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CHATTOGRAM WATER SUPPLY AND SEWERAGE AUTHORITY

MANAGEMENT INFORMATION SYSTEM REPORT

FOR THE MONTH OF NOVEMBER-2024

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Chattogram Water Supply & Sewerage Authority
Monthly MIS Report
November 2024

			Unit	This month	Year to date	Previous year actual	This year target *1	Evaluation *2	Remarks *3 ++ Too good ! Very bad
Selected Key Indicators									
E	**17***	**Non Revenue Water= {1-(billed water(C2)/distributable water production(E15*))} X 100**	%	**27**	**30**	**30**	**25**	**-18%**	
C	**4***	**Revenue collection efficiency (monthly coll.+ outstand. Coll.)/ monthly bill. = (collection(C3)/billing(C1)) X100**	%	**83**	**85**	**90**	**129**	**-36%**	!
D	**9***	**Collection period = (accounts receivable(D6)/monthly billings(C1)) X number of days of month**	Day	**289**	**295**	**270**	**200**	**-48%**	!
F	**2***	**No. of perma. employee per 1000 connections(excl. non-perma. Empl.) = (No. of permanent staff(F1) + non-permanent staff(F5) / total billable connections (A1.1)) X1000**	Nos.	**5.6**	**N/A**	**5.8**	**6.0**	**6%**	
D	**8***	**Operating Ratio = (personal cost (D2.1) + electricity cost (D2.2) + chemical cost (D2.3) + other O & M (D2.5.1)) / (Total Revenues(D1))**	Ratio	**0.73**	**0.78**	**0.71**	**0.56**	**-38%**	!
A	**3.5***	**Functioning meter rate of installed meter = no. of metered (A3.1)/ (no. of metered (A3.1) + average reading (A3.2)) X 100**	%	**89**	**N/A**	**90**	**90**	**-1%**	
E	**19**	**Water quality sample (E19)**	No./month	**240**	**1,200**	**2,880**	**2,880**	**-92%**	!
E	**18***	**Leakage occurrence = (no. of leakage recognized by complaint (G3)/ Length of Pipeline at the end of period(E9)/ no. of months covered)**	No./km/mth	**0.33**	**0.26**	**0.28**	**2.27**	**88%**	++
A	**6***	**Water supply coverage = ((Billed connection (A1.3) X 26 Person per Connection) + (Total Street Hydrant (A4) X 80 Person per Street Hydrant) / Total Population in water Supply Area (N.B)) X 100**	%	**66**	**N/A**	**66**	**67**	**-1%**	
B	**5***	**Average tariff = (Total billing(C1)/ Billed volume(C2)) / 1000**	Tk/m3	**18.97**	**19.02**	**19.00**	**20.00**	**-5%**	
E	**16***	**Unit production cost (in/c Capt. Cost,Deprec. & Financial Expense.) = Expenses Total(D2)/ (Production distributable water(E15*) +DTW Water directly distributed (E15.1*)) / 1000)**	Tk/m3	**21.65**	**19.24**	**20.30**	**21.90**	**12%**	
A) Connection data									
A	1	Total registered connections	Nos.	98,755	N/A	97,137	101,222	-2%	
A	1.1	Billable (non-disconnected) connection	Nos.	92,691	N/A	91,121	95,220	-3%	
A	1.2	Non-billable (disconnected) connection	Nos.	6,064	N/A	6,016	6002	-1%	
A	1.3	Billed connection	Nos.	90,549	N/A	89,508	91,932	-2%	
A	2	Breakdown of billable connection (by customer type)							
A	2.1*	Domestic	%	93	N/A	93	91	2%	
A	2.2	Non-domestic	%	7	N/A	7	9	23%	
A	3	Breakdown of billable connection (by meter status)							
A	3.1	Metered	Nos.	82,850	N/A	81,589	85,572	-3%	
A	3.2	Average reading	Nos.	9,739	N/A	9,430	9,546	-2%	
A	3.3	Non meter	Nos.	102	N/A	102	102	0%	
A	3.4*	Meter installation rate	%	100	N/A	100	100	0%	
A	3.5*	Functioning meter rate of installed meter	%	89	N/A	90	90	-1%	
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	%	66	N/A	66	67	-1%	
A	7	Bill sent-out ratio	%	98	N/A	98	97	1%	

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B) Tariff								
B 1	Domestic	Tk/m3	18.00	N/A	18.00	18.90	-5%	
B 2	Non-domestic	Tk/m3	37.00	N/A	37.00	38.85	-5%	
B 3	Street Hydrant	Tk/m3	18.00	N/A	18.00	18.90	-5%	
B 4	Religious Institutions	Tk/m3	18.00	N/A	18.00	18.90	-5%	
B 5*	Average tariff	Tk/m3	18.97	19.02	19.00	20.00	-5%	
C) Billing and Coliection								
C 1	Total billing	Tk	200,948,901	998,058,808	2,347,888,407	2,400,000,000	0%	
C 1.1*	Private	Tk	177,392,131	881,683,358	2,062,051,833	2,160,000,000	-2%	
C 1.2*	Government	Tk	23,556,770	116,375,450	285,836,574	240,000,000	16%	
C 2	Billed volume (Total Volume Accounted)	ML	10,592	52,477	123,549	120,000	5%	
C 3	Total collection	Tk	166,262,098	849,917,802	2,105,177,399	3,094,120,000	-34%	!
C 3.1*	Private	Tk	157,344,236	802,469,923	1,992,878,824	2,929,067,275	-34%	!
C 3.2*	Government	Tk	8,917,862	47,447,879	112,298,575	165,052,725	-31%	!
C 4*	Revenue collection efficiency (monthly coll.+ outstand. Coll.)/ monthly bill.	%	83	85	90	129	-36%	!
C 4.1*	Private	%	89	91	97	136	-35%	!
C 4.2*	Government	%	38	41	39	69	-45%	!
D) Financial data								
D 1	Revenue (Total)	Tk	186,943,358	948,259,938	2,425,189,135	3,457,920,000	-34%	!
D 1.1	Water revenue	Tk	166,262,098	849,917,802	2,105,177,399	3,094,120,000	-34%	!
D 1.2*	Tubewell license	Tk	4,024,926	15,690,175	115,878,743	100,000,000	-62%	!
D 1.3*	Other operating revenues	Tk	8,323,000	40,985,295	114,132,993	163,800,000	-40%	!
D 1.4*	Interest income	Tk	8,333,333	41,666,667	90,000,000	100,000,000	0%	
D 2	Expenses (Total)	Tk	313,774,378	1,432,845,148	3,583,597,467	4,396,985,820	22%	
D 2.1*	Personnel cost	Tk	40,579,772	197,453,329	517,744,367	631,470,000	25%	
D 2.2	Electricity cost	Tk	83,851,000	456,370,000	912,448,000	920,000,000	-19%	
D 2.3	Chemicals	Tk	7,269,000	52,402,000	139,542,000	140,000,000	10%	
D 2.4*	Depreciation	Tk	129,182,985	645,914,925	1,500,000,000	1,550,195,820	0%	
D 2.5	Other operating cost	Tk	32,978,000	78,193,000	513,863,100	935,960,000	80%	++
D 2.5.1	Other O & M	Tk	3,867,000	33,583,000	159,148,100	260,700,000	69%	++
D 2.5.2	Capital cost from revenues	Tk	29,111,000	44,610,000	354,715,000	675,260,000	84%	++
D 2.6*	Financial expense	Tk	627,974	2,511,894	0	7,200,000	16%	
D 3	Net Income (Loss)	Tk	(126,831,020)	(484,585,210)	(1,158,408,332)	(939,065,820)	24%	
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	1,936,241,150	N/A	1,737,729,584	1,737,729,584	-11%	
D 6.1*	Accounts receivable from Government	Tk	459,674,460	N/A	366,318,888	366,318,888	-25%	!
D 6.2*	Accounts receivable from Private	Tk	1,476,566,690	N/A	1,371,410,696	1,371,410,696	-8%	
D 7*	Long term loans	Tk	19,285,647	77,142,589	212,142,000	212,160,000	91%	++
D 8*	Operating Ratio	Ratio	0.73	0.78	0.71	0.56	-38%	!
D 9*	Collection period	Day	289	295	270	200	-48%	!

		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+SRPS)	MLD	466	N/A	466	466	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	45	55	-24%	
E 6*	Capacity of DTW - direct distribution	MLD	29	N/A	33	48	-39%	!
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	562	N/A	566	581	-3%	
E 9	Length of Pipeline	km	962	N/A	962	992	-3%	
E 15*	Production (distributable water)	ML	14,492.63	74,457	176,510.35	200,750	-11%	
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	21.65	19.24	20.30	21.90	12%	
E 17*	Non Revenue Water	%	27	30	30	25	-18%	
E 18*	Leakage occurrence	No./km/mth	0.33	0.26	0.28	2.27	88%	++
E 19	Water quality sample	No./month	240	1,200	2,880	2,880	-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.	522	N/A	527	570	8%	
F 1.1	Grade-3-9	Nos.	57	N/A	56	60	N/A	++
F 1.2	Grade-10-11	Nos.	35	N/A	36	30	N/A	++
F 1.3	Grade-12-16	Nos.	200	N/A	203	260	N/A	++
F 1.4	Grade-17-20	Nos.	230	N/A	232	220	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	300	N/A	++
F 5.3	Project staff (hired by project budget)	Nos.	25	N/A	50	50	N/A	++
F 2*	No. of perma. employee per 1000 connections(excl. non-perma. Empl.)	Nos.	5.6	N/A	5.8	6.0	6%	
F 3	Average Monthly Salary	Tk	34,981	N/A	21,044	33,516	-4%	
F 4*	% of Overtime to Basic Salary	%	38.62	N/A	24	32	-21%	
G) Customer Services								
G 1	New Service Connection							
G 1.1	Service Connection Application Received	Nos.	298	1,318	4,570	4,000	-21%	
G 1.2	Service Connection given	Nos.	280	1,316	4,480	3,800	-17%	
G 2	Billing complaints							
G 2.1	Complaints received	Nos.	180	960	2,335	2,800	18%	
G 2.2	Complaints acted on	Nos.	160	840	1,960	2,300	12%	
G 3	Leakage complaints received and attended	Nos.	320	1,256	3,237	2,250	-34%	!

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).
A3.5: Functioning meter rate = 1 - (number of average reading connection / number of billable connection). This indicator is used as a proxy of ratio of metered water sold to total water sold.
A6: Water supply coverage is defined as (population served with piped water + population served by street hydrant) / population in service area.
In FY 2010/11, this was estimated at 42% (= (1.192 million + 0.07 million) / 2.98 million)
Supply coverage of this month is computed based on the following assumptions used in Business Plan.
(population in service area = 3 million; user population per connection = 30; population served with standpipes = 100,000; number of standpipes = 689)
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.
F21: 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.

(Richard Edison Penheiro)
Executive Engineer (A C)
Design Division
Chattogram WASA Chattogram

মোহাম্মদ আরিফুল ইসলাম
তত্ত্বাবধায়ক প্রকৌশলী
(পরিকল্পনা ও নির্মাণ সার্কেল)
চট্টগ্রাম ওয়াসা।

CE
প্রধান প্রকৌশলী
চট্টগ্রাম ওয়াসা, চট্টগ্রাম।

DMD (E)