PUGET SOUND ENERGY

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October 30, 2001

Carole Washburn
Washington Utilities and Transportation Commission
P.O. Box 47250
Olympia, WA 98504-7250

Re: Puget Sound Energy Evaluation Report Required Pursuant to Docket UE-010410, Dated April 25, 2001

Dear Ms. Washburn:

Pursuant to the above-referenced order, Puget Sound Energy (PSE) is attaching a report evaluating the PEM Program from its conception through September 30, 2001. The attached Appendices are confidential and are proprietary in nature and are in a sealed envelope marked CONFIDENTIAL. Accordingly, with regard to these items, the Company claims confidentiality and protection from inspection or copying under WAC 480-09-015. As required by WAC 480-09-015(4), the Company identifies itself, its shareholders and its customers as the parties which might be directly affected by disclosure of the confidential information.

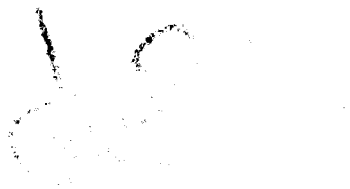
As part of the on-going effort to provide monthly updates concerning the PEM Pilot Program, PSE will commence filing monthly reports, commencing November 20, 2001, as required in the Docket UE-011212 (Order Granting Accounting Petition and Requiring Monthly Reports and Customer Notice), dated September 26, 2001.

Also, PSE is submitting its analysis with respect to the CIC program. As the Commission is aware, PSE has filed both a Petition and a proposed tariff filing to address growing losses associated with this particular program.

Sincerely,

Steve Secrist
Director, Rates and Regulations

Attachments



PUGET SOUND ENERGY TIME-OF-DAY PRICING PILOT PROGRAM EVALUATION REPORT OCTOBER 30, 2001

Introduction

PSE presents herein the results of a comprehensive evaluation of the Time-of-Day (TOD) pricing pilot program required by the Washington Utilities and Transportation Commission in Docket No. UE-010410, Order Granting Accounting Petition and Requiring An Evaluation Report. It updates the evaluation results filed as attachments to the Company's request for continuation of its TOD pricing program, Advice No. 2001-36 under Docket No. UE-011211.

PSE also provides in this report a description of the program, key overall conclusions from the evaluation, energy load impacts, customer survey, and customer advisory panel results. Technical appendices with detailed descriptions of analysis methods and results are included at the end of this report.

Key Conclusions

The results of this comprehensive evaluation of the TOD pricing program allow the following general conclusions to be drawn:

- The program resulted in load shifting from peak to off-peak time periods and overall load reduction (conservation).

- Customer opinions and perceptions of the program were positive.

TOD Program Description

Puget Sound Energy (PSE) introduced the TOD pricing pilot program in May 2001 to approximately 300,000 residential electric customers. Although the TOD Pricing program became effective May 1, 2001, PSE customers were put into the program through the month of May, according to individual customer billing cycles. Customers therefore first saw TOD prices reflected in their June bills. Participating customers had been receiving information about their electricity consumption by time-of-day period since December 2000, as part of the Company's Personal Energy Management program.

Customers received written notification that they would be participating in the TOD pricing program as well as information on how to exercise their option to be removed from the program, if they wished. The Company also implemented a customer communication and education campaign to explain how TOD pricing worked and suggested how customers could shift or reduce their energy use.

The TOD pricing program is designed to empower customers with the information and tools to better manage their energy use and costs. TOD pricing helps customers lower their power

consumption during the peak demand times of the day, and with TOD rates, customers are provided a financial incentive to shift usage to off-peak periods.

Under TOD pricing, the energy component in existing residential rates was reshaped over four time blocks each day, partially reflecting the actual shape of the Company's energy procurement costs. The differential between the highest peak prices and the lowest off-peak price was 24%.

The time periods and rate structure are summarized in the following table:

TOD Period	Hours in Period	Rate Structure
Morning	6AM – 10 AM Monday to Saturday	113% of existing flat rate
Midday	10AM – 5PM Monday to Saturday	Equal to existing flat rate
Evening	5 PM – 9 PM Monday to Saturday	113% of existing flat rate
Economy	9PM – 6AM Monday to Saturday; 24 hours Sundays and NERC holidays	91% of existing flat rate

The TOD rate also includes a Low Volume Credit for the first 600 kWh used each month.

Electric Load Impacts

TOD rates affect customer energy use in two ways:

- Load shifting – moving energy use from one time period to another, such as washing clothes on Sundays instead of weekday evenings.
- Load reduction – reducing overall energy use through conservation activities.

The Brattle Group has conducted an analysis of both types of load impacts for PSE. This analysis covers the billing months of June to September (for energy consumption from May through part of September, depending on customer billing cycle). A complete detailed report on the analytical methods and results is included in Appendix I.

The load *shift* analysis statistically compares actual consumption of each time block under the TOD pricing program with a modeled estimate of what consumption would have been if the program participants continued to be charged the current flat rate and received TOD usage data on an information-only basis. The modeled estimate of what consumption would have been in the absence of the program was based on actual TOD usage patterns for a comparison group of residential customers who remained on the Personal Energy Management TOD information-only (IO) program.

Comparing TOD pricing to IO customers, there is strong shifting behavior of similar magnitude in all four months, June, July, August, and September. The estimated statistical impacts are as follows:

LOAD SHIFT RESULTS PER CUSTOMER
BY TOD PERIOD
JUNE, JULY, AUGUST AND SEPTEMBER

		June		July		August		September	
Rate	Period	Difference kWH	Percent Difference	Difference kWH	Percent Difference	Difference kWH	Percent Difference	Difference kWH	Percent Difference
Residential	Morning	-5.9	-5.0%	-4.8	-4.8%	-3.9	-4.0%	-4.1	-4.0%
Residential	Midday	-4.2	-2.4%	-3.0	-1.7%	-1.9	-1.1%	-3.2	-1.8%
Residential	Evening	-6.6	-5.1%	-5.5	-4.7%	-4.7	-3.9%	-4.7	-3.6%
Residential	Economy	18.2	5.7%	15.5	5.2%	15.2	5.4%	16.4	5.5%

Starting immediately in June, TOD rates show a statistically significant reduction in usage during both the TOD morning (6 a.m. to 10 a.m.) and evening (5 p.m. to 9 p.m.) peak rate periods.

- The average TOD customer used less energy during peak rate periods than he/she would have used if given time-of-day information and charged the flat rate.
- Morning and evening reductions were about the same, and rather impressive when compared to evidence from other TOD experiments and given the short time TOD rates were in effect.

In the midday period (10 a.m. to 5 p.m.), TOD rates also reduced usage.

- The amount is smaller but still statistically significant, despite no price change.
- This may be due to complementary energy usage patterns between the morning, midday and evening periods, *i.e.*, efforts to change use in the morning and evening may result in similar changes in the midday.

The results for July, August, and September are essentially the same as for June. These results are somewhat surprising, because it is reasonable to expect the impacts might be smaller in June, the first full month of the program, since the process of learning and making adjustments to TOD rates takes time. Customers appear to have been high on the "learning curve" from events and information that came before they joined the TOD program. These TOD "treatment" customers were on the PEM Information Only program before being charged TOD rates, and may have had increased energy awareness.

Both TOD and comparison customers were eligible for the Conservation Incentive Credit (CIC) program, a program also introduced in May 2001. However, the CIC program had little or no effect on the TOD load shifting results. The effects of the CIC program are held constant in estimating the impacts of TOD rates because the CIC program was promoted to both groups. Consequently, the TOD shifting analysis was unable to discern conservation effects from TOD rates. A separate analysis of load reduction impacts was conducted, with results summarized below.

Load *reduction* (conservation) effects are measured as the difference between electricity consumption in the current month (e.g., June 2001) and electricity consumption in the same month of the previous year (e.g., June 2000). The analysis makes adjustments for weather and differences in billing period length.

Conservation effects are calculated for three groups: (1) TOD pricing customers, (2) TOD information-only (IO) customers, and (3) all other residential customers, i.e., customers not receiving TOD usage information. The third group is included to provide a comparison of customers receiving TOD information with those that do not. Comparisons between these groups are somewhat suggestive, because, although the first two groups are basically similar to each other, we do not know how comparable the third group is to the first two in terms of determinants of energy use other than receiving TOD information.

Conservation is measured as the change in year-to-year consumption for individual billing months, where consumption in the earlier year (2000) is weather-adjusted to the same weather in the later year (2001). Analyses are conducted for two months before the TOD pricing program and conservation incentive credit were introduced (March and April), and four months after (June through September). All analysis was based on average daily consumption, to account for any differences in customer billing cycle lengths between 2001 and 2000.

All groups increased usage in March and April from the previous year. The smallest increases occurred for TOD customers and the largest occurred for the "other" customers. In contrast, all groups decreased energy use from the previous years for the months June through September, i.e., after the PSE programs were introduced. In this case, TOD customers decreased their consumption the most, and customers not receiving TOD information decreased their consumption the least.

CONSERVATION ESTIMATES PER CUSTOMER
2001 ACTUAL COMPARED TO 2000 WEATHER-ADJUSTED ELECTRICITY USAGE
PER DAY IN THE BILLING CYCLE

		TOD Rate		TOD Info-Only		All Other Res.	
Rate	Period	Difference (kWH)	Percent Difference	Difference (kWH)	Percent Difference	Difference (kWH)	Percent Difference
Residential	Mar	2.4	6.6%	2.8	7.6%	3.9	9.0%
Residential	Apr	2.2	6.6%	2.3	7.1%	3.2	8.5%
Residential	Jun	-1.9	-7.2%	-1.8	-7.0%	-1.7	-6.0%
Residential	Jul	-1.8	-7.4%	-1.8	-7.3%	-1.4	-4.9%
Residential	Aug	-1.6	-6.7%	-1.5	-6.4%	-1.4	-5.5%
Residential	Sep	-1.0	-4.2%	-0.9	-3.8%	-1.0	-3.6%

It seems clear that residential customers consumed significantly less electricity commencing in June 2001, and for reasons other than weather or widespread general awareness of an "energy crisis". The results suggest that TOD rates and information may result in higher levels of conservation than no TOD programs. The drought in the Pacific Northwest, the declaration of the state of emergency by the Governor, and the energy crisis in the West may have contributed to a heightened awareness of energy use by customers. However, these stories had received heavy media coverage prior to the

introduction of PSE's programs, so these influences would presumably have shown up in the March and April results prior to the introduction of PSE's programs.

Customer Survey Summary

The company conducted a telephone survey of a random sample of 821 TOD pricing program participants during the latter half of July 2001. The survey was intended to address customer awareness and understanding of the program, satisfaction with the program and energy management actions taken. Detailed survey results, as well as the complete survey questionnaire and a description of the sampling methodology are presented in Appendix II.

The survey found that customer response to the program was overall very positive.

Customers understand the program.

- Customers like the program information they received from PSE
  - 85% - 90% of customers thought the program information received from PSE was meaningful and useful, easy to understand, and believable.

- Customers understand the time-of-day time periods
  - 99% of customers indicate that they understand the time-of-day time periods.

- Customers understand their new bills
  - 88% of customers find it easy to understand the time-of-day charges on their bill.

Customers are taking steps to manage their home energy use.

- Most customers are taking positive actions to alter their energy use patterns
  - 91% of participating customers have taken some action to alter their energy use.

- Customers report that they are both shifting and reducing electricity use
  - 89% of those who took some action reported shifting appliance use to another time of day.
  - 49% used their lights, appliances, water heat and space heat less.
  - 8% purchased more efficient appliances, lighting or other equipment
  - 2% used backup space heat more
  - 1% installed more insulation

Customers are satisfied with the program.

- The overall satisfaction of customers with the time-of-day program is high
  - 85% of customers are satisfied with the time-of-day program. Of those 85% of satisfied customers, 32% describe themselves as *extremely* satisfied with the time-of-day rate program.
  - 90% of customers would recommend the time-of-day rate program to a friend.

- The time-of-day rate program has made a positive change in customers' overall opinion of PSE.
  - Eleven times as many customers feel more favorable toward PSE than less favorable as a result of the time-of-day rate program (33% have a more favorable opinion while 3% have a less favorable opinion).

Customer Advisory Panels

Three customer advisory panels in Thurston, King and Whatcom counties held 4 weekly meetings between July 17th and August 9th, 2001. There were 16 participants on each panel and each member spent 12 hours studying and debating the program. Recruitment and panel selection practices made every attempt to have a wide-representation of our customer sectors. Both direct mail and print ads were used for recruitment. Vouchers for transportation and child-care were offered in an effort to attract low-income parents and homebound seniors. As a result the panels included seniors, working and stay-at-home customers, as well as disabled, low and fixed income and various education levels. Non-PSE facilitators and meeting recorders were used at all of the meetings.

The advisory program was designed to provide a high-level overview of the energy industry, market and general rate making concepts that would provide them with a backdrop as they were introduced to the PEM program fundamentals. The primary goal was to gather ideas, suggestions and hear concerns from both customers currently on TOD pricing and non-TOD customers.

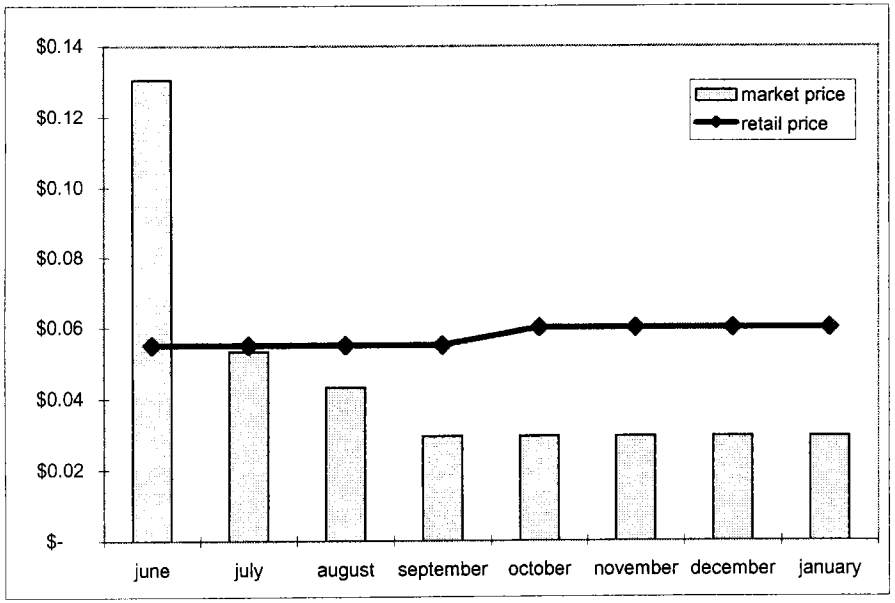
Below are the key panel themes on PEM and Time-of-Day Pricing:

- Appears to be a worthwhile approach that should be encouraged.
- PSE should collect data on customer use, benefits, motivational factors that are the best ways to stimulate participation.
- Price is one of several effective motivators; a more aggressive price structure may support greater participation in the time-of-day plan.
- Business should also be offered Time-of-Day options
- PEM provides needed elements for positive change (information, immediate feedback, and financial incentives), that allow for societal as well as personal benefits.

Summaries of the key issues and themes for each group, as well as detailed minutes from each panel meeting are included in Appendix III.

Scenario: 2 cent credit in Dec & Jan compared to 5 cent credit in Dec & Jan (prorated 3.5 cent credit in cal. Nov)

	10% and above of CIC customers					below 10% for CIC	below 10% for all others			Total		Cumulative	
	volume saved (10% & above) [MWh]	value of saved power [$/kWh]	value of saved power (10% & above) [b] * [c]	payments to customers	PSE saved power value (10% & above) [d] - [e]	volume saved by CIC customers between 0 & 10% [MWh]	volume saved by all others below 10% [MWh]	net volume saved [MWh] [g] + [h]	net value of power saved below 10% [c] * [i]	TOTAL PSE SAVED POWER VALUE [f] + [j]	TOTAL CUSTOMER CREDITS	Cumulative TOTAL PSE SAVED POWER VALUE	Cumulative TOTAL CUSTOMER CREDITS
[a]	[b]	[c]	[d]	[e]	[f]	[g]	[h]	[i]	[j]	[k]	[l]	[m]	[n]
june	68,927	0.0757	$ 5,215,337	$ 2,946,329	$ 2,269,008	49,992	(35,041)	14,951	$ 1,131,290	$ 3,400,298	$ 2,946,329	$ 3,400,298	$ 2,946,329
july	71,460	-0.0017	$ (121,725)	$ 3,573,015	$ (3,694,740)	48,939	(35,041) [1]	13,899	$ (23,675)	$ (3,718,415)	$ 3,573,015	$ (318,117)	$ 6,519,344
august	64,491	-0.0119	$ (764,967)	$ 3,224,552	$ (3,989,519)	47,136	(35,041) [1]	12,095	$ (143,469)	$ (4,132,988)	$ 3,224,552	$ (4,451,105)	$ 9,743,896
september	64,491	-0.0255	$ (1,646,792)	$ 3,224,552	$ (4,871,344)	47,136	(35,041) [1]	12,095	$ (308,855)	$ (5,180,198)	$ 3,224,552	$ (9,631,303)	$ 12,968,448
october	64,491	-0.0305	$ (1,969,247)	$ 3,224,552	$ (5,193,799)	47,136	(35,041) [1]	12,095	$ (369,331)	$ (5,563,130)	$ 3,224,552	$ (15,194,433)	$ 16,193,000
november	64,491	-0.0305	$ (1,969,247)	$ 2,257,186	$ (4,226,433)	47,136	(35,041) [1]	12,095	$ (369,331)	$ (4,595,764)	$ 2,257,186	$ (19,790,197)	$ 18,450,186
december	64,491	-0.0305	$ (1,969,247)	$ 1,289,821	$ (3,259,068)	47,136	(35,041) [1]	12,095	$ (369,331)	$ (3,628,399)	$ 1,289,821	$ (23,418,596)	$ 19,740,007
january	64,491	-0.0305	$ (1,969,247)	$ 1,289,821	$ (3,259,068)	47,136	(35,041) [1]	12,095	$ (369,331)	$ (3,628,399)	$ 1,289,821	$ (27,046,995)	$ 21,029
		2 cents in Dec, Jan	**$ 21,029,828**		**$(26,224,962)**			2 cents in Dec, Jan		**$ (27,046,995)**	**$ 21,029,828**		
		5 cents in Dec, Jan	**$ 25,866,656**		**$(31,061,790)**			5 cents in Dec, Jan		**$ (31,883,823)**	**$ 25,866,656**		
										$ 4,836,828			



[1] Estimated

Puget Sound Energy

Schedule	Revenue Code	Difference 2001 vs 2000 kWh - AR80	Difference 2001 vs 2000 Revenue - AR80	June-01 kWh - AR80	June-01 Revenue - AR80	June-00 kWh - AR80	June-00 Revenue - AR80	kWh CIC customers	number of CIC customers	
TOU 7	0	57,958,903	$ 3,436,271	57,958,903	$ 3,436,271	-	$ -	19,695,316	28,391	34%
TOU 17	0	104,522,468	$ 6,287,322	104,522,468	$ 6,287,322	-	$ -	26,563,863	36,934	25%
TOU 27	0	59,091,510	$ 3,526,611	59,091,510	$ 3,526,611	-	$ -	19,616,222	32,893	33%
7	0	(68,294,683)	$ (4,357,738)	76,916,021	$ 4,548,958	145,210,703	$ 8,906,696	22,955,444	27,256	30%
17	0	(125,535,312)	$ (8,112,275)	248,723,191	$ 14,739,146	374,258,503	$ 22,851,421	62763620	61991	25%
27	0	(59,739,601)	$ (3,793,209)	85,680,175	$ 5,202,041	145,419,776	$ 8,995,250			
37	0	(119,545)	$ (9,911)	2,023,586	$ 124,588	2,143,131	$ 134,499	538,421	803	27%
47	0	4,623	$ 111	33,257	$ 2,075	28,634	$ 1,964	8,040	22	24%
RES		**(32,111,635)**		**634,949,111**		**667,060,747**		**152,140,926**	**188,290**	**24%**
8	1	(44,337)	$ (83,101)	20,500,086	$ 1,131,016	20,544,423	$ 1,214,117	5,006,684	7,113	24%
10	1	35,160	$ 2,453	2,245,800	$ 88,094	2,210,640	$ 85,642	37,450	2	2%
11	1	1,928,959	$ 99,957	14,143,844	$ 737,951	12,214,885	$ 637,995	3,668,329	94	26%
12	1	(1,497,700)	$ (75,042)	739,640	$ 40,433	2,237,340	$ 115,475	339,620	3	46%
24	1	7,060,320	$ 96,404	159,835,110	$ 10,273,000	152,774,789	$ 10,176,596			
25	1	20,942,520	$ 1,006,585	202,669,215	$ 12,755,272	181,726,695	$ 11,748,686			
26	1	11,979,160	$ 652,296	120,990,965	$ 6,972,743	109,011,805	$ 6,320,447			
29	1	607,665	$ 19,932	1,364,690	$ 48,840	757,025	$ 28,907			
31	1	(1,878,130)	$ (133,853)	72,869,224	$ 3,619,317	74,747,354	$ 3,753,170			
48PV	1	1,551,015	$ 954,644	6,098,029	$ 1,272,203	4,547,014	$ 317,559			
35	1	283,200	$ 5,544	1,099,200	$ 20,698	816,000	$ 15,154			
43	1	399,368	$ 20,733	14,897,728	$ 862,942	14,498,361	$ 842,208	6,579,713	68	44%
49	1	1,478,875	$ 80,845	21,353,875	$ 926,052	19,875,000	$ 845,207			
48HV	1	(3,404,850)	$ 263,783	3,431,175	$ 685,920	6,836,025	$ 422,137			
55	1	1,206	$ 194	161,065	$ 32,811	159,858	$ 32,616			
56	1	(44,566)	$ (4,936)	189,824	$ 38,465	234,390	$ 43,400			
58	1	11,781	$ 2,096	134,857	$ 19,538	123,076	$ 17,442			
59	1	339	$ 98	4,980	$ 886	4,641	$ 788			
24	2	(672,323)	$ (77,847)	9,006,239	$ 565,994	9,678,562	$ 643,841			
25	2	(923,784)	$ (146,575)	22,197,519	$ 1,420,035	23,121,303	$ 1,566,611			
26	2	1,321,620	$ (13,033)	28,425,580	$ 1,612,265	27,103,960	$ 1,625,298			
31	2	(4,398,377)	$ (321,893)	46,964,185	$ 2,289,549	51,362,561	$ 2,611,442			
48PV	2	(5,293,736)	$ (335,842)	-	$ (275)	5,293,736	$ 335,568			
SCPV Small	2	(1,525,218)	$ (107,084)	3,104	$ 10,045	1,528,322	$ 117,129			
SCPV Large	2	1,223,668	$ 329,968	1,223,668	$ 329,968					
46	2	(1,793,000)	$ (87,037)	2,619,000	$ 93,010	4,412,000	$ 180,047	1,127,714	1	43%
49	2	1,159,000	$ 58,452	18,023,000	$ 765,071	16,864,000	$ 706,619	5,051,798	4	28%
48HV	2	(16,351,448)	$ 9,695,982	69,786,602	$ 14,679,719	86,138,050	$ 4,983,738			
SCHV Small	2	(51,941,040)	$ (1,247,339)	29,770,712	$ 3,620,079	81,711,752	$ 4,867,419			
SCHV Large	2	37,565,342	$ 9,099,393	37,565,342	$ 9,099,393					
0	3	-	$ -	588	$ 30	588	$ 30			
24	3	(19,085)	$ (2,346)	560,962	$ 35,784	580,047	$ 38,131			
25	3	2,250	$ (36)	60,600	$ 4,069	58,350	$ 4,105			
50	3	(4,566)	$ (424)	49,243	$ 4,033	53,808	$ 4,457			
52	3	97,423	$ 16,482	131,373	$ 20,924	33,950	$ 4,442			
53	3	85,431	$ 14,880	3,632,128	$ 714,543	3,546,697	$ 699,664			
54	3	1,443	$ 83	942,327	$ 69,801	940,884	$ 69,718			
57	3	(71,394)	$ (5,237)	891,263	$ 65,710	962,656	$ 70,948			
0	5	(2,373,787)	$ 1,393,210	9,036,467	$ 2,098,794	11,410,254	$ 705,584			
Total		(36,613,229)	$ 18,149,568	1,558,568,319	$ 114,891,736	1,595,181,548	$ 96,742,168	385,351,259		25%
Non-core		(40,550,054)	20,046,714	156,915,099	31,795,848	197,465,153	11,749,134	-		
Total Core	Res	(32,111,635)		634,949,111		667,060,747				
	Com (core)	41,335,961		617,944,257		576,608,296				
	Ind (core)	(2,933,076)		118,199,055		121,132,132		0.167577828		
		6,291,249		**1,371,092,424**		**1,364,801,175**				
					6,291,249					
CIC amounts	Res	(38,963,249)		(38,963,249)						
	Com	(23,546,278)		(23,546,278)						
	Ind	(5,680,869)		(5,680,869)						
		(68,190,397)								
	Residential	(71,074,885)	-11%	595,985,862						
	Commercial	17,789,683	3%	594,397,979						
	Industrial	(8,613,946)	-7%	112,518,186						
		(61,899,147)		**1,302,902,027**						
					61,899,147	5%				
				1.8%						
				28,054,230						
				75%						
				21,040,672						
				21,041						
						14,951				
						68,190				
						83,142	5.3%			
						1,558,568				