

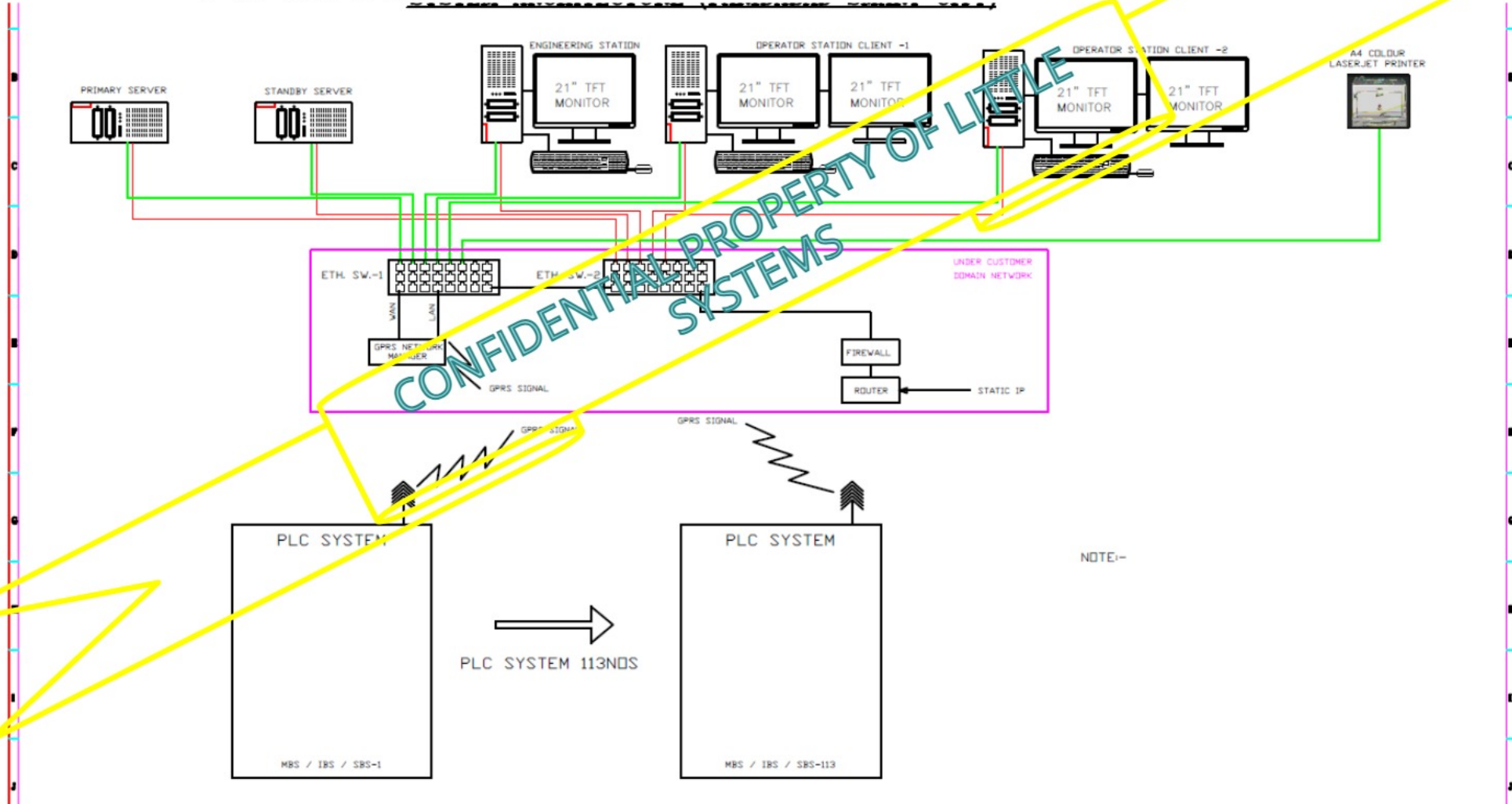


# Little systems

- Established in 1993
- Core focus on PLC , scada & control panels
- Water SCADA project in Faridabad smart city
- Total no of remote sites 95
- Genesys64 Redundant scada with report works with 10000+ tags
- Project handed over & running in O & M from mid of 2024



# Water Scada System Architecture



CONFIDENTIAL PROPERTY OF LITTLE SYSTEMS



# Project Overview

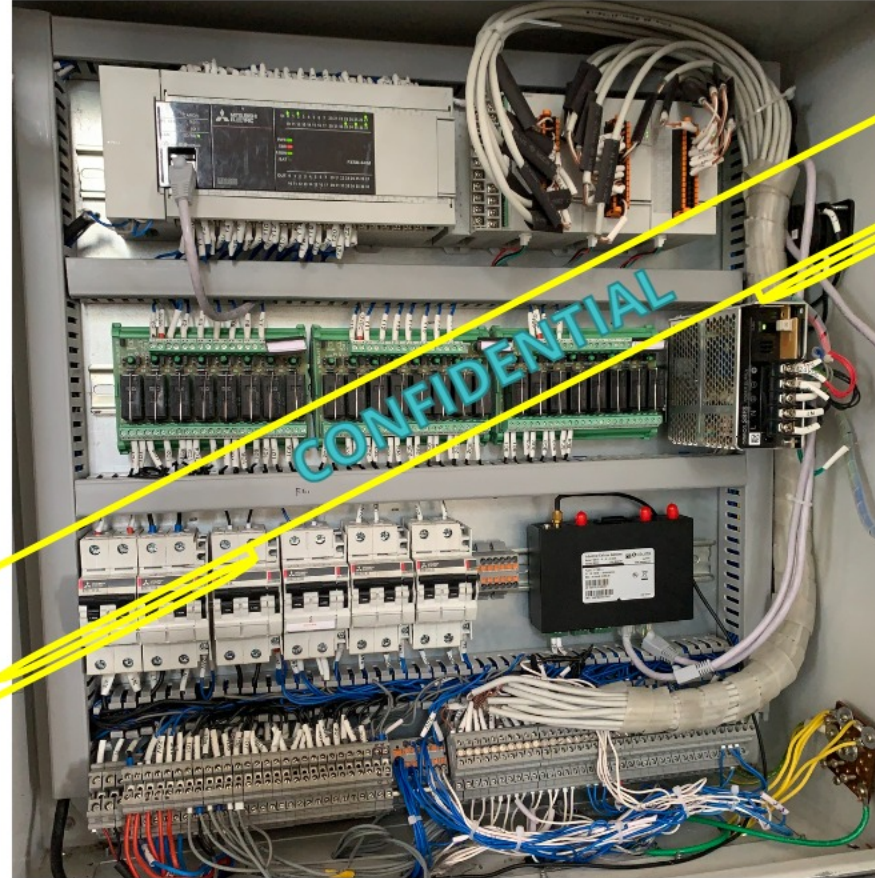
Location	Status	Location	Status	Location	Status
<b>LINE-1</b>					
Mothuka renny well 1	COMMUNICATION HEALTHY	Gharora_Ranney well	COMMUNICATION LOST	Sainik Colony 2	COMMUNICATION HEALTHY
Mothuka renny well 2	COMMUNICATION LOST	MBS GHARORA	COMMUNICATION HEALTHY	Arauli Vihar	COMMUNICATION HEALTHY
MBS MOTHUKA	COMMUNICATION HEALTHY	IBS SECTOR 3	COMMUNICATION HEALTHY	<b>LINE-5</b>	
MBS uncha gaon	COMMUNICATION HEALTHY	SBS-Shiv Colony	COMMUNICATION LOST	SBS bhopani	COMMUNICATION HEALTHY
IBS 25	COMMUNICATION HEALTHY	SBS-Sector-7	COMMUNICATION HEALTHY	SBS Sec 28	COMMUNICATION LOST
SBS Sector-58	COMMUNICATION HEALTHY	dhobi ghat sec 3	COMMUNICATION HEALTHY	sec30 -31	COMMUNICATION HEALTHY
SBS MilkPlant	COMMUNICATION HEALTHY	SBS Chawla Colony	COMMUNICATION HEALTHY	Ashoka Enclave	COMMUNICATION LOST
SBS-Bapu Nagar	COMMUNICATION HEALTHY	SBS SEC_8 Mujessar	COMMUNICATION LOST	Spring Field	COMMUNICATION HEALTHY
SBS-Sec-25 (New)	COMMUNICATION HEALTHY	SBS Sec 24	COMMUNICATION LOST	Sector 32	COMMUNICATION HEALTHY
SBS Subhash Colony	COMMUNICATION HEALTHY	MBS Mirzapur	COMMUNICATION LOST	Sector 37	COMMUNICATION HEALTHY
SBS-Jain Colony	COMMUNICATION LOST	IBS Sec-11	COMMUNICATION HEALTHY	<b>LINE-6</b>	
SBS -sector 23A	COMMUNICATION HEALTHY	SEC-9	COMMUNICATION HEALTHY	Dadasia Rennywell 1	COMMUNICATION HEALTHY
SBS-JCB Chowk	COMMUNICATION LOST	<b>LINE-3</b>		Dadasia Rennywell 2	COMMUNICATION HEALTHY
Panchayat Bhawan	COMMUNICATION HEALTHY	MBS Mirzapur	COMMUNICATION LOST	Dadasia Rennywell 3	COMMUNICATION HEALTHY
Village Gauri	COMMUNICATION HEALTHY	KANWARA RW 1	COMMUNICATION LOST	Dadasia Rennywell 4	COMMUNICATION LOST
Uncha gaon	COMMUNICATION HEALTHY	KANWARA RW 2	COMMUNICATION HEALTHY	MBS Dadasia	COMMUNICATION HEALTHY
<b>STATUS I/O</b>		MBS KANWARA	COMMUNICATION LOST	SBS NH1	COMMUNICATION HEALTHY
		SBS_Sector-15A	COMMUNICATION HEALTHY	SBS 21 A	COMMUNICATION HEALTHY
		SBS-Sector-17	COMMUNICATION HEALTHY	SBS 21 C	COMMUNICATION HEALTHY
		SBS-Sector-14	COMMUNICATION LOST	SBS 21D	COMMUNICATION HEALTHY
		SBS-Fruit Garden_Line 4	COMMUNICATION HEALTHY	SBS NH-3 (Near ESIC Hospital)	COMMUNICATION HEALTHY
		SEC-16	COMMUNICATION HEALTHY	SBS Farid park	COMMUNICATION LOST

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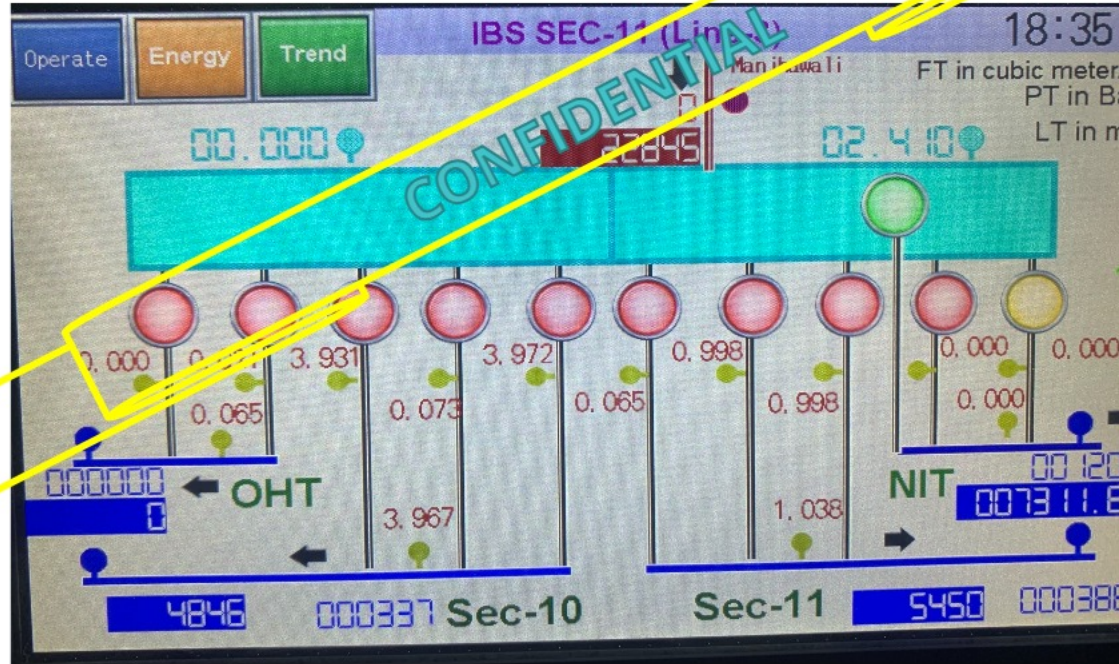


# PLC panel





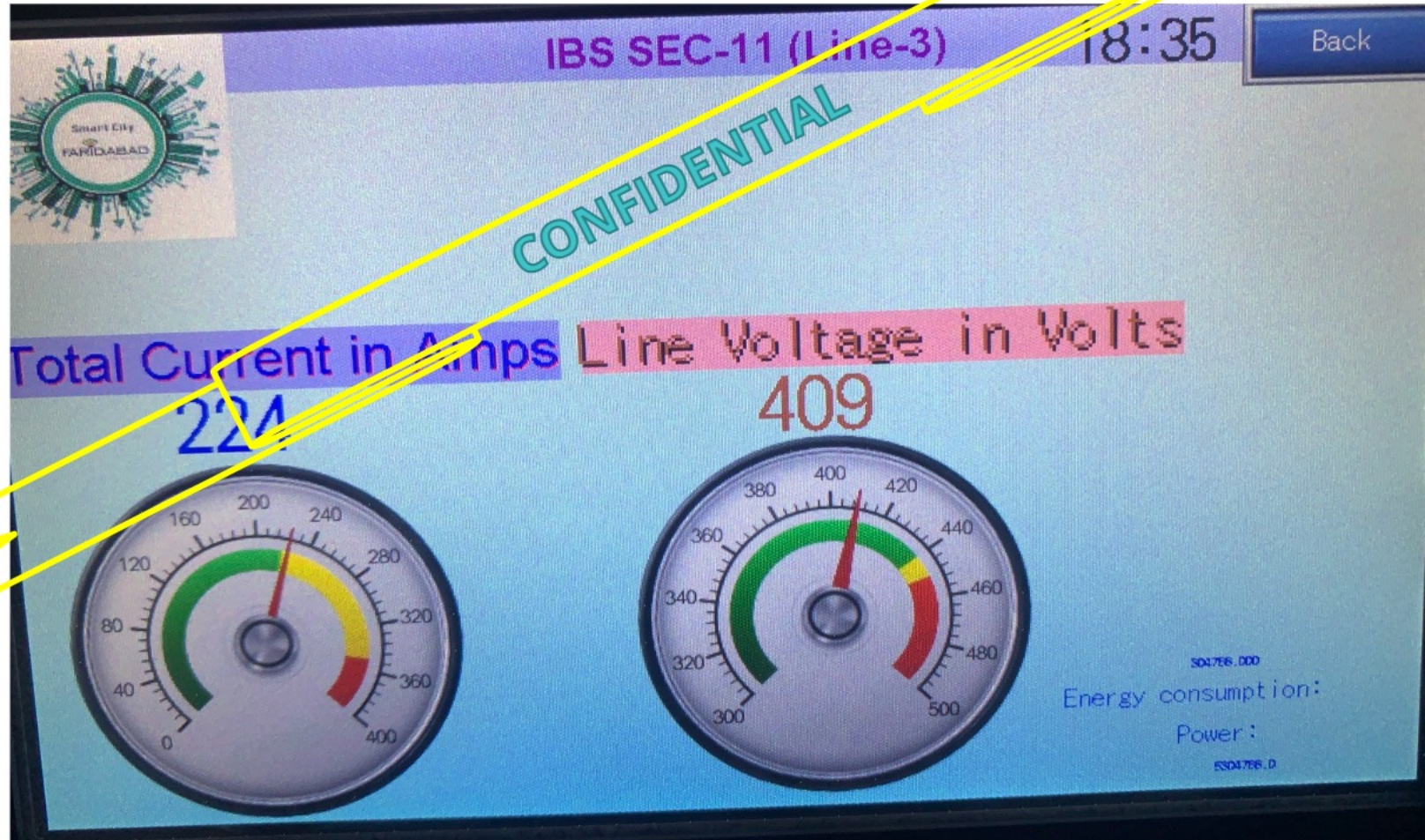
# Local display on PLC panel







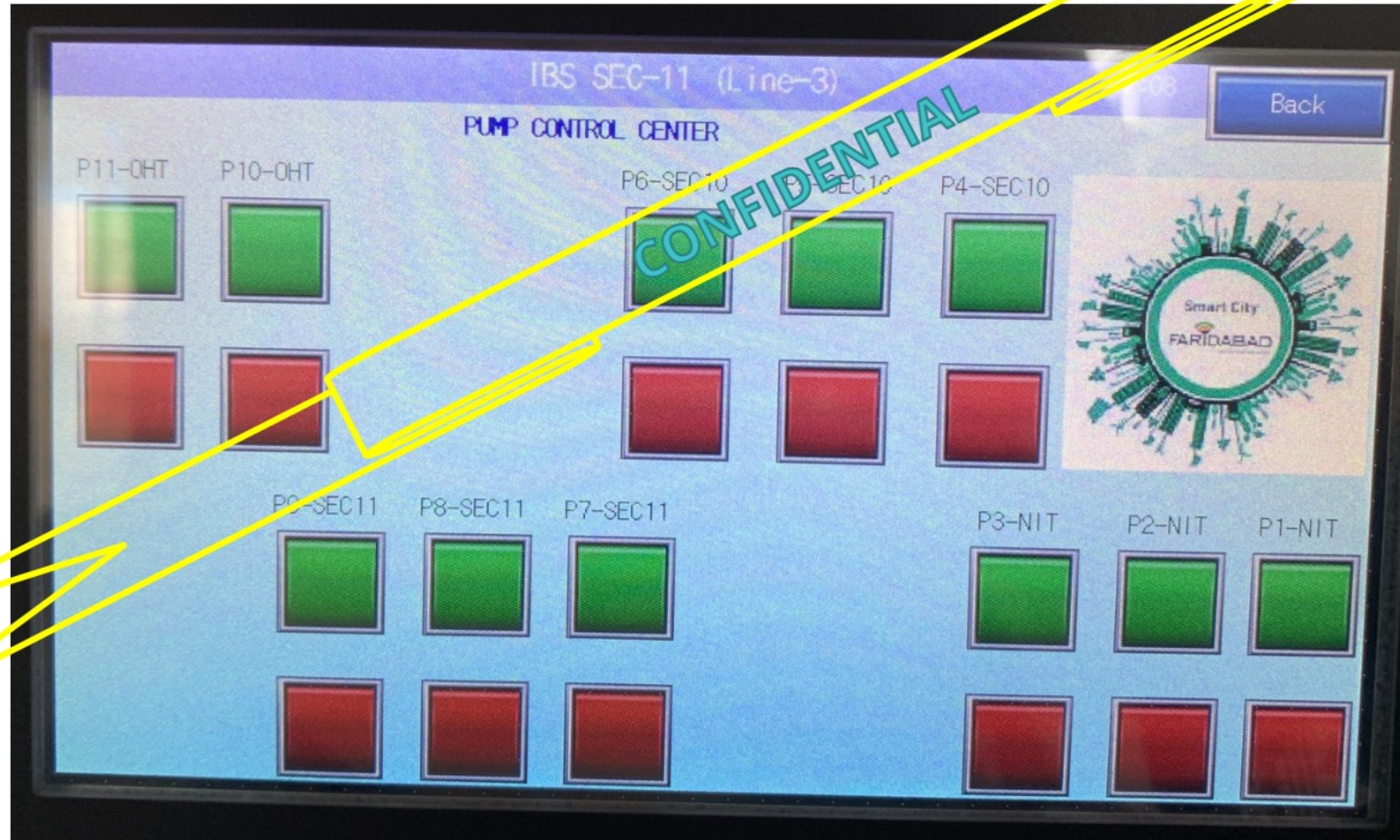
# Local display on PLC panel







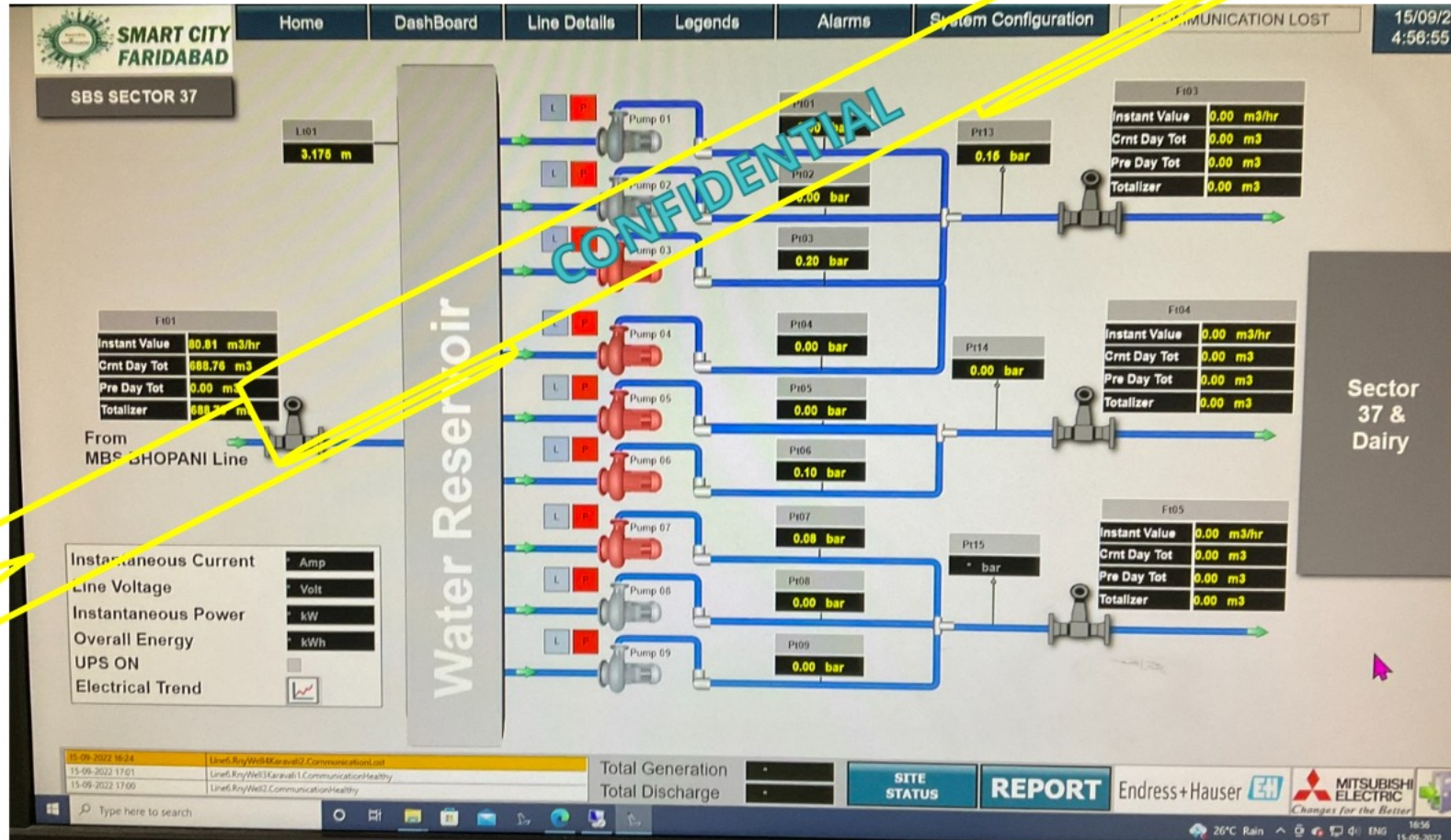
# Local display on PLC panel







# scada display in ICC







# scada display in ICCC



SMART CITY FARIDABAD

Home | DashBoard | Line Details | Legends | Alarms | System Configuration | SIM STATUS

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**LINE-1**

- Mothuka renny well 1: COMMUNICATION HEALTHY
- Mothuka renny well 2: COMMUNICATION LOST
- MBS MOTHUKA: COMMUNICATION HEALTHY
- MBS uncha gaon: COMMUNICATION HEALTHY
- IBS 25: COMMUNICATION HEALTHY
- SBS Sector-58: COMMUNICATION HEALTHY
- SBS MilkPlant: COMMUNICATION LOST
- SBS-Bapu Nagar: COMMUNICATION HEALTHY
- SBS-Sec-25 (New): COMMUNICATION HEALTHY
- SBS Subhash Colony: COMMUNICATION HEALTHY
- SBS-Jain Colony: COMMUNICATION LOST
- SBS -sector 23A: COMMUNICATION HEALTHY
- SBS-JCB Chowk: COMMUNICATION HEALTHY
- Panchayat Bhandari: COMMUNICATION HEALTHY
- Village Gochi: COMMUNICATION HEALTHY
- SBS Uncha gaon: COMMUNICATION HEALTHY

**LINE-2**

- Gharora\_Ranney well: COMMUNICATION LOST
- MBS GHARORA: COMMUNICATION HEALTHY
- IBS SECTOR 3: COMMUNICATION HEALTHY
- SBS-Shiv Colony: COMMUNICATION LOST
- SBS-Sector-7: COMMUNICATION HEALTHY
- dhobi ghat sec 3: COMMUNICATION HEALTHY
- SBS Chawla Colony: COMMUNICATION HEALTHY
- SBS SEC.8 Mujess: COMMUNICATION LOST
- SEC-24: COMMUNICATION LOST

**LINE-3**

- MBS Manjhawali: COMMUNICATION HEALTHY
- MBS Mirzapur: COMMUNICATION LOST
- IBS Sec-11: COMMUNICATION HEALTHY
- SEC-9: COMMUNICATION HEALTHY

**LINE-4**

- KANWARA RW 1: COMMUNICATION LOST
- KANWARA RW 2: COMMUNICATION HEALTHY
- MBS KANWARA: COMMUNICATION LOST
- SBS\_Sector-15A: COMMUNICATION HEALTHY
- SBS-Sector-17: COMMUNICATION HEALTHY
- SBS-Sector-14: COMMUNICATION HEALTHY
- SBS-Fruit Garden\_Line 4: COMMUNICATION HEALTHY
- SEC-16: COMMUNICATION HEALTHY

**LINE-5**

- Aravali Vihar: COMMUNICATION HEALTHY
- MBS bhopani: COMMUNICATION HEALTHY
- SBS Sec 28: COMMUNICATION LOST
- sec30 -31: COMMUNICATION HEALTHY
- Ashoka Enclave: COMMUNICATION HEALTHY
- Spring Field: COMMUNICATION HEALTHY
- Sector 32: COMMUNICATION HEALTHY
- Sector 37: COMMUNICATION HEALTHY

**LINE-6**

- Dadasia Rennywell 1: COMMUNICATION HEALTHY
- Dadasia Rennywell 2: COMMUNICATION HEALTHY
- Dadasia Rennywell 3: COMMUNICATION HEALTHY
- Dadasia Rennywell 4: COMMUNICATION LOST
- MBS Dadasia: COMMUNICATION HEALTHY
- SBS NH1: COMMUNICATION HEALTHY
- SBS 21 A: COMMUNICATION HEALTHY
- SBS 21 C: COMMUNICATION HEALTHY
- SBS 21D: COMMUNICATION HEALTHY
- SBS NH-3 (Near ESIC Hospital): COMMUNICATION HEALTHY
- SBS Farid park: COMMUNICATION HEALTHY

STATUS I/O

16-09-2022 16:59 | Line1,JCBChowk,PanelDoorClosed | Total Generation

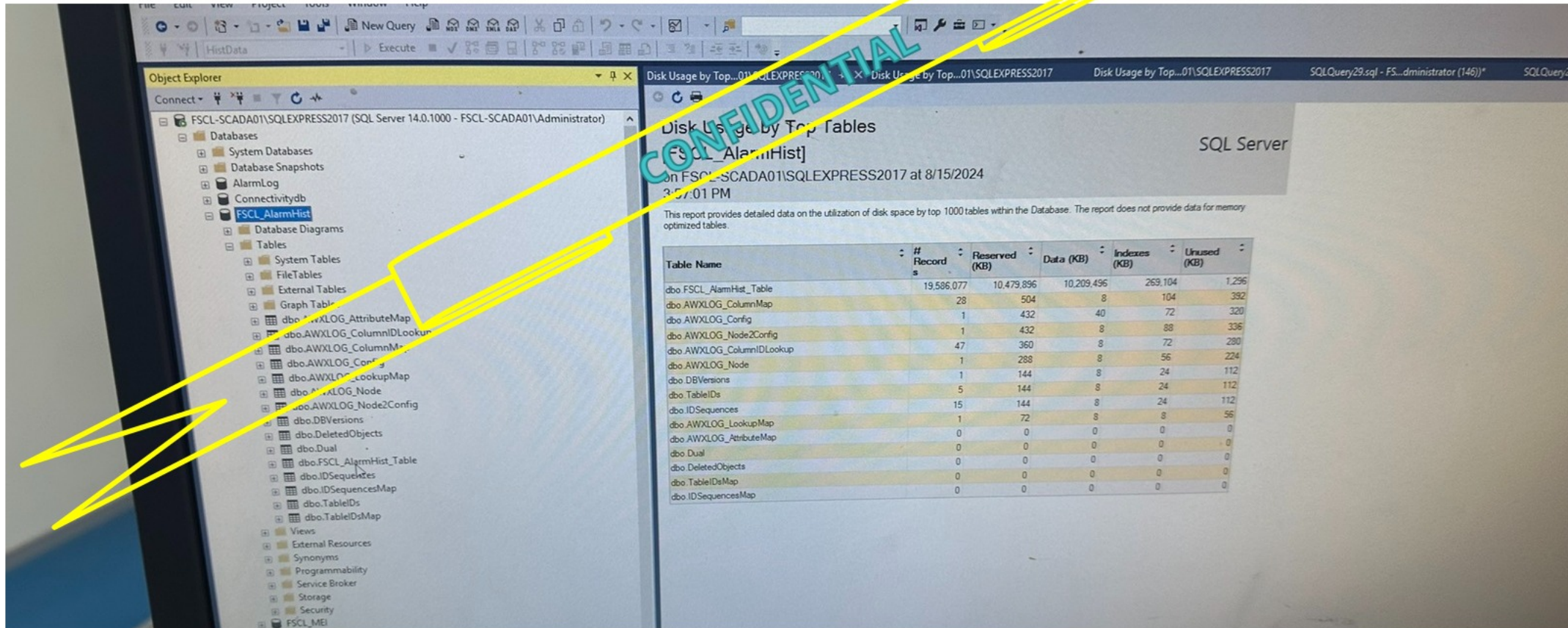
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# Data structure snapshots

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Object Explorer

Connect - FSCl-SCADA01\SQLEXPRESS2017 (SQL Server 14.0.1000 - FSCl-SCADA01\Administrator)

- Databases
  - System Databases
  - Database Snapshots
  - AlarmLog
  - Connectivitydb
  - FSCl\_AlarmHist**
    - Database Diagrams
    - Tables
      - System Tables
      - FileTables
      - External Tables
      - Graph Table
      - dbo.AWXLOG\_AttributeMap
      - dbo.AWXLOG\_ColumnIDLookup
      - dbo.AWXLOG\_ColumnMap
      - dbo.AWXLOG\_Config
      - dbo.AWXLOG\_LookupMap
      - dbo.AWXLOG\_Node
      - dbo.AWXLOG\_Node2Config
      - dbo.DBVersions
      - dbo.DeletedObjects
      - dbo.Dual
      - dbo.FSCl\_AlarmHist\_Table
      - dbo.IDSequences
      - dbo.IDSequencesMap
      - dbo.TableDs
      - dbo.TableDsMap
    - Views
    - External Resources
    - Synonyms
    - Programmability
    - Service Broker
    - Storage
    - Security
    - FSCl\_MEI

Disk Usage by Top Tables

FSCl\_AlarmHist

on FSCl-SCADA01\SQLEXPRESS2017 at 8/15/2024 3:57:01 PM

This report provides detailed data on the utilization of disk space by top 1000 tables within the Database. The report does not provide data for memory optimized tables.

Table Name	# Record	Reserved (KB)	Data (KB)	Indexes (KB)	Unused (KB)
dbo.FSCl_AlarmHist_Table	19,586,077	10,479,896	10,209,496	269,104	1,296
dbo.AWXLOG_ColumnMap	28	504	8	104	392
dbo.AWXLOG_Config	1	432	40	72	320
dbo.AWXLOG_Node2Config	1	432	8	88	336
dbo.AWXLOG_ColumnIDLookup	47	360	8	72	280
dbo.AWXLOG_Node	1	288	8	56	224
dbo.DBVersions	1	144	8	24	112
dbo.TableDs	5	144	8	24	112
dbo.IDSequences	15	144	8	24	112
dbo.AWXLOG_LookupMap	1	72	8	8	56
dbo.AWXLOG_AttributeMap	0	0	0	0	0
dbo.Dual	0	0	0	0	0
dbo.DeletedObjects	0	0	0	0	0
dbo.TableDsMap	0	0	0	0	0
dbo.IDSequencesMap	0	0	0	0	0



# ← → LINE WISE & SITE WISE DASHBOARD





# LINE WISE & SITE WISE ANALYTICS WITH PREDICTION







# Existing SCADA

01  
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Genesys 64

Data residing on SQL express

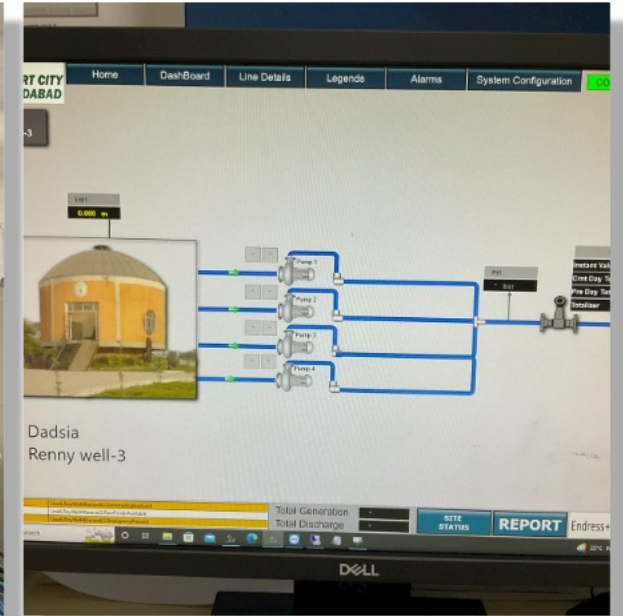
02

03

SERVER MODEL	CPU	HARD DISK	HARD DISK QTY	RAM
PowerEdge M640	2 CPU 20 + 20 CORE =40 (Intel(R) Xeon(R) Gold 6138 CPU @ 2.00GHz)	450 +450 SSD	2	160 GB
PowerEdge M640	2 CPU 20 + 20 CORE =40 (Intel(R) Xeon(R) Gold 6138 CPU @ 2.00GHz)	450 +450 SSD	2	160 GB



# Project Photographs



Endress+Hauser

Principle contractor