

Building Energy Management System IQVision Implementation in South Ayrshire

BEMS in South Ayrshire

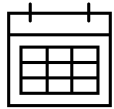
- Trend Supervisor 963 used on 25 core sites through to 2019
- IQV introduced in June 2022 – Covid response
- Current access level - 116 sites
- Drivers - Net zero targets & energy prices

Energy Data Improvements

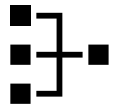
- Installation of 130 Gas AMR with supplier
- Heat mapping analysis

Site	ReadDate	ProfileDate	H0030	H0100	H0130	H0200	H0230	H0300	H0330	H0400	H0430	H0500	H0530	H0600	H0630	H0700	H0730	H0800	F
St. John's Primary School	06/01/2023	1642.171	0	1.1452	60.6739	60.6739	59.5287	60.6739	59.5287	59.5287	60.6739	59.5287	52.5291	57.0974	55.9551	53.6715	55.9551	55.9551	
St. John's Primary School	05/01/2023	1631.325	59.5287	60.6739	59.5287	58.3846	59.5287	59.5287	57.2394	54.9502	56.0942	56.0942	51.5157	50.3705	50.3705	51.5157	51.5157	52.6598	
St. John's Primary School	04/01/2023	1578.511	60.5233	60.5233	60.5233	55.9551	45.6784	45.6784	47.962	46.8196	50.2455	49.1043	46.9361	45.792	49.2265	46.9361	48.0813	50.3705	
St. John's Primary School	03/01/2023	1784.042	59.5287	58.3846	59.5287	58.3846	58.3846	58.3846	59.5287	58.3846	58.3846	59.5287	58.2398	59.381	59.381	59.381	60.5233	59.381	
St. John's Primary School	02/01/2023	2009.1	59.5287	59.5287	59.5287	59.5287	59.5287	59.5287	58.3846	59.5287	59.5287	59.5287	58.3846	59.5287	59.5287	58.3846	59.5287	59.5287	
St. John's Primary School	01/01/2023	6.87	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
St. John's Primary School	31/12/2022	4.5796	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
St. John's Primary School	30/12/2022	1596.983	0	1.1452	60.6739	59.5287	59.5287	60.6739	59.5287	59.5287	52.6598	53.805	52.6598	51.5157	57.2394	60.6739	53.805	54.9502	
St. John's Primary School	29/12/2022	1862.904	60.8244	60.8244	60.8244	60.8244	59.6764	60.8244	60.8244	59.6764	56.2334	57.3815	56.0942	53.805	56.0942	57.2394	60.6739	54.9502	
St. John's Primary School	28/12/2022	1824.406	60.6739	60.6739	59.5287	60.6739	59.5287	60.6739	59.5287	56.0942	52.6598	60.6739	51.6435	56.2334	56.2334	56.2334	56.2334	57.3815	
St. John's Primary School	27/12/2022	1823.646	59.5287	59.5287	59.5287	58.3846	59.5287	59.5287	58.3846	59.5287	58.3846	59.5287	58.3846	59.5287	59.5287	59.5287	59.5287	59.5287	
St. John's Primary School	26/12/2022	2019.4	60.6739	59.5287	59.5287	59.5287	59.5287	59.5287	59.5287	59.5287	59.5287	58.3846	59.5287	59.5287	59.5287	59.5287	59.5287	59.5287	
St. John's Primary School	25/12/2022	6.8689	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
St. John's Primary School	24/12/2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
St. John's Primary School	23/12/2022	1723.239	0	1.1452	59.5287	60.6739	59.5287	59.5287	59.5287	59.5287	59.5287	59.5287	59.381	60.5233	59.381	59.381	59.381	60.5233	
St. John's Primary School	22/12/2022	1750.377	60.6739	60.6739	60.6739	60.6739	59.5287	60.6739	52.6598	60.6739	56.0942	52.6598	53.805	51.5157	52.6598	52.6598	53.805	53.805	
St. John's Primary School	21/12/2022	1950.717	60.6739	59.5287	60.6739	59.5287	59.5287	60.6739	59.5287	59.5287	59.5287	59.5287	60.6739	59.5287	59.5287	60.6739	60.6739	59.5287	
St. John's Primary School	20/12/2022	1959.875	60.6739	60.6739	60.6739	59.5287	60.6739	59.5287	60.6739	59.5287	60.6739	59.5287	59.5287	60.6739	59.5287	60.6739	59.5287	60.6739	

Current Management



Daily checks



Monitor connections



Holiday shut downs



Remote heating changes & fault resolution



High or excess consumption analysis

Challenges

- ICT Security and MS Azure setup
- BEMS contractor remote access
- Bacnet and Modbus connectivity within sites
- License – 549 devices & 17,415 points
- Site engagement (managing change)

System Demonstration



Future Developments

- Integration of non-Trend devices
- EMMA rollout
- Future Capital project integration

Summary Reductions

- **13.8m** kWh of gas the annual consumption of 1,384 homes
- **2501** tonnes CO2e equivalent to taking 1,800 cars off the road
- And cost reduction to the Council of **£476,000**

Questions & Discussion

