

## ANALISA KEBUTUHAN AIR BERSIH PADA PAM LYONNAISE JAYA ( 1998-2008)

(Berdasarkan Data Laporan Bulanan)

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Population in Concession Area ( Inh )	5.117.867	5.117.867	5.117.867	5.300.000	5.459.500	5.459.500	5.459.500	5.459.500	5.459.500	5.459.500	4.435.865
Number of Connections ( Unit )	209.895	225.813	257.952	290.524	312.879	329.987	337.640	344.368	351.230	377.765	398.507
Raw Water Production from water treatment plant ( m <sup>3</sup> )	168.682.456	186.158.374	176.336.555	178.565.264		189.222.015	185.683.606	207.177.571	193.252.250	185.987.399	187.027.625
Production/Population ( m <sup>3</sup> /d/c )	0,12	0,13	0,12	0,12	0,12	11,96%	0,12	0,13	0,13	0,12	0,15
House Connections ( Unit )	207.744	223.461	229.030	261.293	281.555	298.309	304.386	310.202	315.779	338.393	380.247
Public Taps ( Unit )	799	825	671	680	672	860	953	941	933	924	565
Population Served ( Inh )	1.698.114	1.829.236	2.006.985	2.250.436	2.411.252	2.604.391	2.685.209	2.724.942	3.029.313	3.220.452	2.743.414
Coverage Ratio ( % )	33,18%	35,74%	39,22%	42,46%	44,17%	47,70%	49,18%	49,91%	55,49%	58,99%	61,85%
Consumption ( l/c/d )	113	123	150	149	143	143	133	131	118	113	118
Average Consumption per Connection ( m <sup>3</sup> /unit )	425	451	428	402	403	398	377	376	370	345	29
Water Distribution ( m <sup>3</sup> )	215.505.120	241.268.897	226.548.828	223.472.927	230.716.753	238.247.818	239.585.927	261.476.138	254.913.904	248.996.610	251.239.687
Water Sold ( m <sup>3</sup> )	89.165.168	101.728.796	110.405.290	116.769.888	126.200.288	131.310.498	127.341.770	129.344.449	130.037.935	130.261.004	134.509.650
UFW ( m <sup>3</sup> )	126.339.952	139.540.101	116.143.538	106.703.039	104.516.465	106.937.320	112.244.157	132.131.689	124.875.969	118.735.606	116.730.037
UFW ( % )	58,63%	57,84%	51,27%	47,75%	45,30%	44,88%	46,85%	50,53%	48,99%	47,69%	46,46%
<b>TARGETS:</b>											
Number of Connections (target) ( Unit )	209.895	225.813	257.952	282.048	301.048	329.987	340.987	351.987	361.987	371.987	391.987
Production from water treatment plant (target) ( m <sup>3</sup> )	164.397.168	160.108.272	147.052.368	153.674.928	160.833.600	156.828.289	151.447.112	145.191.744	145.538.640	145.444.032	157.487.858
Coverage Ratio (target) ( % )	32,00%	33,00%	38,00%	42,00%	45,00%	51,00%	57,00%	63,00%	69,00%	75,00%	61,00%
Water Sold (Target) ( m <sup>3</sup> )	89.170.000	101.730.000	110.410.000	114.550.000	118.730.000	131.310.000	134.400.000	138.700.000	143.000.000	146.930.000	134.316.522
UFW (Target) ( % )	58,63%	57,84%	51,27%	49,27%	47,72%	44,88%	42,48%	38,95%	37,15%	35,40%	45,00%
<b>OVER (short) ON TARGETS :</b>											
Number of Connections ( Unit )	-	-	-	8.476	11.831	-	(3.347)	(7.619)	(10.757)	5.778	6.520
( % )	0,00%	0,00%	0,00%	3,01%	3,93%	0,00%	-0,98%	-2,16%	-2,97%	1,55%	1,66%
Production from water treatment plant ( m <sup>3</sup> )	(13.945.883)	(13.741)	390.582	(7.944.280)	(7.074.974)	(26.994)	1.622.355	29.334.801	22.328.351	18.962.553	6.101.192
( % )	-8,48%	-0,01%	0,27%	-5,17%	-4,40%	-0,02%	1,07%	20,20%	15,34%	13,04%	3,87%
Coverage Ratio ( % )	4%	8%	3,20%	1,10%	5,39%	-6,46%	-13,71%	-20,77%	-19,58%	-21,35%	1,39%
Water Sold/Billed ( m <sup>3</sup> )	(4.832)	(1.204)	(4.710)	2.219.888	7.470.288	498	(7.058.230)	(9.355.551)	(12.962.065)	(16.668.996)	193.128
( % )	-0,01%	0,00%	0,00%	1,94%	6,29%	0,00%	-5,25%	-6,75%	-9,06%	-11,34%	0,14%
UFW ( % )	0,01%	0,01%	0,01%	3,09%	5,07%	-0,01%	-10,29%	-29,74%	-31,86%	-34,71%	-3,25%

# TOTAL KEBUTUHAN AIR BERSIH DKI JAKARTA ( 1998-2008 )

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(Berdasarkan Data Laporan Bulanan )

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Population in Concession Area ( Inh )	9.429.867	9.483.867	9.511.867	9.765.000	9.995.700	9.995.700	9.995.700	9.995.700	9.995.700	9.995.700	8.972.065
Number of Connections ( Unit )	487.978	579.013	562.255	610.806	649.429	690.456	705.890	708.919	725.441	755.555	777.994
Raw water ( m <sup>3</sup> )	425.053.576	445.365.760	426.132.436	428.361.145	-	463.084.403	482.824.616	499.548.025	485.836.260	463.864.739	467.921.825
Production from water treatment plant ( m <sup>3</sup> )	396.413.800	406.915.268	381.713.158	399.736.310	407.049.260	416.384.263	430.476.577	449.859.495	448.628.583	425.613.975	430.229.190
Production/Population ( m <sup>3</sup> /d/c )	0,14	0,14	0,13	0,14	0,13	0,14	0,14	0,15	0,15	0,14	0,15
House Connections ( Unit )	497.010	548.626	518.296	566.680	601.812	637.741	651.197	653.459	668.495	686.916	730.601
Public Taps ( Unit )	1.845	1.882	1.717	1.718	1.625	1.837	1.932	1.908	1.790	1.757	1.276
Population Served ( Inh )	4.327.729	4.702.150	4.636.600	4.989.788	5.231.316	5.579.905	5.727.208	5.739.140	6.065.058	6.218.158	5.704.496
Coverage Ratio ( % )	45,89%	49,58%	48,75%	51,10%	52,34%	55,82%	57,30%	57,42%	60,68%	62,21%	63,58%
Consumption ( l/c/d )	115	121	135	130	134	135	130	127	118	112	116
Average Consumption per Connection ( m <sup>3</sup> /unit )	31	30	34	32	33	33	32	31	30	28	28
Water Distribution ( m <sup>3</sup> )	466.406.982	493.598.203	465.438.584	481.918.480	488.309.967	500.735.933	519.066.339	538.079.552	536.278.960	510.282.223	517.960.421
Water Distribution ( - transfer ) ( m <sup>3</sup> )	453.161.414	477.741.896	453.616.035	472.892.806	484.052.632	497.551.186	516.955.723	536.310.103	534.941.800	509.701.974	517.960.421
Water Sold ( m <sup>3</sup> )	181.127.512	207.629.131	228.350.012	237.192.219	255.161.069	274.102.312	270.884.257	267.078.679	261.856.121	249.968.497	257.950.296
Water Sold ( + Transfers ) ( m <sup>3</sup> )	194.373.080	223.485.438	240.172.561	246.217.893	259.418.404	277.287.059	272.994.873	268.848.128	263.193.281	252.598.153	257.950.296
NRW ( m <sup>3</sup> )	272.033.902	270.112.765	225.266.023	235.700.587	228.891.563	223.448.874	246.071.466	269.231.424	273.085.679	259.733.477	260.010.125
( % )	61,17%	57,94%	50,94%	50,78%	47,75%	45,26%	47,81%	50,36%	51,17%	51,01%	50,20%
<b>TARGETS:</b>											
Number of Connections (target) ( Unit )	487.978	511.548	562.255	597.174	636.461	690.456	709.237	731.019	749.145	767.240	795.025
Production from water treatment plant (target) ( m <sup>3</sup> )	433.178.496	406.940.544	380.671.056	383.320.080	391.330.224	416.400.257	430.849.752	404.885.161	400.290.203	395.358.281	405.086.290
Coverage Ratio (target) ( % )	45,89%	49,58%	48,75%	46,48%	48,39%	57,08%	61,45%	65,81%	70,18%	74,55%	68,27%
Water Sold (Target) ( m <sup>3</sup> )	181.130.000	207.630.000	228.350.000	236.380.000	250.050.000	272.710.000	274.790.000	282.700.000	289.280.000	295.400.000	287.841.959
UFW (Target) ( % )	58,35%	54,79%	48,51%	47,15%	45,38%	44,63%	45,46%	41,84%	39,94%	38,05%	41,70%
<b>OVER (short) ON TARGETS :</b>											
Number of Connections ( Unit )	-	67.465	-	13.632	12.968	-	(3.347)	(22.100)	(23.704)	(11.685)	(17.031)
( % )	0,00%	13,19%	0,00%	2,28%	2,04%	0,00%	-0,47%	-3,02%	-3,16%	-1,52%	-2,14%
Production from water treatment plant ( m <sup>3</sup> )	(36.764.696)	(25.276)	1.042.102	16.416.230	15.719.036	(15.994)	(373.175)	44.974.334	48.338.380	30.255.694	25.142.900
( % )	-8,49%	-0,01%	0,27%	4,28%	4,02%	0,00%	-0,09%	11,11%	12,08%	7,65%	6,21%
Coverage Ratio ( % )	0,00%	0,00%	0,00%	9,94%	8,15%	-2,20%	-6,75%	-12,76%	-13,54%	-16,55%	-6,87%
Water Sold/Billed ( m <sup>3</sup> )	(2.488)	(869)	12	812.219	5.111.069	1.392.312	(3.905.743)	(15.621.321)	(27.423.879)	(43.382.096)	(29.891.663)
( % )	0,00%	0,00%	0,00%	0,34%	2,04%	0,51%	-1,42%	-5,53%	-9,48%	-14,69%	-10,38%
UFW ( % )	-4,82%	-5,74%	-5,02%	-7,70%	-5,23%	-1,40%	-5,18%	-20,37%	-28,11%	-32,85%	-20,37%

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**Perkiraan Kebutuhan dan  
Pendapatan**

Section name: Analisa Governmen Suport

Year	Capacity Constraint	Total Traf VPD	2010 1	2011 2	2012 3	2013 4	2014 5	2015 6	2016 7	2017 8	2018 9	2019 10
<b>Category</b>	<b>125.000</b>	<b>17.502</b>										
Jakarta	Liter/detik		1.000	1.150	1.300	1.300	1.550	2.100	2.550	3.050	3.550	3.550
Bekasi-Karawang	Liter/detik		750	750	750	750	1.000	1.650	1.650	1.650	1.650	1.650
<b>Total</b>			<b>1.750</b>	<b>1.900</b>	<b>2.050</b>	<b>2.050</b>	<b>2.550</b>	<b>3.750</b>	<b>4.200</b>	<b>4.700</b>	<b>5.200</b>	<b>5.200</b>

**Tarif**

Jakarta		2.779	2.957	3.145	3.346	3.547	3.760	3.985	4.224	4.478	4.746	
		6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	
							3.546,76	3.759,57	3.985,14	4.224,25	4.477,70	4.746,36
Bekasi-Karawang		1.452	1.452	1.650	1.875	1.875	2.100	2.100	2.352	2.352	2.634	
		0%	12%	0%	12%	0%	12%	0%	12%	0%	12%	

**Pendapatan dalam Rupiah '000**

Jakarta	87.642.772	107.222.540	128.944.775	137.175.293	173.368.466	248.979.488	320.472.169	406.308.440	501.291.364	531.368.846
Bekasi-Karawang	34.342.704	34.342.704	39.025.800	44.347.500	59.130.000	109.272.240	109.272.240	122.384.909	122.384.909	137.071.098
<b>Total</b>	<b>121.985.476</b>	<b>141.565.244</b>	<b>167.970.575</b>	<b>181.522.793</b>	<b>232.498.466</b>	<b>358.251.728</b>	<b>429.744.409</b>	<b>528.693.349</b>	<b>623.676.273</b>	<b>668.439.944</b>

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2020 11	2021 12	2022 13	2023 14	2024 15	2025 16	2026 17	2027 18	2028 19	2029 20	2030 21	2031 22	2032 23
3.550	3.550	3.550	3.550	3.550	3.550	3.550	3.550	3.550	3.550	3.550	3.550	3.550
1.650	1.650	1.650	1.650	1.650	1.650	1.650	1.650	1.650	1.650	1.650	1.650	1.650
5.200	5.200	5.200	5.200	5.200	5.200	5.200	5.200	5.200	5.200	5.200	5.200	5.200
5.031 6%	5.333 6%	5.653 6%	5.992 6%	6.352 6%	6.733 6%	7.137 6%	7.565 6%	8.019 6%	8.500 6%	9.010 6%	9.551 6%	10.124 6%
5.031,15	5.333,02	5.653,00	5.992,18	6.351,71	6.732,81	7.136,78	7.564,98	8.018,88	8.500,02	9.010,02	9.550,62	10.123,66
2.634 0%	2.950 12%	2.950 0%	3.304 12%	3.304 0%	3.701 12%	3.701 0%	4.145 12%	4.145 0%	4.642 12%	4.642 0%	5.200 12%	5.200 0%
563.250.977	597.046.035	632.868.797	670.840.925	711.091.381	753.756.864	798.982.275	846.921.212	897.736.485	951.600.674	1.008.696.714	1.069.218.517	1.133.371.628
137.071.098	153.519.630	153.519.630	171.941.985	171.941.985	192.575.023	192.575.023	215.684.026	215.684.026	241.566.109	241.566.109	270.554.042	270.554.042
700.322.075	750.565.665	786.388.427	842.782.910	883.033.366	946.331.887	991.557.299	1.062.605.238	1.113.420.511	1.193.166.783	1.250.262.823	1.339.772.559	1.403.925.670

## Perkiraan Kebutuhan dan Pendapatan

Section name: Analisa revenue Tirta Pam Jaya

Year	Capacity	Total Traf	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	Constraint	VPD	1	2	3	4	5	6	7	8	9	10
<b>Category</b>	<b>125.000</b>	<b>17.502</b>										
Jakarta	Liter/detik		442	442	442	442	950	1.500	1.750	2.000	2.500	2.500
Bekasi-Karawang	Liter/detik		250	250	250	250	300	350	400	450	600	600
<b>Total</b>			<b>692</b>	<b>692</b>	<b>692</b>	<b>692</b>	<b>1.250</b>	<b>1.850</b>	<b>2.150</b>	<b>2.450</b>	<b>3.100</b>	<b>3.100</b>

### Tarif

Jakarta	4.510	4.798			5.104	5.430	5.756	6.101	6.467	6.855	7.267	7.703
	6%		6%		6%	6%	6%	6%	6%	6%	6%	6%
							5.755,80	6.101,15	6.467,22	6.855,25	7.266,56	7.702,56
Bekasi-Karawang	2.323	2.640			2.640	3.000	3.000	3.360	3.360	3.763	3.763	4.215
	0%		12%		0%	12%	0%	12%	0%	12%	0%	12%

### Pendapatan dalam Rupiah '000

			75.688.292.160,00	207.365.184,00								
Jakarta	62.865.511	66.878.175	71.146.995	75.688.292	172.439.163	288.608.705	356.912.765	432.374.321	572.895.976	607.269.734		
Bekasi-Karawang	18.316.109	20.813.760	20.813.760	23.652.000	28.382.400	37.086.336	42.384.384	53.404.324	71.205.765	79.750.457		
<b>Total</b>	<b>81.181.619</b>	<b>87.691.935</b>	<b>91.960.755</b>	<b>99.340.292</b>	<b>200.821.563</b>	<b>325.695.041</b>	<b>399.297.149</b>	<b>485.778.645</b>	<b>644.101.741</b>	<b>687.020.191</b>		

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2021 12	2022 13	2023 14	2024 15	2025 16	2026 17	2027 18	2028 19	2029 20	2030 21	2031 22	2032 23	2033 24	2034 25
2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500
600	600	600	600	600	600	600	600	600	600	600	600	600	600
3.100	3.100	3.100	3.100	3.100	3.100	3.100	3.100	3.100	3.100	3.100	3.100	3.100	3.100
8.655 6%	9.174 6%	9.724 6%	10.308 6%	10.926 6%	11.582 6%	12.277 6%	13.013 6%	13.794 6%	14.622 6%	15.499 6%	16.429 6%	17.415 6%	18.460 6%
8.654,60	9.173,87	9.724,30	10.307,76	10.926,23	11.581,80	12.276,71	13.013,31	13.794,11	14.621,76	15.499,06	16.429,01	17.414,75	18.459,63
4.721 12%	4.721 0%	5.287 12%	5.287 0%	5.921 12%	5.921 0%	6.632 12%	6.632 0%	7.428 12%	7.428 0%	8.319 12%	8.319 0%	9.318 12%	9.318 0%
682.328.273	723.267.970	766.664.048	812.663.891	861.423.724	913.109.148	967.895.697	1.025.969.438	1.087.527.605	1.152.779.261	1.221.946.017	1.295.262.778	1.372.978.544	1.455.357.257
89.320.512	89.320.512	100.038.973	100.038.973	112.043.650	112.043.650	125.488.888	125.488.888	140.547.555	140.547.555	157.413.261	157.413.261	176.302.852	176.302.852
771.648.785	812.588.481	866.703.021	912.702.864	973.467.374	1.025.152.798	1.093.384.584	1.151.458.326	1.228.075.159	1.293.326.815	1.379.359.278	1.452.676.039	1.549.281.397	1.631.660.109

**PROYEKSI FINANSIAL PENGADAAN AIR BERSIH DKI JAKARTA**  
**Government Suport**

**PDAM***[Rupiah '000]*

<b>Tahun</b>	<b>Note</b>	<b>Opening Yr</b>	<b>2010</b> 1	<b>2011</b> 2	<b>2012</b> 3	<b>2013</b> 4	<b>2014</b> 5	<b>2015</b> 6	<b>2016</b> 7	<b>2017</b> 8	<b>2018</b> 9
<b>Revenue (ribu rupiah)</b>			76.872.282	80.463.771	87.094.361	94.351.991	196.721.350	287.834.237	382.211.690	494.111.954	610.409.419
Pembelian Air Baku	Rp.190/m3		-6.543.089	-6.543.089	-6.543.089	-6.543.089	-13.080.187	-16.926.948	-20.773.709	-24.614.479	-28.461.240
O&M Cost (% of Revenue)	20%		-15.374.456	-16.092.754	-17.418.872	-18.870.398	-39.344.270	-57.566.847	-76.442.338	-98.822.391	-122.081.884
Major Repair Reserve Fund @ (as % of Revenue)	3% per year		-2.306.168	-2.413.913	-2.612.831	-2.830.560	-5.901.640	-8.635.027	-11.466.351	-14.823.359	-18.312.283
<b>Op. Profit b4 Income Tax</b>			52.648.568	55.414.014	60.519.569	66.107.944	138.395.253	204.705.414	273.529.292	355.851.726	441.554.013
Interest Payment	starts in yr	4	0	0	0	-185.612.000	-167.050.800	-185.637.488	-182.771.425	-178.323.448	-154.776.418
Depreciation (straight-line basis over)		25 years	0	0	0	-75.760.000	-75.760.000	-75.760.000	-75.760.000	-75.760.000	-75.760.000
		ends									
Corporation Tax	30,0%	5				0	0	0	0	0	0
	30,0%	15				0	35.851.217	-2.158.701	-5.072.768	-25.705.530	-45.546.824
	30,0%					0	0	0	0	0	0
CAPEX			-662.900.000	1.041.700.000	-189.400.000						
<b>PROFIT AFTER TAX &amp; INTEREST</b>			-610.251.432	-986.285.986	-128.880.431	-119.504.056	7.195.670	16.909.226	85.685.099	151.822.748	241.230.770
Depreciation added back into above cash flow											
Principal Repayment	starts in yr	4,00	0	0	0	-132.580.000	-119.322.000	-132.598.206	-130.551.018	-127.373.892	-110.554.585
Principal Balance					1.325.800.000	1.193.220.000	1.325.982.056	1.305.510.181	1.273.738.917	1.105.545.846	818.719.657
<b>CASHFLOW</b>			-610.251.432	(986.285.986)	-128.880.431	-252.084.056	-112.126.330	-98.779.754	40.819.180	176.271.604	371.906.956
<b>IRR</b>		<b>16,05%</b>									
<b>Total Project Cost (Rupiah)</b>		1.894.000.000									
<b>Equity</b>	30%	568.200.000									
<b>Debt</b>	70%	1.325.800.000									
<b>Construction Schedule Over</b>	3 years		35%	55%	10%						
Construction Cost (Rupiah)			662.900.000	1.041.700.000	189.400.000						
Interest Cost @	14%										
Grace Period for Capital Repayment	3 years										
Loan = Opening Balance			0	94.700.000	1.149.658.000	1.500.010.120	1.367.430.120	1.248.108.120	1.115.509.914	984.958.896	857.585.005
Interest During Construction			0	13.258.000	160.952.120	0	0	0	0	0	0
Capital Repayment			0	0	0	-132.580.000	-119.322.000	-132.598.206	-130.551.018	-127.373.892	-110.554.585
Loan = Closing Balance			94.700.000	1.149.658.000	1.500.010.120	1.367.430.120	1.248.108.120	1.115.509.914	984.958.896	857.585.005	747.030.420
<b>Total Interest During Construction</b>		174.210.120									
<b>RETURN ON EQUITY (ROE)</b>	16,257%		-568.200.000	-986.285.986	-128.880.431	-252.084.056	-112.126.330	-98.779.754	40.819.180	176.271.604	371.906.956
<b>NPV @ interest cost</b>	466.070.649										
<b>Debt service coverage ratio</b>						0,6	1,0	1,1	1,3	1,5	1,9

(DSCR)

2020 11	2021 12	2022 13	2023 14	2024 15	2025 16	2026 17	2027 18	2028 19	2029 20	2030 21	2031 22	2032 23
685.615.704	731.238.610	770.088.647	821.318.245	864.970.147	922.495.549	971.542.826	1.036.137.851	1.091.247.372	1.163.780.964	1.225.702.022	1.307.149.944	1.376.724.444
-28.461.240	-28.461.240	-28.461.240	-28.461.240	-28.461.240	-28.461.240	-28.461.240	-28.461.240	-28.461.240	-28.461.240	-28.461.240	-28.461.240	-28.461.240
-137.123.141	146.247.722	154.017.729	-164.263.649	-172.994.029	-184.499.110	-194.308.565	-207.227.570	-218.249.474	-232.756.193	-245.140.404	-261.429.989	-275.344.889
-20.568.471	-21.937.158	-23.102.659	-24.639.547	-25.949.104	-27.674.866	-29.146.285	-31.084.136	-32.737.421	-34.913.429	-36.771.061	-39.214.498	-41.301.733
499.462.852	534.592.489	564.507.018	603.953.809	637.565.774	681.860.332	719.626.736	769.364.905	811.799.237	867.650.103	915.329.317	978.044.217	1.031.616.582
-51.091.703	22.593.125	20.333.812	18.300.431	16.470.388	14.823.349	13.341.014	12.006.913	10.806.221	9.725.599	8.753.039	7.877.735	7.089.962
-75.760.000	-75.760.000	-75.760.000	-75.760.000	-75.760.000	-75.760.000	-75.760.000	-75.760.000	-75.760.000	-75.760.000	-75.760.000	-75.760.000	-75.760.000
0	0	0	0	0	0	0	0	0	0	0	0	0
-85.754.713	108.784.931	134.520.205	-135.096.188	-146.147.416	0	0	0	0	0	0	0	0
0	0	0	0	0	-186.277.104	-197.162.325	-211.683.545	-224.053.637	-240.484.711	-254.496.707	-273.048.586	-288.883.963
362.616.436	448.400.683	450.320.626	487.158.052	507.888.746	510.406.577	535.805.425	569.688.273	598.551.821	636.890.991	669.585.650	712.873.366	749.822.581
-36.494.074	16.137.946	14.524.152	13.071.736	11.764.563	10.588.107	9.529.296	8.576.366	7.718.730	6.946.857	6.252.171	5.626.954	5.064.259
-161.379.462	145.241.516	130.717.364	-117.645.628	-105.881.065	-95.292.959	-85.763.663	-77.187.296	-69.468.567	-62.521.710	-56.269.539	-50.642.585	-45.578.327
688.738.798	912.939.313	915.165.403	987.387.840	1.027.542.055	1.031.401.261	1.081.140.146	1.147.952.912	1.204.822.371	1.280.728.839	1.345.423.470	1.431.373.687	1.504.709.420
665.158.454	628.664.381	644.802.327	659.326.479	672.398.215	684.162.778	694.750.884	704.280.180	712.856.546	720.575.276	727.522.133	733.774.304	739.401.258
0	0	0	0	0	0	0	0	0	0	0	0	0
-36.494.074	16.137.946	14.524.152	13.071.736	11.764.563	10.588.107	9.529.296	8.576.366	7.718.730	6.946.857	6.252.171	5.626.954	5.064.259
628.664.381	644.802.327	659.326.479	672.398.215	684.162.778	694.750.884	704.280.180	712.856.546	720.575.276	727.522.133	733.774.304	739.401.258	744.465.516
688.738.798	912.939.313	915.165.403	987.387.840	1.027.542.055	1.031.401.261	1.081.140.146	1.147.952.912	1.204.822.371	1.280.728.839	1.345.423.470	1.431.373.687	1.504.709.420
5,1	-10,6	-11,9	-14,5	-17,0	-19,1	-22,4	-26,7	-31,3	-37,2	-43,6	-51,8	-60,7



## PROYEKSI FINANSIAL PENGADAAN AIR BERSIH DKI JAKARTA

Tanpa Governmen Suport

[Rupiah '000]

PDAM

Year	Note	Opening Yr	2010 1	2011 2	2012 3	2013 4	2014 5	2015 6	2016 7	2017 8	2018 9
<b>Revenue (ribu rupiah)</b>			124.280.439	134.604.561	140.804.973	152.509.988	318.030.828	465.746.035	618.904.903	800.337.059	989.068.450
Pembelian Air Baku	Rp.190/m3		-6.543.089	-6.543.089	-6.543.089	-6.543.089	-13.080.187	-16.926.948	-20.773.709	-24.614.479	-28.461.240
O&M Cost (% of Revenue)	20%		-24.856.088	-26.920.912	-28.160.995	-30.501.998	-63.606.166	-93.149.207	-123.780.981	-160.067.412	-197.813.690
Major Repair Reserve Fund @ (as % of Revenue)	3%	per year	-3.728.413	-4.038.137	-4.224.149	-4.575.300	-9.540.925	-13.972.381	-18.567.147	-24.010.112	-29.672.054
<b>Op. Profit b4 Income Tax</b>			89.152.849	97.102.422	101.876.740	110.889.602	231.803.551	341.697.499	455.783.066	591.645.057	733.121.467
Interest Payment	starts in yr	4	0	0	0	-185.612.000	-167.050.800	-185.425.244	-169.566.917	-135.809.048	-69.647.424
Depreciation (straight-line basis over)		25 years	0	0	0	-75.760.000	-75.760.000	-75.760.000	-75.760.000	-75.760.000	-75.760.000
Corporation Tax	30,0%	ends	0	172.124.145	231.742.030	-43.265.631	35.396.409	-30.044.748	-37.868.252	-74.504.369	-114.399.492
	30,0%	5	0			0	0	0	0	0	0
	30,0%	15	0			0	0	0	0	0	0
CAPEX			-662.900.000	-1.041.700.000	-189.400.000						
<b>PROFIT AFTER TAX &amp; INTEREST</b>			-573.747.151	-772.473.432	144.218.770	-117.988.029	100.149.160	126.227.507	248.347.896	381.331.640	549.074.551
Depreciation added back into above cash flow			0	0	0	-132.580.000	-119.322.000	-132.446.603	-121.119.227	-97.006.463	-49.748.160
Principal Repayment	starts in yr	4,00	0	0	1.325.800.000	1.193.220.000	1.324.466.029	1.211.192.267	970.064.628	497.481.599	-217.923.377
Principal Balance											
<b>CASHFLOW</b>			-573.747.151	(772.473.432)	144.218.770	-250.568.029	-19.172.840	120.008.412	375.576.566	665.656.817	1.048.400.942
IRR		29,03%									
<b>Total Project Cost (Rupiah)</b>			1.894.000.000								
<b>Equity</b>	30%		568.200.000								
<b>Debt</b>	70%		1.325.800.000								
<b>Construction Schedule Over</b>	3	years	35%	55%	10%						
Construction Cost (Rupiah)			662.900.000	1.041.700.000	189.400.000						
Interest Cost @	14%										
Grace Period for Capital Repayment	3	years									
Loan = Opening Balance			0	94.700.000	1.149.658.000	1.500.010.120	1.367.430.120	1.248.108.120	1.115.661.517	994.542.290	897.535.828
Interest During Construction			0	13.258.000	160.952.120	0	0	0	0	0	0
Capital Repayment			0	0	0	-132.580.000	-119.322.000	-132.446.603	-121.119.227	-97.006.463	-49.748.160
Loan = Closing Balance			94.700.000	1.149.658.000	1.500.010.120	1.367.430.120	1.248.108.120	1.115.661.517	994.542.290	897.535.828	847.787.668
<b>Total Interest During Construction</b>											174.210.120
<b>RETURN ON EQUITY (ROE)</b>		29,085%	-568.200.000	-772.473.432	144.218.770	-250.568.029	-19.172.840	120.008.412	375.576.566	665.656.817	1.048.400.942
<b>NPV @ interest cost</b>		3.578.735.767									
<b>Debt service coverage ratio (DSCR)</b>						0,6	1,3	1,4	1,9	2,6	5,6

2020 11	2021 12	2022 13	2023 14	2024 15	2025 16	2026 17	2027 18	2028 19	2029 20	2030 21	2031 22	2032 23
723.456.375	771.648.785	812.588.481	866.703.021	912.702.864	973.467.374	1.025.152.798	1.093.384.584	1.151.458.326	1.228.075.159	1.293.326.815	1.379.359.278	1.452.676.039
-18.574.704	-18.574.704	-18.574.704	-18.574.704	-18.574.704	-18.574.704	-18.574.704	-18.574.704	-18.574.704	-18.574.704	-18.574.704	-18.574.704	-18.574.704
-144.691.275	-154.329.757	-162.517.696	-173.340.604	-182.540.573	-194.693.475	-205.030.560	-218.676.917	-230.291.665	-245.615.032	-258.665.363	-275.871.856	-290.535.208
-21.703.691	-23.149.464	-24.377.654	-26.001.091	-27.381.086	-29.204.021	-30.754.584	-32.801.538	-34.543.750	-36.842.255	-38.799.804	-41.380.778	-43.580.281
538.486.705	575.594.861	607.118.427	648.786.622	684.206.501	730.995.174	770.792.950	823.331.426	868.048.207	927.043.169	977.286.944	1.043.531.940	1.099.985.846
-29.535.527	52.650.302	47.385.271	42.646.744	38.382.070	34.543.863	31.089.477	27.980.529	25.182.476	22.664.228	20.397.806	18.358.025	16.522.223
-75.760.000	-75.760.000	-75.760.000	-75.760.000	-75.760.000	-75.760.000	-75.760.000	-75.760.000	-75.760.000	-75.760.000	-75.760.000	-75.760.000	-75.760.000
0	0	0	0	0	0	0	0	0	0	0	0	0
-96.126.782	-123.847.319	-151.319.353	-150.955.304	-162.143.419	0	0	0	0	0	0	0	0
0	0	0	0	0	-206.933.711	-217.836.728	-232.665.586	-245.241.205	-262.184.219	-276.577.425	-295.838.989	-312.224.420
412.824.395	504.397.844	503.184.345	540.478.063	560.445.152	558.605.326	584.045.699	618.646.368	647.989.478	687.523.178	721.107.325	766.050.975	804.283.648
-21.096.805	37.607.358	33.846.622	30.461.960	27.415.764	24.674.188	22.206.769	19.986.092	17.987.483	16.188.735	14.569.861	13.112.875	11.801.588
-376.073.583	-338.466.224	-304.619.602	-274.157.642	-246.741.878	-222.067.690	-199.860.921	-179.874.829	-161.887.346	-145.698.611	-131.128.750	-118.015.875	-106.214.288
804.551.985	1.046.403.045	1.040.215.313	1.111.418.086	1.148.306.069	1.141.884.840	1.190.298.166	1.257.278.829	1.313.966.439	1.391.235.090	1.456.784.510	1.545.214.826	1.620.368.883
678.564.550	657.467.745	695.075.104	728.921.726	759.383.686	786.799.450	811.473.638	833.680.407	853.666.499	871.653.982	887.842.717	902.412.578	915.525.453
0	0	0	0	0	0	0	0	0	0	0	0	0
-21.096.805	37.607.358	33.846.622	30.461.960	27.415.764	24.674.188	22.206.769	19.986.092	17.987.483	16.188.735	14.569.861	13.112.875	11.801.588
657.467.745	695.075.104	728.921.726	759.383.686	786.799.450	811.473.638	833.680.407	853.666.499	871.653.982	887.842.717	902.412.578	915.525.453	927.327.040
804.551.985	1.046.403.045	1.040.215.313	1.111.418.086	1.148.306.069	1.141.884.840	1.190.298.166	1.257.278.829	1.313.966.439	1.391.235.090	1.456.784.510	1.545.214.826	1.620.368.883
9,2	-4,6	-5,2	-6,4	-7,5	-8,4	-10,0	-11,9	-14,0	-16,7	-19,6	-23,3	-27,4