BEFORE THE PUBLIC UTILITY COMMISSION OF OREGON

UG 344

In the Matter of)
Northwest Natural Gas Company,)
Request for a General Rate Revision.)
)

PHASE II -REBUTTAL TESTIMONY OF THE OREGON CITIZENS' UTILITY BOARD

December 12th, 2018



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	rthwest Natural Gas Company.) PHASE II -REBUTTAL TESTIMONY) OF THE OREGON) CITIZENS' UTILITY BOARD)
	I. INTRODUCTION AND SUMMARY
Q	. Please state your name, occupation, and business address.
A	. My name is Bob Jenks. I am the Executive Director of Oregon Citizens' Utility
	Board (CUB). My name is William Gehrke. I am an Economist employed by
	Oregon Citizens' Utility Board (CUB). Our business address is 610 SW
	Broadway, Ste. 400 Portland, Oregon 97205.
Q	. Please describe your educational background and work experience.
A	Our witness qualification statements found in exhibit CUB/101.
Q	2. What is the purpose of your testimony?
A	. The purpose of our testimony is to respond to NW Natural's Phase II Opening
	Testimony and Supplemental Testimony. In this docket, CUB does not believe that
	a prudence review of the PBA is appropriate. CUB recommends amortizing the
	pension balancing account with Commission's 2019 modified blended treasury

- 1 rate. CUB supports using interim period tax savings and EDIT to offset the impacts of addressing the pension balancing account. 2
- O. What concerns did the Commission have about the Second Stipulation? 3
- The Commission was concerned that there was "insufficient support in the record 4 5 to conclude that the entirety of the pension balancing account very significant 6 current balance is subject to recovery from ratepayers without a prudence review or earnings test." 1

PRUDENCY OF THE PENSION BALANCING ACCOUNT II.

- Q. Do you agree with NW Natural's testimony concerning a background on FAS 87² and pensions³?
- **A.** Yes. CUB agrees with much of the Company's testimony– particularly with respect 11 to FAS 87. However, when the Company discusses pension contributions, 12 investments and overall pension liability, the utility has a much greater role than it 13 admits. CUB cannot support NW Natural's assertion that it acted prudently in how 14 it managed its pension. 4 CUB believes that it is very difficult to deconstruct 15 pension funding and making prudence judgements as to historic management of the 16 pension. 17
 - O. What is FAS 87?

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- **A.** FAS 87 is an accounting standard for reporting pension costs on an accrual basis. 19
- There are two ways to view pension costs: cash basis or accrual basis. 20
- Recognizing pensions on a cash basis means focusing on when a company makes a 21

¹ OPUC Order No. 18-419 at 18.

² UG 344, NW Natural/ 2800/ Wilson/8-9.

³ UG 344, NW Natural/ 2800/ Wilson/5-7.

⁴ UG 344, NW Natural/ 2800/ Wilson/5/Lines 5-9.

- 1 contribution to the pension fund – recognizing when the company has to spend cash on the pension. Recognizing pensions on an accrual basis means focusing on the 2 change in pension cost attributed to an individual year, regardless of whether the 3 utility made cash contribution that year. FAS 87 can be positive or negative. But 4 as CUB pointed out in UM 1633, when FAS 87 is negative – and therefore a credit 5 6 that offset utility costs – customer often did not see the benefit of the negative FAS 87. One outcome of UM 1633 was a clear policy that FAS 87 is the basis for 7 ratemaking in Oregon, so there is now clarity that when FAS 87 is negative it 8 9 should be used to offset other costs.
- There are four components that affect FAS 87 expense:
- 1. Service Cost benefits accrued during the year for pension participants.
- Interest cost interest on future pension liability. Essentially, this is the time value
 of money and represents a discount on future liability to pensioners. A higher
 interest rate represents a larger discount rate. A higher discount rate would reduce
 current FAS 87 expense.
- 3. Expected Return on pension assets. The expected return on pension assets is not a short-term forecast of investment returns. Returns on stocks and bonds vary from year to year. The expected return of pension assets represents what the utility can expect to earn on its pension investment over the future life of the pension.
- 4. Amortization of unrecognized costs This is the change in liability due to changes
 in the plan, or actuarial assumptions that are often spread over a number of years.
 - Q. Does the Company have any control over FAS 87 Expense?

1 **A.** There are elements of FAS 87 that a utility can influence and other areas where a utility cannot influence FAS 87. The utility is the entity that decided to offer the 2 pension plan and defined the benefits that participants will receive. The amount of 3 these benefits impact the service cost of the pension. The interest cost is largely 4 established by interest rates. From the Great Recession of 2008 to 2016, the Federal 5 6 Reserve held interest rates low to decrease the cost of borrowing and to stimulate the economy. This drawn-out period of low interest rates increased FAS 87 because 7 future benefits were not discounted as much as they would have been with higher 8 9 interest rates. The Company has control over the asset allocation of its pension. The asset 10 allocation of the pension plan is the element where the utility has the greatest 11

influence. First, the utility invests the pension assets in stocks, bonds and other assets

to achieve a return on the asset. Second, it is the utility that decides when and how

much to contribute to the plan in cash contributions and thus contributing to the size

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of the plan assets.

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Q. NW Natural states that the Company has "limited discretion as to the level" of pension contributions. Do you agree with the Company's statement?

A. The Company has a good deal more discretion than it currently exercises. In order to maintain the integrity of pension funds, the federal government has established requirements that mandate minimum funding levels. However, pension sponsors are allowed to make contributions above that minimum level. While NWN is

correct in that there are tax penalties that act as a cap on funding levels, there is a wide disparity between the minimum required contributions and maximum tax-deductible contributions⁵. While NWN currently only makes pension contributions at the minimum level, before the Pension Balancing Account was established it did make contributions above the minimum – in 2005 and 2009 NWN made pension contributions that were well above the required minimum. ⁶.

Q. How much control does a utility have on the investment returns of pension assets?

A. A utility invests its pension assets in financial instruments in order to receive a return. Through its pension asset allocation, the utility has a great deal of influence over the expected investment returns of its assets. Historically, higher risk assets such as equity have yielded higher returns than fixed income investments.

However, equities' return is subject to more risk. There is an equity risk premium between equity and fixed income investments. Looking at the history of pension management by NWN shows annual returns on pension assets that are as high as 16.49% but also show a year where the pension lost 27.8% of its value. There are similar results for PacifiCorp, where the range of return on its pension asset ranged from a high of 28.47% to a low of -23.18%. It is important to note that it is these investment returns, not pension contributions that are "the main driver in the

⁵ UM 1633, NWIGU-ICNU/300/Smith/6.

⁶ UM 1633, CUB/300 Jenks-McGovern/16.

⁷ CUB Exhibit 501

⁸ UM 1633 – CUB Exhibit 105

⁹ UM 1633 – CUB Exhibit 106

- change of a pension asset." ¹⁰ Portland General Electric's pension provides

 evidence of investment returns being the driver of pension asset values. Portland

 General Electric's pension yielded an annual return of 16% from 1991 to 1999.

 This growth enabled the pension to double in value without any cash
 - Q. Why can you not support NW Natural's claim that it acted prudently in how it managed its pension?

The largest area of influence NW Natural has over its pension is the asset allocation 8 9 of its pension funds; CUB is hesitant to recommend any prudence determination on how NW Natural invested its pension. In UM 1633, CUB reviewed 25 years of 10 history for all utilities regarding their pensions. Investments are subject to risk. 11 Some years, pensions experience a Bull market of extraordinary gains. Other years, 12 pension assets experience a Bear market of prolonged loses. It would be unfair to 13 the Company to classify the years of high losses as imprudent and the years of high 14 gains as prudent, when both are associated with the risk that a pension sponsor 15 takes on. A sponsor with a greater risk tolerance may see both higher returns and 16 17 higher losses. In addition, basing a prudence determination by the results of the investment is impermissible. Prudence is based on what the utility knew when it 18 19 made the decision, not after the fact determination of the results of that decision. 20 Theoretically, the Commission could look to the Company's investment risksrather than the results- to determine prudence, but this has problems. A pension 21

contributions¹¹.

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¹⁰ Accounting for Defined Benefit Pensions and other Postretirement Benefits, 2012 at 10. See http://www.towerswatson.com/en-US/Insights/IC-Types/Survey-Research-Results/2012/11/accounting-for-pensions-and-other-postretirement-benefits-2012.

¹¹ UM 1633, CUB/100 Jenks-McGovern/25-26

sponsor who wanted greater returns on its assets could make riskier investments, but that utility is also risking greater losses. Because underfunded pensions require additional cash contributions, which are not recognized for ratemaking (because rates are set on accrual accounting rather than cash accounting), the utility has a good incentive to manage its investments.

Q. Could the Commission make a prudence determination over the amount of pension contributions?

Theoretically, yes, but as long as the utility is making at least the minimum contribution and no more than the maximum contribution, CUB does not believe that is a wise idea. Because pension recovery is based on FAS 87 accrual accounting, a Commission finding that a utility should make additional cash contributions reduces short term earnings without any compensation to the utility shareholder.

Consider two utilities: Utility A and Utility B. Utility A makes only the minimum contributions, while Utility B regularly makes more than the minimum. All things equal, Utility A is more likely to have to keep making additional contributions because it only makes the minimum contribution to its pension. Since contributions reduce short term earnings, this means that shareholders see less earnings this year and additional lower earnings in later years. Utility B, which makes more than the minimum contribution, sees an even greater reduction in earning today, but less in future years. The UM 1633 data show that Oregon utilities have historically given

1		different consideration to contributions above the minimum. But such a difference
2		is not proof that one utility acted imprudently.
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4		While pension funding also affects the FAS 87 expense included in rates, the effect
5		on earnings likely drives the utility to choose a path of minimum funding or greater
6		than minimum funding.
7	Q.	Do you have further concerns about prudency of how a utility manages its
8		pension?
9	A.	Yes. It is important to note that the pension fund is an asset of the utility but it is
10		not reflected in rate base; Utility contributions are not recognized for ratemaking. If
11		the Commission prudence review found a utility's pension management was too
12		risky, or not risky enough, it is important to think about the consequences. If a
13		Commission found that a utility strategy was too conservative, and the utility
14		responded with a risky strategy, lost money and required a shareholder cash
15		contribution, the utility would complain that shareholders are not being
16		compensated for actions that the Commission forced on them.
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18		But, this doesn't mean that a Commission would never find a utility management
19		of its pension asset to be imprudent. It is not hard to imagine circumstances that
20		would be imprudent; for example if a utility invested its entire pension in affiliated
21		companies, or in cryptocurrency such as Bitcoin or Ethereum. But after viewing 25
22		years of pension data for all 6 regulated utilities in UM 1633, CUB did not see
23		anything that rose to that level of fundamental imprudence.

III. LESSONS LEARNED FROM UM 1633

2	Q.	Since UM 1633 came after the pension balancing account, how does it
3		inform your view of the pension balancing account?

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- A. UM 1633 allowed CUB to take a deep dive into utility pensions and examine the inner workings of the pensions of six regulated investor owned Oregon utilities.

 The most important lesson CUB learned was that the Pension Balancing Account was a mistake. Knowing what CUB knows today about pensions, we would have not agreed to the PBA stipulation. CUB would have recognized that the Pension Balancing Account was fundamentally flawed.
 - Q. How was NW Natural's Pension Balancing Account fundamentally flawed?
- The Pension Balancing Account was based on a multiyear forecast of FAS 87 11 expense. Today, CUB recognizes that there is no basis to make such a forecast. 12 Earlier, CUB discussed the 4 factors that influence FAS 87 – factors that are not 13 14 fully under the control of the utility. These 4 factors make a forecast impossible. 15 First, the biggest element is the return on the pension assets. While pension accounting includes "expected return on pension assets", this is a long term forecast 16 that reflects future recessions and economic expansion. It is not a forecast for the 17 18 following year and it tells us little about the expected performance next year, or the following year. Yet, the assumptions built into the PBR assumed this was an 19 20 accurate forecast for each year of the PBR. Second, interest rates have a large influence on how future liabilities are discounted and therefore have a large role in 21 determining FAS 87. It is impossible to predict interest rates over a 7-year period of 22 time. Third, minimum funding requirements are set by federal government and 23

periodically change. There is no basis to assume that they will not change over a multiyear period.

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This was observed during UM 1633. The docket lasted long enough (2012 to 2015) that CUB was able to observe that the utility forecasts of their pension

contributions and FAS 87 expense were outdated quickly¹².

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When CUB agreed to support the PBA stipulation, CUB believed that NW

Natural's forecast of its FAS 87 over the next few years was reasonable. After UM

1633, CUB recognized that this was foolish. 13

Q. Are there any other lessons from UM 1633 that are relevant to the PBA?

Yes. UM 1633 demonstrated that it was not a good idea to provide utilities a return 12 on one element of pension ratemaking, because this changes the incentive for how 13 that utility manages its pension. In UM 1633, utilities were asking for a rate of 14 return on their pre-paid pension assets (the accumulated difference between FAS 87 15 and cash contributions). However, this would incent utilities to overfund their 16 17 pensions. Cash contributions reduce FAS 87 expense, so making cash contributions increases the accumulated difference between FAS 87 and the cash 18 19 contribution. A utility looking for a rate based investment would simply have to 20 keep adding cash to its pension. In the case of the balancing account, NWN is getting a rate of return on the BPA, which grows by excess FAS 87 costs. This 21

¹² UM 1633 – Response Brief of the Oregon Citizens' Utility Board ¹³ Exhibit 502.

incents NWN to make minimum contributions to the pension, since this leads to larger FAS 87 costs, a larger PBA and greater earnings.

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- Utilities should manage their pensions prudently. Creating rates of returns on
 elements of the pension create incentives for the utility that could affect that
 management. The incentives created by the utility proposal in UM 1633 and the
 incentive provided by the BPA act in opposite directions.
- Q. Does CUB propose any adjustment to the balance of the pension balancing account?
- A. Yes. The balance of pension balancing account should be reduced to reflect the
 amount of pensions earned by unregulated activities. NW Natural's calculation of
 expense in the pension balancing account does not appear to exclude the amount
 earned by unregulated business. ¹⁴ Examples of NW Natural's unregulated
 operations include the Gill Ranch, Mist Storage and the attempted PGE-NW
 Natural Merger.

Q. Why did CUB agree to forgo an earnings test?

A. CUB agreed to forgo an earnings test to reduce uncertainty for ratepayers. As part
of the settlement, NW Natural withdrew an earnings test on the tax deferral and
other stipulating parties agreed to waive an earnings test on the pension balancing
account. CUB agreed to the second stipulation as part of a comprehensive
settlement. CUB has reviewed NWN's earnings during the PBA life and
acknowledges that applying an earnings test would reduce the PBA. However,
CUB recognizes that a parallel application of an earnings test to the tax deferral

¹⁴ UG 344, NWN/3001.

would offset the benefits of an earnings test on the BPA. In addition, CUB was a party to the original PBA and agreed at that time not to apply an earnings test to the PBA. Because the original stipulation relieved the company of having an earning test apply to the PBA, and because applying an earnings test consistently to both the PBA and the deferred income taxes offers no benefit to customers, CUB continues to support waiving an earning test on both.

IV. THE INTREST RATE OF THE PBA SHOULD BE AT THE COMMISION'S MODIFIED BLENDED TREASURY RATE.

Q. Does CUB propose a forward earnings test on the amortization of the pension balancing account?

- A. No. Pursuant to OAR 860-022-0070(6), NW Natural must file its test year results of operations for purposes of conducting an earnings review by May 1. The results of operations are presented in the Company Annual Earnings Review report. The amortization of the pension balancing account could be subject to an earnings test. CUB has carefully considered a forward earnings test. However, CUB does recognize that the Site Remediation and Recovery Mechanism and annual purchased gas adjustment already provide possible earnings sharing for NWN.
- Q. What mechanism can the Commission implement to mitigate the impact of the amortization of the pension balancing account on ratepayers?
- **A.** CUB recommends that the Commission change the interest rate on the amortization of PBA.

¹⁵ RG 40

1 Q. What interest rate has NW Natural used to calculate the Pension Balancing **Account ongoing interest?**

- **A.** The Company is booking interest for the pension balancing account at NW 3 Natural's authorized rate of return. 16 Barring an agreement between stakeholders. 4 the Company is requesting the amortization of the frozen pension balancing 5
- 6 account at the company's authorized rate of return.

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- Q. Is amortizing the pension balancing account at the Company's authorized 7 rate of return consistent with the terms of the PBA stipulation ¹⁷? 8
- 9 **A.** The Company's interpretation is not consistent with the terms of the PBA stipulation. The stipulation states that the **balancing account** will accrue interest at 10 NW Natural's current-authorized rate of return. The stipulation makes no reference 11 to interest rate of the amortization of balancing account once the PBA is terminated 12 as an ongoing mechanism. 13
- Q. What interest rate is appropriate for the frozen balance of the pension 14 balancing account? 15
- **A.** It is appropriate to use the Commission's Modified Blended Treasury Rate (MBT). 16 Historically, the Commissions used the MBT to be applied to deferred accounts 17 during amortization. The MBT is transparent and verifiable. ¹⁸ The Modified 18 Blended Treasury Rate is the two-week average yield of 1-year, 3-year and 5-year 19 20 treasury notes with a 100 basis point adder. The 100 basis point adder is meant to capture the risk premium between utility financing and Treasury Bonds. 21

https://www.puc.state.or.us/electric_gas/UM%201147%20MBT%20MBE%20UG%20221%20PURE%20 Rates.pdf

¹⁶ UG 344, NWN/2800/Wilson/14/ Lines 11-13.

¹⁷ UG 344, NWN/2800/Wilson/5/Lines 13-15.

¹⁸ See Generally,

1 Q. Why shouldn't the Commission approve the amortization of the remaining balancing of the PBA at the Company's Authorized rate of return? 2 **A.** The authorized rate of return is based on the return investments of alternative 3 investments with corresponding risks. Once the pension balancing account is 4 approved for amortization, NW Natural no longer is subject to the risk of non-5 6 recovery. If NW Natural's authorized rate of return is used in the amortization and is greater than funding the remaining balance of the pension balancing account, the 7 amortization of the pension balancing account would be a windfall for NW Natural 8 9 shareholders. **CONCLUSION** 10 Q. What does CUB recommend? 11 CUB recommends: 12 **A.** 1. The balance of the Pension Balancing Account can be reduced by the amounts 14 deferred in the Interim Period Tax Deferral and the EDIT adjustments. 2. The balance should be further reduced to reflect the amount of pensions earned 15 by unregulated activities. 16 3. Starting February 1st, 2019, the immediate amortization of the remaining balance 17 of the PBA over ten years. 18 4. Reduce the interest rate to the MBT. 19

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A. Yes.

Q. Does this conclude your testimony?

Assumptions – Asset Classes

Asset classes are described by their returns, volatility, and correlation with other asset classes

Expectations for individual asset classes were developed by the Towers Watson Asset Model as of October 2010

Return assumptions are net of fees assuming passive management (or minimum risk)

Return distributions incorporate fat tails

Correlations between return-seeking asset classes increase when fat-tail events occur

Simulated government yield curves and simulated corporate spreads are used in developing liability discount rates and returns on fixed income

Real Return asset class modeled as equal blend of TIPS, REITs, and commodities

	1ct Voar	1ct Voor Returns	10th Year	10th Year Returns	10 Year Returns	Returns
	Arithmetic	Standard	Arithmetic	Standard	Geometric	Standard Deviation
	Meali	Dewanon	Mean			
Equity Investments		;	ì	7000	7 40/	17 60/
Global (unhedged)	%9.6	23.4%	8.7%	16.0%	7.4%	0.0.71
Global (hedged)	9.2%	22.7%	8.4%	15.0%	7.2%	16.7%
US Equity	9.3%	24.6%	8.5%	16.3%	7.1%	18.0%
US Lame Cap	9.1%	24.8%	8.4%	16.2%	%6.9	18.1%
US Small Can	10.2%	30.0%	%0.6	21.1%	%8.9	23.1%
International (unhedged)	9.8%	27.3%	8.9%	18.7%	7.1%	20.6%
International (hedged)	9.1%	24.1%	8.4%	15.8%	7.0%	17.7%
International Developed	9.8%	27.4%	8.9%	18.8%	7.0%	20.6%
International Developed (hedged)	8.9%	24.2%	8.3%	15.8%	%6.9	17.7%
Emerging Market Fourity	10.6%	33.5%	9.2%	23.0%	6.4%	25.3%
Private Faulty	10.0%	32.1%	8.6%	21.5%	6.1%	23.8%
REITS	7.7%	20.0%	7.6%	14.0%	6.5%	15.3%
Infrastructure	8.6%	26.5%	7.4%	15.0%	6.2%	17.7%
Fixed Income	100 man and 100 ma	Street State Street Street			NEST CONTRACTOR OF THE PERSON	
US Investment Grade	0.8%	%0.9	5.1%	5.2%	3.4%	2.8%
Hiah Yield	5.4%	12.1%	7.1%	10.1%	6.1%	10.5%
Inflation-Indexed	0.3%	6.1%	4.4%	2.9%	2.0%	6.1%
Long Government	%6.0	13.3%	4.8%	6.6%	2.5%	11.0%
Long Credit	3.7%	15.8%	6.5%	12.8%	4.3%	14.0%
Long Government/Credit	2.3%	14.0%	2.6%	10.3%	3.5%	11.5%
Bank Loans	3.9%	9.2%	6.4%	7.5%	5.3%	8.0%
Emerging Market Debt	5.3%	12.0%	7.0%	10.0%	6.1%	10.4%
Cash	1.1%	1.3%	3.8%	2.6%	2.8%	2.4%
Alternatives				The second secon		
Real Estate	6.4%	12.0%	7.1%	10.0%	6.4%	10.4%
Hedge Fund-of-Funds	2.0%	7.6%	%2'9	7.2%	2.9%	7.3%
Commodities	3.5%	20.0%	6.2%	20.2%	3.6%	20.1%
Inflation	1.5%	1.5%	2.4%	2.5%	2.1%	2.3%

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Forecast of Current Target Allocation Pension Expense



\$20

\$10

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(\$10)

(\$20)

Pension expense \$15M in 2011 to \$0M in 2019 decrease from is expected to gradually

> %06 80% 70% %09 20%

accounting rules, calculated using expected to which are Expense current

Probability

30% 20% . 10% %0 -

annual pension exceed \$17M expense can percentile, At the 95th

2020

2019

2018

2017

2016

2015

2014

2013

2012

2011

2010

(\$30)

5th-25th percentile 25th-50th

50th-75th 75th-95th --- Prob > \$0

change

The probability of ision expense 2020 is 48% a positive

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		2020		(\$22)		(68)		(1-5)	(1.4)	90	g P	11.0	21	100	4/.8%	
		2019	10.41	(818)	1	(%)		O SA	1	9	9	1176	-	100 12	0.0%	
	0,00	2018	10401	(0.4)	104/	9	-	A		ď	3	1756	-	EE 30/	00.00	
	2047	/107	10701	(0.4)	10.01	(44)	6	70		œ.	3	410	9	50 00/	00.00	
	2000	20.04	(640)	(0.0)	(69)	(74)	ě	ţ	-	59		218	2	66 4%	20: +70	
	2015	2010	(42)	(14)	C	2	25	2	0.76	2	1	918	2	75.1%		
	2014		(83)	(2)	3	-	25		677	9	0,0	919		84.7%		
	2013		5		52		8		411	-	746	0 0		80.76		
	2012	-	25	1	517	1	\$13		715	-	212	9	,00	88.8%		
	2011	27.4	CL\$	276	012	27.6	212	1	\$15	2.1	\$12 212	2	100 004	80.0%		
	2010	***6	-	776	9	776	9	776	A		4	-	100 001	0.0.0		
	Percentile	744	100	25th	1007	50th	1000	7544			l95th		Dunh > \$0	200		

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