0	0	0	0	60
0	0	0	0	40	39
0	0	0	0	0	40
0	0	0	0	30	29
0	60	59	58	57	56
0	0	0	40	39	38
0	0	0	0	40	39
0	0	0	0	0	40
0	40	39	38	37	36
0	0	40	39	38	37
0	0	0	0	0	80
0	40	39	38	37	36
0	0	40	39	38	37
0	0	0	40	39	38
0	40	39	38	37	36
0	0	0	0	0	40
0	0	0	0	0	40
0	100	99	98	97	96
0	0	100	99	98	97
0	0	0	0	0	50
0	10	9	8	7	6
0	5	4	3	2	1
0	0	15	14	13	12
0	5	4	3	2	1
0	0	5	4	3	2
0	0	0	5	4	3
0	0	0	0	5	4
0	0	0	0	0	5
0	5	4	3	2	1
0	20	19	18	17	16
0	0	20	19	18	17
0	30	29	28	27	26

0	20	19	18	17	16
0	40	39	38	37	36
0	30	29	28	27	26
0	100	99	98	97	96
0	0	100	99	98	97
0	80	79	78	77	76
0	10	9	8	7	6
0	0	10	9	8	7
0	40	39	38	37	36
0	0	40	39	38	37
0	30	29	28	27	26
0	30	29	28	27	26
0	30	29	28	27	26
0	0	30	29	28	27
0	0	0	30	29	28
0	0	0	0	30	29
0	0	0	0	0	30
0	40	39	38	37	36
0	0	40	39	38	37
0	15	14	13	12	11
0	0	80	79	78	77
0	40	39	38	37	36
0	0	60	59	58	57
0	0	10	9	8	7
0	15	14	13	12	11
0	0	15	14	13	12
0	40	39	38	37	36
0	0	40	39	38	37
0	60	59	58	57	56
0	0	60	59	58	57
0	0	60	59	58	57
0	5	4	3	2	1
0	0	5	4	3	2
0	0	20	19	18	17
0	40	39	38	37	36
0	0	40	39	38	37
0	0	40	39	38	37
0	0	40	39	38	37
0	0	10	9	8	7
0	0	40	39	38	37
0	150	149	148	147	146
0	150	149	148	147	146
0	30	29	28	27	26
0	20	19	18	17	16
0	10	9	8	7	6
0	20	19	18	17	16
0	30	29	28	27	26
0	30	29	28	27	26

0	20	19	18	17	16
0	20	19	18	17	16
0	100	99	98	97	96
0	100	99	98	97	96
0	10	9	8	7	6
0	25	24	23	22	21
0	150	149	148	147	146
0	100	99	98	97	96
0	80	79	78	77	76
0	60	59	58	57	56
0	30	29	28	27	26
0	30	29	28	27	26
0	80	79	78	77	76
0	10	9	8	7	6
Carndo Year 4 Reduction	0	0	0	34	33
Carndo Year 5 Reduction	0	0	0	0	34

**Opening Value**

0	166,197	167,464	168,691	169,875
0	0	511,000	514,898	518,671
0	0	0	105,851	106,658
0	96,185	91,548	86,618	81,385
0	0	4,137	3,938	3,726
0	274,258	276,349	278,374	280,328
0	0	1,843,422	1,857,482	1,871,092
0	0	0	4,367,219	4,400,528
0	0	0	523,913	527,908
0	0	0	0	2,687,739
0	0	0	0	0
0	485,316	491,153	496,977	502,786
0	0	413,577	418,550	423,514
0	0	0	2,988,797	3,024,738
0	0	0	0	3,072,878
0	0	0	0	0
0	2,511,480	2,508,260	2,503,309	2,496,543
0	0	5,314,528	5,307,714	5,297,239
0	0	0	1,368,646	1,366,891
0	0	0	1,046,042	1,050,312
0	0	0	0	3,219,798
0	0	0	0	0
0	0	282,600	279,676	276,430
0	0	0	457,755	453,020
0	0	0	0	3,316,655
0	0	0	0	0
0	0	0	3,166,175	3,204,249
0	0	0	0	2,767,955
0	0	0	0	0

0	0	199,938	199,681	199,287
0	0	0	609,998	609,216
0	0	0	0	2,384,359
0	0	0	0	0
0	5,400,591	5,422,634	5,442,404	5,459,774
0	0	850,560	854,031	857,145
0	6,061,254	6,134,143	6,206,887	6,279,435
0	0	176,586	178,710	180,829
0	0	0	0	1,115,038
0	0	0	0	0
0	0	0	538,691	545,169
0	0	0	0	2,362,393
0	0	0	0	0
0	562,754	562,033	560,923	559,407
0	0	2,564,545	2,561,257	2,556,202
0	0	0	2,009,872	2,007,295
0	0	199,938	199,681	199,287
0	0	0	2,349,846	2,346,834
0	0	0	0	2,179,533
0	0	199,938	199,681	199,287
0	0	0	2,472,733	2,469,563
0	0	0	0	1,387,869
0	0	0	185,610	185,372
0	0	0	0	2,109,561
0	0	0	0	0
0	1,011,153	1,023,312	1,035,447	1,047,550
0	0	2,032,873	2,057,319	2,081,717
0	0	0	332,799	336,801
0	2,987,633	2,956,726	2,922,407	2,884,524
0	0	80,102	79,273	78,353
0	321,546	322,858	324,035	325,069
0	0	1,796,651	1,803,985	1,810,562
0	0	0	50,113	50,317
0	0	0	0	277,574
0	0	0	0	0
0	127,544	128,517	129,459	130,367
0	0	492,594	496,351	499,988
0	0	0	433,811	437,120
0	0	0	0	446,016
0	0	0	0	0
0	329,434	333,395	337,349	341,292
0	0	1,603,352	1,622,633	1,641,875
0	0	0	108,453	109,280
0	0	0	0	1,151,874
0	0	0	0	111,029
0	0	0	0	0
0	389,033	388,534	387,767	386,719
0	0	711,345	710,433	709,031

0	0	0	0	416,361
0	0	0	0	0
0	0	0	0	139,142
0	0	0	0	0
0	0	0	0	195,546
0	0	0	0	0
0	0	0	269,979	269,632
0	0	0	0	277,574
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	171,284
0	0	0	0	0
0	0	0	0	651,239
0	645,816	650,741	655,510	660,110
0	0	0	614,202	613,415
0	0	0	0	111,029
0	0	0	0	0
0	35,366	35,321	35,251	35,156
0	0	481,227	480,610	479,662
0	0	0	0	0
0	20,258	20,232	20,192	20,137
0	0	372,083	371,606	370,873
0	0	0	46,737	46,677
0	323,663	323,248	322,610	321,738
0	0	0	0	0
0	0	0	0	0
0	6,637	6,735	6,832	6,931
0	0	151,461	153,679	155,914
0	0	0	0	0
0	136,881	124,714	111,853	98,271
0	22,576	17,355	11,859	6,078
0	0	210,342	200,200	189,420
0	523,253	402,251	274,871	140,872
0	0	381,745	293,466	200,535
0	0	0	409,500	314,803
0	0	0	0	409,500
0	0	0	0	0
0	450,462	346,292	236,633	121,274
0	759,326	737,345	713,791	688,599
0	0	482,582	468,612	453,643
0	-3,135	-3,102	-3,066	-3,026
0	256,739	249,307	241,343	232,825
0	9,474	9,462	9,443	9,417
0	50,603	50,080	49,498	48,857
0	-50,506	-51,246	-51,991	-52,742
0	0	412,499	418,541	424,626
0	3,194	3,232	3,270	3,309

0	153,990	140,302	125,833	110,553
0	0	64,234	58,525	52,489
0	261,879	261,543	261,027	260,321
0	0	-13,274	-13,257	-13,231
0	-529	-524	-518	-511
0	19,356	19,156	18,934	18,688
0	3,831	3,792	3,748	3,699
0	0	1,115	1,104	1,091
0	0	0	4,977	4,926
0	0	0	0	4,977
0	0	0	0	0
0	321,849	321,436	320,802	319,935
0	0	10,401	10,388	10,367
0	71,273	67,836	64,184	60,306
0	0	124,504	126,001	127,496
0	41,924	41,871	41,788	41,675
0	0	271,069	273,136	275,138
0	0	81,705	74,443	66,766
0	100,493	95,647	90,497	85,030
0	0	3,380	3,217	3,044
0	158,014	157,811	157,500	157,074
0	0	79,034	78,933	78,777
0	219,280	220,953	222,572	224,134
0	0	136,538	137,580	138,588
0	0	235,930	237,730	239,472
0	65,555	50,395	34,437	17,649
0	0	100,304	77,109	52,691
0	0	493,438	479,154	463,847
0	544,958	544,260	543,186	541,718
0	0	1,812,808	1,810,484	1,806,910
0	0	159,950	159,745	159,430
0	0	810,347	809,308	807,710
0	0	64,884	59,117	53,020
0	0	758,096	757,124	755,629
0	5,563,204	5,664,014	5,766,387	5,870,339
0	391,192	398,281	405,480	412,789
0	104,743	103,659	102,456	101,128
0	10,931	10,615	10,275	9,913
0	47,912	43,653	39,151	34,397
0	6,042	5,867	5,679	5,479
0	30,470	30,154	29,804	29,418
0	27,412	27,128	26,814	26,466
0	6,042	5,867	5,679	5,479
0	9,059	8,797	8,516	8,215
0	573,544	581,944	590,406	598,927
0	101,718	103,208	104,709	106,220
0	132,356	120,591	108,155	95,022
0	637,418	626,131	613,880	600,626









0  
0  
Carndo Year 4 Reduction  
Carndo Year 5 Reduction  
Total Disposals

0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0

**Capex**

0	165,541	0	0	0	0
0	0	508,986	0	0	0
0	0	0	105,434	0	0
0	98,316	0	0	0	0
0	0	4,229	0	0	0
0	273,176	0	0	0	0
0	0	1,836,153	0	0	0
0	0	0	4,350,000	0	0
0	0	0	521,847	0	0
0	0	0	0	2,677,142	0
0	0	0	0	0	11,882,776
0	482,377	0	0	0	0
0	0	411,072	0	0	0
0	0	0	2,970,694	0	0
0	0	0	0	3,054,266	0
0	0	0	0	0	3,143,269
0	2,512,265	0	0	0	0
0	0	5,316,189	0	0	0
0	0	0	1,369,074	0	0
0	0	0	1,043,694	0	0
0	0	0	0	3,212,570	0
0	0	0	0	0	4,321,009
0	0	283,901	0	0	0
0	0	0	459,863	0	0
0	0	0	0	3,331,926	0
0	0	0	0	0	3,429,021
0	0	0	3,146,998	0	0
0	0	0	0	2,751,190	0
0	0	0	0	0	1,301,076
0	0	200,000	0	0	0
0	0	0	610,189	0	0
0	0	0	0	2,385,104	0
0	0	0	0	0	3,429,021
0	5,388,467	0	0	0	0
0	0	848,650	0	0	0
0	6,024,542	0	0	0	0
0	0	175,517	0	0	0
0	0	0	0	1,110,642	0
0	0	0	0	0	4,614,891
0	0	0	535,428	0	0
0	0	0	0	2,348,084	0

0	0	0	0	0	2,414,141
0	562,930	0	0	0	0
0	0	2,565,346	0	0	0
0	0	0	2,010,500	0	0
0	0	200,000	0	0	0
0	0	0	2,350,581	0	0
0	0	0	0	2,180,214	0
0	0	200,000	0	0	0
0	0	0	2,473,506	0	0
0	0	0	0	1,388,303	0
0	0	0	185,668	0	0
0	0	0	0	2,110,220	0
0	0	0	0	0	1,485,909
0	1,005,028	0	0	0	0
0	0	2,020,560	0	0	0
0	0	0	330,783	0	0
0	3,001,389	0	0	0	0
0	0	80,471	0	0	0
0	320,824	0	0	0	0
0	0	1,792,618	0	0	0
0	0	0	50,000	0	0
0	0	0	0	277,661	0
0	0	0	0	0	1,857,386
0	127,041	0	0	0	0
0	0	490,652	0	0	0
0	0	0	432,101	0	0
0	0	0	0	444,257	0
0	0	0	0	0	457,203
0	327,439	0	0	0	0
0	0	1,593,641	0	0	0
0	0	0	108,025	0	0
0	0	0	0	1,147,332	0
0	0	0	0	111,064	0
0	0	0	0	0	1,041,565
0	389,154	0	0	0	0
0	0	711,568	0	0	0
0	0	0	0	416,491	0
0	0	0	0	0	585,791
0	0	0	0	138,830	0
0	0	0	0	0	857,255
0	0	0	0	194,362	0
0	0	0	0	0	685,804
0	0	0	270,063	0	0
0	0	0	0	277,661	0
0	0	0	0	0	328,615
0	0	0	0	0	714,379
0	0	0	0	0	714,379
0	0	0	0	171,337	0

0	0	0	0	0	540,126
0	0	0	0	654,238	0
0	643,269	0	0	0	0
0	0	0	614,394	0	0
0	0	0	0	111,064	0
0	0	0	0	0	457,203
0	35,377	0	0	0	0
0	0	481,378	0	0	0
0	0	0	0	0	470,062
0	20,264	0	0	0	0
0	0	372,200	0	0	0
0	0	0	46,752	0	0
0	323,764	0	0	0	0
0	0	0	0	0	307,183
0	0	0	0	0	307,183
0	6,589	0	0	0	0
0	0	150,352	0	0	0
0	0	0	0	0	142,876
0	142,399	0	0	0	0
0	24,809	0	0	0	0
0	0	215,000	0	0	0
0	575,003	0	0	0	0
0	0	419,500	0	0	0
0	0	0	450,000	0	0
0	0	0	0	450,000	0
0	0	0	0	0	450,000
0	495,013	0	0	0	0
0	769,424	0	0	0	0
0	0	489,000	0	0	0
0	-3,149	0	0	0	0
0	260,153	0	0	0	0
0	9,477	0	0	0	0
0	50,836	0	0	0	0
0	-50,137	0	0	0	0
0	0	409,479	0	0	0
0	3,174	0	0	0	0
0	160,197	0	0	0	0
0	0	66,824	0	0	0
0	261,961	0	0	0	0
0	0	-13,278	0	0	0
0	-532	0	0	0	0
0	19,446	0	0	0	0
0	3,849	0	0	0	0
0	0	1,120	0	0	0
0	0	0	5,000	0	0
0	0	0	0	5,000	0
0	0	0	0	0	5,000
0	321,950	0	0	0	0

0	0	10,404	0	0	0
0	72,851	0	0	0	0
0	0	123,750	0	0	0
0	41,938	0	0	0	0
0	0	270,000	0	0	0
0	0	84,999	0	0	0
0	102,718	0	0	0	0
0	0	3,455	0	0	0
0	158,063	0	0	0	0
0	0	79,059	0	0	0
0	218,416	0	0	0	0
0	0	136,000	0	0	0
0	0	235,000	0	0	0
0	72,039	0	0	0	0
0	0	110,224	0	0	0
0	0	500,000	0	0	0
0	545,129	0	0	0	0
0	0	1,813,374	0	0	0
0	0	160,000	0	0	0
0	0	810,600	0	0	0
0	0	67,500	0	0	0
0	0	758,333	0	0	0
0	5,513,126	0	0	0	0
0	387,671	0	0	0	0
0	105,225	0	0	0	0
0	11,076	0	0	0	0
0	49,843	0	0	0	0
0	6,122	0	0	0	0
0	30,610	0	0	0	0
0	27,538	0	0	0	0
0	6,122	0	0	0	0
0	9,179	0	0	0	0
0	569,345	0	0	0	0
0	100,974	0	0	0	0
0	137,691	0	0	0	0
0	642,559	0	0	0	0
0	479,571	0	0	0	0
0	33,440	0	0	0	0
0	257,898	0	0	0	0
0	66,462	0	0	0	0
0	29,469	0	0	0	0
0	29,469	0	0	0	0
0	83,461	0	0	0	0
0	103,773	0	0	0	0
Carndo Year 4 Reduction	0	0	0	-2,080,841	0
Carndo Year 5 Reduction	0	0	0	0	-3,754,257
Total Capex	34,643,404	26,993,825	24,440,593	28,868,117	42,188,866

**Inflationary Gain**

0	2,069	4,155	4,187	4,217	4,247
0	0	6,362	12,775	12,872	12,967
0	0	0	1,318	2,646	2,666
0	1,229	2,405	2,289	2,165	2,035
0	0	53	103	98	93
0	3,415	6,856	6,909	6,959	7,008
0	0	22,952	46,086	46,437	46,777
0	0	0	54,375	109,180	110,013
0	0	0	6,523	13,098	13,198
0	0	0	0	33,464	67,193
0	0	0	0	0	148,535
0	6,030	12,133	12,279	12,424	12,570
0	0	5,138	10,339	10,464	10,588
0	0	0	37,134	74,720	75,618
0	0	0	0	38,178	76,822
0	0	0	0	0	39,291
0	31,403	62,787	62,706	62,583	62,414
0	0	66,452	132,863	132,693	132,431
0	0	0	17,113	34,216	34,172
0	0	0	13,046	26,151	26,258
0	0	0	0	40,157	80,495
0	0	0	0	0	54,013
0	0	3,549	7,065	6,992	6,911
0	0	0	5,748	11,444	11,325
0	0	0	0	41,649	82,916
0	0	0	0	0	42,863
0	0	0	39,337	79,154	80,106
0	0	0	0	34,390	69,199
0	0	0	0	0	16,263
0	0	2,500	4,998	4,992	4,982
0	0	0	7,627	15,250	15,230
0	0	0	0	29,814	59,609
0	0	0	0	0	42,863
0	67,356	135,015	135,566	136,060	136,494
0	0	10,608	21,264	21,351	21,429
0	75,307	151,531	153,354	155,172	156,986
0	0	2,194	4,415	4,468	4,521
0	0	0	0	13,883	27,876
0	0	0	0	0	57,686
0	0	0	6,693	13,467	13,629
0	0	0	0	29,351	59,060
0	0	0	0	0	30,177
0	7,037	14,069	14,051	14,023	13,985
0	0	32,067	64,114	64,031	63,905
0	0	0	25,131	50,247	50,182
0	0	2,500	4,998	4,992	4,982
0	0	0	29,382	58,746	58,671

0	0	0	0	27,253	54,488
0	0	2,500	4,998	4,992	4,982
0	0	0	30,919	61,818	61,739
0	0	0	0	17,354	34,697
0	0	0	2,321	4,640	4,634
0	0	0	0	26,378	52,739
0	0	0	0	0	18,574
0	12,563	25,279	25,583	25,886	26,189
0	0	25,257	50,822	51,433	52,043
0	0	0	4,135	8,320	8,420
0	37,517	74,691	73,918	73,060	72,113
0	0	1,006	2,003	1,982	1,959
0	4,010	8,039	8,071	8,101	8,127
0	0	22,408	44,916	45,100	45,264
0	0	0	625	1,253	1,258
0	0	0	0	3,471	6,939
0	0	0	0	0	23,217
0	1,588	3,189	3,213	3,236	3,259
0	0	6,133	12,315	12,409	12,500
0	0	0	5,401	10,845	10,928
0	0	0	0	5,553	11,150
0	0	0	0	0	5,715
0	4,093	8,236	8,335	8,434	8,532
0	0	19,921	40,084	40,566	41,047
0	0	0	1,350	2,711	2,732
0	0	0	0	14,342	28,797
0	0	0	0	1,388	2,776
0	0	0	0	0	13,020
0	4,864	9,726	9,713	9,694	9,668
0	0	8,895	17,784	17,761	17,726
0	0	0	0	5,206	10,409
0	0	0	0	0	7,322
0	0	0	0	1,735	3,479
0	0	0	0	0	10,716
0	0	0	0	2,430	4,889
0	0	0	0	0	8,573
0	0	0	3,376	6,749	6,741
0	0	0	0	3,471	6,939
0	0	0	0	0	4,108
0	0	0	0	0	8,930
0	0	0	0	0	8,930
0	0	0	0	2,142	4,282
0	0	0	0	0	6,752
0	0	0	0	8,178	16,281
0	8,041	16,145	16,269	16,388	16,503
0	0	0	7,680	15,355	15,335
0	0	0	0	1,388	2,776
0	0	0	0	0	5,715

0	442	884	883	881	879
0	0	6,017	12,031	12,015	11,992
0	0	0	0	0	5,876
0	253	506	506	505	503
0	0	4,652	9,302	9,290	9,272
0	0	0	584	1,168	1,167
0	4,047	8,092	8,081	8,065	8,043
0	0	0	0	0	3,840
0	0	0	0	0	3,840
0	82	166	168	171	173
0	0	1,879	3,787	3,842	3,898
0	0	0	0	0	1,786
0	1,780	3,422	3,118	2,796	2,457
0	310	564	434	296	152
0	0	2,688	5,259	5,005	4,736
0	7,188	13,081	10,056	6,872	3,522
0	0	5,244	9,544	7,337	5,013
0	0	0	5,625	10,238	7,870
0	0	0	0	5,625	10,238
0	0	0	0	0	5,625
0	6,188	11,262	8,657	5,916	3,032
0	9,618	18,983	18,434	17,845	17,215
0	0	6,112	12,065	11,715	11,341
0	-39	-78	-78	-77	-76
0	3,252	6,418	6,233	6,034	5,821
0	118	237	237	236	235
0	635	1,265	1,252	1,237	1,221
0	-627	-1,263	-1,281	-1,300	-1,319
0	0	5,118	10,312	10,464	10,616
0	40	80	81	82	83
0	2,002	3,850	3,508	3,146	2,764
0	0	835	1,606	1,463	1,312
0	3,275	6,547	6,539	6,526	6,508
0	0	-166	-332	-331	-331
0	-7	-13	-13	-13	-13
0	243	484	479	473	467
0	48	96	95	94	92
0	0	14	28	28	27
0	0	0	63	124	123
0	0	0	0	63	124
0	0	0	0	0	63
0	4,024	8,046	8,036	8,020	7,998
0	0	130	260	260	259
0	911	1,782	1,696	1,605	1,508
0	0	1,547	3,113	3,150	3,187
0	524	1,048	1,047	1,045	1,042
0	0	3,375	6,777	6,828	6,878
0	0	1,062	2,043	1,861	1,669

0	1,284	2,512	2,391	2,262	2,126
0	0	43	85	80	76
0	1,976	3,950	3,945	3,937	3,927
0	0	988	1,976	1,973	1,969
0	2,730	5,482	5,524	5,564	5,603
0	0	1,700	3,413	3,439	3,465
0	0	2,938	5,898	5,943	5,987
0	900	1,639	1,260	861	441
0	0	1,378	2,508	1,928	1,317
0	0	6,250	12,336	11,979	11,596
0	6,814	13,624	13,606	13,580	13,543
0	0	22,667	45,320	45,262	45,173
0	0	2,000	3,999	3,994	3,986
0	0	10,133	20,259	20,233	20,193
0	0	844	1,622	1,478	1,326
0	0	9,479	18,952	18,928	18,891
0	68,914	139,080	141,600	144,160	146,758
0	4,846	9,780	9,957	10,137	10,320
0	1,315	2,619	2,591	2,561	2,528
0	138	273	265	257	248
0	623	1,198	1,091	979	860
0	77	151	147	142	137
0	383	762	754	745	735
0	344	685	678	670	662
0	77	151	147	142	137
0	115	226	220	213	205
0	7,117	14,339	14,549	14,760	14,973
0	1,262	2,543	2,580	2,618	2,656
0	1,721	3,309	3,015	2,704	2,376
0	8,032	15,935	15,653	15,347	15,016
0	5,995	12,098	12,317	12,540	12,766
0	418	842	855	867	879
0	3,224	6,487	6,565	6,643	6,720
0	831	1,668	1,681	1,693	1,705
0	368	733	726	717	708
0	368	733	726	717	708
0	1,043	2,099	2,124	2,150	2,175
0	1,297	2,494	2,272	2,038	1,790
Carndo Year 4 Reduction	0	0	0	-26,011	-51,889
Carndo Year 5 Reduction	0	0	0	0	-46,928
Total Inflationary Gain	433,043	1,202,550	1,841,457	2,502,054	3,383,757

**Depreciation**

0	-1,414	-2,887	-2,959	-3,033	-3,109
0	0	-4,348	-8,878	-9,099	-9,327
0	0	0	-901	-1,839	-1,885
0	-3,359	-7,042	-7,218	-7,399	-7,584
0	0	-144	-303	-310	-318

0	-2,333	-4,765	-4,884	-5,006	-5,131
0	0	-15,684	-32,026	-32,826	-33,647
0	0	0	-37,156	-75,871	-77,768
0	0	0	-4,457	-9,102	-9,329
0	0	0	0	-22,867	-46,694
0	0	0	0	0	-101,499
0	-3,090	-6,297	-6,454	-6,616	-6,781
0	0	-2,633	-5,366	-5,500	-5,638
0	0	0	-19,031	-38,779	-39,748
0	0	0	0	-19,566	-39,870
0	0	0	0	0	-20,137
0	-32,188	-66,007	-67,657	-69,348	-71,082
0	0	-68,114	-139,677	-143,169	-146,748
0	0	0	-17,541	-35,971	-36,870
0	0	0	-10,698	-21,881	-22,429
0	0	0	0	-32,929	-67,353
0	0	0	0	0	-44,290
0	0	-4,850	-9,988	-10,238	-10,494
0	0	0	-7,856	-16,179	-16,584
0	0	0	0	-56,920	-117,227
0	0	0	0	0	-58,579
0	0	0	-20,160	-41,080	-42,107
0	0	0	0	-17,625	-35,913
0	0	0	0	0	-8,335
0	0	-2,563	-5,255	-5,386	-5,521
0	0	0	-7,818	-16,032	-16,433
0	0	0	0	-30,559	-62,666
0	0	0	0	0	-43,934
0	-55,232	-112,972	-115,796	-118,691	-121,658
0	0	-8,699	-17,792	-18,237	-18,693
0	-38,595	-78,643	-80,609	-82,624	-84,690
0	0	-1,124	-2,291	-2,348	-2,407
0	0	0	0	-9,487	-19,371
0	0	0	0	0	-39,419
0	0	0	-3,430	-6,989	-7,164
0	0	0	0	-15,042	-30,651
0	0	0	0	0	-15,466
0	-7,213	-14,790	-15,160	-15,539	-15,928
0	0	-32,868	-67,401	-69,087	-70,814
0	0	0	-25,760	-52,824	-54,144
0	0	-2,563	-5,255	-5,386	-5,521
0	0	0	-30,117	-61,759	-63,303
0	0	0	0	-27,934	-57,283
0	0	-2,563	-5,255	-5,386	-5,521
0	0	0	-31,692	-64,988	-66,613
0	0	0	0	-17,788	-36,476
0	0	0	-2,379	-4,878	-5,000
0	0	0	0	-27,037	-55,444

0	0	0	0	0	-19,038
0	-6,438	-13,119	-13,447	-13,784	-14,128
0	0	-12,944	-26,376	-27,035	-27,711
0	0	0	-2,119	-4,318	-4,426
0	-51,274	-105,597	-108,237	-110,943	-113,717
0	0	-1,375	-2,831	-2,902	-2,975
0	-3,288	-6,726	-6,894	-7,067	-7,243
0	0	-18,374	-37,583	-38,523	-39,486
0	0	0	-513	-1,048	-1,074
0	0	0	0	-3,558	-7,295
0	0	0	0	0	-23,798
0	-1,085	-2,216	-2,271	-2,328	-2,386
0	0	-4,191	-8,558	-8,772	-8,991
0	0	0	-3,691	-7,537	-7,725
0	0	0	0	-3,795	-7,749
0	0	0	0	0	-3,905
0	-2,098	-4,274	-4,381	-4,491	-4,603
0	0	-10,209	-20,803	-21,323	-21,856
0	0	0	-923	-1,884	-1,931
0	0	0	0	-9,800	-20,011
0	0	0	0	-1,423	-2,918
0	0	0	0	0	-13,345
0	-4,986	-10,225	-10,480	-10,742	-11,011
0	0	-9,117	-18,696	-19,163	-19,642
0	0	0	0	-5,336	-10,943
0	0	0	0	0	-7,505
0	0	0	0	-1,423	-2,911
0	0	0	0	0	-8,787
0	0	0	0	-1,245	-2,537
0	0	0	0	0	-4,393
0	0	0	-3,460	-7,096	-7,273
0	0	0	0	-3,558	-7,295
0	0	0	0	0	-4,210
0	0	0	0	0	-9,153
0	0	0	0	0	-6,102
0	0	0	0	-2,195	-4,502
0	0	0	0	0	-6,920
0	0	0	0	-11,177	-23,018
0	-5,495	-11,220	-11,500	-11,788	-12,082
0	0	0	-7,872	-16,142	-16,546
0	0	0	0	-1,423	-2,918
0	0	0	0	0	-5,858
0	-453	-929	-953	-977	-1,001
0	0	-6,168	-12,648	-12,964	-13,288
0	0	0	0	0	-3,011
0	-260	-532	-546	-559	-573
0	0	-4,769	-9,779	-10,024	-10,274
0	0	0	-599	-1,228	-1,259

0	-4,148	-8,507	-8,719	-8,937	-9,161
0	0	0	0	0	-3,936
0	0	0	0	0	-3,936
0	-34	-69	-70	-72	-74
0	0	-771	-1,568	-1,607	-1,648
0	0	0	0	0	-1,464
0	-7,298	-15,589	-15,979	-16,378	-16,788
0	-2,543	-5,785	-5,930	-6,078	-6,230
0	0	-7,346	-15,400	-15,785	-16,180
0	-58,938	-134,084	-137,436	-140,872	-144,393
0	0	-42,999	-97,822	-100,268	-102,774
0	0	0	-46,125	-104,934	-107,558
0	0	0	0	-46,125	-104,934
0	0	0	0	0	-46,125
0	-50,739	-115,431	-118,317	-121,274	-124,306
0	-19,717	-40,964	-41,988	-43,037	-44,113
0	0	-12,531	-26,034	-26,685	-27,352
0	54	111	114	116	119
0	-6,666	-13,850	-14,197	-14,552	-14,915
0	-121	-249	-255	-262	-268
0	-868	-1,789	-1,833	-1,879	-1,926
0	257	523	536	549	563
0	0	-2,099	-4,271	-4,378	-4,487
0	-20	-41	-42	-44	-45
0	-8,210	-17,538	-17,976	-18,426	-18,886
0	0	-3,425	-7,316	-7,498	-7,686
0	-3,356	-6,883	-7,055	-7,231	-7,412
0	0	170	349	358	367
0	9	19	19	20	20
0	-332	-684	-701	-719	-737
0	-66	-135	-139	-142	-146
0	0	-19	-39	-40	-41
0	0	0	-85	-176	-180
0	0	0	0	-85	-176
0	0	0	0	0	-85
0	-4,125	-8,459	-8,670	-8,887	-9,109
0	0	-133	-273	-280	-287
0	-2,489	-5,218	-5,349	-5,482	-5,619
0	0	-793	-1,615	-1,656	-1,697
0	-537	-1,102	-1,129	-1,158	-1,187
0	0	-2,306	-4,709	-4,827	-4,948
0	0	-4,356	-9,305	-9,538	-9,776
0	-3,510	-7,357	-7,541	-7,730	-7,923
0	0	-118	-247	-254	-260
0	-2,025	-4,153	-4,257	-4,363	-4,472
0	0	-1,013	-2,077	-2,129	-2,182
0	-1,866	-3,810	-3,905	-4,002	-4,102
0	0	-1,162	-2,372	-2,431	-2,492

0	0	-2,007	-4,099	-4,201	-4,306
0	-7,384	-16,798	-17,218	-17,649	-18,090
0	0	-11,298	-25,703	-26,345	-27,004
0	0	-12,813	-26,620	-27,285	-27,967
0	-6,984	-14,323	-14,681	-15,048	-15,424
0	0	-23,234	-47,644	-48,835	-50,056
0	0	-2,050	-4,204	-4,309	-4,417
0	0	-10,386	-21,298	-21,830	-22,376
0	0	-3,459	-7,390	-7,574	-7,764
0	0	-9,716	-19,924	-20,422	-20,933
0	-18,837	-38,270	-39,227	-40,208	-41,213
0	-1,325	-2,691	-2,758	-2,827	-2,898
0	-1,798	-3,702	-3,795	-3,890	-3,987
0	-284	-590	-604	-620	-635
0	-2,554	-5,457	-5,593	-5,733	-5,876
0	-157	-326	-334	-342	-351
0	-523	-1,077	-1,104	-1,131	-1,160
0	-470	-969	-993	-1,018	-1,043
0	-157	-326	-334	-342	-351
0	-235	-489	-501	-513	-526
0	-2,918	-5,938	-6,087	-6,239	-6,395
0	-517	-1,053	-1,079	-1,106	-1,134
0	-7,057	-15,074	-15,451	-15,837	-16,233
0	-13,172	-27,223	-27,904	-28,601	-29,316
0	-1,639	-3,329	-3,412	-3,498	-3,585
0	-171	-349	-357	-366	-376
0	-1,652	-3,367	-3,451	-3,537	-3,625
0	-568	-1,159	-1,188	-1,218	-1,248
0	-503	-1,037	-1,063	-1,089	-1,117
0	-503	-1,037	-1,063	-1,089	-1,117
0	-535	-1,089	-1,117	-1,145	-1,173
0	-5,318	-11,361	-11,645	-11,936	-12,234
Carndo Year 4 Reduction	0	0	0	31,286	64,301
Carndo Year 5 Reduction	0	0	0	0	56,447
Total Depreciation	-471,352	-1,363,479	-2,071,951	-2,762,405	-3,634,052

**Closing ODRC**

0	166,197	167,464	168,691	169,875	171,013
0	0	511,000	514,898	518,671	522,311
0	0	0	105,851	106,658	107,440
0	96,185	91,548	86,618	81,385	75,836
0	0	4,137	3,938	3,726	3,501
0	274,258	276,349	278,374	280,328	282,205
0	0	1,843,422	1,857,482	1,871,092	1,884,223
0	0	0	4,367,219	4,400,528	4,432,773
0	0	0	523,913	527,908	531,777
0	0	0	0	2,687,739	2,708,239
0	0	0	0	0	11,929,812

0	485,316	491,153	496,977	502,786	508,575
0	0	413,577	418,550	423,514	428,464
0	0	0	2,988,797	3,024,738	3,060,608
0	0	0	0	3,072,878	3,109,830
0	0	0	0	0	3,162,423
0	2,511,480	2,508,260	2,503,309	2,496,543	2,487,875
0	0	5,314,528	5,307,714	5,297,239	5,282,922
0	0	0	1,368,646	1,366,891	1,364,193
0	0	0	1,046,042	1,050,312	1,054,141
0	0	0	0	3,219,798	3,232,941
0	0	0	0	0	4,330,732
0	0	282,600	279,676	276,430	272,847
0	0	0	457,755	453,020	447,762
0	0	0	0	3,316,655	3,282,344
0	0	0	0	0	3,413,305
0	0	0	3,166,175	3,204,249	3,242,248
0	0	0	0	2,767,955	2,801,241
0	0	0	0	0	1,309,004
0	0	199,938	199,681	199,287	198,748
0	0	0	609,998	609,216	608,014
0	0	0	0	2,384,359	2,381,302
0	0	0	0	0	3,427,949
0	5,400,591	5,422,634	5,442,404	5,459,774	5,474,610
0	0	850,560	854,031	857,145	859,880
0	6,061,254	6,134,143	6,206,887	6,279,435	6,351,731
0	0	176,586	178,710	180,829	182,943
0	0	0	0	1,115,038	1,123,543
0	0	0	0	0	4,633,158
0	0	0	538,691	545,169	551,634
0	0	0	0	2,362,393	2,390,801
0	0	0	0	0	2,428,852
0	562,754	562,033	560,923	559,407	557,465
0	0	2,564,545	2,561,257	2,556,202	2,549,293
0	0	0	2,009,872	2,007,295	2,003,333
0	0	199,938	199,681	199,287	198,748
0	0	0	2,349,846	2,346,834	2,342,202
0	0	0	0	2,179,533	2,176,738
0	0	199,938	199,681	199,287	198,748
0	0	0	2,472,733	2,469,563	2,464,689
0	0	0	0	1,387,869	1,386,090
0	0	0	185,610	185,372	185,006
0	0	0	0	2,109,561	2,106,856
0	0	0	0	0	1,485,445
0	1,011,153	1,023,312	1,035,447	1,047,550	1,059,611
0	0	2,032,873	2,057,319	2,081,717	2,106,049
0	0	0	332,799	336,801	340,795
0	2,987,633	2,956,726	2,922,407	2,884,524	2,842,920
0	0	80,102	79,273	78,353	77,338

0	321,546	322,858	324,035	325,069	325,953
0	0	1,796,651	1,803,985	1,810,562	1,816,340
0	0	0	50,113	50,317	50,500
0	0	0	0	277,574	277,218
0	0	0	0	0	1,856,806
0	127,544	128,517	129,459	130,367	131,240
0	0	492,594	496,351	499,988	503,497
0	0	0	433,811	437,120	440,323
0	0	0	0	446,016	449,417
0	0	0	0	0	459,013
0	329,434	333,395	337,349	341,292	345,222
0	0	1,603,352	1,622,633	1,641,875	1,661,066
0	0	0	108,453	109,280	110,081
0	0	0	0	1,151,874	1,160,659
0	0	0	0	111,029	110,887
0	0	0	0	0	1,041,240
0	389,033	388,534	387,767	386,719	385,376
0	0	711,345	710,433	709,031	707,115
0	0	0	0	416,361	415,827
0	0	0	0	0	585,608
0	0	0	0	139,142	139,710
0	0	0	0	0	859,184
0	0	0	0	195,546	197,898
0	0	0	0	0	689,983
0	0	0	269,979	269,632	269,100
0	0	0	0	277,574	277,218
0	0	0	0	0	328,512
0	0	0	0	0	714,156
0	0	0	0	0	717,207
0	0	0	0	171,284	171,064
0	0	0	0	0	539,957
0	0	0	0	651,239	644,502
0	645,816	650,741	655,510	660,110	664,530
0	0	0	614,202	613,415	612,204
0	0	0	0	111,029	110,887
0	0	0	0	0	457,060
0	35,366	35,321	35,251	35,156	35,034
0	0	481,227	480,610	479,662	478,365
0	0	0	0	0	472,926
0	20,258	20,232	20,192	20,137	20,067
0	0	372,083	371,606	370,873	369,871
0	0	0	46,737	46,677	46,585
0	323,663	323,248	322,610	321,738	320,621
0	0	0	0	0	307,087
0	0	0	0	0	307,087
0	6,637	6,735	6,832	6,931	7,030
0	0	151,461	153,679	155,914	158,164
0	0	0	0	0	143,197

0	136,881	124,714	111,853	98,271	83,940
0	22,576	17,355	11,859	6,078	0
0	0	210,342	200,200	189,420	177,976
0	523,253	402,251	274,871	140,872	0
0	0	381,745	293,466	200,535	102,774
0	0	0	409,500	314,803	215,115
0	0	0	0	409,500	314,803
0	0	0	0	0	409,500
0	450,462	346,292	236,633	121,274	0
0	759,326	737,345	713,791	688,599	661,700
0	0	482,582	468,612	453,643	437,632
0	-3,135	-3,102	-3,066	-3,026	-2,983
0	256,739	249,307	241,343	232,825	223,730
0	9,474	9,462	9,443	9,417	9,385
0	50,603	50,080	49,498	48,857	48,152
0	-50,506	-51,246	-51,991	-52,742	-53,497
0	0	412,499	418,541	424,626	430,755
0	3,194	3,232	3,270	3,309	3,347
0	153,990	140,302	125,833	110,553	94,431
0	0	64,234	58,525	52,489	46,116
0	261,879	261,543	261,027	260,321	259,418
0	0	-13,274	-13,257	-13,231	-13,195
0	-529	-524	-518	-511	-504
0	19,356	19,156	18,934	18,688	18,419
0	3,831	3,792	3,748	3,699	3,646
0	0	1,115	1,104	1,091	1,077
0	0	0	4,977	4,926	4,868
0	0	0	0	4,977	4,926
0	0	0	0	0	4,977
0	321,849	321,436	320,802	319,935	318,824
0	0	10,401	10,388	10,367	10,339
0	71,273	67,836	64,184	60,306	56,194
0	0	124,504	126,001	127,496	128,986
0	41,924	41,871	41,788	41,675	41,530
0	0	271,069	273,136	275,138	277,068
0	0	81,705	74,443	66,766	58,658
0	100,493	95,647	90,497	85,030	79,232
0	0	3,380	3,217	3,044	2,860
0	158,014	157,811	157,500	157,074	156,528
0	0	79,034	78,933	78,777	78,564
0	219,280	220,953	222,572	224,134	225,634
0	0	136,538	137,580	138,588	139,560
0	0	235,930	237,730	239,472	241,152
0	65,555	50,395	34,437	17,649	0
0	0	100,304	77,109	52,691	27,004
0	0	493,438	479,154	463,847	447,476
0	544,958	544,260	543,186	541,718	539,837
0	0	1,812,808	1,810,484	1,806,910	1,802,027

0	0	159,950	159,745	159,430	158,999
0	0	810,347	809,308	807,710	805,527
0	0	64,884	59,117	53,020	46,582
0	0	758,096	757,124	755,629	753,587
0	5,563,204	5,664,014	5,766,387	5,870,339	5,975,884
0	391,192	398,281	405,480	412,789	420,211
0	104,743	103,659	102,456	101,128	99,669
0	10,931	10,615	10,275	9,913	9,526
0	47,912	43,653	39,151	34,397	29,381
0	6,042	5,867	5,679	5,479	5,265
0	30,470	30,154	29,804	29,418	28,994
0	27,412	27,128	26,814	26,466	26,084
0	6,042	5,867	5,679	5,479	5,265
0	9,059	8,797	8,516	8,215	7,894
0	573,544	581,944	590,406	598,927	607,506
0	101,718	103,208	104,709	106,220	107,741
0	132,356	120,591	108,155	95,022	81,164
0	637,418	626,131	613,880	600,626	586,326
0	483,927	492,696	501,601	510,644	519,825
0	33,687	34,180	34,677	35,178	35,681
0	259,469	262,589	265,703	268,809	271,904
0	66,725	67,234	67,727	68,202	68,659
0	29,334	29,031	28,694	28,322	27,913
0	29,334	29,031	28,694	28,322	27,913
0	83,970	84,979	85,987	86,992	87,994
0	99,752	90,885	81,512	71,614	61,171
Carndo Year 4 Reduction	0	0	0	-2,075,565	-2,063,154
Carndo Year 5 Reduction	0	0	0	0	-3,744,738
Total Closing RAB	34,605,095	61,437,991	85,648,091	114,255,857	156,194,429

## ACTEW Panel Review - Price Model

Water - Existing Assets Tax BV

	Year Index Year	1 2013/14	2 2014/15	3 2015/16	4 2016/17	5 2017/18
<b>Assumptions</b>						
Inflation		2.50%	2.50%	2.50%	2.50%	2.50%
<b>Regulated Asset Base Summary - Existing Water Assets</b>						
Opening Value		1,083,846,375	1,052,804,885	1,021,763,395	990,721,905	959,680,415
Disposals [not used]		0	0	0	0	0
Depreciation		-31,041,490	-31,041,490	-31,041,490	-31,041,490	-31,041,490
Closing Value		1,052,804,885	1,021,763,395	990,721,905	959,680,415	928,638,925
<b>RAB for Return on Investment Calculation</b>		1,083,846,375	1,052,804,885	1,021,763,395	990,721,905	959,680,415
Check closing value (should be zero)		0	0	0	0	0
<b>Regulated Asset Base Details - Existing Water Assets</b>						
<b>Opening Remaining Life</b>						
Water Assets (excluding Water Security)		35	34	33	32	31
801410 ECD-Dams & Weirs		0	0	0	0	0
801410 ECD-Dams or Weirs intake structures		0	0	0	0	0
801410 ECD-Valves		0	0	0	0	0
801410 ECD-Flow Meters		0	0	0	0	0
801410 ECD-Pressure sensors, transmitters and meters		0	0	0	0	0
801416 ECD-Dams & Weirs		0	0	0	0	0
801416 ECD-Dams or Weir intake structures		0	0	0	0	0
801416 ECD-Valves		0	0	0	0	0
801416 ECD-Flow Meters		0	0	0	0	0
801416 ECD-Pressure sensors, transmitters and meters		0	0	0	0	0
801411 M2G-Cathodic protections systems		0	0	0	0	0
801411 M2G-Valves (Bulk)		0	0	0	0	0
801411 M2G-Valves (Pump)		0	0	0	0	0
801411 M2G-Flow Meters (Bulk)		0	0	0	0	0
801411 M2G-Flow Meters (Pump)		0	0	0	0	0
801411 M2G-Water Mains (Bulk)		0	0	0	0	0
801411 M2G-Water Mains (Pump)		0	0	0	0	0
801411 M2G-Telemetry (Pump)		0	0	0	0	0
801411 M2G-Pump Sets (Pump)		0	0	0	0	0

**Opening Value**

Water Assets (excluding Water Security)	1,083,846,375	1,052,804,885	1,021,763,395	990,721,905	959,680,415
801410 ECD-Dams & Weirs	0	0	0	0	0
801410 ECD-Dams or Weirs intake structures	0	0	0	0	0
801410 ECD-Valves	0	0	0	0	0
801410 ECD-Flow Meters	0	0	0	0	0
801410 ECD-Pressure sensors, transmitters and meters	0	0	0	0	0
801416 ECD-Dams & Weirs	0	0	0	0	0
801416 ECD-Dams or Weir intake structures	0	0	0	0	0
801416 ECD-Valves	0	0	0	0	0
801416 ECD-Flow Meters	0	0	0	0	0
801416 ECD-Pressure sensors, transmitters and meters	0	0	0	0	0
801411 M2G-Cathodic protections systems	0	0	0	0	0
801411 M2G-Valves (Bulk)	0	0	0	0	0
801411 M2G-Valves (Pump)	0	0	0	0	0
801411 M2G-Flow Meters (Bulk)	0	0	0	0	0
801411 M2G-Flow Meters (Pump)	0	0	0	0	0
801411 M2G-Water Mains (Bulk)	0	0	0	0	0
801411 M2G-Water Mains (Pump)	0	0	0	0	0
801411 M2G-Telemetry (Pump)	0	0	0	0	0
801411 M2G-Pump Sets (Pump)	0	0	0	0	0
<b>Total</b>	<b>1,083,846,375</b>	<b>1,052,804,885</b>	<b>1,021,763,395</b>	<b>990,721,905</b>	<b>959,680,415</b>

Note [24]

**Disposals**

Water Assets (excluding Water Security)
801410 ECD-Dams & Weirs
801410 ECD-Dams or Weirs intake structures
801410 ECD-Valves
801410 ECD-Flow Meters
801410 ECD-Pressure sensors, transmitters and meters
801416 ECD-Dams & Weirs
801416 ECD-Dams or Weir intake structures
801416 ECD-Valves
801416 ECD-Flow Meters
801416 ECD-Pressure sensors, transmitters and meters
801411 M2G-Cathodic protections systems
801411 M2G-Valves (Bulk)
801411 M2G-Valves (Pump)
801411 M2G-Flow Meters (Bulk)
801411 M2G-Flow Meters (Pump)
801411 M2G-Water Mains (Bulk)
801411 M2G-Water Mains (Pump)
801411 M2G-Telemetry (Pump)

801411 M2G-Pump Sets (Pump)

Total

0	0	0	0	0
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**Inflationary Gain**

- [not used]
- [not used]
- [not used]
- [not used]
- [not used]
- [not used]
- [not used]
- [not used]
- [not used]
- [not used]
- [not used]
- [not used]
- [not used]
- [not used]
- [not used]
- [not used]
- [not used]
- [not used]
- [not used]
- [not used]

Total

0	0	0	0	0
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**Depreciation**

Water Assets (excluding Water Security)	-31,041,490	-31,041,490	-31,041,490	-31,041,490	-31,041,490
801410 ECD-Dams & Weirs	0	0	0	0	0
801410 ECD-Dams or Weirs intake structures	0	0	0	0	0
801410 ECD-Valves	0	0	0	0	0
801410 ECD-Flow Meters	0	0	0	0	0
801410 ECD-Pressure sensors, transmitters and meters	0	0	0	0	0
801416 ECD-Dams & Weirs	0	0	0	0	0
801416 ECD-Dams or Weir intake structures	0	0	0	0	0
801416 ECD-Valves	0	0	0	0	0
801416 ECD-Flow Meters	0	0	0	0	0
801416 ECD-Pressure sensors, transmitters and meters	0	0	0	0	0
801411 M2G-Cathodic protections systems	0	0	0	0	0
801411 M2G-Valves (Bulk)	0	0	0	0	0
801411 M2G-Valves (Pump)	0	0	0	0	0
801411 M2G-Flow Meters (Bulk)	0	0	0	0	0
801411 M2G-Flow Meters (Pump)	0	0	0	0	0

801411 M2G-Water Mains (Bulk)	0	0	0	0	0
801411 M2G-Water Mains (Pump)	0	0	0	0	0
801411 M2G-Telemetry (Pump)	0	0	0	0	0
801411 M2G-Pump Sets (Pump)	0	0	0	0	0

Total	-31,041,490	-31,041,490	-31,041,490	-31,041,490	-31,041,490
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**Closing Value**

Water Assets (excluding Water Security)	1,052,804,885	1,021,763,395	990,721,905	959,680,415	928,638,925
801410 ECD-Dams & Weirs	0	0	0	0	0
801410 ECD-Dams or Weirs intake structures	0	0	0	0	0
801410 ECD-Valves	0	0	0	0	0
801410 ECD-Flow Meters	0	0	0	0	0
801410 ECD-Pressure sensors, transmitters and meters	0	0	0	0	0
801416 ECD-Dams & Weirs	0	0	0	0	0
801416 ECD-Dams or Weir intake structures	0	0	0	0	0
801416 ECD-Valves	0	0	0	0	0
801416 ECD-Flow Meters	0	0	0	0	0
801416 ECD-Pressure sensors, transmitters and meters	0	0	0	0	0
801411 M2G-Cathodic protections systems	0	0	0	0	0
801411 M2G-Valves (Bulk)	0	0	0	0	0
801411 M2G-Valves (Pump)	0	0	0	0	0
801411 M2G-Flow Meters (Bulk)	0	0	0	0	0
801411 M2G-Flow Meters (Pump)	0	0	0	0	0
801411 M2G-Water Mains (Bulk)	0	0	0	0	0
801411 M2G-Water Mains (Pump)	0	0	0	0	0
801411 M2G-Telemetry (Pump)	0	0	0	0	0
801411 M2G-Pump Sets (Pump)	0	0	0	0	0

Total	1,052,804,885	1,021,763,395	990,721,905	959,680,415	928,638,925
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# ACTEW Panel Review - Price Model

Water - Capex Tax BV

	Year Index	1	2	3	4	5
	Year	2013/14	2014/15	2015/16	2016/17	2017/18
<b>Assumptions</b>						
Inflation		2.50%	2.50%	2.50%	2.50%	2.50%
<b>Tax Book Value (Water - Capex) Summary</b>						
Opening Value (nominal)		0	34,183,549	59,858,647	82,322,577	108,590,952
Disposals		0	0	0	0	0
Capex		34,643,404	26,993,825	24,440,593	28,868,117	42,188,866
Inflationary Gain		0	0	0	0	0
Depreciation		-459,856	-1,318,727	-1,976,663	-2,599,741	-3,382,753
Closing Value		34,183,549	59,858,647	82,322,577	108,590,952	147,397,065
Check closing RAB (should be zero)		0	0	0	0	0
Check RAB capex = capex input (should be zero)						0
<b>Regulated Asset Base Details - Water (Capex)</b>						
Opening Remaining Life		0	60	59	58	57
		0	0	60	59	58
		0	0	0	60	59
		0	15	14	13	12
		0	0	15	14	13
		0	60	59	58	57
		0	0	60	59	58
		0	0	0	60	59
		0	0	0	0	60
		0	0	0	0	60
		0	80	79	78	77
		0	0	80	79	78
		0	0	0	80	79
		0	0	0	0	80
		0	40	39	38	37
		0	0	40	39	38
		0	0	0	40	39
		0	0	0	50	49
		0	0	0	0	50
		0	0	0	0	50
		0	0	30	29	28

0	0	0	30	29	28
0	0	0	0	30	29
0	0	0	0	0	30
0	0	0	80	79	78
0	0	0	0	80	79
0	0	0	0	0	80
0	0	40	39	38	37
0	0	0	40	39	38
0	0	0	0	40	39
0	0	0	0	0	40
0	50	49	48	47	46
0	0	50	49	48	47
0	80	79	78	77	76
0	0	80	79	78	77
0	0	0	0	60	59
0	0	0	0	0	60
0	0	0	80	79	78
0	0	0	0	80	79
0	0	0	0	0	80
0	40	39	38	37	36
0	0	40	39	38	37
0	0	0	40	39	38
0	0	40	39	38	37
0	0	0	40	39	38
0	0	0	0	40	39
0	0	40	39	38	37
0	0	0	40	39	38
0	0	0	0	40	39
0	0	0	40	39	38
0	0	0	0	40	39
0	0	0	0	0	40
0	80	79	78	77	76
0	0	80	79	78	77
0	0	0	80	79	78
0	30	29	28	27	26
0	0	30	29	28	27
0	50	49	48	47	46
0	0	50	49	48	47
0	0	0	50	49	48
0	0	0	0	40	39
0	0	0	0	0	40
0	60	59	58	57	56
0	0	60	59	58	57
0	0	0	60	59	58
0	0	0	0	60	59
0	0	0	0	0	60
0	80	79	78	77	76
0	0	80	79	78	77

0	0	0	60	59	58
0	0	0	0	60	59
0	0	0	0	40	39
0	0	0	0	0	40
0	40	39	38	37	36
0	0	40	39	38	37
0	0	0	0	40	39
0	0	0	0	0	40
0	0	0	0	50	49
0	0	0	0	0	50
0	0	0	0	80	79
0	0	0	0	0	80
0	0	0	40	39	38
0	0	0	0	40	39
0	0	0	0	0	40
0	0	0	0	0	40
0	0	0	0	0	60
0	0	0	0	40	39
0	0	0	0	0	40
0	0	0	0	30	29
0	60	59	58	57	56
0	0	0	40	39	38
0	0	0	0	40	39
0	0	0	0	0	40
0	40	39	38	37	36
0	0	40	39	38	37
0	0	0	0	0	80
0	40	39	38	37	36
0	0	40	39	38	37
0	0	0	40	39	38
0	40	39	38	37	36
0	0	0	0	0	40
0	0	0	0	0	40
0	100	99	98	97	96
0	0	100	99	98	97
0	0	0	0	0	50
0	10	9	8	7	6
0	5	4	3	2	1
0	0	15	14	13	12
0	5	4	3	2	1
0	0	5	4	3	2
0	0	0	5	4	3
0	0	0	0	5	4
0	0	0	0	0	5
0	5	4	3	2	1
0	20	19	18	17	16
0	0	20	19	18	17
0	30	29	28	27	26

0	20	19	18	17	16
0	40	39	38	37	36
0	30	29	28	27	26
0	100	99	98	97	96
0	0	100	99	98	97
0	80	79	78	77	76
0	10	9	8	7	6
0	0	10	9	8	7
0	40	39	38	37	36
0	0	40	39	38	37
0	30	29	28	27	26
0	30	29	28	27	26
0	30	29	28	27	26
0	0	30	29	28	27
0	0	0	30	29	28
0	0	0	0	30	29
0	0	0	0	0	30
0	40	39	38	37	36
0	0	40	39	38	37
0	15	14	13	12	11
0	0	80	79	78	77
0	40	39	38	37	36
0	0	60	59	58	57
0	0	10	9	8	7
0	15	14	13	12	11
0	0	15	14	13	12
0	40	39	38	37	36
0	0	40	39	38	37
0	60	59	58	57	56
0	0	60	59	58	57
0	0	60	59	58	57
0	5	4	3	2	1
0	0	5	4	3	2
0	0	20	19	18	17
0	40	39	38	37	36
0	0	40	39	38	37
0	0	40	39	38	37
0	0	40	39	38	37
0	0	10	9	8	7
0	0	40	39	38	37
0	150	149	148	147	146
0	150	149	148	147	146
0	30	29	28	27	26
0	20	19	18	17	16
0	10	9	8	7	6
0	20	19	18	17	16
0	30	29	28	27	26
0	30	29	28	27	26

0	20	19	18	17	16
0	20	19	18	17	16
0	100	99	98	97	96
0	100	99	98	97	96
0	10	9	8	7	6
0	25	24	23	22	21
0	150	149	148	147	146
0	100	99	98	97	96
0	80	79	78	77	76
0	60	59	58	57	56
0	30	29	28	27	26
0	30	29	28	27	26
0	80	79	78	77	76
0	10	9	8	7	6
Carndo Year 4 Reduction	0	0	0	34	33
Carndo Year 5 Reduction	0	0	0	0	34

**Opening Value**

0	0	164,162	161,379	158,597	155,815
0	0	0	504,744	496,189	487,634
0	0	0	0	104,555	102,783
0	0	95,038	88,250	81,461	74,673
0	0	0	4,088	3,796	3,504
0	0	270,900	266,308	261,717	257,125
0	0	0	1,820,852	1,789,990	1,759,128
0	0	0	0	4,313,750	4,240,636
0	0	0	0	517,498	508,727
0	0	0	0	0	2,654,832
0	0	0	0	0	0
0	0	479,362	473,294	467,226	461,158
0	0	0	408,503	403,332	398,161
0	0	0	0	2,952,127	2,914,758
0	0	0	0	0	3,035,177
0	0	0	0	0	0
0	0	2,480,861	2,417,249	2,353,638	2,290,026
0	0	0	5,249,737	5,115,128	4,980,520
0	0	0	0	1,351,960	1,317,295
0	0	0	0	1,033,257	1,012,170
0	0	0	0	0	3,180,445
0	0	0	0	0	0
0	0	0	279,169	269,543	259,916
0	0	0	0	452,199	436,606
0	0	0	0	0	3,276,394
0	0	0	0	0	0
0	0	0	0	3,127,329	3,087,743
0	0	0	0	0	2,733,995
0	0	0	0	0	0

0	0	0	197,500	192,436	187,372
0	0	0	0	602,562	587,111
0	0	0	0	0	2,355,290
0	0	0	0	0	0
0	0	5,334,582	5,225,713	5,116,844	5,007,975
0	0	0	840,164	823,017	805,871
0	0	5,986,889	5,911,105	5,835,322	5,759,539
0	0	0	174,420	172,212	170,004
0	0	0	0	0	1,101,387
0	0	0	0	0	0
0	0	0	0	532,082	525,347
0	0	0	0	0	2,333,409
0	0	0	0	0	0
0	0	555,893	541,640	527,386	513,132
0	0	0	2,533,280	2,468,324	2,403,368
0	0	0	0	1,985,369	1,934,462
0	0	0	197,500	192,436	187,372
0	0	0	0	2,321,199	2,261,681
0	0	0	0	0	2,152,961
0	0	0	197,500	192,436	187,372
0	0	0	0	2,442,587	2,379,957
0	0	0	0	0	1,370,949
0	0	0	0	183,347	178,646
0	0	0	0	0	2,083,842
0	0	0	0	0	0
0	0	998,747	986,104	973,462	960,820
0	0	0	2,007,932	1,982,515	1,957,098
0	0	0	0	328,716	324,555
0	0	2,951,366	2,849,595	2,747,823	2,646,052
0	0	0	79,130	76,401	73,673
0	0	317,615	311,134	304,652	298,170
0	0	0	1,774,692	1,738,474	1,702,255
0	0	0	0	49,500	48,490
0	0	0	0	0	274,190
0	0	0	0	0	0
0	0	125,983	123,847	121,712	119,577
0	0	0	486,563	478,316	470,069
0	0	0	0	428,500	421,237
0	0	0	0	0	440,555
0	0	0	0	0	0
0	0	325,392	321,273	317,154	313,035
0	0	0	1,583,680	1,563,634	1,543,587
0	0	0	0	107,125	105,309
0	0	0	0	0	1,137,771
0	0	0	0	0	109,676
0	0	0	0	0	0
0	0	384,290	374,436	364,583	354,729
0	0	0	702,673	684,656	666,639

0	0	0	0	411,285
0	0	0	0	0
0	0	0	0	137,442
0	0	0	0	0
0	0	0	0	193,147
0	0	0	0	0
0	0	0	0	266,687
0	0	0	0	259,849
0	0	0	0	274,190
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	169,195
0	0	0	0	0
0	0	0	0	643,334
0	0	637,909	627,097	616,285
0	0	0	0	606,714
0	0	0	0	591,157
0	0	0	0	109,676
0	0	0	0	0
0	0	34,935	34,039	33,144
0	0	0	475,360	463,172
0	0	0	0	450,983
0	0	0	0	0
0	0	20,011	19,498	18,985
0	0	0	367,547	358,123
0	0	0	0	348,699
0	0	0	0	46,168
0	0	319,717	311,519	303,322
0	0	0	0	295,124
0	0	0	0	0
0	0	6,556	6,490	6,423
0	0	0	149,600	148,089
0	0	0	0	146,578
0	0	0	0	0
0	0	135,279	120,248	105,217
0	0	22,328	16,746	90,186
0	0	0	207,833	11,164
0	0	517,503	388,127	192,988
0	0	0	377,550	258,751
0	0	0	0	129,376
0	0	0	0	283,163
0	0	0	0	188,775
0	0	0	0	405,000
0	0	0	0	303,750
0	0	0	0	405,000
0	0	0	0	0
0	0	445,511	334,134	222,756
0	0	750,189	710,705	111,378
0	0	0	476,775	671,222
0	0	-3,097	-2,990	451,681
0	0	253,649	240,299	426,588
0	0	9,358	9,118	-2,883
0	0	49,989	48,265	-2,776
0	0	-49,886	-49,382	226,949
0	0	0	407,432	213,600
0	0	3,154	3,114	8,878
				8,638
				44,818
				-48,374
				399,201
				3,035

0	0	152,187	135,278	118,368	101,458
0	0	0	63,483	56,429	49,375
0	0	258,686	252,053	245,420	238,787
0	0	0	-13,112	-12,776	-12,440
0	0	-523	-505	-487	-469
0	0	19,121	18,462	17,803	17,143
0	0	3,785	3,654	3,524	3,393
0	0	0	1,102	1,064	1,026
0	0	0	0	4,917	4,747
0	0	0	0	0	4,917
0	0	0	0	0	0
0	0	317,925	309,773	301,621	293,470
0	0	0	10,274	10,011	9,748
0	0	70,423	65,393	60,362	55,332
0	0	0	122,977	121,420	119,863
0	0	41,413	40,351	39,290	38,228
0	0	0	267,750	263,212	258,674
0	0	0	80,749	71,777	62,805
0	0	99,294	92,202	85,109	78,017
0	0	0	3,340	3,101	2,863
0	0	156,087	152,085	148,083	144,080
0	0	0	78,070	76,069	74,067
0	0	216,595	212,924	209,253	205,582
0	0	0	134,867	132,581	130,295
0	0	0	233,042	229,092	225,142
0	0	64,835	48,626	32,417	16,209
0	0	0	99,202	74,401	49,601
0	0	0	487,500	461,842	436,184
0	0	538,315	524,512	510,709	496,906
0	0	0	1,790,707	1,744,792	1,698,876
0	0	0	158,000	153,949	149,897
0	0	0	800,468	779,943	759,418
0	0	0	64,125	57,000	49,875
0	0	0	748,853	729,652	710,451
0	0	5,494,749	5,457,872	5,420,994	5,384,117
0	0	386,379	383,786	381,192	378,599
0	0	103,471	99,903	96,335	92,767
0	0	10,799	10,231	9,663	9,094
0	0	47,351	42,090	36,829	31,567
0	0	5,969	5,655	5,341	5,026
0	0	30,100	29,062	28,024	26,986
0	0	27,079	26,146	25,212	24,278
0	0	5,969	5,655	5,341	5,026
0	0	8,950	8,479	8,008	7,537
0	0	566,498	560,776	555,054	549,331
0	0	100,469	99,454	98,439	97,424
0	0	130,807	116,273	101,738	87,204
0	0	629,708	603,470	577,232	550,994









	0	0	0	0	0	0
	0	0	0	0	0	0
Carndo Year 4 Reduction		0	0	0	0	0
Carndo Year 5 Reduction		0	0	0	0	0
Total Disposals		0	0	0	0	0

**Capex**

0	165,541	0	0	0	0
0	0	508,986	0	0	0
0	0	0	105,434	0	0
0	98,316	0	0	0	0
0	0	4,229	0	0	0
0	273,176	0	0	0	0
0	0	1,836,153	0	0	0
0	0	0	4,350,000	0	0
0	0	0	521,847	0	0
0	0	0	0	2,677,142	0
0	0	0	0	0	11,882,776
0	482,377	0	0	0	0
0	0	411,072	0	0	0
0	0	0	2,970,694	0	0
0	0	0	0	3,054,266	0
0	0	0	0	0	3,143,269
0	2,512,265	0	0	0	0
0	0	5,316,189	0	0	0
0	0	0	1,369,074	0	0
0	0	0	1,043,694	0	0
0	0	0	0	3,212,570	0
0	0	0	0	0	4,321,009
0	0	283,901	0	0	0
0	0	0	459,863	0	0
0	0	0	0	3,331,926	0
0	0	0	0	0	3,429,021
0	0	0	3,146,998	0	0
0	0	0	0	2,751,190	0
0	0	0	0	0	1,301,076
0	0	200,000	0	0	0
0	0	0	610,189	0	0
0	0	0	0	2,385,104	0
0	0	0	0	0	3,429,021
0	5,388,467	0	0	0	0
0	0	848,650	0	0	0
0	6,024,542	0	0	0	0
0	0	175,517	0	0	0
0	0	0	0	1,110,642	0
0	0	0	0	0	4,614,891
0	0	0	535,428	0	0
0	0	0	0	2,348,084	0

0	0	0	0	0	2,414,141
0	562,930	0	0	0	0
0	0	2,565,346	0	0	0
0	0	0	2,010,500	0	0
0	0	200,000	0	0	0
0	0	0	2,350,581	0	0
0	0	0	0	2,180,214	0
0	0	200,000	0	0	0
0	0	0	2,473,506	0	0
0	0	0	0	1,388,303	0
0	0	0	185,668	0	0
0	0	0	0	2,110,220	0
0	0	0	0	0	1,485,909
0	1,005,028	0	0	0	0
0	0	2,020,560	0	0	0
0	0	0	330,783	0	0
0	3,001,389	0	0	0	0
0	0	80,471	0	0	0
0	320,824	0	0	0	0
0	0	1,792,618	0	0	0
0	0	0	50,000	0	0
0	0	0	0	277,661	0
0	0	0	0	0	1,857,386
0	127,041	0	0	0	0
0	0	490,652	0	0	0
0	0	0	432,101	0	0
0	0	0	0	444,257	0
0	0	0	0	0	457,203
0	327,439	0	0	0	0
0	0	1,593,641	0	0	0
0	0	0	108,025	0	0
0	0	0	0	1,147,332	0
0	0	0	0	111,064	0
0	0	0	0	0	1,041,565
0	389,154	0	0	0	0
0	0	711,568	0	0	0
0	0	0	0	416,491	0
0	0	0	0	0	585,791
0	0	0	0	138,830	0
0	0	0	0	0	857,255
0	0	0	0	194,362	0
0	0	0	0	0	685,804
0	0	0	270,063	0	0
0	0	0	0	277,661	0
0	0	0	0	0	328,615
0	0	0	0	0	714,379
0	0	0	0	0	714,379
0	0	0	0	171,337	0

0	0	0	0	0	540,126
0	0	0	0	654,238	0
0	643,269	0	0	0	0
0	0	0	614,394	0	0
0	0	0	0	111,064	0
0	0	0	0	0	457,203
0	35,377	0	0	0	0
0	0	481,378	0	0	0
0	0	0	0	0	470,062
0	20,264	0	0	0	0
0	0	372,200	0	0	0
0	0	0	46,752	0	0
0	323,764	0	0	0	0
0	0	0	0	0	307,183
0	0	0	0	0	307,183
0	6,589	0	0	0	0
0	0	150,352	0	0	0
0	0	0	0	0	142,876
0	142,399	0	0	0	0
0	24,809	0	0	0	0
0	0	215,000	0	0	0
0	575,003	0	0	0	0
0	0	419,500	0	0	0
0	0	0	450,000	0	0
0	0	0	0	450,000	0
0	0	0	0	0	450,000
0	495,013	0	0	0	0
0	769,424	0	0	0	0
0	0	489,000	0	0	0
0	-3,149	0	0	0	0
0	260,153	0	0	0	0
0	9,477	0	0	0	0
0	50,836	0	0	0	0
0	-50,137	0	0	0	0
0	0	409,479	0	0	0
0	3,174	0	0	0	0
0	160,197	0	0	0	0
0	0	66,824	0	0	0
0	261,961	0	0	0	0
0	0	-13,278	0	0	0
0	-532	0	0	0	0
0	19,446	0	0	0	0
0	3,849	0	0	0	0
0	0	1,120	0	0	0
0	0	0	5,000	0	0
0	0	0	0	5,000	0
0	0	0	0	0	5,000
0	321,950	0	0	0	0

0	0	10,404	0	0	0
0	72,851	0	0	0	0
0	0	123,750	0	0	0
0	41,938	0	0	0	0
0	0	270,000	0	0	0
0	0	84,999	0	0	0
0	102,718	0	0	0	0
0	0	3,455	0	0	0
0	158,063	0	0	0	0
0	0	79,059	0	0	0
0	218,416	0	0	0	0
0	0	136,000	0	0	0
0	0	235,000	0	0	0
0	72,039	0	0	0	0
0	0	110,224	0	0	0
0	0	500,000	0	0	0
0	545,129	0	0	0	0
0	0	1,813,374	0	0	0
0	0	160,000	0	0	0
0	0	810,600	0	0	0
0	0	67,500	0	0	0
0	0	758,333	0	0	0
0	5,513,126	0	0	0	0
0	387,671	0	0	0	0
0	105,225	0	0	0	0
0	11,076	0	0	0	0
0	49,843	0	0	0	0
0	6,122	0	0	0	0
0	30,610	0	0	0	0
0	27,538	0	0	0	0
0	6,122	0	0	0	0
0	9,179	0	0	0	0
0	569,345	0	0	0	0
0	100,974	0	0	0	0
0	137,691	0	0	0	0
0	642,559	0	0	0	0
0	479,571	0	0	0	0
0	33,440	0	0	0	0
0	257,898	0	0	0	0
0	66,462	0	0	0	0
0	29,469	0	0	0	0
0	29,469	0	0	0	0
0	83,461	0	0	0	0
0	103,773	0	0	0	0
Carndo Year 4 Reduction	0	0	0	-2,080,841	0
Carndo Year 5 Reduction	0	0	0	0	-3,754,257
Total Capex	34,643,404	26,993,825	24,440,593	28,868,117	42,188,866









0	-2,276	-4,592	-4,592	-4,592	-4,592
0	0	-15,301	-30,862	-30,862	-30,862
0	0	0	-36,250	-73,114	-73,114
0	0	0	-4,349	-8,771	-8,771
0	0	0	0	-22,310	-44,997
0	0	0	0	0	-99,023
0	-3,015	-6,068	-6,068	-6,068	-6,068
0	0	-2,569	-5,171	-5,171	-5,171
0	0	0	-18,567	-37,369	-37,369
0	0	0	0	-19,089	-38,420
0	0	0	0	0	-19,645
0	-31,403	-63,612	-63,612	-63,612	-63,612
0	0	-66,452	-134,609	-134,609	-134,609
0	0	0	-17,113	-34,666	-34,666
0	0	0	-10,437	-21,087	-21,087
0	0	0	0	-32,126	-64,907
0	0	0	0	0	-43,210
0	0	-4,732	-9,627	-9,627	-9,627
0	0	0	-7,664	-15,593	-15,593
0	0	0	0	-55,532	-112,979
0	0	0	0	0	-57,150
0	0	0	-19,669	-39,586	-39,586
0	0	0	0	-17,195	-34,608
0	0	0	0	0	-8,132
0	0	-2,500	-5,064	-5,064	-5,064
0	0	0	-7,627	-15,450	-15,450
0	0	0	0	-29,814	-60,392
0	0	0	0	0	-42,863
0	-53,885	-108,869	-108,869	-108,869	-108,869
0	0	-8,487	-17,146	-17,146	-17,146
0	-37,653	-75,783	-75,783	-75,783	-75,783
0	0	-1,097	-2,208	-2,208	-2,208
0	0	0	0	-9,255	-18,668
0	0	0	0	0	-38,457
0	0	0	-3,346	-6,735	-6,735
0	0	0	0	-14,676	-29,537
0	0	0	0	0	-15,088
0	-7,037	-14,254	-14,254	-14,254	-14,254
0	0	-32,067	-64,956	-64,956	-64,956
0	0	0	-25,131	-50,907	-50,907
0	0	-2,500	-5,064	-5,064	-5,064
0	0	0	-29,382	-59,518	-59,518
0	0	0	0	-27,253	-55,204
0	0	-2,500	-5,064	-5,064	-5,064
0	0	0	-30,919	-62,630	-62,630
0	0	0	0	-17,354	-35,153
0	0	0	-2,321	-4,701	-4,701
0	0	0	0	-26,378	-53,432

0	0	0	0	0	-18,574
0	-6,281	-12,642	-12,642	-12,642	-12,642
0	0	-12,629	-25,417	-25,417	-25,417
0	0	0	-2,067	-4,161	-4,161
0	-50,023	-101,771	-101,771	-101,771	-101,771
0	0	-1,341	-2,729	-2,729	-2,729
0	-3,208	-6,482	-6,482	-6,482	-6,482
0	0	-17,926	-36,218	-36,218	-36,218
0	0	0	-500	-1,010	-1,010
0	0	0	0	-3,471	-7,031
0	0	0	0	0	-23,217
0	-1,059	-2,135	-2,135	-2,135	-2,135
0	0	-4,089	-8,247	-8,247	-8,247
0	0	0	-3,601	-7,263	-7,263
0	0	0	0	-3,702	-7,467
0	0	0	0	0	-3,810
0	-2,046	-4,119	-4,119	-4,119	-4,119
0	0	-9,960	-20,047	-20,047	-20,047
0	0	0	-900	-1,816	-1,816
0	0	0	0	-9,561	-19,284
0	0	0	0	-1,388	-2,812
0	0	0	0	0	-13,020
0	-4,864	-9,854	-9,854	-9,854	-9,854
0	0	-8,895	-18,017	-18,017	-18,017
0	0	0	0	-5,206	-10,546
0	0	0	0	0	-7,322
0	0	0	0	-1,388	-2,805
0	0	0	0	0	-8,573
0	0	0	0	-1,215	-2,445
0	0	0	0	0	-4,286
0	0	0	-3,376	-6,838	-6,838
0	0	0	0	-3,471	-7,031
0	0	0	0	0	-4,108
0	0	0	0	0	-8,930
0	0	0	0	0	-5,953
0	0	0	0	-2,142	-4,338
0	0	0	0	0	-6,752
0	0	0	0	-10,904	-22,184
0	-5,361	-10,812	-10,812	-10,812	-10,812
0	0	0	-7,680	-15,557	-15,557
0	0	0	0	-1,388	-2,812
0	0	0	0	0	-5,715
0	-442	-896	-896	-896	-896
0	0	-6,017	-12,189	-12,189	-12,189
0	0	0	0	0	-2,938
0	-253	-513	-513	-513	-513
0	0	-4,652	-9,424	-9,424	-9,424
0	0	0	-584	-1,184	-1,184

0	-4,047	-8,198	-8,198	-8,198	-8,198
0	0	0	0	0	-3,840
0	0	0	0	0	-3,840
0	-33	-66	-66	-66	-66
0	0	-752	-1,511	-1,511	-1,511
0	0	0	0	0	-1,429
0	-7,120	-15,031	-15,031	-15,031	-15,031
0	-2,481	-5,582	-5,582	-5,582	-5,582
0	0	-7,167	-14,845	-14,845	-14,845
0	-57,500	-129,376	-129,376	-129,376	-129,376
0	0	-41,950	-94,388	-94,388	-94,388
0	0	0	-45,000	-101,250	-101,250
0	0	0	0	-45,000	-101,250
0	0	0	0	0	-45,000
0	-49,501	-111,378	-111,378	-111,378	-111,378
0	-19,236	-39,484	-39,484	-39,484	-39,484
0	0	-12,225	-25,093	-25,093	-25,093
0	52	107	107	107	107
0	-6,504	-13,350	-13,350	-13,350	-13,350
0	-118	-240	-240	-240	-240
0	-847	-1,724	-1,724	-1,724	-1,724
0	251	504	504	504	504
0	0	-2,047	-4,115	-4,115	-4,115
0	-20	-40	-40	-40	-40
0	-8,010	-16,910	-16,910	-16,910	-16,910
0	0	-3,341	-7,054	-7,054	-7,054
0	-3,275	-6,633	-6,633	-6,633	-6,633
0	0	166	336	336	336
0	9	18	18	18	18
0	-324	-659	-659	-659	-659
0	-64	-131	-131	-131	-131
0	0	-19	-38	-38	-38
0	0	0	-83	-170	-170
0	0	0	0	-83	-170
0	0	0	0	0	-83
0	-4,024	-8,152	-8,152	-8,152	-8,152
0	0	-130	-263	-263	-263
0	-2,428	-5,030	-5,030	-5,030	-5,030
0	0	-773	-1,557	-1,557	-1,557
0	-524	-1,062	-1,062	-1,062	-1,062
0	0	-2,250	-4,538	-4,538	-4,538
0	0	-4,250	-8,972	-8,972	-8,972
0	-3,424	-7,092	-7,092	-7,092	-7,092
0	0	-115	-239	-239	-239
0	-1,976	-4,002	-4,002	-4,002	-4,002
0	0	-988	-2,002	-2,002	-2,002
0	-1,820	-3,671	-3,671	-3,671	-3,671
0	0	-1,133	-2,286	-2,286	-2,286

0	0	-1,958	-3,950	-3,950	-3,950
0	-7,204	-16,209	-16,209	-16,209	-16,209
0	0	-11,022	-24,800	-24,800	-24,800
0	0	-12,500	-25,658	-25,658	-25,658
0	-6,814	-13,803	-13,803	-13,803	-13,803
0	0	-22,667	-45,916	-45,916	-45,916
0	0	-2,000	-4,051	-4,051	-4,051
0	0	-10,133	-20,525	-20,525	-20,525
0	0	-3,375	-7,125	-7,125	-7,125
0	0	-9,479	-19,201	-19,201	-19,201
0	-18,377	-36,878	-36,878	-36,878	-36,878
0	-1,292	-2,593	-2,593	-2,593	-2,593
0	-1,754	-3,568	-3,568	-3,568	-3,568
0	-277	-568	-568	-568	-568
0	-2,492	-5,261	-5,261	-5,261	-5,261
0	-153	-314	-314	-314	-314
0	-510	-1,038	-1,038	-1,038	-1,038
0	-459	-934	-934	-934	-934
0	-153	-314	-314	-314	-314
0	-229	-471	-471	-471	-471
0	-2,847	-5,722	-5,722	-5,722	-5,722
0	-505	-1,015	-1,015	-1,015	-1,015
0	-6,885	-14,534	-14,534	-14,534	-14,534
0	-12,851	-26,238	-26,238	-26,238	-26,238
0	-1,599	-3,208	-3,208	-3,208	-3,208
0	-167	-336	-336	-336	-336
0	-1,612	-3,244	-3,244	-3,244	-3,244
0	-554	-1,117	-1,117	-1,117	-1,117
0	-491	-999	-999	-999	-999
0	-491	-999	-999	-999	-999
0	-522	-1,050	-1,050	-1,050	-1,050
0	-5,189	-10,954	-10,954	-10,954	-10,954
Carndo Year 4 Reduction	0	0	0	30,523	61,969
Carndo Year 5 Reduction	0	0	0	0	55,070
Total Depreciation	-459,856	-1,318,727	-1,976,663	-2,599,741	-3,382,753

**Closing ODRC**

0	164,162	161,379	158,597	155,815	153,032
0	0	504,744	496,189	487,634	479,079
0	0	0	104,555	102,783	101,011
0	95,038	88,250	81,461	74,673	67,885
0	0	4,088	3,796	3,504	3,212
0	270,900	266,308	261,717	257,125	252,534
0	0	1,820,852	1,789,990	1,759,128	1,728,267
0	0	0	4,313,750	4,240,636	4,167,521
0	0	0	517,498	508,727	499,956
0	0	0	0	2,654,832	2,609,835
0	0	0	0	0	11,783,753

0	479,362	473,294	467,226	461,158	455,091
0	0	408,503	403,332	398,161	392,990
0	0	0	2,952,127	2,914,758	2,877,390
0	0	0	0	3,035,177	2,996,757
0	0	0	0	0	3,123,624
0	2,480,861	2,417,249	2,353,638	2,290,026	2,226,414
0	0	5,249,737	5,115,128	4,980,520	4,845,911
0	0	0	1,351,960	1,317,295	1,282,629
0	0	0	1,033,257	1,012,170	991,083
0	0	0	0	3,180,445	3,115,537
0	0	0	0	0	4,277,799
0	0	279,169	269,543	259,916	250,290
0	0	0	452,199	436,606	421,013
0	0	0	0	3,276,394	3,163,415
0	0	0	0	0	3,371,871
0	0	0	3,127,329	3,087,743	3,048,156
0	0	0	0	2,733,995	2,699,388
0	0	0	0	0	1,292,944
0	0	197,500	192,436	187,372	182,308
0	0	0	602,562	587,111	571,661
0	0	0	0	2,355,290	2,294,898
0	0	0	0	0	3,386,158
0	5,334,582	5,225,713	5,116,844	5,007,975	4,899,106
0	0	840,164	823,017	805,871	788,725
0	5,986,889	5,911,105	5,835,322	5,759,539	5,683,755
0	0	174,420	172,212	170,004	167,796
0	0	0	0	1,101,387	1,082,719
0	0	0	0	0	4,576,434
0	0	0	532,082	525,347	518,612
0	0	0	0	2,333,409	2,303,872
0	0	0	0	0	2,399,052
0	555,893	541,640	527,386	513,132	498,879
0	0	2,533,280	2,468,324	2,403,368	2,338,412
0	0	0	1,985,369	1,934,462	1,883,555
0	0	197,500	192,436	187,372	182,308
0	0	0	2,321,199	2,261,681	2,202,163
0	0	0	0	2,152,961	2,097,757
0	0	197,500	192,436	187,372	182,308
0	0	0	2,442,587	2,379,957	2,317,326
0	0	0	0	1,370,949	1,335,797
0	0	0	183,347	178,646	173,945
0	0	0	0	2,083,842	2,030,410
0	0	0	0	0	1,467,335
0	998,747	986,104	973,462	960,820	948,177
0	0	2,007,932	1,982,515	1,957,098	1,931,681
0	0	0	328,716	324,555	320,394
0	2,951,366	2,849,595	2,747,823	2,646,052	2,544,281
0	0	79,130	76,401	73,673	70,944

0	317,615	311,134	304,652	298,170	291,688
0	0	1,774,692	1,738,474	1,702,255	1,666,037
0	0	0	49,500	48,490	47,480
0	0	0	0	274,190	267,160
0	0	0	0	0	1,834,169
0	125,983	123,847	121,712	119,577	117,441
0	0	486,563	478,316	470,069	461,822
0	0	0	428,500	421,237	413,975
0	0	0	0	440,555	433,088
0	0	0	0	0	453,393
0	325,392	321,273	317,154	313,035	308,917
0	0	1,583,680	1,563,634	1,543,587	1,523,541
0	0	0	107,125	105,309	103,493
0	0	0	0	1,137,771	1,118,487
0	0	0	0	109,676	106,864
0	0	0	0	0	1,028,545
0	384,290	374,436	364,583	354,729	344,875
0	0	702,673	684,656	666,639	648,621
0	0	0	0	411,285	400,739
0	0	0	0	0	578,469
0	0	0	0	137,442	134,637
0	0	0	0	0	848,682
0	0	0	0	193,147	190,702
0	0	0	0	0	681,518
0	0	0	266,687	259,849	253,011
0	0	0	0	274,190	267,160
0	0	0	0	0	324,507
0	0	0	0	0	705,449
0	0	0	0	0	708,426
0	0	0	0	169,195	164,857
0	0	0	0	0	533,375
0	0	0	0	643,334	621,150
0	637,909	627,097	616,285	605,473	594,661
0	0	0	606,714	591,157	575,601
0	0	0	0	109,676	106,864
0	0	0	0	0	451,488
0	34,935	34,039	33,144	32,248	31,352
0	0	475,360	463,172	450,983	438,794
0	0	0	0	0	467,124
0	20,011	19,498	18,985	18,471	17,958
0	0	367,547	358,123	348,699	339,274
0	0	0	46,168	44,984	43,800
0	319,717	311,519	303,322	295,124	286,926
0	0	0	0	0	303,343
0	0	0	0	0	303,343
0	6,556	6,490	6,423	6,357	6,291
0	0	149,600	148,089	146,578	145,067
0	0	0	0	0	141,447

0	135,279	120,248	105,217	90,186	75,155
0	22,328	16,746	11,164	5,582	0
0	0	207,833	192,988	178,143	163,298
0	517,503	388,127	258,751	129,376	0
0	0	377,550	283,163	188,775	94,388
0	0	0	405,000	303,750	202,500
0	0	0	0	405,000	303,750
0	0	0	0	0	405,000
0	445,511	334,134	222,756	111,378	0
0	750,189	710,705	671,222	631,738	592,254
0	0	476,775	451,681	426,588	401,494
0	-3,097	-2,990	-2,883	-2,776	-2,669
0	253,649	240,299	226,949	213,600	200,250
0	9,358	9,118	8,878	8,638	8,398
0	49,989	48,265	46,541	44,818	43,094
0	-49,886	-49,382	-48,878	-48,374	-47,870
0	0	407,432	403,316	399,201	395,085
0	3,154	3,114	3,075	3,035	2,995
0	152,187	135,278	118,368	101,458	84,549
0	0	63,483	56,429	49,375	42,322
0	258,686	252,053	245,420	238,787	232,154
0	0	-13,112	-12,776	-12,440	-12,104
0	-523	-505	-487	-469	-451
0	19,121	18,462	17,803	17,143	16,484
0	3,785	3,654	3,524	3,393	3,263
0	0	1,102	1,064	1,026	988
0	0	0	4,917	4,747	4,578
0	0	0	0	4,917	4,747
0	0	0	0	0	4,917
0	317,925	309,773	301,621	293,470	285,318
0	0	10,274	10,011	9,748	9,484
0	70,423	65,393	60,362	55,332	50,302
0	0	122,977	121,420	119,863	118,307
0	41,413	40,351	39,290	38,228	37,166
0	0	267,750	263,212	258,674	254,136
0	0	80,749	71,777	62,805	53,833
0	99,294	92,202	85,109	78,017	70,924
0	0	3,340	3,101	2,863	2,624
0	156,087	152,085	148,083	144,080	140,078
0	0	78,070	76,069	74,067	72,065
0	216,595	212,924	209,253	205,582	201,911
0	0	134,867	132,581	130,295	128,009
0	0	233,042	229,092	225,142	221,192
0	64,835	48,626	32,417	16,209	0
0	0	99,202	74,401	49,601	24,800
0	0	487,500	461,842	436,184	410,526
0	538,315	524,512	510,709	496,906	483,103
0	0	1,790,707	1,744,792	1,698,876	1,652,961

0	0	158,000	153,949	149,897	145,846
0	0	800,468	779,943	759,418	738,893
0	0	64,125	57,000	49,875	42,750
0	0	748,853	729,652	710,451	691,249
0	5,494,749	5,457,872	5,420,994	5,384,117	5,347,239
0	386,379	383,786	381,192	378,599	376,006
0	103,471	99,903	96,335	92,767	89,199
0	10,799	10,231	9,663	9,094	8,526
0	47,351	42,090	36,829	31,567	26,306
0	5,969	5,655	5,341	5,026	4,712
0	30,100	29,062	28,024	26,986	25,948
0	27,079	26,146	25,212	24,278	23,344
0	5,969	5,655	5,341	5,026	4,712
0	8,950	8,479	8,008	7,537	7,066
0	566,498	560,776	555,054	549,331	543,609
0	100,469	99,454	98,439	97,424	96,409
0	130,807	116,273	101,738	87,204	72,670
0	629,708	603,470	577,232	550,994	524,756
0	477,972	474,765	471,557	468,349	465,141
0	33,273	32,937	32,601	32,265	31,929
0	256,286	253,042	249,798	246,553	243,309
0	65,908	64,791	63,674	62,557	61,440
0	28,978	27,979	26,979	25,980	24,981
0	28,978	27,979	26,979	25,980	24,981
0	82,939	81,890	80,840	79,790	78,740
0	98,584	87,630	76,677	65,723	54,769
Carndo Year 4 Reduction	0	0	0	-2,050,318	-1,988,349
Carndo Year 5 Reduction	0	0	0	0	-3,699,186
Total Closing RAB	34,183,549	59,858,647	82,322,577	108,590,952	147,397,065

## ACTEW Panel Review - Price Model

Water - MAR

	Year Index	1	2	3	4	5
	Year	2013/14	2014/15	2015/16	2016/17	2017/18
<b>Assumptions</b>						
Inflation		2.50%	2.50%	2.50%	2.50%	2.50%
WACC (Nominal Post-Tax)		7.20%	7.20%	7.20%	7.20%	7.20%
Corporate Tax		30.0%	30.0%	30.0%	30.0%	30.0%
Cost of Debt		6.48%	6.48%	6.48%	6.48%	6.48%
Debt Funding		60.0%	60.0%	60.0%	60.0%	60.0%
Gamma		50.0%	50.0%	50.0%	50.0%	50.0%
Nominal post-tax discount factor		1.00	0.93	0.87	0.81	0.76

Note [48] **Case 1: Set Prices to Achieve Panel Target Revenue over 5 Years**

### Return on Investment

Asset Value for ROI Calculation	(\$)	1,387,123,436	1,427,994,164	1,463,289,262	1,499,076,450	1,543,307,563
Return on Investment	(\$)	99,872,887	102,815,580	105,356,827	107,933,504	111,118,145
less Capital Gain on Assets	(\$)	-34,678,086	-35,699,854	-36,582,232	-37,476,911	-38,582,689
less Value of Imputation Credits	(\$)	-3,505,011	-348,093	-442,986	-1,204,103	-1,397,928
Required ROI from Tariffs	(\$)	64,846,708	66,672,740	67,961,280	69,252,490	71,137,527

### Target Revenue Calculation

		NPV				
Return on Investment	(\$)	296,261,611	64,846,708	66,672,740	67,961,280	69,252,490
less Other Income	(\$)	-66,213,782	-14,454,573	-14,816,669	-15,187,862	-15,568,381
less Community Service Obligation Income	(\$)	-7,502,126	-1,763,350	-1,741,679	-1,714,766	-1,685,967
Depreciation	(\$)	119,177,491	24,625,973	26,121,965	27,449,399	28,774,289
Operating & Maintenance	(\$)	429,927,747	91,865,144	97,921,520	99,231,474	100,835,311
Tax	(\$)	7,010,022	696,186	885,972	1,626,630	2,408,206
		778,660,963	165,816,087	175,043,849	179,366,156	184,015,947

### Forecast Revenue

Forecast Revenue	778,660,963	165,122,282	173,895,881	179,332,654	185,174,635	191,433,674
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### Tax Calculation

Forecast Tariff Revenue		165,122,282	173,895,881	179,332,654	185,174,635	191,433,674
plus Other Income		14,454,573	14,816,669	15,187,862	15,568,381	15,958,464
less Tax Depreciation		-31,501,346	-32,360,217	-33,018,153	-33,641,231	-34,424,243
less Interest		-53,889,746	-55,477,573	-56,848,788	-58,239,120	-59,957,499
less Operating & Maintenance		-91,865,144	-97,921,520	-99,231,474	-100,835,311	-103,690,874
less Previous Year Losses		0	0	0	0	0
Taxable Profit		2,320,621	2,953,239	5,422,101	8,027,354	9,319,522

Opening Accumulated Losses	0	0	0	0	0
Closing Accumulated Losses	0	0	0	0	0

Tax	696,186	885,972	1,626,630	2,408,206	2,795,857
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Note [49] **Case 2: Set Prices to Achieve Panel Target Revenue over Remaining 3 Years**

**Return on Investment**

Asset Value for ROI Calculation	(\$)	1,387,123,436	1,427,994,164	1,463,289,262	1,499,076,450	1,543,307,563
Return on Investment	(\$)	99,872,887	102,815,580	105,356,827	107,933,504	111,118,145
less Capital Gain on Assets	(\$)	-34,678,086	-35,699,854	-36,582,232	-37,476,911	-38,582,689
less Value of Imputation Credits	(\$)	-3,505,011	-899,652	-1,324,984	-589,767	-762,828
Required ROI from Tariffs	(\$)	64,295,149	65,790,741	68,414,898	69,866,826	71,772,628

**Target Revenue Calculation**

		NPV					
Return on Investment	(\$)	296,261,611	64,295,149	65,790,741	68,414,898	69,866,826	71,772,628
less Other Income	(\$)	-66,213,782	-14,454,573	-14,816,669	-15,187,862	-15,568,381	-15,958,464
less Community Service Obligation Income	(\$)	-7,502,126	-1,763,350	-1,741,679	-1,714,766	-1,685,967	-1,655,207
Depreciation	(\$)	119,177,491	24,625,973	26,121,965	27,449,399	28,774,289	30,296,234
Operating & Maintenance	(\$)	429,927,747	91,865,144	97,921,520	99,231,474	100,835,311	103,690,874
Tax	(\$)	7,010,022	1,799,305	2,649,969	719,395	1,179,535	1,525,655
		778,660,963	166,367,647	175,925,847	178,912,539	183,401,612	189,671,719

**Forecast Revenue**

778,660,963	168,799,344	179,775,871	176,308,536	181,079,064	187,199,670
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**Tax Calculation**

Forecast Tariff Revenue		168,799,344	179,775,871	176,308,536	181,079,064	187,199,670
plus Other Income		14,454,573	14,816,669	15,187,862	15,568,381	15,958,464
less Tax Depreciation		-31,501,346	-32,360,217	-33,018,153	-33,641,231	-34,424,243
less Interest		-53,889,746	-55,477,573	-56,848,788	-58,239,120	-59,957,499
less Operating & Maintenance		-91,865,144	-97,921,520	-99,231,474	-100,835,311	-103,690,874
less Previous Year Losses		0	0	0	0	0
Taxable Profit		5,997,683	8,833,229	2,397,983	3,931,783	5,085,518

Opening Accumulated Losses	0	0	0	0	0
Closing Accumulated Losses	0	0	0	0	0

Tax	1,799,305	2,649,969	719,395	1,179,535	1,525,655
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<b>True Up Amount</b>	(\$)	-7,397,456	-2,983,257	-4,732,022		
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## ACTEW Panel Review - Price Model

### Water - Price Setting

		Year Index	1	2	3	4	5
		Year	2013/14	2014/15	2015/16	2016/17	2017/18
<b>Assumptions</b>							
Inflation			2.50%	2.50%	2.50%	2.50%	2.50%
Nominal post-tax discount factor			1.00	0.93	0.87	0.81	0.76
<b>Water</b>							
Forecast supply charges	Equivalent annual customers		162,951	166,992	171,134	175,378	179,728
Demand at Tier 1 price (t)	(kL)		20,932,936	21,609,318	22,301,601	22,943,933	23,540,944
Demand at Tier 2 price (t)	(kL)		16,455,383	16,861,659	16,622,565	16,448,197	16,334,286
Demand at Tier 1 price (t-1)	(kL)		2,827,064	2,918,412	3,011,907	3,098,656	3,179,284
Demand at Tier 2 price (t-1)	(kL)		1,714,617	1,756,950	1,732,037	1,713,868	1,701,999
<b>Note [48] Case 1: Set Prices to Achieve Panel Target Revenue over 5 Years</b>							
<b>Price Setting Calculation</b>							
Target Revenue			165,816,087	175,043,849	179,366,156	184,015,947	190,306,820
	PO		-5.51%		-3.37%		0
	X		0.00%		-3.37%		0
					-3.37%		0
<b>Price Escalators</b>							
Supply Charge	(%)		96.85%	102.50%	102.50%	102.50%	102.50%
Tier 1 Price	(%)		96.85%	102.50%	102.50%	102.50%	102.50%
Tier 1 Price	(%)		96.85%	102.50%	102.50%	102.50%	102.50%
<b>Prices</b>							
Supply Charge	(\$/cust)	99.83	96.69	99.11	101.58	104.12	106.73
Tier 1 Price	(\$/kL)	2.43	2.49	2.55	2.61	2.68	2.75
Tier 2 Price	(\$/kL)	4.86	4.99	5.11	5.24	5.37	5.50
<b>Revenue</b>							
Supply Charge	(\$)		15,755,412	16,549,782	17,384,283	18,260,785	19,181,561
Tier 1 Price	(\$)		58,968,717	62,390,416	65,998,904	69,597,304	73,193,461
Tier 2 Price	(\$)		90,398,153	94,955,683	95,949,467	97,316,546	99,058,652
			165,122,282	173,895,881	179,332,654	185,174,635	191,433,674

Note [54]

Note [54]

**Check NPV of Forecast Revenue = Target Revenue**

NPV Target Revenue	(\$)	778,660,963
NPV Forecast Revenue	(\$)	778,660,963
Error	(\$)	0

Note [49]

**Case 2: Set Prices to Achieve Panel Target Revenue over Remaining 3 Years**

**Price Setting Calculation**

Target Revenue		166,367,647	175,925,847	178,912,539	183,401,612	189,671,719
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P0	-5.51%
X	0.00%

**Price Escalators**

Supply Charge	(%)	100.17%	102.56%	96.86%	102.50%	102.50%
Tier 1 Price	(%)	104.94%	103.53%	96.86%	102.50%	102.50%
Tier 1 Price	(%)	104.94%	103.73%	96.86%	102.50%	102.50%

**Prices**

Supply Charge	(\$/cust)	99.83	100.00	102.56	99.34	101.82	104.37
Tier 1 Price	(\$/kL)	2.43	2.55	2.64	2.56	2.62	2.69
Tier 2 Price	(\$/kL)	4.86	5.10	5.29	5.12	5.25	5.38

**Revenue**

Supply Charge	(\$)	16,295,100	17,126,700	16,999,795	17,856,912	18,757,323
Tier 1 Price	(\$)	60,248,752	64,490,550	64,976,965	68,057,993	71,574,613
Tier 2 Price	(\$)	92,255,492	98,158,621	94,331,776	95,164,158	96,867,734
		168,799,344	179,775,871	176,308,536	181,079,064	187,199,670

**Check NPV of Forecast Revenue = Target Revenue**

NPV Target Revenue	(\$)	778,660,963
NPV Forecast Revenue	(\$)	778,660,963
Error	(\$)	0

NPV of Water Sales Revenue C (\$) 702,992,234

0.00%

702,992,234

0

# ACTEW Panel Review - Price Model

Sewer - Existing Assets Input

## Sewerage Assets as at 1 July 2013

Asset Name or Number	Opening Asset RAV (\$)	RAB Remaining Life (years)	Opening Tax Value (\$)	Tax Remaining Life (years)	Included in RAB?  (1=yes;0=no)
Sewerage Assets	656,716,581	41	392,988,715	25	1
[enter sewerage asset]					1
[enter sewerage asset]					1
[enter sewerage asset]					1
[enter sewerage asset]					1
[enter sewerage asset]					1
[enter sewerage asset]					1
[enter sewerage asset]					1
[enter sewerage asset]					1
[enter sewerage asset]					1
[enter sewerage asset]					1
[enter sewerage asset]					1
[enter sewerage asset]					1
[enter sewerage asset]					1

Note [41]

Note [42]

	RAB	RAB	RAB	RAB
	Remaining	Remaining	Remaining	Remaining
	Life	Life	Life	Life
ICRC		ACTEW SOFC	Panel Draft De	Panel Final Decision
	41	34	41	41

	Opening	Opening
	Asset RAV	Asset RAV
	with No	with No
	Deferral	Deferral
Panel Draft De	Panel Final Decision	Panel Final Decision
	#####	#####

**ACTEW Panel Review - Price Model**

Sewer - Capex Input

	Pricing Model Capex		ACTEW Capex		Useful		Spend	Nominal	
	Pricing Model	Project	RAB	ID	ACTEW Capex Description	Life	Tax Life	Year	Spend
Note [10]	2	1	SewerageRAB			60	60	1	165,541
	4	1	SewerageRAB			60	60	2	508,986
	6	1	SewerageRAB			60	60	3	105,434
	12	2	SewerageRAB			15	15	1	98,316
	14	2	SewerageRAB			15	15	2	4,229
	22	3	SewerageRAB			60	60	1	273,176
	24	3	SewerageRAB			60	60	2	1,836,153
	26	3	SewerageRAB			60	60	3	4,350,000
	32	4	SewerageRAB			30	30	1	2,321,611
	34	4	SewerageRAB			30	30	2	2,287,102
	36	4	SewerageRAB			30	30	3	5,196,339
	38	4	SewerageRAB			30	30	4	39,654,411
	40	4	SewerageRAB			30	30	5	13,949,367
	44	5	SewerageRAB			30	30	2	9,715,392
	46	5	SewerageRAB			30	30	3	9,061,572
	48	5	SewerageRAB			30	30	4	9,316,492
	50	5	SewerageRAB			30	30	5	9,587,982
	54	6	SewerageRAB			80	80	2	274,018
	56	6	SewerageRAB			80	80	3	8,232,432
	58	6	SewerageRAB			80	80	4	11,666,751
	60	6	SewerageRAB			80	80	5	4,135,333
	64	7	SewerageRAB			30	30	2	4,300,000
	66	7	SewerageRAB			30	30	3	18,200,000
	76	8	SewerageRAB			30	30	3	540,126
	78	8	SewerageRAB			30	30	4	7,792,359
	80	8	SewerageRAB			30	30	5	11,430,071
	86	9	SewerageRAB			20	20	3	1,043,694
	88	9	SewerageRAB			20	20	4	5,354,284
	90	9	SewerageRAB			20	20	5	10,802,524
	96	10	SewerageRAB			30	30	3	2,087,387
	98	10	SewerageRAB			30	30	4	5,354,284
	100	10	SewerageRAB			30	30	5	9,678,180
	106	11	SewerageRAB			80	80	3	1,080,252
	108	11	SewerageRAB			80	80	4	7,774,495
	110	11	SewerageRAB			80	80	5	4,695,187
	116	12	SewerageRAB			60	60	3	756,177
	118	12	SewerageRAB			60	60	4	5,745,563

120	12	SewerageRAB		60	60	5	4,918,893
124	13	SewerageRAB		10	10	2	947,069
126	13	SewerageRAB		10	10	3	1,476,453
128	13	SewerageRAB		10	10	4	1,528,844
130	13	SewerageRAB		10	10	5	1,143,007
136	14	SewerageRAB		30	30	3	529,324
138	14	SewerageRAB		30	30	4	4,164,908
142	15	SewerageRAB		30	30	1	3,158,588
144	15	SewerageRAB		30	30	2	961,258
152	16	SewerageRAB		30	30	1	1,635,452
154	16	SewerageRAB		30	30	2	2,077,262
156	16	SewerageRAB		30	30	3	100,900
162	17	SewerageRAB		80	80	1	1,595,289
164	17	SewerageRAB		80	80	2	2,152,966
176	18	SewerageRAB		20	20	3	540,126
178	18	SewerageRAB		20	20	4	1,582,665
180	18	SewerageRAB		20	20	5	1,143,007
182	19	SewerageRAB		20	20	1	177,487
184	19	SewerageRAB		20	20	2	232,453
186	19	SewerageRAB		20	20	3	2,309,399
188	19	SewerageRAB		20	20	4	145,117
198	20	SewerageRAB		80	80	4	1,388,303
200	20	SewerageRAB		80	80	5	1,428,759
202	21	SewerageRAB		30	30	1	244,671
204	21	SewerageRAB		30	30	2	2,369,777
216	22	SewerageRAB		30	30	3	270,063
218	22	SewerageRAB		30	30	4	1,457,718
220	22	SewerageRAB		30	30	5	714,379
222	23	SewerageRAB		60	60	1	410,533
224	23	SewerageRAB		60	60	2	168,701
226	23	SewerageRAB		60	60	3	1,627,108
232	24	SewerageRAB		60	60	1	1,980,738
234	24	SewerageRAB		60	60	2	45,628
242	25	SewerageRAB		80	80	1	288,302
244	25	SewerageRAB		80	80	2	171,160
246	25	SewerageRAB		80	80	3	432,101
248	25	SewerageRAB		80	80	4	444,257
250	25	SewerageRAB		80	80	5	457,203
258	26	SewerageRAB		20	20	4	111,064
260	26	SewerageRAB		20	20	5	942,981
266	27	SewerageRAB		30	30	3	326,154
268	27	SewerageRAB		30	30	4	334,643
270	27	SewerageRAB		30	30	5	364,585
278	28	SewerageRAB		30	30	4	430,374
280	28	SewerageRAB		30	30	5	571,504
282	29	SewerageRAB		80	80	1	92,979

284	29	SewerageRAB			80	80	2	738,407
292	30	SewerageRAB			60	60	1	805,387
294	30	SewerageRAB			60	60	2	22,169
302	31	SewerageRAB			60	60	1	534,806
304	31	SewerageRAB			60	60	2	164,445
316	32	SewerageRAB			30	30	3	652,309
322	33	SewerageRAB			60	60	1	16,471
324	33	SewerageRAB			60	60	2	184,298
326	33	SewerageRAB			60	60	3	216,050
332	34	SewerageRAB			60	60	1	156,677
334	34	SewerageRAB			60	60	2	115,351
348	35	SewerageRAB			60	60	4	261,695
352	36	SewerageRAB			60	60	1	120,959
362	37	SewerageRAB			60	60	1	100,690
372	38	SewerageRAB			80	80	1	70,749
812	82	SewerageRAB			10	10	1	142,399
822	83	SewerageRAB			5	5	1	24,809
834	84	SewerageRAB			15	15	2	215,000
842	85	SewerageRAB			5	5	1	575,003
844	85	SewerageRAB			5	5	2	419,500
846	85	SewerageRAB			5	5	3	450,000
848	85	SewerageRAB			5	5	4	450,000
850	85	SewerageRAB			5	5	5	450,000
852	86	SewerageRAB			5	5	1	495,013
864	87	SewerageRAB			40	40	2	539,000
874	88	SewerageRAB			40	40	2	38,133
884	89	SewerageRAB			40	40	2	426,976
894	90	SewerageRAB			40	40	2	1,263,686
904	91	SewerageRAB			40	40	2	519,200
914	92	SewerageRAB			40	40	2	324,500
922	93	SewerageRAB			80	80	1	62,434
934	94	SewerageRAB			5	5	2	280,000
942	95	SewerageRAB			20	20	1	34,721
952	96	SewerageRAB			80	80	1	4,936
962	97	SewerageRAB			40	40	1	100,924
972	98	SewerageRAB			60	60	1	8,430
982	99	SewerageRAB			60	60	1	35,012
984	99	SewerageRAB			60	60	2	55,000
986	99	SewerageRAB			60	60	3	20,000
988	99	SewerageRAB			60	60	4	20,000
990	99	SewerageRAB			60	60	5	20,000
992	100	SewerageRAB			40	40	1	34,428
1002	101	SewerageRAB			60	60	1	1,142,819
1004	101	SewerageRAB			60	60	2	20,457
1012	102	SewerageRAB			20	20	1	119,630
1014	102	SewerageRAB			20	20	2	39,866

1024	103	SewerageRAB		0	0	2	1,040,937
1032	104	SewerageRAB		20	20	1	123,724
1034	104	SewerageRAB		20	20	2	944,612
1036	104	SewerageRAB		20	20	3	37,695
1042	105	SewerageRAB		80	80	1	40,482
1052	106	SewerageRAB		20	20	1	102,916
1062	107	SewerageRAB		60	60	1	802,586
1064	107	SewerageRAB		60	60	2	1,206,591
1066	107	SewerageRAB		60	60	3	617,914
1072	108	SewerageRAB		60	60	1	10,506
1074	108	SewerageRAB		60	60	2	225,421
1084	109	SewerageRAB		80	80	2	567,274
1086	109	SewerageRAB		80	80	3	5,315,835
1088	109	SewerageRAB		80	80	4	12,805,725
1374	138	SewerageRAB		10	10	2	67,500
1384	139	SewerageRAB		40	40	2	758,333
	140	SewerageRAB	Carndo Year 4 Reduction	32	32	4	-7,919,159
	141	SewerageRAB	Carndo Year 5 Reduction	32	32	5	-6,245,743

Useful Life Useful Life Useful Life Useful Life

Year 4 Capex

Year 5 Capex

ICRC ACTEW SOFC Panel Draft De Panel Final Decision

Value Life Value Life

66	32	60	60	0	0	0	0
66	32	60	60	0	0	0	0
66	32	60	60	0	0	0	0
66	32	15	15	0	0	0	0
66	32	15	15	0	0	0	0
66	32	60	60	0	0	0	0
66	32	60	60	0	0	0	0
66	32	60	60	0	0	0	0
66	32	30	30	0	0	0	0
66	32	30	30	0	0	0	0
66	32	30	30	0	0	0	0
66	32	30	30	39,654,411	32	0	0
66	32	30	30	0	0	13,949,367	32
66	32	30	30	0	0	0	0
66	32	30	30	0	0	0	0
66	32	30	30	9,316,492	32	0	0
66	32	30	30	0	0	9,587,982	32
66	32	80	80	0	0	0	0
66	32	80	80	0	0	0	0
66	32	80	80	11,666,751	32	0	0
66	32	80	80	0	0	4,135,333	32
66	32	30	30	0	0	0	0
66	32	30	30	0	0	0	0
66	32	30	30	0	0	0	0
66	32	30	30	7,792,359	32	0	0
66	32	30	30	0	0	11,430,071	32
66	32	20	20	0	0	0	0
66	32	20	20	5,354,284	32	0	0
66	32	20	20	0	0	10,802,524	32
66	32	30	30	0	0	0	0
66	32	30	30	5,354,284	32	0	0
66	32	30	30	0	0	9,678,180	32
66	32	80	80	0	0	0	0
66	32	80	80	7,774,495	32	0	0
66	32	80	80	0	0	4,695,187	32
66	32	60	60	0	0	0	0
66	32	60	60	5,745,563	32	0	0

66	32	60	60
66	32	10	10
66	32	10	10
66	32	10	10
66	32	10	10
66	32	30	30
66	32	30	30
66	32	30	30
66	32	30	30
66	32	30	30
66	32	30	30
66	32	80	80
66	32	80	80
66	32	20	20
66	32	20	20
66	32	20	20
66	32	20	20
66	32	20	20
66	32	20	20
66	32	80	80
66	32	80	80
66	32	30	30
66	32	30	30
66	32	30	30
66	32	30	30
66	32	30	30
66	32	60	60
66	32	60	60
66	32	60	60
66	32	60	60
66	32	60	60
66	32	80	80
66	32	80	80
66	32	80	80
66	32	80	80
66	32	80	80
66	32	20	20
66	32	20	20
66	32	30	30
66	32	30	30
66	32	30	30
66	32	30	30
66	32	80	80

0	0	4,918,893	32
0	0	0	0
0	0	0	0
1,528,844	32	0	0
0	0	1,143,007	32
0	0	0	0
4,164,908	32	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1,582,665	32	0	0
0	0	1,143,007	32
0	0	0	0
0	0	0	0
0	0	0	0
145,117	32	0	0
1,388,303	32	0	0
0	0	1,428,759	32
0	0	0	0
0	0	0	0
1,457,718	32	0	0
0	0	714,379	32
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
444,257	32	0	0
0	0	457,203	32
111,064	32	0	0
0	0	942,981	32
0	0	0	0
334,643	32	0	0
0	0	364,585	32
430,374	32	0	0
0	0	571,504	32
0	0	0	0





## ACTEW Panel Review - Price Model

Sewer - Existing Assets RAB

	Year Index Year	1 2013/14	2 2014/15	3 2015/16	4 2016/17	5 2017/18
<b>Assumptions</b>						
Inflation		2.50%	2.50%	2.50%	2.50%	2.50%
<b>Regulated Asset Base Summary - Existing Sewerage Assets</b>						
Opening Value		656,716,581	656,827,565	656,533,649	655,814,520	654,649,102
Disposals [not used]		0	0	0	0	0
Inflationary Gain		16,417,915	16,420,689	16,413,341	16,395,363	16,366,228
Depreciation		-16,306,931	-16,714,605	-17,132,470	-17,560,782	-17,999,801
Closing Value		656,827,565	656,533,649	655,814,520	654,649,102	653,015,528
<b>RAB for Return on Investment Calculation</b>		656,716,581	656,827,565	656,533,649	655,814,520	654,649,102
Check closing value (should be zero)		0	0	0	0	0
<b>Regulated Asset Base Details - Existing Sewerage Assets</b>						
<b>Opening Remaining Life</b>						
Sewerage Assets		41	40	39	38	37
[enter sewerage asset]		0	0	0	0	0
[enter sewerage asset]		0	0	0	0	0
[enter sewerage asset]		0	0	0	0	0
[enter sewerage asset]		0	0	0	0	0
[enter sewerage asset]		0	0	0	0	0
[enter sewerage asset]		0	0	0	0	0
[enter sewerage asset]		0	0	0	0	0
[enter sewerage asset]		0	0	0	0	0
[enter sewerage asset]		0	0	0	0	0
[enter sewerage asset]		0	0	0	0	0
[enter sewerage asset]		0	0	0	0	0
[enter sewerage asset]		0	0	0	0	0
[enter sewerage asset]		0	0	0	0	0
[enter sewerage asset]		0	0	0	0	0
[enter sewerage asset]		0	0	0	0	0
<b>Opening Value</b>						
Sewerage Assets		656,716,581	656,827,565	656,533,649	655,814,520	654,649,102
[enter sewerage asset]		0	0	0	0	0



[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0

Total	16,417,915	16,420,689	16,413,341	16,395,363	16,366,228
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**Depreciation**

Sewerage Assets	-16,306,931	-16,714,605	-17,132,470	-17,560,782	-17,999,801
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0

Total	-16,306,931	-16,714,605	-17,132,470	-17,560,782	-17,999,801
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**Closing Value**

Sewerage Assets	656,827,565	656,533,649	655,814,520	654,649,102	653,015,528
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0

Total	656,827,565	656,533,649	655,814,520	654,649,102	653,015,528
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## ACTEW Panel Review - Price Model

Sewer - Capex RAB

	Year Index	1	2	3	4	5
	Year	2013/14	2014/15	2015/16	2016/17	2017/18
<b>Assumptions</b>						
Inflation		2.50%	2.50%	2.50%	2.50%	2.50%
<b>Regulated Asset Base (Sewer - Capex) Summary</b>						
Opening Value (nominal)		0	18,001,021	54,744,218	119,409,971	227,770,231
Disposals		0	0	0	0	0
Capex		18,109,193	38,228,809	65,574,844	109,864,793	70,187,218
Inflationary Gain		226,365	927,886	2,188,291	4,358,559	6,571,596
Depreciation		-334,538	-2,413,497	-3,097,381	-5,863,092	-8,939,492
Closing Value		18,001,021	54,744,218	119,409,971	227,770,231	295,589,553
<b>RAB for Return on Investment Calculation</b>		9,054,597	37,115,425	87,531,640	174,342,368	262,863,840
Check closing RAB (should be zero)		0	0	0	0	0
Check RAB capex = capex input (should be zero)						0
<b>Regulated Asset Base Details - Sewer (Capex)</b>						
Opening Remaining Life		0	60	59	58	57
		0	0	60	59	58
		0	0	0	60	59
		0	15	14	13	12
		0	0	15	14	13
		0	60	59	58	57
		0	0	60	59	58
		0	0	0	60	59
		0	30	29	28	27
		0	0	30	29	28
		0	0	0	30	29
		0	0	0	0	30
		0	0	30	29	28
		0	0	0	30	29
		0	0	0	0	30
		0	0	80	79	78
		0	0	0	80	79
		0	0	0	0	80
		0	0	0	0	80
		0	0	30	29	28
		0	0	0	30	29

0	0	0	30	29	28
0	0	0	0	30	29
0	0	0	0	0	30
0	0	0	20	19	18
0	0	0	0	20	19
0	0	0	0	0	20
0	0	0	30	29	28
0	0	0	0	30	29
0	0	0	0	0	30
0	0	0	80	79	78
0	0	0	0	80	79
0	0	0	0	0	80
0	0	0	60	59	58
0	0	0	0	60	59
0	0	0	0	0	60
0	0	10	9	8	7
0	0	0	10	9	8
0	0	0	0	10	9
0	0	0	0	0	10
0	0	0	30	29	28
0	0	0	0	30	29
0	30	29	28	27	26
0	0	30	29	28	27
0	30	29	28	27	26
0	0	30	29	28	27
0	0	0	30	29	28
0	80	79	78	77	76
0	0	80	79	78	77
0	0	0	20	19	18
0	0	0	0	20	19
0	0	0	0	0	20
0	20	19	18	17	16
0	0	20	19	18	17
0	0	0	20	19	18
0	0	0	0	20	19
0	0	0	0	80	79
0	0	0	0	0	80
0	30	29	28	27	26
0	0	30	29	28	27
0	0	0	30	29	28
0	0	0	0	30	29
0	0	0	0	0	30
0	60	59	58	57	56
0	0	60	59	58	57
0	0	0	60	59	58
0	60	59	58	57	56
0	0	60	59	58	57
0	80	79	78	77	76

0	0	80	79	78	77
0	0	0	80	79	78
0	0	0	0	80	79
0	0	0	0	0	80
0	0	0	0	20	19
0	0	0	0	0	20
0	0	0	30	29	28
0	0	0	0	30	29
0	0	0	0	0	30
0	0	0	0	30	29
0	0	0	0	0	30
0	80	79	78	77	76
0	0	80	79	78	77
0	60	59	58	57	56
0	0	60	59	58	57
0	60	59	58	57	56
0	0	60	59	58	57
0	0	0	30	29	28
0	60	59	58	57	56
0	0	60	59	58	57
0	0	0	60	59	58
0	60	59	58	57	56
0	0	60	59	58	57
0	0	0	0	60	59
0	60	59	58	57	56
0	60	59	58	57	56
0	80	79	78	77	76
0	10	9	8	7	6
0	5	4	3	2	1
0	0	15	14	13	12
0	5	4	3	2	1
0	0	5	4	3	2
0	0	0	5	4	3
0	0	0	0	5	4
0	0	0	0	0	5
0	5	4	3	2	1
0	0	40	39	38	37
0	0	40	39	38	37
0	0	40	39	38	37
0	0	40	39	38	37
0	0	40	39	38	37
0	0	40	39	38	37
0	0	40	39	38	37
0	80	79	78	77	76
0	0	5	4	3	2
0	20	19	18	17	16
0	80	79	78	77	76
0	40	39	38	37	36
0	60	59	58	57	56



0	0	166,197	167,464	168,691	169,875
0	0	0	511,000	514,898	518,671
0	0	0	0	105,851	106,658
0	0	96,185	91,548	86,618	81,385
0	0	0	4,137	3,938	3,726
0	0	274,258	276,349	278,374	280,328
0	0	0	1,843,422	1,857,482	1,871,092
0	0	0	0	4,367,219	4,400,528
0	0	2,310,970	2,287,064	2,260,517	2,231,214
0	0	0	2,276,619	2,253,068	2,226,916
0	0	0	0	5,172,522	5,119,014
0	0	0	0	0	39,472,662
0	0	0	0	0	0
0	0	0	9,670,863	9,570,820	9,459,730
0	0	0	0	9,020,040	8,926,729
0	0	0	0	0	9,273,791
0	0	0	0	0	0
0	0	0	275,688	279,003	282,312
0	0	0	0	8,282,598	8,382,199
0	0	0	0	0	11,737,845
0	0	0	0	0	0
0	0	0	4,280,292	4,236,013	4,186,845
0	0	0	0	18,116,583	17,929,170
0	0	0	0	537,650	532,089
0	0	0	0	0	7,756,644
0	0	0	0	0	0
0	0	0	0	1,029,996	1,000,180
0	0	0	0	0	5,284,009
0	0	0	0	0	0
0	0	0	0	2,077,820	2,056,326
0	0	0	0	0	5,329,743
0	0	0	0	0	0
0	0	0	0	1,086,835	1,099,904
0	0	0	0	0	7,821,871
0	0	0	0	0	0
0	0	0	0	759,170	764,960
0	0	0	0	0	5,768,306
0	0	0	0	0	0
0	0	0	910,370	829,448	743,911
0	0	0	0	1,419,240	1,293,086
0	0	0	0	0	1,469,601
0	0	0	0	0	0
0	0	0	0	526,898	521,447
0	0	0	0	0	4,145,819
0	0	3,144,111	3,111,586	3,075,469	3,035,602
0	0	0	956,852	946,953	935,962
0	0	1,627,956	1,611,115	1,592,415	1,571,773
0	0	0	2,067,742	2,046,351	2,022,599

0	0	0	100,438	99,399
0	1,605,011	1,624,311	1,643,574	1,662,785
0	0	2,166,086	2,192,134	2,218,130
0	0	0	533,037	517,607
0	0	0	0	1,561,893
0	0	0	0	0
0	175,158	170,087	164,654	158,843
0	0	229,402	222,761	215,645
0	0	0	2,279,088	2,213,115
0	0	0	0	143,212
0	0	0	0	1,396,763
0	0	0	0	0
0	243,550	241,030	238,232	235,144
0	0	2,358,916	2,334,513	2,307,416
0	0	0	268,825	266,044
0	0	0	0	1,451,037
0	0	0	0	0
0	412,158	415,301	418,344	421,280
0	0	169,368	170,660	171,911
0	0	0	1,633,549	1,646,008
0	1,988,578	2,003,746	2,018,428	2,032,593
0	0	45,808	46,158	46,496
0	290,059	293,547	297,028	300,500
0	0	172,203	174,273	176,340
0	0	0	434,734	439,962
0	0	0	0	446,964
0	0	0	0	0
0	0	0	0	109,606
0	0	0	0	0
0	0	0	324,659	321,301
0	0	0	0	333,109
0	0	0	0	0
0	0	0	0	428,401
0	0	0	0	0
0	93,545	94,670	95,793	96,913
0	0	742,906	751,840	760,756
0	808,575	814,742	820,712	826,471
0	0	22,257	22,426	22,591
0	536,923	541,018	544,982	548,807
0	0	165,096	166,355	167,574
0	0	0	649,319	642,602
0	16,536	16,662	16,784	16,902
0	0	185,028	186,439	187,805
0	0	0	216,905	218,560
0	157,298	158,497	159,659	160,779
0	0	115,807	116,690	117,546
0	0	0	0	262,731
0	121,438	122,365	123,261	124,126

0	0	101,088	101,859	102,606	103,326
0	0	71,180	72,036	72,890	73,742
0	0	136,881	124,714	111,853	98,271
0	0	22,576	17,355	11,859	6,078
0	0	0	210,342	200,200	189,420
0	0	523,253	402,251	274,871	140,872
0	0	0	381,745	293,466	200,535
0	0	0	0	409,500	314,803
0	0	0	0	0	409,500
0	0	0	0	0	0
0	0	450,462	346,292	236,633	121,274
0	0	0	538,832	538,141	537,079
0	0	0	38,121	38,073	37,997
0	0	0	426,843	426,295	425,454
0	0	0	1,263,291	1,261,671	1,259,181
0	0	0	519,038	518,372	517,349
0	0	0	324,399	323,983	323,343
0	0	62,814	63,570	64,324	65,075
0	0	0	254,800	195,878	133,850
0	0	34,266	33,274	32,211	31,074
0	0	4,966	5,026	5,085	5,145
0	0	100,893	100,763	100,564	100,293
0	0	8,463	8,528	8,590	8,651
0	0	35,150	35,418	35,678	35,928
0	0	0	55,218	55,639	56,047
0	0	0	0	20,079	20,232
0	0	0	0	0	20,079
0	0	0	0	0	0
0	0	34,417	34,373	34,305	34,212
0	0	1,147,343	1,156,093	1,164,565	1,172,737
0	0	0	20,538	20,695	20,846
0	0	118,060	114,643	110,980	107,063
0	0	0	39,343	38,204	36,983
0	0	0	0	0	0
0	0	122,100	118,565	114,778	110,727
0	0	0	932,214	905,229	876,312
0	0	0	0	37,200	36,123
0	0	40,729	41,219	41,707	42,195
0	0	101,565	98,625	95,475	92,105
0	0	805,763	811,909	817,858	823,597
0	0	0	1,211,367	1,220,606	1,229,550
0	0	0	0	620,360	625,091
0	0	10,547	10,628	10,706	10,781
0	0	0	226,313	228,039	229,710
0	0	0	570,731	577,594	584,444
0	0	0	0	5,348,228	5,412,543
0	0	0	0	0	12,883,760
0	0	0	64,884	59,117	53,020









0	0	0	105,434	0	0
0	98,316	0	0	0	0
0	0	4,229	0	0	0
0	273,176	0	0	0	0
0	0	1,836,153	0	0	0
0	0	0	4,350,000	0	0
0	2,321,611	0	0	0	0
0	0	2,287,102	0	0	0
0	0	0	5,196,339	0	0
0	0	0	0	39,654,411	0
0	0	0	0	0	13,949,367
0	0	9,715,392	0	0	0
0	0	0	9,061,572	0	0
0	0	0	0	9,316,492	0
0	0	0	0	0	9,587,982
0	0	274,018	0	0	0
0	0	0	8,232,432	0	0
0	0	0	0	11,666,751	0
0	0	0	0	0	4,135,333
0	0	4,300,000	0	0	0
0	0	0	18,200,000	0	0
0	0	0	540,126	0	0
0	0	0	0	7,792,359	0
0	0	0	0	0	11,430,071
0	0	0	1,043,694	0	0
0	0	0	0	5,354,284	0
0	0	0	0	0	10,802,524
0	0	0	2,087,387	0	0
0	0	0	0	5,354,284	0
0	0	0	0	0	9,678,180
0	0	0	1,080,252	0	0
0	0	0	0	7,774,495	0
0	0	0	0	0	4,695,187
0	0	0	756,177	0	0
0	0	0	0	5,745,563	0
0	0	0	0	0	4,918,893
0	0	947,069	0	0	0
0	0	0	1,476,453	0	0
0	0	0	0	1,528,844	0
0	0	0	0	0	1,143,007
0	0	0	529,324	0	0
0	0	0	0	4,164,908	0
0	3,158,588	0	0	0	0
0	0	961,258	0	0	0
0	1,635,452	0	0	0	0
0	0	2,077,262	0	0	0
0	0	0	100,900	0	0
0	1,595,289	0	0	0	0

0	0	2,152,966	0	0	0
0	0	0	540,126	0	0
0	0	0	0	1,582,665	0
0	0	0	0	0	1,143,007
0	177,487	0	0	0	0
0	0	232,453	0	0	0
0	0	0	2,309,399	0	0
0	0	0	0	145,117	0
0	0	0	0	1,388,303	0
0	0	0	0	0	1,428,759
0	244,671	0	0	0	0
0	0	2,369,777	0	0	0
0	0	0	270,063	0	0
0	0	0	0	1,457,718	0
0	0	0	0	0	714,379
0	410,533	0	0	0	0
0	0	168,701	0	0	0
0	0	0	1,627,108	0	0
0	1,980,738	0	0	0	0
0	0	45,628	0	0	0
0	288,302	0	0	0	0
0	0	171,160	0	0	0
0	0	0	432,101	0	0
0	0	0	0	444,257	0
0	0	0	0	0	457,203
0	0	0	0	111,064	0
0	0	0	0	0	942,981
0	0	0	326,154	0	0
0	0	0	0	334,643	0
0	0	0	0	0	364,585
0	0	0	0	430,374	0
0	0	0	0	0	571,504
0	92,979	0	0	0	0
0	0	738,407	0	0	0
0	805,387	0	0	0	0
0	0	22,169	0	0	0
0	534,806	0	0	0	0
0	0	164,445	0	0	0
0	0	0	652,309	0	0
0	16,471	0	0	0	0
0	0	184,298	0	0	0
0	0	0	216,050	0	0
0	156,677	0	0	0	0
0	0	115,351	0	0	0
0	0	0	0	261,695	0
0	120,959	0	0	0	0
0	100,690	0	0	0	0
0	70,749	0	0	0	0

0	142,399	0	0	0	0
0	24,809	0	0	0	0
0	0	215,000	0	0	0
0	575,003	0	0	0	0
0	0	419,500	0	0	0
0	0	0	450,000	0	0
0	0	0	0	450,000	0
0	0	0	0	0	450,000
0	495,013	0	0	0	0
0	0	539,000	0	0	0
0	0	38,133	0	0	0
0	0	426,976	0	0	0
0	0	1,263,686	0	0	0
0	0	519,200	0	0	0
0	0	324,500	0	0	0
0	62,434	0	0	0	0
0	0	280,000	0	0	0
0	34,721	0	0	0	0
0	4,936	0	0	0	0
0	100,924	0	0	0	0
0	8,430	0	0	0	0
0	35,012	0	0	0	0
0	0	55,000	0	0	0
0	0	0	20,000	0	0
0	0	0	0	20,000	0
0	0	0	0	0	20,000
0	34,428	0	0	0	0
0	1,142,819	0	0	0	0
0	0	20,457	0	0	0
0	119,630	0	0	0	0
0	0	39,866	0	0	0
0	0	1,040,937	0	0	0
0	123,724	0	0	0	0
0	0	944,612	0	0	0
0	0	0	37,695	0	0
0	40,482	0	0	0	0
0	102,916	0	0	0	0
0	802,586	0	0	0	0
0	0	1,206,591	0	0	0
0	0	0	617,914	0	0
0	10,506	0	0	0	0
0	0	225,421	0	0	0
0	0	567,274	0	0	0
0	0	0	5,315,835	0	0
0	0	0	0	12,805,725	0
0	0	67,500	0	0	0
0	0	758,333	0	0	0
0	0	0	0	-7,919,159	0

Carndo Year 4 Reduction



0	0	0	0	66,929	132,100
0	0	0	0	0	135,032
0	0	0	26,092	51,946	51,408
0	0	0	0	66,929	133,244
0	0	0	0	0	120,977
0	0	0	13,503	27,171	27,498
0	0	0	0	97,181	195,547
0	0	0	0	0	58,690
0	0	0	9,452	18,979	19,124
0	0	0	0	71,820	144,208
0	0	0	0	0	61,486
0	0	11,838	22,759	20,736	18,598
0	0	0	18,456	35,481	32,327
0	0	0	0	19,111	36,740
0	0	0	0	0	14,288
0	0	0	6,617	13,172	13,036
0	0	0	0	52,061	103,645
0	39,482	78,603	77,790	76,887	75,890
0	0	12,016	23,921	23,674	23,399
0	20,443	40,699	40,278	39,810	39,294
0	0	25,966	51,694	51,159	50,565
0	0	0	1,261	2,511	2,485
0	19,941	40,125	40,608	41,089	41,570
0	0	26,912	54,152	54,803	55,453
0	0	0	6,752	13,326	12,940
0	0	0	0	19,783	39,047
0	0	0	0	0	14,288
0	2,219	4,379	4,252	4,116	3,971
0	0	2,906	5,735	5,569	5,391
0	0	0	28,867	56,977	55,328
0	0	0	0	1,814	3,580
0	0	0	0	17,354	34,919
0	0	0	0	0	17,859
0	3,058	6,089	6,026	5,956	5,879
0	0	29,622	58,973	58,363	57,685
0	0	0	3,376	6,721	6,651
0	0	0	0	18,221	36,276
0	0	0	0	0	8,930
0	5,132	10,304	10,383	10,459	10,532
0	0	2,109	4,234	4,267	4,298
0	0	0	20,339	40,839	41,150
0	24,759	49,714	50,094	50,461	50,815
0	0	570	1,145	1,154	1,162
0	3,604	7,251	7,339	7,426	7,513
0	0	2,139	4,305	4,357	4,409
0	0	0	5,401	10,868	10,999
0	0	0	0	5,553	11,174
0	0	0	0	0	5,715

0	0	0	0	1,388	2,740
0	0	0	0	0	11,787
0	0	0	4,077	8,116	8,033
0	0	0	0	4,183	8,328
0	0	0	0	0	4,557
0	0	0	0	5,380	10,710
0	0	0	0	0	7,144
0	1,162	2,339	2,367	2,395	2,423
0	0	9,230	18,573	18,796	19,019
0	10,067	20,214	20,369	20,518	20,662
0	0	277	556	561	565
0	6,685	13,423	13,525	13,625	13,720
0	0	2,056	4,127	4,159	4,189
0	0	0	8,154	16,233	16,065
0	206	413	417	420	423
0	0	2,304	4,626	4,661	4,695
0	0	0	2,701	5,423	5,464
0	1,958	3,932	3,962	3,991	4,019
0	0	1,442	2,895	2,917	2,939
0	0	0	0	3,271	6,568
0	1,512	3,036	3,059	3,082	3,103
0	1,259	2,527	2,546	2,565	2,583
0	884	1,780	1,801	1,822	1,844
0	1,780	3,422	3,118	2,796	2,457
0	310	564	434	296	152
0	0	2,688	5,259	5,005	4,736
0	7,188	13,081	10,056	6,872	3,522
0	0	5,244	9,544	7,337	5,013
0	0	0	5,625	10,238	7,870
0	0	0	0	5,625	10,238
0	0	0	0	0	5,625
0	6,188	11,262	8,657	5,916	3,032
0	0	6,738	13,471	13,454	13,427
0	0	477	953	952	950
0	0	5,337	10,671	10,657	10,636
0	0	15,796	31,582	31,542	31,480
0	0	6,490	12,976	12,959	12,934
0	0	4,056	8,110	8,100	8,084
0	780	1,570	1,589	1,608	1,627
0	0	3,500	6,370	4,897	3,346
0	434	857	832	805	777
0	62	124	126	127	129
0	1,262	2,522	2,519	2,514	2,507
0	105	212	213	215	216
0	438	879	885	892	898
0	0	688	1,380	1,391	1,401
0	0	0	250	502	506
0	0	0	0	250	502



0	0	-144	-303	-310	-318
0	-2,333	-4,765	-4,884	-5,006	-5,131
0	0	-15,684	-32,026	-32,826	-33,647
0	0	0	-37,156	-75,871	-77,768
0	-39,661	-81,681	-83,723	-85,816	-87,961
0	0	-39,071	-80,467	-82,478	-84,540
0	0	0	-88,771	-182,822	-187,392
0	0	0	0	-677,430	-1,395,154
0	0	0	0	0	-238,302
0	0	-165,971	-341,815	-350,360	-359,119
0	0	0	-154,802	-318,812	-326,782
0	0	0	0	-159,157	-327,781
0	0	0	0	0	-163,795
0	0	-1,755	-3,577	-3,666	-3,758
0	0	0	-52,739	-107,464	-110,151
0	0	0	0	-74,740	-152,295
0	0	0	0	0	-26,492
0	0	-73,458	-151,286	-155,068	-158,945
0	0	0	-310,917	-640,328	-656,336
0	0	0	-9,227	-19,003	-19,478
0	0	0	0	-133,119	-274,157
0	0	0	0	0	-195,264
0	0	0	-26,745	-55,566	-56,955
0	0	0	0	-137,204	-285,058
0	0	0	0	0	-276,815
0	0	0	-35,660	-73,440	-75,276
0	0	0	0	-91,469	-188,379
0	0	0	0	0	-165,336
0	0	0	-6,920	-14,101	-14,454
0	0	0	0	-49,805	-101,486
0	0	0	0	0	-30,079
0	0	0	-6,459	-13,189	-13,519
0	0	0	0	-49,077	-100,212
0	0	0	0	0	-42,016
0	0	-48,537	-103,681	-106,273	-108,930
0	0	0	-75,668	-161,636	-165,677
0	0	0	0	-78,353	-167,371
0	0	0	0	0	-58,579
0	0	0	-9,043	-18,623	-19,089
0	0	0	0	-71,151	-146,533
0	-53,959	-111,128	-113,906	-116,754	-119,673
0	0	-16,421	-33,820	-34,665	-35,532
0	-27,939	-57,540	-58,978	-60,453	-61,964
0	0	-35,487	-73,084	-74,911	-76,784
0	0	0	-1,724	-3,550	-3,639
0	-10,220	-20,825	-21,345	-21,879	-22,426
0	0	-13,792	-28,104	-28,807	-29,527
0	0	0	-13,841	-28,756	-29,475

0	0	0	0	-40,556	-84,260
0	0	0	0	0	-29,290
0	-4,548	-9,449	-9,686	-9,928	-10,176
0	0	-5,957	-12,376	-12,685	-13,002
0	0	0	-59,178	-122,951	-126,025
0	0	0	0	-3,719	-7,726
0	0	0	0	-8,894	-18,123
0	0	0	0	0	-9,153
0	-4,180	-8,608	-8,823	-9,044	-9,270
0	0	-40,484	-83,375	-85,460	-87,596
0	0	0	-4,614	-9,502	-9,739
0	0	0	0	-24,903	-51,287
0	0	0	0	0	-12,204
0	-3,507	-7,160	-7,339	-7,523	-7,711
0	0	-1,441	-2,942	-3,016	-3,091
0	0	0	-13,898	-28,379	-29,089
0	-16,919	-34,547	-35,411	-36,296	-37,204
0	0	-390	-796	-816	-836
0	-1,847	-3,763	-3,858	-3,954	-4,053
0	0	-1,096	-2,234	-2,290	-2,347
0	0	0	-2,768	-5,641	-5,782
0	0	0	0	-2,846	-5,799
0	0	0	0	0	-2,929
0	0	0	0	-2,846	-5,913
0	0	0	0	0	-24,164
0	0	0	-5,572	-11,475	-11,762
0	0	0	0	-5,717	-11,774
0	0	0	0	0	-6,228
0	0	0	0	-7,352	-15,142
0	0	0	0	0	-9,763
0	-596	-1,214	-1,244	-1,275	-1,307
0	0	-4,730	-9,639	-9,880	-10,127
0	-6,879	-14,047	-14,398	-14,758	-15,127
0	0	-189	-387	-396	-406
0	-4,568	-9,328	-9,561	-9,800	-10,045
0	0	-1,405	-2,868	-2,940	-3,013
0	0	0	-11,144	-22,950	-23,524
0	-141	-287	-294	-302	-309
0	0	-1,574	-3,214	-3,295	-3,377
0	0	0	-1,845	-3,768	-3,862
0	-1,338	-2,733	-2,801	-2,871	-2,943
0	0	-985	-2,012	-2,062	-2,114
0	0	0	0	-2,235	-4,564
0	-1,033	-2,110	-2,162	-2,217	-2,272
0	-860	-1,756	-1,800	-1,845	-1,891
0	-453	-924	-947	-970	-995
0	-7,298	-15,589	-15,979	-16,378	-16,788
0	-2,543	-5,785	-5,930	-6,078	-6,230

0	0	-7,346	-15,400	-15,785	-16,180
0	-58,938	-134,084	-137,436	-140,872	-144,393
0	0	-42,999	-97,822	-100,268	-102,774
0	0	0	-46,125	-104,934	-107,558
0	0	0	0	-46,125	-104,934
0	0	0	0	0	-46,125
0	-50,739	-115,431	-118,317	-121,274	-124,306
0	0	-6,906	-14,162	-14,516	-14,879
0	0	-489	-1,002	-1,027	-1,053
0	0	-5,471	-11,218	-11,499	-11,786
0	0	-16,191	-33,202	-34,032	-34,883
0	0	-6,652	-13,641	-13,982	-14,332
0	0	-4,158	-8,526	-8,739	-8,957
0	-400	-815	-835	-856	-878
0	0	-28,700	-65,293	-66,925	-68,598
0	-890	-1,849	-1,895	-1,942	-1,991
0	-32	-64	-66	-68	-69
0	-1,293	-2,652	-2,718	-2,786	-2,856
0	-72	-147	-151	-154	-158
0	-299	-611	-626	-642	-658
0	0	-470	-959	-983	-1,008
0	0	0	-171	-349	-358
0	0	0	0	-171	-349
0	0	0	0	0	-171
0	-441	-905	-927	-950	-974
0	-9,762	-19,933	-20,431	-20,942	-21,465
0	0	-175	-357	-366	-375
0	-3,066	-6,369	-6,528	-6,691	-6,859
0	0	-1,022	-2,122	-2,175	-2,230
0	0	-1,053,949	0	0	0
0	-3,170	-6,587	-6,752	-6,920	-7,093
0	0	-24,206	-50,291	-51,548	-52,836
0	0	0	-966	-2,007	-2,057
0	-259	-528	-542	-555	-569
0	-2,637	-5,479	-5,616	-5,757	-5,900
0	-6,855	-13,998	-14,348	-14,707	-15,075
0	0	-10,306	-21,045	-21,571	-22,110
0	0	0	-5,278	-10,777	-11,047
0	-90	-183	-188	-193	-197
0	0	-1,925	-3,932	-4,030	-4,131
0	0	-3,634	-7,405	-7,590	-7,780
0	0	0	-34,055	-69,392	-71,126
0	0	0	0	-82,037	-167,163
0	0	-3,459	-7,390	-7,574	-7,764
0	0	-9,716	-19,924	-20,422	-20,933
Carndo Year 4 Reduction	0	0	0	126,163	259,527
Carndo Year 5 Reduction	0	0	0	0	99,503
0	0	0	0	0	0



0	0	0	2,077,820	2,056,326	2,032,457
0	0	0	0	5,329,743	5,274,608
0	0	0	0	0	9,633,821
0	0	0	1,086,835	1,099,904	1,112,948
0	0	0	0	7,821,871	7,915,931
0	0	0	0	0	4,723,798
0	0	0	759,170	764,960	770,566
0	0	0	0	5,768,306	5,812,301
0	0	0	0	0	4,938,364
0	0	910,370	829,448	743,911	653,579
0	0	0	1,419,240	1,293,086	1,159,736
0	0	0	0	1,469,601	1,338,970
0	0	0	0	0	1,098,715
0	0	0	526,898	521,447	515,395
0	0	0	0	4,145,819	4,102,931
0	3,144,111	3,111,586	3,075,469	3,035,602	2,991,819
0	0	956,852	946,953	935,962	923,829
0	1,627,956	1,611,115	1,592,415	1,571,773	1,549,103
0	0	2,067,742	2,046,351	2,022,599	1,996,380
0	0	0	100,438	99,399	98,245
0	1,605,011	1,624,311	1,643,574	1,662,785	1,681,929
0	0	2,166,086	2,192,134	2,218,130	2,244,056
0	0	0	533,037	517,607	501,072
0	0	0	0	1,561,893	1,516,680
0	0	0	0	0	1,128,005
0	175,158	170,087	164,654	158,843	152,638
0	0	229,402	222,761	215,645	208,034
0	0	0	2,279,088	2,213,115	2,142,418
0	0	0	0	143,212	139,067
0	0	0	0	1,396,763	1,413,559
0	0	0	0	0	1,437,466
0	243,550	241,030	238,232	235,144	231,753
0	0	2,358,916	2,334,513	2,307,416	2,277,505
0	0	0	268,825	266,044	262,956
0	0	0	0	1,451,037	1,436,026
0	0	0	0	0	711,105
0	412,158	415,301	418,344	421,280	424,101
0	0	169,368	170,660	171,911	173,117
0	0	0	1,633,549	1,646,008	1,658,069
0	1,988,578	2,003,746	2,018,428	2,032,593	2,046,204
0	0	45,808	46,158	46,496	46,822
0	290,059	293,547	297,028	300,500	303,960
0	0	172,203	174,273	176,340	178,401
0	0	0	434,734	439,962	445,179
0	0	0	0	446,964	452,339
0	0	0	0	0	459,989
0	0	0	0	109,606	106,433
0	0	0	0	0	930,604

0	0	0	324,659	321,301	317,571
0	0	0	0	333,109	329,663
0	0	0	0	0	362,914
0	0	0	0	428,401	423,970
0	0	0	0	0	568,885
0	93,545	94,670	95,793	96,913	98,028
0	0	742,906	751,840	760,756	769,648
0	808,575	814,742	820,712	826,471	832,006
0	0	22,257	22,426	22,591	22,749
0	536,923	541,018	544,982	548,807	552,482
0	0	165,096	166,355	167,574	168,750
0	0	0	649,319	642,602	635,143
0	16,536	16,662	16,784	16,902	17,015
0	0	185,028	186,439	187,805	189,123
0	0	0	216,905	218,560	220,161
0	157,298	158,497	159,659	160,779	161,856
0	0	115,807	116,690	117,546	118,370
0	0	0	0	262,731	264,735
0	121,438	122,365	123,261	124,126	124,957
0	101,088	101,859	102,606	103,326	104,018
0	71,180	72,036	72,890	73,742	74,591
0	136,881	124,714	111,853	98,271	83,940
0	22,576	17,355	11,859	6,078	0
0	0	210,342	200,200	189,420	177,976
0	523,253	402,251	274,871	140,872	0
0	0	381,745	293,466	200,535	102,774
0	0	0	409,500	314,803	215,115
0	0	0	0	409,500	314,803
0	0	0	0	0	409,500
0	450,462	346,292	236,633	121,274	0
0	0	538,832	538,141	537,079	535,627
0	0	38,121	38,073	37,997	37,895
0	0	426,843	426,295	425,454	424,304
0	0	1,263,291	1,261,671	1,259,181	1,255,778
0	0	519,038	518,372	517,349	515,951
0	0	324,399	323,983	323,343	322,469
0	62,814	63,570	64,324	65,075	65,825
0	0	254,800	195,878	133,850	68,598
0	34,266	33,274	32,211	31,074	29,860
0	4,966	5,026	5,085	5,145	5,204
0	100,893	100,763	100,564	100,293	99,944
0	8,463	8,528	8,590	8,651	8,709
0	35,150	35,418	35,678	35,928	36,169
0	0	55,218	55,639	56,047	56,440
0	0	0	20,079	20,232	20,381
0	0	0	0	20,079	20,232
0	0	0	0	0	20,079
0	34,417	34,373	34,305	34,212	34,093







[not used]  
[not used]

Total	0	0	0	0	0
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**Depreciation**

Sewerage Assets	-15,846,294	-15,846,294	-15,846,294	-15,846,294	-15,846,294
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0

Total	-15,846,294	-15,846,294	-15,846,294	-15,846,294	-15,846,294
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**Closing Value**

Sewerage Assets	377,142,421	361,296,127	345,449,833	329,603,539	313,757,246
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0
[enter sewerage asset]	0	0	0	0	0

Total	377,142,421	361,296,127	345,449,833	329,603,539	313,757,246
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## ACTEW Panel Review - Price Model

Sewer - Capex Tax BV

	Year Index	1	2	3	4	5
	Year	2013/14	2014/15	2015/16	2016/17	2017/18
<b>Assumptions</b>						
Inflation		2.50%	2.50%	2.50%	2.50%	2.50%
<b>Tax Book Value (Sewer - Capex) Summary</b>						
Opening Value (nominal)		0	17,782,815	53,652,458	116,246,785	220,508,353
Disposals		0	0	0	0	0
Capex		18,109,193	38,228,809	65,574,844	109,864,793	70,187,218
Inflationary Gain		0	0	0	0	0
Depreciation		-326,378	-2,359,166	-2,980,516	-5,603,225	-8,461,589
Closing Value		17,782,815	53,652,458	116,246,785	220,508,353	282,233,983
Check closing RAB (should be zero)		0	0	0	0	0
Check RAB capex = capex input (should be zero)						0
<b>Regulated Asset Base Details - Sewer (Capex)</b>						
Opening Remaining Life		0	60	59	58	57
		0	0	60	59	58
		0	0	0	60	59
		0	15	14	13	12
		0	0	15	14	13
		0	60	59	58	57
		0	0	60	59	58
		0	0	0	60	59
		0	30	29	28	27
		0	0	30	29	28
		0	0	0	30	29
		0	0	0	0	30
		0	0	30	29	28
		0	0	0	30	29
		0	0	0	0	30
		0	0	80	79	78
		0	0	0	80	79
		0	0	0	0	80
		0	0	0	0	80
		0	0	30	29	28
		0	0	0	30	29

0	0	0	30	29	28
0	0	0	0	30	29
0	0	0	0	0	30
0	0	0	20	19	18
0	0	0	0	20	19
0	0	0	0	0	20
0	0	0	30	29	28
0	0	0	0	30	29
0	0	0	0	0	30
0	0	0	80	79	78
0	0	0	0	80	79
0	0	0	0	0	80
0	0	0	60	59	58
0	0	0	0	60	59
0	0	0	0	0	60
0	0	10	9	8	7
0	0	0	10	9	8
0	0	0	0	10	9
0	0	0	0	0	10
0	0	0	30	29	28
0	0	0	0	30	29
0	30	29	28	27	26
0	0	30	29	28	27
0	30	29	28	27	26
0	0	30	29	28	27
0	0	0	30	29	28
0	80	79	78	77	76
0	0	80	79	78	77
0	0	0	20	19	18
0	0	0	0	20	19
0	0	0	0	0	20
0	20	19	18	17	16
0	0	20	19	18	17
0	0	0	20	19	18
0	0	0	0	20	19
0	0	0	0	80	79
0	0	0	0	0	80
0	30	29	28	27	26
0	0	30	29	28	27
0	0	0	30	29	28
0	0	0	0	30	29
0	0	0	0	0	30
0	60	59	58	57	56
0	0	60	59	58	57
0	0	0	60	59	58
0	60	59	58	57	56
0	0	60	59	58	57
0	80	79	78	77	76

0	0	80	79	78	77
0	0	0	80	79	78
0	0	0	0	80	79
0	0	0	0	0	80
0	0	0	0	20	19
0	0	0	0	0	20
0	0	0	30	29	28
0	0	0	0	30	29
0	0	0	0	0	30
0	0	0	0	30	29
0	0	0	0	0	30
0	80	79	78	77	76
0	0	80	79	78	77
0	60	59	58	57	56
0	0	60	59	58	57
0	60	59	58	57	56
0	0	60	59	58	57
0	0	0	30	29	28
0	60	59	58	57	56
0	0	60	59	58	57
0	0	0	60	59	58
0	60	59	58	57	56
0	0	60	59	58	57
0	0	0	0	60	59
0	60	59	58	57	56
0	60	59	58	57	56
0	80	79	78	77	76
0	10	9	8	7	6
0	5	4	3	2	1
0	0	15	14	13	12
0	5	4	3	2	1
0	0	5	4	3	2
0	0	0	5	4	3
0	0	0	0	5	4
0	0	0	0	0	5
0	5	4	3	2	1
0	0	40	39	38	37
0	0	40	39	38	37
0	0	40	39	38	37
0	0	40	39	38	37
0	0	40	39	38	37
0	0	40	39	38	37
0	0	40	39	38	37
0	80	79	78	77	76
0	0	5	4	3	2
0	20	19	18	17	16
0	80	79	78	77	76
0	40	39	38	37	36
0	60	59	58	57	56



0	0	164,162	161,379	158,597	155,815
0	0	0	504,744	496,189	487,634
0	0	0	0	104,555	102,783
0	0	95,038	88,250	81,461	74,673
0	0	0	4,088	3,796	3,504
0	0	270,900	266,308	261,717	257,125
0	0	0	1,820,852	1,789,990	1,759,128
0	0	0	0	4,313,750	4,240,636
0	0	2,282,917	2,204,196	2,125,475	2,046,754
0	0	0	2,248,983	2,171,432	2,093,881
0	0	0	0	5,109,733	4,933,536
0	0	0	0	0	38,993,504
0	0	0	0	0	0
0	0	0	9,553,469	9,224,039	8,894,609
0	0	0	0	8,910,546	8,603,286
0	0	0	0	0	9,161,217
0	0	0	0	0	0
0	0	0	272,306	268,859	265,412
0	0	0	0	8,180,979	8,077,423
0	0	0	0	0	11,593,834
0	0	0	0	0	0
0	0	0	4,228,333	4,082,529	3,936,724
0	0	0	0	17,896,667	17,279,540
0	0	0	0	531,124	512,809
0	0	0	0	0	7,662,486
0	0	0	0	0	0
0	0	0	0	1,017,602	964,044
0	0	0	0	0	5,220,427
0	0	0	0	0	0
0	0	0	0	2,052,598	1,981,818
0	0	0	0	0	5,265,046
0	0	0	0	0	0
0	0	0	0	1,073,500	1,059,912
0	0	0	0	0	7,725,904
0	0	0	0	0	0
0	0	0	0	749,876	737,166
0	0	0	0	0	5,697,683
0	0	0	0	0	0
0	0	0	899,716	799,747	699,779
0	0	0	0	1,402,630	1,246,783
0	0	0	0	0	1,452,402
0	0	0	0	0	0
0	0	0	0	520,502	502,554
0	0	0	0	0	4,095,493
0	0	3,105,945	2,998,843	2,891,742	2,784,640
0	0	0	945,237	912,642	880,048
0	0	1,608,195	1,552,740	1,497,285	1,441,830
0	0	0	2,042,641	1,972,205	1,901,770

0	0	0	99,218	95,797
0	1,585,319	1,565,251	1,545,184	1,525,117
0	0	2,139,510	2,112,428	2,085,345
0	0	0	526,623	498,906
0	0	0	0	1,543,098
0	0	0	0	0
0	173,050	163,942	154,834	145,726
0	0	226,641	214,713	202,784
0	0	0	2,251,664	2,133,155
0	0	0	0	141,489
0	0	0	0	1,379,626
0	0	0	0	0
0	240,593	232,297	224,001	215,704
0	0	2,330,281	2,249,926	2,169,572
0	0	0	265,562	256,405
0	0	0	0	1,433,423
0	0	0	0	0
0	407,112	400,211	393,311	386,411
0	0	167,295	164,459	161,624
0	0	0	1,613,549	1,586,200
0	1,964,232	1,930,940	1,897,648	1,864,356
0	0	45,247	44,480	43,714
0	286,500	282,874	279,247	275,621
0	0	170,090	167,937	165,784
0	0	0	429,400	423,965
0	0	0	0	441,480
0	0	0	0	0
0	0	0	0	108,287
0	0	0	0	0
0	0	0	320,718	309,659
0	0	0	0	329,065
0	0	0	0	0
0	0	0	0	423,201
0	0	0	0	0
0	92,398	91,228	90,058	88,889
0	0	733,792	724,503	715,215
0	798,675	785,138	771,602	758,065
0	0	21,984	21,611	21,239
0	530,349	521,360	512,371	503,382
0	0	163,075	160,311	157,547
0	0	0	641,437	619,318
0	16,333	16,057	15,780	15,503
0	0	182,763	179,665	176,567
0	0	0	214,250	210,618
0	155,372	152,738	150,105	147,471
0	0	114,389	112,451	110,512
0	0	0	0	259,514
0	119,951	117,918	115,885	113,852

0	0	99,851	98,158	96,466	94,774
0	0	70,307	69,417	68,527	67,637
0	0	135,279	120,248	105,217	90,186
0	0	22,328	16,746	11,164	5,582
0	0	0	207,833	192,988	178,143
0	0	517,503	388,127	258,751	129,376
0	0	0	377,550	283,163	188,775
0	0	0	0	405,000	303,750
0	0	0	0	0	405,000
0	0	0	0	0	0
0	0	445,511	334,134	222,756	111,378
0	0	0	532,263	518,615	504,967
0	0	0	37,657	36,691	35,726
0	0	0	421,639	410,828	400,016
0	0	0	1,247,890	1,215,893	1,183,896
0	0	0	512,710	499,564	486,417
0	0	0	320,444	312,227	304,011
0	0	62,044	61,258	60,473	59,688
0	0	0	252,000	189,000	126,000
0	0	33,853	32,071	30,290	28,508
0	0	4,905	4,843	4,781	4,719
0	0	99,663	97,107	94,552	91,996
0	0	8,360	8,218	8,076	7,935
0	0	34,720	34,132	33,543	32,955
0	0	0	54,542	53,617	52,693
0	0	0	0	19,833	19,497
0	0	0	0	0	19,833
0	0	0	0	0	0
0	0	33,997	33,126	32,254	31,382
0	0	1,133,295	1,114,087	1,094,879	1,075,670
0	0	0	20,287	19,943	19,599
0	0	116,639	110,501	104,362	98,223
0	0	0	38,869	36,824	34,778
0	0	0	0	0	0
0	0	120,631	114,282	107,933	101,584
0	0	0	920,997	872,524	824,050
0	0	0	0	36,753	34,818
0	0	40,229	39,720	39,211	38,701
0	0	100,343	95,062	89,781	84,499
0	0	795,898	782,408	768,918	755,428
0	0	0	1,196,536	1,176,255	1,155,975
0	0	0	0	612,765	602,379
0	0	10,418	10,242	10,065	9,888
0	0	0	223,542	219,754	215,965
0	0	0	563,729	556,593	549,457
0	0	0	0	5,282,611	5,215,743
0	0	0	0	0	12,725,689
0	0	0	64,125	57,000	49,875









0	0	0	105,434	0	0
0	98,316	0	0	0	0
0	0	4,229	0	0	0
0	273,176	0	0	0	0
0	0	1,836,153	0	0	0
0	0	0	4,350,000	0	0
0	2,321,611	0	0	0	0
0	0	2,287,102	0	0	0
0	0	0	5,196,339	0	0
0	0	0	0	39,654,411	0
0	0	0	0	0	13,949,367
0	0	9,715,392	0	0	0
0	0	0	9,061,572	0	0
0	0	0	0	9,316,492	0
0	0	0	0	0	9,587,982
0	0	274,018	0	0	0
0	0	0	8,232,432	0	0
0	0	0	0	11,666,751	0
0	0	0	0	0	4,135,333
0	0	4,300,000	0	0	0
0	0	0	18,200,000	0	0
0	0	0	540,126	0	0
0	0	0	0	7,792,359	0
0	0	0	0	0	11,430,071
0	0	0	1,043,694	0	0
0	0	0	0	5,354,284	0
0	0	0	0	0	10,802,524
0	0	0	2,087,387	0	0
0	0	0	0	5,354,284	0
0	0	0	0	0	9,678,180
0	0	0	1,080,252	0	0
0	0	0	0	7,774,495	0
0	0	0	0	0	4,695,187
0	0	0	756,177	0	0
0	0	0	0	5,745,563	0
0	0	0	0	0	4,918,893
0	0	947,069	0	0	0
0	0	0	1,476,453	0	0
0	0	0	0	1,528,844	0
0	0	0	0	0	1,143,007
0	0	0	529,324	0	0
0	0	0	0	4,164,908	0
0	3,158,588	0	0	0	0
0	0	961,258	0	0	0
0	1,635,452	0	0	0	0
0	0	2,077,262	0	0	0
0	0	0	100,900	0	0
0	1,595,289	0	0	0	0

0	0	2,152,966	0	0	0
0	0	0	540,126	0	0
0	0	0	0	1,582,665	0
0	0	0	0	0	1,143,007
0	177,487	0	0	0	0
0	0	232,453	0	0	0
0	0	0	2,309,399	0	0
0	0	0	0	145,117	0
0	0	0	0	1,388,303	0
0	0	0	0	0	1,428,759
0	244,671	0	0	0	0
0	0	2,369,777	0	0	0
0	0	0	270,063	0	0
0	0	0	0	1,457,718	0
0	0	0	0	0	714,379
0	410,533	0	0	0	0
0	0	168,701	0	0	0
0	0	0	1,627,108	0	0
0	1,980,738	0	0	0	0
0	0	45,628	0	0	0
0	288,302	0	0	0	0
0	0	171,160	0	0	0
0	0	0	432,101	0	0
0	0	0	0	444,257	0
0	0	0	0	0	457,203
0	0	0	0	111,064	0
0	0	0	0	0	942,981
0	0	0	326,154	0	0
0	0	0	0	334,643	0
0	0	0	0	0	364,585
0	0	0	0	430,374	0
0	0	0	0	0	571,504
0	92,979	0	0	0	0
0	0	738,407	0	0	0
0	805,387	0	0	0	0
0	0	22,169	0	0	0
0	534,806	0	0	0	0
0	0	164,445	0	0	0
0	0	0	652,309	0	0
0	16,471	0	0	0	0
0	0	184,298	0	0	0
0	0	0	216,050	0	0
0	156,677	0	0	0	0
0	0	115,351	0	0	0
0	0	0	0	261,695	0
0	120,959	0	0	0	0
0	100,690	0	0	0	0
0	70,749	0	0	0	0

0	142,399	0	0	0	0
0	24,809	0	0	0	0
0	0	215,000	0	0	0
0	575,003	0	0	0	0
0	0	419,500	0	0	0
0	0	0	450,000	0	0
0	0	0	0	450,000	0
0	0	0	0	0	450,000
0	495,013	0	0	0	0
0	0	539,000	0	0	0
0	0	38,133	0	0	0
0	0	426,976	0	0	0
0	0	1,263,686	0	0	0
0	0	519,200	0	0	0
0	0	324,500	0	0	0
0	62,434	0	0	0	0
0	0	280,000	0	0	0
0	34,721	0	0	0	0
0	4,936	0	0	0	0
0	100,924	0	0	0	0
0	8,430	0	0	0	0
0	35,012	0	0	0	0
0	0	55,000	0	0	0
0	0	0	20,000	0	0
0	0	0	0	20,000	0
0	0	0	0	0	20,000
0	34,428	0	0	0	0
0	1,142,819	0	0	0	0
0	0	20,457	0	0	0
0	119,630	0	0	0	0
0	0	39,866	0	0	0
0	0	1,040,937	0	0	0
0	123,724	0	0	0	0
0	0	944,612	0	0	0
0	0	0	37,695	0	0
0	40,482	0	0	0	0
0	102,916	0	0	0	0
0	802,586	0	0	0	0
0	0	1,206,591	0	0	0
0	0	0	617,914	0	0
0	10,506	0	0	0	0
0	0	225,421	0	0	0
0	0	567,274	0	0	0
0	0	0	5,315,835	0	0
0	0	0	0	12,805,725	0
0	0	67,500	0	0	0
0	0	758,333	0	0	0
0	0	0	0	-7,919,159	0

Carndo Year 4 Reduction









0	0	-141	-292	-292	-292
0	-2,276	-4,592	-4,592	-4,592	-4,592
0	0	-15,301	-30,862	-30,862	-30,862
0	0	0	-36,250	-73,114	-73,114
0	-38,694	-78,721	-78,721	-78,721	-78,721
0	0	-38,118	-77,551	-77,551	-77,551
0	0	0	-86,606	-176,198	-176,198
0	0	0	0	-660,907	-1,344,604
0	0	0	0	0	-232,489
0	0	-161,923	-329,430	-329,430	-329,430
0	0	0	-151,026	-307,260	-307,260
0	0	0	0	-155,275	-315,904
0	0	0	0	0	-159,800
0	0	-1,713	-3,447	-3,447	-3,447
0	0	0	-51,453	-103,557	-103,557
0	0	0	0	-72,917	-146,757
0	0	0	0	0	-25,846
0	0	-71,667	-145,805	-145,805	-145,805
0	0	0	-303,333	-617,126	-617,126
0	0	0	-9,002	-18,315	-18,315
0	0	0	0	-129,873	-264,224
0	0	0	0	0	-190,501
0	0	0	-26,092	-53,558	-53,558
0	0	0	0	-133,857	-274,759
0	0	0	0	0	-270,063
0	0	0	-34,790	-70,779	-70,779
0	0	0	0	-89,238	-181,553
0	0	0	0	0	-161,303
0	0	0	-6,752	-13,589	-13,589
0	0	0	0	-48,591	-97,796
0	0	0	0	0	-29,345
0	0	0	-6,301	-12,710	-12,710
0	0	0	0	-47,880	-96,571
0	0	0	0	0	-40,991
0	0	-47,353	-99,968	-99,968	-99,968
0	0	0	-73,823	-155,848	-155,848
0	0	0	0	-76,442	-161,378
0	0	0	0	0	-57,150
0	0	0	-8,822	-17,948	-17,948
0	0	0	0	-69,415	-141,224
0	-52,643	-107,102	-107,102	-107,102	-107,102
0	0	-16,021	-32,594	-32,594	-32,594
0	-27,258	-55,455	-55,455	-55,455	-55,455
0	0	-34,621	-70,436	-70,436	-70,436
0	0	0	-1,682	-3,421	-3,421
0	-9,971	-20,067	-20,067	-20,067	-20,067
0	0	-13,456	-27,082	-27,082	-27,082
0	0	0	-13,503	-27,717	-27,717

0	0	0	0	-39,567	-81,216
0	0	0	0	0	-28,575
0	-4,437	-9,108	-9,108	-9,108	-9,108
0	0	-5,811	-11,928	-11,928	-11,928
0	0	0	-57,735	-118,509	-118,509
0	0	0	0	-3,628	-7,447
0	0	0	0	-8,677	-17,464
0	0	0	0	0	-8,930
0	-4,078	-8,296	-8,296	-8,296	-8,296
0	0	-39,496	-80,355	-80,355	-80,355
0	0	0	-4,501	-9,157	-9,157
0	0	0	0	-24,295	-49,428
0	0	0	0	0	-11,906
0	-3,421	-6,900	-6,900	-6,900	-6,900
0	0	-1,406	-2,836	-2,836	-2,836
0	0	0	-13,559	-27,348	-27,348
0	-16,506	-33,292	-33,292	-33,292	-33,292
0	0	-380	-767	-767	-767
0	-1,802	-3,627	-3,627	-3,627	-3,627
0	0	-1,070	-2,153	-2,153	-2,153
0	0	0	-2,701	-5,435	-5,435
0	0	0	0	-2,777	-5,588
0	0	0	0	0	-2,858
0	0	0	0	-2,777	-5,699
0	0	0	0	0	-23,575
0	0	0	-5,436	-11,059	-11,059
0	0	0	0	-5,577	-11,347
0	0	0	0	0	-6,076
0	0	0	0	-7,173	-14,593
0	0	0	0	0	-9,525
0	-581	-1,170	-1,170	-1,170	-1,170
0	0	-4,615	-9,289	-9,289	-9,289
0	-6,712	-13,537	-13,537	-13,537	-13,537
0	0	-185	-373	-373	-373
0	-4,457	-8,989	-8,989	-8,989	-8,989
0	0	-1,370	-2,764	-2,764	-2,764
0	0	0	-10,872	-22,119	-22,119
0	-137	-277	-277	-277	-277
0	0	-1,536	-3,098	-3,098	-3,098
0	0	0	-1,800	-3,631	-3,631
0	-1,306	-2,633	-2,633	-2,633	-2,633
0	0	-961	-1,939	-1,939	-1,939
0	0	0	0	-2,181	-4,399
0	-1,008	-2,033	-2,033	-2,033	-2,033
0	-839	-1,692	-1,692	-1,692	-1,692
0	-442	-890	-890	-890	-890
0	-7,120	-15,031	-15,031	-15,031	-15,031
0	-2,481	-5,582	-5,582	-5,582	-5,582

0	0	-7,167	-14,845	-14,845	-14,845
0	-57,500	-129,376	-129,376	-129,376	-129,376
0	0	-41,950	-94,388	-94,388	-94,388
0	0	0	-45,000	-101,250	-101,250
0	0	0	0	-45,000	-101,250
0	0	0	0	0	-45,000
0	-49,501	-111,378	-111,378	-111,378	-111,378
0	0	-6,738	-13,648	-13,648	-13,648
0	0	-477	-966	-966	-966
0	0	-5,337	-10,811	-10,811	-10,811
0	0	-15,796	-31,997	-31,997	-31,997
0	0	-6,490	-13,146	-13,146	-13,146
0	0	-4,056	-8,217	-8,217	-8,217
0	-390	-785	-785	-785	-785
0	0	-28,000	-63,000	-63,000	-63,000
0	-868	-1,782	-1,782	-1,782	-1,782
0	-31	-62	-62	-62	-62
0	-1,262	-2,555	-2,555	-2,555	-2,555
0	-70	-142	-142	-142	-142
0	-292	-588	-588	-588	-588
0	0	-458	-924	-924	-924
0	0	0	-167	-336	-336
0	0	0	0	-167	-336
0	0	0	0	0	-167
0	-430	-872	-872	-872	-872
0	-9,523	-19,208	-19,208	-19,208	-19,208
0	0	-170	-344	-344	-344
0	-2,991	-6,139	-6,139	-6,139	-6,139
0	0	-997	-2,046	-2,046	-2,046
0	0	-1,040,937	0	0	0
0	-3,093	-6,349	-6,349	-6,349	-6,349
0	0	-23,615	-48,474	-48,474	-48,474
0	0	0	-942	-1,934	-1,934
0	-253	-509	-509	-509	-509
0	-2,573	-5,281	-5,281	-5,281	-5,281
0	-6,688	-13,490	-13,490	-13,490	-13,490
0	0	-10,055	-20,280	-20,280	-20,280
0	0	0	-5,149	-10,386	-10,386
0	-88	-177	-177	-177	-177
0	0	-1,879	-3,789	-3,789	-3,789
0	0	-3,545	-7,136	-7,136	-7,136
0	0	0	-33,224	-66,868	-66,868
0	0	0	0	-80,036	-161,085
0	0	-3,375	-7,125	-7,125	-7,125
0	0	-9,479	-19,201	-19,201	-19,201
Carndo Year 4 Reduction	0	0	0	123,085	250,120
Carndo Year 5 Reduction	0	0	0	0	97,076
0	0	0	0	0	0



0	0	0	2,052,598	1,981,818	1,911,039
0	0	0	0	5,265,046	5,083,492
0	0	0	0	0	9,516,877
0	0	0	1,073,500	1,059,912	1,046,323
0	0	0	0	7,725,904	7,628,108
0	0	0	0	0	4,665,842
0	0	0	749,876	737,166	724,456
0	0	0	0	5,697,683	5,601,112
0	0	0	0	0	4,877,902
0	0	899,716	799,747	699,779	599,810
0	0	0	1,402,630	1,246,783	1,090,935
0	0	0	0	1,452,402	1,291,024
0	0	0	0	0	1,085,857
0	0	0	520,502	502,554	484,605
0	0	0	0	4,095,493	3,954,269
0	3,105,945	2,998,843	2,891,742	2,784,640	2,677,539
0	0	945,237	912,642	880,048	847,454
0	1,608,195	1,552,740	1,497,285	1,441,830	1,386,375
0	0	2,042,641	1,972,205	1,901,770	1,831,334
0	0	0	99,218	95,797	92,376
0	1,585,319	1,565,251	1,545,184	1,525,117	1,505,049
0	0	2,139,510	2,112,428	2,085,345	2,058,263
0	0	0	526,623	498,906	471,189
0	0	0	0	1,543,098	1,461,883
0	0	0	0	0	1,114,432
0	173,050	163,942	154,834	145,726	136,618
0	0	226,641	214,713	202,784	190,856
0	0	0	2,251,664	2,133,155	2,014,647
0	0	0	0	141,489	134,042
0	0	0	0	1,379,626	1,362,162
0	0	0	0	0	1,419,829
0	240,593	232,297	224,001	215,704	207,408
0	0	2,330,281	2,249,926	2,169,572	2,089,217
0	0	0	265,562	256,405	247,247
0	0	0	0	1,433,423	1,383,994
0	0	0	0	0	702,473
0	407,112	400,211	393,311	386,411	379,511
0	0	167,295	164,459	161,624	158,788
0	0	0	1,613,549	1,586,200	1,558,852
0	1,964,232	1,930,940	1,897,648	1,864,356	1,831,064
0	0	45,247	44,480	43,714	42,947
0	286,500	282,874	279,247	275,621	271,994
0	0	170,090	167,937	165,784	163,631
0	0	0	429,400	423,965	418,529
0	0	0	0	441,480	435,892
0	0	0	0	0	454,345
0	0	0	0	108,287	102,588
0	0	0	0	0	919,406

0	0	0	320,718	309,659	298,600
0	0	0	0	329,065	317,718
0	0	0	0	0	358,509
0	0	0	0	423,201	408,608
0	0	0	0	0	561,979
0	92,398	91,228	90,058	88,889	87,719
0	0	733,792	724,503	715,215	705,926
0	798,675	785,138	771,602	758,065	744,528
0	0	21,984	21,611	21,239	20,866
0	530,349	521,360	512,371	503,382	494,393
0	0	163,075	160,311	157,547	154,783
0	0	0	641,437	619,318	597,200
0	16,333	16,057	15,780	15,503	15,226
0	0	182,763	179,665	176,567	173,470
0	0	0	214,250	210,618	206,987
0	155,372	152,738	150,105	147,471	144,838
0	0	114,389	112,451	110,512	108,573
0	0	0	0	259,514	255,116
0	119,951	117,918	115,885	113,852	111,819
0	99,851	98,158	96,466	94,774	93,081
0	70,307	69,417	68,527	67,637	66,747
0	135,279	120,248	105,217	90,186	75,155
0	22,328	16,746	11,164	5,582	0
0	0	207,833	192,988	178,143	163,298
0	517,503	388,127	258,751	129,376	0
0	0	377,550	283,163	188,775	94,388
0	0	0	405,000	303,750	202,500
0	0	0	0	405,000	303,750
0	0	0	0	0	405,000
0	445,511	334,134	222,756	111,378	0
0	0	532,263	518,615	504,967	491,319
0	0	37,657	36,691	35,726	34,760
0	0	421,639	410,828	400,016	389,205
0	0	1,247,890	1,215,893	1,183,896	1,151,898
0	0	512,710	499,564	486,417	473,271
0	0	320,444	312,227	304,011	295,794
0	62,044	61,258	60,473	59,688	58,902
0	0	252,000	189,000	126,000	63,000
0	33,853	32,071	30,290	28,508	26,726
0	4,905	4,843	4,781	4,719	4,657
0	99,663	97,107	94,552	91,996	89,441
0	8,360	8,218	8,076	7,935	7,793
0	34,720	34,132	33,543	32,955	32,366
0	0	54,542	53,617	52,693	51,768
0	0	0	19,833	19,497	19,161
0	0	0	0	19,833	19,497
0	0	0	0	0	19,833
0	33,997	33,126	32,254	31,382	30,510



## ACTEW Panel Review - Price Model

Sewer - MAR

	Year Index	1	2	3	4	5
	Year	2013/14	2014/15	2015/16	2016/17	2017/18
<b>Assumptions</b>						
Inflation		2.50%	2.50%	2.50%	2.50%	2.50%
WACC (Nominal Post-Tax)		7.20%	7.20%	7.20%	7.20%	7.20%
Corporate Tax		30.0%	30.0%	30.0%	30.0%	30.0%
Cost of Debt		6.48%	6.48%	6.48%	6.48%	6.48%
Debt Funding		60.0%	60.0%	60.0%	60.0%	60.0%
Gamma		50.0%	50.0%	50.0%	50.0%	50.0%
Nominal post-tax discount factor		1.00	0.93	0.87	0.81	0.76

Note [48] **Case 1: Set Prices to Achieve Panel Target Revenue over 5 Years**

### Return on Investment

Asset Value for ROI Calculation	(\$)	665,771,178	693,942,989	744,065,289	830,156,888	917,512,942
Return on Investment	(\$)	47,935,525	49,963,895	53,572,701	59,771,296	66,060,932
less Capital Gain on Assets	(\$)	-16,644,279	-17,348,575	-18,601,632	-20,753,922	-22,937,824
less Value of Imputation Credits	(\$)	-1,191,649	-1,301,717	-1,596,916	-1,224,921	-817,066
Required ROI from Tariffs	(\$)	30,099,597	31,313,603	33,374,153	37,792,452	42,306,042

### Target Revenue Calculation

		NPV				
Return on Investment	(\$)	151,064,102	30,099,597	31,313,603	33,374,153	37,792,452
less Other Income	(\$)	-47,434,045	-10,352,179	-10,612,940	-10,880,331	-11,154,524
less Community Service Obligation Income	(\$)	-2,630,116	-589,327	-595,896	-602,484	-609,089
Depreciation	(\$)	91,501,466	16,641,469	19,128,101	20,229,851	23,423,874
Operating & Maintenance	(\$)	327,843,806	71,091,812	73,006,644	74,527,569	77,393,102
Tax	(\$)	10,817,114	2,383,297	2,603,434	3,193,832	2,449,843
		531,162,327	109,274,668	114,842,948	119,842,589	129,295,658

### Forecast Revenue

Forecast Revenue	531,162,327	110,721,838	116,236,964	122,027,090	128,105,835	134,487,458
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### Tax Calculation

Forecast Tariff Revenue		110,721,838	116,236,964	122,027,090	128,105,835	134,487,458
plus Other Income		10,352,179	10,612,940	10,880,331	11,154,524	11,435,697
less Tax Depreciation		-16,172,672	-18,205,460	-18,826,810	-21,449,519	-24,307,882
less Interest		-25,865,210	-26,959,685	-28,906,936	-32,251,595	-35,645,378
less Operating & Maintenance		-71,091,812	-73,006,644	-74,527,569	-77,393,102	-80,522,788
less Previous Year Losses		0	0	0	0	0
Taxable Profit		7,944,324	8,678,115	10,646,106	8,166,143	5,447,107

Opening Accumulated Losses	0	0	0	0	0
Closing Accumulated Losses	0	0	0	0	0
Tax	2,383,297	2,603,434	3,193,832	2,449,843	1,634,132

Note [49] **Case 2: Set Prices to Achieve Panel Target Revenue over Remaining 3 Years**

**Return on Investment**

Asset Value for ROI Calculation	(\$)	665,771,178	693,942,989	744,065,289	830,156,888	917,512,942
Return on Investment	(\$)	47,935,525	49,963,895	53,572,701	59,771,296	66,060,932
less Capital Gain on Assets	(\$)	-16,644,279	-17,348,575	-18,601,632	-20,753,922	-22,937,824
less Value of Imputation Credits	(\$)	-934,801	-1,069,207	-1,782,192	-1,419,427	-1,021,261
Required ROI from Tariffs	(\$)	30,356,444	31,546,114	33,188,877	37,597,947	42,101,848

**Target Revenue Calculation**

		NPV					
Return on Investment	(\$)	151,064,112	30,356,444	31,546,114	33,188,877	37,597,947	42,101,848
less Other Income	(\$)	-47,434,045	-10,352,179	-10,612,940	-10,880,331	-11,154,524	-11,435,697
less Community Service Obligation Income	(\$)	-2,630,174	-589,868	-596,374	-602,112	-608,708	-615,316
Depreciation	(\$)	91,501,466	16,641,469	19,128,101	20,229,851	23,423,874	26,939,293
Operating & Maintenance	(\$)	327,843,806	71,091,812	73,006,644	74,527,569	77,393,102	80,522,788
Tax	(\$)	10,817,094	1,869,603	2,138,413	3,564,384	2,838,854	2,042,522
		531,162,259	109,017,280	114,609,959	120,028,237	129,490,545	139,555,438

**Forecast Revenue**

531,162,259	109,009,524	114,686,893	123,262,264	129,402,538	135,848,756
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**Tax Calculation**

Forecast Tariff Revenue	109,009,524	114,686,893	123,262,264	129,402,538	135,848,756
plus Other Income	10,352,179	10,612,940	10,880,331	11,154,524	11,435,697
less Tax Depreciation	-16,172,672	-18,205,460	-18,826,810	-21,449,519	-24,307,882
less Interest	-25,865,210	-26,959,685	-28,906,936	-32,251,595	-35,645,378
less Operating & Maintenance	-71,091,812	-73,006,644	-74,527,569	-77,393,102	-80,522,788
less Previous Year Losses	0	0	0	0	0
Taxable Profit	6,232,009	7,128,044	11,881,279	9,462,846	6,808,405

Opening Accumulated Losses	0	0	0	0	0
Closing Accumulated Losses	0	0	0	0	0
Tax	1,869,603	2,138,413	3,564,384	2,838,854	2,042,522

## ACTEW Panel Review - Price Model

Sewer - Price Setting

		Year Index	1	2	3	4	5
		Year	2013/14	2014/15	2015/16	2016/17	2017/18
<b>Assumptions</b>							
Inflation			2.50%	2.50%	2.50%	2.50%	2.50%
Nominal post-tax discount factor			1.00	0.93	0.87	0.81	0.76
<b>Sewerage</b>							
Forecast supply charges	Equivalent annual customers		162,609	166,678	170,849	175,124	179,506
Forecast fixture charges	Equivalent annual fixtures		60,274	61,597	62,949	64,331	65,743
<b>Note [48] Case 1: Set Prices to Achieve Panel Target Revenue over 5 Years</b>							
<b>Price Setting Calculation</b>							
Target Revenue			109,274,668	114,842,948	119,842,589	129,295,658	139,350,852
	PO		-18.83%		1.35%		0
	X		0.00%		1.35%		0
<b>Price Escalators</b>							
Supply Charge	(%)		83.20%	102.50%	102.50%	102.50%	102.50%
Fixture Charge	(%)		83.20%	102.50%	102.50%	102.50%	102.50%
<b>Prices</b>							
Supply Charge	(\$/cust)	600.65	499.75	512.24	525.05	538.17	551.63
Fixture Charge	(\$/fixture)	587.42	488.74	500.96	513.48	526.32	539.48
<b>Revenue</b>							
Supply Charge	(\$)		81,263,502	85,379,401	89,703,859	94,247,149	99,020,562
Fixture Charge	(\$)		29,458,336	30,857,563	32,323,231	33,858,686	35,466,896
			110,721,838	116,236,964	122,027,090	128,105,835	134,487,458

Check NPV of Forecast Revenue = Target Revenue

NPV Target Revenue	(\$)	531,162,327
NPV Forecast Revenue	(\$)	531,162,327
Error	(\$)	0

Note [49]

**Case 2: Set Prices to Achieve Panel Target Revenue over Remaining 3 Years**

**Price Setting Calculation**

Target Revenue		109,017,280	114,609,959	120,028,237	129,490,545	139,555,438
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P0	2.38%
X	0.00%

**Price Escalators**

Supply Charge	(%)	81.91%	102.72%	104.94%	102.50%	102.50%
Fixture Charge	(%)	81.91%	102.72%	104.94%	102.50%	102.50%

**Prices**

Supply Charge	(\$/cust)	600.65	492.02	505.41	530.36	543.62	557.21
Fixture Charge	(\$/cust)	587.42	481.18	494.28	518.68	531.65	544.94

**Revenue**

Supply Charge	(\$)	80,006,880	84,240,728	90,611,745	95,201,016	100,022,741
Fixture Charge	(\$)	29,002,643	30,446,165	32,650,519	34,201,521	35,826,015

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		109,009,524	114,686,893	123,262,264	129,402,538	135,848,756
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**Check NPV of Forecast Revenue = Target Revenue**

NPV Target Revenue	(\$)	531,162,259
NPV Forecast Revenue	(\$)	531,162,259
Error	(\$)	0

## ACTEW Panel Review - Price Model

Note [48] Financeability Tests Case 1

		Year Index	1	2	3	4	5
		Year	2013/14	2014/15	2015/16	2016/17	2017/18
<b>Values pasted from financial budget / forecast</b>							
Note [11]	Interest expense	(\$)	77,480,000	79,221,000	83,308,000	88,937,000	95,305,000
Note [21]	Operating lease rentals expense	(\$)	13,454,621	13,454,621	13,454,621	13,454,621	13,454,621
	Capitalised interest (entered as positive values)	(\$)	0	0	0	0	0
	Cash and cash equivalents	(\$)	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000
	Net fixed assets	(\$)	2,038,783,163	2,089,344,524	2,166,583,166	2,261,288,888	#####
	Short-term debt	(\$)	19,337,964	20,867,940	22,963,277	325,214,004	27,630,750
	Long-term debt	(\$)	1,426,807,651	1,489,415,577	1,591,148,191	1,413,461,412	#####
Note [23]	Water and sewerage PPE as % of total long-term assets	(%)	76.3%	76.0%	75.9%	75.9%	75.8%
<b>Adjusted Income Statement (for financeability test only)</b>							
Income							
	Water income	(\$)	168,799,344	179,775,871	179,332,654	185,174,635	191,433,674
	Sewerage income	(\$)	109,009,524	114,686,893	122,027,090	128,105,835	134,487,458
	Other income	(\$)	24,806,753	25,429,609	26,068,192	26,722,906	27,394,161
	Total Income	(\$)	302,615,620	319,892,373	327,427,937	340,003,375	353,315,293
	Operations and maintenance	(\$)	-162,956,955	-170,928,164	-173,759,043	-178,228,413	-184,213,662
	EBITDA	(\$)	139,658,665	148,964,208	153,668,894	161,774,962	169,101,631
Note [12]	Depreciation	(\$)	-50,237,189	-54,219,814	-56,648,998	-61,167,910	-66,205,274
	EBIT	(\$)	89,421,476	94,744,394	97,019,896	100,607,052	102,896,357
Note [13]	Net Interest expense	(\$)	-63,628,531	-64,685,483	-67,743,151	-72,029,650	-76,767,501
Note [23]	Net Profit (Loss) before Tax	(\$)	25,792,945	30,058,911	29,276,745	28,577,402	26,128,856
Note [14]	Income Tax	(\$)	-3,079,483	-3,489,406	-4,820,462	-4,858,049	-4,429,989
	Net Profit (Loss) After Tax	(\$)	22,713,461	26,569,505	24,456,283	23,719,353	21,698,867

**Financeability Metrics**

<a href="#">Note [15]</a>	FFO interest cover (target for Baa2 => 1.7x - 2.5x; higher is better)	2.15 x	2.25 x	2.20 x	2.18 x	2.15 x
<a href="#">Note [16]</a>	Net debt to RAB (target for Baa2 => 60%-91%; lower is better)	56%	56%	58%	62%	58%
<a href="#">Note [17]</a>	FFO to net debt (target for Baa2 => 6-10%; higher is better)	6.3%	6.8%	6.4%	5.9%	6.2%
<a href="#">Note [18]</a>	Retained cash flow to capex (target for Ba => 0.5x - 1.0x; higher is better)	0.8 x	0.7 x	0.5 x	0.4 x	0.5 x

**Checks**

FFO	(\$)	72,950,650	80,789,319	81,105,281	84,887,263	87,904,142
Regulatory Model Benchmark Debt	(\$)	1,231,736,769	1,273,162,292	1,324,412,731	1,397,540,003	#####
Annual Change in Debt	(\$)		41,425,524	51,250,438	73,127,272	78,952,301 244,755,535
Financeability Test Net Debt	(\$)	1,152,661,030	1,196,867,936	1,275,352,444	1,442,874,603	#####
Annual Change in Debt	(\$)		44,206,906	78,484,508	167,522,159	-20,924,447 269,289,126

## ACTEW Panel Review - Price Model

Note [49] Financeability Tests Case 2

		Year Index	1	2	3	4	5
		Year	2013/14	2014/15	2015/16	2016/17	2017/18
<b>Values pasted from financial budget / forecast</b>							
Note [11]	Interest expense	(\$)	77,480,000	79,221,000	83,308,000	88,937,000	95,305,000
Note [21]	Operating lease rentals expense	(\$)	13,454,621	13,454,621	13,454,621	13,454,621	13,454,621
	Capitalised interest (entered as positive values)	(\$)	0	0	0	0	0
	Cash and cash equivalents	(\$)	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000
	Net fixed assets	(\$)	2,038,783,163	2,089,344,524	2,166,583,166	2,261,288,888	#####
	Short-term debt	(\$)	19,337,964	20,867,940	22,963,277	325,214,004	27,630,750
	Long-term debt	(\$)	1,426,807,651	1,489,415,577	1,591,148,191	1,413,461,412	#####
Note [23]	Water and sewerage PPE as % of total long-term assets	(%)	76.3%	76.0%	75.9%	75.9%	75.8%
<b>Adjusted Income Statement (for financeability test only)</b>							
	Income						
	Water income	(\$)	168,799,344	179,775,871	176,308,536	181,079,064	187,199,670
	Sewerage income	(\$)	109,009,524	114,686,893	123,262,264	129,402,538	135,848,756
	Other income	(\$)	24,806,753	25,429,609	26,068,192	26,722,906	27,394,161
	Total Income	(\$)	302,615,620	319,892,373	325,638,993	337,204,507	350,442,587
	Operations and maintenance	(\$)	-162,956,955	-170,928,164	-173,759,043	-178,228,413	-184,213,662
	EBITDA	(\$)	139,658,665	148,964,208	151,879,950	158,976,094	166,228,925
Note [12]	Depreciation	(\$)	-50,237,189	-54,219,814	-56,648,998	-61,167,910	-66,205,274
	EBIT	(\$)	89,421,476	94,744,394	95,230,952	97,808,184	100,023,651
Note [13]	Net Interest expense	(\$)	-63,628,531	-64,685,483	-67,743,151	-72,029,650	-76,767,501
Note [23]	Net Profit (Loss) before Tax	(\$)	25,792,945	30,058,911	27,487,801	25,778,534	23,256,150
Note [14]	Income Tax	(\$)	-3,668,907	-4,788,382	-4,283,779	-4,018,389	-3,568,177
	Net Profit (Loss) After Tax	(\$)	22,124,037	25,270,529	23,204,023	21,760,145	19,687,973

**Financeability Metrics**

Note [15]	FFO interest cover (target for Baa2 => 1.7x - 2.5x; higher is better)	2.14 x	2.23 x	2.18 x	2.15 x	2.12 x
Note [16]	Net debt to RAB (target for Baa2 => 60%-91%; lower is better)	56%	56%	58%	62%	58%
Note [17]	FFO to net debt (target for Baa2 => 6-10%; higher is better)	6.3%	6.6%	6.3%	5.7%	6.0%
Note [18]	Retained cash flow to capex (target for Ba => 0.5x - 1.0x; higher is better)	0.8 x	0.7 x	0.5 x	0.4 x	0.5 x

**Checks**

FFO	(\$)	72,361,226	79,490,343	79,853,020	82,928,055	85,893,247
Regulatory Model Benchmark Debt	(\$)	1,231,736,769	1,273,162,292	1,324,412,731	1,397,540,003	#####
Annual Change in Debt	(\$)		41,425,524	51,250,438	73,127,272	78,952,301 244,755,535
Financeability Test Net Debt	(\$)	1,152,661,030	1,196,867,936	1,275,352,444	1,442,874,603	#####
Annual Change in Debt	(\$)		44,206,906	78,484,508	167,522,159	-20,924,447 269,289,126

**Regulatory Income Statement**

Income						
Water income	(\$)	168,799,344	179,775,871	176,308,536	181,079,064	187,199,670
Sewerage income	(\$)	109,009,524	114,686,893	123,262,264	129,402,538	135,848,756
Other income	(\$)	24,806,753	25,429,609	26,068,192	26,722,906	27,394,161
Total Income	(\$)	302,615,620	319,892,373	325,638,993	337,204,507	350,442,587
Operations and Maintenance	(\$)	-162,956,955	-170,928,164	-173,759,043	-178,228,413	-184,213,662
EBITDA	(\$)	139,658,665	148,964,208	151,879,950	158,976,094	166,228,925
Depreciation	(\$)	-41,267,442	-45,250,067	-47,679,250	-52,198,163	-57,235,527
EBIT	(\$)	98,391,223	103,714,141	104,200,700	106,777,931	108,993,398
Interest	(\$)	-79,754,956	-82,437,258	-85,755,724	-90,490,715	-95,602,877
Net Profit (Loss) before Tax	(\$)	18,636,267	21,276,883	18,444,975	16,287,216	13,390,521
Income Tax	(\$)	-3,668,907	-4,788,382	-4,283,779	-4,018,389	-3,568,177
Net Profit (Loss) After Tax		14,967,360	16,488,501	14,161,197	12,268,827	9,822,345

**Regulatory Cash Flow Statement**

## Cash Flows from Operations

Tariff and Other Revenue	(\$)	302,615,620	319,892,373	325,638,993	337,204,507	350,442,587
Operations and Maintenance	(\$)	-162,956,955	-170,928,164	-173,759,043	-178,228,413	-184,213,662
Tax Paid	(\$)	-3,668,907	-4,788,382	-4,283,779	-4,018,389	-3,568,177
		<u>135,989,757</u>	<u>144,175,826</u>	<u>147,596,171</u>	<u>154,957,706</u>	<u>162,660,748</u>

## Cash Flows from Investing

Sale of Assets	(\$)					
Purchase of Assets	(\$)	-52,752,598	-65,222,634	-90,015,437	-138,732,910	-112,376,085
		<u>-52,752,598</u>	<u>-65,222,634</u>	<u>-90,015,437</u>	<u>-138,732,910</u>	<u>-112,376,085</u>

## Cash Flows from Financing

Interest Paid	(\$)	-79,754,956	-82,437,258	-85,755,724	-90,490,715	-95,602,877
Net Borrowings	(\$)	37,684,513	43,812,597	58,512,030	86,859,348	69,996,642
Dividends Paid	(\$)	-41,166,717	-40,328,532	-22,536,299	-22,536,299	-22,536,299
		<u>-83,237,160</u>	<u>-78,953,193</u>	<u>-49,779,993</u>	<u>-26,167,667</u>	<u>-48,142,534</u>

## Net Cash Flow

(\$)	0	0	7,800,741	-9,942,871	2,142,130	0
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**Regulatory Balance Sheet**

Opening value of the RAB	(\$)	2,026,518,316	2,089,325,837	2,162,346,833	2,259,866,883	#####
Capital expenditure	(\$)	52,752,598	65,222,634	90,015,437	138,732,910	112,376,085
Disposals/assets written off	(\$)	0	0	0	0	0
Depreciation	(\$)	-41,267,442	-45,250,067	-47,679,250	-52,198,163	-57,235,527
Indexation	(\$)	51,322,365	53,048,429	55,183,864	58,230,833	61,520,513
Closing value of the RAB	(\$)	<u>2,089,325,837</u>	<u>2,162,346,833</u>	<u>2,259,866,883</u>	<u>2,404,632,463</u>	#####

## Assets

RAB	(\$)	2,089,325,837	2,162,346,833	2,259,866,883	2,404,632,463	#####
Cash	(\$)	0	0	7,800,741	-2,142,130	0
		<u>2,089,325,837</u>	<u>2,162,346,833</u>	<u>2,267,667,624</u>	<u>2,402,490,333</u>	#####

## Debt

(\$)	1,253,595,502	1,297,408,100	1,355,920,130	1,442,779,478	#####
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## Equity

(\$)	835,730,335	864,938,733	911,747,494	959,710,856	#####
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**Modelled Cash Flows to Government**

Water Abstraction Charges	(\$)	25,010,877	27,250,319	27,579,859	27,918,729	28,267,271
Utilities Network Facilities Charge	(\$)	7,490,032	8,239,180	8,629,139	9,035,011	9,344,277
Tax Equivalents	(\$)	3,668,907	4,788,382	4,283,779	4,018,389	3,568,177
ACTEW Dividends	(\$)	41,166,717	40,328,532	22,536,299	22,536,299	22,536,299
less modelled CSOs	(\$)	-2,353,218	-2,338,054	-2,316,878	-2,294,675	-2,270,523
		<u>74,983,315</u>	<u>78,268,359</u>	<u>60,712,198</u>	<u>61,213,752</u>	<u>61,445,502</u>



525	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
550	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
575	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
600	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
625	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
650	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
675	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
700	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
725	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
750	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
775	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
800	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
825	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
850	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
875	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
900	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
1,000	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
2,000	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
5,000	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
10,000	(kL)	200.02	200.02	200.02	200.02	200.02	200.02

**Annual Bill**

0	(\$ p.a.)	700.48	592.02	607.97	626.63	642.30	658.35
25	(\$ p.a.)	761.23	655.77	673.97	692.00	709.30	727.03
50	(\$ p.a.)	821.98	719.52	739.97	757.37	776.31	795.71
75	(\$ p.a.)	882.73	783.27	805.97	822.74	843.31	864.40
100	(\$ p.a.)	943.48	847.02	871.97	888.12	910.32	933.08
125	(\$ p.a.)	1,004.23	910.77	937.97	953.49	977.32	1,001.76
150	(\$ p.a.)	1,064.98	974.52	1,003.97	1,018.86	1,044.33	1,070.44
175	(\$ p.a.)	1,128.81	1,041.50	1,073.33	1,087.55	1,114.74	1,142.61
200	(\$ p.a.)	1,208.84	1,125.48	1,160.35	1,173.75	1,203.09	1,233.17
225	(\$ p.a.)	1,311.24	1,232.94	1,271.77	1,284.11	1,316.21	1,349.12
250	(\$ p.a.)	1,429.43	1,356.97	1,400.42	1,411.53	1,446.82	1,482.99
275	(\$ p.a.)	1,550.93	1,484.47	1,532.67	1,542.52	1,581.08	1,620.61
300	(\$ p.a.)	1,672.43	1,611.97	1,664.92	1,673.51	1,715.35	1,758.23
325	(\$ p.a.)	1,793.93	1,739.47	1,797.17	1,804.50	1,849.61	1,895.85
350	(\$ p.a.)	1,915.43	1,866.97	1,929.42	1,935.49	1,983.88	2,033.47
375	(\$ p.a.)	2,036.93	1,994.47	2,061.67	2,066.48	2,118.14	2,171.09
400	(\$ p.a.)	2,158.43	2,121.97	2,193.92	2,197.47	2,252.40	2,308.71
425	(\$ p.a.)	2,279.93	2,249.47	2,326.17	2,328.46	2,386.67	2,446.34
450	(\$ p.a.)	2,401.43	2,376.97	2,458.42	2,459.45	2,520.93	2,583.96
475	(\$ p.a.)	2,522.93	2,504.47	2,590.67	2,590.44	2,655.20	2,721.58
500	(\$ p.a.)	2,644.43	2,631.97	2,722.92	2,721.43	2,789.46	2,859.20

525	(\$ p.a.)	2,765.93	2,759.47	2,855.17	2,852.42	2,923.73	2,996.82
550	(\$ p.a.)	2,887.43	2,886.97	2,987.42	2,983.41	3,057.99	3,134.44
575	(\$ p.a.)	3,008.93	3,014.47	3,119.67	3,114.40	3,192.26	3,272.06
600	(\$ p.a.)	3,130.43	3,141.97	3,251.92	3,245.39	3,326.52	3,409.69
625	(\$ p.a.)	3,251.93	3,269.47	3,384.17	3,376.38	3,460.79	3,547.31
650	(\$ p.a.)	3,373.43	3,396.97	3,516.42	3,507.37	3,595.05	3,684.93
675	(\$ p.a.)	3,494.93	3,524.47	3,648.67	3,638.36	3,729.32	3,822.55
700	(\$ p.a.)	3,616.43	3,651.97	3,780.92	3,769.35	3,863.58	3,960.17
725	(\$ p.a.)	3,737.93	3,779.47	3,913.17	3,900.34	3,997.85	4,097.79
750	(\$ p.a.)	3,859.43	3,906.97	4,045.42	4,031.33	4,132.11	4,235.41
775	(\$ p.a.)	3,980.93	4,034.47	4,177.67	4,162.32	4,266.38	4,373.04
800	(\$ p.a.)	4,102.43	4,161.97	4,309.92	4,293.31	4,400.64	4,510.66
825	(\$ p.a.)	4,223.93	4,289.47	4,442.17	4,424.30	4,534.91	4,648.28
850	(\$ p.a.)	4,345.43	4,416.97	4,574.42	4,555.29	4,669.17	4,785.90
875	(\$ p.a.)	4,466.93	4,544.47	4,706.67	4,686.28	4,803.44	4,923.52
900	(\$ p.a.)	4,588.43	4,671.97	4,838.92	4,817.27	4,937.70	5,061.14
1,000	(\$ p.a.)	5,074.43	5,181.97	5,367.92	5,341.23	5,474.76	5,611.63
2,000	(\$ p.a.)	9,934.43	10,281.97	10,657.92	10,580.83	10,845.35	11,116.49
5,000	(\$ p.a.)	24,514.43	25,581.97	26,527.92	26,299.64	26,957.13	27,631.06
10,000	(\$ p.a.)	48,814.43	51,081.97	52,977.92	52,497.65	53,810.09	55,155.34

**Change Annual Bill**

0	(\$ p.a.)		-108.46	15.95	18.66	15.67	16.06
25	(\$ p.a.)		-105.46	18.20	18.03	17.30	17.73
50	(\$ p.a.)		-102.46	20.45	17.40	18.93	19.41
75	(\$ p.a.)		-99.46	22.70	16.77	20.57	21.08
100	(\$ p.a.)		-96.46	24.95	16.15	22.20	22.76
125	(\$ p.a.)		-93.46	27.20	15.52	23.84	24.43
150	(\$ p.a.)		-90.46	29.45	14.89	25.47	26.11
175	(\$ p.a.)		-87.31	31.83	14.23	27.19	27.87
200	(\$ p.a.)		-83.36	34.87	13.40	29.34	30.08
225	(\$ p.a.)		-78.30	38.83	12.34	32.10	32.91
250	(\$ p.a.)		-72.46	43.45	11.11	35.29	36.17
275	(\$ p.a.)		-66.46	48.20	9.85	38.56	39.53
300	(\$ p.a.)		-60.46	52.95	8.59	41.84	42.88
325	(\$ p.a.)		-54.46	57.70	7.33	45.11	46.24
350	(\$ p.a.)		-48.46	62.45	6.07	48.39	49.60
375	(\$ p.a.)		-42.46	67.20	4.81	51.66	52.95
400	(\$ p.a.)		-36.46	71.95	3.55	54.94	56.31
425	(\$ p.a.)		-30.46	76.70	2.29	58.21	59.67
450	(\$ p.a.)		-24.46	81.45	1.03	61.49	63.02
475	(\$ p.a.)		-18.46	86.20	-0.23	64.76	66.38
500	(\$ p.a.)		-12.46	90.95	-1.49	68.04	69.74

525	(\$ p.a.)	-6.46	95.70	-2.75	71.31	73.09
550	(\$ p.a.)	-0.46	100.45	-4.01	74.59	76.45
575	(\$ p.a.)	5.54	105.20	-5.27	77.86	79.81
600	(\$ p.a.)	11.54	109.95	-6.53	81.13	83.16
625	(\$ p.a.)	17.54	114.70	-7.79	84.41	86.52
650	(\$ p.a.)	23.54	119.45	-9.05	87.68	89.88
675	(\$ p.a.)	29.54	124.20	-10.31	90.96	93.23
700	(\$ p.a.)	35.54	128.95	-11.57	94.23	96.59
725	(\$ p.a.)	41.54	133.70	-12.83	97.51	99.95
750	(\$ p.a.)	47.54	138.45	-14.09	100.78	103.30
775	(\$ p.a.)	53.54	143.20	-15.35	104.06	106.66
800	(\$ p.a.)	59.54	147.95	-16.61	107.33	110.02
825	(\$ p.a.)	65.54	152.70	-17.87	110.61	113.37
850	(\$ p.a.)	71.54	157.45	-19.13	113.88	116.73
875	(\$ p.a.)	77.54	162.20	-20.39	117.16	120.09
900	(\$ p.a.)	83.54	166.95	-21.65	120.43	123.44
1,000	(\$ p.a.)	107.54	185.95	-26.69	133.53	136.87
2,000	(\$ p.a.)	347.54	375.95	-77.09	264.52	271.13
5,000	(\$ p.a.)	1,067.54	945.95	-228.28	657.49	673.93
10,000	(\$ p.a.)	2,267.54	1,895.95	-480.27	1,312.44	1,345.25

**Change Annual Bill**

0	(%)	-15.5%	2.7%	3.1%	2.5%	2.5%
25	(%)	-13.9%	2.8%	2.7%	2.5%	2.5%
50	(%)	-12.5%	2.8%	2.4%	2.5%	2.5%
75	(%)	-11.3%	2.9%	2.1%	2.5%	2.5%
100	(%)	-10.2%	2.9%	1.9%	2.5%	2.5%
125	(%)	-9.3%	3.0%	1.7%	2.5%	2.5%
150	(%)	-8.5%	3.0%	1.5%	2.5%	2.5%
175	(%)	-7.7%	3.1%	1.3%	2.5%	2.5%
200	(%)	-6.9%	3.1%	1.2%	2.5%	2.5%
225	(%)	-6.0%	3.1%	1.0%	2.5%	2.5%
250	(%)	-5.1%	3.2%	0.8%	2.5%	2.5%
275	(%)	-4.3%	3.2%	0.6%	2.5%	2.5%
300	(%)	-3.6%	3.3%	0.5%	2.5%	2.5%
325	(%)	-3.0%	3.3%	0.4%	2.5%	2.5%
350	(%)	-2.5%	3.3%	0.3%	2.5%	2.5%
375	(%)	-2.1%	3.4%	0.2%	2.5%	2.5%
400	(%)	-1.7%	3.4%	0.2%	2.5%	2.5%
425	(%)	-1.3%	3.4%	0.1%	2.5%	2.5%
450	(%)	-1.0%	3.4%	0.0%	2.5%	2.5%
475	(%)	-0.7%	3.4%	0.0%	2.5%	2.5%
500	(%)	-0.5%	3.5%	-0.1%	2.5%	2.5%

525	(%)	-0.2%	3.5%	-0.1%	2.5%	2.5%
550	(%)	0.0%	3.5%	-0.1%	2.5%	2.5%
575	(%)	0.2%	3.5%	-0.2%	2.5%	2.5%
600	(%)	0.4%	3.5%	-0.2%	2.5%	2.5%
625	(%)	0.5%	3.5%	-0.2%	2.5%	2.5%
650	(%)	0.7%	3.5%	-0.3%	2.5%	2.5%
675	(%)	0.8%	3.5%	-0.3%	2.5%	2.5%
700	(%)	1.0%	3.5%	-0.3%	2.5%	2.5%
725	(%)	1.1%	3.5%	-0.3%	2.5%	2.5%
750	(%)	1.2%	3.5%	-0.3%	2.5%	2.5%
775	(%)	1.3%	3.5%	-0.4%	2.5%	2.5%
800	(%)	1.5%	3.6%	-0.4%	2.5%	2.5%
825	(%)	1.6%	3.6%	-0.4%	2.5%	2.5%
850	(%)	1.6%	3.6%	-0.4%	2.5%	2.5%
875	(%)	1.7%	3.6%	-0.4%	2.5%	2.5%
900	(%)	1.8%	3.6%	-0.4%	2.5%	2.5%
1,000	(%)	2.1%	3.6%	-0.5%	2.5%	2.5%
2,000	(%)	3.5%	3.7%	-0.7%	2.5%	2.5%
5,000	(%)	4.4%	3.7%	-0.9%	2.5%	2.5%
10,000	(%)	4.6%	3.7%	-0.9%	2.5%	2.5%

## ACTEW Panel Review - Price Model

Note [49]

Bill Impacts - Case 2

	Year Index	0	1	2	3	4	5
	Year	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
<b>Actual Charges</b>							
Water Supply Charge	(\$/cust)	99.83	100.00	102.56	99.34	101.82	104.37
Tier 1 Price	(\$/kL)	2.43	2.55	2.64	2.56	2.62	2.69
Tier 2 Price	(\$/kL)	4.86	5.10	5.29	5.12	5.25	5.38
Tier 2 Threshold	(kL/day)	0.548	0.548	0.548	0.548	0.548	0.548
Sewerage Charge	(\$/cust)	600.65	492.02	505.41	530.36	543.62	557.21
<b>Quarterly Consumption (as a fraction of Annual Consumption)</b>							
Quarter 1	(%)	22%	22%	22%	22%	22%	22%
Quarter 2	(%)	24%	24%	24%	24%	24%	24%
Quarter 3	(%)	29%	29%	29%	29%	29%	29%
Quarter 4	(%)	25%	25%	25%	25%	25%	25%
		100%	100%	100%	100%	100%	100%
<b>Tier 1 Consumption</b>							
0	(kL)	0.00	0.00	0.00	0.00	0.00	0.00
25	(kL)	25.00	25.00	25.00	25.00	25.00	25.00
50	(kL)	50.00	50.00	50.00	50.00	50.00	50.00
75	(kL)	75.00	75.00	75.00	75.00	75.00	75.00
100	(kL)	100.00	100.00	100.00	100.00	100.00	100.00
125	(kL)	125.00	125.00	125.00	125.00	125.00	125.00
150	(kL)	150.00	150.00	150.00	150.00	150.00	150.00
175	(kL)	173.73	173.73	173.73	173.73	173.73	173.73
200	(kL)	190.80	190.80	190.80	190.80	190.80	190.80
225	(kL)	198.66	198.66	198.66	198.66	198.66	198.66
250	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
275	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
300	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
325	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
350	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
375	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
400	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
425	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
450	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
475	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
500	(kL)	200.02	200.02	200.02	200.02	200.02	200.02

Note [20]

Note [19]

525	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
550	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
575	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
600	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
625	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
650	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
675	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
700	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
725	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
750	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
775	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
800	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
825	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
850	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
875	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
900	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
1,000	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
2,000	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
5,000	(kL)	200.02	200.02	200.02	200.02	200.02	200.02
10,000	(kL)	200.02	200.02	200.02	200.02	200.02	200.02

**Annual Bill**

0	(\$ p.a.)	700.48	592.02	607.97	629.70	645.44	661.58
25	(\$ p.a.)	761.23	655.77	673.97	693.62	710.96	728.74
50	(\$ p.a.)	821.98	719.52	739.97	757.55	776.49	795.90
75	(\$ p.a.)	882.73	783.27	805.97	821.47	842.01	863.06
100	(\$ p.a.)	943.48	847.02	871.97	885.40	907.53	930.22
125	(\$ p.a.)	1,004.23	910.77	937.97	949.32	973.06	997.38
150	(\$ p.a.)	1,064.98	974.52	1,003.97	1,013.25	1,038.58	1,064.55
175	(\$ p.a.)	1,128.81	1,041.50	1,073.33	1,080.43	1,107.44	1,135.12
200	(\$ p.a.)	1,208.84	1,125.48	1,160.35	1,164.72	1,193.83	1,223.68
225	(\$ p.a.)	1,311.24	1,232.94	1,271.77	1,272.63	1,304.45	1,337.06
250	(\$ p.a.)	1,429.43	1,356.97	1,400.42	1,397.24	1,432.17	1,467.97
275	(\$ p.a.)	1,550.93	1,484.47	1,532.67	1,525.33	1,563.46	1,602.55
300	(\$ p.a.)	1,672.43	1,611.97	1,664.92	1,653.42	1,694.76	1,737.13
325	(\$ p.a.)	1,793.93	1,739.47	1,797.17	1,781.51	1,826.05	1,871.70
350	(\$ p.a.)	1,915.43	1,866.97	1,929.42	1,909.61	1,957.35	2,006.28
375	(\$ p.a.)	2,036.93	1,994.47	2,061.67	2,037.70	2,088.64	2,140.86
400	(\$ p.a.)	2,158.43	2,121.97	2,193.92	2,165.79	2,219.94	2,275.44
425	(\$ p.a.)	2,279.93	2,249.47	2,326.17	2,293.89	2,351.23	2,410.01
450	(\$ p.a.)	2,401.43	2,376.97	2,458.42	2,421.98	2,482.53	2,544.59
475	(\$ p.a.)	2,522.93	2,504.47	2,590.67	2,550.07	2,613.82	2,679.17
500	(\$ p.a.)	2,644.43	2,631.97	2,722.92	2,678.16	2,745.12	2,813.75

525	(\$ p.a.)	2,765.93	2,759.47	2,855.17	2,806.26	2,876.41	2,948.32
550	(\$ p.a.)	2,887.43	2,886.97	2,987.42	2,934.35	3,007.71	3,082.90
575	(\$ p.a.)	3,008.93	3,014.47	3,119.67	3,062.44	3,139.00	3,217.48
600	(\$ p.a.)	3,130.43	3,141.97	3,251.92	3,190.54	3,270.30	3,352.06
625	(\$ p.a.)	3,251.93	3,269.47	3,384.17	3,318.63	3,401.59	3,486.63
650	(\$ p.a.)	3,373.43	3,396.97	3,516.42	3,446.72	3,532.89	3,621.21
675	(\$ p.a.)	3,494.93	3,524.47	3,648.67	3,574.81	3,664.18	3,755.79
700	(\$ p.a.)	3,616.43	3,651.97	3,780.92	3,702.91	3,795.48	3,890.37
725	(\$ p.a.)	3,737.93	3,779.47	3,913.17	3,831.00	3,926.78	4,024.94
750	(\$ p.a.)	3,859.43	3,906.97	4,045.42	3,959.09	4,058.07	4,159.52
775	(\$ p.a.)	3,980.93	4,034.47	4,177.67	4,087.19	4,189.37	4,294.10
800	(\$ p.a.)	4,102.43	4,161.97	4,309.92	4,215.28	4,320.66	4,428.68
825	(\$ p.a.)	4,223.93	4,289.47	4,442.17	4,343.37	4,451.96	4,563.26
850	(\$ p.a.)	4,345.43	4,416.97	4,574.42	4,471.46	4,583.25	4,697.83
875	(\$ p.a.)	4,466.93	4,544.47	4,706.67	4,599.56	4,714.55	4,832.41
900	(\$ p.a.)	4,588.43	4,671.97	4,838.92	4,727.65	4,845.84	4,966.99
1,000	(\$ p.a.)	5,074.43	5,181.97	5,367.92	5,240.02	5,371.02	5,505.30
2,000	(\$ p.a.)	9,934.43	10,281.97	10,657.92	10,363.74	10,622.83	10,888.40
5,000	(\$ p.a.)	24,514.43	25,581.97	26,527.92	25,734.89	26,378.26	27,037.71
10,000	(\$ p.a.)	48,814.43	51,081.97	52,977.92	51,353.47	52,637.30	53,953.23

**Change Annual Bill**

0	(\$ p.a.)		-108.46	15.95	21.73	15.74	16.14
25	(\$ p.a.)		-105.46	18.20	19.65	17.34	17.77
50	(\$ p.a.)		-102.46	20.45	17.58	18.94	19.41
75	(\$ p.a.)		-99.46	22.70	15.50	20.54	21.05
100	(\$ p.a.)		-96.46	24.95	13.43	22.13	22.69
125	(\$ p.a.)		-93.46	27.20	11.35	23.73	24.33
150	(\$ p.a.)		-90.46	29.45	9.28	25.33	25.96
175	(\$ p.a.)		-87.31	31.83	7.10	27.01	27.69
200	(\$ p.a.)		-83.36	34.87	4.36	29.12	29.85
225	(\$ p.a.)		-78.30	38.83	0.86	31.82	32.61
250	(\$ p.a.)		-72.46	43.45	-3.18	34.93	35.80
275	(\$ p.a.)		-66.46	48.20	-7.34	38.13	39.09
300	(\$ p.a.)		-60.46	52.95	-11.50	41.34	42.37
325	(\$ p.a.)		-54.46	57.70	-15.65	44.54	45.65
350	(\$ p.a.)		-48.46	62.45	-19.81	47.74	48.93
375	(\$ p.a.)		-42.46	67.20	-23.97	50.94	52.22
400	(\$ p.a.)		-36.46	71.95	-28.12	54.14	55.50
425	(\$ p.a.)		-30.46	76.70	-32.28	57.35	58.78
450	(\$ p.a.)		-24.46	81.45	-36.44	60.55	62.06
475	(\$ p.a.)		-18.46	86.20	-40.60	63.75	65.35
500	(\$ p.a.)		-12.46	90.95	-44.75	66.95	68.63

525	(\$ p.a.)	-6.46	95.70	-48.91	70.16	71.91
550	(\$ p.a.)	-0.46	100.45	-53.07	73.36	75.19
575	(\$ p.a.)	5.54	105.20	-57.22	76.56	78.48
600	(\$ p.a.)	11.54	109.95	-61.38	79.76	81.76
625	(\$ p.a.)	17.54	114.70	-65.54	82.97	85.04
650	(\$ p.a.)	23.54	119.45	-69.70	86.17	88.32
675	(\$ p.a.)	29.54	124.20	-73.85	89.37	91.60
700	(\$ p.a.)	35.54	128.95	-78.01	92.57	94.89
725	(\$ p.a.)	41.54	133.70	-82.17	95.78	98.17
750	(\$ p.a.)	47.54	138.45	-86.32	98.98	101.45
775	(\$ p.a.)	53.54	143.20	-90.48	102.18	104.73
800	(\$ p.a.)	59.54	147.95	-94.64	105.38	108.02
825	(\$ p.a.)	65.54	152.70	-98.80	108.58	111.30
850	(\$ p.a.)	71.54	157.45	-102.95	111.79	114.58
875	(\$ p.a.)	77.54	162.20	-107.11	114.99	117.86
900	(\$ p.a.)	83.54	166.95	-111.27	118.19	121.15
1,000	(\$ p.a.)	107.54	185.95	-127.89	131.00	134.28
2,000	(\$ p.a.)	347.54	375.95	-294.18	259.09	265.57
5,000	(\$ p.a.)	1,067.54	945.95	-793.03	643.37	659.46
10,000	(\$ p.a.)	2,267.54	1,895.95	-1,624.45	1,283.84	1,315.93

**Change Annual Bill**

0	(%)	-15.5%	2.7%	3.6%	2.5%	2.5%
25	(%)	-13.9%	2.8%	2.9%	2.5%	2.5%
50	(%)	-12.5%	2.8%	2.4%	2.5%	2.5%
75	(%)	-11.3%	2.9%	1.9%	2.5%	2.5%
100	(%)	-10.2%	2.9%	1.5%	2.5%	2.5%
125	(%)	-9.3%	3.0%	1.2%	2.5%	2.5%
150	(%)	-8.5%	3.0%	0.9%	2.5%	2.5%
175	(%)	-7.7%	3.1%	0.7%	2.5%	2.5%
200	(%)	-6.9%	3.1%	0.4%	2.5%	2.5%
225	(%)	-6.0%	3.1%	0.1%	2.5%	2.5%
250	(%)	-5.1%	3.2%	-0.2%	2.5%	2.5%
275	(%)	-4.3%	3.2%	-0.5%	2.5%	2.5%
300	(%)	-3.6%	3.3%	-0.7%	2.5%	2.5%
325	(%)	-3.0%	3.3%	-0.9%	2.5%	2.5%
350	(%)	-2.5%	3.3%	-1.0%	2.5%	2.5%
375	(%)	-2.1%	3.4%	-1.2%	2.5%	2.5%
400	(%)	-1.7%	3.4%	-1.3%	2.5%	2.5%
425	(%)	-1.3%	3.4%	-1.4%	2.5%	2.5%
450	(%)	-1.0%	3.4%	-1.5%	2.5%	2.5%
475	(%)	-0.7%	3.4%	-1.6%	2.5%	2.5%
500	(%)	-0.5%	3.5%	-1.6%	2.5%	2.5%

525	(%)	-0.2%	3.5%	-1.7%	2.5%	2.5%
550	(%)	0.0%	3.5%	-1.8%	2.5%	2.5%
575	(%)	0.2%	3.5%	-1.8%	2.5%	2.5%
600	(%)	0.4%	3.5%	-1.9%	2.5%	2.5%
625	(%)	0.5%	3.5%	-1.9%	2.5%	2.5%
650	(%)	0.7%	3.5%	-2.0%	2.5%	2.5%
675	(%)	0.8%	3.5%	-2.0%	2.5%	2.5%
700	(%)	1.0%	3.5%	-2.1%	2.5%	2.5%
725	(%)	1.1%	3.5%	-2.1%	2.5%	2.5%
750	(%)	1.2%	3.5%	-2.1%	2.5%	2.5%
775	(%)	1.3%	3.5%	-2.2%	2.5%	2.5%
800	(%)	1.5%	3.6%	-2.2%	2.5%	2.5%
825	(%)	1.6%	3.6%	-2.2%	2.5%	2.5%
850	(%)	1.6%	3.6%	-2.3%	2.5%	2.5%
875	(%)	1.7%	3.6%	-2.3%	2.5%	2.5%
900	(%)	1.8%	3.6%	-2.3%	2.5%	2.5%
1,000	(%)	2.1%	3.6%	-2.4%	2.5%	2.5%
2,000	(%)	3.5%	3.7%	-2.8%	2.5%	2.5%
5,000	(%)	4.4%	3.7%	-3.0%	2.5%	2.5%
10,000	(%)	4.6%	3.7%	-3.1%	2.5%	2.5%