CHATTOGRAM WATER SUPPLY AND SEWERAGE AUTHORITY

MANAGEMENT INFORMATION SYSTEM REPORT
MAY-2022

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Chattogram Water Supply & Sewerage Authority
Monthly MIS Report
May 2022

		Unit	This month	Year to date	Previous year actual	This year target *1	Evaluation *2	Remarks *3 ++ !
Selected Key Indicators								
E 17*	**Non Revenue Water**	%	35	30	25	20	-50%	!
C 4*	Revenue collection efficiency(monthly coll.+outstand. Coll.)/month	%	89	88	100	90	0%	
D 9*	**Collection period**	Day	274	281	314	263	-7%	
F 2*	No. of perma. employee per 1000 connections(excl. non-perma. Em	Nos.	7.4	N/A	8.3	9.4	21%	
D 8*	**Operating Ratio**	Ratio	0.71	0.70	0.69	0.72	4%	
A 3.5*	**Functioning meter rate of installed meter**	%	96	N/A	96	100	-4%	
E 19	**Water quality sample**	No./month	200	2,200	1,800	200	0%	
E 18*	**Leakage occurrence**	No./km/mth	0.33	0.40	0.43	0.50	21%	
A 6*	**Water supply coverage**	%	61	N/A	60	75	-18%	
B 5*	**Average tariff**	Tk/m3	14.59	14.23	13.73	14.73	-1%	
E 16*	Unit production cost (In/c Capt. Cost,Deprec. & Financial Expense.)	Tk/m3	9.77	10.31	11.92	13.56	24%	
A) Connection data								
A 1	Total registered connections	Nos.	86,604	N/A	82,576	84,000	3%	
A 1.1	Billable (non-disconnected) connection	Nos.	80,814	N/A	76,849	78,000	4%	
A 1.2	Non-billable (disconnected) connection	Nos.	5,790	N/A	5,727	6000	4%	
A 1.3	Billed connection	Nos.	78,263	N/A	73,970	75,000	4%	
A 2	Breakdown of billable connection (by customer type)							
A 2.1*	Domestic	%	93	N/A	97	96	-3%	
A 2.2	Non-domestic	%	7	N/A	3	4	-73%	!
A 3	Breakdown of billable connection (by meter status)							
A 3.1	Metered	Nos.	77,128	N/A	74,039	74,000	4%	
A 3.2	Average reading	Nos.	3,579	N/A	2,702	4,000	11%	
A 3.3	Non meter	Nos.	107	N/A	108	0	#DIV/0!	#DIV/0!
A 3.4*	Meter installation rate	%	100	N/A	100	100	0%	
A 3.5*	Functioning meter rate of installed meter	%	96	N/A	96	100	-4%	
A 4	Street Hydrant	Nos.	689	N/A	689	689	0%	
A 5	Religious Institutions	Nos.	368	N/A	368	368	0%	
A 6*	Water supply coverage	%	61	N/A	60	75	-18%	
A 7	Bill sent-out ratio	%	97	N/A	96	100	-3%	

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B) Tariff								
B 1	Domestic	Tk/m3	13.02	N/A	12.40	13.02	0%	
B 2	Non-domestic	Tk/m3	31.82	N/A	30.30	31.82	0%	
B 3	Street Hydrant	Tk/m3	13.02	N/A	12.40	13.02	0%	
B 4	Religious Institutions	Tk/m3	13.02	N/A	12.40	13.02	0%	
B 5*	Average tariff	Tk/m3	14.59	14.23	13.73	14.73	-1%	
C) Billing and Collection								
C 1	Total billing	Tk	142,690,818	1,502,925,175	1,423,705,665	1,806,119,000	-9%	
C 1.1*	Private	Tk	123,430,282	1,293,608,330	1,229,454,669	1,310,119,000	8%	
C 1.2*	Government	Tk	19,260,536	209,316,845	194,250,996	496,000,000	-54%	!
C 2	Billed volume (Total Volume Accounted)	ML	9,779	105,588	103,690	122,640	-6%	
C 3	Total collection	Tk	127,679,336	1,324,751,631	1,417,998,870	1,623,619,000	-11%	
C 3.1*	Private	Tk	119,709,439	1,212,205,803	1,245,465,366	1,365,119,000	-3%	
C 3.2*	Government	Tk	7,969,897	112,545,828	172,533,504	258,500,000	-53%	!
C 4*	Revenue collection efficiency(monthly coll.+outstand. Coll.)/monthly bill.	%	89	88	100	90	0%	
C 4.1*	Private	%	97	94	101	104	-7%	
C 4.2*	Government	%	41	54	89	52	-21%	
D) Financial data								
D 1	Revenue (Total)	Tk	146,863,534	1,599,251,606	1,736,502,206	2,149,619,000	-19%	
D 1.1	Water revenue	Tk	127,679,336	1,324,751,631	1,417,998,870	1,623,619,000	-11%	
D 1.2*	Tubewell license	Tk	4,678,141	108,447,350	126,672,332	90,000,000	31%	++
D 1.3*	Other operating revenues	Tk	6,172,724	74,385,958	96,831,004	336,000,000	-76%	!
D 1.4*	Interest income	Tk	8,333,333	91,666,667	95,000,000	100,000,000	0%	
D 2	Expenses (Total)	Tk	146,280,223	1,554,520,662	1,653,696,147	2,078,403,000	18%	
D 2.1*	Personnel cost	Tk	31,128,223	383,240,912	422,685,147	528,784,000	21%	
D 2.2	Electricity cost	Tk	58,936,000	586,306,000	564,704,000	703,000,000	9%	
D 2.3	Chemicals	Tk	8,206,000	61,247,000	91,434,000	140,000,000	52%	++
D 2.4*	Depreciation	Tk	0	140,940,750	101,204,000	187,921,000	70%	++
D 2.5	Other operating cost	Tk	48,010,000	382,786,000	473,669,000	518,698,000	19%	
D 2.5.1	Other O & M	Tk	5,969,000	84,463,000	111,358,000	185,908,000	50%	++
D 2.5.2	Capital cost from revenues	Tk	42,041,000	298,323,000	362,311,000	332,790,000	2%	
D 2.6*	Financial expense	Tk	0	0	0	0	#DIV/0!	#DIV/0!
D 3	Net Income (Loss)	Tk	583,311	44,730,944	82,806,059	71,216,000	-31%	!
D 4*	Cash at bank	Tk	0	N/A	0	0	N/A	
D 5*	Stock & stores	Tk	0	0	0	0	N/A	
D 6	Accounts Receivable	Tk	1,261,645,593	N/A	1,223,432,356	1,223,432,356	-3%	
D 6.1*	Accounts receivable from Government	Tk	208,847,355	N/A	252,100,239	252,100,239	17%	
D 6.2*	Accounts receivable from Private	Tk	1,052,798,238	N/A	971,332,117	971,332,117	-8%	
D 7*	Long term loans	Tk	0	N/A	0	0	#DIV/0!	#DIV/0!
D 8*	Operating Ratio	Ratio	0.71	0.70	0.69	0.72	4%	
D 9*	Collection period	Day	274	281	314	263	-7%	

		Unit	This month	Year to date	Previous year actual	This year target *1	Evaluation *2	Remarks *3 ++ !
E) Water Supply								
E 3	Capacity of Surface WTP (Mohora+Sk.H.WTP-1+Sk.H.WTP-2+	MLD	466	N/A	323	323	44%	++
E 4	Capacity of Ground WTP	MLD	68	N/A	68	68	-1%	
E 5	Deep Tube Wells in Operation	Nos.	49	N/A	60	44	11%	
E 6*	Capacity of DTW - direct distribution	MLD	49	N/A	59	40	22%	
E 7*	Capacity of DTW - supply to GWTP	MLD	0	N/A	0	0	#DIV/0!	#DIV/0!
E 8*	Capacity of distributable water production	MLD	582	N/A	449	430	35%	++
E 9	Length of Pipeline	km	962	N/A	770	1,037	-7%	
E 15*	Production (distributable water)	ML	14,977.78	150,762	138,687	153,300	7%	
E 15.1*	DTW water to users before boosters	ML	0	0	0	0	N/A	
E 16*	Unit production cost (in/c Capt. Cost,Deprec. & Financial Expense.)	Tk/m3	9.77	10.31	11.92	13.56	24%	
E 17*	Non Revenue Water	%	35	30	25	20	-50%	!
E 18*	Leakage occurrence	No./km/mth	0.33	0.40	0.43	0.50	21%	
E 19	Water quality sample	No./month	200	2,200	1,800	200	0%	
E 20*	Satisfactory sample in chlorine level	%	100	100	100	100	0%	
E 21*	Satisfactory sample in microbiological level	%	100	100	100	100	0%	
F) Personnel								
F 1	No. of permanent employees (Total)	Nos.	597	N/A	635	732	18%	
F 1.1	Grade-3-9	Nos.	59	N/A	57	60	N/A	++
F 1.2	Grade-10-11	Nos.	37	N/A	52	62	N/A	++
F 1.3	Grade-12-16	Nos.	258	N/A	280	300	N/A	++
F 1.4	Grade-17-20	Nos.	243	N/A	246	310	N/A	++
F 5	No. of non-permanent employees (Total)	Nos.	0	N/A	0	0	#DIV/0!	#DIV/0!
F 5.1	Work charge (6 month contract worker)	Nos.	0	N/A	0	0	N/A	++
F 5.2	Master roll (Daily basis casual worker) Outsource in	Nos.	0	N/A	0	200	N/A	++
F 5.3	Project staff (hired by project budget)	Nos.	50	N/A	41	50	N/A	++
F 2*	No. of perma. employee per 1000 connections(excl non-perma. Empl.)	Nos.	7.4	N/A	8.3	9.4	21%	
F 3	Average Monthly Salary	Tk	19,433	N/A	18,807	19,960	3%	
F 4*	% of Overtime to Basic Salary	%	34	N/A	10	32	-7%	
G) Customer Services								
G 1	New Service Connection							
G 1.1	Service Connection Application Received	Nos.	426	4,839	5,137	6,000	-12%	
G 1.2	Service Connection given	Nos.	336	4,400	4,394	5,000	-4%	
G 2	Billing complaints							
G 2.1	Complaints received	Nos.	210	2,350	1,798	4,500	43%	++
G 2.2	Complaints acted on	Nos.	180	1,930	1,469	3,500	40%	++
G 3	Leakage complaints received and attended	Nos.	321	4,185	3,978	5,000	9%	

Notes:
N/A = not applicable (= pointless to calculate, or nonexistent)
Some numbers may show the same value in spite of different values, which is due to rounding.
*1: "this year target" can be set according to (1) Business Plan, (2) Performance Agreement, (3) discussion with D M D (Engineering), (same or modified value of previous year)
*2: Evaluation is made on the basis of variance from the set target. An evaluation result "X % " means that performance of particular indicator is X % better than what is set as the target.
if the NRW is 24% and the target is 20%, this performance is considered unfavorable. The evaluation result is shown as -20% (= 1 - 24 / 20).
If the number of water quality sample is recorded as 24 when the target is set at 20, this performance can be considered favorable. The evaluation result is shown as 20% (= 24 / 20 - 1).
*3: A warning sign " ++ " appears when the evaluation result exceeds 25%, which is considered as the high-end threshold indicating "too good".
A warning sign " ! " appears when the evaluation result is less than - 25%, which is considered as the low-end threshold indicating "very bad".
A2.1: If the total number of billable connections is 45,000 and the number of domestic connections in billable connections is 36,000, this will be 80% (= 36000 / 45000).
A3.4: Meter installation rate = 1 - (number of non-meter connection / number of billable connection).
A6*: Water Supply Coverage=(Billed Connection x 26 Person per Connection + Total Street Hydrant x 80 Person per Street Hydrant) / Total Population in Water Supply Area *100.
A7: Bill sent-out ratio = Billed connection / Billable connection x 100.
B5: Average water tariff = total billing / total billed volume
C1.1: "Private" includes private customers and users of loose water (sold by bowser)
C1.2: "Government" includes government users, street hydrants and religious institutions
C3.1: Same as C1.1
C3.2: Same as C1.2
C4: Revenue collection efficiency = collection /billing x 100. CWASA's existing accounting system cannot classify accounts receivable by age.
Therefore the revenue collection efficiency can be shown merely as (total collection during a period ÷ total billing during the same period).
C4.1: Same as C4
C4.2: Same as C4
C5: Metered volume to billed volume ratio data currently becomes available twice a year due to capacity limitation of computer section.
D1.2: "License and renewal fee of tubewell" in "other operating revenue"
D1.3: Excludes "License and renewal fee of tubewell
D1.4: As the interest income is not obtainable until the year end, a proxy value is used here so that the net income can be computed. The proxy value is the previous year's monthly interest.
D2.1: Includes salary & allowances, provident fund, gratuity, festival bonus, overtime and earn leave encashment
D2.4: Data is only available quarterly instead of monthly. The cost of the latest three month is converted to a monthly average and shown in the monthly data column.
D2.6: Data is only available quarterly instead of monthly. The cost of the latest three month is converted to a monthly average and shown in the monthly data column.
D4: Under the current system, this value is not obtainable until the year end. However it is expected to become obtainable monthly in the future.
D5: Under the current system, this value is not obtainable until the year end. However it is expected to become obtainable monthly in the future.
D6.1: Same as C1.1
D6.2: Same as C1.2
D7: Long term liabilities outstanding as unpaid at the end of month
D8: To see more clearly the CWASA capacity to generate the operating profit before depreciation and interest,
the operating ratio is defined as (personnel cost + elec. cost + chemical cost + other O & M) / (total Revenues).
D9: Collection period = (accounts receivable) / (monthly billings/number of days in month)
E6: Production capacity of deep tube wells that supply water directly to users
E7: Production capacity of deep tube wells that supply water to Karulgaht WTP
E15: Distributable water (or system input water) = Water produced at Surface WTP + Water produced at Ground WTP + Water directly distributed from DTW
E15.1: Raw water distributed directly to users from some DTWs on the way to boosters are not included in the distributable water (E15).
E16: Unit production cost =Expenses(Total)/((Dstributable Water Volume+DTW Water directly distributed)*1000)
E17: NRW = (unbilled water / water produced x 100) = [1 – billed water / (distributable water production + DTW Water directly distributed)] x 100
E18: Leakage occurrence = Number of leakage recognized by complaint / length of pipeline at the end of period / number of months covered
E20: This is the rate of satisfactory sample complying with the chlorine standard.
E21: This is the rate of satisfactory sample complying with the microbiological standard.
F2: No. of employee per 1000 connections = (number of permanent staff + non-permanent staff) / (total billable connections/1000)
F4: Only staff workers (Class 3 and Class 4) receive overtime. Thus this ratio is computed based on Class 3 and Class 4 workers' pay.

Prepared by:			Submitted by:	Noted by:	
04.08.2022			23/8/2022		2?/08/2022
SAE	AE	XEN	SE (P&C)	CE	DMD(F)

মোহাম্মাদ আরিফুল ইসলাম
তত্ত্বাবধায়ক প্রকৌশলী
(পরিকল্পনা ও ... সার্কেল)