Climate Change:
Operational Risk Considerations

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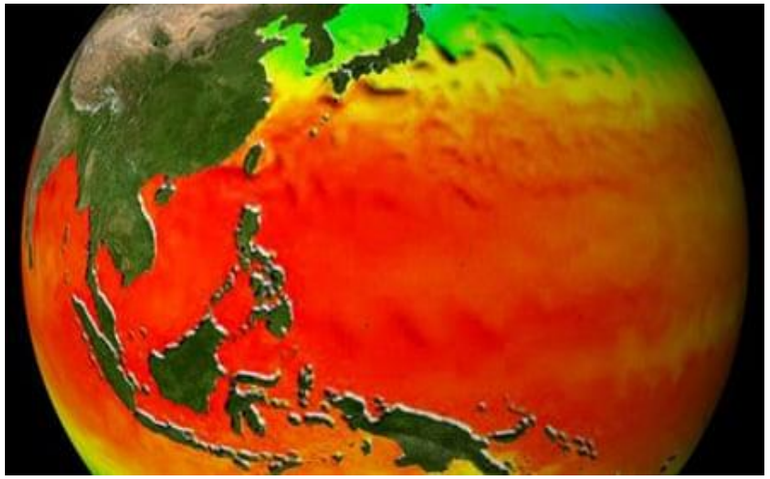
Climate Change: Operational Risk Considerations

- Background – why are we here?
- The Risk Lens
- Climate Adaptations
- Looking to the Future
- Maintaining the Now
- How can we support from a Risk Perspective?
- Discussion

Background – why are we here?

- Known to many of you and privileged to be insuring many of these wonderful buildings
- Recognise and appreciate the challenges and complexities that heritage properties present in respect of climate adaptation
- Desire to collaborate around emerging and evolving risks
- Collective support in the drive towards Net Zero
- To invite early conversation regarding climate adaptation proposals
- To support in identifying suitable risk mitigations



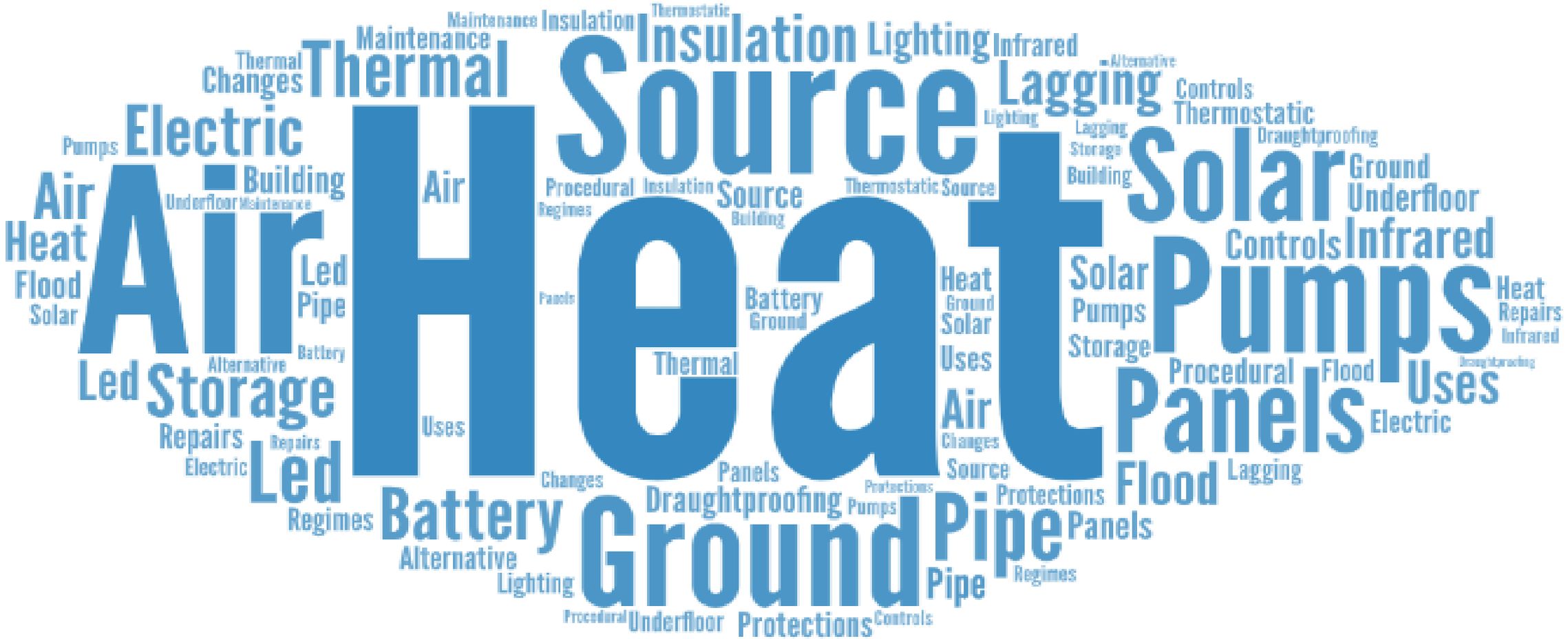
The Risk Lens

- An absolute need for action in respect of Climate Change
- Great examples of positive change, investment, and commitment to Net Zero
- Complex buildings of significant importance
- Vast array of benefits resulting from a range of changes
- **Need to contrast the benefits with potential risks**
- **Consider what could go wrong?**
- **Are there any broader implications?**

Key questions may include:

- What are the lifecycle implications?
- Are there any increased fire risks?
- Possibility of escape of water losses
- Vulnerability to surface water flooding?
- Are there any increased risks from a security perspective?
- Suitable location of equipment?
- Has the ‘technology’ been proven?
- **How can we mitigate?**

Climate Adaptations



Looking to the Future

Absolute need for a forward-looking approach

Significant focus on energy performance, consumption and source

Look at how and when the building is used

Energy efficiency is an essential aspect that forms part of the route to Net-Zero

Alternative and renewable energy approaches are often longer-term solutions

With all such measures there remains the need for a holistic approach

Examples of some broader considerations

Photovoltaic Panels

Considerations:

Roof mounted PV arrays – consider fire separation / compartmentation that exists beneath

Can arrays be broken up with breaks aligning with fire compartment / fire break lines?

Location of isolators at ground floor level, and readily identifiable

Are access routes available to F&RS – do you have a marked up plan?

Does the system incorporate battery storage? Consider isolation in terms of fire spread, but also access for fire fighting purposes, and potential impact of thermal runaway

Thermal Insulation

Considerations:

Combustibility and overall fire performance

Breathability to avoid condensation and dampness

Maintaining essential ventilation measures

Consider location of pipework to ensure wet services are not on ‘cold side’ of insulation

Ensure cabling and electrical services are not likely to overheat

Maintaining the Now

Looking to the future is essentjal in combatting Climate Change

We must however maintain a focus on the now

Is there a need to change maintenance programmes – both short, medium and long term?

Considering resilience to surface water flooding – lower floor levels etc

Maintenance regimes for guttering, rainwater pipes, hoppers, gargoyles, parapets and valleys

Thermal stresses on leadwork and other roof coverings

Wind and storm conditions impacting on the building fabric, also on trees in close proximity

Gullies and watercourses may require additional monitoring and maintenance

Further considerations…

Increased Rainfall

Considerations:

Increased rainfall and surface water flooding caused by weather extremes

Flash flood risk likely to increase

Increased pressure on existing drainage systems

Tree roots searching for water can lead to ineffective drainage systems, further reducing capacity to deal with high rainfall events

Review frequency and timing of gutter maintenance and drainage inspections

Consider tree species and likely root behaviour as part of planting schemes

Weather Extremes

Considerations:

Increased weather events causing stress on building fabric

Continued deterioration of masonry presenting opportunity for water ingress, dampness and thermal weaknesses

Freeze / thaw behaviours could result in accelerated spalling of masonry

How can we support from a Risk Perspective?

Welcome and encourage early discussions regarding Climate Adaptation proposals

- Specific Climate Change Risk Guidance?
- Views on Emerging Technologies?
- Risk Insights and Loss Lessons?
- Risk Considerations?
- Guidance on Standards?

Ecclesiastical Preferred Supplier for Renewable Energy Systems:

isoenergy
sustainable energy systems

www.isoenergy.co.uk

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Discussion….

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