



PART B:	RECOMMENDATION TO COUNCIL
REPORT TO:	POLICY AND RESOURCES COMMITTEE
DATE:	10 NOVEMBER 2022
REPORT OF THE:	PROGRAMME DIRECTOR - PLACE AND RESOURCES PHILLIP SPURR
TITLE OF REPORT:	RYEDALE SWIM AND FITNESS CENTRE BOILER REPLACEMENT
WARDS AFFECTED:	ALL

EXECUTIVE SUMMARY

1.0 PURPOSE OF REPORT

- 1.1 To seek approval for the replacement of the boilers at Ryedale Swim and Fitness Centre in Pickering and to ensure that this work can be delivered in a planned and timely manner to reduce the risk of unplanned disruption to the service offered.

2.0 RECOMMENDATION

- 2.1 It is recommended that:

- (i) £90,000 is allocated from Reserves to fund the replacement of the two boilers at Ryedale Swim and Fitness Centre with equivalent gas boilers, using the procurement process already completed as the basis for this work.
- (ii) Any unforeseen costs including inflated costs beyond the contingency included in 2.1(i) above, to a maximum of £25,000, to be agreed and authorised by the Chair of Policy and Resources, the Programme Director - Place and Resources and the S151 Officer prior to expenditure taking place.

3.0 REASONS FOR RECOMMENDATION

- 3.1 The uncertainty around the lifespan of the current boiler system and the potential impacts on customer experience and the financial liabilities any complete failure could bring to RDC has prompted the conclusion that replacement gas boilers are the most viable solution at this time.
- 3.2 Whilst alternative, low carbon technologies have been considered, the level of detailed feasibility and planning work required will mean a substantial time delay prior to replacement and significant additional capital costs.

- 3.3 A range of schemes including construction and engineering based projects are struggling with fluctuating costs and availability of materials / components at this time. This could mean there are additional and unexpected costs to be considered.

4.0 SIGNIFICANT RISKS

- 4.1 The most significant risk presented is the unknown lifespan of the existing boilers. Repairs have been made frequently over the last 15 months and two different heating engineers have assessed the boilers as being at the end of their lifespan with further repairs/ maintenance largely unviable in the longer term and have therefore recommended a full replacement is required.
- 4.2 Should one or more of the current boiler modules fail this means that there would likely be significant disruption to the operation of the site and the facilities / services that would be available. Should even one module fail, this could result in the closure of the pool. Subsequently, there would likely be a negative impact on footfall, user numbers, income, and customer satisfaction.
- 4.3 Should the site become inoperable or partially inoperable as a direct result of a boiler failure and Everyone Active (EA) are therefore unable to deliver the service our contract requires of them and they suffer from loss of income and / or additional expense, RDC will likely be liable for compensation.
- 4.4 Given the uncertainty over the lifespan of the current boilers, selecting a solution at this time will allow Officers to plan in detail the implementation of any scheme. This will mean that we can be proactive and communicate clearly with the public well in advance regarding any potential closures or reduced provision, rather than at a later date being reactive and needing to manage undesirable communications messages which would likely lead to dissatisfaction and complaints.

5.0 POLICY CONTEXT AND CONSULTATION

- 5.1 The Ryedale District Council, Council Plan Healthy and Happy Communities priority states the following:
'We will promote health and wellbeing for all by offering leisure facilities and access to physical activity. We will work with our leisure provider and other partners to expand access to these opportunities and identify funding streams that will support our aims'.
- 5.2 Encouraging and supporting 'more people to become more active, more often' is the focus of the Ryedale Sport and Active Lives Strategy 2013 – 2023. An increase in participation levels and promoting, maintaining and developing quality indoor and outdoor facilities are two of the highlighted objectives and activities to be achieved.

REPORT

6.0 REPORT DETAILS

- 6.1 Ryedale Swim and Fitness Centre is managed by Everyone Active under a contract with RDC until March 2025. Under the terms of our current contract, EA as the contractor has responsibility to cover asset replacement of up to £5,000 but whole boiler replacement is the sole responsibility of RDC.
- 6.2 The current heating configuration on site consists of two 311KW boilers each with two modules, a small 65KW (heat) and 35KW (electricity) Combined Heat and Power

(CHP) Unit installed in 2011, and 42 solar panels on the roof of the main pool hall which were installed in 2013 by RDC.

- 6.3 In simple terms, the two boilers plus the CHP Unit both burn gas to generate heat and electrical energy. Due to the size of each of these elements, the boilers do the main proportion of energy generation, with the CHP providing a small additional boost.
- 6.4 The site has experienced ongoing issues with the boilers over the last 15 months. Issues are in relation to boilers misfiring and then failing to 'reflame' and restart. Repairs, replacements and modifications have been put in place to reduce the risk of further misfiring, but issues continue to occur, and currently are every 3-4 weeks. This requires engineers to strip the unit and manually restart.
- 6.5 Individual repair and maintenance requirements under £5,000, including work required to the boilers, is the responsibility of EA and since January 2022, over £6,800 has been spent by EA on repairs, replacement parts, and engineers.
- 6.6 Currently the site is operating on 3 of the 4 boiler modules – 1 has already failed. Should another fail and only 2 modules between the two boilers are functioning, it could be difficult to maintain heating systems in the longer term. EA have confirmed that they are currently heavily dependent on the CHP unit for primary heat generation but this unit has exceeded its 2,000 hours predicted run time, and has also had to have numerous repairs to maintain this. In an effort to reduce stress on the system EA have dropped down to using one of the two hot water storage tanks (HWST), however due to the risk of lower temperatures and legionella risk around the centre EA are also paying for monthly legionella sampling as a precaution. The solar panels do provide some support but as we enter shorter days these becomes less effective and the dependence on the gas boilers increases again.
- 6.7 The latest repair removed the BMS control (Building Management System – software that controls the heating amongst other things) which stops the boilers having to restart and then risk failure. Consequently, this means all three boiler modules are currently running 24/7 to remove a risk of them not restarting overnight. Due to the repairs and modifications that have been required, functionality of the boilers is now limited. For example, EA have limited control over the pool temperature at present and whilst electronically asking the boiler to heat the pool to 31 degrees, with it only be able to achieve 27-28 degrees daily. Based on the following current energy consumption data provided by EA we can see the impact of this in gas consumption rates. Both Ryedale Swim and Fitness and Derwent Swim and Fitness should have broadly similar rates of consumption, but it can be seen that Ryedale Pool's consumption is currently approximately twice that of the Derwent centre:

Gas (kWh per hour)	October 2022
Derwent Pool	37,659
Ryedale Pool	82,711

It should be noted that separate to this issue, Officers have recently received an approach from EA seeking support for increased energy costs. This is currently being looked at but it should be considered that the higher the consumption figures, the greater this financial ask will be,

- 6.8 The solar panels along with a heat exchange system were installed retrospectively in 2013 and are intended to provide the initial energy provision to heat the water, with the boilers providing the subsequent energy needed. It should be noted that solar energy alone would be unable to heat and maintain this building, including the pool water, and an additional energy source is essential.
- 6.9 Following a series of failures and required repairs over the last 15 months which were undertaken by EA's national contractor, EA reported earlier this year that engineers were beginning to express concern about the future of the boilers. Following this RDC commissioned Align Property Partners to undertake an independent inspection of the boilers and associated components so the current position was clear and what, if any, action was required.
- 6.10 The report from Align Property Partners stated that the flue system was in poor condition and a warning notice was issued for this to be replaced. It was also noted by the engineer that the boilers are on all the time and in constant demand which means the associated pumps for each circuit are all running at maximum speed/pressure and there is evidence of some leaks. The clear advice received was that replacement of the equipment as a whole, given the condition and the reported reliability issues, should be investigated.
- 6.11 Align Property Partners provided subsequent support to RDC to prepare a specification for a replacement boiler system to match the current set-up. A tender process was then held by Align with two potential contractors returning quotes. Both quotes met the specification but based on cost, we have an indicative figure of £74,979. It should be noted by Members that due to the period of time between the quotes being received and a decision being made, this is likely to need to be reviewed and may change but does give a strong indication of total cost. The recommendation at 2.1 therefore requests a figure of £90,000 to allow for an increase in costs and / or contingency funds for any unforeseen work which may be required.
- 6.12 It is estimated that for the implementation of new gas boilers there will be a lead in time of around 6-8 weeks, and then 3-4 weeks on site for implementation.
- 6.13 Whilst it is unlikely that the remaining three modules would fail at the same time, based on the advice of our heating engineers and given the current operation of the boilers, continuing to operate the site using two modules is not desirable. The demand placed on the remaining modules to continue to fully operate the centre is unlikely to result in further but timeframes for this cannot be given
- 6.14 Should another of the boiler modules fail EA have confirmed that it would be unlikely that they could sustain full provision of service for any length of time. As stated above, achieving acceptable water temperatures would be difficult and the pool would in all likelihood need to be closed. EA have suggested that in this situation they would aim to continue to provide access to the fitness facilities but this is likely to result in membership cancellations and refund requests, along with lost income generated from the pool including casual swimming and swim lessons.
- 6.15 As we cannot determine how long these boilers now may last for based on their recent history of required repairs, the worst-case scenario of this situation is the site could be wholly or partially closed with little to no notice for users prompting serious criticism and dissatisfaction, from which user numbers may struggle to recover

following a repair / replacement programme, and RDC will be liable for a compensation claim from EA. Under the terms of the current contract between RDC and EA compensation could be sought by EA if a functioning boiler is not provided by RDC (as per our obligations within the contract) and EA is therefore unable to comply with its obligations and / or incurring costs or lost revenue.

- 6.16 The option of installing a temporary boiler should one of both of the existing boilers fail has been investigated and initial figures suggest a cost of £15,000 per boiler for 4 weeks.
- 6.17 Alternative options other than gas boilers including further solar panels, air source heat pumps (ASHP), ground source heat pumps (GSHP) and geothermal systems have been considered by Officers. All the systems identified would substantially reduce the carbon dioxide (CO₂) emissions generated by the asset's heating system however there would be significant cost implications to implementing any of these systems. For reference and based on our understanding of similar schemes in other locations, the capital cost for an ASHP or a GSHP to mirror the current two gas boilers would likely be significantly in excess of £500,000, with further, additional costs possibly including items such as a new grid connection, labour and complexities around integrating any new system with the existing solar panels which are now around 10 years old. Solar PV is not considered to be suitable as the primary technology for decarbonising a heating system; it would be used to either support electricity generation or, as it's currently being used on the roof for partial water heating.
- 6.18 ASHP and GSHP systems have been installed at other sites and costs have been in the region of £800,000 to in excess of £1million depending on the type of technology, additional costs to support to installation eg: new grid connections and the individual location, but the securing of substantial levels of central government support for example through the Public Sector Decarbonisation Fund has been critical to such schemes.
- 6.19 If an alternative technology solution was to be implemented, before one was selected a full Decarbonisation Plan would be required which would complete the required due diligence on each option considering amongst other things the scale needed, compatibility with existing infrastructure and operational costs.
- 6.20 The completion of a Decarbonisation Plan, the preparation of a specification for a specifically designed system and the associated procurement process would take an estimated 3-4 months and result in a scheme substantially more expensive than the proposed gas boiler system.
- 6.21 Members may also wish to consider the longer-term future of leisure provision in Ryedale. The Ryedale Sport and Active Lives Strategy identifies a need to, during the lifetime of the plan, consider the longer-term future of sites in Ryedale. Whilst this is not something that RDC will be seeking to pursue prior to vesting day, development of sites and capital expenditure is something that will be reviewed. Should provision in Ryedale be improved in the medium to longer term, work required to install a low carbon energy system can be included in this and the shorter term, more financially viable model is replacement with gas boilers.

7.0 IMPLICATIONS

- 7.1 The following implications have been identified:

- (i) **Financial**
Based on quotes received undertaken during a recent procurement exercise, the tender which offered best value for money to RDC was £74,979. It should be noted that all tenders quoted against the same specification which was prepared by Align Property Partners. As per the recommendation at 2.1 and explanatory text at 6.11, £90,000 is requested to allow for an increase in costs and / or contingency funds for any unforeseen work which may be required. It is envisaged that funds will need to be sought from Reserves.
- (ii) **Legal**
Schedule 1 Appendix 1 of the contract between EA and RDC is clear that whole boiler replacement is the responsibility of RDC.
- (iii) **Environmental, Ecological, Climate Change and Carbon**
It is acknowledged that gas boilers offer the least opportunity for decarbonisation (although this will be achieved to some degree as new boilers will be more energy efficient), however given the stated need to replace these boilers in the near future, installing a solution which can be delivered relatively quickly and which will mitigate some of the risks outlined in Section 4 above, gas boilers are considered to be the best solution at this time.
- (iv) **Equalities**
Not applicable.
- (v) **Staffing**
Any scheme to replace the boilers will initially be overseen by colleagues at Align Property Partners but with support from Officers within the Facilities, Economic Development and Communications teams.
- (vi) **Planning**
There are no Planning implications as a result of the proposed scheme. All works completed will be within the footprint of the existing building.
- (vii) **Health and Safety**
Contractor health and safety whilst on site will be overseen by Align Property Partners as the contract manager.
- (viii) **Crime & Disorder**
There are no direct crime and disorder implications for RDC as a result of this scheme.
- (ix) **Data Privacy**
There are no immediate data privacy issues for RDC through this report.

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Background Papers:
N/A

Background Papers are available for inspection at:
N/A