

CHATTOGRAM WATER SUPPLY AND SEWERAGE AUTHORITY



**MANAGEMENT INFORMATION SYSTEM REPORT  
FOR THE MONTH OF FEBRUARY-2023**

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**Chattogram Water Supply & Sewerage Authority**  
**Monthly MIS Report**  
**February 2023**

	Unit	This month	Year to date	Previous year actual	This year target *1	Evaluation *2	Remarks *3 ++ Too good ! Very bad
<b>Selected Key Indicators</b>							
E 17* Non Revenue Water	%	30	32	30	23	-38%	!
C 4* Revenue collection efficiency(monthly coll.+outstand. Coll.)/month	%	85	86	93	99	-14%	
D 9* Collection period	Day	188	221	282	263	16%	
F 2* No. of perma. employee per 1000 connections(excl. non-perma. Em	Nos.	6.7	N/A	7.3	8.5	21%	
D 8* Operating Ratio	Ratio	0.57	0.62	0.79	0.72	15%	
A 3.5* Functioning meter rate of installed meter	%	92	N/A	95	100	-8%	
E 19 Water quality sample	No./month	200	1,600	2,400	2,400	-92%	!
E 18* Leakage occurrence	No./km/mth	0.34	0.35	0.38	5.04	93%	++
A 6* Water supply coverage	%	62	N/A	62	75	-17%	
B 5* Average tariff	Tk/m3	20.23	17.73	14.28	15.28	32%	++
E 16* Unit production cost (in/c Capt. Cost,Deprec. & Financial Expense.)	Tk/m3	12.72	15.07	12.31	20.53	27%	++
<b>A) Connection data</b>							
A 1 Total registered connections	Nos.	90,011	N/A	86,788	91,700	-2%	
A 1.1 Billable (non-disconnected) connection	Nos.	84,132	N/A	81,005	85,700	-2%	
A 1.2 Non-billable (disconnected) connection	Nos.	5,879	N/A	5,783	6000	2%	
A 1.3 Billed connection	Nos.	81,585	N/A	78,980	84,000	-3%	
A 2 Breakdown of billable connection (by customer type)							
A 2.1* Domestic	%	93	N/A	93	93	0%	
A 2.2 Non-domestic	%	7	N/A	7	7	3%	
A 3 Breakdown of billable connection (by meter status)							
A 3.1 Metered	Nos.	77,555	N/A	77,176	81,700	-5%	
A 3.2 Average reading	Nos.	6,473	N/A	3,723	4,000	-62%	!
A 3.3 Non meter	Nos.	104	N/A	106	106	2%	
A 3.4* Meter installation rate	%	100	N/A	100	100	0%	
A 3.5* Functioning meter rate of installed meter	%	92	N/A	95	100	-8%	
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	%	62	N/A	62	75	-17%	
A 7 Bill sent-out ratio	%	97	N/A	98	98	-1%	

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	Unit	This month	Year to date	Previous year actual	This year target *1	Evaluation *2	Remarks *3
							++ Too good ! Very bad
<b>B) Tariff</b>							
B 1 Domestic	Tk/m3	18.00	N/A	13.02	13.67	32%	++
B 2 Non-domestic	Tk/m3	37.00	N/A	31.82	33.41	11%	
B 3 Street Hydrant	Tk/m3	18.00	N/A	13.02	13.67	32%	++
B 4 Religious Institutions	Tk/m3	18.00	N/A	13.02	13.67	32%	++
B 5* Average tariff	Tk/m3	20.23	17.73	14.28	15.28	32%	++
<b>C) Billing and Collection</b>							
C 1 Total billing	Tk	191,551,670	1,415,183,355	1,646,498,206	1,931,900,000	10%	
C 1.1* Private	Tk	167,319,144	1,236,878,856	1,417,237,972	1,552,430,000	20%	
C 1.2* Government	Tk	24,232,526	178,304,499	229,260,234	379,470,000	-30%	!
C 2 Billed volume (Total Volume Accounted)	ML	9,468	79,799	115,273	126,470	-5%	
C 3 Total collection	Tk	162,874,243	1,221,813,794	1,532,296,451	1,916,900,000	-4%	
C 3.1* Private	Tk	156,482,738	1,125,385,898	1,385,932,394	1,712,297,000	-1%	
C 3.2* Government	Tk	6,391,505	96,427,896	146,364,057	204,603,000	-29%	!
C 4* Revenue collection efficiency(monthly coll.+outstand. Coll.)/monthly bill.	%	85	86	93	99	-14%	
C 4.1* Private	%	94	91	98	110	-15%	
C 4.2* Government	%	26	54	64	54	-51%	!
<b>D) Financial data</b>							
D 1 Revenue (Total)	Tk	200,016,069	1,413,503,155	1,828,840,771	2,296,850,000	-8%	
D 1.1 Water revenue	Tk	162,874,243	1,221,813,794	1,532,296,451	1,916,900,000	-4%	
D 1.2* Tubewell license	Tk	22,305,562	53,159,013	114,045,305	100,000,000	-20%	
D 1.3* Other operating revenues	Tk	6,502,931	71,863,681	82,499,015	179,950,000	-40%	!
D 1.4* Interest income	Tk	8,333,333	66,666,667	100,000,000	100,000,000	0%	
D 2 Expenses (Total)	Tk	170,916,853	1,763,980,638	2,032,959,163	3,372,762,373	22%	
D 2.1* Personnel cost	Tk	29,494,853	277,973,951	426,879,163	575,536,000	28%	++
D 2.2 Electricity cost	Tk	66,836,000	497,762,000	652,415,000	773,000,000	3%	
D 2.3 Chemicals	Tk	5,374,000	45,721,000	141,233,000	140,000,000	51%	++
D 2.4* Depreciation	Tk	0	735,971,687	246,857,000	1,471,943,373	25%	++
D 2.5 Other operating cost	Tk	69,212,000	206,552,000	565,575,000	412,283,000	25%	
D 2.5.1 Other O & M	Tk	12,022,000	49,949,000	220,317,000	173,693,000	57%	++
D 2.5.2 Capital cost from revenues	Tk	57,190,000	156,603,000	345,258,000	238,590,000	2%	
D 2.6* Financial expense	Tk	0	0	0	0	#DIV/0!	#DIV/0!
D 3 Net Income ( Loss )	Tk	29,099,216	(350,477,483)	(204,118,392)	(1,075,912,373)	-51%	!
D 4* Cash at bank	Tk	0	N/A	0	0	N/A	
D 5* Stock & stores	Tk	0	0	0	140,034	N/A	
D 6 Accounts Receivable	Tk	1,285,023,128	N/A	1,271,740,973	1,271,740,973	-1%	
D 6.1* Accounts receivable from Government	Tk	199,207,702	N/A	210,605,008	210,605,008	5%	
D 6.2* Accounts receivable from Private	Tk	1,085,815,426	N/A	1,061,135,965	1,061,135,965	-2%	
D 7* Long term loans	Tk	0	151,523,525	0	303,047,050	100%	++
D 8* Operating Ratio	Ratio	0.57	0.62	0.79	0.72	15%	
D 9* Collection period	Day	188	221	282	263	16%	

		Unit	This month	Year to date	Previous year actual	This year target *1	Evaluation *2	Remarks *3 ++ Too good ! Very bad
E) Water Supply								
E 3	Capacity of Surface WTP (Mohora+Sk.H.WTP-1+Sk.H.WTP-2+SR)	MLD	466	N/A	466	490	-5%	! #DIV/0!
E 4	Capacity of Ground WTP	MLD	68	N/A	68	68	0%	
E 5	Deep Tube Wells in Operation	Nos.	42	N/A	47	47	-11%	
E 6*	Capacity of DTW - direct distribution	MLD	35	N/A	48	48	-27%	
E 7*	Capacity of DTW - supply to GWTP	MLD	0	N/A	0	0	#DIV/0!	
E 8*	Capacity of distributable water production	MLD	568	N/A	581	605	-6%	
E 9	Length of Pipeline	km	962	N/A	962	992	-3%	
E 15*	Production (distributable water)	ML	13,438.16	117,071	165,187	164,250	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	12.72	15.07	12.31	20.53	27%	
E 17*	Non Revenue Water	%	30	32	30	23	-38%	!
E 18*	Leakage occurrence	No./km/mth	0.34	0.35	0.38	5.04	93%	++
E 19	Water quality sample	No./month	200	1,600	2,400	2,400	-92%	!
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.	565	N/A	591	732	23%	++ #DIV/0!
F 1.1	Grade-3-9	Nos.	55	N/A	59	60	N/A	
F 1.2	Grade-10-11	Nos.	36	N/A	37	62	N/A	
F 1.3	Grade-12-16	Nos.	236	N/A	254	300	N/A	
F 1.4	Grade-17-20	Nos.	238	N/A	241	310	N/A	
F 5	No. of non-permanent employees (Total)	Nos.	0	N/A	0	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	300	N/A	
F 5.3	Project staff (hired by project budget)	Nos.	50	N/A	50	50	N/A	
F 2*	No. of perma. employee per 1000 connections(excl. non-perma. Empl.)	Nos.	6.7	N/A	7.3	8.5	21%	
F 3	Average Monthly Salary	Tk	28,008	N/A	18,802	19,960	-40%	!
F 4*	% of Overtime to Basic Salary	%	29	N/A	1	32	10%	
G) Customer Services								
G 1	New Service Connection							++ ++
G 1.1	Service Connection Application Received	Nos.	227	4,291	5,296	6,000	7%	
G 1.2	Service Connection given	Nos.	373	4,119	4,934	5,000	24%	
G 2	Billing complaints							
G 2.1	Complaints received	Nos.	150	1,550	2,510	4,500	48%	
G 2.2	Complaints acted on	Nos.	120	1,209	2,050	3,500	48%	
G 3	Leakage complaints received and attended	Nos.	330	2,681	4,422	5,000	20%	





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)/((Distributable 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.

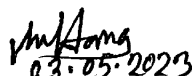
F2: No. of employee per 1000 connections = (number of permanent staff + non-permanent staff) / (total billable connections/1000)

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.

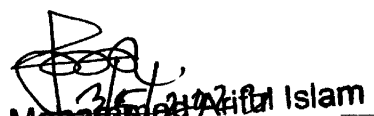
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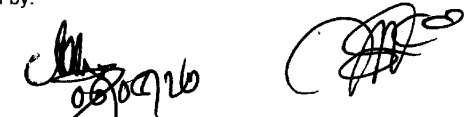
Submitted by:

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03.05.2023  
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