

Renfrewshire Joint Negotiating Committee for Teachers

To: Renfrewshire Joint Negotiating Committee for Teachers

On: 22 March 2022

**Report by
Head of Education /
Head of Facilities Management (Hard & Soft Services)**

CO2 Monitors in Schools

1. Summary

- 1.1 The purpose of this briefing note is to provide JNC with a summary of the background presented to CMT on 1 February 2022 regarding the Scottish Government requirement to assess Co2 levels in all teaching and learning spaces within schools; Children's Homes; Private Nurseries; and 'Out of School Clubs', and an update on the action taken to complete the process.

2. Recommendations

The CMT approved the following:

- Draw-down the remaining Co2 allocation monies (£252K) from the Scottish Government.
- Draw-down the further monies which have still to be allocated by the Scottish Government '*Settlement & Distribution Group*'
- Establish two Co2 Energy Monitoring Officer posts at Grade 7 for 1 year.
- Install wireless Co2 monitoring at Castlehead, Gryffe, Paisley Grammar, Parkmains, Renfrew, and Trinity High Schools and at Mary Russell ASN School (Note that other schools are already planned or are hard-wired).
- Fix mobile Co2 monitors across the remaining school estate.
- Develop a funded Co2 Monitoring Programme for the PPP schools with AMEY to ensure consistency across the school estate to deliver a permanent monitoring solution.
- Note that should the additional £5M Scottish Government funding still to be distributed be allocated for the same purpose.
- Note that the Programme will take between 3-5 months to complete and that due to a lack of available resourcing, monitoring across the school estate will not be fully operational until then.
- Where ventilation issues arise from monitoring, to develop a costed future programme of mitigation works to be brought back to a future CMT for discussion.

3. Background

- 3.1 On 3 August 2021, Scotland's First Minister announced the distribution of £10M funding in 2021/22 to ensure that all schools and day care of children settings (including those in the private and third sector defined by the Care Inspectorate as day care of children services i.e., services delivering funded ELC, and other private and third sector services who are not local authority funded) have access to Co2 monitoring.
- 3.2 The £10M of funding was to provide support for Co2 monitoring, and could only be used for the following purposes:
- £6.37m capital for the purchase and installation of Co2 monitors (of which £0.37m is for monitors for private and third sector day care of children services). This funding may also be used to reimburse those authorities who have already purchased / installed Co2 monitors, strictly for the costs of the devices only.
 - £3.63m revenue to fund associated additional staff, training, or consultant resource requirements.

This funding was allocated proportionately across local authorities for reasons of equity, based upon total Education GAE (90%) and a rurality weighting (10%), with any underspend to be returned to the Scottish Government. For Renfrewshire, this equated to £332K in total (£99K Revenue; £218K Capital; and £15K Capital - Private & Third Sector).

- 3.3 CO2 monitoring units, which can be both fixed and mobile devices, can help assess how well ventilated a space is, which can in turn help with an understanding of the potential for COVID-19 to be present in spaces in concentrated amounts. The Co2 monitors themselves record Co2 parts per million every 15 minutes and have the functionality to store this data for a period of 30 days to allow for its download through an associated App.
- 3.4 Following the First Minister's announcement on 3 August 2021, and the subsequent guidance issued, Renfrewshire Council placed an order with a supplier on 9 August for 1,000 Co2 Monitoring Units at a cost of £75/unit (£75K in total).
- 3.5 As Renfrewshire Council are responsible (under the Scottish Government guidance), for ensuring all schools and day care of children settings within the local authority area (including those in the private and third sector), receive Co2 monitoring units, 73 Co2 monitoring units were immediately passed on (through Children's Services), to private nurseries and 'Out of School' care providers to enable them to begin their own monitoring as soon as practically possible. **Note that the private providers (Private Nurseries and 'Out of School Clubs') were and continue to be responsible for undertaking their own Co2 monitoring.**
- 3.6 Additionally, the PPP schools, were allocated 100 Co2 Monitoring Units, to undertake their own monitoring. The results from the PPP schools monitoring were fed back to Soft FM officers to be included within the Council's return to

the Scottish Government. All groups were provided with guidance and protocols to help them undertake the monitoring process within the timescales required.

- 3.6 Having identified each establishment by type, along with the number of teaching and childcare spaces, this resulted in a requirement to assess 1,830 spaces. Below is a breakdown of establishment and teaching spaces by type:

| Establishment by Type | Number of Teaching & Childcare Spaces | Percentage of Spaces Assessed |
|------------------------------|--|--------------------------------------|
| 38 ELC/Nursery Schools | 72 spaces | 100% |
| 49 Primary Schools | 811 spaces | 100% |
| 11 Secondary Schools | 863 spaces | 100% |
| 2 ASN Schools | 84 spaces | 100% |

- 3.7 A distribution plan was developed (based upon existing school clusters), utilising the remaining available Co2 monitoring units, to monitor across the 1,830 teaching and childcare spaces, to record as much data as possible prior to the October half-term break.
- 3.8 Monitoring began on 13 September 2021 and took place in each location for one full school day. The Soft FM team worked to a detailed programme to collect and re-issue monitors to all required space ensuring all locations were accounted for.
- 3.9 Each Co2 monitor was marked with an Asset Number which assigned the monitoring and distribution records. Additionally, with the assistance of Property Services colleagues, plans were printed for each establishment, detailing where the Co2 monitoring units were to be placed in line with the operating guidance (i.e., 1m away from windows; at a minimum height of 1.5m from the floor; connected through a USB cable to a power-source etc.). The plan accompanied the associated monitor as they were issued.
- 3.10 Given the tight timescales surrounding the requirement, no additional staff were recruited in the initial roll out. Existing Soft FM employees were used to deploy, set up and collect the Co2 monitoring devices. The Council's Health & Safety team helped develop guidance and protocols to enable the Co2 Monitoring Units to be effectively and consistently monitored throughout the school day. Soft FM staff distributed and set-up the Co2 monitoring units within the Council's schools, whilst Children's Services staff distributed the Co2 monitoring units to the private establishments. The guidance and monitoring sheets were placed with and remained with the Co2 monitors throughout the day and were collected by the Soft FM staff at the end of the school day, before moving the Co2 monitoring unit on to the next location. Guidance was also provided to the private establishments as the Co2 monitoring units were distributed by Children's Services staff.
- 3.11 Before the roll-out of the distribution plan could get underway, discussions took place with the Council's Head of Schools and Trades Unions to enable teachers/classroom assistants etc. to monitor the units, record (with the sheets provided) any instances of monitor readings turning red, and take any appropriate remedial action, such as opening windows or doors to allow for an increased circulation of air to aid ventilation. Note, that regardless of the

reading, teachers **were not** required to remove a class from any teaching/childcare space.

The Trades Unions were also provided with the guidance for comment. Only when these discussions reached agreement could the roll-out of the distribution plan commence.

- 3.12 To accompany the guidelines, development of an online training guide/module via the council's 'i-Learn' resource began, which once completed will be available going forward for any employees who wishes to access the information regarding the devices and protocols for monitoring readings.

4. Analysis

- 4.1 As directed by the Scottish Government, all 1,830 Council learning, teaching and childcare spaces across the 100 establishments were assessed by 7 October 2021. Of these 1,830 learning and teaching spaces, the analysis showed that 130 recorded a 'red' reading (i.e., more than 1,500 parts per million), which equated to 7% of the total (across 31 of the 100 establishments). The 130 learning and teaching spaces that did show a 'red' reading is summarily broken down by school type into 11 High Schools (100 readings); 1 ASN Schools (1 reading); 18 Primary Schools (28 readings); and 1 ELCC (1 reading).
- 4.2 From the analysis gathered, further mobile monitoring was subsequently established for a period of 3 weeks in 70 classrooms to date, with a further 5 still to complete across the High Schools, and the Primary Schools to follow. This further analysis began within the High Schools where the highest number of 'red' readings were recorded, to better understand the reasons why and to determine the most appropriate mitigation going forward. As part of the monitoring, survey sheets were also completed to highlight whether windows were typically being opened or remained closed. 33 'red' readings came from PPP schools. Discussions are now ongoing with AMEY to monitor those classrooms again for a longer period, and again to determine the most appropriate mitigation going forward.
- 4.3 From the 70 High School classrooms which were further analysed, a total of 83,242 readings were recorded. From that total 45,094 readings were taken in rooms **where the windows were closed**, with 1,561 readings (3.46%) exceeding 1,500 parts per million. The remaining 38,148 readings were taken in rooms where the windows were open. This accounted for 747 readings (1.96%) where readings exceeding 1,500 ppm.

5. Moving Forward

- 5.1 The expectation from the Scottish Government is that further monitoring is undertaken across the school estate and appropriate mitigation put in place, where high levels of Co2 exist. To enable this, the Scottish Government has asked local authorities to provide confirmation that, due to the work undertaken to date, each individual school and local authority ELC setting now has ongoing access to Co2 monitoring (whether fixed or mobile), along with any planning already undertaken to continue monitoring over the winter period, and the proposed approach (e.g., fixed monitors per space, mobile monitoring, etc.). Additionally, new guidance issued on 4 January 2022, now requires local

authorities to ensure that all learning and teaching spaces require to be monitored for a minimum of *“one full day per week under normal occupancy”*. This will have significant resourcing issues to successfully comply with.

- 5.2 In meeting these requirements, and in noting the establishments where the majority of higher Co2 readings were recorded, the proposed approach moving forward would be to install permanent Co2 monitoring in all Renfrewshire High Schools and at Mary Russell ASN school.
- 5.3 It should also be noted that hard-wired Co2 monitoring is currently installed at Riverbrae ASN school and at Brediland, St Peter's, Rashilea, St Paul's and Mossvale St James Primary Schools. Additionally, a wireless system has very recently been installed at Arkleston Primary and is currently on order to be installed at both Johnstone High School and at Bushes Primary School. The costs of which have been met from within existing resources.
- 5.4 For the six remaining High Schools (Castlehead, Gryffe, Paisley Grammar, Parkmains, Renfrew, and Trinity) a capital programme could be established to undertake this work through the remaining £252K from Scottish Government. However, this would also necessitate the creation of 2 x Co2 Energy Monitoring Officer posts to manage the Co2 monitoring process. Following a recruitment process, interviews have been arranged for Monday 14 March 2022.
- 5.5 The remaining Primary schools and ELC's would have mobile units from the Council's existing stock fitted on the wall within each learning and teaching space. This is because there is no ongoing capacity within existing FM resources to undertake the regular movement of monitors from classroom to classroom, as was undertaken within the initial monitoring exercise. From monitoring the results, a programme of works to mitigate consistently high levels of Co2 in those learning and teaching spaces affected, could be developed. Although Co2 monitoring has already been installed within Dining and Gym Halls, separate more **permanent arrangements will need to be developed with the PPP schools to install permanent Co2 monitors within all classrooms, as the PPP provider is responsible for the maintenance of their own buildings.**
- 5.6 It's vitally important to emphasise that this is the only practical approach the Council has if it is to fulfil the Scottish Government requirement. Consequently, this needs significant and detailed engagement with both teaching and non-teaching Trades Unions to ensure the responsive collegiate co-operation and support of FM, Teachers and Teaching Support Staff to continually monitor and take appropriate mitigatory action, which is the case within several other Scottish local authorities at the present time.
- 5.7 Installation of the mobile Co2 Monitors across the Primary, Nursery and ELC estate will commence from 14 March 2022, and will take up to 4 weeks to complete. The BMS systems with the High Schools and ASN schools commenced on 14 February 2022, and will be completed by early May, subject to our contractors procuring the necessary monitors.
- 5.8 Following development, further guidance and information will shortly be forthcoming to both Children's Services and Soft FM staff concerning the operation of the monitoring systems.

- 5.9 PPP schools are currently being surveyed and a programme of installation will be developed once this is complete.