



# Sustainable Schools Conference

The Route To Net Zero Carbon For Schools

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# Vision



Solihull schools are an essential part of the process in working towards Solihull's Borough wide net zero target by 2041

## Sustainable school

- A good starting point for all schools to take part in the Councils Sustainable School initiatives which you will find out more information on this later today.
- Solihull Schools have the opportunity to join the “Greener School Awards”.
- Solihull School have access to the eco leader network, energy programme and support, annual conference / sharing best practise, case studies on solgrid, web pages that hold information on previous Collaborative Low Carbon Schools Service (CLCSS) and Ashden Programme.

# Buildings & Data



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Information is the first step in the journey towards our zero carbon target. Solihull Council over the years has gathered and collated information for schools in terms of its energy and carbon performance.

## DEC, Smart Meters & Energy Bills

- At Solihull our schools currently already have data collected through their **Display Energy Certificate** reports. This is an annual legislative certificate that informs you how your building is performing in terms of energy consumption.
- Solihull schools have access to their **energy bills** on line through the Total Gas & Power (TGP) portal, where they can also submit reads.
- Solihull schools have access to Automatic Meter Reading (AMR) / **Smart meter** information through the Stark energy portal. This portal not only provides kWh data but also converts this data into its carbon equivalent, so schools can easily understand how much carbon they are using in their buildings.

# Buildings & Data continued



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## Energy Audits

- The majority of our schools have access to energy audits if they took part in the Ashden Less CO2 programme which ran for the last 5 years. These energy audits provide crucial information for schools and suggest the next steps required to undertake when implementing energy efficiency projects.
- Audit results are key to implementing building specific projects examples include LED's at Langley Primary School, PV at Dickens Heath School .The Council have produced presentations on these topics, and are available to download.\*

# Technical Solution - Decarbonisation



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An important aspect for the carbon future of schools is being able to understand **how** buildings are performing. The schools will then be able to identify the **technical** improvements needed to reduce carbon emissions in their buildings.

## Heat Decarbonisation Plan ('HDP')

- The first step towards getting to net zero is to implement a HDP. Schools need to commission these audits to assist in establishing business cases to bid for possible funding to deliver technical projects that are identified.
- Without the information and an appreciation of the technical solutions then progress is halted. We would encourage our schools to use their energy audits in the interim.
- Decarbonisation needs to be integrated into the schools estate strategy and planning.

# Phase Planning



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## Heat Decarbonisation Plan

- A HDPs will provided a roadmap towards the zero carbon target.
- A phased plan for implementing the HDP will be required at a strategic level.\*
- It is expected that capital works will be required to meet the HDP this could be fabric work (to roofs, windows and insulation), heating improvements or heating replacement / installing none gas burning heat generators instead of gas boilers (Air Source Heat Pumps where suitable for example).
- HDPs will also identify 'low-hanging fruit' and will discuss habits and working practices that could be addressed relatively easily and cheaply. (behaviour change \*)
- Effective building maintenance, glazing, insulation and draught proofing are all important to improving energy efficiency. (Property Services Support\*)
- Schools also need to consider other improvements to energy efficiency.
  - Good examples are LED lighting.
  - Installation of renewables on buildings such as solar PV which has the benefit of reducing energy demand. \*

# Funding & Investment



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## Barriers

- Cost to implement the findings from the HDP.

E.g moving from gas/oil to ASHP and GSHP (could potentially be 3 times more expensive than an equivalent gas boiler replacement).

- Technology is expensive.
- Limited school funds to cover this technology.
- Competition for funding is fierce. \*

## Positive

- DfE are looking into changing the process for funding opportunities, and are aware of the issue with the Public Sector Decarbonisation Fund, hopefully they will now start to make it easier moving into the future.
- Sharing experiences Multi site Academy Trust /skilled staff. \*
- The Council still has it 0% interest free loan with a payback over 5 years



# Useful Resources & Documents

Link to Solgrid lots of resources and examples of great work!



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## [Solgrid Energy Web Link :](https://solgrid365.sharepoint.com/sites/council/SitePages/Schools-Energy.aspx)

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## **Collaborative Low Carbon School Service (CLCSS) Documents –**

- “practical fast track whole schools savings” shows you how to conduct on out of hours, label of light.
- “getting the benefit of AMR” shows you how to interpret smart meter graphs
- “taking control of your heating” checking to ensure heating come on and off at right times.

## **Case Studies -**

- Schools that have implement energy behaviour change and how?
- Teaching the children how to use smart meter data in lessons
- Switch off monitors

**Less CO2 Ashden Programme** – Lots of presentation slides on past workshop, energy action plan template\*, classroom audit, quick wins leaflet, school action checklist.\*

**Using AMR data** - user guide is on solgrid (if you need training we can sign you up)



# Useful Resources & Documents continued



## **POD Switch off Fortnight Campaigns (14<sup>th</sup> -27<sup>th</sup> Nov 22)**

<https://www.jointhepod.org/sof21>

## **Earth Hour Campaign - get involved / case study on solgrid**

<https://www.wwf.org.uk/get-involved/schools/school-campaigns/earth-hour-schools>

## **Bursars Guide to Sustainable Schools Operation**

document <https://se-ed.co.uk/a-bursars-guide-to-sustainable-school-operation/>

# Schools Next Steps



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- Schools Energy Strategy (needs to be adopted by schools)
- Renewable Technology
- More understanding HDP
- Keeping an eye on opportunities
- Keep updated on DfE strategy
- Children Services piece of work
- Utility Prices

The electric contract from 1<sup>st</sup> October 2022 has risen from 16p/kWh to 33p/kWh this is 100% increase.

The gas contract from 1<sup>st</sup> April 2023 will be going up from 2.5p/kWh to ??? current suggestions have been around 10.5 p/kWh this has not been confirmed to date (over 320% increase)

# General

- We sent out a survey on energy which we would like our schools to attempt to fill in. Link is below and we are going to re send this out to everyone who attended today after the presentation.

<https://www.smartsurvey.co.uk/s/PHH3WI/>

- When we get the results of the survey we thought it might be an idea to get together for a chat to talk about net zero. Please pop a thumbs up in chat box if you are interested.

