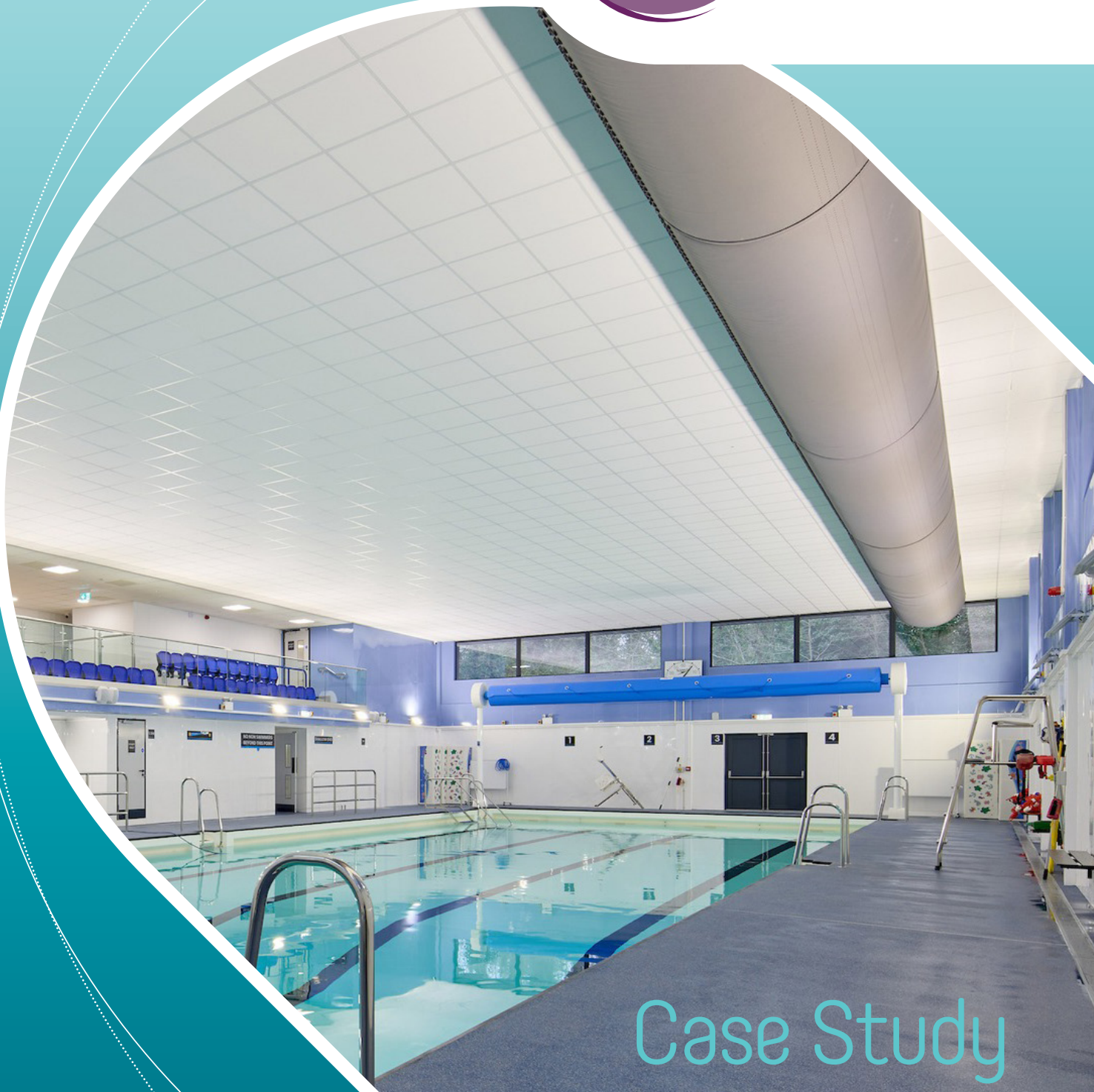
GET DONCASTER MOVING



Case Study

Askern Leisure Centre Decarbonisation and Transformation

The new wellbeing studio

Contents

GET DONCASTER MOVING

A £6m project transforming the country's last coal-fired leisure centre into a multi-purpose wellbeing centre for its local community, integrated within a country park and powered by green energy

Campsall Country Park

Overview

This case study provides the lessons learned from the decarbonisation, retrofit and repurposing of Askern Leisure Centre ("Askern") - an outdated 1960s public sector building with a swimming pool in the north-west of Doncaster. An underused venue that required a significant subsidy to operate.

The project was kick-started in February 2021 by a £1.7m grant from the Government's Public Sector Decarbonisation Scheme, with additional local authority capital (£3m) and Sport England investment (£910k) enabling the full transformation of the building and its integration with Campsall Country Park.

This is the fulfilment of a vision to connect local assets and provide a sustainable, community facility within an active environment that is accessible to all.

The coal heating system has been replaced with air source heat pumps, which together with a new warm roof, LED lighting and energy-efficient windows and doors, will deliver estimated carbon savings of 264 tonnes per annum.

The pool has been relined and the building is more accessible to the whole community with the addition of 'Changing Places' facilities, refurbished changing areas and a wellbeing studio.

The project is a testament to teamwork, problem solving and resilience in response to the multiple challenges presented by an old, deteriorating building, supply chain issues and inflation.

The Leisure Centre reopened 13 February 2023.

Project Objectives

- ✓ Achieve carbon neutrality
- ✓ Provide a community hub
- ✓ Integrate the leisure centre with the adjacent country park
- ✓ Reduce operational costs through improved facilities and expenditure savings
- ✓ Increase physical activity levels

We're excited to have created a hugely improved and much more environmentally friendly leisure facility for the local community. The refurbished facilities and our new-look activity programmes will benefit residents in and around the area for years to come.

Michael Hart, Chief Executive of Doncaster Culture and Leisure Trust.

The Challenge

Prior to the Covid-19 pandemic, the future of Askern Leisure Centre was uncertain...

Historically, budget pressures and competing priorities have limited the investment available for the City of Doncaster Council's (CDC) leisure facilities.

Askern, as an outdated 1960s building has particularly struggled to be viable due to a combination of:

- Relatively low visitor numbers – with the centre mainly relying on schools and club swimming.
- High energy costs – particularly due to it being coal-fired and poorly insulated.

The Leisure Centre before refurbishment

- High maintenance costs.
- Customer concerns over mobility impaired access and the lack of cycling facilities.

Since 2011 all nine of CDC's leisure centres have been managed by Doncaster Culture and Leisure Trust (DCLT).

The pandemic stretched the public leisure sector almost to breaking point...

The lockdown closures and social distancing measures in response to the pandemic threatened many providers with service reduction, or indeed closure. This has been compounded by unprecedented rises in energy costs, creating a very challenging landscape for the sector. To build a sustainable sector, Sport England have worked with key stakeholders in the industry to produce the Future of Public Sector Leisure report.

The community still valued the leisure centre and wanted to keep it open...

Despite the poor condition of the building and its high running costs, consultation undertaken by DCLT identified that the community wanted to retain the facility as a key community asset and Ros Jones, Doncaster's elected Mayor reinforced this sentiment.

Physical activity levels in Askern are lower than the rest of Doncaster...

The importance of the facility was reinforced by the Askern Community Profile which identified that 42.6% of Askern residents reported never engaging in moderate intensity physical activity, compared to 39.1% for Doncaster.

It was clear that a fresh vision and approach for the leisure centre was required...

The CDC and DCLT leadership embarked on a fresh look at funding and energy supply options, including the indicative costs of bringing gas to the site and installing heat pumps. This was in the context of the imperative of tackling climate change – which is one of the 'Great 8' priorities in the Doncaster Delivering Together strategy that sets out how CDC will work in partnership to improve wellbeing in Doncaster.

A 'test and learn' ethos emboldened the push to improve the facility...

Doncaster is one of 12 Local Delivery Pilots (LDPs) funded by Sport England to reduce population physical inactivity levels. Sport England supports LDPs to take a 'test and learn' approach to their work. The Get Doncaster Moving Team, based within CDC manages the Doncaster pilot. One of the priorities in the GDM Strategy is to improve Doncaster's stock of leisure facilities.

The goal was also to integrate the leisure centre and Campsall Country Park...

Although Askern is located within Campsall Country Park, in 2021 it was disconnected from it and seen as a separate entity. The ultimate goal was to integrate the two, however, at this stage the focus was on securing the on-going viability and energy efficiency of the building.

The park is one of Doncaster's 15 Future Parks and has been allocated £268k from LDP funding to improve the quality, accessibility and sustainability of the park, including signage, pathways and support for biodiversity. This reflects Sport England's commitment to support local plans aiming to deliver the whole system change needed for all residents to enjoy quality, connected community assets.

The leisure centre in context with the park, before integration work

The Opportunity

The Public Sector Decarbonisation Scheme provided an opportunity to kick-start the work...

During the Covid-19 pandemic, the Department for Business, Energy and Industrial Strategy (BEIS) announced the availability of grants from the Public Sector Decarbonisation Scheme (PSDS) to fund decarbonisation measures and as part of this, support the UK's economic recovery from the pandemic. The BEIS delivery body, Salix Finance Ltd ('Salix'), manages the Scheme and Round 1 of PSDS was announced September 2020.

The new café

A survey of Doncaster's leisure centres was undertaken in preparation for submitting a bid...

Sport England provided funding for CDC to produce a Strategic Outcomes Planning report to support CDC and DCLT in developing an overall approach to the leisure stock, including identifying priority areas for investment and the key local outcomes it could help to achieve for local people.

CDC appointed Engie, now renamed Equans (referred to as such in this case study) to undertake this assessment which would help to inform the Salix bid. The survey indicated that Askern had the greatest potential uplift in energy efficiency. This report was supportive of a hybrid approach to investment to ensure maximum return on investment and strike the balance between essential works to the fabric of buildings and the impact that this investment would have on use of the facilities by key target groups (including the physically inactive, families with children and young people and people on low incomes).

CDC led on the Salix funding bid, working closely with Equans and DCLT. The bid was submitted in November 2020, the value of which was based on the potential reduction in carbon emissions. The contingency costs included in the bid were higher than usual due to the condition of the building and the amount of asbestos removal that was expected.

Doncaster's PSDS bid was successful with an award of £1.718m...

The deadline for completing the works was originally given as September 2021 (which was subsequently amended). CDC and DCLT had to move quickly to procure the principal contractor from April 2021. Equans were appointed to this role, based on their experience of contracting with PSDS and the strong existing working relationship with CDC.

Approach – Delivery in 3 Phases

Phase	Timeframe
1. **Decarbonisation works** - to enable 264 tonnes of carbon to be saved per annum and the basic refurbishment works aligned to this.	April 21 - June 22
2. **Full refurbishment of the building** - including relining the pool, installing new changing rooms and Changing Places facilities, alongside creating new exercise and community spaces and a new cafe.	July 22 - Feb 23
3. **Connecting the leisure centre to the country park** - by constructing an access road and footpaths, along with improving the park's facilities.	Oct 22 - Feb 23

See 'Acknowledgements' at the end of this case study for the key contributors to the on-site work.

Phase 1: Decarbonisation

Decarbonisation Works

Received from Salix: **£1.7m**
Total Cost: **£2.4m**

- ✓ Coal boilers replaced with air source heat pumps (£1.6m)
  - 2 x 181kW lower temperature pumps for heating - located outside
  - 3 x 15kW smaller high temperature pumps providing hot water
- ✓ New windows and glazing
- ✓ LED lighting
- ✓ Substation and electrical connection
  - Single phase electricity supply upgraded to 3 phase 400 volts to give 350 kVA
    Substation cost c.£250k
- ✓ Air Handling Units (AHUs)
  - 2 new AHUs required as part of the heat delivery system
- ✓ Roof insulation
  - The only option was for insulation on top of the roof
  - Insulated cladding required to replace the tin façade
  - New steel structure added to take the extra weight of the insulation
- Solar PV not possible due to low weight bearing capability of the roof structure
  - No safe and viable options for sit ing the solar PV could be found and Salix agreed to a derogation on this requirement

This phase was project managed by CDC. Equans were the principal contractor, and provided building surveys and led on the designs, working with DLA architects. Equans appointed Climatix to lead on mechanical and electrical (M&E) work.

CDC worked with Equans to get the statutory consents and contracts agreed before the Salix deadline.

Air source heat pumps

Air source heat pumps work like refrigerators in reverse. They take heat from the air, which is absorbed into a fluid. This is then compressed, increasing the temperature. It is then pushed into an internal condenser where the usable heat created is removed and used to heat rooms in the building (via radiators) and the pool water. However, the heat isn't sufficient to provide the domestic hot water for the building.

The pumps will eventually use zero carbon electricity to run but use less electrical energy than the heat they produce, making them more energy efficient.

The two external heat pumps

Recycling warm air to provide hot water

An innovative solution to provide domestic hot water for the building was to install three 15kW heat pumps inside the plant room in the basement. These recycle the ambient warm air, which for example is heated by the operation of the M&E equipment.

A new substation was installed to provide extra power...

A substation was not in the Salix bid, but was required to provide additional power, particularly when filling the pool up to the required temperature and also as required by the heat pump warranties.

Decarbonisation works were not sufficient for the building to be reopened...

Salix funding was for a distinct package of decarbonisation work and basic related refurbishment works. In insolation these were not sufficient to enable the building to reopen from the point of view of providing an accessible, quality customer experience and meeting the requirements of the building inspector. Moreover, it was likely that the new work on the building negated the historic exemptions in place from some of the newer building regulations standards (known as 'Grandfather Rights').

Early on in the project, it was clear that meeting the Salix deadline of 31 September 2021 would be challenging. Subsequently, Salix extended the deadline for all projects - initially to 31 March 2022 and then up to 30 June 2022.

DCLT broadened their ambition for the building...

In addition to the mandatory decarbonisation works and the minimum essential improvements to enable the building to reopen, DCLT wanted to take the opportunity to fundamentally modernise the building for the end user, given for example the poor condition of the pool, pool hall and changing facilities.

To bridge the investment gap, CDC provided additional capital funding.

Phase 2: Full building refurbishment

Refurbishment Works

- ✓ Pool relining, pool hall refurbishment
- ✓ New doors
- ✓ New café and toilets accessible by users of the park
- ✓ Flexible spaces, meeting rooms and exercise studios
- ✓ Changing village and 'Changing Places' facilities
- ✓ CCTV
- ✓ Refurbishment of the walkway bridge access to the building

Equans were initially going to deliver on the decarbonisation work, then hand back to DCLT for the Phase 2 delivery of the architectural work and sourcing of sub-contractors, materials and finishes.

However, Equans were retained as the main contractor, which provided continuity from Phase 1.

Faithful & Gould (F&G) took over the overall project management from CDC, working with Equans as the main contractor. F&G provided outline designs for the building refurbishment up to Royal Institute of British Architects (RIBA) Stage 3, which were given to Equans. The designs reflected the views of DCLT, Sport England and CDC - who were considering the building usability and accessibility from an end user point of view. Sport England provided technical advice and feedback around cost and design as well as ensuring that the development was in line with agreed local outcomes.

The focus on decarbonisation works meant 'designing on the go' for Phase 2...

This reflected the:

- Need for the quick turnaround of the decarbonisation works.
- Delivery of the greater ambition for the building, that had become possible part way through the project due to additional funding.
- Unforeseen building refurbishment challenges.

The need to focus on delivering the decarbonisation works meant there was limited time to understand from the outset the wider condition of the building and potential additional related work this would generate. For example, the full extent of fire safety upgrading requirements (fire doors, escape routes and fire exits) was not clear until part way through the refurbishment.

Modifications had to be made to some of the original layout plans for this building, for example the original designs for the changing rooms had to be amended to meet fire/building regulations.

The completed decarbonisation works set some of the design and finish parameters for Phase 2, given the need to complement what was already there.

The building kept on offering up unforeseen challenges...

The mini case studies opposite provide a flavour of the multiple challenges created by the age and condition of the building.

Coal Storage Room

- Tons of coal and coal dust had to be removed. This uncovered that the concrete frame was in poor condition.
- Time-consuming and costly engineering testing was needed. This highlighted that along with degraded concrete, the steel reinforcement was down to 27% of its duty, with significant implications for the floor above.
- The initial, non-intrusive building survey work didn't pick this up as the tonnes of coal prevented full room access.
- Costly remedial work was required. An innovative cost-saving solution was to pre-load the steel structure with a pancake jack.

Asbestos

- Although the Salix bid anticipated there would be asbestos, the extent of it could not be determined until work started.
- Every room had asbestos contaminated paint.
- Asbestos was found around the old coal boiler. It was decided it was safer and more cost-effective to leave the boiler in situ and seal up around it.
- The decarbonisation phase included upgrading the windows and during the work asbestos was found in the original putty. Three specialist trades were required to deal with the removal of the windows.

The pool and pool hall were transformed...

Key improvements included:

- A new polymer lining to the pool instead of tiles. This was a new approach for DCLT and Sport England.
- A new hygienic floor covering in the pool hall and new hygienic wall cladding.
- A new pool hall air handling system - with warmed and filtered air passing through a "big sock" (shown in the top right of the bottom photo below) to provide dehumidification.
- New seating and protective barriers with reinforced glass.
- LED lighting which is compliant with new regulations and easily maintained.

Before the refurbishment work

After the refurbishment work

This refurbishment project provided an opportunity for Sport England to 'test and learn' from an investment in an old building in poor condition. There were some areas of proposed investment that required some derogation from Sport England's Design Guidance. The pool lining, flooring and wall cladding were all areas that it was agreed would be pragmatic exceptions from this guidance to ensure the facility was meeting cost challenges, whilst also providing an opportunity for a test and learn approach.

Sport England identified funding for a connecting road and footpath to the country park...

CDC and DCLT were determined to find a way to fund connecting the building to the country park to repurpose it as a parks building with a pool within an attractive environment for physical activity.

CDC engaged with Sport England around the future investment priorities in Doncaster and it was agreed that the development of Askern as an active environment could be supported though Sport England's Strategic Facilities Fund. An application was solicited on the ambition to connect the leisure facility and the park. Sport England's Future of Public Sector Leisure report sets out a shared vision for traditional leisure services to transition to being focused on active wellbeing, creating a closer relationship between health and leisure, built on social prescribing, co-location of services and the delivery of preventative activity opportunities. This closely aligns with Doncaster's ambition for its leisure centres.

Sport England agreed an investment of £910k to support the project.

The opportunity to complement 'Future Parks' investment was also important...

Sport England recognised that the Strategic Facilities Fund award would complement the £268k Future Parks investment into the park, given that some of the biggest increases in activity have been where sports facilities can be co-located alongside other community services and active environments. It also chimed with their commitment to 'test and learn' new ways of working to shape the future delivery of active environments through their investment.

Planning approval for the integration works was granted in March 2022. Although sited within the South Yorkshire Green Belt, the development was considered to be appropriate given its potential for supporting health, social and cultural wellbeing within a large, integrated active environment.

A new café and other facilities supported the ambition for a parks building...

The creation of a ground floor café and toilets were important parts of the plans to repurpose the leisure centre as a parks building, as well as generating income to support the viability of the site.

Phase 3:
Joining the Leisure Centre and Park

Integration Works

- ✓ Construction of a two-way connecting road
  - Approximately 73m in length, 7.5m wide
  - Raised platform for the road built, requiring over 3,000 tonnes of inert fill material
- ✓ Connecting footpath parallel to the road
- ✓ Leisure centre car park resurfacing
- ✓ Additional cycling storage and plans for cycle rental space in the old coal store
- ✓ Two electric vehicle charging points
- ✓ Provision of 6m lighting columns
- ✓ £35k saved for the Future Parks budget as facilities that were to be provided in the park are now accessible in the leisure centre

CDC Contract Standing Orders require CDC to give contracts to the Highways Department (a Direct Labour Organisation) as a first refusal. CDC's in-house design team drew up the plans for the work.

The size of the leisure centre car park was reduced to allow for the siting of the substation; this was mitigated by connecting with the existing parking at Campsall Park. The main entrance was closed to encourage access via the country park entrance.

Impact

More than a leisure centre refurbishment...

There has been a very positive reaction from the community to the reopening of Askern, with significantly increased visitor numbers.

In addition to traditional leisure centre customers, the venue is attracting community groups, such as local athletics and walking clubs, who have chosen to make the venue their home. The studio space also supports wider wellbeing priorities, for example an 'Ageing Well' population, by providing adaptive fitness equipment.

We've improved the site's long-term viability...

The improved offer, particularly the new parks café and leisure facilities will support the long-term viability of the site by increasing footfall and introducing new users to the facility.

We will monitor footfall to shape services...

Alongside the monitoring of visitors to the leisure centre through booking systems, we are using mobile phone data to monitor footfall in the park in partnership with Huq Industries, including:

- Popular and quiet times for visits
- Locations visited in the country park
- Length of stay and distance covered

This will inform the development of the services offered to the community.

User Experience

- ✓ Leisure centre integrated within an accessible, active, green space environment
- ✓ Increased participation across all facilities, supporting their long-term viability
- ✓ Supporting increased physical activity
- ✓ Studio space providing a wider wellbeing offer
- ✓ Footfall monitoring using mobile phone data

Decarbonisation

- ✓ 264 tonnes carbon saved per annum
- ✓ Plans for a renewable energy supply to the site, supported by local renewables

The community welcomes the reopening of the leisure centre

The switch to green energy contributes to Doncaster's climate change priorities...

The decarbonisation of Askern shows that DCLT and CDC are leading by example through their environmental stewardship, whilst helping to improve people's health and wellbeing. This is part of wider decarbonisation ambitions which include:

- Private sector proposals for the largest solar farm in Europe (600MW), along with three other large scale solar farms with the potential to generate enough electricity for all Doncaster homes.
- All CDC assets to be 100% powered by renewables.

A Power Purchase Agreement is being pursued with a major national supplier for 100% renewable electricity supplies to our assets from green energy generated in Doncaster, meaning we are on the right path to true decarbonisation of our energy supplies.

Askern's carbon-reduction is a catalyst for innovation...

The learning from Askern will inform how we improve Doncaster's other leisure centres. As an early adopter of air source heat pumps for a leisure centre, it will take time for the revenue implication of this technology to be known, including maintenance and replacement costs. Energy management systems will provide energy performance data, but it will take at least a year to get a clear picture of the contribution of Askern to Doncaster's push for a net zero carbon future.

The impact of the global energy crisis on energy costs since the Askern project first started means that the switch to green energy is likely to be even more important for the site's financial viability, notwithstanding that the increase in electricity prices has affected current running costs, for example the electricity needed to power the air source heat pumps.

Lessons Learned

What went well?

1. Securing and maintaining leadership support

✓ Support from CDC's officers and political leadership throughout the project provided impetus and timely strategic decision-making.

✓ CDC officers working on the project kept the leadership informed on progress – including the Mayor, Cabinet Portfolio holder and the Director of Corporate Services. This was particularly important given the many unforeseen challenges, including the impact of inflation on costs and the implication of this for resourcing the project.

Lessons Learned

- ✓ Secure leadership support for the project and retain it through regular updates on progress.

2. Securing and leveraging funding

- ✓ A strong, evidence-based business case was submitted to secure Salix funding – drawing on the expertise of CDC's Head of Sustainability, Economy and Environment and Equans.
- ✓ CDC had to move quickly to accept and deploy the funding, supported by CDC's agile governance and procurement arrangements and early engagement with the supply chain.
- ✓ Salix funding was a catalyst for additional CDC capital and Sport England grant investment to enable the full refurbishment of the leisure centre and its integration with the country park.

Lessons Learned

- ✓ Be ready to move fast to accept and deploy Salix funding.
- ✓ Use decarbonisation funding to unlock additional investment – but note that Salix Phase 1 was more generous than later rounds (as it covered more than heat pumps).
- ✓ Build relationships with existing and potential funding partners based on shared objectives.

3. Working relationships and problem solving

- ✓ The strength of working relationships between all key players grew throughout the project.
- ✓ Effective solutions were found to multiple, complex design, construction and technical challenges - with a common focus on the needs of local residents. There was creative thinking, alongside the courage to take reasonable risks to get the job done.
- ✓ An open performance management culture with timely, candid conversations and effective communications supported by regular meetings between all parties.
- ✓ Retaining Equans for the Phase 2 work mitigated against some of the 'design on the go' challenges, by providing continuity of expertise, delivery and accountability.
- ✓ Good blend of specialist sub-contractors, reflecting Equans and DCLT's experiences from other projects.

Lessons Learned

- ✓ Encourage an open, performance and innovation culture to discuss and resolve problems early.

4. Decarbonisation

- ✓ Replacing coal fired boilers with air source heat pumps.
- ✓ Transforming a poor quality building into a green, low carbon one.
- ✓ Recycling latent heat in the building to allow domestic hot water generation.

5. Pool lining and hall refurbishment

- ✓ A polymer lining was applied to the pool instead of tiles, a more cost effective option from the perspective of materials and the labour time to install it, particularly given that:
  - o The retiling option would have required the removal of all the existing tiles from the pool tank and walkways, preparing the surfaces (which at that time would have been a complete unknown with regards to what they were, their condition and the amount of work needed to bring them up to the finished standard), then retiling all the areas.

- It transpired that the tiles to the poolside areas were on a screed which was around 100mm thick at the pool edge reducing to around 75mm at the wall side. Had this needed to be removed, even in localised areas, the time for 'making good' and the drying time would have just added more time and cost to the remedial works. Also, in taking up the tiles there was a high probability of damaging the substrate.

✓ The polymer coating gives a seamless covering across the pool tank and the walkways, keeping water out of the structure and the fabric. With regards to durability, the lip around the pool edge will be the area most susceptible to damage. This was considered with the supplier and a reinforced, durable edge detail was added. Only time will tell how robust this proves to be.

✓ Maintenance of the pool coating can be undertaken in the similar way as for tiles, in particular divers can use products that will adhere and cure below the water line removing the need for draining the pool tank.

✓ New hygienic floor finishes were installed as part of the same system as the pool lining, giving a seamless and watertight covering. There is a specific cleaning regime associated with the system, but this is not particularly onerous or difficult to carry out.

✓ With the welfare of customers and staff in mind, Sport England have requested that the floor's slip resistance is tested at regular intervals to demonstrate that the surface is not becoming more slippery given the constant wet conditions. This can be undertaken via a Pendulum Slip Test, using an instrument known as a pendulum skid resistance tester.

✓ The drainage channels used around the pool were also installed in the changing village. However, the proposed vinyl floor in the changing village could not be made to have a watertight junction with these channels, therefore the same floor finish from the pool hall was used into the changing village. This also helps to provide a consistent visual differentiation between the wet areas and all the dry areas.

✓ New hygienic, durable wall cladding was installed which is easy to keep clean. This was a more cost effective and less time consuming option than removing the tiles, 'making good' to the walls, and installing a new finish to the whole wall area (e.g. new tiles).

✓ In preparation for installing the cladding:

- The wall tiles were gently hammer tested to reveal any areas which had debonded from the substrate and therefore required removal and plastering work to bring then to a regular surface level. A thorough surface clean then provided a good adhesive surface for the new boards.

✓ The colours of the cladding reflect DCLT's corporate colour scheme and also:

- Incorporate the colours of the floor and pool tank.
- Meet accessibility requirements, with light reflective value (LRV) differences being used to give a visual aid to those who have sight impairments.

6. Sport England's 'test and learn' approach to refurbishing an outdated leisure centre

✓ This project enabled, and indeed necessitated, a more flexible approach where a strong case could be made, given the starting condition of the building to be renovated.

✓ Sport England have extensive experience in investing in major capital projects, in particular major new leisure facilities. As a result of experience gained in historical projects, they advocate a cautious approach to facility refurbishments given the potential for abnormal costs and increased scope of works required once projects are underway. This project will provide learning for future refurbishment projects where a more traditional solution is not possible. The close liaison between the project team and Sport England's Technical Advisors have managed to find design solutions and a pragmatic approach to the use of alternative building fabric and specifications which align with the test and learn approach.

✓ In some cases, a derogation from Sport England's Design Guidance was required. A good example of this was the lining of the pool. Sport England had their preferred approach based on their well-established standards (to use tiles). However, a polymer resin finish was suggested by CDC and DCLT based on best practice elsewhere. After some consideration and debate this new solution was accepted by Sport England.

Lessons Learned

✓ Early dialogue with Sport England on proposed derogations from Design Guidance proved invaluable in achieving agreement on design.

✓ Sport England will apply the learning from this project to other investment in existing leisure facilities requiring significant refurbishment.

7. Warranties and on-going maintenance

✓ The specialist contractors, Equans and Climatix, who were responsible for the design and installation of M&E equipment/functions (some with warranties attached) are also responsible (via a tendering process) for maintaining them for a year. This:

- Provides continuity of expertise.
- Reduces the likelihood of disputes over the liability for M&E problems, particularly during be Defect Liability Period (12 months).
- Will meet the legal planned preventative maintenance (PPM) requirements.
- Will enable the maintenance to be dovetailed with assessments of how the building is performing, particularly in terms of energy efficiency.

Lessons Learned

✓ Provide the opportunity for the specialist contractors responsible for the design and installation of M&E equipment/functions (which may have warranties attached) to then maintain them.

8. Pushing for a greater end user experience

✓ Effective utilisation of the space to get the most out of an outdated building, despite the limited design parameters.

✓ Achieving the ambitions of linking the leisure centre and country park together.

Not so well?

1. The requirement to 'design as you go'

✦ Opportunities to bid for external (e.g. Government) capital investment pots are welcome, however they can come at short notice and require a quick turnaround. If they have a targeted focus, it is not always possible to adequately consider projects 'in the round' from the outset by accessing the available knowledge (e.g. recent inspection reports for a building), or undertaking new surveys (e.g. building conditions surveys and specialist reports). However, there are revenue cost implications with this. Therefore, the level of up-front additional time and investment committed needs to be balanced with the likelihood of success with a bid and the nature and scale of the potential project.

✦ Delivering the Askern decarbonisation works by a tight deadline meant there was limited time to understand from the outset the wider condition of the building and potential additional related work this needed, firstly to at least be able to reopen the building, but particularly to subsequently deliver the full building refurbishment. A recent building survey for Askern was not available. Given this situation, a 'design as you go' approach was required for Phase 2 of the project.

✦ Although, every effort was made to limit the number of retrospective changes to the building works, some of the Phase 1 design drawings had to be modified and some of the work completed in Phase 1 had to be redone or even aborted. For example, radiators installed in Phase 1 had to be removed to make way for the installation of a new kitchen.

✦ If the availability of additional funding for Phase 2 and 3 had been known earlier, a more coordinated and efficient approach to the work could have been taken from the outset, enabling requirements to be considered in advance. However, the Salix deadline would still have been a limiting factor.

Lessons Learned

✓ Where possible design and deliver decarbonisation and other refurbishment work together.

✓ Where possible increase project predictability from the outset - by reviewing existing records, surveys and liabilities associated with the building to be decarbonised. Also, by considering commissioning additional work (e.g. specialist building surveys) and by drawing upon the experience of other projects.

2. Work continuity

- The churn in external contractor staff early in the project caused challenges to work continuity due to its impact on:
  - The retention of knowledge – and the requirement for the same information to be imparted several times to new personnel.
  - Delays and inefficiencies in decision-making and delivery.
- However, these problems were resolved with the continuity of highly competent personnel – which reflected the overall strength of working relationships and problem solving.

3. Pressure on 'in-house' resources in Phase 2

- The refurbishment of Askern is part of a portfolio of investment in leisure centres. This in turn contributes to an ambitious borough-wide capital investment programme (e.g. covering the economy, housing, transport and the environment). CDC is sharpening the focus and grip on the delivery of key Doncaster priorities with the creation of a new Chief Executive's Directorate. Long-standing public sector budgetary pressures have required a constant push for new sources of funding to deliver for communities. However, these pressures have also reduced CDC and DCLT's capacity for business case development, project management and the design and delivery of major capital projects. This has resulted in an increased reliance on external organisations to deliver projects, requiring procurement exercises for contractors which can be expensive and time consuming.
- The demands of the Askern project, particularly in Phase 2, further stretched the in-house capacity of CDC and DCLT. However, both organisations recognise that a balance needs to be struck between in-house and external capacity from a standpoint of:
  - Accessing the level and variety of expertise required to deliver innovative projects and the costs associated with this.
  - Delivering the portfolio of capital projects consistently and effectively, supported by the continuity of personnel and good communication.
- DCLT have bolstered its in-house programme management capacity for the improvement of the stock of leisure centres.

4. Multiple unforeseen retrofit challenges

- The age and condition of the building created numerous challenges, including with the roof, coal storeroom and asbestos - as set out in the Phase 2 section earlier in this case study.

Lessons Learned

- ✓ Be prepared for an outdated building to offer up multiple unforeseen, costly challenges - on top of those expected with a complex, fast moving project involving many organisations.

5. Inflation impact on materials and running costs

- Capital budgets had to be re-profiled to reflect the impact of inflation, for example between Quarter 2 2021 and Quarter 2 2023, general construction costs increased by 17.5%. Steel costs increased by 20% and mechanical and electrical related costs increased by 11.1%.
- The current running costs after the decarbonisation works are greater than expected due to the increase in electricity prices (e.g. to power the air source heat pumps). However, the overall energy efficiency improvements are still expected to be considerable.

6. Supply chain delays

- The transformer for the substation was manufactured in Turkey. The Covid-19 pandemic led to supply chain issues that created a 20 weeks lead time for it to be delivered. This in turn delayed the commissioning of the air source heat pumps.
- Connecting to the grid and getting a tariff in place took longer than expected because utility companies prioritised re-connecting domestic users after damage caused by high winds.
- Non-pandemic related supply chain issues caused significant delays in the delivery of specialist doors which necessitated a change of supplier.

Lessons Learned

- ✓ Be as proactive as possible in sourcing materials, particularly specialist equipment.

Acknowledgements

These are the main organisations who worked together to design, fund and deliver the transformation of Askern Leisure Centre and its integration with the country park:

- Doncaster Culture and Leisure Trust manages public leisure centres on behalf of CDC.
- The client and final operator for Askern Leisure Centre.

- Owns Askern Leisure Centre and Campsall Country Park.
- Led the Salix bid and provided capital investment of £3m for the project.
- Democratic mandate for the work, project management and design.

- Supported CDC with their overall approach to investment in their leisure stock using the Strategic Outcomes Planning Guidance (SOPG).
- Provided strategic project advice and design specifications.
- Provided £910k investment from the Strategic Facilities Fund to support the integration of the leisure centre with Campsall Country Park.

- Salix Finance Ltd manages the Public Sector Decarbonisation Scheme on behalf of the Department for Business, Energy and Industrial Strategy.
- Provided £1.7m funding for the decarbonisation work.

- Provides low-carbon energy solutions, technical and FM services and transformative regeneration across the UK and Ireland.
- Principle contractor and design co-ordinator for the project.

- A project and programme management consultancy.
- Provided project management for the refurbishment of the leisure centre.

- A heating, ventilation and air conditioning contractor.
- Provided specialist project management for the M&E work - decarbonisation and the fit out of the building.

- DLA architects provided detailed drawings for the building refurbishment.

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- Paul Jackson, Rob Ogden – Abacus Cost Management (Sport England Technical Assurance)
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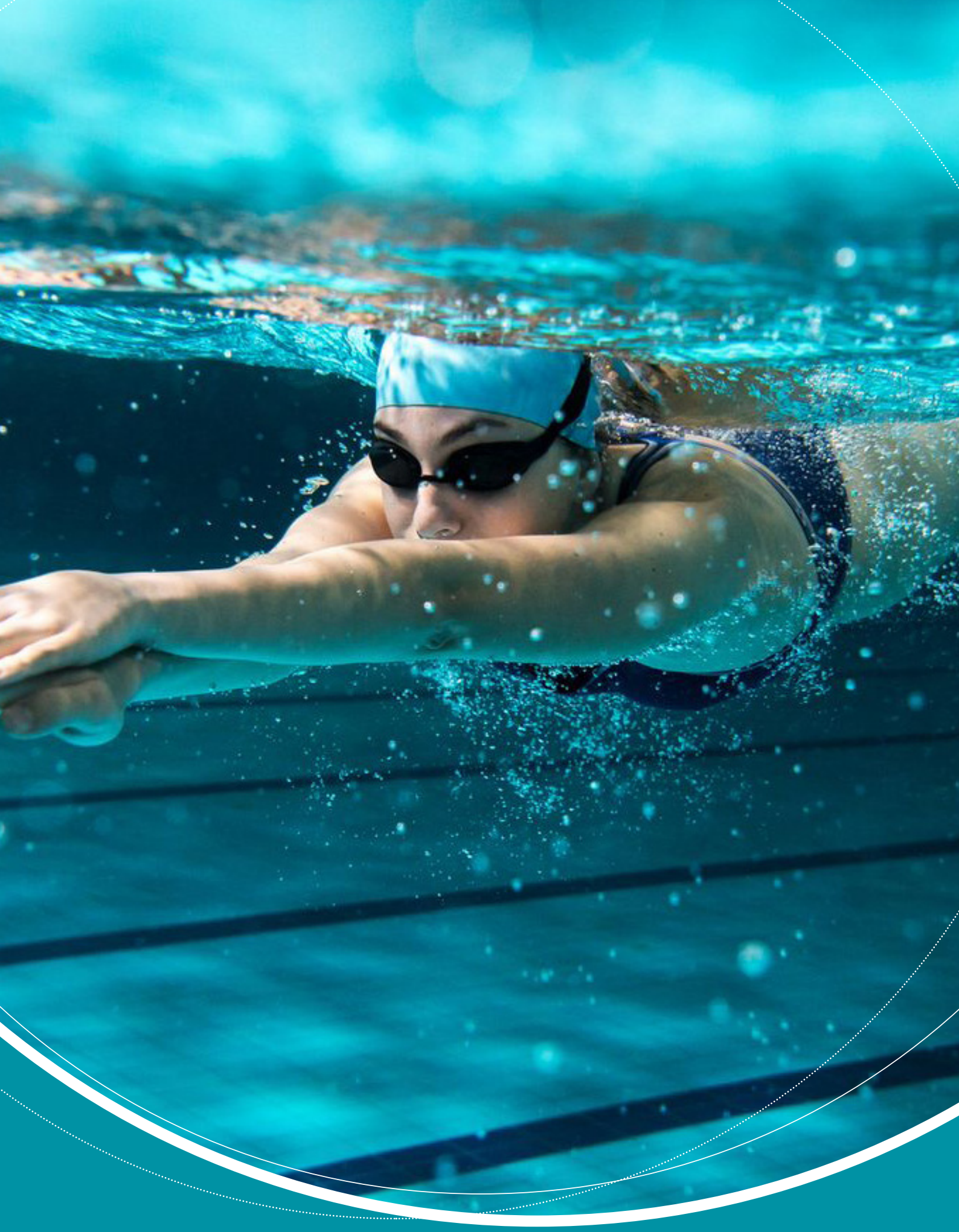
Notes



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