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PURSE PROJECT

Private Participation in Urban Services

PRELIMINARY REPORT

FINANCIAL ANALYSIS MODEL

PURSE Report No 102 01 1/94/019

Submitted by
Chemonics International
Jakarta, Indonesia

In association with
Resource Management International
Sheladia Associates

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BAPPENAS
DEPARTEMEN DALAM NEGERI

DEPARTEMEN KEUANGAN
DEP PEKERJAAN UMUM

PRELIMINARY REPORT

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SECTION I
DESCRIPTION OF FINANCIAL ANALYSIS MODEL

A Introduction

This report summarizes the deliverables completed by Mr David B Reed of Resource Management International, Inc (RMI) during his short-term technical assistance assignment for the Development of Financial Models for Environmental Infrastructure, Task 2 01, PURSE Project Workplan

The assignment was a continuation of the work in which Mr Eric Leuze and Mr Reed had been involved on the Development of Financial Models for Environmental Infrastructure, Task 2 01, PURSE Project Workplan

Mr Reed began his assignment on October 24, 1994 in Jakarta, where he first provided two davs of collaborative technical work with Mr Eric Leuze before his departure on October 26, 1994 Mr Reed stayed for approximately one month in Jakarta, departing on November 18, 1994

Mr Reed worked in collaboration with Mr Mark Williams, Urban Economic Advisor, Mr Michael Conlon, Demonstration Project Advisor, and Mr Robert Rerimassie, Project Development/Financial Specialist of PURSE Project staff on this assignment

During his assignment, Mr Reed (1) operationalized the model by preparing detailed formats for inputs, calculations and outputs for the three modules, (2) extended portions of the model for use in the solid waste sector so that the model can be utilized for the potential demonstration project in Mataram as data becomes available, (3) collaborated with Robert Rerimassie of PURSE Project staff to input data from the two potential demonstration projects where data was available (Balikpapan and Medan), and (4) delineated the primary elements of the financial analysis portion of the initial prefeasibility studies which will be undertaken on the four potential demonstration projects in the current group

The deliverables completed during the assignment included a brief presentation of the results of the data input utilized in the water sector model, an extension of the model to the solid waste sector, and preparation for a series of preliminary financial prefeasibility analyses of the first group of potential demonstration projects, based on data available

Before his departure, Mr Reed also completed a presentation on the model to the Tim Kerja, utilizing the preliminary financial data provided by the PDAM Balikpapan as an initial case study to illustrate the outputs which will be available on potential demonstration projects

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B Purpose of Financial Analysis Model

The financial analysis model developed for the PURSE Project allows the user to determine the financial condition of a PDAM which would sponsor a PURSE Project demonstration project both before and after the potential project is operational, and also to determine the preliminary financial feasibility of the potential demonstration projects from the point of view of both government officials and private investors

C Objectives of Financial Analysis Model

The financial analysis model is designed to meet several objectives

- First, it is designed to be ***flexible*** As such, it has been structured to accommodate all the usual planning and financial transactions for the PDAM For example, the financial analyst has the choice of amount and timing of capital additions, tariff levels, interest rates, and project costs to the PDAM

- The model is ***user friendly*** and includes clear documentation Generally, the user should be computer literate, familiar with Lotus 1-2-3 Version 5 for Windows, and have a good understanding of the potential demonstration project and PDAM operations, but does not have to be intimately familiar with the workings of the model

- The model also provides a means for the analyst to ***verify the results*** This is accomplished by presenting the calculations for each of the components of the financial statements This makes it relatively easy to track the development of the information, from the input and calculations to the final results

- Finally, the model is consistent with the Departemen Dalam Negeri (Ministry of Home Affairs) ***accounting standards*** The standard PDAM chart of accounts and regulations related to costs allowed for rate making have been followed in the development of the model

D Model Organization

The financial analysis model consist of three modules

- *Financial Results Module* for assessing the financial condition of the PDAM before consideration of a demonstration project, and the impacts of a demonstration project on the PDAM

- *Tariff Module* which develops consumption and revenues by rate class, as inputs to the Financial Results Module

- *Project Pre-feasibility Module* for assessing the preliminary financial feasibility of potential demonstration projects

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The model is developed in Lotus 1-2-3 Version 5 for Windows The three modules are designed to be integrated into a single presentation Each of the three modules is described briefly below

D1 Financial Results Module

The Financial Results Module (FRM) delineates the overall condition of a PDAM by generating pro forma financial statements and performance indicators for the PDAM for a period of up to twentv years

The module consists of data input work sheets, intermediate spreadsheets and output spreadsheets for income statement balance sheet sources and uses of funds and performance indicators The inputs consist of historical financial information and PDAM projections for sales and plant additions and new debt over the planning period The historical or base year costs are then escalated on the basis of the Consumer Price Index, number of customers, volume of water, or combinations of these, as appropriate

This module allows the user to compare the project to alternatives, determine the impact on its other investments in facilities and determine the level of rates required to support the project

D2 Tariff Module

The Tariff Module provides projected annual water consumption by customer class and sales revenues by class, both on present rates and rate levels which may be set by the analyst

Like the FRM, the Tariff Module requires data input for certain items such as present rate levels and historical sales by customer class and by tariff block The user has a choice of sales volumes projection methodologies Either growth rates by class or projected quantities by class may be utilized The analyst may increase or decrease average rate levels bv class in any year in the model planning period

The Tariff Module provides the consumption and sales revenue data to the FRM The FRM, in turn, provides the revenues requirements to the Tariff Module

D3 Project Prefeasibility Module

The Project Prefeasibility Module (PFAM) allows for the analysis of project financial feasibility on a preliminary basis The inputs for the module are first year operating and maintenance costs escalation rates and water production as well as financial parameters such as debt to equity ratios and required return on equity

The module allows the review of three cases (1) a reference case which calculates the annual price for water sales to the PDAM which will allow the required rate of return on equity to the investor, (2) a second case which allows the analyst to determine the return on equity of a specified price, and (3) the third case which calculates the required price for an alternative return on equity

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The prices resulting from this module are automatically transferred to the PDAM Financial Results Module as a cost of purchased water The operating costs may also be transferred to the Financial Results Module in the event that the project is a concession or a joint venture rather than a Build/Operate/Transfer (BOT)

E Presentation Materials

An initial set of presentation materials was produced for discussions with the Tim Kerja These materials review the purpose of the model, its organization and the principal inputs and outputs of each of the modules

When the presentation materials were reviewed with the Tim Kerja, a set of preliminary data from the PDAM Balikpapan was utilized to illustrate the model inputs and outputs As the data input is completed, the presentation materials will be augmented to include more detailed description of the mechanics of the model itself, and a broader financial analysis of more than one PDAM and project

The completed presentation materials will be incorporated into a training program produced in both English and Bahasa Indonesia, designed to be provided to PDAM managers and other local officials as part of a curriculum in both financial management and private sector involvement

F Status of Model

The model as presented herein is in a preliminary draft status significant programming of macros and refinement of the presentation formats will be undertaken for the next draft iteration, as the three modules are integrated into a single presentation Substantial additional programming and graphical effort will be completed to produce the final rendition of the model The final model will be specifically designed as a user friendly bilingual tool for Indonesian PDAM managers and local officials

SECTION II
PRELIMINARY OUTPUT OF FINANCIAL RESULTS MODULE

The major elements of the PDAM Financial Results Module (FRM), in its current preliminary form, are presented in this section These elements consist of four types of spreadsheets input spreadsheets intermediate calculation spreadsheets, intermediate output spreadsheets and summary output tables and spreadsheets Each of the elements is described briefly below

- Summary Output Formats

  These are the output tables and spreadsheets which summarize the financial condition of the PDAM They include an income statement, balance sheet, sources and uses of funds statement, and performance indicators

- Detailed Output Formats

  These are intermediate output spreadsheets which present the detail on income, operations and maintenance expense, plant and depreciation, and debt service

- Calculations Formats

  These are intermediate spreadsheets which provide detail on the calculation for depreciation, to permit the user to verify assumptions, amounts and methods of depreciation

- Input Formats

  These are the data input work sheets for the module The inputs consist of historical financial information and PDAM projections for sales and plant additions and new debt over the planning period The historical or base year costs are then escalated on the basis of the Consumer Price Index, number of customers, volume of water or combinations of these, as appropriate

The module is designed to generate both statements of financial condition and performance indicators for a PDAM for a period of up to twenty years, which permit the user to compare the project to alternatives, determine the impact on its other investments in facilities and determine the level of rates required to support the project

A. Summary Output Formats

Financial Results Module

PDAM Financial Results Module: Output

Income Statement		Base Year	Projected Years									
Account #	Item	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
60	OPERATING INCOME											
60 0	Water Income											
60 0 00	Water Sales	6 742 929	18 256 260 441	19 560 774 396	20 959 295 103	22 458 754 986	24 066 629 954	24 799 027 399	25 555 238 945	26 336 275 567	27 143 228 587	27 977 289 836
60 0 XX	Other Water Income	0	0	0	0	0	0	0	0	0	0	0
60 1	Nonwater Income	1 712 979	1 747 025	1 781 751	1 817 172	1 853 301	1 890 153	1 927 742	1 966 083	2 005 191	2 045 080	2 085 768
60	TOTAL OPERATING INCOME	8 455 908	18 258 007 465	19 562 556 149	20 961 112 275	22 460 608 287	24 088 520 107	24 800 955 141	25 557 205 028	26 338 280 758	27 145 271 668	27 979 355 604
	Less Operating Expenses,											
	Operations and Maintenance											
90	Water Source	736 537	1 178 183	1 235 884	1 262 723 136	1 262 793 228	1 262 884 952	1 263 034 098	1 263 246 055	1 263 323 358	1 263 404 453	1 263 489 557
91	Water Treatment	1 871 763	2 357 086	2 478 638	2 576 136	2 725 272	2 923 305	3 251 599	3 722 408	3 886 661	4 059 192	4 240 482
92	Transmission & Distribution Expens	812 876	888 764	915 427	942 890	971 177	1 000 312	1 030 321	1 061 231	1 093 068	1 125 860	1 159 636
95	General and Administrative Expens	1 424 439	1 933 566	1 994 549	2 057 512	2 122 521	2 189 646	2 258 962	2 330 540	2 404 458	2 480 795	2 559 635
	Subtotal	4 845 677	6 357 600	6 624 499	1 268 299 674	1 268 612 196	1 268 998 217	1 269 574 981	1 270 360 234	1 270 707 544	1 271 070 301	1 271 449 311
XX 9	Depreciation	4 681 467	4 006 179	4 108 180	4 108 181	4 408 182	4 411 183	4 411 184	4 411 185	4 411 186	4 411 187	4 461 188
	Amortization	1 171 096										
95 4	Interest Expense	1 995 669										
	Total Operating Expenses	12 493 909	10 363 779	10 732 678	1 272 407 855	1 273 020 378	1 273 409 400	1 273 986 184	1 274 771 419	1 275 118 730	1 275 481 488	1 275 910 499
	Net Operating Income	(4 038 001)	18 247 643 686	19 551 823 471	19 688 704 420	21 187 587 909	22 795 110 708	23 526 968 977	24 282 433 610	25 063 162 027	25 869 790 180	26 703 445 105
98	Non-Operating Income	405 899	405 899	405 899	405 899	405 899	405 899	405 899	405 899	405 899	405 899	405 899
	Subtotal	(3 632 102)	18 248 049 585	19 552 229 370	19 689 110 319	21 187 993 808	22 795 516 607	23 527 374 876	24 282 839 509	25 063 567 926	25 870 196 079	26 703 851 004
98	Non-Operating Expense	0	0	0	0	0	0	0	0	0	0	0
	Income Before Income Tax	(3 632 102)	18 248 049 585	19 552 229 370	19 689 110 319	21 187 993 808	22 795 516 607	23 527 374 876	24 282 839 509	25 063 567 926	25 870 196 079	26 703 851 004
	Income Tax	(544 815)	6 380 817 355	6 837 280 279	8 885 188 612	7 409 797 833	7 972 430 812	8 228 581 207	8 492 993 628	8 768 248 774	9 048 568 628	9 340 347 851
	NET INCOME	(3 087 287)	11 867 232 230	12 714 949 090	12 803 921 708	13 778 195 975	14 823 085 794	15 298 793 669	15 789 845 681	16 297 319 152	16 821 627 451	17 363 503 152

PDAM Financial Results Module Balance Sheet Inputs

Account #	Balance Sheet ASSETS	Basis of Projections	Base Year Balance
	CURRENT ASSETS		
10 & 11	Cash/Demand Deposits	Cash Flow	547 288
	Receivables		
12.0	Water Sales	Sales Revenues	1 291 631
12.1	Non-Water	GDP	156 046
12.2	Uncollectible Accounts	Revenues	8 694
13	Other	GDP	152 082
	Inventory		
14.0	Chemicals	Consumption	60 164
14.8	Other	O&M	97 353
15	Advance Payments	O&M	39 054
	TOTAL		2 352 312
	LONG TERM ASSETS		
20.0	Time Deposits	Base Year Amount	0
20.1	Investment - Stock	Base Year Amount	0
20.2	Investment - Tangible Assets	Base Year Amount	0
	FIXED ASSETS IN USE (PLANT IN SERVICE)		
30.0	Land & Land Improvements	Plant in Service	1 787 848
30.1	Installation - Water Resources	Plant in Service	9 350 563
30.2	Installation - Pumps	Plant in Service	2 571 304
30.3	Installation - Water Processing	Plant in Service	5 516 440
30.4	Installation - Trans. & Dist	Plant in Service	18 593 443
30.5	Buildings	Plant in Service	483 995
30.6	Tools & Equipment	Plant in Service	455 567
30.7	Transportation	Plant in Service	599 125
30.8	Office Equipment	Plant in Service	466 362
30.9	Accumulated Depreciation	Accumulated Depreciation	17 870 877
31	Construction Work in Progress	Base Year Value	1 018 088
	Other Assets		
40.0	Materials	Base Year Value	2 018 160
40.1	Deferred Charges	Base Year Value	810 164
40.2 to 40.9	Other	Base Year Amount	231 794
41	Intangible Assets	Base Year Value	1 171 096
	TOTAL ASSETS		29 555 384

PDAM Financial Results Module: Balance Sheet Inputs

Account #	Balance Sheet Liabilities & Equity	Basis of Projections	Base Year Balance
	CURRENT LIABILITIES		
50.0 & 50.1	Accounts Payable	Base Year Ratio AP/O&M	3 193 392
50.2	Accrued Expense	GDP	0
50.5	Taxes Payable	Base Year Ratio TaxesPay/Net In	302 880
50.6	Maturing Long Term Debt	Debt Exhibit	1 902 259
50.8	Other	Assumed zero	217 845
	LONG TERM LIABILITIES		
60.0	Loans from Central Government	Debt Schedules	17 120 335
60.1	Foreign Loans	Debt Schedules	0
60.2	Other Long Term Loans	Debt Schedules	0
	OTHER LIABILITIES		
61.0	Unearned Revenue	Assumed zero	1 938
61.5	Reserve Funds		
61.5.00	Operations	Base Year ratio Res fund/O&M	0
61.5.20	Pensions	Base year ratio Pensions/salaries	4 669
61.5	Insurance	Base year ratio Ins Res/gross plt	0
61.6	Deferred New Connections	Base year ratio Def bal/no cust	772 336
61.8	Miscellaneous Liabilities	Base year anount	452 388
62	STOCK OF UNDEFINED STATUS	Base Year amount	18 484 974
	TOTAL LIABILITIES		42 453 016
	CAPITAL/RESERVE (EQUITY)		
70.0	Local Government Capital	Base year amount	403,333
70.1	Central Government Stock	Base year amount	0
70.2	Donated Capital	Base year amount	0
70.3	Variance in Reevaluating Fixed Assets	Base year amount	0
70.4 & 70.5	Reserves	Base year amount	0
70.6	Retained Earnings	Prior year balance	(9 711 335)
70.7	Income/Loss in Current Fiscal Year	Income statement	(3 895 335)
	TOTAL CAPITAL/RESERVE (EQUITY)		(13 203 337)
	TOTAL LIABILITIES AND EQUITY		29 249 679

PDAM Performance Indicators

Performance Indicators	Projected Year										
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
DEBT STRUCTURE											
Debt-Equity Ratio											
Long-term Debt	17 120 335	15 218 063	13 315 805	11 413 547	9 511 290	7 609 032	5 706 774	3 804 516	1 902 258	0	0
Equity	5 481 633	6 347 320	6 992 237	6 368 409	1 413 016	(2 718 760)	(6 503 926)	(9 578 931)	(12 222 813)	(15 933 341)	(19 490 221)
Total Capitalization	22 601 968	21 565 384	20 308 042	17 781 956	10 924 306	4 890 272	(797 152)	(5 774 415)	(10 320 555)	(15 933 341)	(19 490 221)
Debt-Equity Ratio	76%	71 A	66%	64%	87%	156%	716%	66%	18%	0%	0%
Debt Coverage											
Net Operating Income	(119 576)	980 933	641 285	(965 491)	(5 297 056)	(4 473 439)	(4 126 829)	(3 416 669)	(2 985 544)	(4 052 191)	(3 898 542)
Debt Service	1 995 669	2 782 349	3 537 297	3 354 318	3 163 662	2 976 844	2 790 026	2 605 000	2 416 391	2 229 573	2 042 755
Debt Coverage Ratio	-0 1	0 4	0 2	0 3	1 7	1 5	1 5	1 3	1 2	1 8	1 9
Interest Charged to Operating Income											
Interest	1 995 669	880 091	1 635 039	1 452 060	1 261 404	1 074 586	887 768	702 742	514 133	327 315	140 497
Operating Income	(119 576)	980 933	641 285	(965 491)	(5 297 056)	(4 473 439)	(4 126 829)	(3 416 669)	(2 985 544)	(4 052 191)	(3 898 542)
Ratio	1669%	90%	255%	150 A	24 A	24%	22%	21%	17%	8%	4 A
EFFICIENCY											
Operating Income											
Operating Income	(119 576)	980 933	641 285	(965 491)	(5 297 056)	(4 473 439)	(4 126 829)	(3 416 669)	(2 985 544)	(4 052 191)	(3 898 542)
Total Cubic Meter Water Sold	8 269 363	8 519 920	8 778 220	9 044 525	9 319 111	9 602 269	9 894 303	10 195 535	10 506 306	10 826 976	11 157 929
Rupiah	(14)	115	73	(107)	(568)	(466)	(417)	(335)	(284)	(374)	(349)
Accounts Receivables											
Total Receivables	1 291 631	1 383 966	1 482 933	1 589 014	1 702 727	1 824 632	1 880 124	1 937 375	1 996 453	2 057 430	2 120 381
Total Sales per Day	29 206	31 294	33 532	35 931	38 502	41 259	42 513	43 808	45 144	46 523	47 946
Ratio	44	44	44	44	44	44	44	44	44	44	44
Operating Expenses											
Operating Expenses	12 493 909	12 189 546	13 380 752	15 898 498	21 204 736	21 424 122	21 573 120	21 373 842	21 469 444	23 079 268	23 485 890
Total Cubic Meter Water Sold	8 269 363	8 519 920	8 778 220	9 044 525	9 319 111	9 602 269	9 894 303	10 195 535	10 506 306	10 826 976	11 157 929
Rupiah	1 511	1 431	1 524	1 758	2 275	2 231	2 180	2 096	2 043	2 132	2 105
Working Ratio											
Pre-Depreciation Operating Expenses	6 641 346	5 688 471	6 610 774	7 660 519	7 644 258	7 638 643	7 640 141	7 650 863	7 665 771	7 690 595	7 723 917
Operating Income	(119 576)	980 933	641 285	(965 491)	(5 297 056)	(4 473 439)	(4 126 829)	(3 416 669)	(2 985 544)	(4 052 191)	(3 898 542)
Expense/Income Ratio	5554 A	580%	1031%	793%	144%	171%	185%	224%	257%	190%	198 A
Employees per Customers											
Number of Employees	256	256	256	256	256	256	256	256	256	256	256
Number of Customers (1000)	38 924	39 702	40 497	41 306	42 133	42 975	43 835	44 711	45 606	46 518	47 448
Ratio	7	8	8	6	6	6	6	6	6	6	5
Water Leakage											
Total Production	10 336 704	10 649 900	10 972 775	11 305 656	11 648 889	12 002 836	12 367 879	12 744 419	13 132 882	13 533 720	13 947 412
Total Water Sold	8 269 363	8 519 920	8 778 220	9 044 525	9 319 111	9 602 269	9 894 303	10 195 535	10 506 306	10 826 976	11 157 929
Leakage	2 067 341	2 129 980	2 194 555	2 261 131	2 329 778	2 400 567	2 473 576	2 548 884	2 626 576	2 706 744	2 789 482
Leakage/Production Ratio	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20 A
Liquidity [1]											
Current Assets	2 246 596	7 660 455	10 818 999	9 888 321	5 656 927	(28 251 396)	(20 976 654)	(14 255 704)	(12 017 839)	(3 535 345)	(3 252 645)
Current Liabilities	5 616 375	5 510 369	5 625 407	6 472 769	6 592 646	6 717 204	6 846 650	6 981 206	7 121 101	7 266 581	7 417 903
Current Ratio (Assets/Liabilities)	0 4	1 4	1 9	1 5	0 9	4 2	3 1	2 0	1 7	0 5	-0 4
PROFITABILITY											
Sales Profit											
After Tax Net Profit	150 357	865 687	644 917	(623 828)	(4 955 393)	(4 131 776)	(3 785 166)	(3 075 006)	(2 643 881)	(3 710 528)	(3 556 879)
Operating Income	12 374 333	13 170 479	14 022 038	14 933 006	15 907 681	16 950 683	17 446 291	17 957 173	18 483 900	19 027 076	19 587 348
Ratio Profit/Income	1%	7%	5 A	4%	31%	24%	22%	17%	14 A	20%	18%
Return											
Before Interest and Tax Income	1 876 093	1 861 024	2 276 325	486 569	(4 035 651)	(3 398 853)	(3 239 061)	(2 713 926)	(2 471 411)	(3 724 876)	(3 758 045)
Total Assets	29 449 676	28 362 461	27 251 025	26 002 369	19 300 496	13 406 695	7 885 458	3 308 429	(1 057 378)	(6 258 003)	(9 637 276)
EBIT/Assets Ratio	6 A	7%	8%	2%	21 A	25%	-41%	82%	234 A	60 A	39 A

PDAM Performance Indicators Module

Evaluation of Performance Indicators	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
		Projected Year									
DEBT STRUCTURE											
Debt-Equity Ratio	1	1	2	2	1	1	1	1	1	1	1
Debt Coverage Ratio	1	1	1	1	1	1	1	1	1	1	1
Interest Charged/Oper Income Ratio	1	1	1	1	1	1	1	1	1	1	1
Sub total Value	3	3	4	4	3	3	3	3	3	3	3
EFFICIENCY											
Operating Income/m3 Water Sold	1	1	1	1	1	1	1	1	1	1	1
Operating Expenses/m3 Water Sold	1	1	1	1	1	1	1	1	1	1	1
Accounts Receivable Ratio	4	4	4	4	4	4	4	4	4	4	4
Working Ratio	1	1	1	1	1	1	1	1	1	1	1
Employees/Customers Ratio	4	4	4	4	4	4	4	4	4	4	4
Water Leakage	3	3	3	3	3	3	3	3	3	3	3
Current Ratio	1	2	3	3	1	1	1	1	1	1	1
Sub total Value	15	16	17	17	15	15	15	15	15	15	15
PROFITABILITY											
Sales Profit Revenue Ratio	1	1	1	1	1	1	1	1	1	1	1
Return on Assets	1	1	1	1	1	1	1	1	4	4	4
Sub total Value	2	2	2	2	2	2	2	2	5	5	5
LEVEL OF HEALTH	20	21	23	23	20	20	20	20	23	23	23
Very Healthy (41 48)											
Healthy (31-40)											
Less Healthy (21 30)											
Not Healthy (12 20)											

B. Detailed Output Formats

Financial Results Module

PIAM Financial Results Module

Account #	Income Detail Item	Base Year 1993	1994	1996	1996	1997	1998	1999	2000	2001	2002	2003
			Projected Years									
80	OPERATING INCOME											
80 0	Water Income											
80 0 00	Water Sales	10 660 354	11 422 434	12 239 247	13 114 773	14 053 297	15 059 426	15 517 422	15 989 942	16 477 538	16 980 601	17 500 361
80 0 20	Administration Services	0	0	0	0	0	0	0	0	0	0	0
80 0 40	Water Meter Rent	0	0	0	0	0	0	0	0	0	0	0
80 0 60	Other Water Income	0	0	0	0	0	0	0	0	0	0	0
80 1	Nonwater Income											
80 1 00	New Connection Income	1 584 733	1 616 428	1 648 756	1 681 731	1 715 368	1 749 673	1 784 667	1 820 360	1 856 787	1 893 903	1 931 781
80 1 10	Installation Rent Income	10 703	10 703	10 703	10 703	10 703	10 703	10 703	10 703	10 703	10 703	10 703
80 1 20	Laboratory Result of Water Incom	0	0	0	0	0	0	0	0	0	0	0
80 1 30	Reconnection Income	38 849	39 626	40 418	41 227	42 051	42 892	43 750	44 625	45 518	46 428	47 357
80 1 40	Income from Fines	77 478	79 028	80 608	82 220	83 865	85 542	87 253	88 998	90 778	92 593	94 445
80 1 60	Replacement of Meter Income	2 216	2 260	2 306	2 352	2 399	2 447	2 496	2 545	2 596	2 648	2 701
88	NONOPERATING INCOME											
88 0 00	Interest Income	341 663	341 663	341 663	341 663	341 663	341 663	341 663	341 663	341 663	341 663	341 663
88 0 10	Income from Transfer Service	0	0	0	0	0	0	0	0	0	0	0
88 0 20	Gain from Sale of Used Equipment	0	0	0	0	0	0	0	0	0	0	0
88 0 30	Gain from Sale of Fixed Asset	0	0	0	0	0	0	0	0	0	0	0
88 0 40	Exchange Gain	0	0	0	0	0	0	0	0	0	0	0
88 0 60	Other Income	0	0	0	0	0	0	0	0	0	0	0
88 5	EXTRAORDINARY INCOME	0	0	0	0	0	0	0	0	0	0	0
	TOTAL INCOME	12 715 996	13 512 142	14 363 701	15 274 669	16 249 344	17 292 348	17 787 954	18 298 838	18 825 563	19 368 739	19 929 011

POAM Financial Results Module

Operations and Maintenance Expenses		Base Year	Projected Year									
Account #	Item	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
	WATER SOURCE											
	Operation											
90 0 00	Personnel	300 000	309 412	318 694	328 255	338 103	348 246	358 693	369 454	380 538	391 954	403 712
90 0 10	Fuel	75 000	79 591	84 464	64 634	69 376	74 434	79 830	85 585	91 723	98 269	105 251
90 0 20	Power	125 000	132 651	140 773	107 723	115 626	124 057	133 049	142 641	152 871	163 782	175 418
90 0 80	Other	34 469	35 503	36 568	37 665	38 795	39 959	41 158	42 393	43 664	44 974	46 323
90 1 XX	***Maintenance***	94 685	97 526	100 451	103 465	106 569	109 766	113 059	116 451	119 944	123 542	127 249
90 2 XX	***Raw Water***	107 383	113 956	120 933	92 541	99 330	106 573	114 298	122 538	131 326	140 699	150 696
90 2 XX	***Purchased Water from BOT***	0	0	0	1 261 440	1 261 440	1 261 440	1 261 440	1 261 440	1 261 440	1 261 440	1 261 440
	Sub-Total	736 537	768 638	801 883	1 995 722	2 029 238	2 064 474	2 101 527	2 140 500	2 181 506	2 224 660	2 270 090
	WATER TREATMENT & STORAGE											
	Operation											
91 0 00	Personnel	1 100 000	1 133 412	1 167 414	1 202 437	1 238 510	1 275 665	1 313 935	1 353 353	1 393 954	1 435 772	1 478 846
91 0 10	Chemicals	200 000	212 242	225 237	172 356	185 001	198 491	212 879	228 226	244 594	262 051	280 669
91 0 30	Additives	100 000	106 121	112 618	86 178	92 501	99 245	106 439	114 113	122 297	131 025	140 335
91 0 80	Other	365 674	376 644	387 944	399 582	411 569	423 916	436 634	449 733	463 225	477 122	491 435
91 1 XX	***Maintenance***	106 089	109 272	112 550	115 926	119 404	122 986	126 676	130 476	134 390	138 422	142 575
	Sub-Total	1 871 763	1 937 690	2 005 763	1 976 479	2 046 985	2 120 304	2 196 563	2 275 900	2 358 459	2 444 392	2 533 860
	TRANSMISSION & DISTRIBUTION											
	Operation											
92 0 00	Personnel	200 000	206 258	212 445	218 819	225 383	232 145	239 109	246 282	253 671	261 281	269 119
92 0 80	Other	86 952	89 561	92 247	95 015	97 865	100 801	103 825	106 940	110 148	113 453	116 856
92 1 XX	***Maintenance***	325 926	335 704	345 775	356 148	366 833	377 838	389 173	400 848	412 873	425 260	438 017
	Sub-Total	612 878	631 522	650 467	669 982	690 081	710 783	732 107	754 070	776 692	799 993	823 993
	GENERAL & ADMINISTRATIVE											
	Operation											
95 0 XX	Personnel	514 462	530 359	546 270	562 658	579 538	596 924	614 832	633 277	652 275	671 843	691 999
95 1 XX	Office Expense	228 064	234 906	241 953	249 212	256 688	264 389	272 320	280 490	288 905	297 572	306 499
95 2 XX	Consumer Services	137 493	144 450	151 759	159 438	167 506	175 982	184 886	194 242	204 070	214 396	225 245
95 3 XX	Research & Development	4 591	4 729	4 871	5 017	5 167	5 322	5 482	5 646	5 816	5 990	6 170
95 5 XX	General Maintenance	164 788	169 732	174 824	180 068	185 470	191 034	196 765	202 668	208 749	215 011	221 461
95 6 XX	Cost for Receivable Set Aside	1 506	1 551	1 598	1 646	1 695	1 746	1 798	1 852	1 908	1 965	2 024
95 8 XX	Miscellaneous	373 595	384 803	396 347	408 237	420 484	433 099	446 092	459 475	473 259	487 457	502 080
	Sub-Total	1 424 499	1 470 530	1 517 621	1 566 276	1 616 549	1 668 496	1 722 176	1 777 650	1 834 981	1 894 234	1 955 478
	TOTAL	4 645 677	4 808 380	4 975 735	6 208 459	6 382 854	6 564 057	6 752 373	6 948 121	7 151 638	7 363 280	7 583 420

PDAM Financial Results Module

Total Plant Item	Base Year 1993	Projected Year 1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Land and Land Improvement	1 787 848	1 787 848	1 787 848	1 787 848	1 787 848	1 787 848	1 787 848	1 787 848	1 787 848	1 787 848	1 787 848
Installation											
Water Resources	9 350 563	9 350 563	9 370 563	9 370 563	49 370 563	49 400 563	49 400 563	49 400 563	49 400 563	49 400 563	49 400 563
Pumps	2 571 304	2 571 304	3 571 304	3 571 304	3 571 304	3 571 304	3 571 304	3 571 304	3 571 304	3 571 304	3 571 304
Water Processing	5 516 440	5 516 440	6 016 440	6 016 440	6 016 440	6 016 440	6 016 440	6 016 440	6 016 440	6 016 440	6 016 440
Transmission & Distribution	18 593 444	19 593 444	19 993 444	29 993 444	30 493 444	30 495 444	30 995 444	36 995 444	37 560 999	43 560 999	43 760 999
Buildings	483 995	883 995	5 883 995	5 923 995	6 123 995	6 223 995	7 123 995	7 223 995	7 263 995	12 263 995	12 313 995
Tools & Equipment	455 567	555 567	555 567	605 567	705 567	710 567	735 567	835 567	935 567	1 035 567	1 135 567
Means of Transportation	599 125	1 099 125	1 599 125	2 099 125	2 599 125	3 099 125	3 599 125	4 099 125	4 599 125	5 099 125	5 599 125
Office Equipment	466 362	966 362	1 466 362	1 966 362	2 466 362	2 966 362	3 466 362	3 966 362	4 466 362	4 966 362	5 466 362
Total	39,824,648	42,324,648	50,244,648	61,334,648	103,134,648	104,271,648	106,696,648	113,896,648	115,602,203	127,702,203	129,052,203

PDAM Financial Results Module

Total Depreciation Expense Item	Base Year 1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Land and Land Improvement	0	0	0	0	0	0	0	0	0	0	0
Installation											
Water Resources	552 932	1 168 820	1 171 320	1 171 320	6 171 320	6 175 070	6 175 070	6 175 070	6 175 070	6 175 070	6 172 570
Pumps	465 944	321 413	446 413	446 413	446 413	446 413	446 413	446 413	446 413	446 413	321 413
Water Processing	729 700	689 555	752 055	752 055	752 055	752 055	752 055	752 055	752 055	752 055	689 555
Transmission & Distribution	2 693 609	2 449 181	2 499 181	3 749 181	3 811 681	3 811 931	3 874 431	4 624 431	4 695 125	5 320 125	5 295 125
Buildings	24 200	176 799	1 176 799	1 184 799	1 224 799	1 244 799	1 344 799	364 799	364 799	1 324 799	1 314 799
Tools & Equipment	64 755	111 113	111 113	121 113	141 113	142 113	127 113	147 113	157 113	157 113	176 113
Means of Transportation	83 003	219 825	319 825	419 825	519 825	619 825	619 825	619 825	619 825	619 825	1 199 125
Office Equipment	67 324	193 272	293 272	393 272	493 272	593 272	593 272	593 272	593 272	593 272	593 272
Total	4,681,467	5,329,979	6,769,979	8,237,979	13,560,479	13,785,479	13,932,979	13,722,979	13,803,673	15,388,673	15,761,973

PDAM Financial Results Module

Total Accumulated Depreciation Item	Base Year 1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Land and Land Improvement	0	0	0	0	0	0	0	0	0	0	0
Installation											
Water Resources	2 340 986	3 509 806	4 681 127	5 852 447	12 023 768	18 198 838	24 373 908	30 548 979	36 724 049	42 899 119	49 071 690
Pumps	882 099	1 203 512	1 649 925	2 096 338	2 542 751	2 989 164	3 435 577	3 881 990	4 328 403	4 774 816	5 096 229
Water Processing	3 001 344	3 690 899	4 442 954	5 195 009	5 947 064	6 699 119	7 451 174	8 203 229	8 955 284	9 707 339	10 396 894
Transmission & Distribution	10 510 349	12 959 530	15 458 710	19 207 891	23 019 571	26 831 502	30 705 932	35 330 363	40 025 487	45 345 612	50 640 737
Buildings	90 894	267 693	1 444 492	2 629 291	3 854 090	5 098 889	6 443 688	6 808 487	7 173 286	8 498 085	9 812 884
Tools & Equipment	296 366	407 479	518 593	639 706	780 820	922 933	1 050 046	1 197 160	1 354 273	1 511 387	1 687 500
Means of Transportation	441 863	661 688	981 513	1 401 338	1 921 163	2 540 988	3 160 813	3 780 638	4 400 463	5 020 288	6 219 413
Office Equipment	306 971	500 243	793 516	1 186 788	1 680 061	2 273 333	2 866 605	3 459 878	4 053 150	4 646 423	5 239 695
Total	17,870,872	23,200,851	29,970,829	38,208,808	51,769,287	65,554,765	79,487,744	93,210,723	107,014,396	122,403,069	138,165,042

PDAM Financial Results Module

Debt Service, Bond Funds and Reserve Funds	Projected Year 1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Beginning Balance											
Bond Fund											
Bond Reserve Fund											
Bond Funded Spending											
Balance After Spending Bond Funds											
Bond Issues Gross Proceeds											
Less:											
Addition to Reserve											
Issue Cost											
Net Proceeds											
Principal Redemption											
Total Bonds Outstanding											
Months New Funds Available											
Interest on Bond Funds											
Interest to Cash Flow											
Interest on Reserve Funds											
Interest to Cash Flow											
Ending Balance											
Bond Funds											
Bond Reserve Funds											
End of Year Principal Balance											
Existing Debt	19 022 579	17 120 321	15 218 063	13 315 805	11 413 547	9 511 290	7 609 032	5 706 774	3 804 516	1 902 258	0
New Debt	0	0	0	0	0	0	0	0	0	0	0
Total Principal Balance	19 022 579	17 120 321	15 218 063	13 315 805	11 413 547	9 511 290	7 609 032	5 706 774	3 804 516	1 902 258	0
Existing Debt Service											
Principal	0	1 902 258	1 902 258	1 902 258	1 902 258	1 902 258	1 902 258	1 902 258	1 902 258	1 902 258	1 902 258
Interest	1 995 669	880 091	1 635 039	1 452 060	1 261 404	1 074 586	887 768	702 742	514 133	327 315	140 497
Total	1 995 669	2 782 349	3 537 297	3 354 318	3 163 662	2 976 844	2 790 026	2 605 000	2 416 391	2 229 573	2 042 755
New Debt Service											
Principal	0	0	0	0	0	0	0	0	0	0	0
Interest	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0
Total Debt Service											
Principal	0	1 902 258	1 902 258	1 902 258	1 902 258	1 902 258	1 902 258	1 902 258	1 902 258	1 902 258	1 902 258
Interest	1 995 669	880 091	1 635 039	1 452 060	1 261 404	1 074 586	887 768	702 742	514 133	327 315	140 497
Total	1 995 669	2 782 349	3 537 297	3 354 318	3 163 662	2 976 844	2 790 026	2 605 000	2 416 391	2 229 573	2 042 755
Debt Service Coverage											

C. Calculations Formats

Financial Results Module

Depreciation Expense (Existing Plant)

Property Type	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Land and Land Improvement	0	0	0	0	0	0	0	0	0	0
Installation										
Water Resources	1 168 820	1 168 820	1 168 820	1 168 820	1 168 820	1 168 820	1 168 820	1 168 820	1 168 820	1 168 820
Pumps	321 413	321 413	321 413	321 413	321 413	321 413	321 413	321 413	321 413	321 413
Water Processing	689 555	689 555	689 555	689 555	689 555	689 555	689 555	689 555	689 555	689 555
Transmission & Distribution	2 324 181	2 324 181	2 324 181	2 324 181	2 324 181	2 324 181	2 324 181	2 324 181	2 324 181	2 324 181
Buildings	96 799	96 799	96 799	96 799	96 799	96 799	96 799	96 799	96 799	96 799
Tools & Equipment	91 13	91 113	91 113	91 113	91 113	91 113	91 113	91 113	91 113	91 113
Means of Transportation	119 825	119 825	119 825	119 825	119 825	119 825	119 825	119 825	119 825	119 825
Office Equipment	93 272	93 272	93 272	93 272	93 272	93 272	93 272	93 272	93 272	93 272
Total Depreciation Expense	4 904 979	4 904,979	4 904,979	4 904 979	4,904 979	4,904,979	4,904 979	4,904 979	4,904 979	4,904 979

Accumulated Depreciation (Existing Plant)

Property Type	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Land and Land Improvement	0	0	0	0	0	0	0	0	0	0
Installation										
Water Resources	3 509 806	4 678 627	5 847 447	7 016 268	8 185 088	9 353 908	10 522 729	11 691 549	12 860 369	14 029 190
Pumps	1 203 512	1 524 925	1 846 338	2 167 751	2 489 164	2 810 577	3 131 990	3 453 403	3 774 816	4 096 229
Water Processing	3 690 899	4 380 454	5 070 009	5 759 564	6 449 119	7 138 674	7 828 229	8 517 784	9 207 339	9 896 894
Transmission & Distribution	12 834 530	15 158 710	17 482 891	19 807 071	22 131 252	24 455 432	26 779 613	29 103 793	31 427 974	33 752 154
Buildings	187 693	284 492	381 291	478 090	574 889	671 688	768 487	865 286	962 085	1 058 884
Tools & Equipment	387 479	478 593	569 706	660 820	751 933	843 046	934 160	1 025 273	1 116 387	1 207 500
Means of Transportation	561 688	681 513	801 338	921 163	1 040 988	1 160 813	1 280 638	1 400 463	1 520 288	1 640 113
Office Equipment	400 243	493 516	586 788	680 061	773 333	866 605	959 878	1 053 150	1 146 423	1 239 695
Total Accumulated Dep	22 775,851	27,880,829	32,585,808	37,490,787	42,395,765	47,300,744	52,205,723	57,110 701	62,015 680	66,920 659

PDAM Plant Depreciation Module: Calculations

Depreciation Expense
Plant Additions

Property Type	Addition Year	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
		Plant Additions									
Land and Land Improvement	1994	0	0	0	0	0	0	0	0	0	0
	1995		0	0	0	0	0	0	0	0	0
	1996			0	0	0	0	0	0	0	0
	1997				0	0	0	0	0	0	0
	1998					0	0	0	0	0	0
	1999						0	0	0	0	0
	2000							0	0	0	0
	2001								0	0	0
	2002									0	0
	2003										0
TOTAL Land and Land Improvement		0	0	0	0	0	0	0	0	0	0
Installation	Year	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Water Resources	1994	0	0	0	0	0	0	0	0	0	0
	1995		2 500	2 500	2 500	2 500	2 500	2 500	2 500	2 500	0
	1996			0	0	0	0	0	0	0	0
	1997				5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000
	1998					3 750	3 750	3 750	3 750	3 750	3 750
	1999						0	0	0	0	0
	2000							0	0	0	0
	2001								0	0	0
	2002									0	0
	2003										0
Total Water Resources		0	2,500	2 500	5,002,500	5 006,250	5,006 250	5 006 250	5 006 250	5 006 250	5 003,750
Pumps	Year	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
	1994	0	0	0	0	0	0	0	0	0	0
	1995		125 000	125 000	125 000	125 000	125 000	125 000	125 000	125 000	0
	1996			0	0	0	0	0	0	0	0
	1997				0	0	0	0	0	0	0
	1998					0	0	0	0	0	0
	1999						0	0	0	0	0
	2000							0	0	0	0
	2001								0	0	0
	2002									0	0
	2003										0
Total Pumps		0	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000	0
Water Processing	Year	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
	1994	0	0	0	0	0	0	0	0	0	0
	1995		62 500	62 500	62 500	62 500	62 500	62 500	62 500	62 500	0
	1996			0	0	0	0	0	0	0	0
	1997				0	0	0	0	0	0	0
	1998					0	0	0	0	0	0
	1999						0	0	0	0	0
	2000							0	0	0	0
	2001								0	0	0
	2002									0	0
	2003										0
Total Water Processing		0	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	0

Transmission & Distribution	Year	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
	1994	125 000	125 000	125 000	125 000	125 000	125 000	125 000	125 000	0	0
	1995		50 000	50 000	50 000	50 000	50 000	50 000	50 000	50 000	0
	1996			1 250 000	1 250 000	1 250 000	1 250 000	1 250 000	1 250 000	1 250 000	1 250 000
	1997				62 500	62 500	62 500	62 500	62 500	62 500	62 500
	1998					250	250	250	250	250	250
	1999						62 500	62 500	62 500	62 500	62 500
	2000							750 000	750 000	750 000	750 000
	2001								70 694	70 694	70 694
	2002									750 000	750 000
	2003										25 000
Total Transmission & Distribution		125 000	175 000	1 425 000	1 487 500	1 487 750	1 550 250	2 300 250	2 370 944	2 995 944	2 970 944
Buildings	Year	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
	1994	80 000	80 000	80 000	80 000	80 000	0	0	0	0	0
	1995		1 000 000	1 000 000	1 000 000	1 000 000	1 000 000	0	0	0	0
	1996			8 000	8 000	8 000	8 000	8 000	0	0	0
	1997				40 000	40 000	40 000	40 000	40 000	0	0
	1998					20 000	20 000	20 000	20 000	20 000	0
	1999						180 000	180 000	180 000	180 000	180 000
	2000							20 000	20 000	20 000	20 000
	2001								8 000	8 000	8 000
	2002									1 000 000	1 000 000
	2003										10 000
TOTAL Buildings		80 000	1 080 000	1 088 000	1 128 000	1 148 000	1,248 000	268 000	268 000	1 228 000	1 218 000
Tools & Equipment	Year	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
	1994	20 000	20 000	20 000	20 000	20 000	0	0	0	0	0
	1995		0	0	0	0	0	0	0	0	0
	1996			10 000	10 000	10 000	10 000	10 000	0	0	0
	1997				20 000	20 000	20 000	20 000	20 000	0	0
	1998					1 000	1 000	1 000	1 000	1 000	0
	1999						5 000	5 000	5 000	5 000	5 000
	2000							20 000	20 000	20 000	20 000
	2001								20 000	20 000	20 000
	2002									20 000	20 000
	2003										20 000
TOTAL Tools & Equipment		20 000	20 000	30 000	50 000	51 000	36 000	56 000	66 000	66 000	85 000
Means of Transportation	Year	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
	1994	100 000	100 000	100 000	100 000	100 000	0	0	0	0	0
	1995		100 000	100 000	100 000	100 000	100 000	0	0	0	0
	1996			100 000	100 000	100 000	100 000	100 000	0	0	0
	1997				100 000	100 000	100 000	100 000	100 000	0	0
	1998					100 000	100 000	100 000	100 000	100 000	100 000
	1999						100 000	100 000	100 000	100 000	219 825
	2000							100 000	100 000	100 000	219 825
	2001								100 000	100 000	219 825
	2002									100 000	219 825
	2003										100 000
TOTAL Means of Transportation		100 000	200 000	300 000	400 000	500 000	500 000	500 000	500 000	500 000	1 079 300
Office Equipment	Year	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
	1994	100 000	100 000	100 000	100 000	100 000	0	0	0	0	0
	1995		100 000	100 000	100 000	100 000	100 000	0	0	0	0
	1996			100 000	100 000	100 000	100 000	100 000	0	0	0
	1997				100 000	100 000	100 000	100 000	100 000	0	0
	1998					100 000	100 000	100 000	100 000	100 000	0
	1999						100 000	100 000	100 000	100 000	100 000
	2000							100 000	100 000	100 000	100 000
	2001								100 000	100 000	100 000
	2002									100 000	100 000
	2003										100 000
TOTAL Office Equipment		100 000	200 000	300 000	400 000	500 000	500 000	500 000	500 000	500 000	500 000
Total Dep Expense-Additions		425,000	1 740,000	3,208,000	8,630,500	8,755,500	8,903 000	8 693,000	8 773,694	10,388,694	10,856,994

Accumulated Depreciation For Plant Additions	Plant Additions									
Property Type	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Land and Land Improvement	0	0	0	0	0	0	0	0	0	0
Installation										
Water Resources	0	2 500	5 000	5 007 500	10 013 750	15 020 000	20 026 250	25 032 500	30 038 750	35 042 500
Pumps	0	125 000	250 000	375 000	500 000	625 000	750 000	875 000	1 000 000	1 000 000
Water Processing	0	62 500	125 000	187 500	250 000	312 500	375 000	437 500	500 000	500 000
Transmission & Distribution	125 000	300 000	1 725 000	3 212 500	4 700 250	6 250 500	8 550 750	10 921 694	13 917 639	16 888 583
Buildings	80 000	1 160 000	2 248 000	3 376 000	4 524 000	5 772 000	6 040 000	6 308 000	7 536 000	8 754 000
Tools & Equipment	20 000	40 000	70 000	120 000	171 000	207 000	263 000	329 000	395 000	480 000
Means of Transportation	100 000	300 000	600 000	1 000 000	1 500 000	2 000 000	2 500 000	3 000 000	3 500 000	4 579 300
Office Equipment	100 000	300 000	600 000	1 000 000	1 500 000	2 000 000	2 500 000	3 000 000	3 500 000	4 000 000
Total	425 000	2,290 000	5,623 000	14 278 500	23,158 000	32 187,000	41 005,000	49 903,694	60 387,389	71 244,383

D. Input Flow Formats

Financial Results Module

PDAM Financial Results Module: Input

BOT Data	Base Year 1993	Projected Years 1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Transfer Price											
Source	0	0	0	0	0	0	0	0	0	0	0
Treatment	0	0	0	0	0	0	0	0	0	0	0
Trans Dist	0	0	0	0	0	0	0	0	0	0	0
General & Admin	0	0	0	0	0	0	0	0	0	0	0
Throughput (liters/sec)	0	0	0	100	100	100	100	100	100	100	100
Conversion Ratio	31 536	31 536	31 536	31 536	31 536	31 536	31 536	31 536	31 536	31 536	31 536
Water Produced(cu meter/year)	0	0	0	3 153 600	3 153 600	3 153 600	3 153 600	3 153 600	3 153 600	3 153 600	3 153 600
Management Fee	0	0	0	0	0	0	0	0	0	0	0
Operating Fee	0	0	0	1 261 440	1 261 440	1 261 440	1 261 440	1 261 440	1 261 440	1 261 440	1 261 440
Total Payments	0	0	0	1 261 440	1 261 440	1 261 440	1 261 440	1 261 440	1 261 440	1 261 440	1 261 440

Escalator Inputs Item	Base Year 1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	Project 2003
CPI	1	1 03	1 03	1 03	1 03	1 03	1 03	1 03	1 03	1 03	1 03
Labor Index	1	1 03	1 03	1 03	1 03	1 03	1 03	1 03	1 03	1 03	1 03
Population	2 000 000	2 040 000	2 080 800	2 122 416	2 164 864	2 208 162	2 252 325	2 297 371	2 343 319	2 390 185	2 437 989
Lost/Unaccounted Ratio	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
Number of Customers	38 924	39 702	40 497	41 306	42 133	42 975	43 835	44 711	45 606	46 518	47 448
Water Sold	8 269 363	8 519 920	8 778 220	9 044 525	9 319 111	9 602 269	9 894 303	10 195 535	10 506 306	10 826 976	11 157 929
Water Produced (Total)	10 336 704	10 649 900	10 972 775	11 305 656	11 648 889	12 002 836	12 367 879	12 744 419	13 132 882	13 533 720	13 947 412
Water Produced by BOT	0	0	0	3 153 600	3 153 600	3 153 600	3 153 600	3 153 600	3 153 600	3 153 600	3 153 600
Water Produced by PDAM	10 336 704	10 649 900	10 972 775	8 152 056	8 495 289	8 849 236	9 214 279	9 590 819	9 979 282	10 380 120	10 793 812

PDAM Financial Results Module: Output

Annual Escalators Item	Base Year 1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	Project 2003
CPI		1 0300	1 0300	1 0300	1 0300	1 0300	1 0300	1 0300	1 0300	1 0300	1 0300
Labor Index		1 0300	1 0300	1 0300	1 0300	1 0300	1 0300	1 0300	1 0300	1 0300	1 0300
Population		1 0200	1 0200	1 0200	1 0200	1 0200	1 0200	1 0200	1 0200	1 0200	1 0200
Number of Customers		1 0200	1 0200	1 0200	1 0200	1 0200	1 0200	1 0200	1 0200	1 0200	1 0200
Water Sold		1 0303	1 0303	1 0303	1 0304	1 0304	1 0304	1 0304	1 0305	1 0305	1 0306
Water Produced(Total)		1 0303	1 0303	1 0303	1 0304	1 0304	1 0304	1 0304	1 0305	1 0305	1 0306
Water Produced w/o BOT		1 0303	1 0303	0 7429	1 0421	1 0417	1 0413	1 0409	1 0405	1 0402	1 0399
CPI/Water Produced		1 0612	1 0612	1 0612	1 0613	1 0613	1 0613	1 0614	1 0614	1 0614	1 0615
CPI/Water Produced w/o BOT		1 0612	1 0612	0 7652	1 0734	1 0729	1 0725	1 0721	1 0717	1 0714	1 0710
CPI/Customers		1 0506	1 0506	1 0506	1 0506	1 0506	1 0506	1 0506	1 0506	1 0506	1 0506

PDAM Financial Results Module: Output

Compounded Escalators Item	Base Year 1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	Project 2003
CPI		1 0300	1 0609	1 0927	1 1255	1 1593	1 1941	1 2299	1 2668	1 3048	1 3439
Labor Index		1 0300	1 0609	1 0927	1 1255	1 1593	1 1941	1 2299	1 2668	1 3048	1 3439
Population		1 0200	1 0404	1 0612	1 0824	1 1041	1 1262	1 1487	1 1717	1 1951	1 2190
Number of Customers		1 0200	1 0404	1 0612	1 0824	1 1041	1 1262	1 1487	1 1717	1 1951	1 2190
Water Sold		1 0303	1 0615	1 0937	1 1269	1 1612	1 1965	1 2329	1 2705	1 3093	1 3493
Water Produced(Total)		1 0303	1 0615	1 0937	1 1269	1 1612	1 1965	1 2329	1 2705	1 3093	1 3493
Water Produced w/o BOT		1 0303	1 0615	0 7887	0 8219	0 8561	0 8914	0 9278	0 9654	1 0042	1 0442
CPI/Water Produced		1 0612	1 1262	1 1952	1 2684	1 3461	1 4287	1 5163	1 6094	1 7083	1 8134
CPI/Water Produced w/o BOT		1 0612	1 1262	0 8618	0 9250	0 9925	1 0644	1 1411	1 2230	1 3103	1 4033
CPI/Customers		1 0506	1 1038	1 1596	1 2183	1 2799	1 3447	1 4127	1 4842	1 5593	1 6382

PDAM Financial Results Module: Salaries Input

Salaries for Employee Additions	Base Year 1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	Projected Years 2003
Net Additions(Cumulative)											
Water Source	0	0	0	1	1	1	1	1	1	1	1
Water Treatment	0	1	1	1	1	1	1	1	1	1	1
Transmission & Dist	0	1	1	1	1	1	1	1	1	1	1
General & Admin	0	1	2	2	2	2	2	2	2	2	2
Average Salary and Fringes											
Water Source	400	412	424	437	450	464	478	492	507	522	538
Water Treatment	400	412	424	437	450	464	478	492	507	522	538
Transmission & Dist	250	258	265	273	281	290	299	307	317	326	336
General & Admin	450	464	477	492	508	522	537	553	570	587	605

* Escalated at Labor Index

PDAM Financial Results Module: O&M Input

Operations & Maintenance Expenses		[illegible]	Cost Escalation Method
Account	Item		
	WATER SOURCE		
	Operation		
90.0.00	Personnel	300,000	CPI
90.0.10	Fuel	75,000	CPI/PROD
90.0.20	Power	125 000	CPI/PROD
90.0.80	Other	34,469	CPI
90.0	*Subtotal*	534 469	
90.1	*Maintenance*	94,685	CPI
90.2	*Raw Water*	107,383	CPI/PROD
	WATER TREATMENT & STORAGE		
	Operation		
91.0.00	Personnel	1,100,000	CPI
91.0.10	Chemicals	200,000	CPI/PROD
91.0.30	Additives	100,000	CPI/PROD
91.0.80	Other	365,674	CPI
91.0	*Subtotal*	1 765 674	
91.1	*Maintenance*	106,089	CPI
	TRANSMISSION & DISTRIBUTION		
	Operation		
92.0.00	Personnel	200,000	CPI
92.0.80	Other	86,952	CPI
92.0	*Subtotal*	286 952	
92.1	*Maintenance*	325,926	CPI
	GENERAL & ADMINISTRATIVE		
	Operation		
95.0	Personnel	514,462	CPI
95.1	Office Expense	228,064	CPI
95.2	Consumer Services	137,493	CPI/CUSTOME
95.3	Research & Development	4,591	CPI
95.5	General Maintenance	164,768	CPI
95.6	Cost for Receivable Set Aside	1,506	CPI
95.8	Miscellaneous	373,595	CPI
95	*Subtotal*	1 424 499	
	TOTAL	4,645,677	

RDAM Financial Results Module: O&M Input

Operations & Maintenance Expenses			
Account	Item	[illegible]	Cost Escalation Method
	WATER SOURCE		
	Operation		
90.0.00	Personnel	300,000	CPI
90.0.10	Fuel	75,000	CPI/PROD
90.0.20	Power	125,000	CPI/PROD
90.0.60	Other	34,469	CPI
90.0	***Subtotal***	534 469	
90.1	***Maintenance***	94,685	CPI
90.2	***Raw Water***	107,383	CPI/PROD
	WATER TREATMENT & STORAGE		
	Operation		
91.0.00	Personnel	1,100,000	CPI
91.0.10	Chemicals	200,000	CPI/PROD
91.0.30	Additives	100 000	CPI/PROD
91.0.60	Other	365,674	CPI
91.0	***Subtotal***	1 765 674	
91.1	***Maintenance***	106,059	CPI
	TRANSMISSION & DISTRIBUTION		
	Operation		
92.0.00	Personnel	200,000	CPI
92.0.60	Other	86,952	CPI
92.0	***Subtotal***	286 952	
92.1	***Maintenance***	325,926	CPI
	GENERAL & ADMINISTRATIVE		
	Operation		
95.0	Personnel	514,462	CPI
95.1	Office Expenses	226,064	CPI
95.2	Consumer Services	137,493	CPI/CUSTOME
95.3	Research & Development	4,591	CPI
95.5	General Maintenance	164,788	CPI
95.6	Cost for Receivable Set Aside	1,506	CPI
95.8	Miscellaneous	373,595	CPI
95	***Subtotal***	1 424 499	
	TOTAL	4,645,677	

Account #	Property Type	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
									Original Cost Plant Additions			
30 0 XX	Land and Land Improvement											
	Installation											
30 1 XX	Water Resources			20 000		40 000 000	30 000					
30 2 XX	Pumps			1 000 000								
30 3 XX	Water Processing			500 000								
30 4 XX	Transmission & Distribution		1 000 000	400 000	10 000 000	800 000	2 000	800 000	6 000 000	865 865	6 000 000	200 000
30 8 XX	Buildings		400 000	5 000 000	40 000	200 000	100 000	900 000	100 000	40 000	8 000 000	30 000
30 6 XX	Tools & Equipment		100 000	0	50 000	100 000	5 000	25 000	100 000	100 000	100 000	100,000
30 7 XX	Means of Transportation		500 000	500 000	800 000	800 000	500 000	800 000	500 000	800 000	500 000	800 000
30 8 XX	Office Equipment		500 000	500 000	500 000	500 000	500 000	500 000	500,000	500 000	500 000	500 000
	TOTAL PLANT ADDITIONS		2,500,000	7,920,000	11,090,000	41,800,000	1,137,000	2,425,000	7,200,000	1,705,555	12,100,000	1,350,000

Debt Service Existing Issues	Beg Bal 1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
End of Year Balance											
Issue 1	18 022 579	17 120 321	15 218 063	13 315 805	11 413 547	9 511 290	7 609 032	5 706 774	3 804 516	1 902 258	0
Issue 2	0	0	0	0	0	0	0	0	0	0	0
Issue 3	0	0	0	0	0	0	0	0	0	0	0
Issue 4	0	0	0	0	0	0	0	0	0	0	0
Issue 5	0	0	0	0	0	0	0	0	0	0	0
Sub total	18 022 579	17 120 321	15 218 063	13 315 805	11 413 547	9 511 290	7 609 032	5 706 774	3 804 516	1 902 258	0
Principal Payments											
Issue 1	0	1 902 258	1 902 258	1 902 258	1 902 258	1 902 258	1 902 258	1 902 258	1 902 258	1 902 258	1 902 258
Issue 2	0	0	0	0	0	0	0	0	0	0	0
Issue 3	0	0	0	0	0	0	0	0	0	0	0
Issue 4	0	0	0	0	0	0	0	0	0	0	0
Issue 5	0	0	0	0	0	0	0	0	0	0	0
Sub Total	0	1 902 258	1 902 258	1 902 258	1 902 258	1 902 258	1 902 258	1 902 258	1 902 258	1 902 258	1 902 258
Interest Payments											
Issue 1	0	880 091	1 635 039	1 452 060	1 261 404	1 074 586	887 768	702 742	514 133	327 315	140 497
Issue 2	1 995 669	0	0	0	0	0	0	0	0	0	0
Issue 3	0	0	0	0	0	0	0	0	0	0	0
Issue 4	0	0	0	0	0	0	0	0	0	0	0
Issue 5	0	0	0	0	0	0	0	0	0	0	0
Sub Total	1 995 669	880 091	1 635 039	1 452 060	1 261 404	1 074 586	887 768	702 742	514 133	327 315	140 497
Total Existing Debt Service	1 995 669	2 782 349	3 537 297	3 354 318	3 163 662	2 976 844	2 790 026	2 605 000	2 416 391	2 229 573	2 042 755

11/18/94

PDAM Debt/Construction Module Input

Programs Item	Base Year 1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
	Capital										
	Projected Year										
BONDED FUNDED											
Supply											
Buildings & Structures											
Distribution & Storage											
Project A											
Project B											
Total	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
CONTRIBUTIONS/GRANTS											
Main Extensions											
Services											
Hydrants											
Project C											
Project D											
Total	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
REVENUE FUNDED											
Fleet Equipment											
Computer Equipment											
Project E											
Project F											
Project G											
Total	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL CAPITAL PROGRAMS	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Debt Service New Issues	New Issues		
	Issue 1	Issue 2	Issue 3
Interest Rate			
Bond Issue Cost % of Gross Proceeds			
Bond Reserve Fund Years of debt service			
Bond life-years			
Bond Amount			
Year Issue			
Interest Earning Rate-Fund Balance			
Leave Interest Earnings in Bond Fund(Y/N)			
Beginning Balance Bond Fund			
Beginning Balance Bond Reserve Fund			

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PDAM Balikpapan Existing Debt: Input

Assumptions	Debt Item	
PRINCIPAL (Rupiah)	13,646,800,000	
INTEREST RATE	13.5%	
TERM	10	
DISBURSEMENTS	Date	Amount
	19-Sep-89	976,655,200
	07-Mar-90	587,093,170
	20-Jun-90	1,366,801,210
	05-Sep-90	4,253,390,180
	02-Feb-91	1,031,314,350
	21-May-91	2,085,231,169
	09-Dec-91	1,171,074,940
	08-Jun-92	1,049,577,279
	20-Apr-93	1,127,649,000
	15-Jan-94	

PDAM Financial Results Module Balance Sheet Inputs

Account #	Balance Sheet ASSETS	Basis of Projections	Base Year Balance
	CURRENT ASSETS		
10 & 11	Cash/Demand Deposits	Cash Flow	547 288
	Receivables		
12.0	Water Sales	Sales Revenues	1 291 631
12.1	Non Water	T&D Plant	156 046
12.2	Uncollectable Accounts	Sales Revenues	8 694
13	Other	Base Year Amount CPI	46 366
	Inventory		
14 0	Chemicals	Water Produced w/o BOT	60 164
14 B	Other	Base Year Amount CPI	97 353
15	Advance Payments	O&M	39 054
	TOTAL		2 246 596
	LONG-TERM ASSETS		
20 0	Time Deposits	Base Year Amount	0
20.1	Investment - Stock	Base Year Amount	0
20.2	Investment - Tangible Assets	Base Year Amount	0
	FIXED ASSETS IN USE (PLANT IN SERVICE)		
30 0	Land & Land Improvements	From Plant in Service	1 787 848
30 1	Installation - Water Resources	From Plant in Service	9 350 563
30 2	Installation - Pumps	From Plant in Service	2 571 304
30 3	Installation - Water Processing	From Plant in Service	5 516 440
30.4	Installation - Trans & Dist.	From Plant in Service	18 593 444
30.5	Buildings	From Plant in Service	483 995
30.6	Tools & Equipment	From Plant in Service	455 567
30.7	Transportation	From Plant in Service	599 125
30.8	Office Equipment	From Plant in Service	466 362
	Total		39 824 648
30.9	Accumulated Depreciation	From Accumulated Depreciation	17 870 872
31	Construction Work in Progress	?	1 018 088
	Other Assets		
40.0	Materials	Base Year Amount	2 018 162
40.1	Deferred Charges	External	810 164
40.2 to 40 9	Other	Base Year Amount	231 794
41	Intangible Assets	Base Year Amount	1 171 096
	TOTAL ASSETS		29 449 676

PDAM Financial Results Module: Balance Sheet Inputs

Account #	Balance Sheet Liabilities & Equity	Basis of Projections	Base Year Balance
	CURRENT LIABILITIES		
50.0 & 50.1	Accounts Payable	Total O&M	3 193 391
50.2	Accrued Expense	TotalO&M	0
50.5	Taxes Payable	Current Taxes	302 880
50.6	Maturing Long Term Debt	From Debt Schedules	1 902 259
50.8	Other	Assumed Zero	217 845
	Total Current Liabilities		5 616 375
	LONG TERM LIABILITIES		
60.0	Loans from Central Government	From Debt Schedules	17 120 335
60.1	Foreign Loans	From Debt Schedules	0
60.2	Other Long Term Loans	From Debt Schedules	0
	Total Long Term Debt		17 120 335
	OTHER LIABILITIES		
61.0	Unearned Revenue	Sales Revenues	1 938
61.5	Reserve Funds		
61.5.00	Operations	O&M	0
61.5.20	Pensions	Salaries	4 669
61.5	Insurance	Total Plant	0
61.5	Deferred New Connections	T&D Plant	772 338
61.8	Miscellaneous Liabilities	CPI	452 388
	Total Other Liabilities		1 231 333
62	**STOCK OF UNDEFINED STATUS**	Base Year Amount	18 484 974
	TOTAL LIABILITIES		42 453 017
	CAPITAL/RESERVE (EQUITY)		
70.0	Local Government Capital	Base Year Amount	403 333
70.1	Central Government Stock	Base Year Amount	0
70.2	Donated Capital	Base Year Amount	0
70.3	Variance in Reevaluating Fixed Assets	Base Year Amount	0
70.4 & 70.5	Reserves	Base Year Amount	0
70.6	Retained Earnings	Prior Year Balance	(9 711 335)
70.7	Income/Loss in Current Fiscal Year	Current Net Income	(3 695 339)
	TOTAL CAPITAL/RESERVE (EQUITY)		(13 003 341)
	TOTAL LIABILITIES AND EQUITY		29 449 676

PDAM Performance Indicators Module: Input

Performance Indicators Miscellaneous Data	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
											Projected Yea
Number of Employees	256	256	258	256	258	258	256	258	256	258	258
Water Sold	8 269 363	8,519 920	8 778 220	9 044 525	9 319 111	9 602 269	9 894,303	10 195 535	10 508 306	10 826 976	11 157 929
Water Produced	10 336 704	10,649 900	10 972,778	11,305 656	11 648 889	12 002 836	12 367 879	12 744 419	13 132 882	13,533 720	13 947 412

SECTION III
PRELIMINARY FORMAT OF TARIFF MODULE

The major elements of the Tariff Module in its current preliminary form are presented in this section These elements consist of three types of spreadsheets input spreadsheets, calculations spreadsheets, and output spreadsheets Each of the elements is described briefly below

- Input Formats

  The module requires data input for certain items such as block definitions, base year rate levels, connections, and historical sales by customer class and by tariff block

- Calculations Formats

  For calculations, the user has a choice of sales volumes projection methodologies Either growth rates by class or projected quantities by class may be utilized The analyst may increase or decrease average rate levels by class in any year in the model planning period

- Output Formats

  projected annual water consumption by customer class and sales revenues by class, both on present rates and rate levels which may be set by the analyst

The Tariff Module provides the consumption and sales revenue data to the Financial Results Module (FRM) The FRM in turn, provides the revenues requirements to the Tariff Module

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A. Input Formats

Tariff Module

PUBSAM Tariff Rate Model: Model Input

D.

Base Year	Block Definitions			
1995	Four Block Sytem* Specification of Maximum Purchase Under Each Block (cubic meters)			Two Block Sytem* Maximum Purchase Under Block 1
Customer Class	Block 1	Block 2	Block 3	
Social				
General	10	20	30	
Special	10	20	30	
Non - Commercial				
Residential A	10	20	30	
Residential B	10	20	30	
Residential C	10	20	30	
Embasey/Consulate	10	20	30	
Government Buildings	10	20	30	
Commercial				
Small Commercial				20
Big Commercial 1				20
Big Commercial 2				20
Big Commercial 3				20
Big Commercial 4				20
Industry				
Small Industry				20
Big Industry				20
Special				
Ports				20
Misc 1 (Khusus Pelabuhan)				20
Misc 2 (Mobil Tangki)				20

PDAM Tariff Rate Model: Model Input

Harga Pokok	435	Rupiah / Cubic Meter

Base Year	Base Year Rates By Block					
1995	(Rupiah / Cubic Meter)					
Customer Class	A (0–10)	B (11–20)	C (21–30)	D (>30)	A (0–20)	B (>20)
Social						
General	350	350	350	350		
Special	350	435	660	870		
Non-Commercial						
Residential A.	435	650	870	1,750		
Residential B.						
Residential C						
Embassy/Consulate						
Government Buildings	435	650	870	1,750		
Commercial						
Small Commercial					1,090	2,175
Big Commercial					1,305	2,610
Industry						
Small Industry					1,305	2,610
Big Industry					2,175	3,480
Special						
Ports (Sea and Air)					3,045	3,045
Misc 1 (Tanker Trucks)					1,525	1,525
Misc 2						

B'

PDAM Tariff Rate Model: Model Input

Forecast Year 1996	Consumption Data		Sales by Block					
			Classification of Water Consumption (Cubic Meters)					
Customer Class	Number of Meters (Avg)	Total Water Delivered (Cubic Meters)	A (0 - 10)	B (11 - 20)	C (21 - 30)	D (>30)	A' (0 - 20)	B' (>20)
Social								
General	65	143 190				143,190		
Special	542	324,500	9,585	15,789	34,713	264,413		
Non-Commercial								
Residential A	7,583	1 822 720	190,128	641,664	510,328	480 600		
Residential B	11,766	3 526 971	295 008	995,688	848,370	1 387 905		
Residential C	21,862	7 014 284	548,184	1,860,130	1,676,380	3,039,590		
Embassy/Consulate		0						
Government Buildings	201	300 750	3,691	6,192	7,888	282,979		
Commercial								
Small Commercial	2,035	1 365 784					180 940	1,184,844
Big Commercial 1	107	177 068					4,004	173,064
Big Commercial 2	4 5	53 100						53 100
Big Commercial 3	2 5	31 000						34,000
Big Commercial 4	2	144 000						144,000
Industry								
Small Industry	31	26 850					1,180	25 670
Big Industry	5	66 000						66,000
Special								
Ports		0						
Misc 1 (Khusus Pelabuhan)	6	144 000						111,000
Misc 2 (Mobil Tangki)	–	18 783						18,783
TOTAL	44,210	15,162,000	1,046,596	3 509 463	2 977,679	5 598,677	186 124	1,843 461

MUAM Tariff Rate Model; Model Input

Harga Pokok 435 Rupiah / Cubic Mete

~ Rate setting 1/

Base Year	Ratios for Fut						Revised Base Year Rates By Block (Using Future Ratios) (Rupiah / Cubic Meter)					
	Ratio of Block Rate to Harga Pokok											
Customer Class	A (0 - 10)	B (11 - 20)	C (21 - 30)	D (≥ 30)	A (0 - 20)	B (≥ 20)	A (0 - 10)	B (11 - 20)	C (21 - 30)	D (≥ 30)	A (0 - 20)	B (≥ 20)
Social												
General	0.5	0.5	0.5	0.5			350	350	350	350		
Special	0.8	1.0	1.5	2.0			350	435	650	870		
Non-Commercial												
Residential A	1.0	1.5	2.0	4.0			435	650	870	1 750		
Residential B												
Residential C												
Embassy/Consulate												
Government Buildings	1.0	1.5	2.0	4.0			435	650	870	1 750		
Commercial												
Small Commercial					2.5	5.0					1 090	2 175
Big Commercial					3.0	6.0					1 305	2 610
Industry												
Small Industry					3.0	6.0					1 305	2 610
Big Industry					5.0	10.0					2 175	3 480
Special												
Kota (Sea and Air)					7.0	7.0					3 045	3 045
Mikro (Tanker Trucks)					3.5	3.5					1 525	1 525
Mikro 2												

PDAM Tariff Rate Model: Model Input

Base Year 1995	Consumption Data				Sales by Block					
			Growth Rate		Classification of Water Consumption (Cubic Meters)					
Customer Class	Number of Meters (Avg)	Total Water Delivered (Cubic Meters)	Average Usa	Number of Meters	A (0-10)	B (11-20)	C (21-30)	D (>30)	A (0-20)	B (>20)
Social										
General	58 5	128 575	1 00%	2 00%				128 575		
Special	509 5	301 600	1 00%	2 00%	8 925	14 476	31 928	246 271		
Non-Commercial										
Residential A	6 688 0	1 606 904	1 00%	2 00%	167 624	565 776	449 820	423 684		
Residential B	10,377 0	3 103 355	1 00%	2 00%	260 096	877 842	747 930	1 223 487		
Residential C	19 281 5	6 183 266	1 00%	2 00%	483 312	1 631,142	1,389 780	2 679 012		
Embassy/Consulate		0	1 00%	2 00%						
Government Buildings	183 0	272 125	1 00%	2 00%	3 122	5 670	7,200	256,133		
Commercial										
Small Commercial	1,714 0	1 249 097	1 00%	2 00%					151 960	1 097 137
Big Commercial 1	87 5	137 814	1 00%	2 00%					3 122	134 722
Big Commercial 2	3 0	20 600	1 00%	2 00%						20 600
Big Commercial 3	2 0	18 000	1 00%	2 00%						18 000
Big Commercial 4	2 0	148 200	1 00%	2 00%						148 200
Industry										
Small Industry	14 0	11 625	1 00%	2 00%					536	11 089
Big Industry	4 5	61 600	1 00%	2 00%						61 600
Special										
Ports		0	1 00%	2 00%						
Misc 1 (Khusus Pelabuhan)	5 0	132 000	1 00%	2 00%						132 000
Misc 2 (Mobil Tangki)	–	21 209	1 00%	2 00%						21 209
TOTAL	38 924	13 402 000	0	0	923 079	3 094 906	2 626 658	4 957,182		

B. Calculation Formats

Tariff Module

Balikpapan Tariff Details

Historic and Forecast Number of Connections

Customer Class	Historic Years			Projected Years			
	1991	1992	1993	1994	1995	1996	1997
Social							
General	52	42	45	57	62	62	62
Special	310	386	444	531	564	589	618
Non-Commercial							
Residential A, Residential B, Residential C, Embassy/Consulate, Government Buildings	19,239	24,611	29,434	34,031	38,947	43,326	47,774
Commercial							
Small Commercial	126	141	153	174	184	191	206
Big Commercial	1,298	1,443	1,550	1,709	1,909	2,100	2,215
Industry							
Small Industry	49	54	73	83	97	116	135
Big Industry	0	0	6	7	16	25	39
Special							
Ports (Sea and Air)	2	3	4	4	5	5	5
Misc 1 (Tanker Trucks)	2	2	4	4	6	6	6
Misc 2	1	1	1	1	1	1	1

C:

Historic and Forecast Sales by Class
(Cubic Meters)

Customer Class	Historic Years			Projected Years			
	1991	1992	1993	1994	1995	1996	1997
Social							
General	44 570	69 563	202 661	138 158	131 720	137 640	140 616
Special	126 604	171 965	153 497	318 611	329 750	345 500	362 650
Other							
Non-Commercial							
Residential A	4 928 990	6 099 163	7 004 687	8 999 614	11 001 600	12 368 575	13 713 125
Residential B							
Residential C							
Embassy/Consulate							
Government Buildings	143 516	160 645	203 533	291 573	267 750	281 000	295 000
Commercial							
Small Commercial	480 252	535 239	557 395	1 124 539	1 148 828	1 427 092	1 571 238
Big Commercial	76 897	74 161	103 870	268 609	297 550	375 900	55 650
Industry							
Small Industry	0	0	1 680	6 138	10 500	18 150	55 650
Big Industry	1 962	5 925	5 171	40 573	61 600	66 000	66 000
Special							
Ports (Sea and Air)	29 848	13 931	28 475	90 735	132 000	147 600	180 000
Misc 1 (Tanker Trucks)	3 791	9 081	8 394	10 450	17 702	15 543	18 686
Misc 2							

Historic and Forecast Use per Customer
(Cubic Meters/customer)

Customer Class	Historic Years			Projected Years			
	1991	1992	1993	1994	1995	1996	1997
Social							
General	857	1 656	4 504	2 424	2 125	2 220	2 268
Special	408	446	346	600	585	587	587
Other							
Non-Commercial							
Residential A	256	248	238	264	282	285	287
Residential B							
Residential C							
Embassy/Consulate							
Government Buildings	1 139	1 139	1 330	1 676	1 455	1 471	1 432
Commercial							
Small Commercial	370	371	360	658	602	680	709
Big Commercial	1 569	1 373	1 423	3 236	3 068	3 241	412
Industry							
Small Industry	NA	NA	280	877	656	726	1 427
Big Industry	981	1 975	1 293	10 143	12 320	13 200	13 200
Special							
Ports (Sea and Air)	14 924	6 966	7 119	22 684	22 000	24 600	30 000
Misc 1 (Tanker Trucks)	3 791	9 081	8 394	10 450	17 702	15 543	18 686
Misc 2							

Historic and Forecast Growth in Number of Customers

Customer Class	Historic Years			Projected Years			
	1991	1992	1993	1994	1995	1996	1997
Social							
General	–	-19.2%	7.1%	26.7%	8.8%	0.0%	0.0%
Special	–	24.5%	15.0%	19.6%	6.2%	4.4%	4.9%
Non-Commercial							
Residential A	–	27.9%	19.6%	15.6%	14.4%	11.2%	10.3%
Residential B							
Residential C							
Embassy/Consulate							
Government Buildings	–	11.9%	8.5%	13.7%	5.7%	3.8%	7.9%
Commercial							
Small Commercial	–	11.2%	7.4%	10.3%	11.7%	10.0%	5.5%
Big Commercial	–	10.2%	35.2%	13.7%	16.9%	19.6%	16.4%
Industry							
Small Industry	–	–	–	16.7%	128.6%	56.3%	56.0%
Big Industry	–	50.0%	33.3%	0.0%	25.0%	0.0%	0.0%
Special							
Ports (Sea and Air)	–	0.0%	100.0%	0.0%	50.0%	0.0%	0.0%
Misc 1 (Tanker Trucks)	–	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Misc 2							

Historic and Forecast Growth in Use per Customer

Customer Class	Historic Years			Projected Years			
	1991	1992	1993	1994	1995	1996	1997
Social							
General	–	93.2%	171.9%	-46.2%	-12.3%	4.5%	2.2%
Special	–	9.1%	-22.4%	73.6%	-2.6%	0.3%	0.0%
Non-Commercial							
Residential A	–	-3.3%	-4.0%	11.1%	6.8%	1.1%	0.5%
Residential B							
Residential C							
Embassy/Consulate							
Government Buildings	–	0.0%	16.8%	26.0%	-13.2%	1.1%	-2.7%
Commercial							
Small Commercial	–	0.3%	-3.0%	83.0%	-8.5%	12.9%	4.4%
Big Commercial	–	-12.5%	3.6%	127.4%	-5.2%	5.6%	-87.3%
Industry							
Small Industry	–	–	–	213.2%	-25.2%	10.6%	96.5%
Big Industry	–	101.3%	-34.5%	684.6%	21.5%	7.1%	0.0%
Special							
Ports (Sea and Air)	–	-53.3%	2.2%	218.8%	-3.0%	11.8%	22.0%
Misc 1 (Tanker Trucks)	–	139.5%	-7.6%	24.5%	69.4%	-12.2%	20.2%
Misc 2							

D'

PDAM Tariff Rate Model: Consumption Calculations

Average Use Growth Rate Multipliers

Customer Class	Base Year 1995	Projected Years 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Social											
General	1 00	1 01	1 02	1 03	1 04	1 05	1 06	1 07	1 08	1 09	1 10
Special	1 00	1 01	1 02	1 03	1 04	1 05	1 06	1 07	1 08	1 09	1 10
Non-Commercial											
Residential A	1 00	1 01	1 02	1 03	1 04	1 05	1 06	1 07	1 08	1 09	1 10
Residential B	1 00	1 01	1 02	1 03	1 04	1 05	1 06	1 07	1 08	1 09	1 10
Residential C	1 00	1 01	1 02	1 03	1 04	1 05	1 06	1 07	1 08	1 09	1 10
Embassy/Consulate	1 00	1 01	1 02	1 03	1 04	1 05	1 06	1 07	1 08	1 09	1 10
Government Buildings	1 00	1 01	1 02	1 03	1 04	1 05	1 06	1 07	1 08	1 09	1 10
Commercial											
Small Commercial	1 00	1 01	1 02	1 03	1 04	1 05	1 06	1 07	1 08	1 09	1 10
Big Commercial	1 00	1 01	1 02	1 03	1 04	1 05	1 06	1 07	1 08	1 09	1 10
Industry											
Small Industry	1 00	1 01	1 02	1 03	1 04	1 05	1 06	1 07	1 08	1 09	1 10
Big Industry	1 00	1 01	1 02	1 03	1 04	1 05	1 06	1 07	1 08	1 09	1 10
Special											
Pons	1 00	1 01	1 02	1 03	1 04	1 05	1 06	1 07	1 08	1 09	1 10
Misc 1	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00
Misc 2	1 00	1 17	1 37	1 60	1 87	2 19	2 57	3 00	3 51	4 11	4 81

Number of Meters Growth Rate Multipliers

Customer Class	Base Year 1995	Projected Years 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Social											
General	1 00	1 02	1 04	1 06	1 08	1 10	1 13	1 15	1 17	1 20	1 22
Special	1 00	1 02	1 04	1 06	1 08	1 10	1 13	1 15	1 17	1 20	1 22
Non-Commercial											
Residential A	1 00	1 02	1 04	1 06	1 08	1 10	1 13	1 15	1 17	1 20	1 22
Residential B	1 00	1 02	1 04	1 06	1 08	1 10	1 13	1 15	1 17	1 20	1 22
Residential C	1 00	1 02	1 04	1 06	1 08	1 10	1 13	1 15	1 17	1 20	1 22
Embassy/Consulate	1 00	1 02	1 04	1 06	1 08	1 10	1 13	1 15	1 17	1 20	1 22
Government Buildings	1 00	1 02	1 04	1 06	1 08	1 10	1 13	1 15	1 17	1 20	1 22
Commercial											
Small Commercial	1 00	1 02	1 04	1 06	1 08	1 10	1 13	1 15	1 17	1 20	1 22
Big Commercial	1 00	1 02	1 04	1 06	1 08	1 10	1 13	1 15	1 17	1 20	1 22
Industry											
Small Industry	1 00	1 02	1 04	1 06	1 08	1 10	1 13	1 15	1 17	1 20	1 22
Big Industry	1 00	1 02	1 04	1 06	1 08	1 10	1 13	1 15	1 17	1 20	1 22
Special											
Pons	1 00	1 02	1 04	1 06	1 08	1 10	1 13	1 15	1 17	1 20	1 22
Misc 1	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00
Misc 2	1 00	1 34	1 80	2 41	3 22	4 32	5 79	7 76	10 40	13 93	18 67

PDAM Tariff Rate Model: Consumption Calculations

Average Consumption/Meter

Customer Class	Base Year 1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
		Projected Years									
Social											
General	2 198	2 220	2 242	2 264	2 287	2 310	2 333	2 356	2 380	2 404	2 428
Special	599	605	611	617	623	630	636	642	649	655	662
Non-Commercial											
Residential A	240	243	245	248	250	253	255	258	260	263	265
Residential B	300	303	306	309	312	315	318	321	324	328	331
Residential C	321	324	327	330	334	337	340	344	347	351	354
Embassy/Consulate	0	0	0	0	0	0	0	0	0	0	0
Government Buildings	1 487	1 502	1 517	1 532	1 547	1 563	1 579	1 594	1 610	1 626	1 643
Commercial											
Small Commercial	729	736	743	751	758	766	774	781	789	797	805
Big Commercial	9 000	9 090	9 181	9 273	9 365	9 459	9 554	9 649	9 746	9 843	9 942
Industry											
Small Industry	630	639	647	656	664	673	681	690	699	908	917
Big Industry	13 669	13 828	13 984	14 104	14 245	14 367	14 531	14 676	14 823	14 971	15 121
Special											
Forts	0	0	0	0	0	0	0	0	0	0	0
Misc 1	0	0	0	0	0	0	0	0	0	0	0
Misc 2	344	403	471	551	645	755	883	1 033	1 209	1 415	1 655
AVERAGE	2 124	2,149	2,175	2,202	2,231	2,260	2,292	2,325	2,360	2,397	2,437

Number of Meters

Customer Class	Base Year 1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
		Projected Years									
Social											
General	59	60	61	62	63	65	66	67	69	70	71
Special	504	514	524	534	545	556	567	578	590	602	614
Non-Commercial											
Residential A	6 686	6 822	6 958	7 097	7 239	7 384	7 532	7 682	7 836	7 993	8 153
Residential B	10 377	10 585	10 796	11 012	11 232	11 457	11 686	11 920	12 158	12 401	12 650
Residential C	19 262	19 667	20 060	20 462	20 871	21 288	21 714	22 148	22 591	23 043	23 504
Embassy/Consulate	0	0	0	0	0	0	0	0	0	0	0
Government Buildings	183	187	190	194	198	202	206	210	214	219	223
Commercial											
Small Commercial	1 714	1 748	1 783	1 819	1 855	1 892	1 930	1 969	2 008	2 048	2 089
Big Commercial	2	2	2	2	2	2	2	2	2	2	2
Industry											
Small Industry	14	14	15	15	15	15	16	16	16	17	17
Big Industry	5	5	5	5	5	5	5	5	5	5	5
Special											
Forts		0	0	0	0	0	0	0	0	0	0
Misc 1	0	0	0	0	0	0	0	0	0	0	0
Misc 2	38 924	52 157	69 891	93 654	125 498	168 165	225 341	301 957	404 623	542 194	726 541
TOTAL	77 760	91 760	110 286	134 856	167 623	211 032	269 056	346 556	450 114	588 505	773 869

PDAM Tariff Rate Model: Consumption Calculations

Consumption (Cubic Meters)

Customer Class	Base Year 1995	Projected Years 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Social											
General	126 575	132 458	136 458	140 579	144 825	149 198	153 704	158 346	163 128	168 055	173 130
Special	301 600	310 708	320 092	329 758	339 717	349 977	360 546	371 434	382 652	394 208	406 113
Non-Commercial											
Residential A	1 608 904	1 655 433	1 705 427	1 756 930	1 809 990	1 864 651	1 920 964	1 978 977	2 038 742	2 100 312	2 163 742
Residential B	3 109 355	3 203 258	3 299 996	3 399 656	3 502 325	3 608 096	3 717 060	3 829 315	3 944 961	4 064 098	4 186 834
Residential C	6 183 266	6 370 001	6 562 375	6 760 558	6 964 727	7 175 062	7 391 749	7 614 960	7 844 952	8 081 870	8 325 942
Embassy/Consulate	0	0	0	0	0	0	0	0	0	0	0
Government Buildings	272 125	280 343	288 810	297 532	306 517	315 774	325 310	335 135	345 256	355 682	366 424
Commercial											
Small Commercial	1 249 097	1 286 620	1 325 882	1 365 717	1 406 962	1 449 452	1 493,226	1 538 321	1 584 778	1 632 639	1 681 944
Big Commercial	18 000	18 544	19 104	19 681	20 275	20 887	21 516	22 168	22 837	23 527	24 238
Industry											
Small Industry	11 625	11 976	12 336	12 710	13 094	13 490	13 897	14 317	14 749	15 195	15 653
Big Industry	61 600	63 460	65 377	67 351	69 385	71 481	73 639	75 863	78 154	80 515	82 946
Special											
Hotel	0	0	0	0	0	0	0	0	0	0	0
Hospital	0	0	0	0	0	0	0	0	0	0	0
Mixed 1	0	0	0	0	0	0	0	0	0	0	0
Mixed 2	13 402 000	21 011 856	32 942 074	51 646 563	80 971 513	126 947 136	199 027 723	312 035 664	489 209 514	766 982 676	1 202 475 440
TOTAL	28 944 147	34 344 655	46 677 730	65 797 066	95 549 930	141 966 206	214 496 335	327 874 820	505 829 783	783 808 776	1 219 902 405

Proportion of Consumption by Block

Ratio of Block Sales to Total Sales by Class

Customer Class	Base Year A (1–10)	B (11–20)	C (21–30)	D (>30)	A (1–20)	B (>20)	Forecast A (1–10)	B (11–20)	C (21–30)	D (>30)	A (1–20)	B (>20)
Social												
General	0 0%	0 0%	0 0%	100 0%			0 0%	0 0%	0 0%	100 0%		
Special	3 0%	4 6%	10 6%	81 7%			3 0%	4 6%	10 6%	81 7%		
Non-Commercial												
Residential A	10 4%	35 2%	28 0%	26 4%			10 4%	35 2%	28 0%	26 4%		
Residential B	8 4%	28 2%	24 1%	39 3%			8 4%	28 2%	24 1%	39 3%		
Residential C	7 8%	26 4%	22 5%	43 3%			7 8%	26 4%	22 5%	43 3%		
Embassy/Consulate	NA	NA	NA	NA			NA	NA	NA	NA		
Government Buildings	1 1%	2 1%	2 6%	94 1%			1 1%	2 1%	2 6%	94 1%		
Commercial												
Small Commercial					12 2%	87 8%					12 2%	87 8%
Big Commercial 1					2 3%	97 7%					2 3%	97 7%
Big Commercial 2					0 0%	100 0%					0 0%	100 0%
Big Commercial 3					0 0%	100 0%					0 0%	100 0%
Big Commercial 4					0 0%	100 0%					0 0%	100 0%
Industry												
Small Industry					4 6%	95 4%					4 6%	95 4%
Big Industry					0 0%	100 0%					0 0%	100 0%
Special												
Hotel					NA	NA					NA	NA
Mixed 1 (Hotel Embassy)					0 0%	100 0%					0 0%	100 0%
Mixed 2 (Hotel Temp)					0 0%	100 0%					0 0%	100 0%
TOTAL												

Prices By Block, Weighted by Consumption

For the Purpose of Calculating Weighted Average Prices by Block in the Base Year

Customer Class	Base Year A (0 - 10)	Base Year B (11 - 20)	Base Year C (21 - 30)	Base Year D (> 30)	Base Year A (0 - 20)	Base Year B (> 20)	Forecast A (0 - 10)	Forecast B (11 - 20)	Forecast C (21 - 30)	Forecast D (> 30)	Forecast A (0 - 20)	Forecast B (> 20)
Social												
General	0.0	0.0	0.0	350.0			0.0%	0.0%	0.0%	100.0%		
Special	10.4	20.9	68.8	710.4			3.0%	4.8%	10.6%	81.7%		
Non-Commercial												
Residential A	45.4	228.9	243.5	461.4			10.4%	35.2%	28.0%	26.4%		
Residential B	0.0	0.0	0.0	0.0			8.4%	28.2%	24.1%	39.3%		
Residential C	0.0	0.0	0.0	0.0			7.8%	26.4%	22.5%	43.3%		
Embassy/Consulate	NA	NA	NA	NA			NA	NA	NA	NA		
Government Buildings	5.0	13.5	23.0	1,647.2			1.1%	2.1%	2.6%	94.1%		
Commercial												
Small Commercial					132.6	1,910.4					12.2%	87.8%
Big Commercial 1					29.6	2,550.9					2.3%	97.7%
Big Commercial 2					0.0	0.0					0.0%	100.0%
Big Commercial 3					0.0	0.0					0.0%	100.0%
Big Commercial 4					0.0	2,610.0					0.0%	100.0%
Industry												
Small Industry					0.0	0.0					4.6%	95.4%
Big Industry					0.0	3,045.0					0.0%	100.0%
Special												
PYR					NA	NA					NA	NA
Mbo 1 (Khanda Pelabuhan)					0.0	0.0					0.0%	100.0%
Mbo 2 (Mobil Tangki)					0.0	0.0					0.0%	100.0%
TOTAL												

Weighted Average Tariffs by Customer Class in the Base Year

(Rupiah / Cubic Meter)

Customer Class	Base Year Weights	Forecast Weights
Social		
General	0 0%	100 0%
Special	10 7%	81 5%
Non–Commercial		
Residential A.	28 0%	26 4%
Residential B	24 1%	39 4%
Residential C.	22 5%	43 3%
Embassy/Consulate	NA	NA
Goverhment Buildings	2 6%	94 1%
Commercial		
Small Commercial		
Big Commercial 1		
Big Commercial 2		
Big Commercial 3		
Big Commercial 4		
Industry		
Small Industry		
Big Industry		
Special		
Ports		
Misc 1 (Khusus Pelabuhan)		
Misc 2 (Mobil Tangki)		
TOTAL		

PAM Perm Hab Model: Block Calculations

F!

Sales by Block
Block Classification of Water Consumption (m^3)

Customer Class	Base Year 1995 A (0–15)	B (16–30)	C (31–50)	D (>50)	Projected Year 1996 A (0–15)	B (16–30)	C (31–50)	D (>50)	Projected Year 1997 A (0–15)	B (16–30)	C (31–50)	D (>50)
Social												
Hotel	0	0	0	128 575	0	0	0	132 458	0	0	0	136 458
Special												
Non-Commercial												
Residential A												
Residential B												
Residential C												
Embassy/Consulate												
Government Buildings												
Commercial												
Small Commercial												
Big Commercial												
Industry												
Small Industry												
Big Industry												
Special												
Farm												
Misc 1												
Misc 2												

Tariff Rates
By Block and Class (Rupiah/m^3)

Customer Class	Base Year 1995 A (0–15)	B (16–30)	C (31–50)	D (>50)	Projected Year 1996 A (0–15)	B (16–30)	C (31–50)	D (>50)	Projected Year 1997 A (0–15)	B (16–30)	C (31–50)	D (>50)
Social												
General												
Special												
Non-Commercial												
Residential A												
Residential B												
Residential C												
Embassy/Consulate												
Government Buildings												
Commercial												
Small Commercial												
Big Commercial												
Industry												
Small Industry												
Big Industry												
Special												
Farm												
Misc 1												
Misc 2												

3

RDAM Tariff Rate Model, Block Calculations

Revenues By Block

Block Classification of Water Consumption (m^3)

Customer Class	Base Year 1995				Projected Year 1996				Projected Year 1997			
	A (0–15)	B (16–30)	C (31–50)	D (>50)	A (0–15)	B (16–30)	C (31–50)	D (>50)	A (0–15)	B (16–30)	C (31–50)	D (>50)
Social												
General												
Special												
Non-Commercial												
Residential A												
Residential B												
Residential C												
Embassy/Consulate												
Government Buildings												
Commercial												
Small Commercial												
Big Commercial												
Industry												
Small Industry												
Big Industry												
Special												
Pons												
Misc 1												
Misc 2												

C. Output Formats

Tariff Module

PDAM Tariff Rate Model: Output

Output Exhibit
Sales Revenue

Customer Class	Base Year 1995	Projected Years 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Social											
General											
Special											
Non-Commercial											
Residential A											
Residential B											
Residential C											
Embassy/Consulate											
Government Buildings											
Commercial											
Small Commercial											
Big Commercial											
Industry											
Small Industry											
Big Industry											
Special											
Rota											
Misc 1											
Misc 2											
TOTAL											

PDAM Tariff Rate Model: Output

Output Exhibit
Revenue Requirements

Account #	Item	Base Year 1995	Projected Years 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
	Water Source Expense											
90.0	Operation											
90.1	Maintenance											
90.2	Raw Water											
	Subtotal											
	Water Treatment & Storage											
91.0	Operation											
91.1	Maintenance											
91	Subtotal											
	Transmission & Distribution											
92.0	Operation											
92.1	Maintenance											
92	Subtotal											
95	**General & Administrative**											
	Depreciation											
90.9	Source of Supply											
91.9	Treatment and Storage											
92.9	Transmission and Distribution											
95.9	General & Administrative											
95.4	**Interest Expense**											
	Gross Revenue Requirement											
	Less:											
90.1	Non-rate Revenues											
	NET REVENUE REQUIREMENTS											
	Revenues on Base Year Rates											
	Revenues from Rate Increases											
	TOTAL REVENUES											
	Surplus (Deficit)											

SECTION IV
PRELIMINARY FORMAT OF PROJECT PREFEASIBILITY MODULE

The Project Prefeasibilitv Module (PFAM) allows the review of a reference case which generates the price for water sales which permits the investor its required rate of return on equity a second case which calculates the return on equity at a specific price and a third case which calculates the required price for a specific return on equity

The major elements of the module, in its current preliminary form, are presented in this section These elements consist of three types of spreadsheets an assumptions format, a results format, calculations formats, and cash flow formats Each of the elements is described briefly below

- Assumptions Format

  The inputs for the module are in the assumptions format these include first year operating and maintenance costs, escalation rates and water production, as well as financial parameters such as debt to equity ratios and required return on equity

- Results Format

  This format summarizes the principal financial assumptions for the reference case, as well as the results for all three cases Sensitivity analysis may be undertaken directly through this format

- Calculations Formats

  This format presents the intermediate calculations, to permit the user to verify selected detail on project cost, financing, and pricing determination for all three cases

- Cash Flow Formats

  This format presents three 15-year cash flow projections summarizing the results and the feasibility criteria

The Project Prefeasibility Financial Analysis Module (PFAM) allows for the analysis of project financial feasibility on a preliminary basis The results of the module are transferred to the Financial Results Module (FRM)

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A. Assumption Formats

Project Prefeasibility Module

PURSE PROJECT

PRELIMINARY FINANCIAL ANALYSIS MODEL INSTRUCTIONS

Welcome to the Preliminary Financial Analysis Model prepared for the PURSE Project

Purpose. This model allows the user to conduct pre-feasibility analysis of public/private partnerships in bulk water supply or solid waste disposal The following instructions are provided to assist the user in operating the model

Requirements A basic understanding of Lotus 1 2-3 (version 5 0 for Windows) and financial terms is necessary

Model Layout All variables and exhibits have been given range names for ease of reference All user input cells are shaded like this Input Cell

Input Data and Model Capability The model allows the development of a Reference Case including the capital and operating costs of the project (in rupiah) the volume of water delivered the construction term the level of equity investment the equity investor s tax rate the required return on equity the debt financing rate and the contract term

Sensitivity Analysis Two types of Sensitivity Analysis may be conducted The first sensitivity is the impact of an alternate user-specified price on the return to the equity investor The second sensitivity defines the price required to meet a user specified return on equity

CAUTIONS An error message will be received if the user attempts to change any cells other than the shaded input cells *Note that you must re-solve the sensitivity cases if you change Reference Case Assumptions*

How Do I Operate the Model? To use the menu for operating the model click on the Begin button

03-Nov-94

Table 1

PURSE PROJECT

PRELIMINARY FINANCIAL ANALYSIS MODEL ASSUMPTIONS

City "Z" Final Solid Waste Disposal Project - Preliminary 03-Nov 94

GENERAL

Specify Project Type (Enter 1 for Bulk Water Supply "2" for Final Solid Waste Disposal)	2
Project Name	City "Z" Final Solid Waste Disposal Project - Preliminary
Base Year for Cost Estimates	1994
First Year of Operation	1998
Number of Years in Cash Flow Projection (Enter any number between 1 and 15)	15
Inflation Rate	6.0%

REFERENCE CASE FINANCIAL ASSUMPTIONS

Equity Contribution	25%
Composite Tax Rate to Equity Investor	30%
Interest Rate on Debt (%) (Years in Cash Flow Projection assumed as Term of Debt)	15%
After-Tax Return on Equity (%)	18%

PROJECT DEVELOPMENT ASSUMPTIONS

Number of Years of Construction	3.5
Construction Cost (Base Year Rupiah X 1000)	5,000,000

PROJECT OPERATION ASSUMPTIONS

Total Waste Disposed	5,000,000
Annual Operation and Maintenance Expense (Base Year Rupiah X 1000)	200,000

PROJECT PRICE ADJUSTMENT ASSUMPTION

Annual Adjustment in Disposal Price (%)	3.0%

B. Results Formats

Project Prefeasibility Module

Table 2

PURSE PROJECT
PRELIMINARY FINANCIAL ANALYSIS MODEL
RESULTS

City "Z" Final Solid Waste Disposal Project - Preliminary 03 Nov-94

REFERENCE CASE FINANCIAL ASSUMPTIONS

Equity Contribution	25%
Composite Tax Rate to Equity Investor	30%
Interest Rate on Debt (%) (Years in Cash Flow Projection assumed as Termof Debt)	15%
After-Tax Return on Equity (%)	18%
Annual Adjustment in Waste Disposal Price	3 0%

REFERENCE CASE RESULTS

Have you solved the Reference Case with your current assumptions? ALT H for help

Project Internal Rate of Return (%)	17 7%
Waste Disposal Price in First Year of Operation (Rupiah / Cubic Meter) (Required to Achieve Target Return on Equity)	0

SENSITIVITY ANALYSIS

Have you solved the Sensitivity Cases with your current assumptions? ALT H for help

What is the Return on Equity with an Alternate Price?

Alternate Waste Disposal Price	250
After-Tax Return on Equity with Alternate Waste Disposal Price	10 3%
Project Internal Rate of Return with Alternate Waste Disposal Price	14 9%

What Price is Required to Achieve an Alternate Return on Equity?

Alternate After-Tax Return on Equity	22 0%
Waste Disposal Price Required to Achieve Alternate Return on Equity	0
Project Internal Rate of Return with Alternate Waste Disposal Price	19 1%

C. Calculations Formats

Project Prefeasibility Module

Table 3

PURSE PROJECT
PRELIMINARY FINANCIAL ANALYSIS MODEL
INTERMEDIATE CALCULATIONS - REFERENCE CASE

City "Z" Final Solid Waste Disposal Project - Preliminary 03-Nov-94

PROJECT COST

Escalation to Construction Mid-Point (Inflation Rate X (First Year of Operation (Construction Period / 2) Base Year))	10 5%
Cost Escalated to Construction Mid-Point ((1 + Escalation to Construction Mid-Point) X Base Year Cost)	5 525 000
O&M in First Year of Operation (O&M in Base Year X (1 + Inflation)^(First Year Operation - Base Year)	252 495
Assumed Straight-Line Depreciable Cost (Total Debt Financed Cost + Equity Financed Cost)	6 673 188

DEBT FINANCING

Debt Financed Cost (1 - Equity Contribution) X (Escalated Project Cost)	4 143 750
Interest During Construction on Debt Financed Cost (Debt Financed Cost) X ((1 + Interest Rate on Debt) ^ (Number Years of Construction Term / 2) 1)	1 148 188
Total Debt Financed Cost (Rupiah X 1000 at Beginning of Operation) (Debt Financed Cost + Interest During Construction on Debt Financed Cost)	5 291 938
Debt Service @PMT(Total Debt Financed Cost Interest Rate on Debt Term)	905 012

EQUITY FINANCING

Pre-tax return on equity (After-Tax Return on Equity / (1 - Composite Tax Rate)	25 7%
Equity Financed Cost (Equity Contribution X Escalated Project Cost)	1 381 250
Return on Equity Accruing during Construction (Equity Financed Cost X ((1 + After-Tax Return on Equity)^(Construction Term/2)-1)	464 045
Total Equity Financed Cost (Rupiah X 1000 at Beginning of Operation) (Equity Financed Cost + Return on Equity Accruing During Construction)	1 845 295

PRICING DETERMINATION

Project Internal Rate of Return (Pre-Tax Return on Equity X Equity Contribution + Interest Rate X (1 - Equity Contribution)	17 7%
Waste Disposal Price in First Year of Operation	290
Ending Equity Balance	169 374 314

Table 4

PURSE PROJECT
PRELIMINARY FINANCIAL ANALYSIS MODEL
INTERMEDIATE CALCULATIONS - SENSITIVITY CASES

City "Z" Final Solid Waste Disposal Project - Preliminary 03-Nov-94

ALTERNATE BASE PRICE SENSITIVITY

Return on Equity Accruing during Construction (Equity Financed Cost X ((1 + After-Tax Return on Equity)^(Construction Term/2)-1)	258 023
Total Equity Financed Cost (Rupiah X 1000 at Beginning of Operation) (Equity Financed Cost + Return on Equity Accruing During Construction)	1 639 273
Ending Equity Balance	0
Pre-Tax Return on Equity (After-Tax Return on Equity / (1 - Composite Tax Rate)	14 7%
Project Internal Rate of Return (Pre-Tax Return on Equity X Equity Contribution + Interest Rate X (1 - Equity Contribution)	14 9%

ALTERNATE RETURN ON EQUITY SENSITIVITY

Return on Equity Accruing during Construction (Equity Financed Cost X ((1 + After-Tax Return on Equity)^(Construction Term/2)-1)	574 899
Total Equity Financed Cost (Rupiah X 1000 at Beginning of Operation) (Equity Financed Cost + Return on Equity Accruing During Construction)	1 956 149
Ending Equity Balance	172 851 505
Pre-Tax Return on Equity (After-Tax Return on Equity / (1 - Composite Tax Rate)	31 4%
Project Internal Rate of Return (Pre-Tax Return on Equity X Equity Contribution + Interest Rate X (1 - Equity Contribution)	19 1%

D. Cash Flow Formats

Project Prefeasbility Module

Table 5

PURSE PROJECT
PRELIMINARY FINANCIAL ANALYSIS MODEL
CASH FLOW PROJECTION
REFERENCE CASE
(Rupiah X 1000)

City 2 Final Solid Waste Disposal Project Preliminary 03-Nov 94

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
SUMMARY OF RESULTS.															
Waste Disposed (Cubic Meters)	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000
Waste Disposal Price (Rupiah / Cubic Meter)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Revenues	514	529	545	562	579	596	614	632	651	671	691	712	733	755	778
Operation and Maintenance Expense	252 495	267 845	283 704	300 726	318 770	337 896	358 170	379 660	402 439	426 586	452 181	479 312	508 070	538 555	570 868
Net Operating Income Before Debt Service	(251 981)	(287 116)	(283 158)	(300 164)	(318 191)	(337 300)	(357 556)	(379 027)	(401 788)	(425 915)	(451 490)	(478 600)	(507 337)	(537 800)	(570 090)
Debt Service	905 012	905 012	905 012	905 012	905 012	905 012	905 012	905 012	905 012	905 012	905 012	905 012	905 012	905 012	905 012
Pre Tax Net Income Available for Equity	(1 156 993)	(1 172 127)	(1 188 170)	(1 205 176)	(1 223 203)	(1 242 312)	(1 262 567)	(1 284 039)	(1 306 800)	(1 330 927)	(1 356 502)	(1 383 612)	(1 412 349)	(1 442 811)	(1 475 102)
Depreciation	444 879	444 879	444 879	444 879	444 879	444 879	444 879	444 879	444 879	444 879	444 879	444 879	444 879	444 879	444 879
Taxable Income	(1 601 872)	(1 617 007)	(1 633 049)	(1 650 055)	(1 668 082)	(1 687 191)	(1 707 447)	(1 728 918)	(1 751 679)	(1 775 806)	(1 801 381)	(1 828 491)	(1 857 228)	(1 887 691)	(1 919 981)
Income Tax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
After Tax Net Income	(1 601 872)	(1 617 007)	(1 633 049)	(1 650 055)	(1 668 082)	(1 687 191)	(1 707 447)	(1 728 918)	(1 751 679)	(1 775 806)	(1 801 381)	(1 828 491)	(1 857 228)	(1 887 691)	(1 919 981)
After Tax Cash Flow	(1 156 993)	(1 172 127)	(1 188 170)	(1 205 176)	(1 223 203)	(1 242 312)	(1 262 567)	(1 284 039)	(1 306 800)	(1 330 927)	(1 356 502)	(1 383 612)	(1 412 349)	(1 442 811)	(1 475 102)
FEASIBILITY CRITERIA.															
Cash-on-Cash Ratio	-62 7%	-63 5%	-64 4%	65 3%	-66 3%	-67 3%	-68 4%	-69 6%	70 8%	72 1%	73 5%	75 0%	76 5%	78 2%	79 9%
Debt Coverage Ratio	-0 28	-0 30	-0 31	-0 33	-0 35	-0 37	-0 40	-0 42	-0 44	-0 47	0 50	-0 53	-0 56	-0 59	-0 63
Project Internal Rate of Return	17 7%														
After Tax Return on Equity	18 0%														
SUPPORTING CALCULATIONS.															
Outstanding Equity Balance															
At Beginning of Year	1 845 295	3 575 726	5 721 483	8 379 176	11 667 711	15 733 423	20 756 395	26 958 228	34 611 602	44 052 032	55 692 338	70 040 441	87 721 252	109 503 609	136 333 398
At Mid Year (Before Current Cash Flow)	2 011 372	3 897 541	6 236 416	9 133 302	12 717 805	17 149 431	22 624 470	29 384 469	37 726 616	48 016 715	60 704 648	76 344 080	95 616 165	119 358 934	148 603 404
At Mid Year (After Current Cash Flow)	3 168 365	5 069 668	7 424 586	10 338 478	13 941 007	18 391 742	23 887 038	30 668 508	39 033 446	49 347 041	62 061 150	77 727 617	97 028 511	1 0 801 715	150 078 506
At End-of Year	3 575 726	5 721 483	8 379 176	11 667 711	15 733 423	20 756 395	26 958 228	34 611 602	44 052 032	55 692 338	70 040 441	87 721 252	109 503 609	136 333 398	169 374 314
Project Operating? (1=yes 0=no)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Table 6

PURSE PROJECT
PRELIMINARY FINANCIAL ANALYSIS MODEL
CASH FLOW PROJECTION
ALTERNATE BASE PRICE SENSITIVITY
(Rupiah X 1000)

City Z Final Solid Waste Disposal Project Preliminary 03 Nov 94

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
SUMMARY OF RESULTS.															
Waste Disposed (Cubic Meters)	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000
Waste Disposal Price (Rupiah / Cubic Meter)	250	258	265	273	281	290	299	307	317	326	336	346	356	367	378
Project Revenues	1 250 000	1 287 500	1 326 125	1 365 909	1 406 886	1 449 093	1 492 565	1 537 342	1 583 463	1 630 966	1 679 895	1 730 292	1 782 201	1 835 667	1 890 737
Operation and Maintenance Expense	252 495	267 645	283 704	300 726	318 770	337 896	358 170	379 660	402 439	426 586	452 181	479 312	508 070	538 555	570 868
Net Operating Income Before Debt Service	997 505	1 019 855	1 042 421	1 065 183	1 088 116	1 111 197	1 134 396	1 157 683	1 181 023	1 204 381	1 227 715	1 250 981	1 274 131	1 297 113	1 319 869
Debt Service	905 012	905 012	905 012	905 012	905 012	905 012	905 012	905 012	905 012	905 012	905 012	905 012	905 012	905 012	905 012
Pre Tax Net Income Available for Equity	92 493	114 843	137 409	160 171	183 105	206 185	229 384	252 671	276 012	299 369	322 703	345 969	369 119	392 101	414 858
Depreciation	444 879	444 879	444 879	444 879	444 879	444 879	444 879	444 879	444 879	444 879	444 879	444 879	444 879	444 879	444 879
Taxable Income	(352 388)	(330 036)	(307 470)	(284 708)	(261 774)	(238 694)	(215 495)	(192 208)	(168 868)	(145 510)	(122 176)	(98 910)	(75 760)	(52 778)	(30 022)
Income Tax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
After Tax Net Income	(352 386)	(330 036)	(307 470)	(284 708)	(261 774)	(238 694)	(215 495)	(192 208)	(168 868)	(145 510)	(122 176)	(98 910)	(75 760)	(52 778)	(30 022)
After Tax Cash Flow	92 493	114 843	137 409	160 171	183 105	206 185	229 384	252 671	276 012	299 369	322 703	345 969	369 119	392 101	414 858
FEASIBILITY CRITERIA.															
Cash-on-Cash Ratio	5 6%	7 0%	8 4%	9 8%	11 2%	12 6%	14 0%	15 4%	16 8%	18 3%	19 7%	21 1%	22 5%	23 9%	25 3%
Debt Coverage Ratio	1 10	1 13	1 15	1 18	1 20	1 23	1 25	1 28	1 30	1 33	1 36	1 38	1 41	1 43	1 46
Project Internal Rate of Return	14 9%														
After Tax Return on Equity	10 3%														
SUPPORTING CALCULATIONS.															
Outstanding Equity Balance															
At Beginning of Year	1 639 273	1 714 898	1 774 998	1 817 711	1 840 995	1 842 623	1 820 156	1 770 927	1 692 024	1 580 258	1 432 148	1 243 886	1 011 308	729 863	394 574
At Mid Year (Before Current Cash Flow)	1 723 543	1 803 056	1 866 246	1 911 154	1 935 636	1 937 347	1 913 725	1 861 965	1 779 005	1 661 495	1 505 771	1 307 830	1 063 296	767 383	414 8[illegible]8
At Mid Year (After Current Cash Flow)	1 631 050	1 688 212	1 728 836	1 750 983	1 752 531	1 731 162	1 684 340	1 609 295	1 502 994	1 362 126	1 183 068	9[illegible]1 861	694 177	375 282	0
At End-of Year	1 714 898	1 774 998	1 817 711	1 840 995	1 842 623	1 820 156	1 770 927	1 692 024	1 580 258	1 432 148	1 243 886	1 011 308	729 863	394 574	0
Project Operating? (1=yes 0=no)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Table 7

PURSE PROJECT
PRELIMINARY FINANCIAL ANALYSIS MODEL
CASH FLOW PROJECTION
ALTERNATE RETURN ON EQUITY SENSITIVITY
(Rupiah X 1000)

City Z Final Solid Waste Disposal Project Preliminary — 03-Nov 94

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
SUMMARY OF RESULTS.															
Waste Disposed (Cubic Meters)	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000
Waste Disposal Price (Rupiah / Cubic Meter)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Revenues	514	529	545	562	579	596	614	632	651	671	691	712	733	755	778
Operation and Maintenance Expense	252 495	267 645	283 704	300 726	318 770	337 896	358 170	379 660	402 439	426 586	452 181	479 312	508 070	538 555	570 868
Net Operating Income Before Debt Service	(251 981)	(267 116)	(283 158)	(300 164)	(318 191)	(337 300)	(357 556)	(379 027)	(401 788)	(425 915)	(451 490)	(478 600)	(507 337)	(537 800)	(570 090)
Debt Service	905 012	905 012	905 012	905 012	905 012	905 012	905 012	905 012	905 012	905 012	905 012	905 012	905 012	905 012	905 012
Pre Tax Net Income Available for Equity	(1 156 993)	(1 172 127)	(1 188 170)	(1 205 176)	(1 223 203)	(1 242 312)	(1 262 567)	(1 284 039)	(1 306 800)	(1 330 927)	(1 356 502)	(1 383 612)	(1 412 349)	(1 442 811)	(1 475 102)
Depreciation	444 879	444 879	444 879	444 879	444 879	444 879	444 879	444 879	444 879	444 879	444 879	444 879	444 879	444 879	444 879
Taxable Income	(1 601 872)	(1 617 007)	(1 633 049)	(1 650 055)	(1 668 082)	(1 687 191)	(1 707 447)	(1 728 918)	(1 751 679)	(1 775 806)	(1 801 381)	(1 828 491)	(1 857 228)	(1 887 691)	(1 919 981)
Income Tax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
After Tax Net Income	(1 601 872)	(1 617 007)	(1 633 049)	(1 650 055)	(1 668 082)	(1 687 191)	(1 707 447)	(1 728 918)	(1 751 679)	(1 775 806)	(1 801 381)	(1 828 491)	(1 857 228)	(1 887 691)	(1 919 981)
After Tax Cash Flow	(1 156 993)	(1 172 127)	(1 188 170)	(1 205 176)	(1 223 203)	(1 242 312)	(1 262 567)	(1 284 039)	(1 306 800)	(1 330 927)	(1 356 502)	(1 383 612)	(1 412 349)	(1 442 811)	(1 475 102)
FEASIBILITY CRITERIA.															
Cash-on-Cash Ratio	59 1%	59 9%	-60 7%	81 6%	-62 5%	-63 5%	-64 5%	-65 6%	-66 8%	-68 0%	69 3%	70 7%	72 2%	73 8%	75 4%
Debt Coverage Ratio	-0 28	-0 30	-0 31	-0 33	-0 35	-0 37	-0 40	-0 42	-0 44	0 47	0 50	-0 53	-0 56	-0 59	-0 63
Project Internal Rate of Return	19 1%														
After Tax Return on Equity	22 0%														
SUPPORTING CALCULATIONS.															
Outstanding Equity Balance															
At Beginning of Year	1 956 149	3 694 434	5 852 973	8 530 317	11 847 949	15 955 613	21 037 877	27 322 217	35 088 988	44 683 689	56 532 102	71 158 920	89 210 714	111 484 228	138 961 238
At Mid Year (Before Current Cash Flow)	2 171 326	4 100 821	6 496 800	9 468 652	13 151 223	17 710 730	23 352 043	30 327 661	38 948 776	49 598 895	67 750 633	78 986 401	99 023 893	123 747 493	154 246 974
At Mid Year (After Current Cash Flow)	3 328 319	5 27[illegible] 949	7 684 970	10 673 878	14 374 426	18 953 042	24 614 610	31 611 701	40 255 576	50 923 872	64 107 135	80 370 013	100 436 24[illegible]	125 130 305	155 722 076
At End-of Year	3 694 434	5 852 973	8 530 317	11 847 949	15 955 613	21 037 877	27 322 217	35 088 988	44 683 689	56 532 102	71 158 9[illegible]0	8[illegible] 210 714	111 484 228	138 961 238	172 851 505
Project Operating? (1=yes 0=no)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

SECTION V
PRESENTATION MATERIALS

An initial set of presentation materials was produced for discussions with the Tim Kerja These materials review the purpose of the model, its organization, and the principal inputs and outputs of each of the modules

When the presentation materials were reviewed with the Tim Kerja, a set of preliminary data from the PDAM Balikpapan was utilized to illustrate the model inputs and outputs As the data input is completed, the presentation materials will be augmented to include more detailed description of the mechanics of the model itself, and a broader financial analysis of more than one PDAM and project

The completed presentation materials will be incorporated into a training program produced in both English and Bahasa Indonesia, designed to be provided to PDAM managers and other local officials as part of a curriculum in both financial management and private sector involvement

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PURSE PROJECT

Financial Analysis Model

PURSE PROJECT

Financial Analysis Model

- The *Financial Analysis Model* contains three modules:

1. Financial Results Module.
2. Tariff Module.
3. Pre-Feasibility Module.

PURSE PROJECT

Financial Analysis Model

- The *Financial Results Module* includes the following inputs:

1. Operation and Maintenance Expense.
2. Plant Additions.
3. Depreciation.
4. Existing and Proposed Debt.
5. Income Items.
6. Balance Sheet Items.
7. Historic Financial Results.

PURSE PROJECT
Financial Analysis Model

- The *Financial Results Module* generates the following outputs:

1. Revenue Requirements.
2. Income Statement.
3. Sources and Uses of Funds.
4. Balance Sheet.
5. Performance Measures.
6. Supporting Statements.

PURSE PROJECT

Financial Analysis Model

- The *Tariff Module* includes the following inputs:

1. Number of Customers.
2. Existing Sales.
3. Existing Tariffs.
4. Changes in:
   - Use per Customer.
   - Number of Customers.
   - Proposed Rate Levels.

PURSE PROJECT

Financial Analysis Model

- The *Tariff Module* generates the following outputs:

  1. Consumption by Class.
  2. Revenues on Present and Proposed Rates by Class.

PURSE PROJECT

Financial Analysis Model

- The *Project Pre-Feasibility Module* will give public sector officials and private investors an ability to conduct project pre-feasibility financial tests using project cash flow models that require only preliminary financial and cost information.

PURSE PROJECT

Financial Analysis Model

- The *Project Pre-Feasibility Module* will provide project designers with the opportunity to analyze various project scenarios and to do rapid "sensitivity analysis" to test various assumptions against total project feasibility.

PURSE PROJECT
Financial Analysis Model

- The *Project Pre-Feasibility Module* includes the following inputs:

  1. Development Costs.
  2. Financial Parameters.
  3. First Year Operating and Maintenance Costs.
  4. Escalation Rates.

PURSE PROJECT

Financial Analysis Model

- The *Project Pre-Feasibility Module* generates three outputs:

  1. Summary of Project Development Costs.
  2. First Year Cash Flow Pro-forma.
  3. 10-15 Year Summary of Projected Revenues, Expenses and Profitability: includes Net Cash Flow (NCF), Return on Investment (ROI), and Internal Rate of Return (IRR).