CHATTOGRAM WATER SUPPLY AND SEWERAGE AUTHORITY

MANAGEMENT INFORMATION SYSTEM REPORT

FOR THE MONTH OF AUGUST-2021

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Chattogram Water Supply & Sewerage Authority
Monthly MIS Report
August 2021

		Unit	This month	Year to date	Previous year actual	This year target *1	Evaluation *2	Remarks *3 ++ !	To Ve
Selected Key Indicators									
E 17*	**Non Revenue Water**	%	**31**	**30**	**25**	**20**	**-48%**	!	
C 4*	**Revenue collection efficiency(monthly coll.+outstand. Coll.)/month**	%	**101**	**85**	**100**	**90**	**13%**		
D 9*	**Collection period**	Day	**283**	**139**	**314**	**263**	**47%**	++	
F 2*	**No. of perma. employee per 1000 connections(excl. non-perma. Em**	Nos.	**8.1**	**N/A**	**8.3**	**9.4**	**13%**		
D 8*	**Operating Ratio**	Ratio	**0.60**	**0.64**	**0.69**	**0.72**	**12%**		
A 3.5*	**Functioning meter rate of installed meter**	%	**96**	**N/A**	**96**	**100**	**-4%**		
E 19	**Water quality sample**	No./month	**200**	**400**	**1,800**	**200**	**100%**	++	
E 18*	**Leakage occurrence**	No./km/mth	**0.48**	**0.43**	**0.43**	**0.50**	**14%**		
A 6*	**Water supply coverage**	%	**61**	**N/A**	**60**	**75**	**-19%**		
B 5*	**Average tariff**	Tk/m3	**14.14**	**14.07**	**13.73**	**14.73**	**-4%**		
E 16*	**Unit production cost (in/c Capt. Cost,Deprec. & Financial Expense.)**	Tk/m3	**6.71**	**6.07**	**11.92**	**13.56**	**55%**	++	
A) Connection data									
A 1	Total registered connections	Nos.	83,098	N/A	82,576	84,000	-1%		
A 1.1	Billable (non-disconnected) connection	Nos.	77,356	N/A	76,849	78,000	-1%		
A 1.2	Non-billable (disconnected) connection	Nos.	5,742	N/A	5,727	6000	4%		
A 1.3	Billed connection	Nos.	75,740	N/A	73,970	75,000	1%		
A 2	Breakdown of billable connection (by customer type)								
A 2.1*	Domestic	%	91	N/A	97	96	-5%		
A 2.2	Non-domestic	%	9	N/A	3	4	-121%	!	
A 3	Breakdown of billable connection (by meter status)								
A 3.1	Metered	Nos.	74,363	N/A	74,039	74,000	0%		
A 3.2	Average reading	Nos.	2,887	N/A	2,702	4,000	28%	++	
A 3.3	Non meter	Nos.	106	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	-19%		
A 7	Bill sent-out ratio	%	98	N/A	96	100	-2%		

		Unit	This month	Year to date	Previous year actual	This year target *1	Evaluation *2	Remarks *3 ++	!	Too Ver
B) Tariff										
B 1	Domestic	Tk/m3	12.40	N/A	12.40	13.02	-5%			
B 2	Non-domestic	Tk/m3	30.30	N/A	30.30	31.82	-5%			
B 3	Street Hydrant	Tk/m3	12.40	N/A	12.40	13.02	-5%			
B 4	Religious Institutions	Tk/m3	12.40	N/A	12.40	13.02	-5%			
B 5*	Average tariff	Tk/m3	14.14	14.07	13.73	14.73	-4%			
C) Billing and Collection										
C 1	Total billing	Tk	134,802,017	270,057,965	1,423,705,665	1,806,119,000	79%	++		
C 1.1*	Private	Tk	115,783,214	231,676,017	1,229,454,669	1,310,119,000	112%	++		
C 1.2*	Government	Tk	19,018,803	38,381,948	194,250,996	496,000,000	-7%			
C 2	Billed volume (Total Volume Accounted)	ML	9,532	19,199	103,690	122,640	88%	++		
C 3	Total collection	Tk	136,415,574	229,493,468	1,417,998,870	1,623,619,000	70%	++		
C 3.1*	Private	Tk	112,770,113	197,383,011	1,245,465,366	1,365,119,000	74%	++		
C 3.2*	Government	Tk	23,645,461	32,110,457	172,533,504	258,500,000	49%	++		
C 4*	Revenue collection efficiency(monthly coll.+outstand. Coll)/monthly bill.	%	101	85	100	90	13%			
C 4.1*	Private	%	97	85	101	104	-7%			
C 4.2*	Government	%	124	84	89	52	139%	++		
D) Financial data										
D 1	Revenue (Total)	Tk	154,058,837	259,038,330	1,736,502,206	2,149,619,000	45%	++		
D 1.1	Water revenue	Tk	136,415,574	229,493,468	1,417,998,870	1,623,619,000	70%	++		
D 1.2*	Tubewell license	Tk	4,687,495	5,495,193	126,672,332	90,000,000	-27%	!		
D 1.3*	Other operating revenues	Tk	4,622,435	7,383,002	96,831,004	336,000,000	-74%	!		
D 1.4*	Interest income	Tk	8,333,333	16,666,667	95,000,000	100,000,000	100%			
D 2	Expenses (Total)	Tk	92,268,801	165,357,099	1,653,696,147	2,078,403,000	5%			
D 2.1*	Personnel cost	Tk	35,940,801	76,262,099	422,685,147	528,784,000	-73%	!		
D 2.2	Electricity cost	Tk	53,422,000	84,586,000	564,704,000	703,000,000	-44%	!		
D 2.3	Chemicals	Tk	155,000	174,000	91,434,000	140,000,000	99%	++		
D 2.4*	Depreciation	Tk	0	0	101,204,000	187,921,000	100%	++		
D 2.5	Other operating cost	Tk	2,751,000	4,335,000	473,669,000	518,698,000	90%	++		
D 2.5.1	Other O & M	Tk	2,727,000	4,311,000	111,358,000	185,908,000	72%	++		
D 2.5.2	Capital cost from revenues	Tk	24,000	24,000	362,311,000	332,790,000	100%	++		
D 2.6*	Financial expense	Tk	0	0	0	0	#DIV/0!	#DIV/0!		
D 3	Net Income (Loss)	Tk	61,790,036	93,681,231	82,806,059	71,216,000	1479%	++		
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	1,229,699,462	N/A	1,223,432,356	1,223,432,356	-1%			
D 6.1*	Accounts receivable from Government	Tk	250,298,484	N/A	252,100,239	252,100,239	1%			
D 6.2*	Accounts receivable from Private	Tk	979,400,978	N/A	971,332,117	971,332,117	-1%			
D 7*	Long term loans	Tk	0	N/A	0	0	#DIV/0!	#DIV/0!		
D 8*	Operating Ratio	Ratio	0.60	0.64	0.69	0.72	12%			
D 9*	Collection period	Day	283	139	314	263	47%	++		

		Unit	This month	Year to date	Previous year actual	This year target *1	Evaluation *2	Remarks *3 ++ ! T V
E) Water Supply								
E 3	Capacity of Surface WTP (Mohora+Sk.H.WTP+Moduna Gh	MLD	323	N/A	323	323	0%	
E 4	Capacity of Ground WTP	MLD	68	N/A	68	68	-1%	
E 5	Deep Tube Wells in Operation	Nos.	60	N/A	60	44	36%	++
E 6*	Capacity of DTW - direct distribution	MLD	58	N/A	59	40	46%	++
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	449	N/A	449	430	4%	
E 9	Length of Pipeline	km	962	N/A	770	1,037	-7%	
E 15*	Production (distributable water)	ML	13,750.73	27,240	138,687	153,300	113%	++
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	6.71	6.07	11.92	13.56	55%	++
E 17*	Non Revenue Water	%	31	30	25	20	-48%	!
E 18*	Leakage occurrence	No./km/mth	0.48	0.43	0.43	0.50	14%	
E 19	Water quality sample	No./month	200	400	1,800	200	100%	++
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.	629	N/A	635	732	14%	
F 1.1	Grade-3-9	Nos.	56	N/A	57	60	N/A	++
F 1.2	Grade-10-11	Nos.	52	N/A	52	62	N/A	++
F 1.3	Grade-12-16	Nos.	275	N/A	280	300	N/A	++
F 1.4	Grade-17-20	Nos.	246	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.	8.1	N/A	8.3	9.4	13%	
F 3	Average Monthly Salary	Tk	26,602	N/A	18,807	19,960	-33%	!
F 4*	% of Overtime to Basic Salary	%	36	N/A	10	32	-11%	
G) Customer Services								
G 1	New Service Connection							
G 1.1	Service Connection Application Received	Nos.	316	445	5,137	6,000	-11%	
G 1.2	Service Connection given	Nos.	174	336	4,394	5,000	-19%	
G 2	Billing complaints							
G 2.1	Complaints received	Nos.	230	340	1,798	4,500	9%	
G 2.2	Complaints acted on	Nos.	190	270	1,469	3,500	7%	
G 3	Leakage complaints received and attended	Nos.	460	823	3,978	5,000	-98%	!

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 60 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:	
SAE	AE	(PSCC)	CE	DMD (E)