

# Reducing carbon footprints

Insurance experts at the Government Actuary's Department (GAD) are working with the government as it supports schools in England to reduce their carbon footprints.

The [Risk Protection Arrangement](#) (RPA) is an alternative to insurance for schools and academies where losses that arise are covered by government funds. The Department for Education (DfE) is overseeing the arrangement, with GAD providing specialist actuarial support in areas such as pricing and provisioning.

The RPA also considers potential risks and how to respond to claims that arise. This can be a part of the government's wider net zero agenda. The DfE is considering initiatives to decarbonise the school estate including ways to replace traditional oil, gas, and coal boilers with heat pumps.

## **Building back better**

While rare, schools can suffer significant damage following a fire, flood, or storm and the RPA covers this risk.

Traditional insurance replaces like-for-like after such a loss. However, the RPA has additional flexibility to consider the way in which school buildings and equipment should be restored.

Rebuilding after a major loss can provide a cost-effective opportunity to 'build back better'. It can also improve the school's physical infrastructure and reduce the carbon footprint.

An example of this is Morecambe Bay Academy, in Lancashire. Significant flooding in August 2020 damaged the boiler room and meant substantial repairs were required. Rather than replacing the gas-fired boiler, the RPA used the restoration funds to help finance the installation of a ground source heat pump.

This innovative pilot scheme is used to help forecast the cost and carbon savings of future interventions.

## **Future interventions**

GAD identified schools where the boilers were likely to need replacement soon by using DfE data. This data includes granular information on the physical condition of school buildings and plant.

DfE has worked in partnership with the Department for Business, Energy and Industrial Strategy to secure funding for heat decarbonisation plans for these schools.

These plans, alongside estimates of the carbon savings they will create, will

be used to bid for capital funding over the coming year from initiatives such as the [Public Sector Decarbonisation Fund](#).

## **Pilots and models**

For the wider heat decarbonisation programme, GAD analysed the DfE data to provide the initial list of schools where an intervention was most likely to be needed. We also:

- modelled the potential carbon savings connected to these initiatives
- provided high level estimates to support immediate pilots
- worked with other government departments to develop more detailed models

## **Improving systems**

Matt Kirkpatrick, project lead in GAD said: “These initiatives demonstrate the power of connecting expertise from across government to help tackle one of the most pressing issues of our time.

“The RPA continues to provide fantastic value for money for schools and academies as an alternative to commercial insurance and is now an effective vehicle for decarbonising the public sector.”